

MORTALITY STATISTICS.

INTRODUCTION.

This report marks the beginning of the annual reports on mortality statistics provided for by the act of March 6, 1902, establishing the permanent Census Bureau. Heretofore there have been no general statistics of this kind except at the decennial censuses.

The compilation of the statistics was delayed by the necessity of securing additional legislation affecting the collection of the data; consequently this report presents the statistics for the five years 1900 to 1904. The tables for each year are given in full, just as they would appear if published in separate annual reports, and the same forms of tables will be given in future annual reports.

Under the terms of the law the statistics authorized are restricted to statistics of states and cities which have laws or ordinances requiring the registration of deaths, and which, in the judgment of the Director of the Census, "possess records affording satisfactory data in necessary detail." No comprehensive and accurate mortality or vital statistics for the whole country will be possible until adequate registration laws are enacted and effectively enforced in every state.

Under our form of government all legal provisions on the subject of mortality and vital statistics must be left to the individual and independent action of the states or cities, and while some such provisions exist in many of the states and in most of the larger cities, they have been adopted at different times without reference to any uniform plan. The result is that they differ widely in their requirements and in the amount of statistical data afforded by the records which they secure. A good many of them have been futile from their inception, because the proper fundamental principles were not observed.

The difficulties attending the compilation of the census mortality statistics and the general status of registration matters, together with the work initiated by the Census Bureau to effect some improvement in the statistics for the census year 1900, are described in the Twelfth Census Report on Vital Statistics, Part I, page xii, et seq.

The work referred to was undertaken more particularly for the improvement of the decennial statistics then projected, but the results were most encouraging and indicated that the time was opportune for more systematic and continued efforts, along the same line,

to enhance the value of the annual statistics contemplated.

The great desirability of uniformity in the laws, systems, and methods regulating the collection and tabulation of mortality data has long been recognized by all persons who have attempted to make original compilations of the returns from different places or to extract comparable figures from the various statistics published, and frequent efforts have been made to bring about a more satisfactory condition in this respect. Success, however, depends on many things besides a general sentiment in favor of improvement. It requires a vast amount of time and hard, persistent work, such as can be supplied effectually only by a permanent office or bureau which has a paramount interest in the general—as distinguished from the local—results, and is able to act as the agent of the various interests in determining proper procedure, forms, and methods; in publishing the necessary documents and distributing them to all parties whose approval and cooperation are necessary; and in keeping all of the machinery in perfect order after it is put in operation.

The establishment of the Bureau of the Census upon a permanent basis supplied the means by which progress in this direction could be made, and a definite plan for the extension and improvement of registration methods and results was formulated, to be carried out in cooperation with the authorized representatives of the principal organizations interested. In initiating the series of annual reports now provided for, it seems appropriate that a brief review should be given of what has been done, what is being done, and what is contemplated for the future.

Movement for uniform registration laws, forms, and statistics.—The main objects of this movement and the plan adopted may be stated as follows:

1. To determine the reasons for the failure of so many of the laws providing for registration and to formulate the principles on which legislation must be based to avoid failure.
2. To construct and recommend for general adoption, as a standard form for reporting deaths, a certificate, or return, of convenient size and arrangement, that shall provide for all of the details required for legal, statistical, and other purposes.
3. To outline correct methods of practice with respect

to the examination, filing, and preservation of certificates and of making returns to state officials for the guidance of local registrars who receive the certificates and issue burial or removal permits.

4. To decide on a system of classification of the causes of death that will be satisfactory for present statistical purposes, and to furnish compiling officials with a comprehensive statement of the details of the classification, containing a working index by which the deaths reported in thousands of different terms may be uniformly compiled under the proper titles.

5. To furnish all practicing physicians with a descriptive statement of the classification adopted, together with an explanation of its practical application in statistical work, and a list of terms which are very frequently used by them in reporting causes of death, but are not sufficiently definite for correct classification.

6. To advise medical colleges of the nature and scope of the movement undertaken and to suggest a course of instruction in registration methods and statistics.

7. To make a study of the forms of statistical tables published by local authorities in annual reports and monthly or weekly bulletins, with a view to formulating a uniform series of tables considered desirable for this purpose.

8. To enlist the assistance and cooperation of all organizations, societies, and persons interested in the subject of registration or its results, both in reaching satisfactory conclusions regarding each projected step in the proceedings and in carrying each step into practical effect.

A beginning in the execution of this programme was made with the publication of Census Circular No. 71, containing a paper prepared by the experienced and capable registration officials and statisticians constituting the committee on demography and statistics in their sanitary relation, of the American Public Health Association. This paper outlines the essential requirements of a law for the registration of deaths, and prescribes a standard form of death certificate, with an explanation of the use and importance of the items of information called for. (See pages xiv-xvi.)

Following this general plan, the international classification of causes of death, then coming into general use in the United States, was adopted by the Bureau of the Census for its annual reports. In order to make the extensive labor involved in classifying the returns received from all registration areas available for the benefit of local statisticians, a comprehensive index to the classification as applied in practical work was prepared.

The subject of uniformity and progressive action was submitted to the consideration of the Conference of State and Provincial Boards of Health of North America at its meeting in October, 1902, and that body gave its approval to the movement by the ap-

pointment of a committee to cooperate in its advancement and by the adoption of the following resolution:

RESOLUTION OF THE BOARDS OF HEALTH CONFERENCE.

Resolved, That a committee be appointed by the Conference of State and Provincial Boards of Health of North America to cooperate with the United States Census Office and with similar committees from the American Public Health Association, American Medical Association, and from other organizations in the promotion of the uniformity and comparability of mortality and other vital statistics and their satisfactory presentation in statistical reports and bulletins.

The Manual of International Classification of Causes of Death was then printed and distributed by the Census Office. This manual explains the titles of the classification and their application in statistical work, compares this classification with that previously used, and gives an alphabetical index showing to which titles nearly 2,000,000 deaths reported at the censuses of 1890 and 1900, in thousands of different terms, were referred. It is fully cross-referenced, and, in addition, the terms are arranged in a tabular list, showing exactly what terms are included under each title. Certain general rules are included for the disposition of cases in which two or more causes of death are jointly reported. All additional terms found in the classification of cases since the Manual was printed have been entered on cards ready for inclusion when a new edition becomes necessary.

The general adoption of the international classification and the use of the Manual referred to will insure a comparability in the various mortality statistics published that can not be secured in any other way. All persons who make use of the international classification are invited to file any notes, criticisms, or suggestions that appear pertinent to them for this purpose. These memoranda or notes will be filed and arranged for presentation to the commission of revision, which holds its next meeting in 1910. In this way the united opinions of all American users of mortality statistics can be made most effective in securing desirable modifications in the classification.

The work of the Bureau of the Census and of the committee on demography, also the Manual and the standard certificate, referred to above, were indorsed and approved by the American Public Health Association at its annual meeting in December, 1902, and the committee was authorized to represent that association in further work along the same lines. The following resolution was adopted by the association:

RESOLUTION OF THE AMERICAN PUBLIC HEALTH ASSOCIATION.

Resolved, That the efforts of the committee on demography and statistics of this association, in conjunction with the United States Census Office, to secure the extension of the registration area by the enactment of suitable laws and the use of a standard form of certificate of death, as shown in Census Circular No. 71, be heartily commended, and that the committee be further authorized and directed to cooperate with the Census Office, the United States Public Health and Marine Hospital

Service, and other departments of the Federal Government interested in vital statistics, and with similar committees from other associations in the work of promoting the adoption of suitable registration laws and the extension of the registration area, the proper compilation and presentation of vital statistics by states and cities in weekly or monthly bulletins and annual reports, and also in further work relating to the extension and practical use of the international classification of causes of death, the disposition of jointly returned causes, and all preliminary work relating to the next decennial revision.

A resolution was drafted and presented to Congress reciting the condition of registration in the United States and the necessity for registration under uniform laws, describing the movement initiated by the Census Office in conjunction with the American Public Health Association, expressing approval of the movement, and requesting "the favorable consideration and action of the state authorities, to the end that the United States may attain a complete and uniform system of registration." This resolution passed both Houses of Congress and was approved by the President on February 11, 1903. The text of the resolution is given below:

RESOLUTION BY CONGRESS.

Whereas, The registration of births and deaths at the time of their occurrence furnishes official record information of much value to individuals; and

Whereas, The registration of deaths, with information upon certain points, is essential to the progress of medical and sanitary science in preventing and restricting disease and in devising and applying remedial agencies; and

Whereas, All of the principal countries of the civilized world recognize the necessity for such registration and enforce the same by general laws; and

Whereas, Registration in the United States is now confined to a few states as a whole and the larger cities, under local laws and ordinances which differ widely in their requirements; and

Whereas, It is most important that registration should be conducted under laws that will insure a practical uniformity in the character and amount of information available from the records; and

Whereas, The American Public Health Association and the United States Census Office are now cooperating in an effort to extend the benefits of registration and to promote its efficiency by indicating the essential requirements of legislative enactments designed to secure the proper registration of all deaths and births and the collection of accurate vital statistics, to be presented to the attention of the legislative authorities in nonregistration states, with the suggestion that such legislation be adopted: Now, therefore,

Resolved by the Senate and House of Representatives of the United States of America in Congress assembled, That the Senate and House of Representatives of the United States hereby express approval of this movement and request the favorable consideration and action of the state authorities, to the end that the United States may attain a complete and uniform system of registration.

Approved, February 11, 1903.

The movement received the approval of the American Medical Association at its annual meeting in May, 1903, the following resolutions being adopted upon the unanimous recommendation of the section on hygiene and sanitary science:

Resolved, That the American Medical Association heartily welcomes the action of Congress in promoting the adoption of complete and uniform systems of registration of vital statistics in the United States, and congratulates the American Public Health Association and the

United States Census Office on their useful and effective cooperation for this purpose.

Resolved, That the American Medical Association strongly urges on the state medical societies that special committees be appointed to advocate and secure the passage of satisfactory registration laws in states that do not at present possess them; that county societies support and aid in the execution of such laws as far as possible, and that physicians individually, throughout the United States, endeavor to promote the accuracy and value of the mortality statistics by giving clear and definite statements of causes of death on certificates of death.

Resolved, That the committee on public health of the American Medical Association be instructed to cooperate with the corresponding committees of the American Public Health Association, the Conference of State and Provincial Boards of Health of North America, and with other committees organized for this purpose, and with the United States Census Bureau, the United States Public Health and Marine Hospital Service, and other branches of the Federal Government, in the work of promoting the adoption of suitable registration laws and the extension of the registration area, the proper compilation and presentation of vital statistics by states and cities in weekly and monthly bulletins and annual reports, the use of the standard certificate of death, and also in further work relating to the extension, improvement, and practical use of the international classification of causes of death, the disposition of jointly returned causes, and preliminary work relating to its next decennial revision.

Following this action, the Bureau of the Census prepared a circular (No. 100) containing the resolutions adopted by Congress and the American Public Health Association, the paper *The Essential Requirements of a Law for the Registration of Deaths and the Collection of Mortality Statistics*, prepared by the committee on demography, and a specimen form of an adequate law, drafted in accordance with the principles laid down by the same committee. Copies of this circular have been sent to the governors of all states that do not now have an effective system of registration, and also to all medical societies, the editors of medical journals, registration officials, and other persons and societies known to be interested in the subject.

The form of law presented in this circular is an improvement in many respects over any of the laws now in operation. The ideas governing its construction may be stated as follows:

1. The creation of a state registration service, fully authorized to carry out the purpose of the law.
2. The prohibition of the burial or removal of dead bodies without a properly authorized permit, based on a complete and satisfactory certificate of death.
3. The use of a uniform certificate for obtaining the information desired as a precedent to issuing the permit.
4. The fixing of the responsibility for making the certificate and filing it with the local registrar, and the obligation to make the return complete in all of its details.
5. The fixing of responsibility on the local registrar for a critical examination of the return and for seeing that all of the information required is properly stated before it is accepted.
6. The fixing of responsibility on the state registrar, or chief administrative officer under the law, for examination of all returns made by local registrars, for immediate action in case of delinquency, and for obtaining corrections, etc.

These provisions are based on the theory that the purpose and intent of any such law is to secure a complete and properly executed return of every death

that occurs; that the form of certificate adopted indicates what constitutes a complete and proper return; and that no return is complete and proper that does not supply the data desired for all purposes of registration as fully and circumstantially as is possible, by searching inquiry, under the conditions of the case.

Replies received from governors show that many of them are favorably disposed toward such legislation, and indicate a probable extension of the registration area that is most gratifying. To insure such a result, however, medical societies, medical journals, and physicians should unite to exert their powerful influence in support of this movement. State and county medical societies in particular, should adopt some concerted plan of action by which the cooperation of the legislative authorities can be secured.

The most perfect laws do not execute themselves, however, and to reach, interest, and instruct those persons whose duty it is to administer the laws or to make reports under them, other circulars have been prepared as follows:

Circular No. 101, Practical Registration Methods, was designed for the guidance of local registrars. This circular describes the standard certificate and explains the use and importance of the various details required concerning each death, outlines a simple system of filing and preserving the records and of making returns to state officials, and gives the titles of the international classification, explaining the relation of causes of death, as reported, to classification for statistical purposes. It also gives a long list of indefinite or unsatisfactory terms frequently used by physicians in reporting deaths, which should not be accepted in such shape, and adds explanatory notes showing what further information should be required in such cases. Copies of this circular have been sent to all registration officials.

Circular No. 102, Relation of Physicians to Mortality Statistics, is issued for the use and benefit of physicians who have to make out certificates of death in compliance with registration laws, by acquainting them with the scope and requirements of the international classification, which has been adopted by all of the registration states and by most of the principal registration cities for the compilation of their mortality statistics. Such statistics, to be comparable, must be uniform; and to be valuable for scientific purposes, must be accurate. Their chief value is in the distribution of deaths by causes, but the causes must be properly stated before the deaths can be properly classified. In this particular the entire value of the statistics depends solely on the lucidity and accuracy with which the physicians supply the information.

In all statistics classifying deaths by causes there is much too large a proportion of unknown or indefinite items, for which the physicians alone are directly responsible and which they alone can remedy.

It is probable that the defect in this particular is due largely to the fact that heretofore there has been no

general and comprehensive plan to direct the attention of all physicians to the use of their certificates for statistical purposes, and to point out the necessities and requirements in this respect, by explaining the classification used and by specifying wherein certain returns are incomplete, indefinite, or unsatisfactory. This circular is designed to furnish such information. A copy will be sent to all physicians in the registration area, and it is confidently expected that they will appreciate the importance of the matter and will manifest their appreciation by making out their certificates in conformity with the requirements of the classification.

It should be understood that the classification, in itself, is but a selection and arrangement of *titles*, under which deaths reported in thousands of different terms must be compiled, and that the assignment of any death to the proper title requires a definite statement of the course of disease or the sequence of causes resulting in the death.

Following the detailed list and explanation of the *titles* is a list of indefinite and unsatisfactory *terms* very frequently used by physicians, with notes explaining what further information is necessary. The terms in this list can not be properly classified as given and should never be used without further explanation.

It is not to be expected that a definite and accurate statement of the cause of death can be made in every case. Undoubtedly there will be cases in which the exact cause can not be ascertained and others in which an accurate diagnosis is impossible, but an observance of the suggestions made in this circular will reduce very largely the number of cases that must necessarily be classed as unknown or ill-defined.

What has been said above relates wholly to the statement of the cause of death which is furnished by the physician. But while this is the most important item, a complete return of any death requires a statement of other personal and statistical particulars concerning the death, and the blank certificate or return used for reporting deaths should be regarded as simply a specification, in convenient form, of the legal requirements in the case, all of which are intended to be observed.

The relation to and influence on the mortality from different diseases, of age, sex, color, conjugal condition, nativity, parent nativity, and occupation, are of the utmost importance, and the preparation of uniform statistics for all registration states and cities requires that these items, and others necessary for record, shall be given just as fully and as accurately as the cause of death.

The making out of a certificate of death should not be merely a perfunctory matter. A complete and accurate certificate is required of physicians not only as a legal obligation, but also as a moral obligation to their clients for the protection of the rights and interests of those dependent on them, and, as a professional

obligation, to further the advancement of medical science. In the last respect it should be regarded as one of the highest duties of physicians, as scientific, professional observers, to record their experience in individual cases in accordance with some definite and general system, so that the whole result of such professional observations may be properly classified, tabulated, and analyzed, and thus made to contribute, in the greatest possible degree, to the sum of knowledge essential to material progress in medical and sanitary science and public hygiene. In this respect registration is only an intermediary process—a means of subjecting a mass of observed facts to systematic treatment and their reduction to numerical standards for analysis and comparison. There can be no doubt that if physicians will take this view of the subject, and act accordingly, they can make the statistics derived from their returns much more accurate and valuable.

Circular No. 103, Medical Education in Vital Statistics, gives a synopsis of the circulars previously described; explains the movement for the extension and improvement of registration data and statistics along uniform lines; and suggests that medical colleges and schools provide a course of instruction on registration methods and vital statistics. This circular has been sent to all medical colleges and schools.

The movement initiated by Circular No. 71 was limited at first to efforts to secure the accurate registration of deaths, it being considered that this branch of vital statistics was of primary importance and could be most effectually provided for, and that when the registration of deaths was in effective operation other branches, such as births, might be added and adequate results secured through the same machinery of registration without complicating or endangering the registration of deaths.

It was found, however, that in some states, in which the adoption of registration legislation was stimulated by the efforts described, it was desired to include the registration of births in the original provisions, and accordingly a standard certificate of birth and a form of law providing for the registration of both births and deaths, were drafted by the same authorities, and are given in Circular No. 104.

The Manual and all of the circulars relate to different phases of the same general plan. By means of them it is sought to convey to all persons interested a comprehensive knowledge of the details of the plan and of their relation to the same, in accordance with the ideas and opinions of the experienced registration officials and statisticians who have joined in the movement. The Census Office has cheerfully assumed the labor and expense of preparing, printing, and distributing these documents and of the correspondence incidental thereto, with a view to facilitating the effective cooperation of all those who are interested in this movement for uniformity and accuracy in registration data.

The sole object of these circulars is to promote uniformity in laws, forms, and methods for mutual advantage, and to do so in accordance with the opinions expressed by authorized experts. The forms of laws given in Circular No. 100 and Circular No. 104 are designed, primarily, to apply to states which do not now have effective laws on the subject, and the other circulars have been framed to assist in carrying out laws constructed on the lines indicated. Some of the provisions of law specified and some of the suggestions made as to forms and methods might be adopted to advantage in states and cities now classed as "registration," and it is hoped that whenever changes in existing laws, methods, or forms become necessary or convenient, the authorities will see the advantage of uniformity and will adopt measures in harmony with those described.

The circulars Practical Registration Methods and Relation of Physicians to Mortality Statistics are in many respects applicable, whatever the provisions of existing laws, the forms of certificates, or the methods of practice may be, but they will not be sent to any local registrars or physicians in registration states or cities until such action is approved by the local registration officials. But these officials have almost without exception given their hearty approval and consent, expressing the opinion that the circulars will prove of great value in securing more complete and accurate returns.

The preceding statements describe the movement for the extension and improvement of the registration system and for increasing the value of the recorded data, particularly with reference to their use for statistical purposes—representing the ultimate stage of mortality registration as here considered.

In the practical work of compiling and presenting such statistics there is also room for improvement, in order to make them more complete, more accurate, and more thoroughly comparable. This subject was discussed by the Conference of State and Provincial Boards of Health of North America in 1902 and was covered in the resolution then adopted.

The general adoption of the international classification of causes of death and the use of the Manual insure for the future a much greater degree of accuracy and comparability in the statistics of deaths by causes. But there are other important factors the relation of which to the cause of death and to each other should be shown in a more uniform manner than at present. The action of the committee of the Conference of State and Provincial Boards of Health of North America will, therefore, be directed toward formulating a series of uniform tables to be recommended for use in all annual reports and monthly or weekly bulletins published by registration state, or city offices. To assist in this matter the Census Bureau has collected copies of all published reports containing tabulated vital statistics, and has arranged, classified, and annotated the various forms of tables and turned them over to the committee.

Since this movement was initiated, standard laws providing for the registration of births and deaths have been enacted in California, Utah, Iowa, and Pennsylvania, and in Indiana and Michigan the existing laws for registration of deaths have been supplemented by complete provisions for the registration of births. In Florida the state board of health, which is charged with the collection of vital statistics, has put into effect the suggested provisions for registration of deaths by incorporating them into its "rules and regulations," as it has the legal authority to do. In South Dakota, Nebraska, and Wisconsin laws have recently been enacted which do not, in all respects, agree with the approved forms, but which promise improvement in results. In a number of other states the local health officials have been assisted in drafting measures for submission to the legislatures.

The standard certificates recommended have been very generally adopted, and the correspondence in connection with the yearly collection of returns has led to considerable improvement in the methods pursued in relation to the receipt and filing of the certificates by local officials.

When transcripts of records for any locality are received, they are carefully examined, and if found to be defective to any unusual degree the facts are communicated to the local officials. This practice has, in many instances, resulted in greater care being taken to obtain more complete records, and the statistics have thereby been rendered more accurate.

In considering the statistics presented it should be remembered that the Bureau of the Census has no authority whatever over local registration officials and no control of the machinery of registration. It can neither dictate forms or methods nor secure correction of obvious errors unless the local officials are entirely in sympathy with the suggestions made and willingly cooperate. Moreover, the preparation of the transcripts by the local officials is not obligatory, and if any of them decline to supply the necessary copies or neglect to do so, statistics for the areas they represent must be omitted. Accidents also occur which occasionally prevent the preparation of transcripts.

Registration officials of any experience have generally been prompt in cooperating in the plans for improvement, but the constantly occurring changes bring in new men, whose ideas are not always progressive or do not conform to Census Office standards. For this reason the "registration area," as it is termed, may vary in different years.

Extent and composition of the registration area.—For the decennial mortality statistics of the Twelfth Census, the "registration area" was fixed after the records of deaths obtained from registration sources had been compared with the mortality returns of the census enumerators. The results of this comparison are

given in full in the Report on Vital Statistics.¹ The registration area then embraced ten states—Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, District of Columbia, and Michigan—and 153 cities of 8,000 or more population in other states. The aggregate population represented by the entire area was 28,807,269.

The registration law of Indiana, which went into effect January 1, 1900, was in operation for five months of the census year 1899–1900, and as the comparison of the two sets of returns for that period indicated a satisfactory degree of completeness in the registration of deaths, Indiana has been accepted as a registration state. This is the only addition to the registration area since the last report was compiled. Some of the cities included in the report of 1899–1900 have subsequently failed to furnish transcripts of records, or have reverted to the use of a less complete form of certificate which omits important details, and have therefore been dropped from the list of registration cities.

The exact composition of the registration area in each year from 1900 to 1904 is shown in Table I, giving the estimated population for each state, county, and city (page lxi), and in other tables giving number of deaths and rates in detail.

The recent enactment of registration laws in the several states previously referred to, and the improvement in forms, methods, and results in other states—all growing out of the movement for the extension and improvement of the system of registration—have doubtless increased the area from which satisfactory data can hereafter be procured, and a considerable increase in the proportion of the country covered by registration statistics may be expected as soon as the results in the new areas can be tested.

Any such check on the accuracy of registration in new areas as was afforded by the comparison with the enumerators' returns in 1900 is not now available, and some other plan must be devised for testing the records in case of contemplated additions. To this end the advice and assistance of the committees of the various cooperating associations will be invoked. It is the desire of this Bureau to increase the registration area covered by the statistics as rapidly as the results accomplished under local laws will justify such action, and any plan for determining the accuracy of the returns which may be advocated by the representatives of the principal organizations most directly interested will be accepted.

The standard certificate of death.—The standard form of death certificate formulated by the Census officials and the committee on demography and statistics in their sanitary relation, of the American Public Health Association, and recommended for adoption in all registration areas, is here presented:

¹ Part I, pages xiv-xxxviii.

MARGIN RESERVED FOR BINDING.

WRITE PLAINLY, WITH UNFADING INK—THIS IS A PERMANENT RECORD.

N. B.—Every item of information should be carefully supplied. AGE should be stated EXACTLY. PHYSICIANS should state CAUSE OF DEATH in plain terms, that it may be properly classified. The "Special Information" for persons dying away from home should be given in every instance.

PLACE OF DEATH

BUREAU OF THE CENSUS
STANDARD CERTIFICATE OF DEATH.

County of _____
Township of _____
or
Village of _____
or
City of _____ (No. _____) (St. _____) (Ward _____)
If death occurs away from USUAL RESIDENCE give facts called for under Special Informa. on. "1"

Registered No. _____
[If death occurred in a Hospital or Institution give its NAME instead of street and number.]

PERSONAL AND STATISTICAL PARTICULARS.

SEX _____ COLOR _____

DATE OF BIRTH _____ (Month) _____ (Day) _____ (Year) 1

AGE _____ years, _____ months, _____ days

SINGLE, MARRIED, WIDOWED, OR DIVORCED

BIRTHPLACE (State or country)

NAME OF FATHER

BIRTHPLACE OF FATHER (State or country)

MAIDEN NAME OF MOTHER

BIRTHPLACE OF MOTHER (State or country)

OCCUPATION

THE ABOVE STATED PERSONAL PARTICULARS ARE TRUE TO THE BEST OF MY KNOWLEDGE AND BELIEF

(Informant) _____ (Address) _____

Filed _____ 190 _____

C-277 Registrar

MEDICAL CERTIFICATE OF DEATH.

DATE OF DEATH _____ 190 _____ (Month) _____ (Day) _____ (Year)

I HEREBY CERTIFY, That I attended deceased from _____ 190 _____ to _____ 190 _____ that I last saw h. _____ alive on _____ 190 _____ and that death occurred, on the date stated above, at _____ M. The CAUSE OF DEATH was as follows: _____

Contributory _____ (DURATION) _____ DAYS (Signed) _____ M. D. _____ 190 _____ (Address) _____

SPECIAL INFORMATION only for Hospitals, Institutions, Transients, or Recent Residents.

Former or Usual Residence _____ How long at Place of Death? _____ Days Where was disease contracted, if not at place of death? _____

PLACE OF BURIAL OR REMOVAL _____ DATE OF BURIAL _____ 190 _____

UNDERTAKER _____ ADDRESS _____

This form may be adapted to local use by substituting the title of the state registration department, or the name of the city, for "Bureau of the Census," thus making a change in the heading only. Transcripts of local records for the Census statistics are obtained by supplying blank copies of the form, by which means a separate return is secured for each death. Particular attention is directed to the "special information" concerning deaths in hospitals or other institutions or of persons dying away from home, the use of which is explained below.

Treatment of the returns.—The certificate of death is required to be filed with the registration official of the district in which the death occurs, without regard to the actual residence of the decedent or any other facts bearing upon the case, and the records of deaths for the Census statistics are obtained from the places where the deaths are registered.

The fact that very many of those persons, who in the advanced stages of disease, leave their homes and go elsewhere for medical or surgical treatment or for the benefits of climate, die away from home, greatly increases the number of deaths registered in the cities in which most of the large hospitals and public institutions are located, and also in localities which are known to possess a salubrious climate, and have acquired a reputation as "health resorts." Thus all cities suffer, to a greater or less extent, by the inclusion of deaths occurring within their boundaries, but not properly chargeable against their resident population.

It is quite natural, under these conditions, that some of the officials who compile local statistics should exclude deaths of those whom they consider nonresidents, but the practice of these officials is not uniform, the term nonresident being defined differently in different localities. In some cases the legal qualification of residence for voting purposes is adopted; in others, the place of residence stated in the certificate is accepted, regardless of the length of absence from the same; and in still others, deaths occurring in all or in certain institutions are excluded.

To obtain accurate and uniform data as a guide to the proper disposition of such cases, the standard certificate calls for a special statement concerning all persons dying away from their usual residence, and makes possible the segregation of deaths occurring in hospitals and other institutions. In all such cases the specifications of former or usual residence, length of time at the place of death, and place where the disease was contracted are required, and these items, together with the duration of the disease, if fully stated, would make it possible to distribute the deaths with approximate accuracy, and thus obtain death rates which are appropriate for the population of the locality to which they refer.

This can not be done, however, until the information is supplied concerning all such cases in the registration area. Where the standard certificate is in use the data

are being furnished quite fully, but there are many places in which the facts are not disclosed by the returns. For the present, therefore, the deaths must be compiled according to the place of occurrence.

Scope of the reports.—The data concerning deaths collected as a basis for this report are similar to those secured for the census year 1900 and used in the compilation of the Twelfth Census mortality statistics, but the amount of detail involved in a complete presentation of all of the factors having an influence on the mortality in their relation to each other is so extensive that all can not be shown in the limits of any practicable report published annually. Moreover, comparable population details, such as would be required for an accurate and complete analysis of mortality returns, are lacking for the intercensal years.

All of the details reported have, however, been transferred to the cards used in the mechanical tabulation, and are available for a more extensive compilation covering the period 1900 to 1910, or any other period for which corresponding population data can be obtained. The accumulation of material in this shape will also afford data for any special reports, dealing with particular phases of mortality, when the character and quantity of material and the period of time covered are sufficient to justify such action. Special interests of sufficient importance may be served by special reports, but the general reports, being designed to furnish information of the greatest general utility, can not give space to an exhaustive presentation of subjects of limited usefulness, even if the data were available or sufficiently complete and accurate, which is not always the case.

It has been alleged that there is need on the part of insurance interests for specialized mortality investigations with reference to occupations, and that the Twelfth Census mortality statistics were inadequate in that respect. With the idea that the continued accumulation of material might in time furnish sufficient data for a special report designed to serve such interests, the Actuarial Society of America was invited to appoint a committee to visit the Census Bureau and examine the material collected to determine the extent of its usefulness for the purpose, and to submit recommendations as to the scope and contents of such a report. After considering the matter at length the society concluded that it would involve too much labor to investigate the material sufficiently to decide the question of its usefulness and applicability and to designate the compilations desired, and the invitation was declined.

The registration area as now constituted embraces 11 states and 334 cities of at least 8,000 population in 1900. Since these 11 registration states include 320 counties, there are 654 areas for which it is desirable to give the greatest amount of information that can be presented in the comparatively small space allowed, and the amount of condensation required to do this is

not always appreciated. After careful consideration and consultation with experienced registration officials the tables described below have been adopted, as meeting the general requirements as fully as is practicable under the conditions.

Table 1 gives the deaths in each registration state, city, and county, by color, general nativity, parent nativity, and month of death.

Table 2 gives the deaths in each registration state, city, and county, by single years of age under 5 years, and by quinquennial age periods for ages above 5 years.

Table 3 gives the deaths in each registration state, city, and county from certain principal diseases and classes of diseases.

Table 4 gives the deaths in the registration area and its subdivisions and in each registration state, by sex, color, general nativity, and parent nativity, in relation to age.

Table 5 gives the deaths in the registration area and its main subdivisions, and in the cities and rural districts in each registration state, from each cause tabulated separately. This table covers the entire list of causes of death embraced in the international classification as adopted for the Census statistics, and gives a greater number of causes than are presented in any other table. It is given only for the areas mentioned above, since the comparison of urban and rural mortality in connection with locality can be shown only for the registration states, but the data have been compiled for each of the 654 cities and counties and a manuscript copy is maintained from which the results in individual areas, year after year, can be supplied.

Table 6 gives the aggregate deaths in the registration area from each disease and class of diseases, by sex and age.

Table 7 gives the deaths in each registration state from each disease and class of diseases, by single years of age under 5, and by decennial periods of ages from 10 upward. The list of causes is the same as that given in Table 6 for the entire registration area.

Table 8 gives the deaths from certain specified causes in each registration city of 100,000 or more population in 1900, by single years of age under 5, and by decennial periods of ages from 10 upward.

Table 9 gives the deaths in the registration area, the cities, and the rural districts from certain causes, in each month, in relation to age.

The series of tables described above is given for each year, with the same numbers, so that the number of any table for any year is the same as that of the corresponding tables for other years.

A series of summary and rate tables, presented in this report, gives data contained in the general tables, together with death rates or number of deaths per 100,000 of population and the per 1,000 distribution of deaths, by months and age periods. The series comprises Tables I to X:

Table I gives the enumerated or estimated population of each state, county, and city in the registration area for each year from 1900 to 1904.

Table II gives, for each registration city, the annual number of deaths from all causes per 1,000 of population.

Table III gives, for the registration area, the annual number of deaths from each disease and class of diseases and the corresponding death rates.

Table IV gives, for the registration area and its main subdivisions, for each registration state and city, and for each county in the registration states exclusive of cities, the annual death rates from certain principal causes of death.

Table V gives, for the registration area and its main subdivisions, the annual number of deaths from each disease and class of diseases and the corresponding death rates.

Table VI gives, for the cities and rural districts of the registration states, the annual death rates from each disease and class of diseases.

Table VII gives, for the registration area, the distribution, by months, of the annual number of deaths from each disease and class of diseases.

Table VIII gives, for the registration area, the per 1,000 distribution, by months, of the annual number of deaths in known months from each disease and class of diseases.

Table IX gives, for the registration area, the distribution, by age periods, of the total number of deaths from each disease and class of diseases during the five years covered by this report.

Table X gives, for the registration area, the per 1,000 distribution, by age periods, of the total number of deaths in known age periods from each disease and class of diseases during the five years covered by this report.

SUMMARY OF RESULTS.

POPULATION STATISTICS.

The computation of mortality rates for intercensal years requires that the population of each area shall be estimated. This is much more difficult in the United States than in many countries in which the population is annually estimated by registration officials for the same purpose. In these other countries an accurate registration of births affords a valuable factor in the calculations, but no such data are available in the

United States. Another difficulty arises from the fact that the present registration states, and most of the registration cities, are in sections of the country in which the accessions from immigration are greatest, and for this and other reasons the changes in population are likely to be most abrupt and far-reaching. The subject has been given very serious consideration by the Census officials, with a view to determining the most reliable method of estimating. Twelfth Census Bulletin, No. 135, Methods of Estimating Popula-

tion, gives an extensive comparison of the results of different methods. Such comparison shows that a constant *amount* of increase corresponds much more nearly with the observed rate of growth between censuses than a constant *rate* of increase. This indicates, therefore, that an annual addition of one-tenth of the numerical increase between 1890 and 1900 most closely approximates the facts in projecting the population for intercensal years between 1900 and 1910.

This study of the usual methods and their applicability led to the adoption of the plan indicated, and Census Bulletin 7, giving the estimated populations for 1901, 1902, and 1903 was prepared upon that basis. It follows, as a matter of course, that the results are correct to the extent that the actual growth corresponds with that previously observed; there are doubtless individual cases in which they are wide of the truth.

The estimates for some of the states and cities can be corrected when the results of state censuses taken in 1905 are available. They will establish a new point from which to estimate the population for the years between 1905 and 1910, the date of the next Federal census.

State censuses were taken in Florida, Iowa, Kansas, Massachusetts, Minnesota, New Jersey, New York, North Dakota, Oregon, Rhode Island, South Dakota, Wisconsin, and Wyoming in 1905, and in Michigan in 1904, but the results were not known in time to correct the estimates of population made for this report. It is presumed, however, that they will be available before the annual report for 1905 is compiled, in which case corrections will be made in that report.

The estimates give only the aggregate population of the units of the registration area. It would be most advantageous if the distribution of the population by age, sex, color, nativity, and parent nativity could be ascertained, as the influence of these factors upon mortality is most important. An approximate distribution could ordinarily be made by assuming that the proportions of each age, sex, etc., remained the same as in 1900, but the results of experimental work in this direction indicate that the changes which have occurred have disturbed the proportions existing in 1900 to an extent which renders any death rates based upon such assumed proportions inaccurate and misleading.

There has been a phenomenal amount of immigration since 1900, and also a vast increase in industrial activity, and each of these movements has probably affected the area covered by the registration records to a much greater extent than the remainder of the country. The disproportion of the sexes among the immigrants—the numbers being nearly 2,500,000 males to 1,000,000 females—and the effect of this large accession upon the age distribution of the population probably account sufficiently for the discrepancies found in the experimental work, to which reference has been made. For these reasons no attempt is made in this

report to go beyond the gross death rates in registration areas, and all of these must be regarded as approximations only.

For the year 1900 the population of the registration area represented in the statistics was 30,765,618, and for 1904 it was estimated to be 32,996,989. The increase occurred entirely in the cities, and principally in the cities of registration states. The rural population represented was 9,288,506 in 1900 and 9,272,731 in 1904.

Table 1 (page lxi) shows the actual population on June 1, 1900, and the estimated population on June 1 of each year from 1901 to 1904 of each area for which statistics of deaths are given.

GENERAL DEATH RATES.

The number of deaths reported in 1900 was 539,939, and the death rate per 1,000 of population was 17.6. In 1901 the number of deaths fell to 518,207 and the rate to 16.6. A further decline occurred in 1902, when the number of deaths reported was 508,640 and the rate was 16.0. A slight increase occurred in 1903, the number of deaths being 524,415 and the rate, 16.2; and a somewhat greater increase followed in 1904, when 551,354 deaths occurred and the rate was 16.7. The average annual rate for the 5 years was 16.6 per 1,000.

Death rates in certain countries.—The corresponding rates in certain foreign countries, as given in the reports of the Registrar-General of England, are shown in the following table:

COUNTRY.	NUMBER OF DEATHS FROM ALL CAUSES PER 1,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Registration area of United States.....	16.6	17.6	16.6	16.0	16.2	16.7
England and Wales.....	16.7	18.2	16.9	16.2	15.4	(1)
Scotland.....	17.5	18.5	17.9	17.2	16.6	(1)
Ireland.....	18.1	19.6	17.8	17.5	17.5	(1)
Germany.....	20.7	22.1	20.7	19.4	(1)	(1)
Prussia.....	20.3	21.8	20.5	19.2	19.8	(1)
Norway.....	14.9	15.9	14.9	13.9	14.8	(1)
Sweden.....	15.8	16.8	16.1	15.4	15.1	(1)
Hungary.....	26.3	26.9	25.4	27.0	26.1	(1)
Netherlands.....	16.7	17.8	17.2	16.3	15.6	(1)
Belgium.....	17.6	19.3	17.2	17.3	17.0	(1)
Switzerland.....	18.0	19.3	18.0	17.2	17.6	(1)
Spain.....	26.9	28.9	27.7	26.1	25.0	(1)
Italy.....	22.5	23.8	22.0	22.1	22.2	(1)

¹ Figures not available.

This table shows that the average annual death rate in the registration area of the United States was less than the rate in any of the countries specified except Norway and Sweden.

It also shows that there was a marked decline in the rates in all of the countries from 1900 to 1903, the rate being less in 1901 than in 1900 in every country, and less in 1902 than in 1901 in every country except Hungary, Belgium, and Italy. In 1903 the rates in all of the countries were less than in 1900, but there was a slight

increase in the rates over those for 1902 in the United States, Prussia, Norway, Switzerland, and Italy.

The lack of figures for 1904 makes it impossible to tell whether the slight increase in the United States is consonant with the tendency in other countries, but the general agreement of the figures indicates that the influences affecting the mortality have been much the same in all of the countries.

Death rates in registration areas.—The following table gives the death rates for each year in the registration area and its subdivisions:

NUMBER OF DEATHS FROM ALL CAUSES PER 1,000 OF POPULATION: 1900 TO 1904.						
AREA.	Annual average.	1900	1901	1902	1903	1904
The registration area	16.6	17.6	16.6	16.0	16.2	16.7
Registration cities	17.5	18.6	17.4	17.0	17.1	17.6
Registration states	16.2	17.2	16.4	15.5	15.6	16.5
Cities in registration states	17.8	18.9	17.8	17.1	17.1	17.9
Rural part of registration states	14.3	15.2	14.6	13.4	13.8	14.5
Registration cities in other states	17.3	18.2	17.0	16.9	17.1	17.2

It will be seen from this table that there was in all areas a progressive decline from the 1900 rates up to 1903, when there was a very small increase apparent in all areas except the cities in registration states, for which the rate remained stationary. The further increase in the rate for 1904 over that for 1903, on the contrary, was equally marked in the cities of the registration states and in the rural areas.

Death rates in registration states.—The figures for the individual registration states are given below:

REGISTRATION STATE.	NUMBER OF DEATHS FROM ALL CAUSES PER 1,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Total	16.2	17.2	16.4	15.5	15.6	16.5
Connecticut	16.3	18.0	16.1	15.3	16.2	15.9
District of Columbia	20.9	22.3	21.4	20.1	20.3	20.8
Indiana	13.3	14.2	13.8	12.8	12.2	13.5
Maine	16.2	17.1	16.1	15.4	15.9	16.5
Massachusetts	16.7	18.3	16.8	16.3	16.4	16.0
Michigan	13.4	14.0	13.4	12.7	13.2	13.6
New Hampshire	16.7	18.5	16.8	15.9	16.5	16.0
New Jersey	16.6	17.8	16.5	15.9	15.9	17.2
New York	17.5	18.2	17.8	16.6	16.7	18.2
Rhode Island	18.6	20.5	18.2	17.9	19.0	17.5
Vermont	16.1	16.6	16.6	15.0	16.2	16.0

These figures show that the fall in the death rate between 1900 and 1902 was common to all the registration states; that in 1903 it was followed by a rise in every state except Indiana and New Jersey; and that in 1904, as compared with 1903, the rate increased in 6 states and declined in 5. The minimum rate was that for 1902 in every state except Indiana, Massachusetts, and Rhode Island, these states showing still lower rates either in 1903 or 1904.

Urban and rural mortality.—Comparisons of urban and rural mortality can only be made for the registration states, and the following table shows the death rates in the cities of 8,000 or more population and the rural districts of such states:

REGISTRATION STATE.	NUMBER OF DEATHS FROM ALL CAUSES PER 1,000 OF POPULATION: 1900 TO 1904.											
	Annual average.		1900		1901		1902		1903		1904	
	Cities.	Rural districts.	Cities.	Rural districts.	Cities.	Rural districts.	Cities.	Rural districts.	Cities.	Rural districts.	Cities.	Rural districts.
Total	17.8	14.3	18.9	15.2	17.8	14.6	17.1	13.4	17.1	13.8	17.9	14.5
Connecticut	16.6	15.7	18.0	18.1	16.4	15.5	15.7	14.5	16.8	15.0	16.1	15.5
Indiana	15.3	12.7	16.9	13.7	15.2	13.3	14.7	12.1	14.6	11.3	15.7	12.8
Maine	18.9	15.0	20.1	16.5	18.4	15.6	18.4	14.8	18.4	15.4	19.5	15.9
Massachusetts	16.9	16.2	18.5	17.5	17.1	16.2	16.6	15.2	16.6	15.9	15.9	16.1
Michigan	14.7	12.8	15.4	13.5	14.5	12.9	14.6	11.9	14.9	12.5	14.3	13.3
New Hampshire	17.3	16.4	19.4	18.0	17.2	16.5	16.8	15.3	16.9	16.2	16.1	15.9
New Jersey	18.4	14.2	19.4	15.5	18.2	14.3	17.8	13.4	17.6	13.5	19.2	14.4
New York	18.6	15.0	19.5	15.5	18.9	15.4	17.7	14.0	17.6	14.6	19.4	15.5
Rhode Island	18.6	18.6	20.4	20.7	18.2	18.2	18.2	17.2	19.0	19.1	17.4	17.9
Vermont	16.9	15.9	17.6	16.4	16.6	16.6	15.4	15.0	17.9	15.9	17.1	15.8

It appears from this table that the average annual death rate in the rural districts of the registration states, 1900 to 1904 (14.3), was 3.5 per 1,000 less than in the cities of 8,000 or more population in the same states (17.8). Rhode Island is the only state in which the rate was as high in the rural districts as in the cities. In Massachusetts, Connecticut, and New Hampshire the urban rate exceeded the rural by less than 1 per 1,000. The excess was greatest in New Jersey, New York, and Maine.

It is probable that a considerable proportion of the difference in the rates between the rural and urban dis-

tricts is due to the fact that residents of the former, when critically ill, resort to the hospitals and institutions in the cities for treatment, and when deaths occur they are registered in the cities and increase the mortality of the latter. (See remarks under "treatment of returns," page xvi.)

The death rates from each reported cause are given in Table vi (page clxvi) for the urban and rural areas of the registration states, and the death rates from certain principal causes are given in Table iv (page lxxii) for each city in the registration area and for each county, exclusive of cities, in the registration states.

MORTALITY STATISTICS.

The average annual and the yearly death rates in each registration city of 8,000 or more population from which returns were received are shown in Table II (page lxv).

It should be understood that the term "city" is used in the broadest sense and includes all incorporated places variously designated as cities, boroughs, towns, etc.

Percentage of population and death rates in southern cities.—Among the 345 cities included in Table II (page lxv) there were 44 in which the average annual death rate was 20 or more per 1,000. Nineteen of these cities, however, are located in the Southern states and contain a large proportion of colored population, the death rate of which, in general, largely exceeds that of the whites. The death rates in these cities can not be shown by race except for the year 1900. This is done in the following table, which gives the average annual death rate, 1900 to 1904, per 1,000 of the total population, the percentage of white and colored population

in the year 1900, and the death rates of the two races in that year:

CITY.	NUMBER OF DEATHS FROM ALL CAUSES PER 1,000 OF POPULATION.		PER CENT OF POPULATION: 1900.		
	Annual average: 1900 to 1904.	1900		White.	Colored.
		White.	Colored.		
Southern registration cities.....	22.6	20.2	35.2	70.7	29.3
Alexandria, Va.....	23.0	20.5	35.2	68.7	31.3
Annapolis, Md.....	22.2	20.0	41.8	64.7	35.3
Atlanta, Ga.....	22.3	18.6	27.4	60.2	39.8
Baltimore, Md.....	20.1	19.2	33.3	84.3	15.7
Charleston, S. C.....	31.3	22.9	44.3	43.4	56.6
Frederick, Md.....	21.8	17.9	28.0	83.5	16.5
Jacksonville, Fla.....	28.1	26.6	32.8	42.8	57.2
Key West, Fla.....	24.0	23.5	26.3	67.3	32.7
Lynchburg, Va.....	21.6	20.5	36.1	56.3	43.7
Mobile, Ala.....	24.4	22.5	33.0	55.6	44.4
New Orleans, La.....	23.1	21.2	40.9	72.8	27.2
Norfolk, Va.....	22.5	18.8	38.0	56.4	43.6
Petersburg, Va.....	27.5	25.2	35.2	50.7	49.3
Raleigh, N. C.....	25.4	23.1	39.7	58.1	41.9
Richmond, Va.....	25.7	23.7	37.6	62.1	37.9
San Antonio, Tex.....	24.4	22.7	23.2	85.7	14.3
Savannah, Ga.....	27.3	23.4	38.0	48.1	51.9
Washington, D. C.....	20.9	18.3	30.9	68.7	31.3
Wilmington, N. C.....	28.2	24.8	36.9	50.3	49.7

CAUSES OF DEATH.

The most important item in mortality statistics is the cause of death, and accurate classification is dependent upon the exactness with which the cause is stated in each case.

One object of the movement for improvement in registration methods and results, described in the introduction, was to secure greater accuracy in the returns; and that progress is being made in this respect is evident from the fact that the number of deaths in which the cause was stated as "unknown" was reduced from 3,024 to 1,593, or nearly 50 per cent, between 1900 and 1904, and the further fact that the number of cases necessarily classed as "ill-defined" decreased nearly 40 per cent in the same period.

These facts indicate a progressive tendency toward greater accuracy in the general statement of causes of death, which doubtless affects all of the titles of the classification. Careful examination by local registrars of certificates presented for record, and an insistence that the cause be satisfactorily stated in each doubtful case will further increase the accuracy of the statistics.

Table III (page lxviii) gives, for the total registration area, the deaths in each year and the aggregate for the five years from each cause and class of causes, with the death rates per 100,000 of population. This table gives the figures for each separate cause included in the detailed classification and also includes totals for each class of causes and for certain groups of causes.

Increase or decrease in death rates by each class of causes.—Taking up the classes of causes for which the figures are given in Table III (page lxviii), the following table shows the rates in 1900 and the amount of increase or decrease in the rates for each subsequent year, in comparison with the previous year:

CAUSE OF DEATH.	DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.				
	Number in 1900.	Increase (+) or decrease (-) from—			
		1900-1	1901-2	1902-3	1903-4
All causes.....	1,755.0	-97.1	-60.3	+19.3	+54.0
General diseases.....	478.6	-13.0	-30.6	+15.4	+2.8
Diseases of nervous system.....	208.8	-15.5	-7.0	-6.5	+3.8
Diseases of circulatory system.....	147.2	+0.8	+6.6	+6.6	+12.2
Diseases of respiratory system.....	256.2	-25.6	-7.5	-4.4	+14.6
Diseases of digestive system.....	226.2	-24.8	-9.2	-3.4	+11.6
Diseases of genito-urinary system.....	105.9	+1.3	+1.5	+8.5	+5.4
Childbirth ¹	26.7	+0.8	-1.3	+2.0	+2.8
Diseases of skin.....	8.0	-0.3	-0.6	+0.5	-0.3
Diseases of locomotor system.....	2.2	+0.4	+0.1	+0.3	(²)
Malformations.....	11.5	-0.4	-0.3	+1.6	+0.9
Early infancy.....	76.9	-10.6	+2.2	+0.9	+3.3
Old age.....	50.4	-3.2	-2.5	-5.3	-0.2
Violence.....	96.0	+10.6	-8.8	+11.8	+1.4
Ill-defined diseases.....	73.8	-17.2	-3.6	-7.7	-2.9

¹ Rates based on approximate female population.

² No change.

From the general view of the results given in this table it appears that there was a regular increase in the rates, year after year, from two classes of causes only—diseases of the circulatory system and diseases of the genito-urinary system; the aggregate increase in 1904 over 1900 was 26.2 for the former, and 16.7 for the latter. There was also a yearly increase in the rates due to diseases of the locomotor system up to 1903, but not in 1904, the rate remaining stationary.

There was an apparently progressive decrease in the rates due to causes classified as "old age" and "ill-defined diseases," which should be attributed to a more definite statement of the cause of death rather than to any actual decrease in the number of deaths.

Death rates from principal diseases.—A comparison of the rates for all of the classes given in the preceding table in connection with those for the individual causes

given in Table III (page lxviii) indicates that the generally increasing rates are due principally to causes occurring with greater frequency in adult life or advanced age, while the irregular rates occur more particularly in connection with the epidemic diseases, or those most affected by variations in meteorologic or climatic conditions. This is shown more clearly in the following table, which gives the death rates for all diseases in the registration area in which the average annual rate for the five years amounts to 10 or more, the diseases being grouped to show progressively increasing rates, progressively decreasing rates, and rates showing irregular variations. This table includes only deaths from disease, those from violence being omitted.

CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Causes with increasing rates:						
Heart disease.....	120.9	111.2	113.9	118.0	125.5	134.8
Nephritis and Bright's disease.....	94.6	89.0	89.6	91.5	98.1	104.2
Apoplexy.....	69.2	67.5	68.4	68.7	68.8	72.2
Cancer.....	66.6	63.1	64.6	65.4	68.9	70.9
Cirrhosis of liver.....	14.1	12.9	13.7	14.0	14.6	15.2
Diabetes.....	11.0	9.7	10.3	10.4	11.4	12.9
Appendicitis.....	10.6	9.7	10.0	10.1	11.1	12.0
Causes with decreasing rates:						
Old age.....	44.1	50.4	47.2	44.7	39.4	39.2
Bronchitis.....	39.5	45.7	39.9	39.5	36.5	36.1
Convulsions.....	25.2	32.5	27.2	25.1	21.1	20.6
Paralysis.....	21.9	25.9	23.1	21.0	20.4	19.5
Peritonitis.....	12.1	15.1	13.1	12.0	10.3	10.1
Causes with fluctuating rates:						
Tuberculosis of lungs.....	172.6	180.4	175.1	163.6	166.2	178.1
Pneumonia.....	165.6	180.5	162.0	156.7	156.4	173.3
Diarrhea and enteritis.....	113.1	133.2	113.9	105.6	101.8	111.8
Typhoid fever.....	33.8	35.9	32.4	34.5	34.4	32.0
Diphtheria and croup.....	33.7	43.3	34.1	31.0	32.0	28.6
Meningitis.....	33.1	40.9	33.4	31.3	28.4	32.0
Congenital debility.....	21.9	24.5	21.0	21.8	21.4	20.8
Influenza.....	20.8	22.9	32.3	10.1	18.7	20.4
Lack of care.....	15.1	16.3	15.2	15.8	13.8	14.6
Puerperal septicemia.....	12.3	11.5	12.1	11.4	12.3	13.9
Gastritis.....	12.1	14.0	12.0	11.6	11.7	11.2
Scarlet fever.....	11.8	10.2	13.2	12.7	12.3	11.0
Whooping cough.....	11.3	12.1	9.8	12.1	15.9	6.6
Endocarditis.....	11.1	11.9	10.6	11.5	9.9	11.8
Measles.....	10.1	12.6	7.3	9.5	9.9	11.1

GENERAL DISEASES.

Typhoid fever.—The total number of deaths from typhoid fever during the five years covered by this report was 53,857, and the average annual death rate was 33.8 per 100,000 of population. There was but little variation from this rate in any year, the greatest being in 1900, when the rate (35.9) exceeded the average by 2.1, and in 1904, when the rate (32) was 1.8 less than the average.

The following table shows the death rates from this disease in the registration area of the United States in comparison with those of other countries for which the figures are available.

This table shows that the death rates from typhoid fever in the United States were higher than in any of the European countries except Italy, and were very much higher than in most of those for which the figures are given. It indicates that there is room for a great improvement in the application of well-known measures for the prevention of this disease.

COUNTRY.	NUMBER OF DEATHS FROM TYPHOID FEVER PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	35.9	32.4	34.5	34.4	32.0
England and Wales.....	17.3	15.5	12.6	10.0	(1)
Scotland.....	15.0	16.0	12.0	12.0	(1)
Ireland.....	17.0	19.0	14.0	11.0	(1)
Germany.....	11.0	11.0	7.0	(1)	(1)
Norway.....	6.0	8.0	5.0	(1)	(1)
Sweden.....	14.0	13.0	10.0	(1)	(1)
Hungary.....	32.0	29.0	27.0	28.0	(1)
Belgium.....	25.0	22.0	18.0	16.0	(1)
Switzerland.....	7.0	7.0	6.0	5.0	(1)
Italy.....	47.0	36.0	35.0	35.0	(1)

¹ No figures available.

The following table gives the death rates from typhoid fever in each year, and the average annual rates in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 population or more:

AREA.	NUMBER OF DEATHS FROM TYPHOID FEVER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	33.8	35.9	32.4	34.5	34.4	32.0
Registration cities.....	36.3	36.5	33.9	37.5	38.2	35.2
Registration states.....	26.7	31.3	27.5	26.3	24.7	24.0
Cities in registration states.....	25.8	28.5	26.5	25.9	24.6	24.0
Rural part of registration states.....	27.8	34.6	28.8	27.0	24.7	23.8
Registration cities in other states.....	46.8	44.4	41.4	40.4	52.1	46.6
Registration states:						
Connecticut.....	24.4	32.0	30.1	21.8	21.7	17.3
District of Columbia.....	62.8	79.7	61.4	79.1	48.8	47.0
Indiana.....	45.6	51.1	46.7	40.0	40.7	40.7
Maine.....	30.5	28.2	32.2	24.5	32.5	35.3
Massachusetts.....	18.8	22.0	19.8	18.3	17.8	16.3
Michigan.....	27.3	36.5	26.3	24.5	24.1	25.2
New Hampshire.....	20.3	22.1	18.8	18.1	24.4	18.6
New Jersey.....	20.4	22.0	19.6	21.8	19.7	18.9
New York.....	23.9	27.6	25.0	23.4	22.5	21.6
Rhode Island.....	21.1	28.7	23.6	20.4	17.9	15.2
Vermont.....	27.2	33.8	28.7	19.1	24.8	29.9
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	103.4	93.9	75.0	121.6	102.9	123.2
Baltimore, Md.....	36.5	38.9	28.7	42.0	35.0	37.5
Boston, Mass.....	22.4	24.1	23.6	21.8	20.0	22.9
Buffalo, N. Y.....	28.0	23.5	26.8	32.8	33.3	23.0
Chicago, Ill.....	29.7	21.1	29.8	45.1	32.1	20.2
Cincinnati, Ohio.....	55.8	39.0	54.9	61.9	42.7	80.2
Cleveland, Ohio.....	58.7	56.8	34.9	35.5	115.0	49.6
Columbus, Ohio.....	65.8	53.4	48.1	37.1	37.6	147.7
Denver, Colo.....	47.0	40.3	48.7	60.6	55.7	30.3
Detroit, Mich.....	21.9	28.4	20.1	23.5	20.0	17.6
Fall River, Mass.....	19.8	27.7	25.0	10.8	21.0	17.1
Indianapolis, Ind.....	48.2	41.4	33.1	44.5	51.1	68.4
Jersey City, N. J.....	18.6	22.8	16.1	20.5	15.0	19.2
Kansas City, Mo.....	48.8	35.4	45.5	38.2	80.3	43.1
Louisville, Ky.....	58.5	64.0	46.0	60.3	59.8	61.6
Memphis, Tenn.....	45.5	47.9	51.8	39.1	41.3	46.0
Milwaukee, Wis.....	17.1	19.3	21.9	14.7	16.3	13.1
Minneapolis, Minn.....	44.7	41.4	61.0	29.0	45.8	46.3
New Haven, Conn.....	44.5	25.0	94.4	39.1	36.6	27.4
New Orleans, La.....	44.9	52.6	50.1	44.2	40.9	36.7
New York, N. Y.....	19.2	20.4	20.7	20.6	17.4	17.2
Bronx borough.....	14.8	14.0	16.5	16.2	15.4	12.6
Brooklyn borough.....	22.8	25.0	22.5	24.5	19.6	22.7
Manhattan borough.....	17.2	17.9	20.0	18.7	16.1	13.7
Queens borough.....	20.5	24.2	18.2	21.7	16.8	20.6
Richmond borough.....	20.0	19.3	26.3	14.3	19.5	20.5
Newark, N. J.....	20.1	21.1	23.8	19.8	23.0	13.6
Omaha, Nebr.....	19.1	23.4	24.5	21.9	11.5	17.1
Paterson, N. J.....	21.7	26.0	23.2	33.5	21.2	6.9
Philadelphia, Pa.....	49.6	37.2	34.6	47.3	72.6	55.0
Pittsburg, Pa.....	137.6	144.3	123.8	140.6	136.5	139.4
Providence, R. I.....	21.3	23.9	25.1	21.3	19.8	15.8
Rochester, N. Y.....	14.9	17.2	17.5	11.9	12.3	16.1
St. Joseph, Mo.....	13.9	22.3	14.2	13.9	8.1	12.4
St. Louis, Mo.....	39.3	32.5	33.4	40.0	52.4	37.9
St. Paul, Minn.....	14.8	21.5	13.8	14.2	11.0	14.9
San Francisco, Cal.....	28.2	30.3	25.1	29.6	25.0	31.4
Scranton, Pa.....	23.3	34.3	34.4	19.6	18.2	10.7
Syracuse, N. Y.....	18.7	29.5	19.0	8.0	17.5	18.0
Toledo, Ohio.....	34.7	41.0	32.2	34.7	29.5	37.2
Washington, D. C.....	62.8	79.7	61.4	79.1	48.8	47.0
Worcester, Mass.....	16.0	25.3	21.3	13.6	14.8	6.1

MORTALITY STATISTICS.

The greatest mortality from this disease occurred in the cities in the nonregistration states, in which the average annual rate was 46.8 per 100,000. Excluding the District of Columbia, which is urban, the highest average rates in the registration states occurred in Indiana and Maine, and the lowest in Massachusetts, New Hampshire, and New Jersey.

Comparing the rural and urban districts of the registration states it will be seen that the mortality from typhoid fever was greater in the rural districts than in the cities in each year except 1904, in which it was very slightly greater in the cities.

Of the total 53,857 deaths from typhoid fever, 41,078 occurred in the cities. Of this number, 25,949 occurred in the cities of 100,000 population and upward, the average annual rate in the cities of this class being 34.8 per 100,000.

By far the greatest mortality from this disease in the large cities occurred in Pittsburg, Pa., the rate being more than 120 in each year, and ranging from 144.3 in 1900 to 123.8 in 1901, with an average annual rate of 137. The next highest rates occurred in the adjoining city of Allegheny, being over 100 for each of the three years 1902 to 1904, and averaging 103.4 for the five-year period.

Other of the principal cities in which the average annual death rate from typhoid fever was excessively high are Cincinnati, Ohio (55.8); Cleveland, Ohio (58.7); Columbus, Ohio (65.8); Louisville, Ky. (58.5); and Washington, D. C. (62.8). The average annual mortality from this disease was much below the average in Fall River, Mass. (19.8); Jersey City, N. J. (18.6); Milwaukee, Wis. (17.1); New York, N. Y. (19.2); Omaha, Nebr. (19.1); Rochester, N. Y. (14.9); St. Joseph, Mo. (13.9); St. Paul, Minn. (14.8); Syracuse, N. Y. (18.7); and Worcester, Mass. (16).

Although nearly half of the entire number of deaths from typhoid fever in the registration area occurred in the 37 principal cities specified in the table above, the comparative mortality from this disease was greater in many of the smaller cities and in the rural districts of certain counties in the registration states.

The following table shows the minor cities in which the death rate from typhoid fever exceeded 100 in one or more years:

REGISTRATION CITY.	NUMBER OF DEATHS FROM TYPHOID FEVER PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Alexandria, Va.					102.7
Allentown, Pa.			189.5		
Ashtabula, Ohio.					137.1
Augusta, Me.				232.7	
Bangor, Me.		104.0			187.4
Berlin, N. H.	123.8				
Biddeford, Me.			116.5		
Bristol town, Conn.	134.8				
Charleston, S. C.	132.6			126.0	
Cohoes, N. Y.	117.1		124.0		102.2

REGISTRATION CITY—continued.	NUMBER OF DEATHS FROM TYPHOID FEVER PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Columbia, Pa.					122.3
Columbus, Ind.	123.0				103.5
Cortland, N. Y.		121.5			
Duluth, Minn.	109.5				
Escanaba, Mich.	125.7				351.4
Findlay, Ohio.	113.6				
Fresno, Cal.	240.6	182.0	117.2	123.4	
Hudson, N. Y.				341.7	164.6
Ithaca, N. Y.					
Jacksonville, Fla.			130.4		
Jacksonville, Ill.				101.8	
Jeffersonville, Ind.		111.3			
Johnstown, Pa.	130.8	116.4			
Leadville, Colo.	104.4				286.1
Lynchburg, Va.	121.8		105.5		114.4
McKeesport, Pa.					133.6
Marietta, Ohio.		115.5			
Massillon, Ohio.	100.5				
Meadville, Pa.			105.3		
Menominee, Mich.					117.2
Muscatine, Iowa.	120.8				
Newcastle, Pa.	137.6		192.5	122.7	
Niagara Falls, N. Y.	107.9	147.3	136.4	135.0	151.7
Paducah, Ky.	138.8				
Peru, Ind.	130.0				
Petersburg, Va.					105.5
Phillipsburg, N. J.			106.4		
Pueblo, Colo.		101.7	311.7	184.7	111.5
Richmond, Va.	104.6				
Sault Ste. Marie, Mich.	132.9		172.9	115.9	
South Bethlehem, Pa.				205.3	
Steelton, Pa.			276.6	184.1	
Superior, Wis.	115.8				
Troy, N. Y.	131.9				
Vincennes, Ind.					118.1
Washington, Ind.	125.0				
Watertown, N. Y.	106.0				212.4
Wichita, Kans.		114.4			
Wilmington, N. C.	100.1				
Youngstown, Ohio.		136.8	135.5	180.0	

The highest rate in Pittsburg, Pa., in 1900 (144.3), was exceeded in Allentown, Pa., in 1902 (189.5); Augusta, Me., in 1903 (232.7); Bangor, Me., in 1904 (187.4); Escanaba, Mich., in 1904 (351.4); Fresno, Cal., in 1900 (240.6) and in 1901 (182); Hudson, N. Y., in 1904 (164.6); Ithaca, N. Y., in 1903 (341.7); Leadville, Colo., in 1904 (286.1); Newcastle, Pa., in 1902 (192.5); Niagara Falls, N. Y., in 1901 (147.3) and in 1904 (151.7); Pueblo, Colo., in 1902 (311.7) and in 1903 (184.7); Sault Ste. Marie, Mich., in 1902 (172.9); South Bethlehem, Pa., in 1903 (205.3); Steelton, Pa., in 1902 (276.6) and in 1903 (184.1); Watertown, N. Y., in 1904 (212.4); and in Youngstown, Ohio, in 1903 (180).

The yearly death rates from typhoid fever in each city in the registration area and in each county, exclusive of cities, in the registration states are given in full in Table iv (page lxxii).

The first table on page xxiii gives the number of deaths from typhoid fever, 1900 to 1904, by sex and by age.

The whole number of deaths from typhoid fever in the five years (53,857) was divided, as to sex, as follows: Males, 31,663; females, 22,194; being in the proportion of 588 males to 412 females.

The figures giving the deaths by ages show that in each year the greatest number of deaths occurred between 20 and 25 years.

SEX AND AGE.	NUMBER OF DEATHS FROM TYPHOID FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	53,857	11,044	10,127	10,980	11,140	10,557
Sex:						
Male.....	31,663	6,376	5,937	6,467	6,585	6,298
Female.....	22,194	4,668	4,190	4,513	4,554	4,259
Age:						
Under 1 year.....	383	83	77	87	70	66
1 year.....	485	101	89	91	98	106
2 years.....	543	104	88	130	116	105
3 years.....	624	126	113	133	128	124
4 years.....	598	113	113	135	111	126
Under 5 years.....	2,633	527	480	576	523	527
5 to 9 years.....	3,098	660	558	613	666	601
10 to 14 years.....	3,673	782	667	676	786	762
15 to 19 years.....	7,131	1,516	1,319	1,464	1,491	1,341
20 to 24 years.....	8,813	1,802	1,601	1,813	1,860	1,737
25 to 29 years.....	7,409	1,430	1,439	1,587	1,555	1,398
30 to 34 years.....	5,466	1,081	1,038	1,145	1,123	1,079
35 to 39 years.....	4,283	864	829	836	900	854
40 to 44 years.....	3,169	664	626	650	658	571
45 to 49 years.....	2,334	500	444	442	464	484
50 to 54 years.....	1,668	353	314	358	305	338
55 to 59 years.....	1,244	264	238	226	259	257
60 to 64 years.....	1,019	213	204	213	176	213
65 to 69 years.....	746	153	154	158	132	149
70 to 74 years.....	513	104	99	92	97	121
75 to 79 years.....	285	52	48	63	75	47
80 to 84 years.....	132	23	27	24	28	30
85 to 89 years.....	43	10	8	9	7	9
90 to 94 years.....	7	2	1	1	1	2
95 years and over.....	3	1	1	1	1	1
Unknown.....	188	43	32	33	43	37

The following table gives the number of deaths from typhoid fever in the registration area in each year, by month of death, with the proportion in each month per 1,000 deaths from the same disease in known months:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM TYPHOID FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
		Number.				
All months.....	53,857	11,044	10,127	10,980	11,140	10,557
January.....	4,337	834	875	749	1,022	857
February.....	3,516	637	589	586	829	875
March.....	3,890	721	589	616	986	978
April.....	3,634	632	616	633	838	915
May.....	3,527	590	582	680	846	820
June.....	2,888	520	533	617	628	590
July.....	3,738	669	750	796	805	718
August.....	5,582	1,133	1,128	1,292	1,094	935
September.....	6,435	1,399	1,283	1,429	1,185	1,139
October.....	6,382	1,492	1,385	1,367	1,098	1,040
November.....	5,306	1,255	964	1,174	964	949
December.....	4,578	1,153	833	1,041	833	718
Unknown.....	44				21	23
		Per 1,000 distribution.				
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	80.6	75.5	86.4	68.2	91.9	81.3
February.....	65.3	57.7	58.2	53.4	74.5	83.1
March.....	72.3	65.3	58.2	56.1	88.6	92.8
April.....	67.5	57.2	60.8	57.7	75.3	86.9
May.....	65.5	54.2	57.5	61.9	76.0	77.8
June.....	53.7	47.1	52.6	56.2	56.4	56.0
July.....	69.5	60.6	74.0	72.5	72.3	68.2
August.....	103.7	102.6	111.4	117.7	98.3	88.8
September.....	119.6	126.7	126.7	130.1	106.5	108.1
October.....	118.6	135.1	136.8	124.5	98.7	98.7
November.....	98.6	113.6	95.2	106.9	86.6	90.1
December.....	85.1	104.4	82.2	94.8	74.9	68.2

Malarial fever.—The total number of deaths due to malarial fever in the five-year period was 8,953, an average annual mortality of 5.6 per 100,000 population.

The returns show a progressive decrease in the number of deaths from this disease, falling from 2,434 in 1900, when the rate was 7.9, to 1,391 in 1904, when it was but 4.2 per 100,000.

The following table gives the average annual and the yearly death rates from malarial fever in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 or more population:

AREA.	NUMBER OF DEATHS FROM MALARIAL FEVER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	5.6	7.9	6.3	5.5	4.3	4.2
Registration cities.....	6.0	8.2	6.9	5.9	4.6	4.6
Registration states.....	4.2	6.3	5.0	4.0	3.0	2.9
Cities in registration states.....	3.8	5.4	4.9	3.7	2.5	2.6
Rural part of registration states.....	4.7	7.2	5.0	4.4	3.7	3.3
Registration cities in other states.....	8.2	11.0	8.8	8.2	6.7	6.6
Registration states:						
Connecticut.....	8.4	11.6	11.2	9.4	5.5	4.7
District of Columbia.....	11.1	19.0	15.2	11.1	7.5	4.0
Indiana.....	8.5	14.5	9.3	7.4	5.9	5.6
Maine.....	1.9	1.7	1.6	3.0	1.6	1.5
Massachusetts.....	2.4	2.9	3.2	2.0	2.2	1.9
Michigan.....	4.1	6.5	4.6	4.0	2.6	2.6
New Hampshire.....	1.7	2.2	1.7	0.5	1.9	2.1
New Jersey.....	3.7	5.1	4.4	3.2	3.1	2.8
New York.....	3.1	4.5	3.8	3.1	2.1	2.4
Rhode Island.....	6.3	7.0	8.0	5.8	6.2	4.3
Vermont.....	1.4	1.7	1.5	1.2	1.4	1.7
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	0.7	1.5	1.5	1.5	.....	.....
Baltimore, Md.....	6.5	10.2	7.7	6.1	4.1	4.8
Boston, Mass.....	1.0	1.6	1.6	1.4	.....	0.5
Buffalo, N. Y.....	0.8	1.1	0.8	0.3	0.5	0.8
Chicago, Ill.....	1.0	1.9	1.2	0.9	1.0	0.5
Cincinnati, Ohio.....	2.4	1.2	4.6	4.2	1.2	0.9
Cleveland, Ohio.....	1.2	1.8	1.8	0.7	0.7	1.2
Columbus, Ohio.....	3.0	4.8	5.4	.....	1.5	2.9
Denver, Colo.....	0.7	1.5	0.7	0.7	0.7	.....
Detroit, Mich.....	2.7	3.1	3.4	3.0	1.6	2.2
Fall River, Mass.....	0.9	2.9	1.9	0.9	.....	0.8
Indianapolis, Ind.....	5.3	10.0	2.8	7.0	3.5	4.4
Jersey City, N. J.....	3.7	4.8	4.7	3.3	2.3	2.7
Kansas City, Mo.....	7.1	6.1	7.8	5.9	8.1	7.4
Louisville, Ky.....	5.2	4.4	7.2	5.2	2.3	5.9
Memphis, Tenn.....	140.2	204.3	112.2	132.0	117.0	138.8
Milwaukee, Wis.....	0.3	0.4	.....	0.3	0.3	0.6
Minneapolis, Minn.....	0.5	1.0	.....	0.5	.....	.....
New Haven, Conn.....	9.8	14.8	12.7	8.9	5.2	8.6
New Orleans, La.....	35.1	56.1	38.1	32.8	26.3	22.9
New York, N. Y.....	3.7	5.7	5.0	3.5	2.1	2.8
Bronx borough.....	12.6	18.9	22.2	10.3	6.0	6.5
Brooklyn borough.....	4.1	5.1	4.7	4.1	2.5	4.4
Manhattan borough.....	1.9	2.8	2.6	2.1	1.1	1.1
Queens borough.....	10.2	28.1	11.9	4.8	4.0	4.4
Richmond borough.....	5.7	6.0	8.8	5.7	4.2	2.7
Newark, N. J.....	3.9	4.5	6.3	4.3	1.1	3.7
Omaha, Nebr.....	1.8	2.9	.....	2.7	0.9	2.6
Paterson, N. J.....	3.6	4.8	2.8	4.5	2.6	2.6
Philadelphia, Pa.....	1.1	0.9	1.2	1.5	0.9	1.2
Pittsburg, Pa.....	1.5	2.5	2.1	1.8	1.2	.....
Providence, R. I.....	7.1	8.0	8.4	8.2	5.4	4.5
Rochester, N. Y.....	0.6	0.6	0.6	0.6	.....	2.9
St. Joseph, Mo.....	3.7	6.8	1.9	3.7	2.7	2.6
St. Louis, Mo.....	9.2	10.4	7.8	7.3	10.0	10.2
St. Paul, Minn.....	.....	.....	.....	.....	0.6	.....
San Francisco, Cal.....	2.8	4.4	1.4	2.6	2.0	3.9
Scranton, Pa.....	2.8	4.9	1.0	4.7	0.9	1.7
Syracuse, N. Y.....	0.9	3.7	1.8	.....	.....	0.9
Toledo, Ohio.....	4.9	9.1	2.9	7.8	2.7	2.6
Washington, D. C.....	11.1	19.0	15.2	11.1	7.5	4.0
Worcester, Mass.....	5.6	4.2	6.6	5.6	8.6	3.8

The mortality from malarial fever was greatest in the group of cities in nonregistration states, in which the average annual death rate was 8.2 per 100,000. The high rate is due to the fact that this group includes all the registration cities of the South, where the mor-

tality from malarial fever is very high, partly because of geographic location but chiefly because of the large negro population, among whom the mortality from this disease is excessive. In the census year 1900, the comparative mortality from malarial fever of the two races in the cities of nonregistration states was, white 8.8 per 100,000; colored 78.9.¹

The average annual death rate from malarial fever in the registration states was 4.2. Excluding the District of Columbia, which is coextensive with Washington city, the highest average rates in any of the states occurred in Indiana and Connecticut, and the lowest in Vermont and New Hampshire.

Comparing the cities and the rural districts in the registration states, it will be seen that in each year the mortality from this disease was greatest in the rural districts.

In the cities of 100,000 population and upward, by far the greatest mortality from this disease occurred in Memphis, Tenn., being more than 110 in every year, with an annual average of 140.2 and a range of from 204.3 in 1900 to 112.2 in 1901. Other of the principal cities in which the average annual rate was excessive were New Orleans (35.1) and Washington, D. C. (11.1). The rates from this disease were high in two boroughs of New York city (Bronx, 12.6, and Queens, 10.2); but the rate for the city as a whole (3.7) was about the same as the total for cities in the registration states (3.8).

Of the minor cities, the following showed a death rate from malarial fever in excess of 50 per 100,000 in one or more years: Charleston, S. C., in 1900 (69.9), in 1901 (85.9), and in 1902 (66.1); Jacksonville, Fla., in 1900 (239.2), in 1901 (280.9), in 1902 (153.2), in 1903 (151), and in 1904 (60.8); Meriden, Conn., in 1901 (55.1); Mobile, Ala., in 1900 (75.4), in 1901 (56.1), and in 1903 (51.6); Paducah, Ky., in 1900 (257.1), in 1901 (235.6), in 1902 (146.7), in 1903 (119.3), and in 1904 (121.2); Petersburg, Va., in 1902 (91.7), and in 1904 (55); San Antonio, Tex., in 1900 (82.5), in 1901 (65.6), and in 1903 (75.8); Savannah, Ga., in 1900 (169.6), in 1901 (150), in 1902 (138.7), in 1903 (92.7), and in 1904 (104.5); Vincennes, Ind., in 1900 (68.3); and Wilmington, N. C., in 1900 (262.2), in 1901 (246.8), in 1902 (264.7), in 1903 (178.8), and in 1904 (206.1).

The yearly death rates from malarial fever in each city in the registration area and in each county, exclusive of cities, in the registration states are given in Table iv (page lxxii).

The following table gives the number of deaths from malarial fever in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM MALARIAL FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	8,953	2,434	1,980	1,738	1,410	1,391
Sex:						
Male.....	4,509	1,206	1,008	917	673	705
Female.....	4,444	1,228	972	821	737	686
Age:						
Under 1 year.....	835	232	209	138	126	130
1 year.....	456	125	99	95	69	68
2 years.....	315	92	59	58	52	54
3 years.....	249	90	47	45	35	32
4 years.....	165	47	29	36	29	24
Under 5 years.....	2,020	586	443	372	311	308
5 to 9 years.....	565	144	145	109	73	94
10 to 14 years.....	326	91	80	59	52	44
15 to 19 years.....	481	136	101	94	82	68
20 to 24 years.....	569	160	129	102	94	84
25 to 29 years.....	527	145	107	105	91	79
30 to 34 years.....	467	125	100	95	77	70
35 to 39 years.....	456	119	111	88	62	76
40 to 44 years.....	382	99	74	81	64	64
45 to 49 years.....	386	97	99	63	54	73
50 to 54 years.....	428	110	93	97	53	75
55 to 59 years.....	421	114	90	84	67	66
60 to 64 years.....	445	107	91	96	80	71
65 to 69 years.....	427	117	80	94	76	60
70 to 74 years.....	426	126	86	91	62	61
75 to 79 years.....	299	82	68	45	50	54
80 to 84 years.....	173	40	42	36	31	24
85 to 89 years.....	84	23	21	15	16	9
90 to 94 years.....	25	2	6	7	7	3
95 years and over.....	9	3	2	2	1	1
Unknown.....	37	8	12	3	7	7

In general the number of deaths from malarial fever was slightly greater among males than among females. The 8,953 deaths from this disease during the five years represent 4,509 males and 4,444 females, being in the proportion of 504 males to 496 females.

The following table gives the number and proportion of deaths from malarial fever in each month in the registration area:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM MALARIAL FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
All months.....	8,953	2,434	1,980	1,738	1,410	1,391
January.....	391	89	91	91	58	62
February.....	366	117	60	70	51	68
March.....	439	130	80	90	65	74
April.....	478	125	105	94	76	78
May.....	644	165	132	132	105	110
June.....	739	167	169	151	126	126
July.....	962	209	244	208	183	118
August.....	1,166	311	261	244	192	158
September.....	1,356	390	315	240	164	217
October.....	1,176	372	258	194	168	184
November.....	735	219	159	129	120	108
December.....	490	140	106	94	67	83
Unknown.....	11			1	5	5
Per 1,000 distribution.						
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	43.7	36.6	46.0	52.4	41.3	44.7
February.....	40.9	48.1	30.3	40.3	36.3	49.1
March.....	49.1	53.4	40.4	51.8	46.3	53.4
April.....	53.5	51.3	53.0	54.1	54.1	56.3
May.....	72.0	67.8	66.7	76.0	74.7	79.4
June.....	82.6	68.6	85.4	86.9	89.7	90.9
July.....	107.6	85.9	123.2	119.7	130.2	85.1
August.....	130.4	127.8	131.8	140.5	136.6	114.0
September.....	151.7	160.2	159.1	138.2	138.1	156.6
October.....	131.5	152.8	130.3	111.7	119.6	132.7
November.....	82.2	90.0	80.3	74.3	85.4	77.9
December.....	54.8	57.5	53.5	54.1	47.7	59.9

¹ Twelfth Census, Vital Statistics, Part I, page cxxxvii.

Smallpox.—The deaths from smallpox in the registration area, 1900 to 1904, numbered 5,898, the average annual death rate from this disease being 3.7 per 100,000. There were 611 deaths in 1900; 1,085 in 1901; 2,111 in 1902; 1,382 in 1903; and 709 in 1904.

The following table shows the yearly death rates in the registration area of the United States in comparison with those of certain European countries:

COUNTRY.	NUMBER OF DEATHS FROM SMALLPOX PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States	1.9	3.5	6.6	4.3	2.1
England and Wales	0.3	1.0	7.5	2.3	(1)
Scotland	1.0	6.0	2.0	1.0	(1)
Hungary	4.0	4.0	2.0	1.0	(1)
Belgium	3.0	4.0	9.0	23.0	(1)
Spain	35.0	28.0	30.0	(1)	(1)
Italy	1.0	19.0	7.0	18.0	(1)

¹ No figures available.

The following table shows the average annual and the yearly death rates from smallpox in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 or more population:

AREA.	NUMBER OF DEATHS FROM SMALLPOX PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average	1900	1901	1902	1903	1904
The registration area	3.7	1.9	3.5	6.6	4.3	2.1
Registration cities	4.6	2.7	4.4	7.9	5.4	2.5
Registration states	2.6	0.3	3.6	6.5	1.5	0.8
Cities in registration states	3.4	0.3	5.5	9.0	1.8	0.6
Rural part of registration states	1.5	0.3	1.3	3.4	1.2	1.2
Registration cities in other states	5.8	5.1	3.2	6.8	9.2	4.5
Registration states:						
Connecticut	0.4	.....	0.4	1.5	0.1	.....
District of Columbia	0.7	1.4	.....	0.3	0.7	0.3
Indiana	3.2	0.9	0.8	3.0	7.5	3.7
Maine	0.7	0.4	.....	1.6	1.0	0.4
Massachusetts	2.8	0.1	3.4	9.7	0.7	0.3
Michigan	1.0	0.4	1.1	1.6	1.2	1.1
New Hampshire	0.7	0.2	1.2	1.7	.....	0.5
New Jersey	6.2	0.3	7.2	21.8	0.8	1.2
New York	2.5	0.2	5.9	5.9	0.5	0.2
Rhode Island	2.0	0.2	1.1	8.3	0.7	.....
Vermont	0.3	.....	.....	0.6	0.9	.....
Registration cities of 100,000 population or over:						
Allegheny, Pa.	22.1	0.8	0.7	5.9	38.4	12.1
Baltimore, Md.	0.6	.....	.....	1.3	0.4	0.7
Boston, Mass.	9.4	.....	13.1	32.4	2.2	.....
Buffalo, N. Y.	0.5	.....	.....	0.6	0.8	1.0
Chicago, Ill.	1.0	0.2	0.2	0.3	2.5	1.5
Cincinnati, Ohio	2.4	2.5	0.3	1.8	4.2	3.5
Cleveland, Ohio	14.9	5.0	5.1	57.8	5.5	1.4
Columbus, Ohio	7.6	.....	.....	0.8	36.9	.....
Denver, Colo.	.....	.....	1.5	.....	.....	.....
Detroit, Mich.	1.3	0.3	0.3	2.3	3.6	0.3
Fall River, Mass.	0.9	1.0	0.9	1.8	0.9	.....
Indianapolis, Ind.	12.9	.....	1.1	9.1	52.1	.....
Jersey City, N. J.	1.4	.....	1.4	5.1	0.5	.....
Kansas City, Mo.	4.7	5.5	3.6	4.7	4.6	4.5
Louisville, Ky.	2.8	0.5	1.0	1.4	7.9	3.2
Memphis, Tenn.	5.5	2.9	9.4	4.6	1.8	7.7
Milwaukee, Wis.	0.3	.....	0.3	0.5	0.3	0.3
Minneapolis, Minn.	3.3	4.4	0.5	.....	4.2	7.8
New Haven, Conn.	.....	.....	.....	.....	.....	.....
New Orleans, La.	34.8	158.1	17.8	1.4	1.3	.....

AREA.	NUMBER OF DEATHS FROM SMALLPOX PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average	1900	1901	1902	1903	1904
Registration cities of 100,000 population or over—Continued.						
New York, N. Y.	4.0	0.3	11.2	8.5	0.1	0.2
Bronx borough	47.1	3.0	147.4	90.7	1.3	0.4
Brooklyn borough	2.3	.....	4.0	7.1	0.2	0.4
Manhattan borough	0.6	0.3	1.7	0.9	.....	.....
Queens borough	.....	.....	1.3	.....	.....	.....
Richmond borough	.....	.....	.....	1.4	.....	.....
Newark, N. J.	20.5	0.4	28.2	72.9	1.1	.....
Omaha, Nebr.	0.9	.....	2.8	2.7	.....	0.9
Paterson, N. J.	0.9	0.9	0.9	4.5	.....	.....
Philadelphia, Pa.	13.5	.....	13.5	16.2	20.6	16.2
Pittsburg, Pa.	27.3	.....	1.2	36.5	91.3	5.7
Providence, R. I.	1.1	.....	1.1	4.4	.....	.....
Rochester, N. Y.	11.9	.....	.....	45.8	14.1	.....
St. Joseph, Mo.	3.7	1.0	6.6	8.3	0.9	1.8
St. Louis, Mo.	2.5	0.5	1.4	1.5	0.6	8.2
St. Paul, Minn.	2.4	0.6	0.6	.....	9.3	1.1
San Francisco, Cal.	0.6	1.4	0.3	.....	0.6	.....
Scranton, Pa.	0.9	.....	.....	0.9	1.8	.....
Syracuse, N. Y.	.....	.....	.....	.....	.....	.....
Toledo, Ohio	2.1	.....	.....	7.8	2.1	.....
Washington, D. C.	0.7	1.4	.....	0.3	0.7	0.3
Worcester, Mass.	0.8	.....	3.3	0.8	.....	.....

The average annual mortality from smallpox was greatest in the cities in the nonregistration states (5.8), and least in the rural part of the registration states (1.5). In the registration states it was greatest in New Jersey (6.2).

In the principal cities the average annual rates were highest in New Orleans, La. (34.8); Pittsburg, Pa. (27.3); Allegheny, Pa. (22.1); Newark, N. J. (20.5); Cleveland, Ohio (14.9); Philadelphia, Pa. (13.5); Indianapolis, Ind. (12.9); and Rochester, N. Y. (11.9). The high mortality in Bronx borough of New York city (47.1) is due to the fact that patients contracting the disease in Manhattan and the other boroughs are sent to Riverside Hospital, which is located in Bronx borough.

The localization and control of the disease are shown by the fact that the high average annual rates are due mostly to epidemics, causing a high mortality in one or more years, with little or none in the following years.

In the minor cities also the mortality from smallpox shows wide variations. It was excessively high in some places, exceeding 40 per 100,000 in Bellaire, Ohio, in 1903 (90.8); Ironton, Ohio, in 1903 (41.6) and in 1904 (49.7); Johnstown, Pa., in 1902 (59.1); Marietta, Ohio, in 1903 (47.1); Plymouth, Pa., in 1901 (99.5); Portsmouth, Ohio, in 1903 (41.5); Terre Haute, Ind., in 1904 (50.9); Washington, Ind., in 1903 (129.1); and Woonsocket, R. I., in 1902 (84.2).

The yearly death rates from smallpox in each city in the registration area and in each county, exclusive of cities, in the registration states, are given in Table iv (page lxxii).

The number of deaths from smallpox in the registra-

tion area, in the aggregate, and for each year, are shown by sex and by age, in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM SMALLPOX: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	5,898	611	1,085	2,111	1,382	709
Sex:						
Male.....	3,714	381	660	1,355	872	446
Female.....	2,184	230	425	756	510	263
Age:						
Under 1 year.....	653	40	156	250	141	66
1 year.....	282	18	73	108	52	31
2 years.....	211	13	49	93	31	25
3 years.....	157	8	47	54	32	16
4 years.....	119	8	23	48	22	18
Under 5 years.....	1,422	87	348	553	278	156
5 to 9 years.....	258	30	59	104	44	21
10 to 14 years.....	108	27	18	31	18	14
15 to 19 years.....	308	50	36	96	80	46
20 to 24 years.....	752	110	115	230	213	84
25 to 29 years.....	766	91	113	272	194	96
30 to 34 years.....	565	51	101	201	137	75
35 to 39 years.....	519	50	85	182	146	56
40 to 44 years.....	362	31	65	131	91	44
45 to 49 years.....	255	26	45	95	56	33
50 to 54 years.....	175	18	21	66	44	26
55 to 59 years.....	131	17	28	42	28	16
60 to 64 years.....	77	7	13	30	14	13
65 to 69 years.....	80	10	16	27	14	13
70 to 74 years.....	35	2	6	13	10	4
75 to 79 years.....	30	4	6	13	3	4
80 to 84 years.....	14	.....	4	6	4	.....
85 to 89 years.....	3	.....	1	2	.....	.....
90 to 94 years.....	1	.....	.....	1	.....	.....
95 years and over.....	2	.....	.....	1	.....	1
Unknown.....	35	.....	5	16	7	7

Of the total number of deaths from smallpox during the five years (5,898), 3,714 were of males and 2,184 of females—a proportion of 630 males to 370 females.

Measles.—The total number of deaths from measles in the registration area, 1900 to 1904, was 16,065, and the average annual death rate was 10.1 per 100,000. The greatest mortality from this disease occurred in 1900, when 3,865 deaths were registered, the death rate being 12.5. In 1901 there were 2,287 deaths and a death rate of 7.3. The number rose to 3,033 in 1902, in which year the rate was 9.5. In 1903 there were 3,221 deaths, with a death rate of 9.9, and in 1904, 3,659 deaths, with a rate of 11.1.

The annual death rates from measles in the registration area of the United States in comparison with those of certain European countries are shown in the following table:

COUNTRY.	NUMBER OF DEATHS FROM MEASLES PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	12.5	7.3	9.5	9.9	11.1
England and Wales.....	39.4	27.6	39.2	27.4	(1)
Scotland.....	42.0	37.0	31.0	25.0	(1)
Ireland.....	14.0	10.0	24.0	16.0	(1)
Germany.....	23.0	31.0	26.0	(1)	(1)
Norway.....	10.0	5.0	13.0	(1)	(1)
Sweden.....	9.0	7.0	12.0	(1)	(1)
Hungary.....	38.0	41.0	52.0	35.0	(1)
The Netherlands.....	26.0	52.0	46.0	23.0	(1)
Belgium.....	39.0	30.0	48.0	33.0	(1)
Switzerland.....	25.0	25.0	14.0	16.0	(1)
Spain.....	65.0	99.0	57.0	(1)	(1)
Italy.....	27.0	17.0	30.0	22.0	(1)

¹ No figures available.

The figures in the preceding table show that the mortality from measles in the registration area of the

United States was very much lower than in any of the European countries in each year except 1900 and 1901, in which the rates were slightly lower in Norway and Sweden.

The following table gives the average annual and the yearly death rates from measles, 1900 to 1904, in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 or more population:

AREA.	NUMBER OF DEATHS FROM MEASLES PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	10.1	12.5	7.3	9.5	9.9	11.1
Registration cities.....	11.1	13.8	7.5	11.1	11.3	11.8
Registration states.....	10.0	13.4	7.4	9.3	8.8	11.4
Cities in registration states.....	11.9	16.4	7.7	12.1	10.7	12.9
Rural part of registration states.....	7.7	9.8	6.9	5.8	6.4	9.3
Registration cities in other states.....	10.2	11.1	7.2	10.0	12.0	10.6
Registration states:						
Connecticut.....	12.4	18.9	7.9	4.8	22.2	8.2
District of Columbia.....	8.3	16.1	3.9	5.2	15.3	1.3
Indiana.....	8.5	4.7	8.0	4.5	6.4	18.6
Maine.....	5.3	8.8	4.2	4.3	5.7	3.2
Massachusetts.....	9.7	11.6	8.0	11.3	9.2	8.5
Michigan.....	8.0	13.2	3.1	9.4	6.9	7.5
New Hampshire.....	4.8	5.8	1.4	4.8	9.9	1.6
New Jersey.....	7.8	11.5	3.6	11.0	3.0	10.0
New York.....	12.2	16.1	10.1	11.5	8.6	14.6
Rhode Island.....	16.8	42.9	3.7	5.2	30.4	3.5
Vermont.....	6.6	7.9	9.3	6.4	8.4	0.9
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	23.6	9.2	27.0	38.3	29.0	15.7
Baltimore, Md.....	6.7	6.5	1.4	8.2	15.6	1.7
Boston, Mass.....	16.8	17.7	21.3	12.3	10.3	22.3
Buffalo, N. Y.....	11.3	14.2	6.1	18.3	8.4	9.5
Chicago, Ill.....	9.7	12.7	10.2	8.2	15.4	2.8
Cincinnati, Ohio.....	14.2	1.2	18.3	17.3	9.9	23.1
Cleveland, Ohio.....	5.2	2.3	4.1	4.5	2.9	12.2
Columbus, Ohio.....	9.1	7.2	.....	16.6	11.8	7.9
Denver, Colo.....	10.0	8.2	4.4	15.3	2.7	18.2
Detroit, Mich.....	12.6	18.9	4.4	22.9	4.8	12.9
Fall River, Mass.....	10.8	16.2	1.9	20.7	11.4	6.0
Indianapolis, Ind.....	4.3	1.2	2.8	.....	7.1	8.3
Jersey City, N. J.....	7.0	8.2	7.6	7.0	8.2	4.9
Kansas City, Mo.....	6.5	6.7	.....	14.7	1.7	10.2
Louisville, Ky.....	3.3	7.8	1.0	2.4	.....	6.4
Memphis, Tenn.....	12.7	43.0	1.9	1.8	3.5	17.0
Milwaukee, Wis.....	6.6	6.3	4.7	8.2	1.3	12.8
Minneapolis, Minn.....	3.8	1.5	7.7	1.4	8.4	0.9
New Haven, Conn.....	13.3	7.4	10.0	6.2	26.2	14.6
New Orleans, La.....	6.4	21.2	0.3	0.3	0.7	10.5
New York, N. Y.....	16.5	20.8	10.2	17.7	11.5	22.0
Bronx borough.....	33.2	30.9	17.5	50.2	11.5	48.1
Brooklyn borough.....	18.3	24.9	11.5	18.7	12.2	24.2
Manhattan borough.....	14.4	17.8	9.1	13.8	11.3	20.1
Queens borough.....	6.6	11.8	1.9	6.0	12.2	1.1
Richmond borough.....	10.0	22.4	16.0	4.3	5.6	5.5
Newark, N. J.....	13.1	23.2	6.7	20.9	0.8	14.0
Omaha, Nebr.....	5.5	0.9	.....	13.7	4.4	8.5
Paterson, N. J.....	6.3	1.9	0.9	17.2	0.9	12.1
Philadelphia, Pa.....	16.4	26.7	3.5	11.8	17.3	22.3
Pittsburg, Pa.....	30.2	28.6	17.3	54.3	26.1	24.4
Providence, R. I.....	22.9	56.4	1.7	3.8	51.4	3.2
Rochester, N. Y.....	6.5	6.1	9.1	0.6	15.2	0.6
St. Joseph, Mo.....	6.5	.....	0.9	22.2	0.9	8.0
St. Louis, Mo.....	7.3	4.2	2.4	1.0	23.3	5.1
St. Paul, Minn.....	4.7	1.2	7.2	7.1	7.6	1.7
San Francisco, Cal.....	9.4	3.8	14.1	12.2	9.3	6.9
Scranton, Pa.....	5.6	4.9	8.6	1.9	8.2	5.3
Syracuse, N. Y.....	7.1	11.1	0.9	5.3	14.0	4.3
Toledo, Ohio.....	7.1	5.3	5.1	11.3	3.4	8.6
Washington, D. C.....	8.3	16.1	3.9	5.2	15.3	1.3
Worcester, Mass.....	12.0	26.2	2.5	7.2	22.5	2.3

The preceding table shows that the average annual mortality from measles in the registration states was highest in Rhode Island (16.8), Connecticut (12.4), and New York (12.2); and lowest in New Hampshire (4.8), Maine (5.3), and Vermont (6.6).

In the large cities specified the average annual mortality from measles was greatest in Pittsburg (30.2) and Allegheny (23.6).

The yearly death rates from measles in each of the cities in the registration area and in each county, exclusive of cities, in the registration states are given in full in Table iv (page lxxii).

The following table gives the number of deaths from measles in the registration area, in the aggregate and for each year, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM MEASLES: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	16,065	3,865	2,287	3,033	3,221	3,659
Sex:						
Male.....	8,264	1,894	1,212	1,604	1,680	1,874
Female.....	7,801	1,971	1,075	1,429	1,541	1,785
Age:						
Under 1 year.....	3,960	938	533	786	765	938
1 year.....	5,008	1,210	666	974	1,036	1,122
2 years.....	2,262	551	311	421	461	518
3 years.....	1,074	242	156	208	233	235
4 years.....	683	166	101	122	141	153
Under 5 years.....	12,987	3,107	1,707	2,511	2,636	2,966
5 to 9 years.....	1,381	330	182	254	305	310
10 years and over.....	1,681	422	336	267	277	379
Unknown.....	16	6	2	1	3	4

In general, there were more deaths from measles among males than among females, the division as to sex being 8,264 of the former and 7,801 of the latter—a proportion of 514 males to 486 females.

About 80 per cent of the deaths from measles occurred under 5 years of age and approximately 90 per cent under 10 years.

The following table gives the number and proportion of deaths from measles in the registration area in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM MEASLES: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	16,065	3,865	2,287	3,033	3,221	3,659
January.....	1,505	422	155	305	218	405
February.....	1,805	501	212	351	277	464
March.....	2,293	609	244	388	392	660
April.....	2,388	587	289	427	462	623
May.....	2,451	575	322	502	504	548
June.....	1,805	406	307	365	399	328
July.....	1,162	281	195	243	265	178
August.....	529	130	86	95	139	79
September.....	246	50	35	45	72	44
October.....	295	63	56	57	68	51
November.....	574	98	117	90	149	120
December.....	1,003	143	269	165	270	156
Unknown.....	9				6	3
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	93.7	109.2	67.8	100.6	67.8	110.8
February.....	112.4	129.6	92.7	115.7	86.2	126.9
March.....	142.8	157.6	106.7	127.9	121.9	180.5
April.....	148.7	151.9	126.4	140.8	143.7	170.4
May.....	152.7	148.8	140.8	165.5	156.8	149.9
June.....	112.4	105.0	134.2	120.4	124.1	89.7
July.....	72.4	72.7	85.3	80.1	82.4	48.7
August.....	32.9	33.6	37.6	31.3	43.2	21.6
September.....	15.3	12.9	15.3	14.8	22.4	12.0
October.....	18.4	16.3	24.5	18.8	21.2	14.0
November.....	35.8	25.4	51.1	29.7	46.3	32.8
December.....	62.5	37.0	117.6	54.4	84.0	42.7

Scarlet fever.—There were 18,890 deaths from scarlet fever recorded in the registration area, 1900 to 1904. The greatest number in any year occurred in 1901 (4,113). In 1900 there were 3,135; in 1902, 4,041; in 1903, 3,991; and in 1904, 3,610. The average annual death rate from this disease was 11.8 per 100,000.

The yearly death rates from scarlet fever in the registration area of the United States are shown in the following table, in comparison with the rates in certain European countries:

COUNTRY.	NUMBER OF DEATHS FROM SCARLET FEVER PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States....	10.2	13.1	12.7	12.3	10.9
England and Wales.....	11.9	13.3	14.8	12.5	(1)
Scotland.....	15.0	13.0	12.0	9.0	(1)
Ireland.....	5.0	5.0	4.0	5.0	(1)
Germany.....	25.0	25.0	24.0	(1)	(1)
Norway.....	8.0	5.0	5.0	(1)	(1)
Sweden.....	8.0	9.0	8.0	(1)	(1)
Hungary.....	50.0	59.0	72.0	82.0	(1)
The Netherlands.....	3.0	2.0	2.0	2.0	(1)
Belgium.....	20.0	21.0	14.0	10.0	(1)
Switzerland.....	1.0	2.0	2.0	5.0	(1)
Spain.....	7.0	6.0	6.0	(1)	(1)
Italy.....	5.0	4.0	4.0	6.0	(1)

¹No figures available.

The mortality from scarlet fever in this country was about the same as in England and Wales and Scotland. It was less, on the average, than in Belgium, much less than in Germany and Hungary, but greater than in any other of the countries included in this comparison.

The average annual and the yearly death rates from scarlet fever in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 or more population are shown in the first table on page xxviii.

From those figures it appears that the mortality from scarlet fever was greatest in the cities in the registration states in each year, and that in those cities the average death rate (15.7) was more than twice the rate for the rural districts of the same states (7).

Taking the registration states as a whole, the average annual death rates from this disease were highest in New York (15.5), New Jersey (13.7), Massachusetts (12.2), and Connecticut (11.7); and lowest in Maine (2.7), District of Columbia (3.1), New Hampshire (4.8), and Vermont (5.8).

In the large cities the average mortality from scarlet fever was greatest in Denver, Colo. (24.9); Newark, N. J. (24.8); New York, N. Y. (23.6); Scranton, Pa. (22.4); Pittsburg, Pa. (21.9); Boston, Mass. (21.8); and Jersey City, N. J. (20.5).

In many of the minor cities there was an excessively high death rate from scarlet fever in one or more years. It exceeded 100 in Amsterdam, N. Y., in 1902 (193.7) and in 1903 (112.6); Barre, Vt., in 1901 (101.4) and 1902 (107.4); Chicopee, Mass., in 1903 (207.7); Dun-

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kirk, N. Y., in 1903 (105.9) and 1904 (312.1); Johnstown, Pa., in 1902 (113.1); Keene, N. H., in 1901 (246.3); Kingston, N. Y., in 1901 (116.7); Mahanoy City, Pa., in 1903 (218.8); Mt. Carmel, Pa., in 1904 (145.2); Naugatuck, Conn., in 1902 (184.1); New Bedford, Mass., in 1903 (216.1); Newburg, N. Y., in 1902 (102.7); Superior, Wis., in 1903 (105.9); and Webster, Mass., in 1902 (142).

AREA.	NUMBER OF DEATHS FROM SCARLET FEVER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	11.8	10.2	13.1	12.7	12.3	10.9
Registration cities.....	13.8	11.6	15.5	15.4	14.3	12.4
Registration states.....	11.8	9.6	13.5	11.9	12.3	11.6
Cities in registration states.....	15.7	11.9	18.5	16.6	16.2	15.1
Rural part of registration states.....	7.0	6.8	7.5	6.1	7.4	7.1
Registration cities in other states.....	12.0	11.4	12.5	14.1	12.3	9.7
Registration states:						
Connecticut.....	11.7	7.6	9.2	17.0	15.5	8.2
District of Columbia.....	3.1	5.4	3.9	2.1	0.7	3.7
Indiana.....	6.6	5.5	6.1	6.0	7.2	8.3
Maine.....	2.7	5.2	2.9	1.8	2.7	1.3
Massachusetts.....	12.2	14.2	13.8	10.6	17.4	5.1
Michigan.....	10.1	11.2	12.4	20.7	8.0	8.3
New Hampshire.....	4.8	6.1	12.8	0.5	2.6	2.3
New Jersey.....	13.7	9.9	9.9	11.7	15.1	21.4
New York.....	15.5	9.9	19.9	16.6	14.7	16.1
Rhode Island.....	9.4	7.7	4.8	6.3	13.0	15.2
Vermont.....	5.8	4.7	11.3	9.0	1.4	2.6
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	19.9	13.1	30.0	20.6	21.0	16.4
Baltimore, Md.....	11.5	3.9	2.3	7.1	16.2	26.9
Boston, Mass.....	21.8	34.9	38.8	17.1	12.1	7.6
Buffalo, N. Y.....	6.7	7.7	12.1	2.9	7.1	4.1
Chicago, Ill.....	15.1	14.1	11.1	26.4	16.3	7.8
Cincinnati, Ohio.....	10.6	8.3	7.9	17.9	11.1	7.9
Cleveland, Ohio.....	6.9	9.7	10.2	10.2	4.3	0.9
Columbus, Ohio.....	10.6	8.8	14.7	6.8	12.5	10.1
Denver, Colo.....	24.9	20.9	47.2	24.1	19.0	14.1
Detroit, Mich.....	13.3	6.3	18.0	24.2	7.1	11.3
Fall River, Mass.....	11.7	1.9	1.9	33.4	16.7	3.4
Indianapolis, Ind.....	4.8	10.6	5.7	3.8	5.1	1.0
Jersey City, N. J.....	20.5	15.0	15.7	17.7	12.3	41.1
Kansas City, Mo.....	10.6	6.7	16.8	8.8	8.1	11.4
Louisville, Ky.....	3.3	2.0	2.4	2.4	6.0	3.2
Memphis, Tenn.....	8.2	5.9	5.7	10.0	5.3	15.3
Milwaukee, Wis.....	9.5	24.5	5.1	2.0	3.5	13.4
Minneapolis, Minn.....	11.9	7.9	7.3	15.2	13.1	15.1
New Haven, Conn.....	7.1	6.5	4.5	7.1	13.1	5.1
New Orleans, La.....	7.1	6.6	21.3	4.7	2.7	0.7
New York, N. Y.....	23.6	14.1	33.5	25.9	21.2	23.2
Bronx borough.....	59.2	14.9	44.9	34.4	73.5	72.2
Brooklyn borough.....	23.6	11.8	30.3	23.1	20.7	22.8
Manhattan borough.....	20.9	15.9	30.8	22.4	16.6	13.7
Queens borough.....	12.0	14.4	15.0	7.8	12.7	10.6
Richmond borough.....	14.3		14.6	25.7	4.2	26.0
Newark, N. J.....	24.8	22.3	9.1	18.6	26.8	45.0
Omaha, Nebr.....	10.0	6.8	12.2	12.8	11.5	6.8
Paterson, N. J.....	10.0	10.5	7.4	16.3	1.8	13.8
Philadelphia, Pa.....	14.1	12.7	17.2	10.1	14.7	15.8
Pittsburg, Pa.....	21.9	15.9	34.9	26.4	21.2	11.6
Providence, R. I.....	10.4	5.1	5.0	4.4	13.3	22.6
Rochester, N. Y.....	8.9	6.8	2.4	7.7	7.0	20.2
St. Joseph, Mo.....	2.8		3.8	2.8	4.5	3.5
St. Louis, Mo.....	13.7	10.6	10.6	21.0	15.8	10.6
St. Paul, Minn.....	8.9	4.9	10.2	10.1	14.5	4.6
San Francisco, Cal.....	3.7	3.2	3.7	5.1	3.7	2.5
Scranton, Pa.....	22.4	96.1	7.6	2.8	5.5	2.7
Syracuse, N. Y.....	8.0	0.9	4.5	5.3	1.7	25.8
Toledo, Ohio.....	7.1	19.0	8.1	6.4	2.1	0.7
Washington, D. C.....	3.1	5.4	3.9	2.1	0.7	3.7
Worcester, Mass.....	12.0	31.2	10.7	12.8	5.4	2.3

The yearly death rates from scarlet fever in each of the cities in the registration area and in each county, exclusive of cities, in the registration states are given in full in Table iv (page lxxii).

The following table gives the number of deaths from scarlet fever in the registration area, in the aggregate, and for each year, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM SCARLET FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	18,890	3,135	4,113	4,041	3,991	3,610
Sex:						
Male.....	9,627	1,612	2,109	2,067	2,016	1,823
Female.....	9,263	1,523	2,004	1,974	1,975	1,787
Age:						
Under 1 year.....	986	189	210	219	179	189
1 year.....	2,125	352	483	458	420	412
2 years.....	2,756	508	594	608	536	510
3 years.....	2,689	502	589	549	541	508
4 years.....	2,257	372	513	465	481	426
Under 5 years.....	10,813	1,923	2,389	2,299	2,137	2,045
5 to 9 years.....	5,536	866	1,174	1,219	1,251	1,026
10 to 14 years.....	1,291	167	272	284	303	265
15 years and over.....	1,232	175	272	235	277	273
Unknown.....	18	4	6	4	3	1

The figures by sex show that in each year there were more deaths of males than of females from scarlet fever, the proportion for the five years being 510 males to 490 females. About 57 per cent of the deaths from this disease occurred under 5 years of age, and approximately 95 per cent under 15 years.

The following table shows, for the registration area, the number and proportion of deaths from scarlet fever in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM SCARLET FEVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Number.						
All months.....	18,890	3,135	4,113	4,041	3,991	3,610
January.....	2,180	398	396	460	400	517
February.....	2,080	403	400	463	331	483
March.....	2,127	380	502	422	369	454
April.....	2,196	336	509	460	405	486
May.....	2,218	331	477	511	478	421
June.....	1,599	233	352	343	411	263
July.....	1,197	169	267	250	330	181
August.....	809	134	175	194	196	110
September.....	681	103	146	160	160	112
October.....	961	164	206	224	217	150
November.....	1,240	218	302	254	297	169
December.....	1,590	266	381	290	392	261
Unknown.....	12			1	5	6
Per 1,000 distribution.						
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	115.5	127.0	96.3	116.1	100.4	143.5
February.....	110.2	128.6	97.3	114.6	83.0	134.0
March.....	112.7	121.2	122.0	104.4	92.6	126.0
April.....	116.3	107.2	123.8	113.9	101.6	134.9
May.....	117.5	105.6	116.0	126.5	119.9	116.8
June.....	84.7	74.3	85.6	84.9	103.1	72.1
July.....	63.4	53.9	64.0	61.9	82.8	50.2
August.....	42.8	42.7	42.5	48.0	49.2	30.5
September.....	36.1	32.9	35.5	30.6	40.1	31.1
October.....	50.9	52.3	50.1	55.4	54.4	41.6
November.....	65.7	69.5	73.4	62.9	74.5	46.9
December.....	84.2	84.8	92.6	71.8	98.4	72.4

Whooping cough.—The total number of deaths from whooping cough recorded in the registration area during the period 1900 to 1904 was 17,978, and the average annual death rate, 11.3. The greatest number of

deaths in any one year occurred in 1903, when the number was 5,171 and the death rate, 15.9.

The yearly death rates from whooping cough in the registration area of the United States are shown in the following table, in comparison with the rates in certain European countries:

COUNTRY.	NUMBER OF DEATHS FROM WHOOPING COUGH PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	12.1	9.8	12.1	15.9	6.6
England and Wales.....	35.6	31.3	29.7	28.5	(1)
Scotland.....	41.0	62.0	39.0	43.0	(1)
Ireland.....	15.0	25.0	23.0	24.0	(1)
Germany.....	35.0	37.0	35.0	(1)	(1)
Norway.....	17.0	15.0	21.0	(1)	(1)
Sweden.....	12.0	17.0	21.0	(1)	(1)
Hungary.....	40.0	36.0	65.0	48.0	(1)
The Netherlands.....	23.0	23.0	20.0	13.0	(1)
Belgium.....	52.0	35.0	38.0	39.0	(1)
Switzerland.....	21.0	25.0	15.0	17.0	(1)
Spain.....	26.0	21.0	23.0	(1)	(1)
Italy.....	23.0	21.0	22.0	20.0	(1)

¹ No figures available.

It appears from these figures that the annual death rate from whooping cough in the United States was very much less than in any of the foreign countries cited, with the one exception of Sweden in 1900, when the rate in that country was practically the same as in this.

The following table gives the annual and the average death rates from whooping cough in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 population or more:

AREA.	NUMBER OF DEATHS FROM WHOOPING COUGH PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	11.3	12.1	9.8	12.1	15.9	6.6
Registration cities.....	12.2	13.1	10.5	13.1	17.4	7.0
Registration states.....	10.7	12.3	8.7	12.4	14.3	5.8
Cities in registration states.....	12.0	14.4	9.3	14.6	16.0	5.9
Rural part of registration states.....	9.1	9.8	7.9	9.7	12.2	5.7
Registration cities in other states.....	12.4	11.8	11.8	11.6	18.9	8.0
Registration states:						
Connecticut.....	14.7	14.4	11.5	15.5	25.2	6.6
District of Columbia.....	26.7	31.6	22.2	42.3	24.2	13.1
Indiana.....	9.5	12.4	9.7	9.1	10.6	6.0
Maine.....	9.1	10.7	4.3	7.3	15.3	7.8
Massachusetts.....	12.5	14.1	9.0	13.5	20.7	5.4
Michigan.....	9.2	7.8	6.6	10.6	15.2	5.7
New Hampshire.....	8.8	9.7	6.7	7.4	15.2	4.9
New Jersey.....	12.2	15.6	9.2	15.4	14.4	6.8
New York.....	9.5	11.4	8.5	12.0	10.2	5.5
Rhode Island.....	15.1	16.6	3.9	17.7	35.1	1.7
Vermont.....	7.5	6.1	11.0	9.8	4.3	6.6
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	26.6	14.6	40.5	10.2	34.8	24.9
Baltimore, Md.....	11.0	11.2	12.6	16.4	13.2	4.8
Boston, Mass.....	17.3	18.7	11.9	23.0	25.6	7.3
Buffalo, N. Y.....	9.7	7.1	17.4	7.3	14.4	2.8
Chicago, Ill.....	12.6	16.9	12.6	13.3	13.7	7.2
Cincinnati, Ohio.....	5.4	5.5	5.8	6.7	6.9	2.0
Cleveland, Ohio.....	6.7	5.5	2.8	9.2	13.0	2.3
Columbus, Ohio.....	9.8	13.5	3.0	12.1	18.5	1.5
Denver, Colo.....	8.5	8.2	2.2	11.7	7.5	14.1
Detroit, Mich.....	11.6	7.3	10.2	18.9	18.7	2.2

AREA.	NUMBER OF DEATHS FROM WHOOPING COUGH PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Registration cities of 100,000 population or over—Continued.						
Fall River, Mass.....	9.0	12.4	.....	21.6	11.4	1.7
Indianapolis, Ind.....	7.0	9.5	2.8	9.1	11.6	1.0
Jersey City, N. J.....	12.5	10.2	9.5	18.6	10.5	13.0
Kansas City, Mo.....	6.5	4.3	1.8	12.4	9.8	4.0
Louisville, Ky.....	10.8	21.5	3.4	7.5	20.4	0.9
Memphis, Tenn.....	20.9	35.2	2.8	10.0	47.5	10.2
Milwaukee, Wis.....	7.9	7.7	3.1	8.5	10.6	3.4
Minneapolis, Minn.....	8.1	3.9	9.7	10.5	8.4	7.8
New Haven, Conn.....	21.3	21.3	23.6	29.4	20.1	11.1
New Orleans, La.....	5.7	2.8	8.2	4.4	9.3	3.6
New York, N. Y.....	10.1	14.3	6.6	15.9	8.5	5.5
Bronx borough.....	9.9	15.5	3.3	18.8	8.1	5.3
Brooklyn borough.....	12.0	20.1	7.8	17.3	9.8	5.9
Manhattan borough.....	8.8	10.7	6.4	14.4	7.3	5.3
Queens borough.....	10.2	12.4	4.4	16.2	12.7	5.6
Richmond borough.....	11.4	13.4	5.8	24.3	8.4	2.7
Newark, N. J.....	14.3	17.0	14.3	15.9	38.8	4.8
Omaha, Neb.....	10.0	5.8	11.3	18.2	3.5	10.3
Paterson, N. J.....	10.0	11.4	9.3	9.0	15.9	5.2
Philadelphia, Pa.....	16.0	8.6	18.7	13.9	31.7	6.9
Pittsburg, Pa.....	29.1	24.3	29.1	23.7	48.7	19.6
Providence, R. I.....	16.9	22.8	7.2	14.2	30.6	1.1
Rochester, N. Y.....	4.8	9.2	4.2	4.8	4.7	0.6
St. Joseph, Mo.....	2.8	1.0	1.9	6.5	.....	3.5
St. Louis, Mo.....	8.0	1.2	6.0	12.2	13.8	6.9
St. Paul, Minn.....	7.1	7.4	3.0	11.2	5.8	8.6
San Francisco, Cal.....	13.9	8.8	13.8	1.7	30.6	14.4
Scranton, Pa.....	8.4	2.0	14.3	15.9	4.6	6.2
Syracuse, N. Y.....	9.8	11.1	7.2	10.7	20.1	0.9
Toledo, Ohio.....	6.4	7.6	11.0	3.6	10.3	.....
Washington, D. C.....	26.7	31.6	22.2	42.3	24.2	13.1
Worcester, Mass.....	16.0	24.5	13.1	20.8	11.7	10.6

The following table shows, for the registration area, the number of deaths from whooping cough, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM WHOOPING COUGH: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	17,978	3,719	3,051	3,854	5,171	2,183
Sex:						
Male.....	8,083	1,601	1,344	1,707	2,374	967
Female.....	9,895	2,028	1,707	2,147	2,797	1,216
Age:						
Under 1 year.....	9,787	1,978	1,674	2,152	2,804	1,184
1 year.....	4,218	889	714	846	1,235	534
2 years.....	1,753	370	284	364	522	213
3 years.....	889	221	143	187	237	101
4 years.....	474	92	92	102	138	50
Under 5 years.....	17,121	3,545	2,907	3,651	4,936	2,082
5 to 9 years.....	667	131	118	150	190	78
10 years and over.....	162	35	21	47	36	20
Unknown.....	28	8	2	6	9	3

The figures by sex show a majority of the deaths from whooping cough to be of females. Of the total number of deaths of both sexes, 9,895 were of females and 8,083 were of males, the proportion being 550 females to 450 males per 1,000 deaths of both sexes. Practically all, 95.5 per cent, of the deaths occurred at ages under 5, and more than one-half at ages under 1.

The following table gives, for the registration area, the number and proportion of deaths from whooping cough in each month:

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MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM WHOOPING COUGH: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	17,978	3,719	3,051	3,854	5,171	2,183
January.....	1,453	269	245	220	531	188
February.....	1,492	283	247	242	530	190
March.....	1,812	381	294	267	654	216
April.....	1,866	407	323	313	608	215
May.....	1,719	378	283	341	537	180
June.....	1,598	355	258	358	464	163
July.....	1,852	392	291	489	491	189
August.....	1,871	380	361	468	455	207
September.....	1,331	264	282	309	303	173
October.....	921	199	172	234	186	130
November.....	897	175	143	251	182	146
December.....	1,147	236	152	361	218	180
Unknown.....	19			1	12	6

Per 1,000 distribution.						
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	80.9	72.3	80.3	57.1	102.9	86.3
February.....	83.1	76.1	80.9	62.8	102.7	87.3
March.....	100.9	102.4	96.4	69.3	126.8	99.2
April.....	103.9	109.4	105.9	81.2	117.8	98.7
May.....	95.7	101.6	92.7	88.5	104.1	82.7
June.....	89.0	95.5	84.6	92.9	89.9	74.9
July.....	103.1	105.4	95.4	126.9	95.2	86.8
August.....	104.2	102.2	118.3	121.5	88.2	95.1
September.....	74.1	71.0	92.4	80.2	58.7	79.5
October.....	51.3	53.5	56.4	60.7	36.1	59.7
November.....	49.9	47.1	46.9	65.2	35.3	67.1
December.....	63.9	63.5	49.8	93.7	42.3	82.7

Diphtheria and croup.—There were 53,647 deaths from diphtheria and croup recorded in the registration area during the five years, 1900 to 1904. In 43,595 cases the cause was specifically stated as diphtheria and in 10,052 cases as croup. The number registered in each year and the death rates are shown below:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	53,647	13,314	10,667	9,859	10,363	9,444
Diphtheria.....	43,595	10,504	8,434	8,101	8,658	7,898
Croup.....	10,052	2,810	2,233	1,758	1,705	1,546

CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Aggregate.....	33.7	43.3	34.1	31.0	32.0	28.6
Diphtheria.....	27.4	34.2	27.0	25.5	26.7	23.9
Croup.....	6.3	9.1	7.1	5.5	5.3	4.7

Of the 53,647 deaths from diphtheria and croup, 33,739 occurred in the registration states, and of this number, 20,519 resulting from diphtheria and 3,957 from croup occurred in the cities of at least 8,000 population, and 6,728 from diphtheria and 2,535 from croup occurred in the rural districts. From these figures it appears that 16.2 per cent of the deaths from these diseases in the cities was attributed to croup, while in the rural districts the percentage was 27.4. It is probable, however, that at least a part of the difference is

due to a more accurate diagnosis in the cities, where the enforcement of health regulations requires the immediate report of suspected cases and a bacteriological examination to determine if the Klebs-Löffler bacilli are present.

With the exception of a slight increase in 1903 over 1902 the figures in the preceding table show a constant decrease in the annual death rates due to diphtheria and croup, the total decrease from 1900 to 1904 being 14.7 per 100,000, or about 34 per cent.

The following table gives the annual death rates from diphtheria and croup in the registration area of the United States, in comparison with the rates in the specified European countries:

COUNTRY.	NUMBER OF DEATHS FROM DIPHTHERIA AND CROUP PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	43.3	34.1	31.0	32.0	28.6
Ireland.....	8.0	8.0	9.0	8.0	(1)
Germany.....	39.0	40.0	32.0	(1)	(1)
Norway.....	8.0	7.0	11.0	(1)	(1)
Sweden.....	51.0	51.0	34.0	(1)	(1)
Hungary.....	52.0	48.0	46.0	54.0	(1)
Belgium.....	27.0	26.0	26.0	20.0	(1)
Switzerland.....	30.0	32.0	22.0	16.0	(1)
Spain.....	46.0	34.0	28.0	(1)	(1)
Italy.....	18.0	17.0	14.0	12.0	(1)

¹ No figures available.

The following table gives the average and the annual death rates from diphtheria and croup in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM DIPHTHERIA AND CROUP PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	33.7	43.3	34.1	31.0	32.0	28.6
Registration cities.....	39.2	50.5	39.3	36.6	37.6	32.9
Registration states.....	32.7	40.4	33.4	29.7	31.1	29.4
Cities in registration states.....	42.9	52.4	43.1	39.9	41.6	38.6
Rural part of registration states.....	20.1	26.5	21.6	17.0	17.8	17.6
Registration cities in other states.....	35.4	48.7	35.4	33.3	33.5	27.2
Registration states:						
Connecticut.....	29.0	35.9	33.4	27.7	26.4	22.2
District of Columbia.....	24.3	43.4	36.7	17.3	8.5	17.4
Indiana.....	20.1	35.0	20.8	15.8	17.6	11.9
Maine.....	19.1	22.6	18.2	16.1	16.2	22.7
Massachusetts.....	35.3	52.5	40.9	30.6	29.7	24.0
Michigan.....	22.0	22.1	20.8	19.8	27.3	19.8
New Hampshire.....	24.6	24.1	20.7	37.5	24.9	16.5
New Jersey.....	41.6	48.7	36.6	35.2	39.1	48.6
New York.....	40.2	45.4	40.5	38.0	38.6	38.7
Rhode Island.....	40.0	46.0	44.4	35.7	43.4	31.4
Vermont.....	14.7	15.1	14.8	11.0	16.4	16.7
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	46.5	26.9	37.5	32.4	82.6	51.3
Baltimore, Md.....	32.6	57.4	33.1	24.1	29.0	20.8
Boston, Mass.....	52.3	92.4	59.8	37.7	37.3	36.8
Buffalo, N. Y.....	30.9	19.0	39.2	36.3	31.5	28.6
Chicago, Ill.....	33.2	49.6	28.5	34.4	33.7	21.1
Cincinnati, Ohio.....	20.8	27.9	21.7	23.4	18.6	13.5
Cleveland, Ohio.....	46.8	56.8	43.8	52.6	48.4	33.4
Columbus, Ohio.....	12.1	22.3	7.0	9.1	5.2	17.3
Denver, Colo.....	34.2	20.2	34.7	51.1	34.0	31.6
Detroit, Mich.....	42.1	29.1	18.0	44.4	71.7	44.4

AREA:	NUMBER OF DEATHS FROM DIPHTHERIA AND CROUP PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Registration cities of 100,000 population or over—Continued.						
Fall River, Mass.	30.6	23.8	23.2	45.1	37.7	24.8
Indianapolis, Ind.	18.8	31.3	20.5	16.1	17.7	9.3
Jersey City, N. J.	59.0	64.4	52.7	56.7	53.8	68.4
Kansas City, Mo.	24.7	47.6	24.0	11.2	13.3	27.8
Louisville, Ky.	33.0	21.5	51.8	41.0	32.4	18.2
Memphis, Tenn.	10.0	7.8	4.7	12.7	10.6	14.5
Milwaukee, Wis.	27.0	42.8	34.4	23.3	20.1	16.8
Minneapolis, Minn.	48.0	61.2	92.5	35.2	27.5	26.6
New Haven, Conn.	16.0	17.6	23.6	8.9	16.6	14.6
New Orleans, La.	14.2	13.9	14.4	14.9	12.0	15.4
New York, N. Y.	57.3	65.7	56.5	55.3	56.0	53.7
Bronx borough	59.2	68.8	48.2	53.4	65.4	60.0
Brooklyn borough	61.7	72.2	61.3	59.2	63.0	53.7
Manhattan borough	55.2	61.4	55.5	54.1	50.7	54.5
Queens borough	51.2	53.6	45.7	53.6	61.3	41.2
Richmond borough	48.5	80.5	52.5	28.5	33.5	43.7
Newark, N. J.	47.1	57.3	40.9	39.1	43.3	54.5
Omaha, Nebr.	14.6	25.4	13.2	14.6	8.8	14.5
Paterson, N. J.	39.8	44.7	26.0	44.3	45.1	40.6
Philadelphia, Pa.	51.1	85.1	49.3	38.5	45.1	39.3
Pittsburg, Pa.	50.1	45.4	48.9	48.6	61.7	46.2
Providence, R. I.	42.1	31.3	48.0	39.3	45.0	46.7
Rochester, N. Y.	34.5	28.9	13.3	8.3	65.6	53.6
St. Joseph, Mo.	10.2	15.5	11.4	8.3	5.4	8.9
St. Louis, Mo.	40.2	60.8	47.3	29.5	32.2	27.2
St. Paul, Minn.	20.0	37.4	31.3	36.0	12.2	28.6
San Francisco, Cal.	35.8	23.9	37.4	67.7	32.0	18.9
Scranton, Pa.	44.8	136.2	41.1	15.9	20.0	17.8
Syracuse, N. Y.	18.7	19.4	25.4	11.0	18.3	18.9
Toledo, Ohio	58.8	86.5	48.3	52.4	80.9	29.2
Washington, D. C.	24.3	43.4	36.7	17.3	8.5	17.4
Worcester, Mass.	16.8	47.3	14.8	7.2	8.6	6.8

During each year the greatest mortality from diphtheria and croup occurred in the cities of the registration states, in which it was about twice as great as in the rural districts of those states.

The average annual death rate from these diseases for the combined population of the 37 cities having a population of 100,000 and over was 41.5. In 1890 there were 28 cities in this class, with an average death rate from diphtheria and croup of 116.6.

The preceding table shows that in the principal cities the highest death rate from these diseases in any year of the period, 1900 to 1904, was 136.2, which occurred in Scranton, Pa., in 1900. The next highest rate occurred in Minneapolis, Minn., in 1901 (92.5). In 1902 the highest rate was in San Francisco, Cal., (67.7). In 1903 it was highest in Allegheny, Pa. (82.6) and in 1904 in Jersey City, N. J. (68.4). In each of the cases, however, it will be seen that the high rates cited were followed by greatly reduced rates from the same diseases in the succeeding year.

It is in the large cities that effective measures for the prevention, restriction, and treatment of epidemic diseases are inaugurated most promptly and enforced most rigidly, and the figures given above for diphtheria and croup show, as the result of this work, a general tendency toward a progressive reduction of the death rates. The variations, however, indicate that the recognized methods are not equally applied in all places, and a comparison of the rates in the principal

cities with those given for the smaller cities in Table iv (page lxxii) shows an apparent neglect of proper sanitary measures in many of the latter cities.

Of the cities of less than 100,000 population, there are 70 in which the death rate from diphtheria and croup exceeded 80 in one or more years, as shown in the following table:

REGISTRATION CITY.	NUMBER OF DEATHS FROM DIPHTHERIA AND CROUP PER 100,000 POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Adams town, Mass.	98.8				
Alexandria, Va.	117.0				
Allentown, Pa.					144.1
Altoona, Pa.	151.4				
Annapolis, Md.		92.8			
Appleton, Wis.				93.4	
Barre, Vt.	106.5				
Bath, Me.					125.3
Battle Creek, Mich.			147.2		
Bayonne, N. J.				86.9	
Binghamton, N. Y.	138.7				
Camden, N. J.	172.5	81.6			88.8
Carbondale, Pa.	147.8			133.3	
Carlisle, Pa.	135.0				
Chelsea, Mass.	82.2				
Chicopee, Mass.			99.1		
Columbia, Pa.	138.1				
Corning, N. Y.	135.6				82.9
Dunkirk, N. Y.			91.2		
Elizabeth, N. J.	82.5				82.9
Escanaba, Mich.				112.1	
Frederick, Md.			84.1		
Gloucester, Mass.			98.4	154.3	
Greenwich town, Conn.	147.9				
Harrison, N. J.		138.6	135.8		
Hazleton, Pa.					104.6
Holyoke, Mass.	172.8	85.6			
Ironwood, Mich.			121.7	150.9	
Ishpeming, Mich.			104.5	124.7	
Johnstown, Pa.				85.0	
Lawrence, Kans.	138.1				
Lebanon, Pa.	141.8				
Lincoln, Nebr.	82.2				
Lockport, N. Y.				89.6	95.2
Lowell, Mass.		118.9			
Mahanoy City, Pa.	162.9	102.0			90.3
Manchester town, Conn.		92.3			
Marlboro, Mass.			161.6		
Marquette, Mich.				95.1	
Millford town, Mass.		103.1			
Millville, N. J.	104.0				
Mt. Carmel, Pa.	83.4	80.5	84.7		92.4
Muncie, Ind.	81.2				
Nashua, N. H.		86.2	165.2		
New Albany, Ind.		106.7			
New Brunswick, N. J.				151.8	97.2
New London, Conn.		89.3			
Norfolk, Va.			96.3		
Peekskill, N. Y.	86.9				
Perth Amboy, N. J.		124.2		114.1	
Phoenixville, Pa.	97.9				
Plymouth, Pa.	117.2	92.3		120.5	97.6
Port Jervis, N. Y.					180.7
Pottsville, Pa.					97.9
Pueblo, Colo.				88.0	
Reading, Pa.	102.6				
Richmond, Ind.			156.3		
Salt Lake City, Utah		90.1	81.4	91.0	
Sault Ste. Marie, Mich.	123.4				
Schenectady, N. Y.		87.3			
South Bethlehem, Pa.	120.8				
Southbridge town, Mass.					200.5
Union, N. J.	85.6	95.9			
Waltham, Mass.	106.5				
Warren, Ohio	82.1				
Webster town, Mass.			87.4		
Westfield town, Mass.		143.3			
Wilmington, Del.	98.0				
Winona, Minn.					83.7
Woonsocket, R. I.	127.7			95.3	

The following table shows, for the registration area, the number of deaths from diphtheria and croup, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM DIPHTHERIA AND CROUP: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	53,647	13,314	10,667	9,859	10,363	9,444
Sex:						
Male.....	27,299	6,749	5,346	5,067	5,310	4,827
Female.....	26,348	6,565	5,321	4,792	5,053	4,617
Age:						
Under 1 year.....	3,736	880	749	746	702	659
1 year.....	8,001	1,902	1,593	1,462	1,538	1,506
2 years.....	7,990	2,033	1,575	1,439	1,563	1,380
3 years.....	7,207	1,804	1,467	1,308	1,408	1,220
4 years.....	5,989	1,562	1,172	1,117	1,112	1,026
Under 5 years.....	32,923	8,181	6,556	6,072	6,323	5,791
5 to 9 years.....	14,818	3,785	2,891	2,692	2,917	2,533
10 to 14 years.....	3,191	753	645	572	611	610
15 years and over.....	2,628	580	551	509	492	496
Unknown.....	87	15	24	14	20	14

Diphtheria and croup caused a somewhat larger number of deaths among males than among females, the figures for the five-year period comprising 27,299 males and 26,348 females, or 509 deaths of males to 491 deaths of females per 1,000 deaths of both sexes. About 95 per cent of the deaths from diphtheria and croup occurred at ages under 15, approximately 61 per cent occurring at ages under 5.

The following table shows the number and proportion of deaths from diphtheria and croup in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM DIPHTHERIA AND CROUP: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
All months.....	53,647	13,314	10,667	9,859	10,363	9,444
January.....	6,013	1,535	1,382	1,046	1,015	1,035
February.....	4,942	1,316	949	906	859	912
March.....	4,453	1,191	910	816	757	779
April.....	4,058	1,004	796	756	722	780
May.....	3,794	932	749	695	746	672
June.....	3,502	767	705	672	722	636
July.....	2,873	646	463	524	669	571
August.....	2,852	620	542	583	583	518
September.....	3,635	835	740	692	729	639
October.....	5,353	1,337	1,063	995	1,086	872
November.....	6,054	1,597	1,203	1,025	1,270	959
December.....	6,088	1,527	1,165	1,148	1,194	1,054
Unknown.....	30	1	1	1	11	17
Per 1,000 distribution.						
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	112.1	115.3	129.6	106.1	98.1	109.8
February.....	92.2	98.9	89.0	91.9	83.0	96.8
March.....	83.1	89.5	85.3	82.8	73.1	82.6
April.....	75.7	75.4	74.6	76.7	69.7	82.7
May.....	70.8	70.0	70.2	70.5	72.1	71.3
June.....	65.3	57.6	66.1	68.2	69.7	67.5
July.....	53.6	48.5	43.4	53.2	64.6	60.6
August.....	53.2	47.0	50.8	59.1	56.3	54.9
September.....	67.8	62.7	69.4	70.2	70.4	67.8
October.....	99.8	100.4	99.6	100.9	104.9	92.5
November.....	112.9	120.0	112.8	104.0	122.7	101.7
December.....	113.5	114.7	109.2	116.4	115.4	111.8

Influenza.—There were 7,031 deaths from influenza recorded in the registration area in 1900, 10,093 in 1901, 3,225 in 1902, 6,064 in 1903, and 6,724 in 1904. The total number in the five years was 33,137, and the average annual death rate was 20.8 per 100,000 of population.

The following table gives the annual death rates from influenza in the registration area of the United States in comparison with those in certain European countries:

COUNTRY.	NUMBER OF DEATHS FROM INFLUENZA PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	22.9	32.3	10.1	18.7	20.4
England and Wales.....	50.4	17.4	22.3	18.9	(1)
Scotland.....	62.0	16.0	28.0	21.0	(1)
The Netherlands.....	(1)	(1)	17.0	14.0	(1)
Italy.....	54.0	13.0	12.0	(1)	(1)

¹No figures available.

The following table gives the average annual and the yearly death rates from influenza in the registration area and its principal subdivisions, and in the registration states and the cities of at least 100,000 population:

AREA.	Annual average.	NUMBER OF DEATHS FROM INFLUENZA PER 100,000 OF POPULATION: 1900 TO 1904.				
		1900	1901	1902	1903	1904
The registration area.....	20.8	22.9	32.3	10.1	18.7	20.4
Registration cities.....	17.3	19.9	25.8	8.3	16.2	16.8
Registration states.....	22.8	26.7	36.4	10.4	19.2	21.8
Cities in registration states.....	17.6	24.2	26.9	7.0	14.7	15.8
Rural part of registration states.....	29.3	29.6	48.0	14.6	24.9	29.7
Registration cities in other states.....	17.1	15.7	24.7	9.6	17.8	17.7
Registration states:						
Connecticut.....	42.3	70.4	60.3	13.1	32.8	36.4
District of Columbia.....	37.1	43.4	58.5	20.8	29.0	33.9
Indiana.....	21.3	18.6	39.3	12.4	15.9	20.7
Maine.....	28.8	34.0	42.7	17.4	26.8	23.6
Massachusetts.....	20.9	37.1	27.6	7.5	18.6	14.5
Michigan.....	22.8	15.5	43.4	12.3	18.0	25.0
New Hampshire.....	31.3	44.7	34.5	12.2	36.0	29.8
New Jersey.....	14.1	21.7	20.3	4.8	11.8	12.6
New York.....	21.0	19.7	35.7	9.5	17.6	22.5
Rhode Island.....	36.4	70.2	40.1	14.8	35.1	23.6
Vermont.....	36.1	37.0	44.1	21.1	34.3	44.5
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	14.0	15.4	21.8	17.0	7.9	9.3
Baltimore, Md.....	24.6	17.9	50.5	10.7	20.1	23.9
Boston, Mass.....	17.3	36.0	24.5	4.3	13.1	9.7
Buffalo, N. Y.....	10.0	11.9	18.2	4.0	8.9	7.2
Chicago, Ill.....	11.9	10.4	15.9	8.4	14.0	10.9
Cincinnati, Ohio.....	27.4	15.0	41.5	14.3	31.8	34.6
Cleveland, Ohio.....	7.9	7.1	15.8	4.5	7.7	5.2
Columbus, Ohio.....	15.9	22.3	24.1	12.1	10.3	13.0
Denver, Colo.....	11.4	11.2	19.2	8.0	9.5	8.1
Detroit, Mich.....	12.3	6.3	28.9	4.6	11.6	9.4
Trait River, Mass.....	14.4	30.5	9.3	7.2	14.9	9.4
Indianapolis, Ind.....	19.3	28.4	35.3	10.7	11.1	13.2
Jersey City, N. J.....	9.8	12.1	16.6	1.8	6.8	11.1
Kansas City, Mo.....	15.3	9.2	14.4	5.3	12.7	34.6
Louisville, Ky.....	14.6	10.8	26.4	3.8	7.4	24.2
Memphis, Tenn.....	36.4	33.2	45.2	26.4	33.4	42.6
Milwaukee, Wis.....	13.8	1.8	22.9	3.6	23.7	15.6
Minneapolis, Minn.....	6.7	6.4	6.8	2.9	12.1	4.6
New Haven, Conn.....	28.5	44.4	42.6	6.2	15.7	36.0
New Orleans, La.....	27.0	15.0	24.0	18.2	39.2	38.0
New York, N. Y.....	13.1	15.1	20.0	5.1	11.2	14.5
Bronx borough.....	9.4	6.5	20.3	3.1	6.4	10.2
Brooklyn borough.....	14.2	17.1	17.3	6.4	14.5	16.0
Manhattan borough.....	12.8	15.0	21.2	4.8	9.6	13.6
Queens borough.....	13.2	13.1	25.1	1.8	9.8	17.3
Richmond borough.....	15.7	14.9	20.4	2.8	18.2	21.9
Newark, N. J.....	13.9	23.6	13.1	5.4	15.8	11.4
Omaha, Neb.....	13.7	11.7	23.6	6.4	15.0	12.8
Paterson, N. J.....	5.4	9.5	9.3	2.7	2.6	3.4
Philadelphia, Pa.....	13.3	19.4	12.6	4.9	14.4	15.6
Pittsburg, Pa.....	18.1	16.8	32.5	16.9	14.2	10.5
Providence, R. I.....	36.1	66.1	41.3	16.9	39.1	18.4
Rochester, N. Y.....	12.5	6.8	24.8	6.5	9.4	16.1
St. Joseph, Mo.....	10.2	4.8	15.2	4.6	19.9	4.4
St. Louis, Mo.....	16.5	9.4	15.1	5.5	26.3	25.3
St. Paul, Minn.....	7.7	3.7	12.0	5.3	12.2	5.7
San Francisco, Cal.....	11.4	9.6	16.1	10.2	15.7	4.7
Scranton, Pa.....	19.6	9.8	34.4	10.2	8.2	33.8
Syracuse, N. Y.....	12.4	10.2	29.9	1.8	10.5	12.0
Toledo, Ohio.....	17.7	26.5	28.6	6.4	17.1	12.6
Washington, D. C.....	37.1	43.4	58.5	20.8	29.0	33.9
Worcester, Mass.....	13.6	21.9	27.9	6.4	9.3	2.3

The mortality from influenza was greatest in each year in the rural districts of the registration states, with an average rate of 29.3 and a range of from 48 in 1901 to 14.6 in 1902. In the cities of these states the average death rate was 17.6 and, as in the rural districts, was highest in 1901 (26.9) and lowest in 1902 (7).

Taking the registration states as a whole, the average annual death rate from influenza was highest in Connecticut (42.3) and lowest in New Jersey (14.1).

In the cities having a population of at least 100,000, the average mortality was greatest in Washington, D. C. (37.1); Memphis, Tenn. (36.4); Providence, R. I. (36.1); and New Haven, Conn. (28.5). The greatest mortality in any year was in Providence, R. I., in 1900 (66.1). In 1901 the highest rate was that for Washington, D. C. (58.5). In 1902 the rate was highest in Memphis, Tenn. (26.4); in 1903, in New Orleans, La. (39.2); and in 1904 it was again highest in Memphis (42.6).

The average annual rates were lowest in Paterson, N. J. (5.4); Minneapolis, Minn. (6.7); St. Paul, Minn. (7.7); Cleveland, Ohio (7.9); and Jersey City, N. J. (9.8).

The death rates from influenza in each city of the registration area and in each county, exclusive of cities, in the registration states are given in Table iv (page lxxii).

The following table gives the number of deaths from influenza in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM INFLUENZA: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	33,137	7,031	10,093	3,225	6,064	6,724
Sex:						
Male.....	14,677	3,001	4,498	1,471	2,635	3,072
Female.....	18,460	4,030	5,595	1,754	3,429	3,652
Age:						
Under 1 year.....	2,305	509	690	268	391	447
1 year.....	595	106	168	80	116	125
2 years.....	288	62	90	37	44	55
3 years.....	209	47	57	20	38	47
4 years.....	147	33	41	19	27	27
Under 5 years.....	3,544	757	1,046	424	616	701
5 to 9 years.....	398	75	115	52	76	80
10 to 14 years.....	304	60	75	32	63	74
15 to 19 years.....	556	93	176	57	106	124
20 to 24 years.....	742	137	217	70	147	171
25 to 29 years.....	749	149	256	60	128	156
30 to 34 years.....	875	186	266	89	161	173
35 to 39 years.....	996	196	310	83	190	217
40 to 44 years.....	1,117	246	308	111	227	225
45 to 49 years.....	1,220	243	351	138	248	240
50 to 54 years.....	1,534	311	468	137	291	327
55 to 59 years.....	1,760	350	535	207	303	365
60 to 64 years.....	2,530	547	788	218	492	485
65 to 69 years.....	3,135	707	941	310	566	611
70 to 74 years.....	3,677	797	1,086	339	681	774
75 to 79 years.....	3,920	830	1,255	362	724	749
80 to 84 years.....	3,373	766	1,060	298	592	657
85 to 89 years.....	1,759	388	536	154	294	387
90 to 94 years.....	637	135	207	58	99	138
95 years and over.....	179	34	58	13	29	45
Unknown.....	132	24	39	13	31	25

The preceding table shows that the number of deaths from influenza was uniformly greater among females than among males, the distribution of the whole number of deaths in the five-year period by

sex being, males, 14,677; females, 18,460; representing a proportion of 557 females to 443 males per 1,000 of both sexes. The figures by ages show that the greatest number of deaths from influenza occurs at ages above 60.

The following table shows the number and proportion of deaths from influenza in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM INFLUENZA: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	33,137	7,031	10,093	3,225	6,064	6,724
January.....	5,351	519	2,744	564	627	897
February.....	6,921	715	2,960	642	1,180	1,424
March.....	7,970	1,854	2,017	623	1,654	1,822
April.....	5,519	2,291	892	385	867	1,084
May.....	2,329	750	413	237	503	426
June.....	792	214	173	82	179	144
July.....	395	94	87	72	81	61
August.....	250	61	51	28	61	49
September.....	310	51	79	62	72	46
October.....	446	62	109	87	106	82
November.....	877	120	184	136	227	210
December.....	1,953	298	384	306	495	470
Unknown.....	24	2	.....	1	12	9
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	161.6	73.8	271.9	175.0	103.6	133.6
February.....	209.0	101.7	293.3	199.1	195.0	212.1
March.....	240.7	263.8	190.9	193.3	273.3	271.3
April.....	166.7	325.9	88.4	119.4	143.2	161.4
May.....	70.3	106.7	40.9	73.5	83.1	63.4
June.....	23.9	30.4	17.1	25.4	29.6	21.4
July.....	11.9	13.4	8.6	22.3	13.4	9.1
August.....	7.5	8.7	5.1	8.7	10.1	7.3
September.....	9.4	7.3	7.8	19.2	11.9	6.9
October.....	13.5	8.8	10.8	27.0	17.5	12.2
November.....	26.5	17.1	18.2	42.2	37.5	31.3
December.....	59.0	42.4	38.0	94.9	81.8	70.0

Dysentery.—The number of deaths reported as due to dysentery during the five years was 14,950, and the average annual death rate from this disease per 100,000 of population was 9.4.

The following table gives the number of deaths from dysentery in the registration area and its subdivisions, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM DYSENTERY: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	14,950	3,487	3,331	3,187	2,378	2,567
Registration cities.....	9,864	2,086	2,232	2,196	1,646	1,704
Registration states.....	9,980	2,402	2,242	2,082	1,534	1,720
Cities in registration states.....	4,894	1,001	1,143	1,091	802	857
Rural part of registration states.....	5,086	1,401	1,099	991	732	863
Registration cities in other states.....	4,970	1,085	1,089	1,105	844	847
AREA.	NUMBER OF DEATHS FROM DYSENTERY PER 100,000 OF POPULATION: 1900 TO 1904.					
Annual average.	1900	1901	1902	1903	1904	
The registration area.....	9.4	11.3	10.7	10.0	7.3	7.8
Registration cities.....	8.7	9.7	10.1	9.7	7.1	7.2
Registration states.....	9.7	12.1	11.1	10.1	7.3	8.1
Cities in registration states.....	8.6	9.4	10.2	9.5	6.8	7.1
Rural part of registration states.....	11.0	15.1	12.1	10.8	8.0	9.3
Registration cities in other states.....	8.8	10.1	9.9	9.9	7.3	7.2

There appears to have been but little difference in the death rates from dysentery in the cities in the registration states and those in other states. The rate in the rural districts was higher than that in the cities in every year.

The following table gives the number of deaths from dysentery in the registration area, by sex and by principal age periods:

SEX AND AGE.	NUMBER OF DEATHS FROM DYSENTERY: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	14,950	3,487	3,331	3,187	2,378	2,567
Sex:						
Male.....	7,342	1,774	1,624	1,534	1,176	1,234
Female.....	7,608	1,713	1,707	1,653	1,202	1,333
Age:						
Under 1 year.....	2,479	598	465	512	417	487
Under 5 years.....	5,206	1,218	1,076	1,126	857	929
5 to 14 years.....	530	128	131	123	77	71
15 to 24 years.....	453	132	144	76	56	50
25 to 34 years.....	655	158	163	135	104	95
35 to 44 years.....	744	184	160	168	112	120
45 to 64 years.....	2,502	571	561	557	407	406
65 years and over.....	4,795	1,081	1,079	990	757	888
Unknown.....	60	15	17	12	8	8

Dysentery caused a greater number of deaths among females than among males in each year except 1900, in which the condition was reversed. For the whole five-year period there were 509 deaths of females to 491 deaths of males from this disease in each 1,000 deaths of both sexes.

Tuberculosis.—The total number of deaths due to tuberculosis in all forms in the registration area, 1900 to 1904, was 310,709, corresponding to an average annual death rate of 195 per 100,000 of population. The number reported in 1900 was 61,888. In 1901 it was about the same, 61,599. In 1902 it fell to 58,938, rising to 61,487 in 1903, with a further rise in 1904, in which year 66,797 deaths from this disease were registered, being the greatest number reported in any year covered by this report.

Of the 310,709 deaths from all forms of tuberculosis, 274,991, or 88.5 per cent, were attributed to pulmonary tuberculosis, designated in the tables as tuberculosis of the lungs, and commonly known in this country as "consumption." The 35,718 deaths from other forms of tuberculosis were distributed as follows: Tuberculosis of the larynx, 2,583; tuberculous meningitis, 13,933; abdominal tuberculosis, 9,171; Pott's disease, 2,314; tuberculous abscess, 261; white swelling, 1,115; tuberculosis of other organs, 2,133; and *general tuberculosis*, 4,208.

The following table gives the number of deaths from the various forms of tuberculosis in the registration area, with the corresponding death rates:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	310,709	61,888	61,599	58,938	61,487	66,797
Tuberculosis of lungs.....	274,991	55,504	54,735	52,079	53,910	58,763
Tuberculosis of larynx.....	2,583	406	527	541	539	570
Tuberculous meningitis.....	13,933	2,673	2,656	2,674	2,905	3,025
Abdominal tuberculosis.....	9,171	1,635	1,767	1,817	1,854	2,098
Pott's disease.....	2,314	416	442	421	516	519
Tuberculous abscess.....	261	40	48	39	72	62
White swelling.....	1,115	207	206	237	224	241
Tuberculosis of other organs.....	2,133	339	393	391	465	545
General tuberculosis.....	4,208	668	825	739	1,002	974

CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Aggregate.....	195.0	201.2	197.0	185.0	189.6	202.6
Tuberculosis of lungs.....	172.6	180.5	175.1	163.6	166.2	178.1
Tuberculosis of larynx.....	1.6	1.3	1.7	1.7	1.7	1.7
Tuberculous meningitis.....	8.7	8.7	8.5	8.4	9.0	9.2
Abdominal tuberculosis.....	5.8	5.3	5.7	5.7	5.7	6.4
Pott's disease.....	1.5	1.3	1.4	1.3	1.6	1.6
Tuberculous abscess.....	0.2	0.1	0.1	0.1	0.2	0.2
White swelling.....	0.7	0.7	0.6	0.7	0.7	0.7
Tuberculosis of other organs.....	1.3	1.1	1.3	1.2	1.4	1.7
General tuberculosis.....	2.6	2.2	2.6	2.3	3.1	3.0

Tuberculosis of the lungs.—The number of deaths specifically referred to this title, as shown in the preceding table, was 274,991, but it is probable that in a number of cases in which the deaths were classified under certain other of the titles, tuberculosis of the lungs also existed and was the determining factor.

The international classification refers deaths in which the cause is stated as "hemorrhage of the lungs" to "other diseases of the respiratory system," which title in the Census compilation is subdivided so as to distinguish the deaths from hemorrhage of the lungs. There were 3,916 deaths so reported in the five-year period treated (Table III, page lxviii), and as this has heretofore been a very common form of return in case of deaths from consumption accompanied by hemorrhage, it is probable that a complete statement in such cases would have caused a good many of the deaths so reported to be classified under tuberculosis of the lungs.

The average annual mortality from tuberculosis of the lungs in the registration area, 1900 to 1904, was 172.6. The greatest mortality (180.5) was in 1900, falling to 175.1 in 1901, with a further decline to 163.6 in 1902, in which year it reached the minimum. In 1903 there was a slight increase, the rate being 166.2, and a greater increase followed in 1904, in which it was 178.1.

The annual death rates from tuberculosis of the lungs in the registration area of the United States, in

comparison with the rates in certain European countries, are given in the following table:

COUNTRY.	NUMBER OF DEATHS FROM TUBERCULOSIS OF THE LUNGS PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	180.5	175.1	163.6	166.2	178.1
England and Wales.....	133.3	126.4	123.3	120.3	(1)
Scotland.....	166.0	153.0	146.0	146.0	(1)
Ireland.....	225.0	215.0	212.0	217.0	(1)
Germany.....	207.0	193.0	188.0	(1)	(1)
Norway.....	222.0	195.0	190.0	(1)	(1)
The Netherlands.....	164.0	137.0	132.0	132.0	(1)
Belgium.....	136.0	135.0	132.0	109.0	(1)
Switzerland.....	203.0	187.0	187.0	188.0	(1)
Spain.....	197.0	194.0	186.0	(1)	(1)
Italy.....	122.0	111.0	101.0	(1)	(1)

¹ No figures available.

It appears from the preceding table that the mortality from this disease in the registration area of the United States was lower in each year than in Ireland, Germany, Norway, Spain, and Switzerland, but was higher in each year than in the other countries specified.

The table in the next column gives the average annual and the yearly death rates from tuberculosis of the lungs in the registration area and its principal subdivisions, and in the registration states and the cities of 100,000 population and over.

It will be seen from that table that in the registration states the mortality from tuberculosis of the lungs was much greater in the cities than in the rural districts, the difference between the annual rates ranging from a maximum of 66.1 for 1900 to a minimum of 56.6 for 1902, the difference between average annual rates being 59.8. In 1900 and 1901 the mortality from this disease was higher in the cities of the registration states than in those of other states, but in 1902, 1903, and 1904 the conditions were reversed.

In the registration states, exclusive of the District of Columbia, which is coextensive with the city of Washington, the average annual death rates from tuberculosis of the lungs were highest in Rhode Island (186.9), New York (180.3), and New Jersey (174.1); and lowest in Michigan (87.8), Vermont (124.3), and New Hampshire (140).

Considering the registration cities of more than 100,000 population, for which rates are given in the above table, the average annual death rate from tuberculosis of the lungs, 1900 to 1904, was highest in Denver, Colo. (410.1). In this case, however, the excessive mortality is due largely to deaths of non-residents who resort to this locality in the later stages of the disease, hoping to be benefited or cured by the favorable climatic conditions. The same statement applies to some of the other principal and minor cities in the West and South visited in large numbers by persons afflicted with pulmonary disease.

AREA.	NUMBER OF DEATHS FROM TUBERCULOSIS OF THE LUNGS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	172.6	180.5	175.1	163.6	166.2	178.1
Registration cities.....	190.3	198.8	192.1	180.7	184.0	196.1
Registration states.....	162.4	173.3	167.5	152.6	154.2	164.7
Cities in registration states.....	189.1	204.1	194.9	177.7	180.0	189.9
Rural part of registration states.....	129.3	138.0	133.8	121.1	121.4	132.1
Registration cities in other states.....	191.5	193.5	189.3	183.8	183.1	202.4
Registration states:						
Connecticut.....	154.4	173.1	163.3	147.1	145.5	144.0
District of Columbia.....	276.0	293.1	296.2	246.2	266.4	279.5
Indiana.....	161.9	173.2	163.3	152.4	151.3	169.4
Maine.....	145.8	157.4	155.5	139.5	129.2	147.5
Massachusetts.....	170.9	188.0	177.9	164.5	155.6	169.7
Michigan.....	87.8	90.2	88.4	84.1	85.3	91.3
New Hampshire.....	140.0	151.1	146.5	134.5	128.2	140.1
New Jersey.....	174.1	184.0	172.4	158.4	171.4	184.5
New York.....	180.3	191.1	187.6	168.2	172.8	182.6
Rhode Island.....	186.9	196.9	193.0	180.4	192.1	173.5
Vermont.....	124.3	138.2	134.0	119.7	115.0	114.6
Registration cities of 100,000 population:						
Allegheny, Pa.....	141.7	155.5	131.3	148.2	126.8	146.7
Baltimore, Md.....	233.5	235.6	237.6	220.3	222.7	251.1
Boston, Mass.....	219.9	240.6	232.6	209.1	200.6	209.6
Buffalo, N. Y.....	120.0	113.2	125.1	114.6	117.5	129.1
Chicago, Ill.....	165.6	165.8	147.5	147.0	158.1	163.9
Cincinnati, Ohio.....	230.8	202.2	236.5	206.9	237.9	268.9
Cleveland, Ohio.....	125.9	127.3	108.1	117.4	131.8	143.8
Columbus, Ohio.....	208.8	209.5	206.4	196.0	217.0	214.0
Denver, Colo.....	410.1	375.0	396.2	406.5	409.9	457.9
Detroit, Mich.....	113.0	113.1	110.3	115.7	107.6	113.7
Fall River, Mass.....	172.2	184.1	150.1	164.9	170.2	191.4
Indianapolis, Ind.....	191.8	221.1	179.5	167.9	185.8	206.2
Jersey City, N. J.....	235.2	251.4	218.7	210.1	231.0	263.6
Kansas City, Mo.....	200.6	196.7	188.8	177.7	203.4	235.6
Louisville, Ky.....	208.4	207.1	197.0	183.3	214.2	239.5
Memphis, Tenn.....	221.2	242.4	218.7	249.4	179.5	218.0
Milwaukee, Wis.....	125.9	138.5	132.5	100.0	123.6	135.6
Minneapolis, Minn.....	123.6	128.3	124.9	114.3	132.2	118.9
New Haven, Conn.....	179.7	187.0	193.2	187.7	164.9	163.5
New Orleans, La.....	326.3	342.7	306.2	325.9	317.7	338.9
New York, N. Y.....	224.2	242.0	230.0	210.0	215.0	225.0
Bronx borough.....	405.0	292.8	534.4	529.6	549.6	576.4
Brooklyn borough.....	202.4	219.5	207.0	190.5	191.1	205.3
Manhattan borough.....	214.0	250.6	216.4	193.7	198.7	204.5
Queens borough.....	157.1	187.6	178.0	139.6	135.4	149.4
Richmond borough.....	182.6	208.9	189.6	184.1	185.7	146.3
Newark, N. J.....	240.1	246.7	228.2	228.0	245.3	249.5
Omaha, Neb.....	103.0	97.5	90.4	100.2	118.2	106.0
Paterson, N. J.....	184.6	206.3	180.9	171.9	163.4	198.4
Philadelphia, Pa.....	215.6	218.3	211.4	199.1	217.2	231.6
Pittsburg, Pa.....	137.9	125.3	133.9	135.2	140.9	153.3
Providence, R. I.....	215.3	236.4	218.6	215.3	217.4	191.1
Rochester, N. Y.....	135.1	143.9	150.0	111.9	127.6	143.5
St. Joseph, Mo.....	74.1	82.5	81.5	87.1	99.7	62.8
St. Louis, Mo.....	195.9	187.4	192.3	181.0	186.5	230.5
St. Paul, Minn.....	113.6	120.8	123.5	109.4	100.6	114.8
San Francisco, Cal.....	285.0	284.1	292.7	284.2	289.4	274.8
Seranton, Pa.....	96.1	99.0	91.8	86.7	100.2	104.2
Syracuse, N. Y.....	141.4	157.8	158.5	117.4	130.2	145.1
Toledo, Ohio.....	132.4	127.4	128.9	121.1	120.6	161.4
Washington, D. C.....	276.0	293.1	296.2	246.2	266.4	279.5
Worcester, Mass.....	175.7	206.0	189.7	161.4	164.9	160.7

It may be anticipated that the growing knowledge of the fact that in pulmonary diseases the benefits supposed to be derived from a change of climate are really due, in a large degree, to a change in habits through which a much larger proportion of time is spent in the open air and sunshine, and that by the same means, aided by diet and rest, incipient cases can be successfully treated at home will hereafter cause a decrease in the mortality from tuberculosis in those places in which, for the reason stated, it has been excessively high.

The average annual death rates from pulmonary tuberculosis in the large cities, exclusive of Denver, were

highest in New Orleans, La. (326.3); San Francisco, Cal. (285); Washington, D. C. (276); Newark, N. J. (240.1); Jersey City, N. J. (235.2); Baltimore, Md. (233.5); and Cincinnati, Ohio (230.8); and lowest in St. Joseph, Mo. (74.1); Scranton, Pa. (96.1); Omaha, Nebr. (103); Detroit, Mich. (113); St. Paul, Minn. (113.6); Buffalo, N. Y. (120); and Minneapolis, Minn. (123.6).

The yearly death rates from tuberculosis of the lungs (and also from other forms of tuberculosis) in each city of the registration area and in each county, exclusive of cities, in the registration states are given in Table IV of the summary and rate tables. An inspection of this table shows that there was a very high rate of mortality from pulmonary tuberculosis in many of the minor cities in one or more years, and a statement of the rates in such cities may serve to direct attention to the desirability of employing all known sanitary and hygienic measures to prevent their recurrence. Such a statement is made in the following table, which shows the cities of less than 100,000 population in 1900 in which the death rate from tuberculosis of the lungs exceeded 230 per 100,000 in one or more of the years 1900 to 1904:

REGISTRATION CITY.	NUMBER OF DEATHS FROM TUBERCULOSIS OF THE LUNGS PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Albany, N. Y.	233.7	236.9			230.5
Alexandria, Va.	261.6	343.7	247.2		321.8
Amesbury town, Mass.	232.2				
Annapolis, Md.	410.5	406.2	367.5	250.0	343.6
Atlanta, Ga.	264.8	251.9	283.1		262.2
Barre, Vt.			257.8		
Bath, Me.		262.9			
Bridgeton, N. J.					254.9
Cambridge, Mass.	248.1				
Carlisle, Pa.		234.0			
Charleston, S. C.	440.8	373.9	382.3	387.1	363.3
Chillicothe, Ohio.	323.7	243.4			
Cohoes, N. Y.		274.4			237.0
Columbus, Ind.	332.1			233.8	237.6
Covington, Ky.		266.7	236.1		233.9
Danbury town, Conn.		246.5			
Danvers town, Mass.	257.6	277.4	239.7	270.6	245.0
Danville, Ill.	244.6				
Dover, N. H.					239.3
Evansville, Ind.				240.7	
Frederick, Md.			378.3	280.5	287.6
Fresno, Cal.		324.5		231.4	243.7
Haverhill, Mass.		235.6			
Hoboken, N. J.	249.3	244.5		237.2	280.3
Hudson, N. Y.	241.4	277.5			
Huntington, Ind.		236.6			
Ironton, Ohio.		293.6	309.0		
Jacksonville, Fla.	415.1	331.6	433.6	292.5	419.2
Jacksonville, Ill.			264.4	267.2	
Jeffersonville, Ind.	306.2	296.7	352.0	231.3	
Key West, Fla.	356.4	350.6	356.4	251.3	309.7
Kokomo, Ind.		239.8			242.4
Lafayette, Ind.				230.2	243.9
Logansport, Ind.		248.6			
Lynchburg, Va.	365.2		249.4	295.1	315.8
Manitowoc, Wis.		230.7			
Middletown, N. Y.	254.8				263.8
Middletown town, Conn.		299.2	256.4	280.7	
Mobile, Ala.	431.5	418.3	335.5	385.9	393.5
Morristown, N. J.	257.4	241.8			
Nashville, Tenn.	346.3	268.0	314.2	249.8	353.4
New Albany, Ind.		276.3			237.6
New Brunswick, N. J.	239.9				
New London, Conn.			240.3		
Newburg, N. Y.	320.8			243.1	241.4

REGISTRATION CITY—continued.	NUMBER OF DEATHS FROM TUBERCULOSIS OF THE LUNGS PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Norfolk, Va.	315.3	282.4	250.1	289.2	285.9
Norristown, Pa.		395.3	329.5	247.8	240.9
Oakland, Cal.		232.0			
Ogdensburg, N. Y.		257.1	275.6	280.5	318.5
Orange, N. J.	290.0		289.7	303.1	281.8
Paducah, Ky.	272.5	315.8	371.6	305.4	307.5
Peabody town, Mass.	277.7				
Peekskill, N. Y.			266.8		
Petersburg, Va.	298.0	321.0	311.8	376.0	403.1
Plainfield, N. J.					264.5
Port Jervis, N. Y.		266.2			
Portsmouth, N. H.					246.3
Portsmouth, Ohio.	235.0			269.5	
Pueblo, Colo.	348.0	319.1	432.9	311.2	290.6
Raleigh, N. C.	271.2	305.7	361.4	373.2	349.2
Richmond, Ind.	230.4				
Richmond, Va.	308.1	251.7	260.0	269.3	276.3
Rochester, N. H.			299.5		
Rockland, Me.				245.4	
Rome, N. Y.					271.3
Sacramento, Cal.	314.2	358.4	247.8	252.1	285.8
San Antonio, Tex.	512.0	577.6	669.6	444.7	619.3
San Diego, Cal.	254.3	305.8	445.6	401.7	434.1
San Jose, Cal.	274.4	293.0	279.5		279.8
Saratoga Springs, N. Y.	274.0	248.9			
Savannah, Ga.	396.4	372.2	324.6	319.7	345.3
Springfield, Ill.		287.0	239.3		242.7
Stonington town, Conn.	234.2				
Troy, N. Y.	344.6	324.4	256.0	272.6	289.2
Vincennes, Ind.	273.2	259.9			281.5
Wakefield town, Mass.				235.8	
Ware town, Mass.				248.6	
Washington, Ind.				309.4	
Weymouth town, Mass.	238.4				
Wilmington, Del.					257.7
Wilmington, N. C.	237.0	251.6	269.4		255.4
Windham town, Conn.	256.5	256.2			
Woburn, Mass.			236.0		

The following table gives the number of deaths from tuberculosis of the lungs in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM TUBERCULOSIS OF THE LUNGS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	274,991	55,504	54,735	52,079	53,910	58,763
Sex:						
Male.....	148,085	29,372	29,569	28,250	29,061	31,833
Female.....	126,906	26,132	25,166	23,829	24,849	26,930
Age:						
Under 1 year.....	3,916	867	807	702	723	817
1 year.....	2,122	477	435	372	411	427
2 years.....	1,207	271	224	232	235	245
3 years.....	823	205	149	153	175	141
4 years.....	608	126	150	124	108	100
Under 5 years.....	8,676	1,946	1,765	1,583	1,652	1,730
5 to 9 years.....	2,470	558	490	447	472	503
10 to 14 years.....	4,343	899	850	818	785	991
15 to 19 years.....	20,432	4,032	3,897	3,765	4,081	4,657
20 to 24 years.....	38,200	7,697	7,601	7,212	7,472	8,218
25 to 29 years.....	41,614	8,512	8,311	7,849	8,153	8,789
30 to 34 years.....	36,524	7,264	7,298	6,987	7,190	7,785
35 to 39 years.....	31,158	6,284	6,167	5,872	6,131	6,704
40 to 44 years.....	24,087	4,603	4,862	4,715	4,685	5,222
45 to 49 years.....	17,699	3,494	3,369	3,342	3,589	3,905
50 to 54 years.....	14,057	2,813	2,808	2,660	2,758	3,018
55 to 59 years.....	10,735	2,171	2,147	2,047	2,154	2,216
60 to 64 years.....	8,860	1,788	1,791	1,678	1,731	1,872
65 to 69 years.....	6,726	1,432	1,418	1,264	1,274	1,338
70 to 74 years.....	4,455	941	908	877	833	896
75 to 79 years.....	2,731	613	569	520	515	514
80 to 84 years.....	1,048	239	212	201	196	200
85 to 89 years.....	355	79	81	69	64	62
90 to 94 years.....	68	13	13	20	11	11
95 years and over.....	24	3	6	6	5	4
Unknown.....	729	123	172	147	159	128

The preceding table shows that the number of deaths from this disease was uniformly greater among

males than among females, the distribution of the total number of deaths in the five-year period, by sex, being 148,085 males and 126,906 females, representing a proportion of 539 males to 461 females in 1,000 deaths of both sexes.

Of the whole number of deaths from tuberculosis of the lungs, 147,496, or 53.6 per cent, occurred between the ages of 20 and 40. The population of the registration area between these ages—out of which the stated number of deaths occurred—represented, approximately, 36 per cent of the whole.

The following table gives the number and proportion of deaths from tuberculosis of the lungs in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM TUBERCULOSIS OF THE LUNGS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	274,991	55,504	54,735	52,079	53,910	58,763
January.....	24,645	4,886	5,177	4,721	4,703	5,158
February.....	23,703	4,707	4,670	4,494	4,583	5,249
March.....	27,416	5,667	5,397	5,069	5,297	5,986
April.....	26,184	5,477	5,046	4,905	5,019	5,737
May.....	25,135	5,202	5,014	4,782	4,776	5,361
June.....	21,723	4,219	4,335	4,135	4,339	4,695
July.....	21,494	4,372	4,318	4,093	4,175	4,536
August.....	20,831	4,307	4,127	3,963	4,008	4,426
September.....	19,765	3,976	3,979	3,764	3,917	4,129
October.....	20,886	4,149	4,238	3,981	4,177	4,341
November.....	20,814	4,129	4,218	3,917	4,176	4,374
December.....	22,196	4,406	4,212	4,242	4,644	4,692
Unknown.....	199	7	4	13	96	79
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	89.7	88.1	94.6	90.7	87.4	87.9
February.....	86.3	84.8	85.3	86.3	85.2	89.4
March.....	99.8	102.1	98.6	97.4	98.4	102.0
April.....	95.3	98.7	92.2	94.2	93.3	97.8
May.....	91.4	93.7	91.6	91.8	88.7	91.4
June.....	79.1	76.0	79.2	79.4	80.6	80.0
July.....	78.2	78.8	78.9	78.6	77.6	77.3
August.....	75.8	77.6	75.4	76.1	74.5	75.4
September.....	71.9	71.6	72.7	72.3	72.8	70.4
October.....	76.0	74.8	77.4	76.5	77.6	74.0
November.....	75.7	74.4	77.1	75.2	77.6	74.5
December.....	80.8	79.4	77.0	81.5	86.3	79.9

Venereal diseases.—There were 6,331 deaths from venereal diseases in the registration area during the five years, and of these, as shown by the classification presented in the detail tables, 6,172 were attributed to syphilis, 78 to gonorrhoea of the adult, and 81 to gonorrhoeal infections in children under 5 years of age.

The first table in the next column gives the number of deaths from venereal diseases in the registration area and its subdivisions, with the average annual and the yearly death rates.

The death rate from venereal diseases was highest in each year in the cities in the nonregistration states. In the registration states it was very much higher in the cities than in the rural districts.

AREA.	NUMBER OF DEATHS FROM VENEREAL DISEASES: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	6,331	1,045	1,161	1,163	1,393	1,569
Registration cities.....	5,557	915	1,020	1,022	1,213	1,387
Registration states.....	3,292	543	613	620	729	778
Cities in registration states.....	2,518	413	472	488	549	596
Rural part of registration states.....	774	130	141	141	180	182
Registration cities in other states.....	3,039	502	548	534	664	791

AREA.	NUMBER OF DEATHS FROM VENEREAL DISEASES PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	4.0	3.4	3.7	3.7	4.3	4.8
Registration cities.....	4.9	4.3	4.6	4.5	5.2	5.8
Registration states.....	3.2	2.7	3.0	3.1	3.5	3.7
Cities in registration states.....	4.4	3.9	4.2	4.3	4.7	5.0
Rural part of registration states.....	1.7	1.4	1.5	1.5	2.0	2.0
Registration cities in other states.....	5.4	4.7	5.0	4.8	5.8	6.7

The following table gives the number of deaths from venereal diseases in the registration area, by sex and by principal age periods:

SEX AND AGE.	NUMBER OF DEATHS FROM VENEREAL DISEASES: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	6,331	1,045	1,161	1,163	1,393	1,569
Sex:						
Male.....	3,638	589	671	678	803	897
Female.....	2,693	456	490	485	590	672
Age:						
Under 1 year.....	3,285	570	602	622	676	815
Under 5 years.....	3,573	627	661	673	724	888
5 to 14 years.....	71	8	16	11	14	22
15 to 24 years.....	341	44	56	59	90	92
25 to 34 years.....	702	115	114	119	162	192
35 to 44 years.....	683	106	124	125	177	151
45 to 64 years.....	765	111	154	146	179	175
65 years and over.....	165	23	30	27	42	43
Unknown.....	31	11	6	3	5	6

As shown by the preceding table, 3,638 of the 6,331 deaths from venereal diseases were of males and 2,693 were of females, the proportion being 575 males to 425 females per 1,000 deaths of both sexes. More than one-half of the deaths from these diseases occurred under the age of one year.

Cancer.—The international classification of deaths from cancer presupposes that the reports of such deaths will designate the organ or part of the body affected, and in the statistical tabulations this classification is followed as far as the information contained in the certificates permits. In a large proportion of the cases however, the cause is simply stated as "cancer" without specifying the seat of the disease, which renders the number of deaths and death rates given for cancer of specific organs somewhat inaccurate.

A good many of the registration officials require a more definite statement in case of deaths in which the

cause is stated as cancer without further qualification, but the practice is not general, and about 25 per cent of the cases can only be classified as cancer of "other" or "unspecified" organs—mostly the latter. Therefore the discussion which follows is for the most-part confined to the general aspect of this disease.

There were 106,119 deaths from cancer recorded in the registration area in the five years, 1900 to 1904, the average annual death rate being 66.6. Of this number, 3,088 are classified as cancer of the mouth, corresponding to an average annual rate of 1.9. Cancer of the stomach and liver includes 38,433 cases (average rate 24.1); cancer of the intestines (including cancer of peritoneum and rectum) covers 10,689 cases (average rate 6.7); cancer of the female genital organs includes 15,373 cases (average rate per 100,000 of approximate female population, 19.3); cancer of the breast includes 8,647 cases (average rate 5.4); cancer of the skin includes 3,483 cases (average rate 2.2); and cancer of other or unspecified organs includes 26,406 cases, corresponding to an average annual rate of 16.6.

The following table gives the aggregate and annual deaths from cancer of each specified organ, with the corresponding death rates:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	106,119	19,381	20,171	20,847	22,325	23,395
Cancer of mouth.....	3,088	495	612	583	661	737
Cancer of stomach and liver.....	38,433	6,918	7,095	7,483	8,193	8,744
Cancer of intestines.....	10,689	1,760	2,157	2,239	2,134	2,399
Cancer of female genital organs.....	15,373	2,696	2,919	3,033	3,289	3,436
Cancer of breast.....	8,647	1,433	1,647	1,750	1,787	2,030
Cancer of skin.....	3,483	602	683	688	752	758
Cancer of other or unspecified organs.....	26,406	5,477	5,058	5,071	5,509	5,291

CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Aggregate.....	66.6	63.0	64.5	65.5	68.9	70.9
Cancer of mouth.....	1.9	1.6	2.0	1.8	2.0	2.2
Cancer of stomach and liver.....	24.1	22.5	22.7	23.5	25.3	26.5
Cancer of intestines.....	6.7	5.7	6.9	7.0	6.6	7.3
Cancer of female genital organs ¹	19.3	17.5	18.7	19.1	20.3	20.8
Cancer of breast.....	5.4	4.7	5.3	5.5	5.5	6.2
Cancer of skin.....	2.2	2.0	2.2	2.2	2.3	2.3
Cancer of other or unspecified organs.....	16.6	17.8	16.2	15.9	17.0	16.0

¹ Rates based on approximate female population.

The succeeding tables under this head relate to cancer in general, and the one immediately following gives the annual death rates from cancer in the registration area of the United States, 1900 to 1904, in comparison with the rates in certain European countries.

COUNTRY.	NUMBER OF DEATHS FROM CANCER PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Registration area of United States.....	63.0	64.5	65.5	68.9	70.9
England and Wales.....	82.9	84.2	84.4	87.2	(1)
Scotland.....	80.0	82.0	83.0	84.0	(1)
Ireland.....	60.0	65.0	65.0	69.0	(1)
Germany.....	72.0	75.0	75.0	(1)	(1)
Norway.....	91.0	95.0	88.0	(1)	(1)
Hungary.....	37.0	36.0	38.0	39.0	(1)
The Netherlands.....	92.0	94.0	95.0	99.0	(1)
Switzerland.....	130.0	128.0	127.0	131.0	(1)
Spain.....	39.0	42.0	43.0	(1)	(1)
Italy.....	52.0	53.0	54.0	54.0	(1)

¹ No figures available.

It will be seen from this table that the death rate from cancer in the registration area of the United States was less, in each year, than in any of the European countries cited except Ireland, Hungary, Spain, and Italy; it also appears that there was in general a progressively increasing rate, year after year.

The following table gives the average annual and the yearly death rates from cancer in the registration area and its principal subdivisions, and in registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM CANCER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	66.6	63.0	64.5	65.5	68.9	70.9
Registration cities.....	67.4	63.7	65.2	66.3	69.6	71.8
Registration states.....	67.7	63.5	66.2	66.2	70.0	71.7
Cities in registration states.....	70.2	66.2	69.0	68.5	72.5	74.1
Rural part of registration states.....	64.6	61.5	62.8	63.4	66.8	68.5
Registration cities in other states.....	64.7	61.2	61.4	64.1	66.8	69.5
Registration states:						
Connecticut.....	70.6	68.7	70.3	68.3	76.4	68.8
District of Columbia.....	74.5	76.4	70.2	74.9	75.4	76.5
Indiana.....	47.0	42.8	44.1	47.9	49.3	50.4
Maine.....	83.0	74.6	82.4	86.7	85.0	86.3
Massachusetts.....	78.7	74.6	76.3	76.5	79.6	86.0
Michigan.....	63.2	61.2	60.0	59.6	67.5	67.4
New Hampshire.....	79.8	71.9	87.7	81.2	77.5	80.4
New Jersey.....	56.8	53.9	58.4	54.0	59.0	58.5
New York.....	70.8	66.7	70.1	69.5	72.6	75.0
Rhode Island.....	78.8	70.5	73.0	83.1	78.3	88.1
Vermont.....	81.5	87.9	70.5	69.1	93.7	87.0
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	43.5	39.3	48.0	49.4	37.7	44.9
Baltimore, Md.....	75.2	61.7	76.5	77.9	73.0	86.5
Boston, Mass.....	88.3	83.1	87.6	86.2	91.2	92.9
Buffalo, N. Y.....	67.0	56.5	72.4	64.8	72.4	68.8
Chicago, Ill.....	63.5	60.4	63.7	64.7	64.4	64.0
Cincinnati, Ohio.....	78.1	70.6	77.8	78.0	83.5	80.0
Cleveland, Ohio.....	58.2	53.2	59.4	54.3	62.2	61.1
Columbus, Ohio.....	65.1	67.7	51.2	65.1	67.2	72.8
Denver, Colo.....	65.5	55.3	70.8	65.7	63.2	72.0
Detroit, Mich.....	70.9	74.2	63.3	64.0	78.2	74.6
Fall River, Mass.....	57.7	52.4	67.6	48.7	61.4	57.3
Indianapolis, Ind.....	57.8	60.9	50.7	61.2	55.7	59.6
Jersey City, N. J.....	52.1	48.0	52.2	47.0	57.4	55.0
Kansas City, Mo.....	55.3	39.7	46.7	59.4	55.5	72.7
Louisville, Ky.....	59.4	64.0	54.7	62.2	55.6	61.6
Memphis, Tenn.....	37.3	45.9	28.3	36.4	44.9	29.8
Milwaukee, Wis.....	66.4	64.8	66.4	59.7	68.7	71.2
Minneapolis, Minn.....	63.2	56.2	60.1	56.6	75.7	66.1
New Haven, Conn.....	78.3	69.4	88.9	82.7	79.4	71.9
New Orleans, La.....	73.6	63.0	70.0	71.9	79.8	82.9

AREA.	NUMBER OF DEATHS FROM CANCER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Registration cities of 100,000 population or over—Continued.						
New York, N. Y.	69.2	65.5	69.5	67.3	70.6	72.8
Bronx borough	63.7	60.3	62.8	60.1	69.7	64.0
Brooklyn borough	63.2	59.1	62.4	64.4	63.7	65.9
Manhattan borough	75.1	70.9	76.2	71.7	76.2	79.9
Queens borough	48.7	48.4	42.0	48.7	53.2	50.2
Richmond borough	81.3	77.6	91.9	65.6	82.4	87.5
Newark, N. J.	68.8	61.0	75.4	64.3	72.0	70.8
Omaha, Nebr.	51.9	43.9	56.5	46.5	47.6	62.4
Paterson, N. J.	61.5	60.9	72.3	53.4	61.8	60.4
Philadelphia, Pa.	69.9	69.0	62.3	67.0	71.9	78.7
Pittsburg, Pa.	51.9	51.9	44.6	53.9	57.1	50.7
Providence, R. I.	85.8	76.9	82.5	88.5	81.9	98.7
Rochester, N. Y.	81.5	61.5	86.5	89.8	80.2	88.8
St. Joseph, Mo.	30.6	26.2	31.3	23.1	26.3	43.4
St. Louis, Mo.	62.2	57.2	55.3	55.0	73.2	69.5
St. Paul, Minn.	58.6	60.7	47.6	47.6	62.8	65.7
San Francisco, Cal.	124.0	117.0	115.2	128.3	125.3	134.3
Scranton, Pa.	42.0	36.3	43.0	51.3	44.6	35.6
Syracuse, N. Y.	74.7	80.3	69.7	76.5	81.3	68.7
Toledo, Ohio	57.4	51.6	59.3	57.4	54.8	62.4
Washington, D. C.	74.5	76.4	70.3	74.9	75.4	76.5
Worcester, Mass.	71.1	62.5	63.2	63.1	66.9	97.0

The preceding table shows that in the registration area and its main subdivisions there was, almost without exception, a steady increase in the death rates due to cancer. For the total registration area this increase amounted to 7.9 per 100,000 of population between 1900 and 1904. The mortality from cancer was apparently greater in the cities in the registration-states than in the rural districts, but this may be partly, if not wholly, due to the fact that in this form of disease more than any other surgical treatment is resorted to, and for such treatment many persons in the last stage of the disease seek the hospitals in the cities. When in such cases deaths occur, they are registered in the cities in which the hospitals are located. The number of residents of rural districts dying of cancer in the hospitals in the cities is not known, but it was probably large enough to account for the difference between the rates.

The death rates given in the preceding table are influenced largely by the proportion of aged persons in the population. In the registration states as a whole the average annual death rates from cancer were highest in Maine (83) and Vermont (81.5), and lowest in Indiana (47) and New Jersey (56.8).

The annual death rates from cancer in each city of the registration area and in each county, exclusive of cities, in the registration states, are given in Table iv (page lxxii). An inspection of the figures in this table will show that there was apparently an excessively high death rate from cancer in many of the cities of less than 100,000 population, but it is probable that the foregoing remarks as to deaths of nonresidents, in hospitals and institutions, are equally applicable.

The sex and the age distribution of deaths from cancer in the registration area are shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM CANCER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	106,119	19,381	20,171	20,847	22,325	23,395
Sex:						
Male.....	40,101	7,294	7,706	7,798	8,422	8,881
Female.....	66,018	12,087	12,465	13,049	13,903	14,514
Age:						
Under 1 year.....	136	25	27	33	22	29
1 year.....	87	20	17	15	17	18
2 years.....	115	21	19	23	22	19
3 years.....	111	24	25	28	22	23
4 years.....	91	12	20	20	17	22
Under 5 years.....	540	102	108	119	100	111
5 to 9 years.....	241	42	40	51	55	53
10 to 14 years.....	232	62	32	96	41	46
15 to 19 years.....	404	66	66	96	88	88
20 to 24 years.....	705	141	143	123	140	158
25 to 29 years.....	1,415	288	280	266	306	275
30 to 34 years.....	2,747	519	534	535	522	637
35 to 39 years.....	5,158	961	991	1,021	1,138	1,057
40 to 44 years.....	8,222	1,470	1,647	1,599	1,683	1,823
45 to 49 years.....	10,391	1,902	2,031	2,041	2,157	2,260
50 to 54 years.....	12,828	2,335	2,481	2,589	2,699	2,744
55 to 59 years.....	13,491	2,514	2,551	2,649	2,836	2,941
60 to 64 years.....	14,077	2,517	2,594	2,773	3,002	3,191
65 to 69 years.....	12,729	2,302	2,414	2,400	2,707	2,816
70 to 74 years.....	10,410	1,895	1,926	1,940	2,211	2,438
75 to 79 years.....	6,933	1,274	1,311	1,353	1,450	1,545
80 to 84 years.....	3,512	633	646	719	737	777
85 to 89 years.....	1,329	256	248	281	273	271
90 to 94 years.....	341	51	58	73	74	85
95 years and over.....	72	11	19	10	17	15
Unknown.....	342	50	71	68	89	64

It will be seen from the preceding table that of the 106,119 deaths from cancer during the five years, 40,101 were of males and 66,018 were of females, the proportion being 622 females to 378 males in 1,000 deaths of both sexes.

The figures giving the deaths by ages show that the greatest number of deaths in any quinquennial age group was 14,077, which was the number in the age group 60 to 64 years of age.

The following table gives the number and proportion of deaths from cancer in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM CANCER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	106,119	19,381	20,171	20,847	22,325	23,395
January.....	8,668	1,581	1,684	1,655	1,861	1,887
February.....	8,053	1,452	1,454	1,624	1,656	1,867
March.....	8,959	1,778	1,584	1,700	1,927	1,970
April.....	8,697	1,722	1,596	1,700	1,788	1,891
May.....	9,046	1,632	1,770	1,849	1,845	1,950
June.....	8,511	1,645	1,732	1,688	1,760	1,786
July.....	9,300	1,649	1,824	1,850	1,930	2,047
August.....	9,219	1,650	1,715	1,863	1,958	2,003
September.....	8,818	1,595	1,683	1,705	1,922	1,913
October.....	8,961	1,554	1,733	1,753	1,884	2,037
November.....	8,627	1,597	1,653	1,659	1,762	1,956
December.....	9,163	1,595	1,742	1,798	1,976	2,052
Unknown.....	97	1	1	3	56	36
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	81.8	81.6	83.5	79.4	83.6	80.8
February.....	76.0	74.9	72.1	77.9	74.4	79.9
March.....	84.5	91.7	78.5	81.6	86.5	84.3
April.....	82.0	88.9	79.1	81.6	80.3	81.0
May.....	85.3	84.2	87.8	83.7	82.9	83.5
June.....	80.3	79.7	85.9	81.0	79.0	76.5
July.....	87.7	85.1	90.4	83.7	86.7	87.6
August.....	86.9	86.7	85.0	89.4	87.9	85.7
September.....	83.2	82.3	83.4	81.8	86.3	81.9
October.....	84.5	80.2	85.0	84.1	84.6	87.2
November.....	81.4	82.4	82.0	79.6	79.1	83.7
December.....	86.4	82.3	86.4	86.2	88.7	87.9

Although practically all of the available statistics of deaths from cancer in the different countries show an increasing mortality from this disease, both as regards the total death rate and the death rate at those ages most subject to it, the question has been raised whether the increase is due to the actually greater prevalence of cancer or to changes in methods of reporting cases.

It has been pointed out that some statistics indicate that there has been no increase in the death rate from cancer of *accessible parts*, while the rates due to cancer of *inaccessible parts* have all increased; also, that the death rate from "tumors" has decreased to a large extent. These conditions may be taken as evidence of greater accuracy in diagnosis and greater precision in stating the causes of death. In the latter respect, however, there is, in this country at least, still much to be desired, since a large proportion of the cases are reported simply as cancer without specifying the kind or the organ or part affected (page xxxviii).

All of the means known to modern medical science are being employed in investigating the nature and origin of cancer, and it is most important that every fact having any bearing upon the mortality from the disease should be stated in reporting deaths that are attributed to it, in order that the statistics may contribute accurate information on the subject.

In case of deaths the cause of which is given as cancer registrars should require a more specific statement, giving the organ or part affected. As far as possible the proper scientific terms, such as "carcinoma," "sarcoma," etc., should be used and the variety stated.

Rheumatism.—The international classification provides for a distinction between acute articular rheumatism and chronic rheumatism (which includes gout), and this distinction is made in Table 5, which gives the deaths according to the detailed classification. Under the rules "rheumatism," unqualified, is construed as chronic, and is compiled under "chronic rheumatism and gout;" but it is probable that the general term is applied to a good many cases which, if more accurately described, would be classified as "acute articular rheumatism." For this reason the two classes should be considered together.

Reference has been made to the apparent progress in accuracy of statement of causes of death—growing out of the movement for improvement in all phases of mortality statistics, the distribution of pamphlets to physicians and registrars, etc.—and the figures seem to bear out the statements made on that point, the number of deaths in each year referred to the separate titles covering rheumatism being as follows:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	14,549	2,931	2,985	2,661	2,785	3,187
Acute articular rheumatism..	7,996	1,426	1,510	1,366	1,594	2,100
Chronic rheumatism and gout	6,553	1,505	1,475	1,295	1,191	1,087

These figures show that in 1900 more than one-half of the deaths classified under this head were referred to chronic rheumatism and gout, but that in each succeeding year the number so referred diminished; while in every year except 1902 the number referred to acute articular rheumatism increased, with the result that in 1904 about two-thirds of the cases were classified under the latter title. As it is not probable that there has been any such change in the relative frequency or fatality of the two forms of rheumatic affection, these figures may be taken to indicate greater accuracy in the statement of the cause of death.

The following table gives the number of deaths from rheumatism in the registration area and its main subdivisions, in the aggregate and for each year, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM RHEUMATISM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	14,549	2,931	2,985	2,661	2,785	3,187
Registration cities.....	10,243	2,005	2,137	1,797	2,017	2,287
Registration states.....	9,542	2,009	1,949	1,759	1,772	2,053
Cities in registration states..	5,236	1,083	1,101	895	1,004	1,153
Rural part of registration states.....	4,306	926	848	864	768	900
Registration cities in other states.....	5,007	922	1,036	902	1,013	1,134

AREA.	NUMBER OF DEATHS FROM RHEUMATISM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	9.1	9.5	9.6	8.4	8.6	9.7
Registration cities.....	9.0	9.3	9.6	7.9	8.7	9.6
Registration states.....	9.3	10.1	9.6	8.5	8.5	9.7
Cities in registration states..	9.2	10.1	9.9	7.8	8.6	9.6
Rural part of registration states.....	9.4	10.0	9.3	9.4	8.3	9.7
Registration cities in other states.....	8.9	8.5	9.4	8.0	8.8	9.7

The preceding table shows that there was but little variation in the death rates from rheumatism in the different parts of the registration area.

The distribution of the deaths from rheumatism by sex and by principal age groups is shown for the registration area in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM RHEUMATISM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	14,549	2,931	2,985	2,661	2,785	3,187
Sex:						
Male.....	7,149	1,430	1,503	1,312	1,346	1,558
Female.....	7,400	1,501	1,482	1,349	1,439	1,629
Age:						
Under 1 year.....	161	35	39	26	25	36
Under 5 years.....	521	107	108	89	99	118
5 to 14 years.....	1,823	360	364	303	315	481
15 to 24 years.....	1,450	274	282	258	287	349
25 to 34 years.....	1,302	253	267	236	261	285
35 to 44 years.....	1,469	308	293	274	264	330
45 to 64 years.....	3,731	797	783	699	702	750
65 years and over.....	4,210	824	880	794	847	865
Unknown.....	43	8	8	8	10	9

Of the 14,549 deaths from rheumatism, 7,149 were of males and 7,400 were of females, a proportion of 509 females to 491 males per 1,000 deaths of both sexes.

Diabetes.—There were 17,460 deaths from diabetes in the registration area during the five years, 1900 to 1904, representing an average annual death rate of 11 per 100,000 of population. The yearly figures show a progressive increase in the mortality from this disease, 2,996 deaths being reported in 1900, a death rate of 9.7, and 4,259 in 1904, a death rate of 12.9.

In England and Wales the death rate from diabetes was 8.6 per 100,000 in 1900; 9.1 in 1901; 8.4 in 1902; and 8.5 in 1903. In Scotland it was 7 per 100,000 in each year, 1900 to 1903.

The following table gives the death rates from diabetes in the registration area and its subdivisions, and in the registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM DIABETES PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	11.0	9.7	10.3	10.4	11.3	12.9
Registration cities.....	10.6	9.3	10.0	9.9	11.0	12.7
Registration states.....	12.2	11.0	11.5	11.7	12.6	14.3
Cities in registration states.....	12.7	11.1	12.1	11.8	13.0	15.0
Rural part of registration states.....	11.7	10.8	10.8	11.5	12.2	13.4
Registration cities in other states.....	8.6	7.5	8.0	8.0	9.0	10.4
Registration states:						
Connecticut.....	14.1	14.4	12.8	12.9	13.3	17.1
District of Columbia.....	10.7	7.5	10.2	10.7	12.3	12.4
Indiana.....	8.6	7.9	8.0	8.8	8.6	9.7
Maine.....	12.7	10.2	12.6	12.6	13.1	14.7
Massachusetts.....	13.5	12.8	11.7	13.4	14.2	15.5
Michigan.....	11.5	10.4	10.5	12.1	11.3	13.4
New Hampshire.....	14.8	17.5	11.6	12.2	18.9	14.3
New Jersey.....	9.6	8.3	8.8	9.0	10.5	11.3
New York.....	13.2	11.4	12.8	12.3	13.8	15.7
Rhode Island.....	15.3	13.1	19.0	11.9	15.9	16.0
Vermont.....	15.3	12.5	16.8	12.4	14.1	21.3
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	5.2	6.2	2.3	3.7	7.2	7.1
Baltimore, Md.....	9.9	8.2	10.1	8.8	10.4	11.9
Boston, Mass.....	14.9	15.2	14.1	13.7	13.8	18.0
Buffalo, N. Y.....	14.3	12.8	11.0	12.9	15.4	18.4
Chicago, Ill.....	8.5	6.7	8.2	8.4	9.2	10.0
Cincinnati, Ohio.....	9.0	8.9	9.8	6.7	9.0	10.3
Cleveland, Ohio.....	5.9	4.4	5.9	5.2	7.2	7.3
Columbus, Ohio.....	8.3	6.4	3.9	9.8	9.6	10.1
Denver, Colo.....	12.1	12.7	11.1	13.9	9.5	12.8
Detroit, Mich.....	11.3	9.4	12.8	11.9	10.3	11.7
Fall River, Mass.....	10.8	7.6	6.5	13.5	14.9	11.1
Indianapolis, Ind.....	9.6	11.8	9.7	7.0	10.6	8.8
Jersey City, N. J.....	8.4	6.3	7.6	7.4	11.4	8.9
Kansas City, Mo.....	6.5	4.3	6.6	6.5	5.2	10.2
Louisville, Ky.....	7.5	5.9	5.3	10.8	6.9	8.2
Memphis, Tenn.....	4.6	5.9	2.8	3.6	2.6	9.4
Milwaukee, Wis.....	9.2	7.0	9.0	9.2	10.2	10.9
Minneapolis, Minn.....	8.6	6.4	10.7	7.1	8.9	10.1
New Haven, Conn.....	15.1	17.6	17.2	7.1	20.1	14.6
New Orleans, La.....	6.1	3.5	8.2	5.7	6.0	7.5
New York, N. Y.....	13.9	11.4	14.1	13.0	13.9	16.7
Bronx borough.....	15.7	10.0	12.3	13.5	16.2	24.1
Brooklyn borough.....	11.8	9.7	10.6	12.1	12.4	14.0
Manhattan borough.....	15.4	13.0	16.8	14.0	14.6	18.2
Queens borough.....	9.6	5.9	10.7	8.4	11.6	12.3
Richmond borough.....	14.3	13.4	14.6	10.0	19.5	12.3
Newark, N. J.....	11.2	13.4	8.7	10.5	12.4	11.1
Omaha, Neb.....	6.4	4.9	8.5	3.6	6.2	7.7
Paterson, N. J.....	9.0	6.7	12.1	8.1	7.1	11.2
Philadelphia, Pa.....	9.8	8.4	9.1	7.8	11.3	12.6
Pittsburg, Pa.....	4.7	4.7	3.6	6.2	4.1	4.8
Providence, R. I.....	16.4	13.1	21.2	10.9	18.8	18.4
Rochester, N. Y.....	13.7	13.5	12.7	11.9	10.5	19.0
St. Joseph, Mo.....	4.6	5.8	4.7	4.6	1.8	4.4
St. Louis, Mo.....	6.8	5.7	7.1	4.7	7.7	8.6
St. Paul, Minn.....	7.7	9.2	5.4	5.3	8.1	11.4
San Francisco, Cal.....	17.6	14.3	18.1	16.8	18.5	20.3
Seranton, Pa.....	9.3	10.8	8.6	9.3	8.2	9.8
Syracuse, N. Y.....	11.6	10.2	8.2	15.1	14.0	12.0
Toledo, Ohio.....	10.6	10.6	11.0	11.3	9.6	12.0
Washington, D. C.....	10.7	7.5	10.2	10.7	12.3	12.4
Worcester, Mass.....	12.8	15.2	10.8	8.8	10.1	18.9

The annual death rate from diabetes in each city in the

registration area and each county, exclusive of cities, in the registration states are given in Table IV (page lxxii).

The following table gives the number of deaths from diabetes in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM DIABETES: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	17,460	2,996	3,212	3,312	3,681	4,259
Sex:						
Male.....	8,672	1,532	1,593	1,638	1,789	2,120
Female.....	8,788	1,464	1,619	1,674	1,892	2,139
Age:						
Under 5 years.....	289	53	66	69	40	61
5 to 9 years.....	383	64	74	78	78	89
10 to 14 years.....	552	100	109	101	109	133
15 to 19 years.....	512	106	90	104	98	114
20 to 24 years.....	512	107	95	103	105	102
25 to 29 years.....	635	110	127	108	145	145
30 to 34 years.....	676	130	148	112	144	142
35 to 39 years.....	702	120	142	126	148	166
40 to 44 years.....	846	146	173	173	167	187
45 to 49 years.....	1,083	166	220	184	225	288
50 to 54 years.....	1,646	285	308	299	333	421
55 to 59 years.....	1,943	318	343	367	432	483
60 to 64 years.....	2,281	368	411	441	491	570
65 to 69 years.....	2,116	358	366	397	476	519
70 to 74 years.....	1,660	285	276	326	337	436
75 to 79 years.....	1,005	180	161	205	206	253
80 to 84 years.....	425	64	75	80	101	105
85 to 89 years.....	124	21	19	24	30	30
90 to 94 years.....	24	5	2	5	6	6
95 years and over.....	3	1	1	.....	1	.....
Unknown.....	43	9	6	10	9	9

Apparently there was but little difference in the number of males and females who died of diabetes. The number of deaths by ages indicates that the mortality was greatest above the age of 45.

Alcoholism.—The number of deaths compiled under the title "alcoholism" during the five years was 9,865, representing an average annual death rate of 6.2 per 100,000 of population. This title of the international classification, however, does not include deaths from alcoholic cirrhosis of the liver, general alcoholic paralysis, or certain organic diseases due to the use of alcohol, and therefore the figures can not be taken to show the whole number of deaths or the death rate actually due to the use of alcoholic beverages.

The following table gives, for the registration area and its subdivisions, the number of deaths compiled under "alcoholism," with the death rates per 100,000:

AREA.	NUMBER OF DEATHS FROM ALCOHOLISM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	9,865	1,962	1,870	1,943	2,163	1,927
Registration cities.....	8,296	1,657	1,591	1,644	1,796	1,608
Registration states.....	5,577	1,003	1,016	1,080	1,290	1,128
Cities in registration states.....	4,008	758	737	781	923	809
Rural part of registration states.....	1,569	305	279	299	367	319
Registration cities in other states.....	4,288	899	884	863	873	799
NUMBER OF DEATHS FROM ALCOHOLISM PER 100,000 OF POPULATION: 1900 TO 1904.						
AREA.	Annual average.	1900	1901	1902	1903	1904
The registration area.....	6.2	6.4	6.0	6.1	6.7	5.8
Registration cities.....	7.3	7.7	7.2	7.2	7.7	6.8
Registration states.....	5.4	5.3	5.0	5.2	5.2	5.3
Cities in registration states.....	7.0	7.1	6.6	6.8	7.9	6.7
Rural part of registration states.....	3.4	3.3	3.1	3.3	4.0	3.4
Registration cities in other states.....	7.6	8.3	7.8	7.7	7.6	6.8

The distribution of the deaths from alcoholism, by sex and by age groups, are shown for the registration area in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM ALCOHOLISM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	9,865	1,962	1,870	1,943	2,163	1,927
Sex:						
Male.....	8,450	1,665	1,598	1,650	1,883	1,654
Female.....	1,415	297	272	293	280	273
Age:						
Under 5 years.....	22	2	7	6	4	3
5 to 14 years.....	13	3	4	3	1	2
15 to 24 years.....	219	40	49	33	54	43
25 to 34 years.....	2,041	411	381	415	457	377
35 to 44 years.....	3,287	650	617	656	732	632
45 to 64 years.....	3,585	713	672	692	770	738
65 years and over.....	592	119	122	110	124	117
Unknown.....	106	24	18	28	21	15

The number of males dying from alcoholism during the five years was 8,450, while the number of females was but 1,415, the proportion being 857 males to 143 females in 1,000 deaths of both sexes.

DISEASES OF THE NERVOUS SYSTEM.

The number of deaths reported as due to diseases of the nervous system in the registration area during the five years, 1900 to 1904, was 302,876, of which 64,232 were recorded in 1900; 60,431, in 1901; 59,313, in 1902; 58,319, in 1903; and 60,581, in 1904. The average annual death rate was 190.1 per 100,000. The highest rate (208.8) occurred in 1900 and the lowest (179.8) in 1903.

From 1900 to 1903 there was a progressive decrease in the death rate from this class of diseases, but in 1904 it was higher than in 1903, although lower than in the preceding years.

The following table gives the number of deaths from diseases of the nervous system in the registration area and its main subdivisions, in the aggregate and for each year 1900 to 1904, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE NERVOUS SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	302,876	64,232	60,431	59,313	58,319	60,581
Registration cities.....	213,450	45,171	42,357	42,302	41,046	42,574
Registration states.....	197,760	41,092	39,550	38,260	38,152	40,696
Cities in registration states.....	108,324	22,031	21,476	21,249	20,879	22,689
Rural part of registration states.....	89,426	19,061	18,074	17,011	17,273	18,007
Registration cities in other states.....	105,126	23,140	20,881	21,053	20,167	19,885

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE NERVOUS SYSTEM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	190.1	208.8	193.3	186.3	179.8	183.6
Registration cities.....	188.5	210.3	191.3	186.5	176.8	179.4
Registration states.....	191.9	205.9	194.9	185.6	182.2	191.4
Cities in registration states.....	190.0	206.4	192.2	185.5	178.1	189.2
Rural part of registration states.....	194.2	205.2	198.4	185.7	187.5	194.2
Registration cities in other states.....	187.0	214.2	190.3	187.5	175.5	169.5

The following table gives the number of deaths from diseases of the nervous system in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM DISEASES OF THE NERVOUS SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	302,876	64,232	60,431	59,313	58,319	60,581
Sex:						
Male.....	162,219	34,412	32,416	31,822	31,251	32,318
Female.....	140,657	29,820	28,015	27,491	27,068	28,263
Age:						
Under 1 year.....	58,757	14,176	12,363	11,673	10,277	10,268
Under 5 years.....	86,331	21,111	17,943	16,955	15,011	15,311
5 to 14 years.....	11,847	2,745	2,250	2,080	2,198	2,574
15 to 24 years.....	9,143	1,984	1,809	1,718	1,749	1,883
25 to 34 years.....	12,127	2,593	2,457	2,410	2,269	2,398
35 to 44 years.....	19,160	3,825	3,854	3,920	3,809	3,752
45 to 64 years.....	66,861	12,976	13,164	13,222	13,529	13,970
65 years and over.....	96,423	18,811	18,725	18,797	19,569	20,521
Unknown.....	984	187	229	211	185	172

The 302,876 deaths from this class of diseases were divided by sex as follows: Males, 162,219; females, 140,657—a proportion of 536 males to 464 females in 1,000 deaths of both sexes.

Meningitis.—In the international classification, deaths from meningitis (nontuberculous) are classified as “simple meningitis” and “epidemic cerebro-spinal meningitis,” and the number of deaths is so classified in Table 5; but the probable lack of accurate distinction in many cases makes it desirable that they should be considered together. In the following table, however, the reported number of deaths and the corresponding death rates are given for each form of meningitis as well as for both forms combined:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	52,755	12,578	10,430	9,981	9,213	10,553
Simple meningitis.....	42,259	10,793	8,643	8,259	7,295	7,269
Epidemic cerebro-spinal meningitis.....	10,496	1,785	1,787	1,722	1,918	3,284

CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Aggregate.....	33.1	40.9	33.4	31.3	28.4	32.0
Simple meningitis.....	26.5	35.1	27.7	25.9	22.5	22.0
Epidemic cerebro-spinal meningitis.....	6.6	5.8	5.7	5.4	5.9	10.0

According to the above figures there was a progressive decrease, year by year, in the death rates from simple meningitis, and also from meningitis in general, up to 1904, in which year the general rate showed an increase produced by the greater prevalence of epidemic cerebro-spinal meningitis.

The average annual and the yearly death rates from meningitis, in the registration area and its main subdivisions, and in the registration states and the cities of at least 100,000 population, are shown in the following table:

AREA.	NUMBER OF DEATHS FROM MENINGITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	33.1	40.9	33.4	31.3	28.4	32.0
Registration states.....	36.6	44.9	36.5	35.3	31.1	35.8
Registration cities.....	33.0	40.6	32.9	29.8	27.9	34.2
Cities in registration states.....	39.8	48.4	38.7	36.2	32.9	43.4
Rural part of registration states.....	24.6	31.6	25.8	21.7	21.6	22.3
Registration cities in other states.....	33.3	41.4	34.3	34.2	29.2	27.9
Registration states:						
Connecticut.....	37.4	41.9	33.3	34.6	34.4	42.7
District of Columbia.....	25.3	37.3	23.6	26.4	17.1	22.8
Indiana.....	27.2	35.0	29.1	23.9	21.4	26.7
Maine.....	36.8	44.8	41.3	34.9	33.8	29.4
Massachusetts.....	38.4	46.7	39.6	37.5	36.9	32.1
Michigan.....	17.9	25.2	18.1	15.6	15.3	15.5
New Hampshire.....	41.6	54.4	40.2	45.1	37.7	30.8
New Jersey.....	44.1	54.6	44.0	40.6	41.1	41.1
New York.....	33.6	40.2	31.5	27.8	26.1	42.5
Rhode Island.....	37.3	48.8	47.4	42.5	24.7	24.9
Vermont.....	34.4	36.1	40.6	35.3	27.1	32.7
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	41.3	53.1	42.0	32.4	39.8	38.4
Baltimore, Md.....	30.4	42.2	28.3	29.9	25.4	26.4
Boston, Mass.....	37.7	45.3	38.6	38.1	34.6	32.7
Buffalo, N. Y.....	33.6	45.7	32.9	32.8	31.2	26.1
Chicago, Ill.....	31.4	39.4	31.5	32.8	30.3	24.2
Cincinnati, Ohio.....	55.2	70.6	58.0	54.0	44.2	50.4
Cleveland, Ohio.....	37.9	49.2	39.2	39.7	32.3	30.1
Columbus, Ohio.....	40.9	47.8	38.0	49.2	36.2	34.6
Denver, Colo.....	39.2	47.1	56.8	30.6	35.3	26.9
Detroit, Mich.....	30.2	39.2	31.3	26.9	26.5	27.1
Fall River, Mass.....	55.0	64.8	57.4	57.7	53.5	42.7
Indianapolis, Ind.....	38.0	50.2	40.5	25.7	32.4	42.5
Jersey City, N. J.....	69.7	82.8	62.2	71.1	56.5	76.0
Kansas City, Mo.....	37.6	44.6	30.0	41.8	38.7	34.1
Louisville, Ky.....	44.8	49.8	42.4	35.3	53.3	42.0
Memphis, Tenn.....	30.0	37.1	31.1	27.3	23.8	31.5
Milwaukee, Wis.....	26.6	30.8	29.3	28.2	25.6	19.6
Minneapolis, Minn.....	24.7	35.5	24.2	25.7	20.1	19.7
New Haven, Conn.....	40.9	30.5	36.3	41.8	47.1	46.2
New Orleans, La.....	39.5	52.9	39.4	40.9	28.3	36.7
New York, N. Y.....	38.6	43.6	33.3	30.4	27.1	58.0
Bronx borough.....	37.7	37.9	32.1	33.7	27.8	55.1
Brooklyn borough.....	30.2	45.1	30.4	20.8	18.8	36.5
Manhattan borough.....	45.3	44.3	36.3	35.8	33.0	78.1
Queens borough.....	28.9	30.7	23.8	36.7	26.0	27.9
Richmond borough.....	27.1	43.3	27.7	28.5	11.2	23.2
Newark, N. J.....	60.3	74.0	61.5	57.8	53.9	56.7
Omaha, Nebr.....	23.7	28.3	38.6	22.8	15.0	13.7
Paterson, N. J.....	62.4	73.2	70.5	58.8	60.9	48.3
Philadelphia, Pa.....	25.6	36.2	30.9	30.7	15.9	15.6
Pittsburg, Pa.....	38.3	51.6	34.3	35.0	35.9	35.1
Providence, R. I.....	30.6	37.0	39.0	32.8	23.0	21.0
Rochester, N. Y.....	38.7	50.4	45.4	36.3	28.1	32.8
St. Joseph, Mo.....	13.9	10.7	26.5	13.9	12.7	8.0
St. Louis, Mo.....	25.5	28.9	31.0	24.5	23.5	20.0
St. Paul, Minn.....	24.2	31.9	21.7	20.1	18.0	29.7
San Francisco, Cal.....	31.9	42.3	36.6	34.1	23.6	23.9
Scranton, Pa.....	42.9	46.1	47.8	48.5	33.7	40.1
Syracuse, N. Y.....	34.7	48.9	31.7	39.2	27.1	27.5
Toledo, Ohio.....	29.7	34.1	29.3	26.2	29.5	29.2
Washington, D. C.....	25.3	37.3	23.6	26.4	17.1	22.8
Worcester, Mass.....	35.9	47.3	34.5	35.9	45.1	19.7

It appears from the preceding table that the mortality from meningitis was higher in the cities of the registration states than in the cities of other states or in the rural districts of the same states.

When each registration state is taken as a unit, it is seen that the average annual death rates from meningitis were highest in New Jersey (44.1) and New Hamp-

shire (41.6), and lowest in Michigan (17.9) and the District of Columbia (25.3). The figures given for the principal cities show that the average annual death rates from meningitis during the five years were highest in those located in New Jersey, in all of which it was over 60 per 100,000 (Jersey City, 69.7; Paterson, 62.4; Newark, 60.3). The lowest rates occurred in St. Joseph, Mo. (13.9); St. Paul, Minn. (24.2); and Minneapolis, Minn. (24.7).

The death rates from meningitis in each city in the registration area and in each county, exclusive of cities, in the registration states are given in Table iv (page lxxii). A reference to this table shows that there was an excessive death rate from meningitis in one or more years in many of the cities of less than 100,000 population.

The distribution of the deaths from meningitis by sex and by age is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM MENINGITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	52,755	12,578	10,430	9,981	9,213	10,553
Sex:						
Male.....	28,847	6,866	5,724	5,469	4,996	5,792
Female.....	23,908	5,712	4,706	4,512	4,217	4,761
Age:						
Under 1 year.....	17,742	4,271	3,581	3,550	3,161	3,179
1 year.....	8,312	2,043	1,672	1,556	1,485	1,556
2 years.....	4,011	947	793	757	722	792
3 years.....	2,402	564	484	428	416	510
4 years.....	1,679	439	312	290	243	395
Under 5 years.....	34,146	8,264	6,842	6,581	6,027	6,432
5 to 9 years.....	4,597	1,106	840	794	703	1,094
10 to 14 years.....	2,187	527	365	358	307	570
15 to 19 years.....	1,824	408	327	317	282	495
20 to 24 years.....	1,426	294	295	288	240	309
25 to 29 years.....	1,258	335	237	240	207	239
30 to 34 years.....	1,181	287	237	251	203	223
35 to 39 years.....	1,093	240	229	224	196	204
40 to 44 years.....	986	215	220	169	183	199
45 to 49 years.....	832	177	169	162	162	162
50 to 54 years.....	706	153	144	137	136	136
55 to 59 years.....	585	126	121	114	107	117
60 to 64 years.....	526	105	113	101	106	101
65 to 69 years.....	447	126	84	87	81	69
70 to 74 years.....	337	82	69	69	56	61
75 to 79 years.....	230	53	52	44	34	47
80 to 84 years.....	164	37	35	30	32	30
85 to 89 years.....	64	13	13	14	11	13
90 to 94 years.....	14	8	3	1	2	.....
95 years and over.....	12	3	5	1	1	2
Unknown.....	110	24	30	19	17	20

The 52,755 deaths from meningitis in the five years represent 28,847 males and 23,908 females, the proportion being 547 males to 453 females in 1,000 deaths of both sexes. About 65 per cent of the deaths from this disease occurred at ages under 5, more than half of which occurred under the age of 1 year.

The following table shows, for the registration area, the number and proportion of deaths from meningitis in each month:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM MENINGITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	52,755	12,578	10,430	9,981	9,213	10,553
January.....	4,114	906	839	773	745	761
February.....	4,160	1,082	811	800	734	783
March.....	5,159	1,260	1,036	961	905	988
April.....	5,263	1,301	951	989	819	1,203
May.....	5,295	1,245	936	874	886	1,354
June.....	4,426	1,002	853	873	763	935
July.....	5,141	1,253	1,084	1,017	871	916
August.....	4,600	1,142	975	865	879	838
September.....	4,032	1,002	872	761	683	714
October.....	3,528	872	695	677	620	664
November.....	3,231	714	658	672	589	598
December.....	3,678	750	720	717	704	787
Unknown.....	29			2	15	12
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	78.0	79.2	80.4	77.5	81.0	72.2
February.....	78.9	82.0	77.8	80.2	79.8	74.3
March.....	97.9	100.9	99.3	96.3	98.4	95.7
April.....	99.8	103.4	91.2	99.1	89.0	114.1
May.....	100.4	99.0	89.8	87.6	96.3	128.5
June.....	83.9	79.7	81.8	87.5	83.0	88.7
July.....	97.5	99.6	103.9	101.9	94.7	86.0
August.....	89.1	90.8	93.5	86.7	95.6	79.5
September.....	76.5	79.7	83.6	78.3	74.3	67.7
October.....	66.9	69.3	66.0	67.8	67.4	63.0
November.....	61.3	56.8	63.1	67.3	64.0	56.7
December.....	69.8	59.6	69.0	71.8	76.5	74.7

Apoplexy and paralysis.—During the five years the total number of deaths registered, in which the cause was stated as apoplexy, was 110,163, representing an average annual death rate of 69.2 per 100,000 of population. The number attributed to "paralysis" (not including general paralysis of the insane) was 34,884, equivalent to an average annual death rate of 21.9. As physicians, in stating the cause of death, often use the term paralysis as synonymous with apoplexy, the reported deaths from each of these forms of disease, though given separately in Tables 5, 6, 7, and 8 are combined in Table 9, and should be considered together. In the following table, however, the reported number of deaths from apoplexy and paralysis, and the corresponding death rates, are given for each disease as well as for the two combined:

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	145,047	28,722	28,610	28,536	28,920	30,259
Apoplexy.....	110,163	20,772	21,390	21,862	22,311	23,828
Paralysis.....	34,884	7,950	7,220	6,674	6,609	6,431
CAUSE OF DEATH.	NUMBER OF DEATHS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
Aggregate.....	91.1	93.4	91.5	89.7	89.2	91.7
Apoplexy.....	69.2	67.5	68.4	68.7	68.8	72.2
Paralysis.....	21.9	25.9	23.1	21.0	20.4	19.5

The figures for apoplexy show an apparently progressive increase in the number of deaths and the death rates, while those for paralysis show an apparent decrease; but it is most probable that the changes are due to increased accuracy in the statement of the cause of death. Paralysis is regarded as an indefinite and unsatisfactory return. It has been so described in the Manual and the pamphlets distributed to physicians and registrars, with the suggestion that the *cause of the paralysis* should be given in every case in which the term is used. The compliance with these suggestions, in places in which the international classification is in use, probably accounts for the decrease between 1900 and 1904 of 1,519 in the number of deaths compiled under paralysis.

Taken together, there were 145,047 deaths attributed to apoplexy and paralysis in the registration area during the five years 1900 to 1904, giving a death rate of 91.1. The rate decreased year by year from 93.4 in 1900 to 89.2 in 1903, but rose in 1904 to 91.7.

The following table gives the number of deaths from apoplexy and paralysis in the registration area and its subdivisions, with the average annual and yearly death rates:

AREA.	NUMBER OF DEATHS FROM APOPLEXY AND PARALYSIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	145,047	28,722	28,610	28,536	28,920	30,259
Registration cities.....	94,684	18,724	18,652	18,894	18,776	19,638
Registration states.....	101,156	19,703	19,982	19,772	20,285	21,414
Cities in registration states..	50,793	9,705	10,024	10,130	10,141	10,793
Rural part of registration states.....	50,363	9,998	9,958	9,642	10,144	10,621
Registration cities in other states.....	43,891	9,019	8,628	8,764	8,635	8,845
AREA.	NUMBER OF DEATHS FROM APOPLEXY AND PARALYSIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	91.1	93.4	91.5	89.7	89.2	91.7
Registration cities.....	83.6	87.2	84.3	83.4	80.8	82.8
Registration states.....	98.2	98.7	98.5	95.9	96.9	100.7
Cities in registration states..	89.1	90.9	89.7	88.4	86.5	89.9
Rural part of registration states.....	109.4	107.6	109.3	105.3	110.1	114.6
Registration cities in other states.....	78.1	83.5	78.7	78.1	75.1	75.4

The fact that in the registration states the death rates from apoplexy and paralysis are higher in rural districts than in cities is due, probably, to the greater proportion of persons of advanced age in the former.

The first table on page xlv gives the deaths from apoplexy and paralysis in the registration area, by sex and by age.

According to these figures for apoplexy and paralysis the number of deaths of males was slightly greater than that of females, although the difference was not great. About 32 per cent of the deaths occurred at ages between 45 and 65 years and about 54 per cent at 65 years and over.

DISEASES OF CIRCULATORY SYSTEM.

SEX AND AGE.	NUMBER OF DEATHS FROM APOPLEXY AND PARALYSIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	145,047	28,722	28,610	28,536	28,920	30,259
Sex:						
Male.....	73,124	14,518	14,463	14,357	14,592	15,194
Female.....	71,923	14,204	14,147	14,179	14,328	15,065
Age:						
Under 1 year.....	3,491	846	804	676	601	564
Under 5 years.....	5,381	1,375	1,213	1,040	913	840
5 to 14 years.....	1,045	265	252	195	164	169
15 to 24 years.....	1,026	391	343	308	313	271
25 to 34 years.....	3,633	772	747	740	690	684
35 to 44 years.....	8,350	1,673	1,704	1,709	1,646	1,618
45 to 64 years.....	46,199	8,944	9,120	9,106	9,210	9,759
65 years and over.....	78,281	15,216	15,111	15,251	15,885	16,818
Unknown.....	532	86	120	127	99	100

The number and proportion of deaths from apoplexy and paralysis in each month are shown in the following table:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM APOPLEXY AND PARALYSIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	145,047	28,722	28,610	28,536	28,920	30,259
January.....	13,616	2,717	2,669	2,550	2,822	2,858
February.....	12,977	2,535	2,531	2,509	2,556	2,846
March.....	13,851	2,986	2,698	2,624	2,540	3,003
April.....	12,975	2,709	2,538	2,551	2,459	2,718
May.....	12,248	2,518	2,376	2,447	2,339	2,568
June.....	10,916	2,124	2,271	2,209	2,110	2,201
July.....	11,186	2,204	2,344	2,224	2,256	2,158
August.....	10,716	2,220	2,074	2,132	2,128	2,162
September.....	10,429	2,025	2,060	2,091	2,095	2,158
October.....	11,211	2,081	2,170	2,244	2,386	2,330
November.....	11,586	2,175	2,265	2,319	2,393	2,434
December.....	13,242	2,426	2,612	2,629	2,779	2,796
Unknown.....	95	2	2	7	57	27
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	93.9	94.6	93.3	89.4	97.8	94.5
February.....	89.5	88.3	88.5	87.9	88.5	94.1
March.....	95.6	104.0	94.3	92.0	88.0	99.3
April.....	89.5	94.3	88.7	89.4	85.2	89.9
May.....	84.5	87.7	83.1	85.8	81.0	85.0
June.....	75.3	78.9	79.4	77.4	73.1	72.8
July.....	77.2	76.7	81.9	78.0	78.2	71.4
August.....	73.9	77.3	72.5	74.7	73.7	71.5
September.....	71.9	70.5	72.0	73.3	72.6	71.4
October.....	77.4	72.5	75.8	78.7	82.7	77.1
November.....	79.9	75.7	79.2	81.3	82.9	80.5
December.....	91.4	84.5	91.3	92.1	96.3	92.5

DISEASES OF THE CIRCULATORY SYSTEM.

The total number of deaths from diseases of the circulatory system in the registration area during the five years was 250,257, representing an average annual death rate of 157.1. The figures for deaths from this class of diseases show a progressive increase, the number advancing from 45,279 in 1900 to 57,220 in 1904, and the death rate from 147.2 in 1900 to 173.4 in 1904.

The majority of the deaths in this class—about 75 per cent, in fact—occurred from organic diseases of the heart (tabulated as "heart disease"), of which there

were 192,549, equivalent to an average annual rate of 120.9. Pericarditis includes 3,598 (rate, 2.3); endocarditis, 17,716 (rate, 11.1); angina pectoris, 10,391 (rate, 6.5); diseases of arteries, 13,061 (rate, 8.2); and embolism and thrombosis, 6,636 (rate, 4.2).

The deaths and death rates from each disease included in this class are shown in Table III (page lxviii.)

The number of deaths from diseases of the circulatory system in the registration area and its subdivisions with the average annual and the yearly death rates, are shown in the following table:

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	250,257	45,279	46,250	49,233	52,275	57,220
Registration cities.....	176,271	31,660	32,596	35,081	36,743	40,191
Registration states.....	168,246	30,222	31,103	33,043	35,188	38,600
Cities in registration states.....	94,260	16,603	17,449	18,891	19,656	21,661
Rural part of registration states.....	73,986	13,619	13,654	14,152	15,532	17,029
Registration cities in other states.....	82,011	15,057	15,147	16,190	17,087	18,530

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	157.1	147.2	148.0	154.6	161.2	173.4
Registration cities.....	155.7	147.4	147.2	154.7	158.2	169.4
Registration states.....	163.2	151.4	153.3	160.3	168.0	182.0
Cities in registration states.....	165.3	155.6	156.1	164.9	167.6	180.6
Rural part of registration states.....	160.7	146.6	149.9	154.5	168.6	183.6
Registration cities in other states.....	145.9	139.4	138.1	144.2	148.7	158.0

The distribution of the deaths from diseases of the circulatory system in the registration area, by sex and by age, are shown in the table below:

SEX AND AGE.	NUMBER OF DEATHS FROM DISEASES OF THE CIRCULATORY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	250,257	45,279	46,250	49,233	52,275	57,220
Sex:						
Male.....	133,009	23,746	24,569	26,527	27,812	30,355
Female.....	117,248	21,533	21,681	22,706	24,463	26,865
Age:						
Under 1 year.....	5,821	1,329	1,109	1,193	1,074	1,116
Under 5 years.....	7,909	1,821	1,506	1,622	1,438	1,522
5 to 14 years.....	7,381	1,585	1,361	1,475	1,354	1,606
15 to 24 years.....	10,119	2,019	1,982	1,950	2,007	2,161
25 to 34 years.....	15,391	2,992	2,963	3,105	3,110	3,221
35 to 44 years.....	23,331	4,318	4,347	4,694	4,874	5,098
45 to 64 years.....	79,616	14,359	14,828	15,697	16,592	18,140
65 years and over.....	105,627	18,035	19,084	20,500	22,703	25,305
Unknown.....	883	150	179	190	197	167

The figures by sex for this class of diseases show a greater number of deaths of males than of females in each year. The total for the five years includes 133,009 males and 117,248 females—a proportion of 531 males to 469 females per 1,000 deaths of both sexes.

Heart disease.—The following table gives the number of deaths from heart disease in the registration area and its subdivisions, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM HEART DISEASE: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	192,549	34,210	35,586	37,577	40,704	44,472
Registration cities.....	131,974	23,255	24,378	26,004	27,901	30,436
Registration states.....	131,881	23,162	24,413	25,710	27,872	30,724
Cities in registration states..	71,306	12,207	13,205	14,137	15,069	16,688
Rural part of registration states.....	60,575	10,955	11,208	11,573	12,803	14,036
Registration cities in other states.....	60,668	11,048	11,173	11,867	12,832	13,748

AREA.	NUMBER OF DEATHS FROM HEART DISEASE PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	120.9	111.2	113.9	118.0	125.5	134.8
Registration cities.....	116.5	108.3	110.1	114.7	120.1	128.3
Registration states.....	128.0	116.0	120.3	124.7	133.1	144.5
Cities in registration states..	125.1	114.4	118.2	123.4	128.5	139.1
Rural part of registration states.....	131.6	117.9	123.0	126.3	139.0	151.4
Registration cities in other states.....	107.9	102.3	101.8	105.7	111.6	117.2

The distribution of the deaths from heart disease in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM HEART DISEASE: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	192,549	34,210	35,586	37,577	40,704	44,472
Sex:						
Male.....	101,288	17,764	18,782	20,053	21,409	23,280
Female.....	91,261	16,446	16,804	17,524	19,295	21,192
Age:						
Under 1 year.....	3,665	847	691	743	674	710
Under 5 years.....	4,888	1,122	923	981	895	967
5 to 14 years.....	5,068	1,031	925	978	965	1,169
15 to 24 years.....	7,233	1,359	1,381	1,379	1,490	1,624
25 to 34 years.....	11,077	2,044	2,075	2,213	2,349	2,396
35 to 44 years.....	17,720	3,153	3,251	3,531	3,807	3,978
45 to 64 years.....	62,758	11,044	11,716	12,302	13,216	14,480
65 years and over.....	83,101	14,334	15,168	16,044	17,831	19,724
Unknown.....	704	123	147	149	151	134

The total number of males dying from heart disease was 101,288 and of females 91,261, which gives a proportion of 526 males to 474 females in 1,000 deaths of both sexes.

DISEASES OF THE RESPIRATORY SYSTEM.

The total number of deaths from diseases of the respiratory system during the five years was 369,844, representing an average annual death rate of 232.2. The deaths and death rates from each disease included in this class are shown in Table III (page lxviii).

The following table gives the deaths from diseases of the respiratory system in the registration area and its subdivisions, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	369,844	78,832	72,080	71,027	70,930	76,975
Registration cities.....	232,213	61,589	55,541	56,842	56,765	61,476
Registration states.....	232,402	49,537	46,124	44,118	43,945	48,678
Cities in registration states..	154,771	32,294	29,585	29,933	29,780	33,179
Rural part of registration states.....	77,631	17,243	16,539	14,185	14,165	15,499
Registration cities in other states.....	137,442	29,295	25,956	26,909	26,985	28,297

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	232.2	256.2	230.6	223.1	218.7	233.3
Registration cities.....	258.0	286.8	250.8	250.6	244.5	259.1
Registration states.....	225.5	248.2	227.4	214.0	209.9	228.9
Cities in registration states..	271.4	302.6	264.7	261.4	254.0	276.7
Rural part of registration states.....	168.6	185.7	181.5	154.9	153.8	167.1
Registration cities in other states.....	244.4	271.1	236.6	239.7	234.8	241.2

It will be seen from the preceding table that the mortality from diseases of the respiratory system was greatest in the cities of the registration states, in which the average annual death rate was 271.4, being about 60 per cent higher than in the rural districts of the same states, and about 11 per cent higher than in the cities of the nonregistration states. The difference in the rates in the two groups of cities, however, may be due to the geographical distribution, as the cities of the registration states are all in the northern section of the country in which the variations in temperature are greatest and most abrupt, while many of those classed as "registration cities" in the nonregistration states are in the southern section, where the temperature is more constant.

The death rate from diseases of the respiratory system decreased progressively from 256.2 in 1900 to 218.7 in 1903, but in 1904 it increased to 233.3.

The distribution of the deaths in the registration area from diseases of the respiratory system, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	369,844	78,832	72,080	71,027	70,930	76,975
Sex:						
Male.....	197,947	41,682	38,207	38,186	37,780	42,092
Female.....	171,897	37,150	33,873	32,841	33,150	34,883
Age:						
Under 1 year.....	82,754	17,553	15,061	17,366	15,736	17,038
Under 5 years.....	139,803	30,801	25,509	29,188	26,379	27,946
5 to 14 years.....	12,957	2,973	2,594	2,588	2,445	2,357
15 to 24 years.....	16,707	3,572	3,410	3,159	3,163	3,403
25 to 34 years.....	24,100	5,069	4,912	4,388	4,683	5,048
35 to 44 years.....	28,608	5,761	5,773	5,247	5,458	5,369
45 to 64 years.....	65,550	13,808	13,148	11,762	12,579	14,253
65 years and over.....	81,192	16,678	16,521	14,527	16,036	17,430
Unknown.....	927	170	213	188	187	169

The figures by sex show that diseases of the respiratory system caused more deaths of males than of

females, as there were 197,947 of the former and 171,897 of the latter, representing a proportion of 535 males to 465 females per 1,000 deaths of both sexes.

The following table gives for the registration area the number and proportion of deaths in each month from diseases of the respiratory system:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM DISEASES OF THE RESPIRATORY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	369,844	78,832	72,080	71,027	70,930	76,975
January.....	47,506	9,320	10,342	8,749	9,111	9,984
February.....	47,748	9,827	9,263	9,025	8,800	10,833
March.....	51,783	13,078	9,991	8,578	8,924	11,212
April.....	44,324	12,007	7,782	7,891	7,191	9,453
May.....	32,599	7,370	5,787	6,340	6,334	6,768
June.....	18,654	3,884	3,747	3,799	3,798	3,426
July.....	13,976	2,765	2,461	3,073	3,127	2,550
August.....	12,124	2,249	2,359	2,744	2,490	2,273
September.....	14,158	2,539	2,804	3,204	2,784	2,767
October.....	19,971	3,737	4,162	4,301	3,878	3,893
November.....	28,075	4,902	5,704	5,778	5,871	5,730
December.....	38,638	7,149	7,580	7,463	8,469	7,977
Unknown.....	288	5	8	22	144	100
Per 1,000 distribution.						
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	128.6	118.2	143.5	123.2	128.7	120.9
February.....	129.2	124.7	128.5	127.1	124.3	140.9
March.....	140.1	165.9	138.6	120.8	126.1	145.9
April.....	119.9	152.3	108.0	111.1	101.6	123.0
May.....	88.2	93.5	80.3	89.3	89.5	88.0
June.....	50.5	49.3	52.0	53.5	53.7	44.6
July.....	37.8	35.1	34.1	43.3	44.2	33.2
August.....	32.8	28.5	32.7	38.6	35.3	29.6
September.....	38.3	32.2	38.9	46.0	39.3	36.0
October.....	54.0	47.4	57.8	60.6	54.8	50.6
November.....	76.0	62.2	80.4	81.4	82.9	74.5
December.....	104.6	90.7	105.2	105.1	119.6	103.8

Bronchitis.—The total number of deaths from bronchitis in the five years included in this report was 62,883. In the detail tables these deaths are classified under “acute bronchitis” and “chronic bronchitis”—terms which include “bronchitis,” when unqualified. This number includes 30,202 deaths of males and 32,681 of females, a proportion of 520 females to 480 males in 1,000 deaths of both sexes. The excess of females, however, appears only in the deaths classified under chronic bronchitis, 26,368 in number, of which 11,479 were males and 14,889 females, the proportion being 565 females to 435 males. Acute bronchitis was assigned as the cause of death in 36,515 cases, of which 18,723 were of males and 17,792 of females, the proportion being 513 to 487.

The number of deaths in the registration area from each form of the disease is shown, by sex, as follows:

CAUSE OF DEATH, AND SEX.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Acute bronchitis: Both sexes.....	36,515	8,135	7,040	7,588	6,842	6,910
Males.....	18,723	4,292	3,577	3,890	3,447	3,517
Females.....	17,792	3,843	3,463	3,698	3,395	3,393
Chronic bronchitis: Both sexes.....	26,368	5,924	5,425	4,993	5,005	5,021
Males.....	11,479	2,516	2,347	2,230	2,175	2,211
Females.....	14,889	3,408	3,078	2,763	2,830	2,810

In the following table, which gives the number of deaths and the death rates from bronchitis in the registration area and its main subdivisions, the two forms of the disease are combined:

AREA.	NUMBER OF DEATHS FROM BRONCHITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	62,883	14,059	12,465	12,581	11,847	11,931
Registration cities.....	49,034	11,127	9,703	10,129	9,275	9,400
Registration states.....	40,393	9,031	8,171	8,112	7,508	7,571
Cities in registration states.....	27,144	6,099	5,409	5,660	4,936	5,040
Rural part of registration states.....	13,249	2,932	2,762	2,452	2,572	2,531
Registration cities in other states.....	22,490	5,028	4,294	4,469	4,339	4,360
AREA.	NUMBER OF DEATHS FROM BRONCHITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	39.5	45.7	39.8	39.5	36.5	36.2
Registration cities.....	43.8	51.7	43.9	44.7	40.0	39.6
Registration states.....	39.2	45.2	40.3	39.3	35.9	35.6
Cities in registration states.....	47.6	57.2	48.4	49.4	42.1	42.0
Rural part of registration states.....	28.8	31.6	30.3	26.7	27.9	27.3
Registration cities in other states.....	40.0	46.5	39.1	39.8	37.8	37.2

It appears from the foregoing figures that in the cities in the registration states the mortality from bronchitis was much higher than in the rural districts of those states, and somewhat higher than in the cities of the nonregistration states.

The distribution of the deaths from bronchitis in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM BRONCHITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	62,883	14,059	12,465	12,581	11,847	11,931
Sex:						
Male.....	30,202	6,808	5,924	6,120	5,622	5,728
Female.....	32,681	7,251	6,541	6,461	6,225	6,203
Age:						
Under 1 year.....	22,493	5,184	4,278	4,758	4,037	4,236
Under 5 years.....	31,795	7,484	6,102	6,618	5,734	5,857
5 to 14 years.....	1,129	273	240	250	191	175
15 to 24 years.....	975	216	193	208	196	162
25 to 34 years.....	1,203	274	279	246	206	198
35 to 44 years.....	1,473	312	330	300	209	262
45 to 64 years.....	6,927	1,506	1,448	1,361	1,331	1,281
65 years and over.....	19,267	3,977	3,843	3,570	3,901	3,976
Unknown.....	114	17	30	28	19	20

Pneumonia.—The total number of deaths from pneumonia occurring in the registration area during the five years, exclusive of the 48,963 deaths classified separately under bronchopneumonia, was 214,931.

The average annual death rate from pneumonia was 134.9 per 100,000 of population. It decreased steadily from a maximum of 158.6 in 1900 to a minimum of 122.6 in 1903, but rose to 136.3 in 1904.

In England and Wales the death rate from this disease was 68.7 in 1901, 84.3 in 1902, and 69.8 in 1903. In Scotland it was 87 in 1901, 106 in 1902, and 96 in 1903.

The following table gives the death rates from pneu-

monia in the registration area and its main subdivisions, and in the registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM PNEUMONIA PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area	134.9	158.6	133.5	124.7	122.6	136.3
Registration cities	149.3	177.9	143.6	138.4	136.9	151.2
Registration states	128.4	152.7	129.5	116.4	113.5	130.7
Cities in registration states	151.6	186.5	146.6	136.9	134.7	156.1
Rural part of registration states	99.7	113.9	108.8	90.9	86.6	98.0
Registration cities in other states	146.9	169.4	140.6	140.0	130.2	146.2
Registration states:						
Connecticut	112.7	138.6	107.6	99.1	107.9	111.2
District of Columbia	137.7	157.9	119.2	126.9	137.4	146.3
Indiana	90.2	110.1	102.7	78.0	68.8	92.2
Maine	126.8	143.6	123.8	120.5	121.2	124.9
Massachusetts	126.9	142.5	126.6	121.8	125.7	118.8
Michigan	87.4	92.8	99.1	85.9	80.1	80.0
New Hampshire	135.2	182.2	131.8	128.8	124.4	110.4
New Jersey	133.2	145.3	126.1	117.5	119.4	157.3
New York	154.8	193.2	154.1	136.9	130.2	161.2
Rhode Island	137.5	158.0	129.8	120.2	140.3	139.2
Vermont	136.2	162.7	141.8	136.2	116.1	124.7
Registration cities of 100,000 population or over:						
Allegheny, Pa.	226.6	231.0	220.6	276.4	227.4	181.6
Baltimore, Md.	164.5	231.4	149.7	148.3	140.2	155.7
Boston, Mass.	155.5	174.7	145.2	152.2	156.4	149.7
Buffalo, N. Y.	85.8	83.7	89.5	81.8	83.1	90.3
Chicago, Ill.	165.0	209.2	139.2	143.8	180.4	154.7
Cincinnati, Ohio	133.4	131.3	131.5	118.9	120.2	164.0
Cleveland, Ohio	137.6	163.2	128.9	137.5	130.1	129.7
Columbus, Ohio	124.1	132.2	97.8	118.0	150.6	118.9
Denver, Colo.	185.1	189.8	222.8	161.3	139.4	214.5
Detroit, Mich.	107.1	113.4	112.4	106.4	109.8	94.8
Fall River, Mass.	137.9	155.4	99.1	136.1	178.3	121.3
Indianapolis, Ind.	113.0	141.9	116.8	83.7	99.7	126.1
Jersey City, N. J.	182.7	189.4	155.1	159.0	181.8	220.1
Kansas City, Mo.	202.4	174.7	155.8	172.4	182.6	321.9
Louisville, Ky.	164.1	167.5	170.2	138.5	140.0	203.5
Memphis, Tenn.	170.2	295.1	111.2	101.9	132.9	212.8
Milwaukee, Wis.	101.2	136.7	89.3	87.8	95.5	98.9
Minneapolis, Minn.	77.0	78.9	80.4	80.8	78.0	66.5
New Haven, Conn.	124.5	162.9	108.0	100.8	132.6	120.7
New Orleans, La.	156.7	187.4	147.1	148.6	135.7	166.2
New York, N. Y.	208.7	277.2	201.3	182.4	166.7	219.9
Bronx borough	172.8	247.4	154.5	161.1	133.8	178.6
Brooklyn borough	196.0	259.8	204.0	178.9	152.5	195.9
Manhattan borough	225.0	297.6	209.7	189.9	184.7	246.1
Queens borough	175.7	212.4	172.9	187.1	136.6	174.5
Richmond borough	158.4	255.1	131.3	131.3	101.9	179.1
Newark, N. J.	153.2	179.6	142.5	130.3	134.5	179.4
Omaha, Nebr.	93.8	125.8	97.0	85.6	80.3	85.5
Paterson, N. J.	149.3	142.6	146.5	141.2	144.0	168.2
Philadelphia, Pa.	156.5	191.0	157.8	154.8	143.2	137.8
Pittsburg, Pa.	215.3	202.4	197.0	255.0	227.2	195.0
Providence, R. I.	144.8	167.4	122.1	127.3	158.3	147.6
Rochester, N. Y.	95.2	108.9	104.6	62.5	95.4	104.3
St. Joseph, Mo.	77.8	62.4	76.8	98.2	51.6	108.9
St. Louis, Mo.	162.9	183.9	158.6	160.7	139.3	172.3
St. Paul, Minn.	73.4	74.2	62.0	78.1	76.1	74.3
San Francisco, Cal.	116.1	121.4	120.1	107.2	124.2	107.7
Scranton, Pa.	168.9	199.9	196.9	126.9	136.7	187.9
Syracuse, N. Y.	89.0	94.1	76.1	63.2	104.0	104.7
Toledo, Ohio	78.6	99.4	78.4	80.0	74.0	61.8
Washington, D. C.	137.7	157.9	119.2	126.9	137.4	146.3
Worcester, Mass.	136.6	157.1	139.6	122.2	141.6	125.8

It will be seen from the preceding table that for the whole five-year period the death rate from pneumonia was about 50 per cent higher in the cities of the registration states than in the rural districts of those states.

In the registration states, exclusive of the District of Columbia, the average annual death rates from pneumonia were highest in New York (154.8), Rhode Island (137.5), and Vermont (136.2); and lowest in

Michigan (87.4), Indiana (90.2), and Connecticut (112.7).

For the principal cities the average annual rates were highest in Allegheny, Pa. (226.6); Pittsburg, Pa. (215.3); New York, N. Y. (208.7); and Kansas City, Mo. (202.4); and lowest in St. Paul, Minn. (73.4); Minneapolis, Minn. (77); St. Joseph, Mo. (77.8); and Toledo, Ohio (78.6). The city in which the mortality was greatest in any one year was Kansas City, Mo., where, in 1904, it was 321.9.

The death rates from pneumonia in each city of the registration area and each county, exclusive of cities, in the registration states are given in Table iv (page lxxii). A reference to this table will show that in many of the minor cities the death rate from pneumonia was excessively high. Those in which it exceeded 225 in one or more years are shown in the following table:

REGISTRATION CITY.	NUMBER OF DEATHS FROM PNEUMONIA PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Alexandria, Va.	234.0	261.2			
Amesbury town, Mass.		306.1			
Ashtabula, Ohio					315.2
Atlanta, Ga.		241.1	267.2		292.6
Barre, Vt.	272.3				
Bellaire, Ohio		373.2	272.4		262.3
Columbus, Ind.	270.6				
Corning, N. Y.	244.1				
Danvers town, Mass.		312.1		300.8	367.6
Dover, N. H.	234.7				
Framingham town, Mass.	230.1				
Harrison, N. J.					226.1
Hoboken, N. J.					243.7
Hudson, N. Y.	251.9				
Johnstown, Pa.	311.7				
Leadville, Colo.	714.6	623.9	442.9	328.9	474.3
Leavenworth, Kans.	323.1				
McKeesport, Pa.	251.3	250.2	243.7		
Mahanoy City, Pa.	237.0	247.7			
Milford town, Mass.	246.1				
Mt. Carmel, Pa.	478.0				
Nashville, Tenn.			296.5	231.0	
Newburg, N. Y.	292.7				
Newburyport, Mass.	287.0				
Ogdensburg, N. Y.				233.8	
Orange, N. J.					236.1
Ottawa, Ill.		233.9			
Paducah, Ky.	241.7				256.3
Passaic, N. J.	230.4				
Petersburg, Va.	279.7				
Plymouth, Pa.	271.1				368.1
Portsmouth, N. H.		242.6			
Pueblo, Colo.	326.7	284.0	419.0	318.1	260.2
Rochester, N. H.	378.0				
Rutland, Vt.				230.2	
South Bethlehem, Pa.					226.6
Southbridge town, Mass.	289.3				242.8
Troy, N. Y.	245.7				
Vincennes, Ind.	253.7				
Ware town, Mass.	242.1				

The distribution of the deaths from pneumonia in the registration area, by sex and by age, is shown in the first table on page xlix.

It appears from those figures that of the deaths from pneumonia nearly 25 per cent more were of males than of females—118,959 of the former and 95,972 of the latter, or a proportion of 553 males to 447 females.

SEX AND AGE.	NUMBER OF DEATHS FROM PNEUMONIA: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	214,931	48,780	41,715	39,715	39,764	44,957
Sex:						
Male.....	118,959	26,370	22,878	22,055	22,034	25,622
Female.....	95,972	22,410	18,837	17,660	17,730	19,335
Age:						
Under 1 year.....	35,628	8,675	6,438	7,249	6,367	6,890
1 year.....	16,636	4,435	2,803	3,420	2,916	3,002
2 years.....	7,076	1,925	1,226	1,447	1,232	1,246
3 years.....	3,713	982	740	749	610	632
4 years.....	2,341	589	485	468	394	405
Under 5 years.....	65,394	16,006	11,752	13,333	11,519	12,184
5 to 9 years.....	5,622	1,394	1,076	1,118	1,024	1,010
10 to 14 years.....	2,716	629	544	506	495	542
15 to 19 years.....	5,055	1,086	1,042	939	940	1,039
20 to 24 years.....	7,390	1,593	1,501	1,358	1,372	1,566
25 to 29 years.....	8,808	1,918	1,773	1,521	1,755	1,841
30 to 34 years.....	9,576	2,020	1,896	1,671	1,850	2,139
35 to 39 years.....	11,032	2,258	2,173	1,949	2,129	2,523
40 to 44 years.....	10,848	2,176	2,165	1,939	1,999	2,569
45 to 49 years.....	10,416	2,211	2,002	1,837	1,977	2,389
50 to 54 years.....	11,165	2,349	2,160	1,965	2,136	2,555
55 to 59 years.....	11,001	2,420	2,217	1,903	2,002	2,459
60 to 64 years.....	12,101	2,631	2,414	2,060	2,276	2,720
65 to 69 years.....	12,174	2,702	2,462	2,112	2,306	2,592
70 to 74 years.....	11,077	2,457	2,307	1,923	2,063	2,327
75 to 79 years.....	9,374	2,041	1,922	1,618	1,747	2,046
80 to 84 years.....	6,439	1,349	1,334	1,151	1,234	1,371
85 to 89 years.....	3,025	613	610	510	581	711
90 to 94 years.....	892	168	193	153	179	199
95 years and over.....	239	42	43	38	54	62
Unknown.....	587	117	129	111	117	113

Considering the distribution of deaths by quinquennial age periods, it is apparent that by far the greatest number, 65,394, occurred in the group under 5 years of age and that of this number 35,628, or 54 per cent, occurred under 1 year and 16,636, or 25 per cent, between 1 and 2 years of age. After the age of 5 years the greatest mortality occurred in the groups 60 to 64 (12,101) and 65 to 69 (12,174).

The following table shows the number and proportion of deaths from pneumonia in each month in the registration area:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM PNEUMONIA: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	214,931	48,780	41,715	39,715	39,764	44,957
January.....	28,797	6,058	6,382	5,142	5,155	6,060
February.....	29,446	6,341	5,788	5,414	5,125	6,778
March.....	32,201	8,594	6,171	5,102	5,227	7,107
April.....	27,059	7,956	4,570	4,557	4,146	5,830
May.....	19,479	4,710	3,344	3,657	3,750	4,018
June.....	9,332	2,232	1,973	1,941	1,934	1,752
July.....	6,943	1,427	1,075	1,464	1,498	1,179
August.....	5,553	1,101	1,035	1,274	1,148	995
September.....	6,672	1,185	1,264	1,607	1,327	1,280
October.....	10,280	2,047	2,134	2,131	1,989	1,979
November.....	15,743	2,848	3,318	3,097	3,273	3,207
December.....	23,059	4,277	4,656	4,317	5,104	4,705
Unknown.....	167	4	5	12	88	58
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	134.1	124.2	153.0	129.5	129.9	135.0
February.....	137.1	130.0	138.8	136.3	129.2	151.0
March.....	149.9	176.2	147.9	128.5	131.8	158.3
April.....	126.0	163.1	109.6	114.8	104.5	129.8
May.....	90.7	96.5	80.2	92.1	94.5	89.5
June.....	45.8	45.8	47.3	48.9	48.7	39.0
July.....	30.9	29.2	25.8	36.9	37.8	26.2
August.....	25.8	22.6	24.8	32.1	28.9	22.2
September.....	31.1	24.3	30.3	40.5	33.4	28.7
October.....	47.9	42.0	51.2	53.7	50.1	44.1
November.....	73.3	58.4	79.5	78.0	82.5	71.4
December.....	107.4	87.7	111.6	108.7	128.7	104.8

DISEASES OF THE DIGESTIVE SYSTEM.

The total number of deaths from diseases of the digestive system, occurring in the registration area during the five years, was 321,093, representing an average annual death rate of 201.6. The deaths and death rates for each separate disease are given in Table III, (page lxviii).

The following table gives, for the registration area and its main subdivisions, the number of deaths from diseases of the digestive system, with the average annual and the yearly death rates:

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE DIGESTIVE SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	321,093	69,607	62,950	61,192	61,219	66,125
Registration cities.....	247,538	51,706	48,484	47,821	47,671	51,856
Registration states.....	208,855	45,812	40,520	38,021	38,069	41,427
Cities in registration states.....	130,300	27,911	20,060	24,650	24,521	27,158
Rural part of registration states.....	73,555	17,901	14,466	13,371	13,548	14,269
Registration cities in other states.....	117,238	23,795	22,424	23,171	23,150	24,698

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE DIGESTIVE SYSTEM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	201.6	226.2	201.4	192.2	188.8	200.4
Registration cities.....	218.6	240.7	218.9	210.9	205.3	218.6
Registration states.....	197.8	229.5	199.8	184.5	181.8	194.8
Cities in registration states.....	228.5	261.5	233.2	215.2	209.1	226.5
Rural part of registration states.....	159.8	192.7	158.8	146.0	147.1	153.9
Registration cities in other states.....	208.5	220.2	204.4	206.4	201.4	210.5

The figures in the preceding table show that the mortality from diseases of the digestive system was much higher in the cities of the registration states (average annual rate, 228.5) than in the rural districts of the same states (average annual rate, 159.8) and somewhat higher than in the cities in the nonregistration states (average annual rate, 208.5). The figures show also that the general death rate was highest in 1900 (226.2), decreasing each year until in 1903 it was 188.8; from this it rose in 1904 to 200.4.

The distribution of the deaths in the registration area from diseases of the digestive system, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM DISEASES OF THE DIGESTIVE SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	321,093	69,607	62,950	61,192	61,219	66,125
Sex:						
Male.....	167,746	36,159	32,897	32,033	32,080	34,577
Female.....	153,347	33,448	30,053	29,159	29,139	31,548
Age:						
Under 1 year.....	135,288	31,130	26,185	24,758	24,967	28,248
Under 5 years.....	174,882	40,205	34,046	32,543	32,033	36,052
5 to 14 years.....	10,762	2,215	2,112	2,027	2,107	2,301
15 to 24 years.....	13,847	2,772	2,671	2,508	2,600	2,706
25 to 34 years.....	16,905	3,621	3,307	3,352	3,306	3,310
35 to 44 years.....	19,320	3,860	3,767	3,850	3,806	3,906
45 to 64 years.....	43,710	8,561	8,725	8,648	8,683	9,063
65 years and over.....	41,441	8,223	8,159	8,027	8,027	8,612
Unknown.....	726	150	160	147	136	133

MORTALITY STATISTICS.

The number of deaths of males was 167,746 and of females, 153,347—a proportion of 522 males to 478 females per 1,000 deaths of both sexes.

The number and proportion of deaths in each month from diseases of the digestive system for the registration area are shown in the following table:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM DISEASES OF THE DIGESTIVE SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	321,093	69,607	62,950	61,192	61,219	66,125
January.....	17,011	3,336	3,253	3,286	3,413	3,728
February.....	15,888	3,080	2,932	2,960	3,212	3,704
March.....	17,868	3,558	3,412	3,349	3,677	3,872
April.....	18,002	3,685	3,345	3,422	3,530	4,020
May.....	19,080	3,978	3,600	3,662	3,786	4,054
June.....	24,474	5,068	4,617	5,117	4,781	4,891
July.....	53,830	12,422	10,341	10,261	9,811	10,995
August.....	53,918	11,994	11,191	10,216	9,713	10,804
September.....	40,438	9,621	8,585	7,167	7,228	7,837
October.....	25,715	5,937	5,032	4,736	4,935	5,075
November.....	17,656	3,628	3,403	3,563	3,509	3,553
December.....	16,970	3,293	3,234	3,445	3,506	3,492
Unknown.....	243	7	5	8	118	105
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	53.0	47.9	51.7	53.7	55.8	56.4
February.....	49.5	44.3	46.6	48.4	52.6	56.1
March.....	55.7	51.1	54.2	54.7	60.2	58.6
April.....	56.1	53.0	53.1	55.9	57.8	60.9
May.....	59.5	57.2	57.2	59.9	62.0	61.4
June.....	76.3	72.8	73.3	83.6	78.2	74.1
July.....	167.8	178.5	164.3	167.7	160.6	166.5
August.....	168.1	172.3	177.8	167.0	158.9	163.7
September.....	126.0	138.2	136.4	117.2	118.3	118.7
October.....	80.1	85.3	79.9	77.4	80.8	76.9
November.....	55.0	52.1	54.1	58.2	57.4	53.8
December.....	52.9	47.3	51.4	56.3	57.4	52.9

Diarrhea and enteritis.—The number of deaths at all ages from diarrhea and enteritis in the registration area during the five years was 180,107. Under the international classification the deaths from diarrhea and enteritis are subdivided so as to segregate the deaths of children under 2 years of age. These deaths represent the infantile mortality from this disease, and correspond closely to those heretofore compiled under "cholera infantum"—a term which is used to express the cause of death in a large proportion of the cases.

The total number of deaths from diarrhea and enteritis, divided according to age, is shown below:

AGE.	NUMBER OF DEATHS FROM DIARRHEA AND ENTERITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	180,107	40,985	35,596	33,627	33,035	36,864
Under 2 years.....	145,917	33,479	28,523	26,903	26,607	30,315
2 years and over.....	34,190	7,506	7,073	6,724	6,338	6,549

For reasons previously stated no estimates have been made of the age distribution of the population for the years covered by these figures, and consequently the death rates can not be given except in the aggregate.

The average annual death rate from diarrhea and enteritis was 113.1. The yearly rate decreased steadily

from 133.2 in 1900 to 101.9 in 1903. In 1904 it increased to 111.7.

The following table gives the death rates from diarrhea and enteritis in the registration area and its main subdivisions, and in the registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM DIARRHEA AND ENTERITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	113.1	133.2	113.9	105.6	101.9	111.7
Registration cities.....	126.4	144.7	127.6	119.9	114.9	126.2
Registration states.....	113.7	139.9	116.4	103.4	99.1	110.7
Cities in registration states.....	140.7	168.9	145.7	129.8	122.8	138.6
Rural part of registration states.....	80.2	106.6	80.5	70.2	68.9	74.6
Registration cities in other states.....	112.0	120.8	109.2	109.8	106.8	113.6
Registration states:						
Connecticut.....	122.3	165.8	107.1	114.7	106.3	119.5
District of Columbia.....	156.0	181.6	165.4	159.9	135.4	139.6
Indiana.....	82.8	97.4	87.7	78.5	73.2	78.1
Maine.....	83.3	112.0	96.1	64.8	75.4	68.8
Massachusetts.....	123.5	161.7	117.0	113.8	115.2	111.8
Michigan.....	90.7	121.4	91.5	74.9	86.1	80.4
New Hampshire.....	104.4	133.4	108.9	84.6	99.7	95.9
New Jersey.....	122.2	144.4	124.0	113.1	96.9	133.6
New York.....	124.7	148.2	132.4	114.0	103.0	127.1
Rhode Island.....	178.8	209.1	182.0	176.8	177.5	151.6
Vermont.....	66.8	81.2	67.9	45.7	73.5	65.8
Registration cities of 100,000 population or over:						
Altoona, Pa.....	164.6	171.7	126.1	165.1	152.1	205.0
Baltimore, Md.....	154.6	186.3	167.9	151.0	126.5	143.1
Boston, Mass.....	126.8	153.7	133.4	122.0	117.4	109.3
Buffalo, N. Y.....	129.9	144.7	136.7	113.3	121.7	133.7
Chicago, Ill.....	120.5	127.4	125.1	120.5	119.2	111.5
Cincinnati, Ohio.....	112.5	104.9	106.5	110.5	104.2	135.6
Cleveland, Ohio.....	120.7	118.7	101.4	118.3	127.0	136.3
Columbus, Ohio.....	68.1	71.7	55.1	67.3	66.4	80.7
Denver, Colo.....	68.3	65.8	68.6	77.3	76.8	52.4
Detroit, Mich.....	129.9	165.9	135.5	116.7	122.4	113.0
Fall River, Mass.....	303.8	345.2	298.4	298.3	308.8	271.7
Indianapolis, Ind.....	83.6	105.2	69.5	75.1	90.1	79.2
Jersey City, N. J.....	151.5	154.1	168.4	145.5	128.1	162.7
Kansas City, Mo.....	72.9	89.2	71.9	65.9	78.0	61.3
Louisville, Ky.....	72.6	79.1	63.8	68.3	71.9	79.8
Memphis, Tenn.....	121.9	91.9	128.2	145.6	132.8	109.0
Milwaukee, Wis.....	108.8	130.3	105.5	96.0	103.2	110.4
Minneapolis, Minn.....	58.0	67.1	72.6	45.2	54.2	51.9
New Haven, Conn.....	129.0	141.6	126.1	147.7	116.9	114.7
New Orleans, La.....	159.4	183.9	145.4	154.7	157.7	155.7
New York, N. Y.....	171.5	194.8	191.5	158.0	138.9	176.4
Bronx borough.....	133.7	145.6	126.6	152.6	104.7	139.9
Brooklyn borough.....	183.6	216.2	216.9	166.8	138.3	183.4
Manhattan borough.....	165.8	186.0	180.5	150.7	140.6	172.6
Queens borough.....	180.0	198.1	183.6	155.3	149.9	209.6
Richmond borough.....	214.0	204.4	256.8	225.4	187.1	195.5
Newark, N. J.....	131.1	147.1	141.3	129.1	95.0	143.3
Omaha, Nebr.....	52.8	63.4	46.2	68.3	26.4	58.1
Paterson, N. J.....	133.9	166.4	131.7	125.8	96.3	149.3
Philadelphia, Pa.....	112.7	114.6	104.6	96.5	113.1	133.6
Pittsburg, Pa.....	212.3	214.5	217.7	228.6	198.2	203.5
Providence, R. I.....	172.7	164.6	191.3	166.7	184.8	155.4
Rochester, N. Y.....	65.4	83.0	67.8	63.1	57.4	56.5
St. Joseph, Mo.....	38.9	40.8	46.5	43.5	33.5	32.7
St. Louis, Mo.....	91.8	94.8	93.4	85.7	98.1	87.1
St. Paul, Minn.....	58.0	66.8	62.0	43.2	47.1	70.8
San Francisco, Cal.....	78.2	80.5	82.4	76.8	73.6	76.9
Scranton, Pa.....	133.4	180.3	90.8	110.1	123.0	162.9
Syracuse, N. Y.....	81.8	107.0	77.9	81.8	79.5	61.8
Toledo, Ohio.....	101.3	128.2	99.6	103.4	97.3	80.4
Washington, D. C.....	156.0	181.6	165.4	159.9	135.4	139.6
Worcester, Mass.....	115.8	179.9	118.2	92.7	122.1	74.3

The preceding table shows that the annual death rate from diarrhea and enteritis was much the highest in the cities of the registration states. The average annual death rate in these cities (140.7) was about 75 per cent higher than that in the rural districts of the same states (80.2), and about 25 per cent higher than in the cities of the nonregistration states (112).

DISEASES OF DIGESTIVE SYSTEM.

For the registration states, exclusive of the District of Columbia, which is coextensive with the city of Washington, the average annual death rates were highest in Rhode Island (178.8), New York (124.7), and Massachusetts (123.5); and lowest in Vermont (66.8), Indiana (82.8), and Maine (83.3). The death rates in the registration states in general correspond closely to the proportion of urban population.

The maximum death rate in the principal cities from diarrhea and enteritis occurred, in every year, in Fall River, Mass., in which the average rate was 303.8, and the annual rate was below 275 in but one year (271.7 in 1904). Other cities for which the annual average rate was high were Pittsburg, Pa. (212.3); Providence, R. I. (172.7); New York, N. Y. (171.5); and Allegheny, Pa. (164.6).

There was an excessive death rate from diarrhea and enteritis, in one or more years, in many of the minor cities, as is shown by Table IV (page lxxii), which gives the rates for each city of the registration area and for each county, exclusive of cities, in the registration states. In each of the years cited it exceeded 175 in the cities specified in the following table:

REGISTRATION CITY.	NUMBER OF DEATHS FROM DIARRHEA AND ENTERITIS PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Adams town, Mass.	341.3		295.2	213.5	243.7
Alexandria, Va.			192.2		184.9
Annapolis, Md.	269.8		252.6		247.4
Ansonia, Conn.	323.3	185.9			
Atlanta, Ga.	181.4		181.3		198.4
Attleboro town, Mass.	176.4				
Augusta, Me.	179.8	194.9			
Bath, Me.	210.0				
Bayonne, N. J.	177.3	184.8		179.2	251.3
Bellaire, Ohio			221.9		282.3
Berlin, N. H.	675.2	287.2		306.7	228.3
Bradford, Me.	272.5	306.5	266.9		
Bridgeport, Conn.		370.4	184.4		
Bridgeport, N. J.	179.7				
Burlington, Vt.	182.4	178.5			
Central Falls, R. I.	319.3	193.2	235.6	311.7	
Charleston, S. C.	336.9	322.1	380.5	305.0	377.6
Chicopee, Mass.	370.4		267.4	207.7	188.5
Cohoes, N. Y.	196.6				
Dover, N. H.		196.2			
Dubois, Pa.	416.0			183.7	
Duluth, Minn.	179.4				
Dunkirk, N. Y.				220.0	
Elizabeth, N. J.	214.9	190.4			224.6
Escanaba, Mich.	282.8				225.3
Fitchburg, Mass.	193.5				
Fresno, Cal.					182.8
Greenwich town, Conn.					184.8
Hammond, Ind.				182.3	
Harrison, N. J.	179.3				
Holyoke, Mass.	310.7	214.0	217.9	250.3	239.2
Iron Mountain, Mich.			246.8		198.0
Ironton, Ohio	176.9				
Ironwood, Mich.	247.3	224.9		201.2	
Ishpeming, Mich.				241.1	
Key West, Fla.	292.2	321.4	426.6	391.5	391.5
Lawrence, Mass.	314.9	233.1	199.6	225.2	197.9
Lowell, Mass.	234.8	215.1	215.4	264.6	232.6
McKeesport, Pa.	210.4				183.1
Mahanoy City, Pa.	251.8	225.8	236.6	218.8	340.5
Manchester, N. H.	287.8	264.3	220.0	248.2	186.7
Marlboro, Mass.	191.1				
Menominee, Mich.	195.1				
Middletown town, Conn.	194.4				
Millville, N. J.					184.9
Montclair, N. J.	236.4				248.7
Mt. Carmel, Pa.	379.4	226.8	310.6	197.9	
Mt. Vernon, N. Y.	197.9	193.1			
Nashua, N. H.	217.5				
Nashville, Tenn.					214.9

REGISTRATION CITY—continued.	NUMBER OF DEATHS FROM DIARRHEA AND ENTERITIS PER 100,000 OF POPULATION: 1900 TO 1904.				
	1900	1901	1902	1903	1904
Naugatuck, Conn.	294.1				260.8
New Bedford, Mass.	309.1	222.8	266.5	281.3	255.9
New Britain town, Conn.	294.3		216.4	206.7	
New Brunswick, N. J.				181.1	209.0
New London, Conn.	222.2				
Newport, R. I.	186.1				
Niagara Falls, N. Y.				180.4	195.0
Norfolk, Va.	272.4	205.0	211.2		
Norwich town, Conn.	186.7				213.3
Orange, N. J.					
Paducah, Ky.	200.6	185.5	200.5	200.4	
Passaic, N. J.	352.8	210.1	248.4	212.3	344.0
Pawtucket, R. I.	201.4			175.6	
Peekskill, N. Y.			257.3		244.6
Perth Amboy, N. J.	243.0	275.4	232.7	188.5	
Peru, Ind.	189.1				
Petersburg, Va.	220.1	233.8	288.9	210.9	270.5
Phillipsburg, N. J.	189.0				
Plymouth, Pa.	263.8	184.7			207.5
Pueblo, Colo.			245.9		236.0
Raleigh, N. C.	278.5	218.4	310.8		249.5
Richmond, Va.	205.8		205.2		184.9
Salem, Mass.	178.0				192.0
San Antonio, Tex.	213.8	238.7	320.0	217.2	236.7
Sault Ste. Marie, Mich.	208.8	204.4	263.8	222.9	
Savannah, Ga.	182.5				
Schenectady, N. Y.				181.0	178.0
South Bethlehem, Pa.	219.0	177.3			198.2
Southbridge town, Mass.	249.4				186.3
Steelton, Pa.			205.5		214.8
Stonington town, Conn.			215.6		
Taunton, Mass.	283.5				
Traverse City, Mich.					195.8
Troy, N. Y.	239.1				
Union, N. J.					176.4
Vernon town, Conn.	271.1				
Ware town, Mass.	302.6	227.4	378.8		
Waterbury, Conn.	260.1	194.6	224.8		214.4
Watertown, N. Y.	175.2				
Webster town, Mass.	340.7		185.6		
West Bay City, Mich.	190.6				
Westfield town, Mass.	227.4			206.7	
Wilmington, N. C.	357.6	213.6	236.3		229.6
Windham town, Conn.	276.2	187.2			186.9
Woonsocket, R. I.	475.1	317.9	272.9		203.8
Yonkers, N. Y.	204.5		197.6	178.4	202.6

The following table shows the distribution of the deaths from diarrhea and enteritis in the registration area, by sex and by age:

SEX AND AGE.	NUMBER OF DEATHS FROM DIARRHEA AND ENTERITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.	180,107	40,985	35,596	33,627	33,035	36,804
Sex:						
Male	95,202	21,031	18,860	17,739	17,530	19,442
Female	84,905	19,354	16,736	15,888	15,505	17,422
Age:						
Under 1 year	120,384	27,627	23,357	21,912	22,202	25,286
1 year	25,533	5,852	5,166	4,991	4,495	5,029
2 years	5,114	1,091	999	1,072	977	975
3 years	1,772	405	291	328	324	424
4 years	986	213	202	192	172	207
Under 5 years	153,789	35,188	30,015	28,495	28,170	31,921
5 to 9 years	1,649	366	336	334	282	331
10 to 14 years	641	131	158	121	105	126
15 to 19 years	567	143	127	115	91	91
20 to 24 years	809	194	182	149	144	140
25 to 29 years	948	232	211	178	171	156
30 to 34 years	987	238	202	213	184	150
35 to 39 years	1,103	246	222	246	180	209
40 to 44 years	1,079	252	256	208	194	169
45 to 49 years	1,203	274	226	241	232	230
50 to 54 years	1,502	314	326	310	290	262
55 to 59 years	1,783	405	395	347	316	320
60 to 64 years	2,260	483	504	471	404	398
65 to 69 years	2,012	578	555	487	489	503
70 to 74 years	2,859	599	617	524	587	582
75 to 79 years	2,584	543	544	466	489	512
80 to 84 years	2,032	430	385	396	405	415
85 to 89 years	935	210	195	177	201	202
90 to 94 years	342	61	74	55	70	82
95 years and over	119	35	18	11	31	24
Unknown	254	63	48	53	50	40

MORTALITY STATISTICS.

During each year diarrhea and enteritis caused more deaths of males (95,202) than of females (84,905), the proportion being 529 males to 471 females in 1,000 deaths of both sexes.

The number and proportion of deaths in each month from diarrhea and enteritis in the registration area are shown in the following table:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM DIARRHEA AND ENTERITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	180,107	40,985	35,596	33,627	33,035	36,864
January.....	5,254	1,008	934	1,023	1,101	1,188
February.....	4,940	922	871	837	1,025	1,285
March.....	5,546	1,025	1,060	1,010	1,173	1,278
April.....	5,883	1,112	1,038	1,074	1,206	1,453
May.....	7,118	1,393	1,320	1,420	1,429	1,556
June.....	13,434	2,937	2,300	2,917	2,591	2,599
July.....	41,611	9,978	7,928	7,827	7,815	8,563
August.....	41,420	9,453	8,733	7,771	7,211	8,252
September.....	28,572	7,194	6,283	4,849	4,851	5,395
October.....	14,136	3,456	2,770	2,477	2,629	2,795
November.....	6,746	1,482	1,272	1,337	1,334	1,321
December.....	5,329	1,025	986	1,082	1,112	1,124
Unknown.....	118		2	3	58	55
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	29.2	24.6	26.2	30.4	33.4	32.3
February.....	27.4	22.5	24.5	24.9	31.1	34.9
March.....	30.8	25.0	29.8	30.0	35.6	34.7
April.....	32.7	27.1	29.2	31.9	36.6	39.5
May.....	39.6	34.0	37.1	42.2	43.3	42.3
June.....	74.6	71.7	67.1	86.8	78.6	70.6
July.....	231.2	243.5	222.7	232.8	221.8	232.6
August.....	230.1	230.6	245.4	231.1	218.7	224.2
September.....	158.8	175.5	178.5	144.2	147.1	146.6
October.....	78.5	84.3	78.1	73.7	79.7	75.8
November.....	37.5	36.2	35.7	39.8	40.4	35.9
December.....	29.6	25.0	27.7	32.2	33.7	30.5

Cirrhosis of the liver.—The total number of deaths compiled under cirrhosis of the liver for the five-year period is 22,446, representing an average annual death rate of 14.1.

The following table gives the number of deaths from this disease in the registration area and its main subdivisions, with the corresponding average annual and yearly death rates:

AREA.	NUMBER OF DEATHS FROM CIRRHOSIS OF THE LIVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	22,446	3,970	4,265	4,460	4,731	5,020
Registration cities.....	18,099	3,159	3,461	3,618	3,813	4,048
Registration states.....	13,613	2,503	2,647	2,671	2,834	2,958
Cities in registration states.....	9,266	1,692	1,843	1,820	1,916	1,986
Rural part of registration states.....	4,347	811	804	842	918	972
Registration cities in other states.....	8,833	1,467	1,618	1,789	1,897	2,062
AREA.	NUMBER OF DEATHS FROM CIRRHOSIS OF THE LIVER PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	14.1	12.9	13.7	14.0	14.6	15.2
Registration cities.....	18.0	14.7	15.7	16.0	16.4	17.1
Registration states.....	13.2	12.6	13.1	13.0	13.5	13.9
Cities in registration states.....	16.3	15.9	16.5	16.0	16.3	16.6
Rural part of registration states.....	9.4	8.7	8.8	9.2	10.0	10.5
Registration cities in other states.....	15.7	13.6	14.8	15.9	16.5	17.6

The average annual death rate from cirrhosis of the liver was much higher in the cities in the registration states than in the rural districts of those states. The figures show that in the whole registration area there was a progressive increase in the death rate from cirrhosis of the liver, rising from 12.9 in 1900 to 15.2 in 1904.

The distribution of the deaths from cirrhosis of the liver in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM CIRRHOSIS OF THE LIVER: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	22,446	3,970	4,265	4,460	4,731	5,020
Sex:						
Male.....	14,733	2,555	2,812	2,944	3,146	3,276
Female.....	7,713	1,415	1,453	1,516	1,585	1,744
Age:						
Under 1 year.....	81	19	18	12	16	16
Under 5 years.....	137	24	28	27	27	23
5 to 14 years.....	114	23	19	27	22	31
15 to 24 years.....	281	48	60	65	54	54
25 to 34 years.....	1,607	305	306	334	326	336
35 to 44 years.....	4,136	741	786	765	884	960
45 to 64 years.....	10,649	1,862	2,022	2,119	2,281	2,395
65 years and over.....	5,460	955	1,029	1,113	1,156	1,207
Unknown.....	62	12	15	10	11	14

Cirrhosis of the liver caused nearly twice as many deaths of males (14,733) as of females (7,713), the proportion being 656 males to 344 females per 1,000 deaths of both sexes.

Peritonitis.—For the registration area during the five years, the total number of deaths reported as due to peritonitis was 19,218 and the average annual death rate, 12.1.

The number of deaths from peritonitis in the registration area and its main subdivisions, together with the corresponding average annual and yearly death rates, are shown in the following table:

AREA.	NUMBER OF DEATHS FROM PERITONITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	19,218	4,639	4,091	3,824	3,333	3,331
Registration cities.....	14,205	3,395	3,019	2,894	2,503	2,394
Registration states.....	11,247	2,785	2,391	2,119	1,981	1,991
Cities in registration states.....	6,234	1,521	1,319	1,189	1,151	1,054
Rural part of registration states.....	5,013	1,244	1,072	930	830	937
Registration cities in other states.....	7,971	1,874	1,700	1,705	1,352	1,340
AREA.	NUMBER OF DEATHS FROM PERITONITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	12.1	15.1	13.1	12.0	10.3	10.1
Registration cities.....	12.5	15.8	13.7	12.8	10.8	10.1
Registration states.....	10.9	13.9	11.8	10.3	9.5	9.4
Cities in registration states.....	10.9	14.3	11.8	10.4	9.8	8.8
Rural part of registration states.....	10.9	13.4	11.8	10.2	9.0	10.1
Registration cities in other states.....	14.2	17.4	15.5	15.2	11.8	11.4

The distribution of the deaths from peritonitis in the registration area, by sex and by age, is given in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM PERITONITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	19,218	4,689	4,091	3,824	3,333	3,331
Sex:						
Male.....	7,072	1,666	1,541	1,413	1,232	1,220
Female.....	12,146	2,973	2,550	2,411	2,101	2,111
Age:						
Under 1 year.....	945	232	218	196	144	155
Under 5 years.....	1,634	410	374	329	255	266
5 to 14 years.....	1,844	460	346	360	347	331
15 to 24 years.....	3,672	893	807	699	630	643
25 to 34 years.....	4,176	1,044	873	863	710	689
35 to 44 years.....	2,991	704	594	625	572	496
45 to 64 years.....	3,152	718	697	600	551	586
65 years and over.....	1,683	402	376	339	259	307
Unknown.....	66	8	24	12	9	13

The above figures show that during the five-year period peritonitis caused the death of 7,072 males and of 12,146 females, the proportion being 632 females to 368 males in 1,000 deaths of both sexes.

Appendicitis.—Appendicitis was assigned as the cause of death in 16,869 cases during the five years, and the following table shows the number of deaths from this disease in the registration area and its main subdivisions, with the corresponding average annual and yearly death rates:

AREA.	NUMBER OF DEATHS FROM APPENDICITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	16,869	2,087	3,131	3,216	3,589	3,946
Registration cities.....	13,796	2,382	2,553	2,629	2,965	3,267
Registration states.....	9,637	1,763	1,794	1,825	2,031	2,224
Cities in registration states.....	6,564	1,158	1,216	1,238	1,407	1,545
Rural part of registration states.....	3,073	605	578	587	624	679
Registration cities in other states.....	7,232	1,224	1,837	1,391	1,558	1,722

AREA.	NUMBER OF DEATHS FROM APPENDICITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	10.6	9.7	10.0	10.1	11.1	12.0
Registration cities.....	12.2	11.1	11.5	11.6	12.8	13.8
Registration states.....	9.4	8.8	8.9	8.9	9.7	10.5
Cities in registration states.....	11.5	10.9	10.9	10.8	12.0	12.9
Rural part of registration states.....	6.7	6.5	6.3	6.4	6.8	7.3
Registration cities in other states.....	12.9	11.3	12.2	12.4	13.6	14.7

The distribution of the deaths from appendicitis in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM APPENDICITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	16,869	2,987	3,131	3,216	3,589	3,946
Sex:						
Male.....	10,380	1,875	1,932	1,987	2,216	2,370
Female.....	6,489	1,112	1,199	1,229	1,373	1,576
Age:						
Under 1 year.....	73	13	19	18	11	12
Under 5 years.....	411	68	73	84	84	102
5 to 14 years.....	3,838	672	715	674	831	946
15 to 24 years.....	4,514	775	826	863	960	1,081
25 to 34 years.....	3,173	580	593	594	707	699
35 to 44 years.....	2,114	376	397	406	465	470
45 to 64 years.....	2,141	402	398	445	393	503
65 years and over.....	630	111	121	135	127	136
Unknown.....	48	3	8	15	13	9

The above distribution, by sex, of deaths from appendicitis shows that there were 10,380 deaths of males and 6,489 deaths of females, the proportion being 615 males to 385 females per 1,000 deaths of both sexes.

DISEASES OF THE GENITO-URINARY SYSTEM.

The total number of deaths for the registration area during the five years attributed to diseases of the genito-urinary system was 179,127, and the average annual death rate 112.5 per 100,000 of population. The number of deaths from each separate disease in this class and the corresponding death rates are given in Table III (page lxviii).

The following table gives the number of deaths from diseases of the genito-urinary system in the registration area and its main subdivisions, with the corresponding average annual and yearly death rates:

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE GENITO-URINARY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area.....	179,127	32,567	33,489	34,608	38,013	40,450
Registration cities.....	139,392	24,996	25,976	26,944	29,752	31,724
Registration states.....	114,499	21,189	21,650	22,149	23,882	25,629
Cities in registration states.....	74,764	13,618	14,137	14,485	15,621	16,903
Rural part of registration states.....	39,735	7,571	7,513	7,664	8,261	8,726
Registration cities in other states.....	64,628	11,378	11,839	12,459	14,131	14,821

AREA.	NUMBER OF DEATHS FROM DISEASES OF THE GENITO-URINARY SYSTEM PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	112.5	105.9	107.2	108.7	117.2	122.6
Registration cities.....	123.1	116.4	117.3	118.8	128.1	133.7
Registration states.....	111.1	106.2	106.7	107.5	114.0	120.5
Cities in registration states.....	131.1	127.6	126.5	126.5	133.2	140.9
Rural part of registration states.....	86.3	81.5	82.5	83.7	89.7	94.1
Registration cities in other states.....	114.9	105.3	107.9	111.0	122.9	126.3

The preceding figures show that the death rates from diseases of the genito-urinary system were much higher in the cities of the registration states than in the rural districts of those states or in the cities of the nonregistration states.

The distribution of the deaths from diseases of the genito-urinary system in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM DISEASES OF THE GENITO-URINARY SYSTEM: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	179,127	32,567	33,489	34,608	38,013	40,450
Sex:						
Male.....	98,514	17,834	18,353	19,135	20,870	22,322
Female.....	80,613	14,733	15,136	15,473	17,143	18,128
Age:						
Under 1 year.....	2,689	547	545	549	499	549
Under 5 years.....	5,515	1,108	1,120	1,171	1,016	1,100
5 to 14 years.....	3,739	821	710	709	743	756
15 to 24 years.....	8,863	1,692	1,718	1,719	1,845	1,889
25 to 34 years.....	16,658	3,143	3,195	3,348	3,431	3,541
35 to 44 years.....	23,038	4,261	4,386	4,443	4,861	5,037
45 to 64 years.....	60,388	10,912	11,102	11,623	12,656	13,795
65 years and over.....	60,448	10,552	11,143	11,526	13,043	14,184
Unknown.....	478	78	115	69	118	98

Classified according to sex, the 179,127 deaths from this class of diseases represent deaths of 98,514 males and deaths of 80,613 females, the proportion being 550 males to 450 females per 1,000 deaths of both sexes. Nearly 85 per cent of the deaths in this class of diseases were due to Bright's disease and nephritis, the figures for which are given in greater detail below.

Bright's disease and nephritis.—Under the international classification, deaths from Bright's disease, or nephritis, are classified under the two titles, "acute nephritis" and "Bright's disease." Under the first title are included deaths reported as resulting from acute nephritis, acute Bright's disease, or synonymous terms, while under the latter title are placed deaths reported as resulting from Bright's disease, nephritis, or uremia, unqualified; chronic Bright's disease and chronic nephritis, or synonymous terms. There is no accurate distinction made in such cases, and it is probable that some of the cases reported as due to "uremia," unqualified, would be referred elsewhere, if the cause were more definitely stated.

In order to show the diseases included under each title, the table given below has been prepared. It shows the number of cases classified under each of the heads mentioned above.

CAUSE OF DEATH.	NUMBER OF DEATHS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	150,696	27,377	28,005	29,119	31,814	34,381
Acute nephritis.....	14,436	2,312	2,498	2,933	3,173	3,470
Acute Bright's disease.....	2,602	371	497	546	580	608
Acute nephritis.....	11,834	1,941	2,001	2,437	2,593	2,862
Bright's disease.....	136,260	25,065	25,507	26,136	28,641	30,911
Bright's disease (unqualified).....	30,815	6,840	6,410	6,064	5,775	5,717
Chronic Bright's disease.....	8,047	1,253	1,399	1,534	1,843	2,018
Nephritis (unqualified).....	30,379	6,639	5,819	5,672	6,175	6,074
Chronic nephritis.....	52,373	7,079	8,932	9,836	12,124	14,402
Uremia (unqualified).....	14,646	3,254	2,938	3,030	2,724	2,700

It will be observed that while there has been an increase, year by year, in the total number of deaths attributed to both acute nephritis and Bright's disease, there has been a decrease in the number reported under each of the less definite, or unqualified, forms. This may be taken as further evidence of the increasing accuracy in the statement of causes of death, which has been referred to in other places. In the following discussion the deaths from these diseases will be considered together.

The following table gives the death rates from Bright's disease and nephritis in the registration area and its main subdivisions, and in the registration states and the cities of 100,000 population or over:

AREA.	NUMBER OF DEATHS FROM BRIGHT'S DISEASE AND NEPHRITIS PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area.....	94.6	89.0	89.6	91.5	98.1	104.2
Registration cities.....	104.8	99.9	99.3	101.0	108.0	114.7
Registration states.....	93.7	88.7	89.7	90.5	96.3	102.8
Cities in registration states.....	113.1	110.2	109.1	108.6	114.5	122.3
Rural part of registration states.....	69.6	63.9	65.9	67.8	73.2	77.4
Registration cities in other states.....	96.3	89.6	89.4	93.3	101.4	106.8
Registration states:						
Connecticut.....	94.4	95.9	84.8	92.0	93.1	105.7
District of Columbia.....	126.9	113.7	125.6	115.5	131.3	147.3
Indiana.....	52.9	49.2	49.6	52.1	53.9	59.5
Maine.....	83.4	75.6	80.4	80.7	90.3	89.9
Massachusetts.....	77.6	74.7	76.2	73.5	79.9	83.1
Michigan.....	52.6	48.8	46.6	52.5	55.1	59.6
New Hampshire.....	80.7	69.5	74.4	79.1	87.4	92.8
New Jersey.....	93.6	96.3	94.3	97.3	102.3	102.2
New York.....	125.1	118.7	121.7	120.1	127.0	137.2
Rhode Island.....	126.9	116.0	118.8	117.9	140.0	140.3
Vermont.....	81.0	71.6	74.0	80.9	85.6	92.5
Registration cities of 100,000 population or over:						
Allegheny, Pa.....	46.5	40.8	45.8	53.6	44.9	51.3
Baltimore, Md.....	137.2	130.3	123.4	127.1	141.2	163.1
Boston, Mass.....	80.9	81.3	82.0	77.8	83.6	79.6
Buffalo, N. Y.....	82.6	82.3	79.3	76.1	85.0	90.0
Chicago, Ill.....	86.6	74.2	71.6	85.4	99.2	99.9
Cincinnati, Ohio.....	121.0	108.6	122.0	117.4	124.1	131.8
Cleveland, Ohio.....	69.6	55.8	67.0	66.5	79.3	78.2
Columbus, Ohio.....	65.1	67.7	61.3	64.3	76.8	54.1
Denver, Colo.....	101.1	89.7	98.1	102.2	99.3	114.3
Detroit, Mich.....	66.0	61.3	57.5	65.6	75.3	69.3
Fall River, Mass.....	81.1	71.5	98.2	73.9	84.2	78.6
Indianapolis, Ind.....	64.8	71.5	56.4	55.3	63.3	76.7
Jersey City, N. J.....	114.8	115.8	105.3	111.6	121.7	119.3
Kansas City, Mo.....	85.3	71.4	77.3	84.7	91.9	101.0
Louisville, Ky.....	98.7	84.0	92.0	96.6	103.4	103.1
Memphis, Tenn.....	102.8	104.6	113.1	83.7	90.6	123.4
Milwaukee, Wis.....	49.6	40.7	48.5	45.9	53.7	58.5
Minneapolis, Minn.....	63.2	58.7	56.7	61.8	67.2	70.7
New Haven, Conn.....	97.8	88.9	94.4	95.1	82.0	125.8
New Orleans, La.....	187.1	191.6	163.6	168.5	214.6	196.6
New York, N. Y.....	163.3	159.0	163.0	157.0	162.0	174.5
Bronx borough.....	142.3	128.2	139.4	136.4	134.2	108.9
Brooklyn borough.....	151.8	149.5	156.2	153.3	145.9	154.0
Manhattan borough.....	176.3	172.0	172.7	165.2	179.7	191.0
Queens borough.....	128.2	117.6	132.2	125.2	115.8	132.7
Richmond borough.....	165.5	153.7	161.9	139.8	160.6	206.4
Nowark, N. J.....	137.3	134.5	132.5	133.0	145.8	140.0
Omaha, Nebr.....	47.4	33.2	43.3	52.8	41.5	64.1
Paterson, N. J.....	85.9	107.5	64.9	82.3	79.5	96.6
Philadelphia, Pa.....	144.3	136.2	137.8	136.3	150.0	100.0
Pittsburg, Pa.....	58.1	53.2	56.5	65.8	58.8	55.5
Providence, R. I.....	136.6	123.6	123.3	127.3	153.2	154.0
Rochester, N. Y.....	89.2	91.0	68.4	92.8	90.8	103.7
St. Joseph, Mo.....	33.3	33.0	28.5	34.3	38.0	32.7
St. Louis, Mo.....	116.7	119.1	111.1	117.4	111.7	123.6
St. Paul, Minn.....	58.0	64.4	53.6	59.2	56.4	56.0
San Francisco, Cal.....	112.1	105.9	99.7	102.4	128.4	123.2
Scranton, Pa.....	72.8	93.1	55.5	57.8	72.9	83.7
Syracuse, N. Y.....	91.6	103.8	68.8	79.2	98.8	100.4
Toledo, Ohio.....	56.7	44.8	54.9	57.4	56.9	67.7
Washington, D. C.....	126.9	113.7	125.6	115.5	131.3	147.3
Worcester, Mass.....	67.1	59.0	73.9	59.1	65.3	75.0

The average annual death rate from Bright's disease and nephritis in the registration area for the period 1900 to 1904 was 94.6. It was lowest in 1900 (89), rising to 89.6 in 1901; 91.5 in 1902; 98.1 in 1903; and 104.2 in 1904. In England and Wales the death rate from these diseases was 40.1 in 1900; 39 in 1901; 37 in 1902; and 37.2 in 1903. In Scotland it was 35 in each of the four years 1900 to 1903.

For the registration states, excluding the District of Columbia, the annual average death rates from Bright's disease and nephritis were highest in Rhode Island (126.9), New York (125.1), and New Jersey (98.6); and lowest in Michigan (52.6), Indiana (52.9), and Massachusetts (77.6).

For the principal cities the average annual death rates from these diseases were highest in New Orleans, La. (187.1); New York, N. Y. (163.3); Philadelphia, Pa. (144.3); Newark, N. J. (137.3); Baltimore, Md. (137.2); and Providence, R. I. (136.6).

The death rates from Bright's disease and nephritis in each year in each city of the registration area and in each county, exclusive of cities, in the registration states are given in Table iv (page lxxii). A reference to that table will show that there was an excessively high death rate from these diseases in many of the minor cities in one or more years.

The distribution of the deaths from Bright's disease and nephritis in the registration area, by sex and by age, are shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM BRIGHT'S DISEASE AND NEPHRITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate.....	150,696	27,377	28,005	29,119	31,814	34,381
Sex:						
Male.....	84,334	15,134	15,624	16,422	17,792	19,362
Female.....	66,362	12,243	12,381	12,697	14,022	15,019
Age:						
Under 1 year.....	2,193	436	447	452	408	450
1 year.....	740	131	151	149	146	163
2 years.....	675	133	147	144	123	128
3 years.....	677	125	119	171	126	136
4 years.....	582	132	134	133	87	96
Under 5 years.....	4,867	957	998	1,049	890	973
5 to 9 years.....	2,014	467	378	409	386	374
10 to 14 years.....	1,551	319	285	279	318	350
15 to 19 years.....	2,480	451	473	496	532	528
20 to 24 years.....	4,442	895	863	853	898	933
25 to 29 years.....	5,891	1,141	1,149	1,201	1,151	1,249
30 to 34 years.....	6,923	1,302	1,336	1,359	1,454	1,472
35 to 39 years.....	8,589	1,650	1,627	1,693	1,808	1,911
40 to 44 years.....	10,202	1,949	1,932	1,918	2,136	2,267
45 to 49 years.....	11,262	1,983	2,069	2,176	2,394	2,640
50 to 54 years.....	13,186	2,406	2,380	2,574	2,789	3,037
55 to 59 years.....	13,888	2,510	2,521	2,744	3,003	3,110
60 to 64 years.....	15,622	2,852	2,889	2,896	3,390	3,625
65 to 69 years.....	15,369	2,664	2,906	2,938	3,254	3,607
70 to 74 years.....	14,288	2,444	2,589	2,764	3,065	3,426
75 to 79 years.....	10,616	1,834	1,946	2,056	2,252	2,528
80 to 84 years.....	5,975	1,011	1,068	1,120	1,331	1,445
85 to 89 years.....	2,330	383	392	418	512	625
90 to 94 years.....	567	80	81	97	144	165
95 years and over.....	153	19	33	23	41	37
Unknown.....	381	60	90	56	96	79

An inspection of the above figures shows that these diseases caused 84,334 deaths of males, and 66,362 deaths of females, the proportion being 560 males to 440 females per 1,000 deaths of both sexes.

The number and proportion of deaths in each month from Bright's disease and nephritis in the registration area are shown in the following table:

MONTH IN WHICH DEATH OCCURRED.	DEATHS FROM BRIGHT'S DISEASE AND NEPHRITIS: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
	Number.					
All months.....	150,696	27,377	28,005	29,119	31,814	34,381
January.....	13,792	2,472	2,569	2,619	2,940	3,192
February.....	13,048	2,320	2,345	2,470	2,734	3,170
March.....	14,232	2,750	2,559	2,672	2,899	3,352
April.....	13,693	2,663	2,506	2,551	2,757	3,216
May.....	12,866	2,366	2,401	2,534	2,659	2,906
June.....	11,626	2,053	2,200	2,325	2,497	2,551
July.....	11,703	2,063	2,213	2,264	2,529	2,634
August.....	11,095	2,027	2,092	2,196	2,303	2,477
September.....	10,966	1,998	2,088	2,149	2,277	2,454
October.....	11,819	2,097	2,292	2,257	2,556	2,617
November.....	12,232	2,165	2,303	2,351	2,663	2,750
December.....	13,510	2,403	2,435	2,716	2,946	3,010
Unknown.....	114		2	6	54	52
	Per 1,000 distribution.					
All known months.....	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0	1,000.0
January.....	91.6	90.3	91.8	90.0	92.6	93.0
February.....	86.7	84.7	83.7	85.1	86.1	92.3
March.....	94.5	100.4	91.4	91.8	91.3	97.6
April.....	90.9	97.3	89.5	87.6	86.8	93.7
May.....	85.5	86.4	85.7	87.0	83.7	84.7
June.....	77.2	75.0	78.6	79.9	78.6	74.3
July.....	77.7	75.4	79.0	77.8	79.6	76.7
August.....	73.7	74.0	74.7	75.4	72.5	72.2
September.....	72.8	73.0	74.6	73.8	71.7	71.5
October.....	78.5	76.6	81.8	77.5	80.5	76.2
November.....	81.2	79.1	82.2	80.8	83.8	80.1
December.....	89.7	87.8	87.0	93.3	92.8	87.7

VIOLENCE.

During the five years the total number of deaths in the registration area reported as due to violence, or, more strictly speaking, to all external causes, was 166,180, and the average annual death rate 104.3 per 100,000 of population.

In the statistical treatment of this class of deaths they naturally fall into four primary groups: (1) Suicide, (2) homicide, (3) accidental violence, (4) other external causes; but the information upon which the classification must be made is too incomplete to permit the accurate separation of the deaths even by these general groups, and all general statistics of deaths from suicide, homicide, and various special forms of accident, derived from registration records, are incorrect and absolutely misleading. It would seem that in this class of deaths more than any other there should be no difficulty whatever in securing a proper classification, to the extent specified, at least, since it is the only class in which there are practically universal provisions for an official inquiry into the circumstances attending each death, by a coroner, medical examiner, or other official, for the precise purpose of determining whether the death was due to homicide or suicide, or to purely acci-

dental causes; but instead of this being true the returns in this class of cases are the most unsatisfactory.

It may be that the inquests or investigations of the coroners and medical examiners do develop the facts upon the points specified, but if so there is a very large proportion of the cases in which these facts do not appear in connection with the statements of the causes of death contained in the certificates filed with the registration officials.

While the coroners or other officials exercising the same functions usually state the *manner* of death as "gunshot wound," "carbolic acid poisoning," "fracture of skull," "asphyxia by gas," etc., very many of them give no further information, and when the causes of death are stated in these or similar terms, without qualification, they can only be construed as *accidental* and compiled accordingly, notwithstanding the strong probability that most of them were due actually to either suicide or homicide. A case of suicide by illuminating gas, in which the whole return consists of the words "asphyxia by illuminating gas" is compiled under the title "inhalation of poisonous gases," and the result is a double error; for the only classification permissible to the compiler takes it out of the class "suicide," where it properly belongs, and adds it to the accidental deaths, to which it does not belong.

To illustrate the insufficiency of the returns in cases of death from external causes, reference may be made to those received from a single city, in which, for one of the years covered by this report, there were more than 1,000 deaths of this class, with only *one* death specifically stated as due to *suicide* and *one* to *homicide*.

The returns in this instance included 620 cases, which, under the rule, were necessarily referred to those titles supposed to embrace accidental deaths only, but the manner of death indicated a strong probability that the great majority of these cases were due actually to either suicide or homicide. Stripped of the superfluous verbiage, but specifying the manner of death as stated in the returns, these 620 cases may be grouped according to the probabilities as follows:

Probably due to suicide:	
Carbolic acid poisoning.....	102
Belladonna, cyanide of potassium poisoning.....	21
Asphyxia by illuminating gas.....	46
Asphyxia by gas.....	51
Strangulation by hanging.....	26
Gunshot wound of head.....	54
Incised wound of throat.....	7
Total.....	307
Probably due to suicide or accident:	
Drowning.....	126
Gas poisoning.....	13
Total.....	139
Probably due to homicide or accident:	
Fracture of skull.....	130
Gunshot wound of body.....	28
Concussion or contusion of brain.....	13
Total.....	171
Probably due to homicide:	
Stab wounds.....	3
Total.....	3
Grand total.....	620

The above grouping is intended only to indicate the general probabilities arising from the nature of the

deaths, practically all of which were of adults. There were, in addition to the above, nearly 400 deaths from fractures and other traumatisms, probably accidental, but not so stated. Further, no specification as to the *kind* of accident was made, although such information is required for accurate classification. The deaths specifically attributed to railroad accidents numbered only 5.

The preceding remarks relate only to the deaths in one city for one year; but the same conditions exist to a large extent in many other places.

The difficulty with respect to this class of deaths may be due to the fact that the coroners or examiners are either not under control of the registration officials, or are not required by them to make a complete and precise statement concerning the deaths investigated.

There are also many cases in which the official inquest or investigation is deferred for an indefinite period, while the certificate of death is furnished immediately, in order that the body may be disposed of. In such cases there seems to be no connection established between the record of the death and the result of the subsequent inquest. In certain cases of this kind there might be some hesitation in giving an official statement going beyond the manner of death, but there should be none in specifying that it was due to accident, when that fact was known at the time, as it would be in a vast majority of such cases, or in defining the kind of accident.

If the inquest is held before the certificate is filed, there can and should be a complete statement of the facts covering the points to which reference has been made. If it has not taken place, the certificate can not be held to be conclusive of certain features of the case, and it might properly be made out to show the manner of death, qualified by the words "probably suicide" (or accident or homicide) and "inquest pending." The qualified judgment of the coroner, so expressed, would amount to an expression of personal opinion only, but being reached from a consideration of all the circumstances it would undoubtedly be correct in most cases of this character and would furnish a far better basis for the statistical treatment of this class of cases than is now afforded.

There will always be an element of doubt in certain cases, such as those of persons found dead or drowned, but even in such cases a statement of the *probabilities* by the most competent authority—the coroner—will be most satisfactory.

There are some places from which the returns of this class of deaths are very correct and complete, and the distinction easily and accurately maintained. This is notably the case in Chicago, Ill., Cincinnati, Ohio, Providence, R. I., San Francisco, Cal., Washington, D. C., and a number of minor cities, indicating that under certain conditions the information *can* be supplied as desired.

There are also some places in which the local statis-

tics of this class of deaths show that access has been had to the records of coroners' inquests and the later information so obtained utilized for the purpose of making a proper classification; but these data have not been connected with the certificates originally filed, nor included in the transcripts furnished this Office. This will account for the difference between the figures given in this report and those in certain local statistics.

It is probable that upon a thorough understanding by the coroners of the difficulties attending the use of their certificates for statistical purposes, and of the importance of the matter, they will generally be found willing to make a complete statement of the facts in all cases in which investigations have been concluded at the time of filing the certificates, and a qualified statement in those cases in which such investigations are pending. It is suggested that a conference of the registrars or health officials and the coroners, etc., might readily bring about such an understanding.

The selection and arrangement of the titles to which all deaths from external causes are referred, in the international classification, are not very satisfactory, but the objections that lie against them are of little importance, so long as the deaths continue to be reported in such indefinite terms as to preclude their accurate classification under *any* titles that might be selected. For example, the international classification includes the title "fractures," and for the period covered by this report there are 13,850 deaths compiled thereunder, simply because the returns, while giving "fracture" as the cause of death, furnished no information as to the *cause of the fracture*. There should be no deaths to compile under this title.

There can be no doubt that the 13,850 deaths compiled under "fractures" includes cases of suicide by jumping from buildings, etc., of homicide by blows with deadly weapons, etc., and of accidents due to falls, falling bodies, railroad wrecks, collisions, boiler explosions, trolley cars, motor cars, horses and vehicles, and other kinds of accident, the statement of which would result in all of these cases being classified under more definite titles, and the total elimination of the general term. So, also, with other titles equally indefinite.

The following table gives the deaths from violence in the registration area and its main subdivisions, with the corresponding average annual and yearly death rates:

AREA.	NUMBER OF DEATHS FROM VIOLENCE: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
The registration area	166,180	29,529	33,330	31,135	35,542	36,644
Registration cities	127,254	22,413	25,042	23,015	27,220	28,053
Registration states	99,288	17,475	20,164	18,294	20,894	22,461
Cities in registration states ..	60,362	10,359	12,476	11,074	12,578	13,875
Rural part of registration states	38,926	7,116	7,688	7,220	8,316	8,586
Registration cities in other states	66,892	12,054	13,166	12,841	14,648	14,183

AREA.	NUMBER OF DEATHS FROM VIOLENCE PER 100,000 OF POPULATION: 1900 TO 1904.					
	Annual average.	1900	1901	1902	1903	1904
The registration area	104.3	96.0	106.6	97.8	109.6	111.0
Registration cities	112.4	104.4	115.8	105.5	117.2	118.3
Registration states	96.3	87.5	99.4	88.8	99.8	105.6
Cities in registration states ..	105.9	97.1	111.6	96.7	107.3	115.7
Rural part of registration states	84.5	76.6	84.4	78.8	90.3	92.6
Registration cities in other states	119.0	111.6	120.0	114.4	127.4	120.9

The distribution of the deaths from violence, in the registration area, by sex and by age, is shown in the following table:

SEX AND AGE.	NUMBER OF DEATHS FROM VIOLENCE: 1900 TO 1904.					
	Total.	1900	1901	1902	1903	1904
Aggregate	166,180	29,529	33,330	31,135	35,542	36,644
Sex:						
Male	125,953	22,691	24,938	23,955	26,897	27,472
Female	40,227	6,838	8,392	7,180	8,645	9,172
Age:						
Under 1 year	11,534	1,935	2,317	2,009	2,491	2,782
Under 5 years	21,568	3,889	4,419	3,827	4,473	4,960
5 to 14 years	13,263	2,483	2,543	2,470	2,824	2,943
15 to 24 years	22,592	4,147	4,208	4,393	4,911	4,933
25 to 34 years	27,308	4,844	5,174	5,230	6,068	5,992
35 to 44 years	26,162	4,745	5,121	5,009	5,637	5,650
45 to 64 years	33,729	5,802	7,152	6,308	7,056	7,411
65 years and over	19,286	3,190	4,159	3,497	4,096	4,344
Unknown	2,272	429	554	401	477	411

Classified by sex, the 166,180 deaths from violence include 125,953 deaths of males and 40,227 deaths of females, the proportion being 758 males to 242 females in 1,000 deaths of both sexes.

The conditions with respect to the statistical treatment of deaths from this class of causes being as described above, it is clear that the only reliable conclusions that may be drawn from the figures are limited to those for the class as a whole, and that the figures elsewhere given for the individual causes in this class

are subject to the qualifications noted. The deaths and death rates from each cause included in this class, as compiled, are given in Table III (page lxviii).

To show the effect of the indefinite returns upon the statistics the following table is given, showing the total number of deaths from violence occurring in the registration area during the five years, classified as in the general tables (on the left), and rearranged according to the essentially important groups of causes (on the right).

DEATHS FROM VIOLENCE: 1900 TO 1904.			
Classified as given in the detail tabulations.	Number.	The definitely stated causes, classified by the groups of principal importance, and the indefinitely stated causes not so classifiable.	Number.
Total.....	166,180	Total.....	166,180
Suicide.....	20,834	Suicide.....	20,834
Suicide by poison.....	6,946	Homicide.....	3,870
Suicide by asphyxia.....	1,487	Accidental violence (definite)	28,750
Suicide by hanging or strangulation.....	3,232	Injuries by machinery.....	1,200
Suicide by drowning.....	1,059	Injuries in mines and quarries.....	1,209
Suicide by firearms.....	4,938	Railroad accidents and injuries.....	22,799
Suicide by cutting instruments.....	1,171	Injuries by vehicles and horses.....	3,482
Suicide by jumping from high places.....	252	Other external violence (definite)	14,921
Suicide by crushing.....	87	Heat and sunstroke.....	6,323
Other suicides.....	1,662	Cold and freezing.....	866
Fractures.....	13,850	Lightning.....	503
Dislocations.....	259	Injuries at birth.....	7,056
Burns and scalds.....	13,245	Starvation, privation.....	173
Burning by corrosive substances.....	51	Indefinite (construed as accidental)	97,805
Heat and sunstroke.....	6,323	Fractures.....	13,850
Cold and freezing.....	866	Dislocations.....	259
Lightning.....	503	Burns and scalds.....	13,245
Injuries at birth.....	7,056	Burning by corrosive substances.....	51
Starvation, privation.....	173	Drowning.....	16,945
Drowning.....	16,945	Inhalation of poisonous gases.....	6,210
Inhalation of poisonous gases.....	6,210	"Accidental" gunshot wounds.....	5,862
Other accidental poisonings.....	7,142	Other "accidental" poisonings.....	7,142
Accidental traumatisms.....	56,594	Other "accidental" traumatisms.....	21,982
Accidental gunshot wounds.....	5,862	Other external violence.....	9,672
Injuries by machinery.....	1,200	Suffocation.....	2,587
Injuries in mines and quarries.....	1,209	Injuries at birth.....	7,056
Railroad accidents and injuries.....	22,799	Homicide.....	3,870
Injuries by vehicles and horses.....	3,482	Other external violence.....	9,672
Other accidental traumatisms.....	21,982	Starvation, privation.....	173
Other external violence.....	23,185		
Suffocation.....	2,587		
Injuries at birth.....	7,056		
Homicide.....	3,870		
Other external violence.....	9,672		
Starvation, privation.....	173		

The comparison made in the table above is intended to show, in a general way only, why the statistics do not furnish any true indication of the comparative number and frequency of deaths from suicide, homicide, or accidents, and why those purporting to show the deaths from certain special forms of suicide and certain kinds of accidents are equally faulty. Con-

sidering the groups of deaths from external causes which are of the greatest importance, as given, on the right hand, in the preceding table, it will be seen that only about 41 per cent of those compiled under the specified titles can be assigned to definite groups, while about 59 per cent are included under titles which are not sufficiently specific for that purpose.

The first group includes the 20,834 deaths accurately assignable to *suicide*, or 12.5 per cent of the whole number of deaths from violence.

The second group includes the 3,870 deaths specifically returned as the result of homicide, or 2.3 per cent of the whole number.

The third group includes 28,750 cases (17.3 per cent) in which the kind of accident, as well as the nature of the injuries, was so stated as to be properly classified under the specific titles included.

The fourth group includes 14,921 cases attributed to the specified external causes, or 9 per cent of the whole. The cases coming under this group can usually be classified accurately.

The fifth group includes 97,805 cases, or 58.9 per cent of the whole number, which, under a comprehensive statement of the essential facts in each case, would have been so classified as to be included under groups 1, 2, or 3, as suicide, homicide, or accident of a definite kind. They are classified accurately as regards the titles specified, but under each of the titles there is included a large proportion of cases in which only the manner of death is stated, no clue to the controlling cause being given. Comment has been made upon the title "fractures," and the deaths compiled thereunder, and all of the other titles in this group are subject to somewhat similar restrictions. Each of them includes an unknown proportion of cases actually due to suicide or homicide. Burns and scalds (13,245 cases) doubtless includes many cases resulting from railroad accidents or accidents in mines, etc.

Drowning and inhalation of poisonous gases (23,155 cases) include cases which are practically all due to either suicide or accident. Accidental gunshot wounds, poisonings, traumatisms (so classified because not otherwise described), other external violence, and suffocation include 47,245 cases due either to suicide or homicide, or to particular kinds of accidents concerning which accurate information would be valuable.