VITAL STATISTICS.
VITAL STATISTICS.

Mortality statistics for the Twelfth Census relate to the census year June 1, 1899 to May 31, 1900. The returns of deaths were derived from two sources—first, from the enumerators' schedules, and, second, from the registration records of those states and cities which kept an official record of deaths.

The enumerators made their returns of deaths by inquiry of the families enumerated, but, as this inquiry was not made until after the close of the year for which the deaths were to be reported, many deaths were omitted. The failure of a number of enumerators to make any returns of deaths shows that the enumerators' returns are too incomplete to afford reliable information as to death rates in relation to population. They have, however, a certain value in indicating the relative frequency of deaths from different causes, and, as they constitute the only means of securing information in regard to deaths in many parts of the country, they must be relied upon as the best information on the subject that can be obtained.

The registration area in 1900 included the states of Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Michigan, and the District of Columbia, also 153 cities of 8,000 inhabitants, or more, in other states (Twelfth Census, Volume III, page lvi). The population of these states and cities was 28,807,209, or more than one-third of the total population of the United States; as the registration records were fairly accurate, the returns for this area can be considered as approximately correct. The registration area in 1890 comprised the states of New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut, New York, New Jersey, and Delaware, and the District of Columbia, also 83 cities of 5,000 inhabitants, or more, in other states; the gross population of this area was 19,659,440.

The number of deaths per 1,000 of population for the registration area in 1900 was 17.8, and for the registration area in 1890, 19.6, a decrease during the decade of 1.8.

Plate 111 is made up of seven diagrams presenting graphically the death rates in 1900 for certain areas, for specified diseases and nativities. Diagram 1, Plate 111, represents the death rates per 1,000 of population in the registration states in 1900, and shows that the death rate, 22.8, in the District of Columbia was much higher than in any of the registration states. As the District of Columbia is practically a city, and included a large colored population with a death rate greatly in excess of that of the white, the reasons for the high death rate are apparent, as will be seen by comparison with other cities which had a large percentage of colored population, represented in diagram 7, Plate 111. The death rate of Rhode Island, 19.1, was the highest among the registration states.

Diagrams 2 and 4, Plate 111, show the comparative death rates per 1,000 of population under 15, and from 15 to 45 years of age, for the rural districts and cities of the registration states, by birthplace of mothers, in 1900. The first of these two diagrams shows that in the rural districts the mortality of children under 15 years of age was greatest among those of Italian mothers, closely followed by the children of mothers born in Canada, and in Russia and Poland. Children of Scotch mothers show the lowest death rate. For persons from 15 to 45 years of age the death rate was highest among those of Irish mothers, and lowest among those of mothers born in Russia and Poland.

Diagram 4, Plate 111, shows that in cities the registration states the children less than 15 years of age of mothers born in Italy had the highest death rate, with France, Canada, Ireland, and the United States following in order. The children of Scandinavian, German, English and Welsh, Russian and Polish, and Scotch mothers had lower death rates than those of native mothers. Of persons from 15 to 45 years of age those born of Irish mothers show the highest death rate, and those of Russian and Polish mothers the lowest. Comparing the two diagrams, it will be noted that the mortality for the nativities specified was much greater in cities than in rural districts.

Diagram 3, Plate 111, represents the death rates per 1,000 of population, in the registration states, by sex, color, and general nativity, in 1900. The death rate for the total population was 17.3, which was lower than that of the males, 18.1, and higher than that of the females, 16.5. The death rates for the native white of native parents, 16.4, and the native white of foreign parents, 17.1, were lower than that for the aggregate population; the foreign white death rate, 18.3, and the colored, 25.3, were much higher. The urban death
Diagram 6, Plate 111, represents the death rates per 100,000 of population, from certain diseases, in the registration states in 1900. Pneumonia leads with 193.3 per 100,000; consumption (175.9); diarrheal diseases (132.2); cancer and tumor (67.7); diphtheria and croup (40.3); and influenza (29.1) show the highest death rates.

Diagram 5, Plate 111, represents the proportion of deaths due to certain causes per 1,000 deaths from all causes among the white and the colored in the United States in 1900, and brings out the difference in the death rates of these two races. Deaths from diseases of the nervous system were more prevalent among the white than the colored. From pneumonia, which was next in order, the death rates of the two races were almost equal, that for the colored slightly exceeding that for the white, but for consumption the death rate of the colored was over 50 per cent higher than that of the white. From diseases of the circulatory system, diarrheal diseases, diseases of the digestive system, diseases of the urinary system, cancer and tumor, bronchitis, and diphtheria, the death rate of the white exceeded that of the colored, while from accidents and injuries, typhoid fever, influenza, measles, malarial fever, affections connected with pregnancy, and scrofula and tubes, the death rate of the colored exceeded that of the white.

Diagram 7, Plate 111, to which reference has been made, shows the death rates of the white and the colored for 1900, per 1,000 of population in certain cities, arranged in the order of their white death rates. Of the nine cities specified, Charleston had the highest death rate among both the white (25.6) and the colored (46.7), while St. Louis had the lowest death rate among the white (17.0), and Memphis among the colored (28.6). Washington, with a death rate of 19.1 for the white, and 31.0 for the colored, ranked seventh; its death rate for the colored was lower than for any of the other cities mentioned, except Memphis and Louisville. In all of these cities the death rate of the colored greatly exceeded that of the white.

Diagram 1, Plate 112, represents the percentages of deaths in the United States from certain causes in 1900 and 1890, and is based principally on the enumerators' returns. The percentages for 1900 are represented by the black bars, and those for 1890 by the uncolored bars. Consumption led in both 1900 and 1890 with the black bars, and those for 1890 by the uncolored bars. Consumption led in both 1900 and 1890 with the black bars, and those for 1890 by the uncolored bars. From pneumonia, which was next in order, the death rates of the two races were almost equal, that for the colored slightly exceeding that for the white, but for consumption the death rate of the colored was over 50 per cent higher than that of the white. From diseases of the circulatory system, diarrheal diseases, diseases of the digestive system, diseases of the urinary system, cancer and tumor, bronchitis, and diphtheria, the death rate of the white exceeded that of the colored, while from accidents and injuries, typhoid fever, influenza, measles, malarial fever, affections connected with pregnancy, and scrofula and tubes, the death rate of the colored exceeded that of the white.

Diagram 1, Plate 112, represents the percentages of deaths from certain causes, in 1900 and 1890, for the registration area. In this diagram, pneumonia shows the highest percentage of deaths in 1900, and consumption in 1890. The decrease in the proportion of deaths from consumption in 1900, as compared with 1890, is marked, being 1.8 per cent. The large decrease noted in the proportion of deaths from consumption, diarrheal diseases, bronchitis, cholera infantum, diphtheria and croup, convulsions, and malarial fever in 1900, as compared with 1890, is a matter of great interest, as it is due to the great advance in medical science and improved sanitary methods.

Plate 113 shows for the United States the proportion of deaths in each month, and the relative proportions at all ages and at specified age groups in 1900. The proportion of deaths at all ages was highest in March (163.6), and lowest in June (67.0), while of those under 5 years of age the proportion was highest in August (164.1), and lowest in November (62.1); in ages from 5 to 9 years the proportion was highest in March (102.9), and lowest in June (66.8), the same as in all ages; in 60 years and over the proportion of deaths was highest in April (117.8), and lowest in June (60.6).

Diagram 1, Plate 114, represents the death rates from general diseases—A, including measles, scarlet fever, diphtheria, whooping cough, malarial fever, influenza, typhoid fever, cholera morbus, colitis, diarrhea, dysentery, enteritis, cholera infantum, fever (unspecified), cerebro-spinal fever, smallpox, erysipelas, septicemia, venereal diseases, and other minor diseases—in each month, for cities and rural districts of the registration states in 1900, and shows that in cities the death rate was highest in the month of July (60.8) and lowest in the month of November (16.8), while in the rural districts the death rate was highest in August (36.2) and lowest in June (12.2).

Specified Diseases.

Plates 101 to 110, inclusive, are a series of maps of the registration states, on which the death rates per 100,000 of population from certain specified diseases in 1900, in each county, are indicated, by shades of color, for the five groups described in the legend. The circular diagrams on Plates 113 to 125 represent the death rates per 100,000 of population in each month for cities and rural districts, in the United States and the registration states, and the bar diagrams represent the comparative proportion of deaths from specified diseases at each age per 1,000 deaths from known causes, in 1900 and 1890, for the registration area.

Consumption.

Plates 101 and 102 show, by shades of color, the death rate due to consumption per 100,000 of population in 1900. The heavy shades, indicating a high death rate.
rate, are found principally along the Atlantic coast, although a number of counties in New York also show a heavy death rate from this disease. A comparison of the two plates brings out the comparatively low death rate from consumption in the state of Michigan, only one county, Isabella, appearing in the highest group.

Diagram 1, Plate 120, represents the death rates from consumption in each month for cities and rural districts of the registration states in 1900. The diagram indicates that a large number of deaths occurred from this disease in every month of the year. The highest death rate in cities (21.1) was in March, and the lowest in June (14.7), while in the rural districts the highest death rate was in May (13.4), and the lowest in September (9.4).

The bar diagram, Plate 120, shows the comparative proportion of deaths from consumption at each age in the registration area for 1900 and 1890. The death rate from consumption for the registration area has decreased from 245.4 per 100,000 of population in 1890 to 187.3 in 1900, but the diagram shows that in six of the age groups the proportion of deaths increased, the greatest increases being shown in the age periods from 25 to 44 years. The greatest decrease is shown in the periods from 15 to 24 years. The proportion of deaths from consumption was very small for persons less than 15 and over 69 years of age, the greatest proportion being shown for the age periods from 20 to 39 years.

CANCER AND TUMOR.

Plates 103 and 104 show the death rate due to cancer and tumor per 100,000 of population in 1900. Maine, New Hampshire, and Vermont contain the most extensive areas of the darkest shade, indicating the highest death rates, although New York and Michigan each had a number of counties with a high death rate. New Jersey and the upper peninsula of Michigan had the lowest death rate from these causes, only two counties in the latter showing a death rate above 50 per 100,000 of population.

The death rate from cancer for the registration area has increased from 47.9 per 100,000 of population in 1890 to 60.0 in 1900. The third diagram on Plate 121 represents the comparative proportion of deaths from this cause at each age in the registration area, in 1900 and 1890, and shows a decrease in the proportion of deaths for all of the age periods except five. The most noticeable increase shown was for the age period from 70 to 74 years. The largest proportion of deaths from this disease occurred at advanced age periods, a very small proportion being shown for persons less than 25 years.

DIPHTHERIA AND CROUP.

Plates 105 and 106, representing the death rate per 100,000 of population due to diphtheria and croup, show that the most extensive areas of the darkest shade, indicating the highest death rates, exclusive of the District of Columbia, were in New Jersey, Massachusetts, and New York (the death rate in each state from these causes being over 45 per 100,000 of population), and the largest areas of the lightest shade, indicating the lowest death rate, in Vermont and Michigan, both states having a death rate less than 23.

The death rate from these causes for the registration area in 1900, 45.2 per 100,000 of population, was much lower than in 1890, when it was 97.8.

The line diagram, Plate 115, shows the comparative proportion of deaths from diphtheria and croup at specified ages in the registration area, in 1900 and 1890. The greatest proportion of deaths from these diseases appeared in the ages below 15 years. The diagram shows a slight increase in the proportion of deaths for the periods less than 4 years of age, and slight decreases in nearly all the periods above 4 years of age.

Diphtheria in cities (Plate 115) had the highest death rate (4.8) in December, and the lowest (2.4) in August, while in the rural districts it was highest in November, December, and January, each having practically the same death rate (1.8), and lowest in June (0.7).

INFLUENZA.

Plates 107 and 108 show, for 1900, the death rate due to influenza per 100,000 of population. The most extensive areas of the darkest shade, indicating the highest rates, were found in Connecticut and Rhode Island. Every county in the former state and all but one in the latter were in the highest group, as were a number of counties in Maine, New Hampshire, Vermont, and Massachusetts. Michigan shows the most extensive area of the lightest shade, indicating the lowest death rate. The death rate from influenza in Rhode Island was 75.6 and Connecticut 70.9, while in Michigan it was only 17.3.

Plate 117 shows the death rates from influenza in each month for cities and rural districts of the registration states in 1900. The highest death rate (8.6) from influenza in cities was found in March, and the lowest (0.1) in July, August, and September. In rural districts the highest rate (11.7) was found in April, and the lowest rate (0.3) in the months of August and September.

The general death rate for the registration area from influenza in 1900 was 23.9 per 100,000 of population. Deaths from this cause were not reported separately in 1890.

TYPHOID FEVER.

Plates 109 and 110 show the death rate due to typhoid fever per 100,000 of population in 1900. The heavy shades, indicating those counties in which the death rate from this disease was highest, are scattered through all the registration states. Excluding the District of Columbia, Vermont and Maine had the highest death rate, and New Hampshire and New Jersey the lowest.
The highest death rate (3.3) from this disease in cities, illustrated on Plate 117, is indicated in the months of September and October, and the lowest (1.1) in June, while in the rural districts the highest rate was in October, and the lowest in June, practically the same as in the cities.

The line diagram on Plate 117 shows the comparative proportion of deaths from typhoid fever at each age in the registration area, in 1900 and 1890. While the death rate in the registration area from this fever has decreased from 46.3 per 100,000 of population in 1890 to 33.8 in 1900, a number of the age groups on the diagram show a higher proportion of deaths in 1900 than in 1890. Large decreases will be noted in the age periods from 15 to 29 years, which show the largest proportion of deaths from this disease. The age periods from 30 to 74 show the greatest increases in the death rate from typhoid fever, and slight increases and decreases are indicated in several of the other groups.

MEASLES.

Diagram 2, Plate 114, represents the death rates from measles in each month for cities and rural districts of the registration states in 1900, and shows that in cities the death rate from measles was highest in March (2.7), and lowest in October (0.4); in the rural districts it was highest in March (1.8), and lowest in September (0.1).

The death rate for this cause for the registration area per 100,000 of population has decreased from 13.5 in 1890 to 13.2 in 1900.

SCARLET FEVER.

The first set of circular diagrams on Plate 115 shows the death rates from scarlet fever, by months, for cities and rural districts of the registration states in 1900. Deaths from this fever were most prevalent in cities in the month of February, the rate for that month being 1.8, while the lowest rate (0.4) was for the month of September; in the rural districts February and March had the highest death rates (0.9) and July, August, and September the lowest (0.3).

The death rate for the registration area from scarlet fever has decreased from 13.6 per 100,000 of population in 1890 to 11.6 in 1900.

WHOOPING COUGH.

The first pair of circular diagrams on Plate 116 shows the death rates from this disease in each month for cities and rural districts of the registration states in 1900. The diagram shows a singular condition in relation to the highest death rate from whooping cough in cities, as two widely separated months, March and August, had the highest rate (2.0), and October and November the lowest (0.8). In the rural districts the highest death rate was in August (1.3), and the lowest in the month of October (0.6).

The death rate for the registration area from whooping cough per 100,000 of population has decreased from 15.8 in 1890 to 12.7 in 1900.

MALARIAL FEVER.

In cities deaths from malarial fever were most numerous in the month of September, the rate for that month being 0.7, and fewest from December to May, as shown by the circular diagrams on Plate 116, the rates for these months ranging from 0.3 to 0.4. In rural districts the highest rate was in October and the lowest in the months from December to June, the death rate in these months being very nearly the same.

The death rate for the registration area from this disease was lower for 1900 than 1890, having decreased from 19.2 per 100,000 of population to 8.8.

Diagram 2, Plate 116, shows the comparative proportion of deaths from malarial fever at each age in the registration area in 1900 and 1890. In the age period less than 1 year the death rate was much higher for 1900 than for 1890. The age periods showing an increase since 1890 are 1 to 4 years, 20 to 24, 45 to 49, and 65 to 89, inclusive. The age periods from 10 to 19 show the largest decreases, the decreases in the remaining age periods being very small. The largest proportions of deaths from this disease are noted for the ages from 20 to 24 years and less than 1 year.

CEREBRO-SPINAL FEVER.

The circular diagrams on Plate 118 show the death rates from cerebro-spinal fever in each month for cities and rural districts of the registration states in 1900. The death rate in cities was highest (1.1) in June and July and lowest (0.4) in December and January. In the rural districts June had much the highest death rate (1.0) and November, December, February, March, and April the lowest, the rates for each of these months being the same (0.5).

Bar diagram 2, Plate 118, shows the comparative proportion of deaths from cerebro-spinal fever at each age period in the registration area, 1900 and 1890. The death rates have decreased in a majority of the age groups; however, it is also true that the death rate in the registration area from this disease has increased from 6.3 per 100,000 of population in 1890 to 7.1 in 1900. The greatest proportion of deaths from this disease was found to be in the lower age periods, and was especially large among children less than 1 year of age.

ERYSIPelas.

The second line diagram on Plate 118 shows the comparative proportion of deaths from erysipelas at each age in the registration area in 1900 and 1890.

The death rate for the registration area from this disease shows a slight decrease, from 5.4 per 100,000 of population in 1890 to 5.1 in 1900, but nearly one-half
DIARRHEAL DISEASES.

From diarrheal diseases (Plate 119) the death rate in cities was highest in July (49.8) and lowest in the winter months, while in the rural districts it was highest in August (27.7) and lowest in the winter months. The death rate for the registration area from these diseases has decreased from 183.7 per 100,000 of population in 1890 to 132.8 in 1900.

Diagram 2, Plate 119, represents the comparative proportion of deaths from diarrheal diseases (excluding cholera infantum) for ages 2 years and over in each age period in 1900 and 1890. The proportion of deaths from diarrheal diseases has increased for ages below 5 years and above 64 years, and decreased for the ages from 5 to 64 years. The diagram also shows that the proportion of deaths from these causes was very large for children from 2 to 3 years and for adults from 65 to 79 years of age.

PNEUMONIA.

The death rate for the registration area from pneumonia was larger in 1900 than in 1890, having increased from 186.9 to 192.0 per 100,000 of population.

The second bar diagram on Plate 120 represents the comparative proportion of deaths from pneumonia at each age in 1900 and 1890. The diagram shows large increases in the proportion of deaths for persons less than 3 years of age; for a majority of the age periods shown on the diagram the proportion of deaths in 1890 was larger than for 1900. The largest proportion of deaths from this disease is shown for children less than 1 year of age.

DIABETES.

The death rate for the registration area from diabetes has increased from 5.5 per 100,000 of population in 1890 to 9.3 in 1900.

The first diagram on Plate 121 shows the comparative proportion of deaths from this disease at each age in the registration area in 1900 and 1890, and indicates a decrease in the proportion of deaths in a majority of the age groups. An increase in the death rate is especially noticeable in the age period from 60 to 64 years. Comparatively few deaths occurred from this disease in the age periods below 5 years, the age groups from 50 to 74 years showing large percentages of deaths.

SCROFULA AND TABES.

The death rate for the registration area from these causes has decreased from 6.7 per 100,000 of population in 1890 to 3.6 in 1900.

The second diagram on Plate 121 represents the comparative proportion of deaths at each age period from scrofula and tabes in 1900 and 1890, and shows an increase in the proportion of deaths for nearly every age group, the most noticeable exceptions being for children less than 1 year, 1, and 2 years of age, each of which shows a considerable decrease as compared with 1890. A large proportion of deaths from these causes is indicated for the lowest age period.

DISEASES OF THE NERVOUS SYSTEM.

The circular diagrams on Plate 122, representing the death rates from diseases of the nervous system in each month for cities and rural districts of the registration states in 1900, show but slight variations throughout the year in both cities and rural districts, the highest rates occurring in March and April, each being over 20; and the lowest in November, both less than 17.

The death rate per 100,000 of population from these causes in the registration area has decreased from 247.4 in 1890 to 217.2 in 1900.

DISEASES OF THE CIRCULATORY SYSTEM.

The circular diagram on Plate 122, representing the death rates from diseases of the circulatory system in the registration states, shows that it was highest in March for both cities and rural districts, both being over 16; while the lowest rate for the city districts (9.9) was in August, and for the rural districts (11.8) in September and October.

The death rate from these causes for the registration area has increased from 134.2 per 100,000 of population in 1890 to 150.1 in 1900.

APoplexy and Paralysis.

The death rate from apoplexy and paralysis per 100,000 of population for the registration area has increased from 84.5 in 1890 to 99.4 in 1900.

Diagram 2, Plate 122, shows the comparative proportion of deaths from apoplexy and paralysis at each age in the registration area in 1900 and 1890. A slight increase in a number of the age periods is shown, the most marked being in the groups from 55 to 59, and 70 to 74 years, the differences in the other periods being slight. The proportion of deaths from these causes was very small in the lower age groups, and very large in the groups from 60 to 79 years.
DISEASES OF THE RESPIRATORY SYSTEM.

Diagram 1, Plate 123, shows the death rates from diseases of the respiratory system in each month for cities and rural districts of the registration states in 1900. In cities the highest death rate (54.0) occurred in the month of March, and the lowest (11.0) in the month of August, while in rural districts April had the highest rate (35.1) and July and August the lowest (5.4).

The death rate for the registration area, from diseases of the respiratory system, has greatly decreased, being 279.5 per 100,000 of population in 1900, and 330.3 in 1890.

BRONCHITIS.

The death rate from bronchitis for the registration area shows a decrease from 74.4 per 100,000 of population in 1890 to 48.3 in 1900.

The diagram for this disease, Plate 123, shows very few increases in the death rates in 1900, the most marked being in the rate for children less than 1 year of age. The diagram brings out the fact that a large proportion of deaths from this disease occurred among children less than 3 years of age.

HEART DISEASE AND DROPSY.

The death rate for the registration area from heart disease and dropsy has increased from 132.1 per 100,000 of population in 1890 to 140.9 in 1900.

The line diagram on Plate 123, representing the comparative proportion of deaths from these diseases, at each age in the registration area in 1900 and 1890, shows increases in the advanced age groups, from 55 to 89 years, and but slight differences in the other groups, those for less than 1 year and for 4 years indicating but small increases. The greatest proportion of deaths from these causes occurred at advanced ages.

DISEASES OF THE DIGESTIVE SYSTEM.

Diagram 1, Plate 124, represents the death rates from diseases of the digestive system in each month for cities and rural districts of the registration states in 1900. These death rates show but slight variations during the year for both cities and rural districts. The highest rate (8.7) for cities was in the month of March, and the lowest (7.1) in the month of November. In the rural districts the highest rate (8.3) was in May and August, and the lowest (6.6) in February. Considerable difference is shown between the two areas in a number of months.

The death rate for the registration area from diseases of this class has increased from 91.5 per 100,000 of population in 1890 to 98.5 in 1900.

DISEASES OF THE LIVER.

The death rate from diseases of the liver in the registration area has decreased from 24.1 per 100,000 of population in 1890 to 22.7 in 1900.

Diagram 2, Plate 124, shows the comparative proportion of deaths from diseases of the liver, at each age in the registration area in 1900 and 1890, and indicates that there has been a slight increase for a majority of the age periods. The greatest proportions of deaths from diseases of the liver were for the ages from 50 to 69 years and less than 1 year.

DISEASES OF THE BONES AND JOINTS.

The death rate from diseases of the bones and joints in the registration area has decreased but slightly, having been 4.0 per 100,000 of population in 1890 and 3.6 in 1900.

The diagram on Plate 124, representing the proportion of deaths from diseases of the bones and joints, shows a slight decrease in most of the age periods below 15, and a slight increase in a majority of the groups above 14 years of age. The largest proportion of deaths from these diseases was found in the ages from 5 to 24 years and less than 1 year.

ACCIDENTS AND INJURIES.

Diagram 1, Plate 125, represents the death rates from accidents and injuries (excluding suicides) in each month for cities and rural districts of the registration states in 1900, and shows that in cities the death rate from these causes was highest in the months of June (7.9) and July (7.5) and lowest in January, February, and March. In the rural districts it was highest in the months of July (7.6) and August (7.8) and lowest in December, January, and February.

The death rate from these causes per 100,000 of population in the registration area has increased from 91.9 in 1890 to 96.0 in 1900.

SUICIDE.

For the registration states, the death rate from suicide, as shown on Plate 125, was highest in cities in April and May (1.1) and lowest in December and February (0.7); in the rural districts it was highest in May (1.0) and lowest in November and February (0.6).

In the registration area the death rate from this cause per 100,000 of population has increased from 10.3 in 1890 to 11.8 in 1900.

Diagram 2, Plate 125, represents the comparative proportion of deaths from suicide at specified ages in the registration area in 1900 and 1890, and shows that in the age groups less than 15, 15 to 19, 30 to 44, 70 to 74, and 80 to 84, the death rate from suicide has increased.