## CHAPTER XXV.

## VITAL STATISTICS.

## § 1. Births.

1. Births, 1930.-The number of male and female births and the total births registered in Australia during the year 1930 are shown in the tables hereunder. The numerical relation which these births bear to the population, and various other associated features, are given in later tables.

## BIRTHS, 1930.



Male Birtes.

| Single births | 26,057 | 16,647 | 9,524 | 4,990 | 4,711 | 2,390 | 38 | 80 | 64,437 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Twins | 569 | 368 | 207 | 110 | 115 | 57 | 3 | 3 | 1,432 |
| Triplets . . | 7 | .. | 2 | . . | 1 | . . | . . | . | 10 |
| Quadruplets | 4 | . | . | . | . | $\cdots$ | . | $\cdots$ | 4 |
| Total .- | 26,637 | 17,015 | 9,733 | 5,100 | 4,827 | 2,447 | 41 | 83 | 65,883 |

Female Births.

| Single births | 24,889 | 15,773 | 8,987 | 4,770 | 4,277 | 2,288 | 29 | 80 | 61,093 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Twins | 597 | 339 | 215 | 114 | 96 | 51 | 1 | 1 | 1,414 |
| Triplets | 5 | . . | 4 | . . | . . | .. | . . | . | 9 |
| Quadruplets | .. | . | .. | $\cdots$ | . | $\cdots$ | . | $\cdots$ | .. |
| Total | 25,491 | 16,112 | 9,206 | 4,884 | 4,373 | 2,339 | 30 | 81 | 62,516 |

Total Births.

| Single births | 50,946 | 32,420 | 18,511 | 9,760 | -8,988 | 4,678 | 67 | 160 | 125,530 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Twins .. | (a)1,166 | (b) 707 | (c) 422 | 224 | (b) 211 | 108 | 4 | 4 | (d) 2,846 |
| Triplets . . | 12 | (b) 707 | 6 |  | (e) 1 | .. | . . |  | (e) ${ }_{\text {cos }} 19$ |
| Quadruplets | 4 | . | . . |  | ( | . | . | . |  |
| Total .. | 52,128 | 33,127 | 18,939 | 9,984 | 9,200 | 4,786 | 71 | 164 | 128,399 |

(a) 5 Stillborn twins not jacluded.
(d) 15 Stillborn twins not included.
(b) 3 Stillborn twins not included.
(e) 2 Stillborn triplets not included.
(c) 4 Stillborn twins not included.
2. Birth Rates.-The next table gives the crude birth rates from 1901 to 1930.

CRUDE BIRTH RATE $(a)$, 1901 T0 1930.

| Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Northern Territory. | Federal Capital Territory. | Australia |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1901 | 27.78 | 25.77 | 28.52 | 25.41 | 30.39 | 28.58 | 6.72 | (b) | 27.16 |
| 1911 | 28.58 | 25.01 | 27.63 | 28.86 | 28.22 | 28.60 | 9.36 | 16.84 | 27.20 |
| 1921 | 25.93 | 23.16 | 26.64 | 24.08 | 23.39 | 26.98 | 20.23 | 10.87 | 24.95 |
| 1926 | 22.89 | 20.84 | 22.58 | 20.55 | 22.14 | 23.62 | 19.39 | 12.28 | 22.02 |
| 1927 | 22.69 | 20.30 | 22.24 | 20.12 | 22.03 | 23.01 | 16.06 | 10.49 | 21.67 |
| 1928 | 22.60 | 19.70 | 21.76 | 19.76 | 21.79 | 22.13 | 19.73 | 14.90 | 21.33 |
| 1929 | 21.39 | 18.99 | 19.99 | 18.40 | 22.00 | 22.44 | 12.69 | 18.25 | 20.31 |
| 1930 | 20.95 | 18.66 | 20.14 | 17.19 | 21.98 | 22.11 | 15.27 | 18.66 | 19.93 |

(a) Number of births per 1,000 of the mean annual population.
(b) Part of New South Wales.

The preceding table shows a progressive reduction from 1901 to 1930 , broken only by a slight rise in 1911 in some of the States and in Australia as a whole. The rate for Australia for 1930 represents only 73 per cent. of that for 1901 and is the lowest yet recorded.

The principal factor in determining the crude birth rate is the proportion of married women of child-bearing age in the community, but as the fecundity of women varies with age, the birth rate per 1,000 married women will vary according to the age composition of the group, and, other things being equal, the rate generally should be highest where the average age of married women is lowest. For the purposes of the following table the child-bearing age has been taken as from 15-44 years inclusive, and all births of which the mothers were stated to be over 45 years have been counted in the group 40-44. Exact information in respect of ages in this table is only available at census dates. An estimate has, however, been made of married and unmarried women for the period 1928-1930 and the accompanying rates have been calculated thereon.

## BIRTH RATES, AND FACTORS AFFECTING THEM.-AVERAGE OF YEARS 1920-1922, AND 1928-1930.

| Particulars. | 1920-22. |  |  |  |  |  |  | $\begin{aligned} & 1928- \\ & 1930 . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N.S.W. | Vic. | Q'land. | S.A. | W.A. | Tas. | Aus. tralia. | Australia. |
| Crude birth rate per 1,000 persons | 25.99 | 23.54 | 26.72 | 24.23 | 24.14 | 20.99 | 25.15 | 20.52 |
| Birth rate per 100 women 15-44 inci. | 11.04 | 9.79 | 11.83 | 10.25 | 11.05 | 11.91 | 10.74 | 8.76 |
| Birth rate per 100 married women |  |  |  |  |  |  |  |  |
| 15-44 incl. (a) $\quad \cdots \quad .$. | 19.39 | 19.29 | 21.26 | 18.71 | 19.62 | 21.83 | 19.05 | 16.03 |
| Birth rate per 100 married women |  |  |  |  |  |  |  |  |
| 15-44 incl. (corrected for age variation) | 19.14 | 19.44 | 20.77 | 18.09 | 20.44 | 21.24 | 19.65 | 16.03 |
| Ex-nuptial births-per cent. on all births | 4.82 | 4.84 | 5.00 | 3.28 | 4.02 | 5.11 | 4.69 | 4.68 |
| Ex-nuptial births per 100 unmarried women $15-44$ incl. | 1.16 | 0.92 | 1.26 | 0.72 | 0.92 | 1.26 | 1.05 | 0.86 |
| Women 15-44 incl.-per cent. all persons | 23.54 | 24.02 | 22.57 | 23.65 | 21.83 | 22.67 | 23.41 | 23.41 |
| A verage age of all women 15-44 |  |  | 22.57 | 23.65 | 21.83 | 22.67 | 23.41 | 23.41 |
| Incl. $-\cdots$ | 28.67 | 28.61 | 28.09 | 28.73 | 28.45 | 28.10 | 28.54 | 28.54 |
| Married women 15-44 incl.-per cent. on all persons | 12.75 | 11.61 | 11.93 | 12.53 | 11.81 | 11.73 | 12.20 | 12.20 |
| Average age of married women 15-44 incl. | 32.24 | 32.74 | 32.16 | 32.67 | 33.02 | 32.16 | 32.48 | 32.48 |

(a) Nuptial births only.

The following figures give a comparison for Australia, at Census periods from 1880, of the total births per 1,000 women (married and unmarried) and of the nuptial births per 1,000 married women of ages 15 to 44 inclusive :-

| Particulars. | 1880-82. | 1890-92. | 1900-02 |  |  | 1928-30. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Births per 1,000 women aged 15-44 | 169.7 | 158.8 | 117.3 | 117.2 | 107.4 | 87.0 |
| Nuptial births per 1,000 married women 15-44 | 321.0 | 332.0 | 235.8 | 236.0 | 196.5 | 160.3 |

3. Birth Rates of Various Countries.-(i) Crude Rates. A comparison with other countries shows that tho Australian States occupy a midway position, which is, however, counterbalanced by a still lower position in regard to their death rates, as evidenced in the table hereinafter in the section dealing with "Deaths." The rates for the pre-war period 1908 -1913 have been added for purposes of comparison.

CRUDE BIRTH RATES(a).-VARIOUS COUNTRIES.

| Country. | $\begin{gathered} 1908 \\ \text { to } \\ 1913 . \end{gathered}$ | 1930. | Country. | $\begin{gathered} 1908 \\ \text { to } \\ 1913 . \end{gathered}$ | 1930. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Soviet Republics | 45.6 | 44.4(d) | Northern Ireland | 23.1 | $20.3(f)$ |
| Egypt .. | 43.6 | 43.7(f) | Queensland.. | 28.2 | 20.1 |
| Ceylon | 36.9 | $36.5(f)$ | Australia | 27.4 | 19.9 |
| Rumania | 43.1 | $35.9(e)$ | Irish Free State | 23.1 | 19.8 |
| Japan | 32.9 | 33.0 | Scotland | 26.2 | 19.3 |
| Poland | 37.4 | 32.6(f) | U.S. of America (b) | (g) | 18.9(f) |
| Portugal | 34.6 | 32.5 | New Zealand | 26.5 | 18.8 |
| Spain | 32.1 | 28.9 | Denmark | 27.1 | 18.6(f) |
| Argentine | 37.1 | 28.4(f) | Victoria | 25.3 | 18.6 |
| Union of South Africa |  |  | Belgium | 23.4 | $18.4(e)$ |
| (whites) | (g) | $26.2(f)$ | France | 19.5 | 18.1 |
| Italy | 32.4 | 26.0 | Germany | 29.5 | 17.5 |
| Canada $\quad$. | (g) | $24.0(f)$ | Norway | 26.0 | 17.4 |
| Czechoslovakia | 31.1 | 22.7 | South Australia | 27.1 | 17.2 |
| Netherlands | 29.1 | 23.1 | Switzerland | 24.7 | 17.0(f) |
| Tasmania . | 29.6 | 22.1 | Great Britain |  |  |
| Western Australia | 28.9 | 22.0 | Ireland | 24.6 | 16.9 |
| Finland | 29.5 | $21.5(e)$ | England and Wales | 24.9 | 16.3 |
| New South Wales | 28.2 | 21.0 | Sweden | 24.4 | $15.2(f)$ |

(a) Number of hirths per 1,000 of the mean population. (b) Figures for "existing birth-registration area." (d) for 1927. (e) for 1928. (f) for 1929. (g) Not avallable.
(ii) Nuptial Birth Rates at Child-bearing Ages. The wido discrepancies between the crude birth rates of the various countries are, to some extent, due to differences in sex and age constitution and in conjugal condition. If the birth rates be calculated per $1 ; 000$ women of child-bearing ages, the comparison gives more reliable results. A table of results so calculated appeared in Year Book No. 22, p. 941, and showed that Australia, with a rate of 198 nuptial births per 1,000 married women aged 15 to 49 years, was midway between the maximum and minimum of the countries for which these rates were obtained.
4. Masculinity of Births.-(i) General. The masculinity of births, i.e., the excess of males over females per 100 births registered varies considerably from State to State and from year to year. For 1930 the figures ranged from 2.16 in South Australia to 4.93 in Western Australia. Greater variations are recorded among ex-nuptial births. The following table shows the results at intervals since 1901.

MASCULINITY( $a$ ) OF BIRTHS REGISTERED, AUSTRALIA 1901 T0 1930.

(a) Excess of males over females per 100 total ex-nuptial births.
(ii) Masculinity of Nuptial and Ex-nuptial Births-Various Countries. A table showing the masculinity of nuptial and ex-nuptial births for various countrics appeared on p. 942 of Official Year Book No. 22. It is, however, not proposed to repeat the table in this issue.
5. Ex-nuptial Births.-(i) General. The number of ex-nuptial births reached its maximum, 7,438 , in 1913 , but it has since fallen considerably. On the average of the five years 1910-14, the number of ex-nuptial births in Australia was 7,171, while for the period 1926-30 it was only 6,185 , a decline of 13.7 per cent., whereas the annual average total births for the same period increased by 2 per cent.; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.55 to 4.69 per cent. of all births.

The numbers of births and the rates from 1901 to 1930 are shown below-

EX-NUPTIAL BIRTHS AND BIRTH RATE, 1901 T0 1930.

| Particulars. | 1901. | 1911. | 1921. | 1926. | 1927, | 1928. | 1929. | 1930. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number | 6,165 | 7,074 | 6,463 | 6,284 | 6,289 | 6,331 | 6,088 | 5,935 |
| Percentage on Total Births $\qquad$ | 5.99 | 5.79 | 4.75 | 4.72 | 4.70 | 4.72 | 4.70 | 4.62 |

It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

The variations of the ex-nuptial birth rates as between the individual States and Territories for 1930 are as follows :-

EX-NUPTIAL BIRTHS AND BIRTH RATE, 1930.

| Particulars. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Northern Territory | Federal <br> Capital Territory. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Number . . | 2,540 | 1,483 | 960 | 337 | 373 | 226 | 14 | 2 | 5,935 |
| Percentage on Total |  |  |  |  |  |  |  |  |  |
| Births .. | 4.87 | 4.48 | 5.07 | 3.38 | 4.05 | 4.72 | 19.72 | 1.22 | 4.62 |

(ii) Rate of Ex-nuptiality. A better comparison than that given in the preceding paragraphs is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45 . The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows :-Years $1880-82,14.49$; years $1890-92,15.93$; years $1900-02,13.30$; years 1910-12, 12.53; and years 1920-22, 10.50. The estimated number for the years 1928-30 was 8.60. The comparative results given in the previous issue were taken from the Annuaire International de Statistique, Vols. IT. and V., and showed that exnuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary to 4 in Ireland and Bulgaria. The rate for Australia was 12 per thousand.
(iii) Comparison of Rates. The following table showing the relative proportions of ex-nuptiel and nuptial births to the total population discloses a much greater proportionsl reduction in the ex-nuptial birth rate than in the nuptial rate.

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES( $a$ ).-AUSTRALIA, 1901 TO 1930.

| Rates. |  | 1901. | 1911. | 1921. | 1926. | 1927. | 1928. | 1929. | 1930. |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Ex-nuptial | $\ldots$ | 1.62 | 1.57 | 1.18 | 1.07 | 1.02 | 1.01 | 0.95 | 0.93 |
| Nuptial .. | $\ldots$ | 25.52 | 25.64 | 23.77 | 20.95 | 20.65 | 20.32 | 19.36 | 19.00 |
| Total | $\ldots$ | 27.14 | 27.21 | 24.95 | 22.02 | 21.67 | 21.33 | 20.31 | 19.93 |

(a) Number of births per 1,000 of mean population.
6. Legitimations.-In tho several States Acts have been passed to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who comes within the scope of its intentions, born before or after the passing thereof, is deemed to be legitimized from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. (During 1930, 810 children were legitimized in Australia.)
7. Multiple Births.-Among the total number of 128,399 births registered in Australia in 1930 , there were 125,530 single births, 2,846 twins, 19 triplets and 4 quadruplets. The number of cases of twins was 1,431 , there being 16 stillbirths, and there were 9 cases of triplets, including two stillbirths. The total number of mothers was, therefore, 126,969; the proportion of mothers of twins being one in every 89 , of mothers of triplets one in every 18,138 of total mothers, and of all multiple births one in every 88 mothers. Multiple births occurred in 1.13 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no constant tendency towards increase or decrease.

MULTIPLE BIRTHS-AUSTRALIA, 1911 TO 1930.

|  |  | 1911. | 1921. | 1926. | 1927. | 1928. | 1929. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
|  |  |  | 1930. |  |  |  |  |
| Total Multiple Births <br> Percentage on Total Mothers | 1,236 | 1,465 | 1,423 | 1,472 | 1,423 | 1,320 | 1,439 |
| Number of Mothers to each <br> Multiple Birth . . | .. | 98 | 92 | 93 | 90 | 93 | 97 |

8. Ages of Parents.-The relative ages of the parents of children registered in 1930 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shown for single ages in the Bulletin of "Australian Demography," No. 48, published by this Bureau. In the present work the exigencies of space allow the insertion of a table showing the relative ages of parents of all births in groups of five years only.

AGES OF PARENTS-ALL BIRTHS.-AUSTRALIA, 1930.

| Ages of Fathers and type of birth. | Total Births. | Ages of Mothers. |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Under | $\begin{aligned} & 15 \text { to } \\ & 19 . \end{aligned}$ | 20 to 24. | 25 to 29. | 30 to 34. | 35 to 39. | $\begin{aligned} & 40 \text { to } \\ & 44, \end{aligned}$ | 45 and upwards. | Un-specifled. |
| ${ }_{20}^{\text {Under }}\left\{\begin{array}{l} \text { Single } \\ \text { Twing } \end{array}\right.$ | 802 | 3 | 586 4 | 2071 | 5 |  |  |  | $\cdots$ | $\ldots$ |
| $20 \text { to } 24\left\{\begin{array}{l} \begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Triplets } \end{array} \end{array}\right.$ | 15,715 127 1 | 2 | 4,017 31 | 0,915 .84 | 1,597 9 1 | 146 2 | 35 1 | 3 | . $\cdots$ | $\because$ |
| $25 \text { to } 29\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Tripleta } \end{array}\right.$ | $\begin{array}{r} 31,846 \\ 280 \\ \text { (a) } \quad 4 \end{array}$ | 1 | 1,656 11 | 13,226  <br> (a) 110 | 14,131 124 1 | 2,486 32 | 310 3 | 33 | $\cdots 3$ | $\ldots$ |
| $30 \text { to } 34\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Triplets } \end{array}\right.$ | $\begin{array}{r} 28,505 \\ 354 \\ 1 \end{array}$ | $\cdots$ | $\begin{array}{r} 385 \\ 3 \end{array}$ | $\begin{array}{r} 4,473 \\ 32 \end{array}$ | 11,465 134 1 | 10,318 151 | 1,715 33 . | 146 | 3 | $\ldots$ |
| $35 \text { to } 39\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Triplets } \end{array}\right.$ | 21,326 298 1 | $\cdots$ | 104 | $\begin{array}{r}1,213 \\ \hline 6\end{array}$ | 4,475 $\mathbf{5 0}$ $\ldots$ | 7,914 | $\begin{array}{r} 0,824 \\ 111 \end{array}$ | 784 | 12 | $\cdots$ |
| 40 to $44\left\{\begin{array}{l}\text { Single } \\ \text { Twins }\end{array}\right.$ | 12,950 177 | $\cdots$ | 36. | 392 3 | 1,494 14 | 3,280 47 | 5,147 80 | 2,570 33 | 31 | $\ldots$ |
| $45 \text { to } 48\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Triplets } \end{array}\right.$ | 5,699 79 1 | $\ldots$ | 17 | 137 1 . | 418 | 971 13 | 2,043 33 $\ldots$ | 1,834 25 1 | 179 | $\cdots$ |
| 50 to $54\left\{\begin{array}{l}\text { Single } \\ \text { Twins }\end{array}\right.$ | 1,998 32 | $\cdots$ | 6 | . 46 | 113 | 309 | 650 15 | 773 11 | 101 |  |
| 55 to $59\left\{\begin{array}{l}\text { Single } \\ \text { Twins }\end{array}\right.$ | 675 11 | $\cdots$ | 2 | 19 | ${ }^{40}$ |  | 226 | 247 | 47 | . |
| 60 to $64\left\{\begin{array}{l}\text { Single } \\ \text { Iwins }\end{array}\right.$ | 208 2 | $\cdots$ | $\ldots 3$ | . 7 | 21 | . 35 | 63 1 | 74 1 | 4 | 1 |
| 65 and f Single upwards 2 Twins | 94 1 |  | 1 | 4 | 13 | 13 | 31 .1 | 26 | 6 | $\ldots$ |
| $\underset{\text { fled }}{\text { Unspeci- }}\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \end{array}\right.$ | 6 |  | . | 2 | 1 | 1 |  |  |  | 2 |
| $\underset{\text { of }}{\text { Mothers }} \int \begin{aligned} & \text { Single } \\ & \text { Twins } \end{aligned}$ | $\begin{array}{r} 119,724 \\ 1,368 \end{array}$ | 6 | 6,813 | $\begin{array}{r}29,641 \\ 237 \\ \hline\end{array}$ | 33,773 338 | $\begin{array}{r} 25,568 \\ 373 \end{array}$ | $\begin{array}{r} 17,044 \\ 287 \end{array}$ | 6,490 81 | 886 1 | 3 |
| $\begin{aligned} & \text { Nuptial } \\ & \text { children } \\ & \text { Triplets } \\ & \text { Total . } \end{aligned}$ | $\begin{array}{r} (a) \\ 121,098 \end{array}$ | 6 | 6,862 | $\begin{array}{cc} (a) & 20 \\ 29,881 \end{array}$ | $\begin{array}{r} 200 \\ 3 \\ 34,114 \end{array}$ | $25,942$ | 17,331 | 1 0,572 | 387 | 3 |
| $\begin{gathered} \text { Mothers } \\ \text { of ex } \\ \text { nuptial } \\ \text { children } \end{gathered}\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Total } \end{array}\right.$ | $\begin{array}{r} 5,806 \\ 65 \\ 5,871 \end{array}$ | 34 94 | $\begin{array}{r} 1,850 \\ 14 \\ 1,864 \end{array}$ | $\begin{array}{r} 1,914 \\ 20 \\ 1,934 \end{array}$ | 871 5 876 | 541 11 552 | $\begin{array}{r} 408 \\ 12 \\ 420 \end{array}$ | 173 3 176 | 9 9 | 6 6 |
| $\text { Total }\left\{\begin{array}{l} \text { Single } \\ \text { Twins } \\ \text { Triplets } \end{array}\right.$ | $\begin{array}{r} 125,530 \\ 1,431 \\ (a) \quad 8 \end{array}$ | 40 | $\begin{array}{r} 8,663 \\ 63 \end{array}$ | $\begin{array}{r} 31,555 \\ \text { (a) } \begin{array}{r} 257 \end{array} \end{array}$ | $\begin{array}{r} 34,644 \\ 343 \\ 3 \end{array}$ | $\begin{array}{r} 26,109 \\ 384 \\ 1 \end{array}$ | $\begin{array}{r} 17,452 \\ 299 \end{array}$ | $\begin{array}{r} 6,663 \\ 84 \\ 1 \end{array}$ | $\begin{array}{r} 395 \\ 1 \end{array}$ | 9 |
| Total | 126,969 | 40 | 8,726 | 31,815 | 34,990 | 26,494 | 17,751 | 6,748 | 398 | 9 |

(a) Includes 1 ease of quadruplets.
9. Birthplaces of Parents.-The relative birthplaces of the parents of children whose births were registered during the year 1930 will be found in the Bulletin of "Australian Demography," published by this Bureau. A summary of the results of the tabulation with the addition of the corresponding figures for 1911 follows.

## BIRTHPLACES OF PARENTS.-AUSTRALIA, 1911 and 1930.

| Birthplaces. | Fathers. |  | Mothers of Nuptial Children. |  | Mothers of Ex-nuptial Children |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 193 | 1911. | 1930. | 1911. | 1930. |
| AUSTRALASIA - |  |  |  |  |  |  |
| Australia | 94,834 | 101,090 | 102,073 | 104,904 | 6,570 | 5,277 |
| New Zealand | 1,257 | 920 | 1,201 | 726 | 68 | 68 |
|  |  |  |  |  |  |  |
| England and Wales | 9,849 | 11,286 | 6,067 | 9,542 | 210 | 317 |
| Scotland | 2,289 | 3,085 | 1,486 | 2,745 | 46 | 116 |
| Ireland | 2,138 | 1,265 | 1,374 | 869 | 46 | 32 |
| Other British Possessions | 49 | 176 | 20 | 131 | 1 | 1 |
| Western Europe | 607 | 314 | 165 | 126 | 9 | 5 |
| Central Europe .. | 1,185 | 430 | 606 | 233 | 8 | 4 |
| Southern Europe | 360 | 1,315 | 203 | 1,001 | 6 | 8 |
| Eastern Europe | 168 | 218 | 81 | 141 |  | 2 |
| ASIA- |  |  |  |  |  |  |
| British Possessions | 217 | 130 | 114 | 76 | 2 | 3 |
| Foreign Countries | 317 | 274 | 139 | 165 | 3 | 4 |
| AFRICA- |  |  |  |  |  |  |
| British Possessions | 111 | 181 | 116 | 164 | 2 | 6 |
| Foreign Countries | 11 | 19 | 13 | 25 |  | .. |
| AMERICA- |  |  |  |  |  |  |
| Canada | 59 | 95 | 34 | 49 | 3 | 3 |
| Other British Possessions | 8 | 10 | 5 | 6 |  |  |
| United States of America | 182 | 150 | 87 | 87 | 3 |  |
| Other Foreign Countries | 70 | 33 | 19 | 30 | 1 | 3 |
| POLYNESIA- |  |  |  |  |  |  |
| British | 30 | 27 | 21 | 22 | 1 |  |
| Foreign | 39 | 55 | 13 | 40 | 6 | ${ }^{6}$ |
| ndefinite | 159 | 25 | 102 | 16 | 33 | 13 |
| Total | 113,939 | ; 121,098 | 113,930 | 121,098 | 7,018 | 5,871 |

10. Occupations of Fathers.-A summary of the main groups of occupations of the fathers of all nuptial children whose births were registered in 1911, 1921, and 1930 and the percentage of each class on the total are given in the following table :-

> OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.-AUSTRALIA, 1911,1921 and 1930.



Explanation.-The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents $\mathbf{2 , 0 0 0}$ persons for Australia and $\mathbf{1 , 0 0 0}$ for the States.

The scale on the left relates to Australia, and that on the right to the States.

MARRIAGES, 1860 TO 1930.


DEATHS, 1860 TO 1930.


Explanation.-The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 1,000 persons for Australia and 500 for the States.

The scale on the left relates to Australia, and that on the right to the States.

RATES—BIRTH, NATURAL INCREASE, DEATH (MALE, GENERAL AND FEMALE) AND MARRIAGEAUSTRALIA, 1860 TO 1930.


Explanation.-The base of each small square represents one year's interval, and the vertical height one half per thousand of the population-the basic line being five per thousand of the population.

STATE BIRTH-RATE GRAPHS. (See page 693.)
Explanation.-The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population-the basic line for each State being twenty per thousand of the population.

STATE DEATH-RATE GRAPHS. (See page 694.)
ExpLANATION.-The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shown by a thickened line.


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|  |  |  |  | 870 |  |  |  | 1880 |  |  |  | 1890 |  |  | 100 | 000 |  |  | 19 | 10 |  |  |  | 920 |  | 193 |



The outstanding feature of the above table is the rapid decline of the agricultural, etc., class as disclosed in both sections of the table. The domestic class also shows a smaller percentage in 1930 than in 1911.

On the other hand the industrial class has increased rapidly while the remaining groups have also grown but at a slower rate.

It should be mentioned that the classification of occupations employed in this table differs somewhat from that used in the table of occupations on pp. (379 and 599) and is not comparable with that used for statistics of industry or manufactures.


#### Abstract

11. Mother's Age, Duration of Marriage, and Issue.-(i) General. The total number of nuptial confinements in 1930 was 121,098 , viz., 119,724 single births, 1,366 cases of twins, 7 cases of triplets and one case of quadruplets, but in 15 cases the necessary information was lacking, and the following series of tables refers therefore, to 121,083 nuptial confinements. Ex-nuptial children-previous issue by the same father-are included as previous issue, but children by former marriages, and stillborn children are excluded. The tables cannot be given in extenso, but the following are their most salient features. More complete tabulations are shown in "Australian Demography," No. 48.


(ii) Duration of Marriage and Issue of Mothers. The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to between 33 and 34 years, and that the average family increased fairly regularly with the duration of marriage. The average number of children of all marriages was 2.92, the corresponding figures for 1929 being 2.96 ; 1928, 2.99 ; for 1927, 3.03; and for 1926, 3.06.

DURATION OF MARRIAGE AND ISSUE OF MOTHERS.-AUSTRALIA, 1930.

| Duration of Marriage. | Total Mouners. | Total Issue. | A verage Number of Children. | $\begin{aligned} & \text { Duration } \\ & \text { of } \\ & \text { Marriage. } \end{aligned}$ | Total Mothers. | Total Issue. | A verace Number of Children. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years. |  |  |  | Years. |  |  |  |
| 0-1 | 20,095 | 20,387 | 1.02 | 18-19 | 1,244 | 8,976 | 7.22 |
| 1-2 | 13,338 | 17,012 | 1.28 | 19-20 | 963 | 7,416 | 7.70 |
| 2-3 | 12,343 | 21,887 | 1.77 | 20-21 | 798 | 6,354 | 7.96 |
| 3-4 | 10,665 | 22,520 | 2.11 | 21-22 | 609 | 5,301 | 8.70 |
| 4-5 | 8,849 | 20,917 | 2.36 | 22-23 | 444 | 3,973 | 8.95 |
| 5-6 | 7,747 | 21,732 | 2.81 | 23-24 | 309 | 2,866 | 9.30 |
| 6-7 | 6,621 | 20,415 | 3.08 | 24-25 | 199 | 1,951 | 9.80 |
| 7-8 | 5,886 | 20,261 | 3.44 | 25-26 | 139 | 1,363 | 9.81 |
| $8-9$ | 5,239 | 19,753 | 3.77 | - 26-27 | 72 | 736 | 10.22 |
| 9-10 | 5,154 | 21,011 | 4.08 | 27-28 | 48 | 497 | 10.35 |
| 10-11 | 4,526 | 19,873 | 4.39 | 28-29 | 25 | 269 | 10.76 |
| 11-12 | 3,318 | 15,757 | 4.75 | 29-30 | 16 | 176 | 11.00 |
| 12-13 | 2,550 | 12,929 | 5.07 | 30-31 | 8 | 91 | 11.38 |
| 13-14 | 2,317 | 12,497 | 5.39 | 31-32 | 8 | 39 | 4.88 |
| 14-15 | 2,205 | 12,499 | 5.67 | 33-34 | 1 | 7 | 7.00 |
| 15-16 | 2,058 | 12,473 | 6.06 |  |  |  |  |
| 16-17 | 1,823 | 11,828 | 6.49 | Total | 121,083 | 353,868 | 2.92 |
| 17-18 .. | 1,466 | 10,102 | 6.89 |  |  |  |  |

(iii) Ages of Mothers and Issue. The ages of mothers and average family are given in the following table, which shows that the average family increased fairly regularly to a maximum in the age-group 45 years and over.

It will be noted that the average number of children for the two youngest age groups has remained fairly constant over the period. In all the other groups, however, there has been a substantial decrease in the average, ranging from 0.22 in mothers 25 to 29 years to 1.02 in mothers 45 years and over. The average for all ages shows a decline of 0.42 children since 1911 .
ages and issue of mothers.-AUSTRALIA, 1930.

| Ages of Mothers. | Average Number of Children. |  |  | Ages of Mothers. | Average Number of Children. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. |  | . 1911. | 1921. | 1930. |
|  |  |  |  |  |  |  | ET |
| Under 20 years | 1.18 | 1.16 | 1.22 | 40-44 years | 6.97 | 6.27 | 6.11 |
| 20-24 years | 1.77 | 1.64 | 1.69 | 45 years and over | 8.52 | 8.04 | 7.50 |
| 25-29 , | 2.64 | 2.44 | 2.44 |  |  |  |  |
| 30-34 ", | 3.82 | 3.57 | 3.39 |  |  |  |  |
| 35-39 , | 5.28 | 4.95 | 4.64 | All ages | 3.34 | 3.08 | 2.92 |

(iv) Previous Issue of Hothers, Various Ages. The previous issue, nccording to the age of the mother, is given in the following table.

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.-AUSTRALIA, 1930.

| Previous Issue. | Mothers' Ages. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $20 \text { Years. }$ | ${ }_{\substack{20-24 \\ \text { Years }}}$ | ${ }_{\text {Years. }}^{25-29}$ | ${ }_{\text {Y }}^{\text {Years. }}$ ( | $\begin{aligned} & 35-3.9 . \\ & \text { Years. } \end{aligned}$ | $\begin{gathered} 40-44 \\ \text { Years. } \end{gathered}$ | 15 Years and 0 ver. | Total. |
| 0 | 5,519 | 15,452 | 10,566 | 4,316 | 1,718 | 407 | 22 | 38,000 |
| 1 | 1,210 | 10,146 | 9,946 | 5,723 | 2,364 | 475 | 34 | 29,898 |
| 2 | 127 | 2,789 | 6,538 | 5,300 | 2,649 | 642 | 32 | 18,077 |
| 3 | 11 | 1,166 | 3,818 | 3,903 | 2,565 | 704 | 35 | 12,202 |
| 4 | 1 | 260 | 1,954 | 2,892 | 2,185 | 713 | 52 | 8,057 |
| 5 | .. | 49 | 865 | 1,850 | 1,835 | 685 | 34 | 5,318 |
| 6 | $\cdots$ | 11 | 319 | 1,091 | 1,405 | 664 | ¢5 | 3,545 |
| 7 | .. | 2 | 74 | 513 | 1,063 | 606 | 61 | 2,319 |
| 8 | . |  | 15 | 233 | 718 | 484 | 55 | 1,507 |
| 9 | $\cdots$ | .. | 7 | 76 | 427 | 415 | 51 | 976 |
| 10 | $\cdots$ | . | 2 | 29 | 217 | 279 | 26 | 553 |
| 11 | . | $\cdots$ | 2 | 13 | 100 | 191 | 36 | 342 |
| 12 | $\cdots$ | .. | .. | 2 | 47 | 88 | 24 | 161 |
| 13 | $\cdots$ | $\cdots$ | . | 2 | 25 | 39 | 13 | 79 |
| 14 |  | .. |  | . | 9 | 15 | 7 | 31 |
| 15 | $\cdots$ | . | $\cdots$ |  | 2 | 9 | 1 | 12 |
| 16 | .. | .. | .. | $\cdots$ | .. | 2 | - 2 |  |
| 18 | $\cdots$ | $\cdots$ | $\cdots$ | $\cdots$ |  | 1 |  |  |
| 19 | .. |  | . |  |  |  | - 1 | 1 |
| Total Mothers | 6,868 | 29,877 | 34,106 | 25,943 | 17,329 | 6,419 | 541 | 121,083 |

(v) Previous Issue of Mothers of Twins and Triplets. Figures regarding the previous issue of mothers of twins and triplets show that 336 mothers had twins at their first confinement; 290 at their second ; 238 at their third; 174 at their fourth; 107 at their fifth; 78 at their sixth; 52 at their seventh; 40 at their eighth; 24 at their ninth ; 14 at their tenth ; 4 at their eleventh ; 4 at their twelfth ; 4 at their thirteenth; and 1 at her fifteenth.

Of the 7 cases of triplets registered during 1930, 4 were first confinements, 1 was a second and 2 were fourth. The case of quadruplets occurred at a first confinement.
12. Interval between Marriage and First Birth.-(i) Interval. The following table shows the interval between marriage and first birth. Twins, triplets and quadruplete are included, the eldest born only being enumerated :-

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.-AUSTRALIA,

$$
1911,1921 \text { and } 1930 .
$$



The masculinity of first births was 2.54 as compared with 2.62 for total births.
(ii) Ages of Mothers and Interval. 'The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows in a condensed form the ages of mothers in the cases of ex-nuptial first births, of nuptial first births occurring less than nine months after marriage, and of nuptial first births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage shows that for all ages the ratio was more than 2 to 3 . At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be anderstood that a certain number of prematare births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available and the figures in the table must be accepted with this reservation. The tabulation in single ages of mothers appears in Demography Bulletin No. 48 published by this Bureau.

The last three columns show the percentage of births following ante-nuptial conception on the total nuptial first births and ex-naptial births. These columns disclose the remarkable fact that the percentage of births due to ante-nuptial conception diminishes rapidly from 80 per cent. among mothers under 20 years of age to a minimum among mothers 30 to 34 years and then rises rapidly to mothers 45 years and over.

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, ETC.-AUSTRALIA, 1911, 1920, AND 1930.

|  | 1930. |  |  |  | Percentage Column III. on Column IV. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Age of Mother at Birth of Child. | $\underset{\text { nuptial }}{\text { Ex- }}$ Births. I. | Nuptial Births less than nine months after Marriage. II. | ```Total of two preceding columns. III.``` |  | 1911. | 1921. | 1930. |
| Under 20 years | 1,898 | 4,099 | 5,997 | 7,417 | 83.12 | 79.23 | 80.85 |
| 20 to 24 years | 1,934 | 6,055 | 7,989 | 17,386 | 53.91 | 45.82 | 45.95 |
| 25 to 29 , | 876 | 1,654 | 2,530 | 11,442 | 32.50 | 25.60 | 22.11 |
| 30 to 34 | 552 | 506 | 1,058 | 4,868 | 28.06 | 23.05 | 21.73 |
| 35 to 39 ," | 420 | 205 | 625 | 2,138 | 32.64 | 29.43 | 29.23 |
| 40 to 44 ", | 167 | 52 | 219 | 574 | 36.56 | 35.31 | 38.15 |
| 45 and over | 18 | 3 | 21 | 40 | 60.47 | 54.84 | 52.50 |
| Total | 5,865 | 12,574 | 18,439 | 43,865 | 48.14 | 39.74 | 42.04 |

13. Interval between Birth and Registration of Birth.-Information was obtained for the years 1911 to 1921 regarding the poriod which elapsed between birth and registration. A detailed table giving the results for 1921 is contained in Demography Bulletin No. 39, issued by this Bureau. The law relating to maternity allowances has tended to accelerate the registration of births; and during the year under review it was found that approximately $3 \overline{5}$ per cent. were registered in the first week.

Since the granting of the maternity allowance the weighted average interval between the dates of birth and registration has been found to be about 13 days for all children.

## § 2. Marriages.

1. Marriages, 1930.-The number of marriages registered in Australia during 1930 was 43,255 , giving a rate of 6.71 per 1,000 of the mean population for the year. The number of marriages in each State, together with the corresponding crude marriage rate for 1930 and several previous years are given hereunder:-

MARRIAGES, 1901 to 1930.

|  | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. |  | $\begin{gathered} \text { Teed. } \\ \text { Cap. } \\ \text { Terr. } \end{gathered}$ | Australi |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| No. 1930.. | 17,383 | 11,641 | 6,199 | 3,312 | 3,205 | 1,450 | 31 | 34 | 43,255 |
| $\begin{aligned} & \text { Crude } \\ & \text { Rate- } \end{aligned}$ |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
| 1901 .. | 7.73 | 6.99 | 6.66 | 6.45 | 9.68 | 7.76 | 1.05 |  | 7.32 |
| 1911 | 9.19 | 8.40 | 8.41 | 9.80 | 8.44 | 7.77 | 3.02 | 2.81 | 8.79 |
| 1921 | 8.78 | 8.90 | 7.82 | 8.82 | 7.96 | 7.82 | 3.84 | 0.81 | 8.59 |
| 1926 | 8.28 | 7.90 | 7.34 | 8.06 | 7.58 | 6.79 | 3.72 | 2.78 | 7.92 |
| 1927 | 8.45 | 7.88 | 7.04 | 7.88 | 8.07 | 6.82 | 6.14 | 3.95 | 7.95 |
| 1928 | 8.28 | 7.52 | 6.95 | 7.18 | 8.39 | 7.09 | 5.47 | 3.60 | 7.73 |
| 1929 | 7.93 | 7.31 | 6.67 | 6.42 | 8.18 | 8.01 | 4.79 | 5.13 | 6.71 |
| 1930 | 6.99 | 6.52 | 6.59 | 5.70 | 7.66 | 6.70 | 6.67 | 3.87 | 6.71 |

(a) Number of marriages (not persons marricd) per 1,000 of mean annual population.

As in some international tabulations the marriage rates are calculated per 1,000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for Australia for the last four Census periods for which the particulars are availabls. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follow:-Years 1880-82, 48.98 ; years 1890-92, 45.74 ; years $1900-02,42.14$; years $1910-12,50.44$; and years 1920-22, 56.02. For years $1928-30$ the figure is estimated at 54.48 . These rates refer, of course, to persons married and not to marriages, as is the case in the preceding table.
2. Marriage Rates in Various Countries.-The following table shows the marriage rate for Australia in comparison with various other countries :-

CRUDE MARRIAGE RATES (a).-VARIOUS COUNTRIES.

| Country. | $\begin{gathered} 1908 \\ \text { to } \\ 1913 . \end{gathered}$ | 1930. | Country. |  | $\begin{gathered} 1908 \\ \text { to } \\ 1913 . \end{gathered}$ | 1930. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Soviet Republics | 8.6 | 10.6(f) | Great Britain |  |  |  |
| United States (b) | (e) | 10.1(f) | Ireland.. |  | 7.3 | 7.5(f) |
| Poland | 7.0 | 9.7 | Finland |  | 6.1 | $7.5(f)$ |
| Union of South Africa (c) | (e) | 9.4(c) | Argentine . . | $\cdots$ | 6.8 |  |
| Czechoslovakia | 7.7 | 9.3 | Portugal |  | 6.9 | 7.2(f) |
| Rumania | 9.5 | $9.1(f)$ | Italy .. |  | 7.7 | 7.1 |
| Belgium | 7.9 | 8.9(f) | New South Wales | .. | 8.8 | 7.0 |
| Germany | 7.8 | 8.7 | Scotland .. |  | 6.7 | 6.8 |
| Spain | 7.0 | 8.4(f) | Sweden | $\cdots$ | 6.0 | 6.8(f) |
| France | 7.9 | 8.3 | Australia .. |  | 8.4 | 6.7 |
| Netherlands | 7.5 | 8.0(f) | Tasmania |  | 7.9 | 6.7 |
| England and Wales | 7.6 | 7.9 | Queensland | $\cdots$ | 8.2 | 6.6 |
| Japan . | 9.3 | 7.9(f) | Victoria |  | 8.0 | 6.5 |
| Canada | (e) | 7.9(f) | Norway |  | 6.2 | 6.4 |
| Denmark .. | 7.3 | 7.9(f) | Northern Ireland |  | 5.2 | 5.9(f) |
| Switzerland. | 7.3 | 7.9 | South Australia | . | 9.1 |  |
| New Zealand | 8.5 | 7.8 | Ceylon |  | 5.2 | $5.7(f)$ |
| Western Australia | 8.1 | 7.7 | Irish Free State |  | 5.2 | $4.6(f)$ |

(a) Number of marriages per 1.000 of mean population. (b) Registration area. (c) White population only.
(e) Not a vailable.
(f) For 1929.
rriage o!
3. Ages and Conjugal Condition at Marriage.-(i) General. The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 48. A summary in age groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,680 males who were less than twenty-one years of age married during 1930, while the corresponding number of females was 10,950 . At the other extreme there were 74 men of sixty-five years and upwards, who described themselves as bachelors, and 19 spinsters of corresponding age.

The information regarding the percentage distribution of bridegrooms and brides is shown in the last three lines of the table in respect of 1911 and 1921 as well as of 1930 .
ages and conjugal condition of persons married.-AUSTRALIa, 1930.

| Ages at Marriage | Bridegrooms. |  |  |  | Brides. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bachelors. | Widowers. | Divorced. | Total. | Spinsters. | Widoms. | Divorced. | Total. |
| Under 20 | 1,360 | 1 |  | 1,361 | 7,742 | 4 | 1 | 7,747 |
| 20-24 years | 14,240 | 23 | 10 | 14,273 | 18,772 | 43 | 48 | 18,863 |
| 25-29 " | 14,0:6 | 130 | 69 | 14,225 | 8,848 | 165 | 214 | 9,227 |
| 30-34 ", | 5,653 | 248 | 169 | 6,070 | 2,814 | 233 | 234 | 3,281 |
| 35-39 ", | 2,376 | 412 | 206 | 2,994 | 1,244 | 359 | 197 | 1,800 |
| 40-44 | 1,121 | 366 | 156 | 1,643 | 549 | 330 | 114 | 993 |
| 45-49 ", | 538 | 353 | 104 | 995 | 276 | 266 | 59 | 601 |
| 50-54 " | 259 | 312 | 67 | 638 | 96 | 183 | 24 | 303 |
| 55-59 | 129 | 261 | 29 | 419 | 51 | 138 | 13 | 202 |
| 60-64 ", | 68 | 200 | 11 | 279 | 33 | 107 | 2 | 142 |
| 65 years and over .- | 74 |  | 15 | 357 | 19 | 73 | 3 | 95 |
| Unspecified |  |  |  | 1 | 1 |  |  | 1 |
| Total | 39,844 | 2,575 | 836 | 43,255 | 40,445 | 1,901 | 909 | 43,255 |
| Percentage on Total |  |  |  |  |  |  |  |  |
| 1911 | 93.70 | 5.84 | 0.46 | 100.00 | 94.60 | 4.68 | 0.72 | 100.00 |
| 1921 | 92.43 | 6.37 | 1.20 | 100.00 | 92.85 | 5.91 | 1.24 | 100.00 |
| 1930 .. | 92.12 | 5.95 | 1.93 | 100.00 | 93.50 | 4.40 | 2.10 | 100.00 |

(ii) Relative Ages, Bridegrooms and Brides. The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 48; a condensation into age-groups of five years is given below :-
relative ages of persons married.-AUSTRALIA, 1930.

|  | - | Total Bridegrooms. |  |  |  | Ages of Brides. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Ages. |  | Under 15. | 15 to 19. | 20 to | $\begin{gathered} 25 \text { to } \\ 29 . \end{gathered}$ | 30 to | $\begin{gathered} 35 \text { to } \\ 39 . \end{gathered}$ | $\begin{aligned} & 40 \text { to } \\ & 44 . \end{aligned}$ | 45 and Not upwards. stated. |  |
|  | Under 20 years. . | 1,361 | 5 | 1,018 | 326 | 9 | 2 |  |  |  |  |
|  | 20 to 24 ", . | 14,273 | 6 | 4,470 | 8,346 | 1,291 | 122 | 25 |  | 6 |  |
|  | 25 to 29 ", .. | 14,225 | 7 | 1,710 | 7,227 | 4,418 | ${ }^{682}$ | 148 | 26 | 7 |  |
|  | 30 to 34 ", . | 6,070 | 1 | 373 | 2,053 | 2,120 | 1,119 | 315 | 71 | 18 । |  |
|  | 35 to 39 ". . | 2,994 | . . | 95 | 622 | 860 | 718 | 483 | 160 | 56 | . |
|  | 40 to 44 ". | 1,643 | $\cdots$ | 27 | 182 | 332 | 334 | 395 | 2531 | 120 |  |
|  | 45 to 49 " . | 995 | $\cdots$ | 20 | 71 | 116 | 174 | 216 | 199 | 199 |  |
|  | 50 to 54 ". . | 638 |  | 9 | 22 | 48 | 72 | 120 | 125 | 242 |  |
|  | 55 to 59 ", .. | 419 |  | 3 | 8 | 20 | 40 | 49 | 71 | 228 : |  |
|  | 60 to 64 ', .. | 279 | . | 2 | 4 | 8 | 13 | 32 | 40 | 180 | - |
|  | 65 years and over Not stated | 357 | . | 1 | 2 | 5 | 5 | 16 $\cdots$ | 41 | 287 |  |
|  | Total Brides | 43,255 | 19 | 7,728 | 18,863 | 9,227 | 3,281 | 1,800 | 993 | 1,343 | 1 |

(iii) Average Ages, Bridegrooms and Brides. The age at marriage of brides has declined slightly during recent years to an average of about 25 years. The figures for the five years are:-1926, 25.84; 1927, 25.72 ; 1928, 25.67 ; 1929, 25.62 ; and 1930, 25.49. For the five years $1907-11$ the average age was 25.70 years, compared with 25.92 years for the five years 1912-16, 26.07 years for the five years 1917-21, and 25.76 years for the five years 1925-29. The average age of bridegrooms in 1926 was 29.32 years; in 1927, 29.19; in 1928, 29.18; in 1929, 29.18; and in 1930, 29.20 years. It follows, therefore, that brides are, generally speaking, three and one-half years younger than the bridegrooms.
4. Previous Conjugal Condition.-The number of backelors and spinsters, widowed and divorced persons, who were married during the year 1930 has already been given. The following table shows the conjugal condition of the contracting parties :-

Previous conjugal condition of persons married.-AUSTRAlia, 1930.

| Coujugal Condition. | 'Fotal Bridegrooms. | Brides. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Spinsters. | Widows. | Divorced. |
| (Bachelors | 39,844 | 38,174 | 1,049 | 621 |
| Bridegrooms $\left\{\begin{array}{l}\text { Widowers }\end{array}\right.$ | 2,575 | 1,658 | 731 | 186 |
| (Divorced | 836 | 613 | 121 | 102 |
| Total Brides | 43,255 | 40,445 | 1,901 | 909 |

5. Birthplaces of Persons Married.-The following table shows the birthplaces of persons who were married in 1911, 1921 and 1930. In "Australian Demography," Bulletin No. 48, the relative birthplaces of bridegrooms and brides married in 1930 will be found tabulated in full detail.

BIRTHPLACES OF PERSONS MARRIED.-AUSTRALIA, 1911, 1921 and 1930.

| - | Bridegrooms. |  |  | Brides. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| AUSTRALASIA - |  |  |  |  |  |  |
| Australia | 31,298 | 37,925 | 35,198 | 33,922 | 40,137 | 37,501 |
| New Zealand | 450 | 405 | 419 | 303 | 280 | 366 |
| EUROPE- |  |  |  |  |  |  |
| England and Wales | 3,023 | 3,590 | 4,587 | 1,675 | 2,488 | 3,401 |
| Scotland | 739 | 867 | 1,321 | 460 | 656 | 1,021 |
| Ireland | 494 | 470 | 489 ' | 363 | 281 | 275 |
| Other British Possessions | 16 | 30 | 64 | 9 | 14 | 31 |
| Western Europe | 205 | 175 | 143 | 45 | 45 | 49 |
| Central Europe . . | 311 | 149 | 202 | 92 | 61 | 97 |
| Southern Europe | 62 | 139 | 342 | 21 | 56 | 188 |
| Eastern Europe | 47 | 83 | 76 | 18 | 21 | 46 |
| ASIA- |  |  | I |  |  |  |
| British Possessions | 59 | 59 | 55 | 27 | 24 | 30 |
| Foreign Countries | 83 | 57 | 70 | 16 | 12 | 49 |
| AFRICA- |  |  | ! |  |  |  |
| British Possessions | 42 | 58 | 116 | 20 | 39 | 85 |
| Foreign Countries | 1 | 3 | 10 | 2 | 5 | 7 |
| AMERICA- |  |  | : |  |  |  |
| Canada | 44 | 45 | 39 | 6 | 11 | 24 |
| Other British Possessions | 6 | 8 | 3 | . | 5 | 1 |
| United States of America | 58 | 90 | 70 | 16 | 25 | 34 |
| Other Foreign Countries | 44 | 11 | 19 | 15 | 10 | 11 |
| POLYNESIA- |  |  |  |  |  |  |
| British.. | 13 | 9 | 7 | 7 | 11 | 8 |
| Foreign | 25 | 18 | 12. | 7 | 13 | 12 |
| Indefinite | 41 | 22 | 13 | 37 | 19 | 19 |
| Total | 37,061 | 44,213 | 43,255 | 37,061 | 44,213 | 43,255 |

6. Occupations and Ages of Bridegrooms.-A tabulation has been made of the occupations and ages of all males married in Australia during 1930, an abridgment of which is given in the following table. The average ages of the persons falling under the twenty-eight subdivisions were determined, and it appears that, apart from the "Indefinite class," which consists chiefly of persons who have retired from business and who are living on income from investments, and who may be expected to have reached a comparatively high age before attaining a position of financial independence, the average age for 1930 ranges from 27.30 years for those engaged in the manufacture of food and drinks, to 32.59 years in the class engaged in providing board and lodging. A line showing the corresponding average ages for 1921 has been added to the table. On the experience of 1930 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows :-Professional, 30.12 years; Domestic, 30.81 years; Commercial, 29.47 years; Transport, 28.63 years; Industrial, 28.39 years; and Primary Producer, 30.76 years.

OCCUPATIONS AND AGES OF BRIDEGROOMS.-AUSTRALIA, 1930.

7. Fertility of Marriages.-The quotient obtained by division of the nuptial births registered, e.g., during the five years 1926 to 1930 , by the number of marriages registered during the five years 1921 to 1925 , i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." The quotient for this period is 2.88 -in other words, the number of children to be expected from every marriage in Australia is about three. This method, while not absolutely accurate, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation. For the following five-yearly periods the results were:-1922-26, 3.14; 1923-27, 2.79; 1924-28, 2.81; 1925-29, 2.84; and 1926-30, 2.88.
8. Registration of Marriages.-In all the States marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the RegistrarGeneral, or by certain civil officers-in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The proportions so celebrated in 1930 were :-New South Wales, 91.39 per cent. ; Victoria, 89.51 per cent. ; Queensland,
95.92 per cent. ; South Australia, 90.37 per cent.; Western Australia, 82.41 per cent.; and Tasmania, 90.90 per cent., the percentage for Australia being 90.77. The registered ministers in 1930 belong to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation and are bracketed under the heading "Other Christian." The figures for 1930 are shown in the following table:-

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1930.

| Denomination. | N.S.W. | Vic. | Qld. | S.A. | W.A. | Tas. | Nor. Ter. | $\begin{aligned} & \text { Fed. } \\ & \text { Cap. } \\ & \text { Ter. } \end{aligned}$ | Australia. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | No. | Per. Cent. |
| Church of England | 7,122 | 3,225 | 1,902 | 764 | 1,173 | 510 | 9 | 18 | 14,723 | 34.04 |
| Roman Catholic.. | 3,616 | 2,239 | 1,404 | 394 | 541 | 239 | 3 | 7 | 8,443 | 19.52 |
| Methodist | 1,995 | 1,581 | 907 | 1,054 | 411 | 264 | 1 | 2 | 6,215 | 14.37 |
| Presbyterian | 2,199 | 1,971 | 978 | 124 | 259 | 112 | 2 | 5 | 5,650 | 13.06 |
| Congregational | 365 | 311 | 109 | 178 | 88 | 53 | . | . | 1,104 | 2.55 |
| Baptist .. | 249 | 559 | 149 | 151 | 42 | 58 | $\cdots$ | $\cdots$ | 1,208 | 2.79 |
| Church of Christ | 96 | 257 | 43 | 114 | 50 | 53 | 7 |  | 620 | 1.43 |
| Lutheran | 39 | 74 | 174 | 155 | 7 | . | - |  | 449 | 1.04 |
| Greek Catholic | 23 | 12 | 10 | 3 | 12 | $\cdots$ | 1 |  | 61 | 0.14 |
| Unitarian .. | 1 | 4 | . | 8 | . | $\cdots$ | . | $\cdots$ | 13 | 0.03 |
| Salvation Army . . | 62 | 62 | 45 | 26 | 19 | 5 | $\cdots$ | $\cdots$ | 219 | 0.51 |
| Seventh-Day <br> Adventist | 23 | 14 | 18 | 4 | 8 | 2 |  |  | 69 | 0.16 |
| Other Christian | 58 | 67 | 195 | 18 | 15 | 22 | 1 |  | 376 | 0.87 |
| Hebrew | 39 | 44 | 12 |  | 16 |  |  |  | 111 | 0.26 |
| Registrar's Office | 1,496 | 1,221 | 253 | 319 | 564 | 132 | 7 | 2 | 3,994 | 9.23 |
| Total | 17,383 | 11,641 | 6,199 | 3,312 | 3,205 | 1,450 | 31 | 34 | 43.255 | 100.00 |

## § 3. Deaths.

1. Deaths, 1930.-The following table shows the number of deaths, male and female, registered in each State during the year 1930 :-

DEATHS, 1930.

| Sex. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | North. Terr. | Fed. Cap. Terr. | Australin. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males | 12,130 | 8,467 | 4,478 | 2,609 | 2,348 | 1,028 | 66 | 22 | 31,148 |
| Females | 9,105 | 7,492 | 2,977 | 2,242 | 1,426 | 920 | 11 | 10 | 24,183 |
| Total | 21,235 | 15,959 | 7,455 | 4,851 | 3,774 | 1,948 | 77 | 32 | 55,331 |

2. Crude Death Rates, 1901 to 1930.-The crade death rates for the period 1901 to 1930 show a gratifying decrease in the later years.

CRUDE DEATH RATES (a), 1901 to 1930.

(a) Number of deaths per 1,000 of annual mean population.
3. Index of Mortality.-(i) General. The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking the age constitution into consideration. Other conditions being equal, however, the death rate of a country will be lower if it contains a large percentage of young people (not infants). In order to obtain a comparison of the mortality of various countries on a uniform basis so far as sex and age constitution is concerned, the standard population compiled by the International Instituto of Statistics, according to age distribution (eleven age-groups) of the population of nineteen European countries at their censuses nearest to the year 1900 is used in the computation of the "Indes of Mortality " as distinguished from the crude death rate. Full details of the "Standard Population" will be found in Year Book No. 22, page 962.
(ii) Comparison of Rates. For the year 1930 on the basis of the crude rates there is $\mathbf{a}_{i+1}^{F}$ range of 1.09 per 1,000 persons between the lowest rate in Queensland (7.93) and the highest rate in Western Australia (9.02), whercas the standardized rates increase the range to 2.47 per 1,000 , i.e., between 8.69 in South Australia and 11.16 in Western Australia. In its application to the figures for 1930 the process of adjustment slightly altered the relative positions of all States with the exception of Western Australia and Tasmania from those determined by the crude rates. The principal changes were that Queensland and South Australia which were first and second respectively in the crude rates have changed places, as have also New South Wales and Victoria which occupied third and fourth positions respectively. The index of mortality for each state for 1930 and previous years is shown in the following table :-

INDEX OF MORTALITY, 1921 to 1930.

| Year. | States. |  |  |  |  |  | Territories. |  | $\begin{aligned} & \text { Aus. } \\ & \text { imila. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | N.S.tr. | Vis. | Q'land. | S. Aust. | W. Anst. | Tas. | Northeru. | Federal Canital. |  |
| 1921 | 10.36 | 10.79 | 10.23 | 10.38 | 11.89 | 10.84 | 13.74 | 1.89 | 10.58 |
| 1926 | 10.62 | 9.91 | 10.47 | 9.02 | 10.63 | 9.70 | 14.81 | 7.83 | 10.20 |
| 1927 | 10.64 | 10.02 | 10.20 | 9.30 | 10.71 | 10.43 | 12.58 | 8.45 | 10.43 |
| 1928 | 10.40 | 10.46 | 9.92 | 9.21 | 11.14 | 10.76 | 11.15 | 6.06 | 10.44 |
| 1929 | 11.14 | 9.78 | 10.21 | 8.97 | 11.69 | 10.98 | 14.78 | 5.37 | 10.39 |
| 1930 | 9.54 | 9.31 | 9.03 | 8.69 | 11.16 ! | 9.66 | 14.10 | 4.52 | 9.38 |

4. Crude Death Rates of Various Countries.-The following table gives particulars of the crude death rates of various countries for a pre-war period and the latest available year :-

CRUDE DEATH RATES (a).-VARIOUS COUNTRIES.

| Country. | 1908-13. | 1930. | Country. | 1908-13. | 1930. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Queensland | 10.3 | 7.9 | United States (b) | (c) | $11.9(e)$ |
| South Australio. | 10.1 | 8.4 | Switzerland | 15.2 | 12.2 |
| New South Wales | 10.3 | 8.5 | Sweden | 14.0 | 12.2(e) |
| Australia | 10.7 | 8.6 | Scotland | 15.5 | 13.2 |
| New Zealand | 9.3 | 8.6 | Argentine | 17.5 | 13.6 |
| Victoria | 11.7 | 9.8 | Italy | 20.4 | 13.7 |
| Western Australia | 10.3 | 9.0 | Northern Ireland | 16.9 | 13.8 |
| Tesmanis | 10.7 | 9.0 | Irish Free State | 16.9 | 14.1 |
| Netherlands | 13.9 | 9.1 | Czechoslovakia | 21.0 | 14.2 |
| Union of South Africa (Whites) | (c) | 9.1 | Belgium France | 15.7 18.6 | $15.0(d)$ 15.7 |
| Norway | 13.6 | 10.4 | Poland | 21.0 | 15.8 |
| Germany | 16.5 | 11.1 | Finland | 16.4 | 16.2(e) |
| England and Wales | 14.1 | 11.4 | Spain | 22.8 | 17.3 |
| Denmark | 13.2 | 11.2(e) | Soviet Republics | 28.9 | 18.8 |
| Canada (including Quebec) | (c) | 11.6(e) | Japan | 20.5 | 20.0(e) |
| Great Britain and |  |  | Rumania | 24.7 | 21.6(e) |
| Ireland | 14.5 | 11.8 | Ceylon | 31.4 | 24.9(e) |
|  |  |  | Egypt | 25.8 | 27.3(e) |

(a) Number of deaths per 1,000 of mean population. (b) R"gistration area.
(c) Not available.
(d) For year 1928.
(e) For year 1929.
5. Infantile Deaths and Death Rate.-(i) Australia, 1926 to 1930. The universal experience that during the first fev years of life the higher death rate of male infants tends to counteract the excess of male births is confirmed by the fact that out of 338,960 male infants born from 1926 to $1930,19,546$ ( 56.7 per 1,000 ) died during their first year of life, while of 319,857 female infants only 14,709 ( 45.6 per 1,000 ) died during the first year.
infantile deaths and death rates.-AUSTRALIA, 1901 TO 1930.

| Yeas: |  | Ragistored deaths under ohe year. |  |  | Rate of Infantile Mortality.(u) |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Sales. | Females. | Total. | Males. | Females. | Total. |
| 1901 |  | 5,888 | 4,778 | 10,666 | 112.13 | 94.73 | 103.61 |
| 1911 |  | 4,745 | 3,624 | 8,369 | 75.91 | 60.72 | 68.49 |
| 1921 |  | 5,111 | 3,841 | 8,952 | 72.97 | 58.06 | 65.73 |
| 1926 |  | 4,149 | 3,041 | 7,190 | 60.64 | 46.97 | 53.99 |
| 1927 |  | 4,102 | 3,181 | 7,283 | 59.55 | 49.08 | 54.47 |
| 1928 |  | 4,003 | 3,098 | 7,101 | 57.89 | 47.72 | 52.96 |
| 1929 |  | 3,873 | 2,743 | 6.616 | 58.13 | 43.64 | 51.10 |
| 1930 |  | 3,419 | 2,646 | 6,065 | 51.90 | 42.33 | 47.24 |

(a) Number of deaths under 1 year per 1,000 Uve births registered.
(ii) States, 1901 to 1930. For the States and Territories the rates of infantile mortality during the period 1901-30 were as follow :-

INFANTILE MORTALITY RATES $(a) .1901$ TO 1930.

| Year | N.S.W. | Vir. | Q'land. | S. Aust. | W. Aust. | Tas. | North. Terr. | $\begin{aligned} & \text { Fed. } \\ & \text { rap. } \\ & \text { Terr. } \end{aligned}$ | Alistralla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1901-05 | 97.02 | 95.91 | 94.35 | 86.60 | 124.79 | 90.00 | 149.35 | (c) | 96.91 |
| 1906-10 | 77.30 | 79.90 | 71.27 | 68.38 | 89.80 | 83.18 | 143.79 | (c) | 77.61 |
| 1911-15 | 71.05 | 72.23 | 65.68 | 67.26 | 72.43 | 70.91 | 85.11 | 32.56 | 70.32 |
| 1916-20 | 64.82 | 67.18 | 63.04 | 61.93 | 61.73 | 63.84 | 67.15 | 40.40 | 64.67 |
| 1921-25 | 58.11 | 61.93 | 50.99 | 54.19 | 59.14 | 60.44 | 40.82 | 60.24 | 57.88 |
| 1926 | 57.61 | 55.68 | 50.65 | 44.33 | 49.27 | 47.61 | 68.49 | 53.33 | 53.99 |
| 1927 | 54.94 | 56.05 | 54.45 | 53.43 | 45.86 | 52.97 | 102.94 | $142.85 b$ | 54.47 |
| 1928 | 54.77 | 55.63 | 45.54 | 47.51 | 48.14 | 63.95 | 60.24 | $83.33 b$ | 52.96 |
| 1929 | 56.44 | 47.23 | 46.03 | 40.88 | 56.13 | 53.16 | 18.87 | $19.61 b$ | 51.10 |
| 1930 | 49.84 | 46.61 | 39.97 | 48.38 | 46.74 | 50.56 | 70.42 | $24.39 b$ | 47.24 |

(a) Number of deaths under 1 year per 1.000 live Iirths registered. (b) Based on deaths of infanta born in the Federal Capital Territory. (c) Part of New South Wales prior to 1911.

INFANTILE MORTALITY RATES-UNDER ONE MONTH AND UNDER ONE YEAR, 1911-15 T0 1930.

| State. |  | Under one month. |  |  | One month and under one year. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1911-15. | 1921-25. | 1930. | 1911-15. | 1921-25. | 1930. |
| New South Wales |  | 31.75 | 29.97 | 28.41 | 39.30 | 28.14 | 21.43 |
| Victoria | $\cdots$ | 33.07 | 32.19 | 27.86 | 39.16 | 29.74 | 18.75 |
| Queensland |  | 30.73 | 27.44 | 28.20 | 34.95 | 23.55 | 11.77 |
| South Australia | . | 29.07 | 27.83 | 26.34 | 38.19 | 26.36 | 22.04 |
| Western Australia | $\cdots$ | 30.87 | 27.56 | 24.13 | 41.56 | 31.58 | 22.61 |
| Tasmania | . | 32.68 | 31.73 | 34.47 | 38.23 | 28.71 | 16.09 |
| Australia.. | - | 31.69 | 29.91 | 28.00 | 38.63 | 27.97 | 19.24 |

Examination of these tables discloses the striking decrease in infantile mortality, the rate for 1930 being less than half that of 1901-05. The second table reveals the fact that relatively little improvement has taken place in the first month of life; but that the great decrease has occurred among the older children and has been due to the decline in preventible diseases.

The deaths of infants under one year of age during 1930 numbered 6,065, the mortality rate being 47.24, which is the lowest recorded in Australia. Among the States in 1930 Queensland had the lowest and Tasmania the highest rate.
(iii) Districts. The total number of births and of deaths of children under one year of age for 1930 are shown in Australian Demography Bulletin, No. 48, Tables 24 and 76, for each of the sixty-four districts for which the vital statistics have been tabulated.
(iv) Various Countries and Cities. Compared with other countries, the States of Australia occupy a very favourable position, being surpassed by New Zealand, Norway, and Netherlands only. Among cities, however, the best of the Australian cities, Brisbane, has the fourth place only, whereas New Zealand has two cities amongst the first fire on the list presented on the next page. A study of the respective rates shows that a high birth rate is often, though not invariably, accompanied by a high infantile death rate.

INFANTILE MORTALITY RATES (a).-VARIOUS COUNTRIES.

| Country. | Infantile Mortality Rate.(a) |  | $\begin{aligned} & \text { Crude } \\ & \text { Birth } \\ & \text { Rate.(b) } \\ & 1930 . \end{aligned}$ | Country. | Infantile <br> Mortality <br> Rate.(a) |  | $\begin{aligned} & \text { Crude } \\ & \text { Birth } \\ & \text { Rate.(b) } \\ & 1930 . \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1906-15. | 1930. |  |  | 1906-15. | 1930. |  |
| New Zealand | 61 | 34 | 18.8 | Great Britain and |  |  |  |
| Queensland | 68 | 40 | 20.1 | Ireland |  | 76(e) | 16.8 |
| Victoria | 76 | 47 | 18.6 | France. . | 122 | 79 | 17.7 |
| Australia | 74 | 47 | 19.9 | Denmark | 103 | 83(e) | 19.6 |
| Western Australia | 81 | 47 | 22.0 | Scotland | 113 | 83 | 19.3 |
| South Australia | 68 | 48 | 17.2 | Germany | 168 | 84 | 17.5 |
| Norway .. | 68 | 49 | 17.5 | Canada (includ- |  |  |  |
| New South Wales | 74 | 50 | 21.0 | ing Quebec) | (c) | 92(e) | 24.0 |
| Tasmania | 77 | 51 | 22.1 | Belgium | 139 | 104(e) | 18.4 |
| Netherlands | 115 | 51 | 23.1 | Spain . . | 156 | 117 | 29.0 |
| Switzerland | 108 | 51 | 17.3 | Italy | 144 | 120(d) | 26.2 |
| England and |  |  |  | Czechoslovakia | (c) | 137 | 23.3 |
| Wales | 113 | 60 | 16.3 | Japan . . | 151 | 142(e) | 33.0 |
| Sweden | 74 | 60(e) | 15.2 | Hungary | 205 | 154 | 24.7 |
| Irish Free State .. | 92 | 67 | 19.8 | Egypt . . | (c) | 159(e) | 42.2 |
| Northern Ireland | 92 | 67 | 20.3 | Ceylon | (c) | 187(e) | 36.5 |
| United States (Registration Area) | (c) | 68(e) | 18.9 | Rumania | (c) | 197(e) | 34.7 |
| Union of South Africa (Whites) | (c) | 70 | 26.6 |  |  |  |  |

(d) Aumter of deaths under y year per 1,0ut nirths ieqistered. (b) Number ar births per 1,000 of mean population. (c) Not available. (d) For year 1928. (e) For year 1929.

## INFANTILE MORTALITY RATES (a).-YARIOUS CITIES.

| City. | $\begin{gathered} \text { Rate of } \\ \text { Infantile } \\ \text { Mortality. }(a) \end{gathered}$ |  |  | City. |  | Rate of Infantile Mortality.(a) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1921. | 1930. |  |  | 1921. | 1930. |
| Oslo | . | 54 | 35 | Cape Town |  | 82 | 68 |
| Auckland . . | . . | 54 | 35 | Washington | . | 83 | 70 |
| Amsterdam |  | 54 | 37 | Toronto |  | 91 | $72(b)$ |
| Brisbane | $\cdots$ | 62 | 39 | Hamburg . . | $\cdots$ | 95 | 72 |
| Wellington | . | 61 | 40 | Antwerp | . | 98 | 73(c) |
| San Francisco | .. | 50 | 40 | Berlin | . | 135 | 73 |
| Christchurch | . . | 54 | 41 | Newcastle, N.S.W. | . | 70 | 76(c) |
| Stockholm . . | . | 61 | 46 | Manchester | $\cdots$ | 94 | 78 |
| Sydney . | . | 62 | 50 | Munich |  | 126 | 78 |
| Melbourne | . | 74 | 51 | Aberdeen | $\cdots$ | 108 | 80 |
| Perth |  | 81 | 51 | Cologne | $\cdots$ | 140 | 80 |
| Chicago | $\cdots$ | 84 | 53 | Liverpool . . | . . | 105 | 81 |
| Adelaide . . | . . | 74 | 55 | Edinburgh | . | 96 | 81 |
| New York City | $\cdots$ | 72 | 57 | Leipzig | . | 136 | 83 |
| London .. |  | 80 | 59 | Belfast |  | 115 | 85 |
| Copenhagen | . | 67 | 60 | Johannesburg | $\cdots$ | 101 | 92 |
| Hobart . | . | 75 | 61 | Breslau | . | 170 | 93 |
| Los Angeles | . | 68 | 61 | Dublin | . | 123 | 97 |
| Philadelphia | . . | 78 | 63 | 1 Paris | . | 95 | 99(c) |
| Birmingham | . | 82 | 62 | Glasgow | . | 106 | 101 |
| Detroit . | . | 83 | 64 | Montreal | . | 158 | 128 |
| Dresden | . | 115 | 65 | Madras |  | 281 | 254(c) |
| Sheffield |  | 99 | 66 | Bombay | . | 402 | 299(c) |
| Leeds . . | . | 98 | 66 |  |  |  |  |

(a) Nulnter of diathas under 1 jear per 1,000 birthas reglstored. (b) For year 1928. (c) For year 1029.
(v) Causes of Deaths of Children under one Year. The following table gives for twenty-six causes the ages of all children who died under one year of age during 1930. The infantile mortality rates for 1911, 1921 and 1930 have been added for all births, and for 1925 and 1930 for ex-nuptial births. Particulars for males and females may be found in Bulletin No. 48 of "Australian Demography."

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.-AUSTRALIA, 1930.

(a) Rate per 1,000 total births.
(b) Rate per 1,000 ex-nuptial births.

Pre-natal influences, such as malformation, congenital debility, and premature birth, together with injuries at birth, accounted for 3,323 , or 54 per cent., of all deatha onder one year; and of these 3,323 deaths, 2,420 , or 73 per cent., occurred within a wook of birth. Among the survivors of the first week, diarrhvea and enteritis had the most fatal effects. These diseases were rosponsible for 797 deaths, representing 13 per cent. of all deaths under one year, or 6.21 per 1,000 births.
(vi) Deaths of Ex-nuptial Children ander one Year. The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925 . The causes of death of these children in 1930 and the rates in respect of 1925 and 1930 are shown as an addendum to the preceding table.

Pre-natal influences such as malformation, congenital debility, premature birth, and injuries at birth accounted for 215 , or 45 per cent., and diarrhoes and enteritis for 106 , or 22 per cent., of the total deaths.
6. Deaths in Age-Groups, 1926 to 1930.-A distribution into age-groups has been made of the 290,800 deaths which occurred in Australia from 1926 to 1930, and the results have been tabulated for each State. It is, however, sufficient to show here the results for Australia as a whole, which are as follow.

A table giving the corresponding percentages for earlier periods has been added to show the movement over a long term. The most striking change is the substantial decrease in the group "under l year". At the other end of the table the group " 65 years and over" has increased by an almost similar amount.
deaths in age groups.-AUSTRAL.IA, 1926 T0 1930.


DEATHS IN AGE GROUPS.-AUSTRALIA, 1901 T0 1920.

| Age-Group. | 1901-1910. |  |  | 1916-1920. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Percentage on Total Males. | Percentage on Total Females. | Percentage on 'Total. | Percentage on Total Males. | Percentage on Total Females. | Percentage on Total. |
| Under 1 year | 19.80 | 21.47 | 20.51 | 15.16 | 15.27 | 15.20 |
| 1 year and under 5 | 5.84 | 7.28 | 6.45 | 5.61 | 6.58 | 6.03 |
| 5 years and under 20. | 5.84 | 7.08 | 6.37 । | 5.18 | 5.73 | 5.42 |
| 20 years and under 40. | 13.85 | 16.54 | 14.99 | 13.57 | 16.34 | 14.76 |
| 40 years and under 60.. | 19.70 | 15.67 | 17.99 | 22.55 | 18.41 | 20.77 |
| 60 years and under 65.. | 5.71 | 4.77 | 5.31 | 7.58 | 5.86 | 6.84 |
| 65 years and over | 29.08 | 27.15 | 28.26 | 30.18 | 31.77 | 30.86 |
| Age unspecified . | 0.18 | 0.04 | 0.12 | 0.17 | 0.04 | 0.12 |
| Total | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 | 100.00 |

7. Deaths at Single Ages and in Age-Groups, 1930.-(i) General. The 55,331 deaths registered in Australia in the year 1930 will be found tabulated in groups of five years for each State and Territory, in Bulletin No. 48 "Australian Demography, 1930." The deatbs during the first two years of life have been tabulated in shorter periods. A summary for Australia is given in the following table:-
deaths at single ages and in age-groups.-AUSTRALIA, 1930.

(ii) Rates. The death rate per 1,000 living at each age in each State for the three years 1920,1921 , and 1922 , i.e., the Census year 1921 , and the years immediately preceding and following may be found in Official Year Book No. 22, page 975.
8. Deaths of Centenarians, 1930.-Particulars concerning the twenty-eight personsfifteen males and thirteen females-who died in 1930 aged 100 years and upwards, are given in the following table. While the Registrars-General of the various States verify the fignres as far as possible, absolute reliance cannot be placed on their accuracy, owing to the well-known tendency of very old people to ovorstate their ages. In connexion with this questien it mav be noted that while parish registers in the United Kingdom uften date rery far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 baving loft many loopholes for those unwilling to register the birthe of their children.

DEATHS OF CENTENARIANS.-AUSTRALIA, 1930.


Malecs.

| 108 | Kew | Victoria | Chronle cystitis | Not stated | England .. | Not stated | Married |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 106 | Lake Macquarie | N.S.W. . | Valvular Heart disease | Cobbler . . | China | 40 years . . | Single |
| 105 | Canterbury |  | Senility .. | Tinsmith. . | England .. | 66 years . | Married |
| 104 | Wudinna. | Sth. Aust. | Senity | Farmer . . | Scotland .. | 74 years . | " |
| 103 | Tallaganda | N.S.W. |  | " | Ireland . | 77 years . |  |
| 103 | $\begin{aligned} & \text { Murrum- } \\ & \text { beena } \end{aligned}$ | Victoria. | Bronchitis |  | Tasmania | Native . . | " |
| 102 | Randwick | N.S.W. |  | Teacher . . | France | 78 years . . | " |
| 102 | Longwood.. | Victoria | Senility | Grazier .. | Ireland | 72 years . | ", |
| 101 | Cheltenham |  |  | Salesman |  | 68 years . . | ", |
| 101 | Carlon . . |  | General atrophy | Wine Merchant | France | 77 years .. | " |
| 100 | Ryde | N.S.W. | Uraemia . | Journalist | England .. | 22 years |  |
| 100 | Hawthorn | Victoria | Pulmonary congestion | Butcher .. | Scotland | 65 years . | Single |
| 100 | Brighton | " | Retention of urine | Independent | England .. | 86 years . | Married |
| 100 | Geelong |  | Heart Failure | Miner . . | Sweden | 74 years |  |
| 100 | Adelaide . | Sth. Aust. | $\begin{aligned} & \text { Accidental } \\ & \text { fall } \end{aligned}$ | Hawker . . | Scotland | 70 years . . | Single |

Frmales.

| 105 | Manning . . | N.S.W. | Senility . . | $\cdots$ | $\cdots$ | N.S.W. | Native | Single |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 105 | Woollahra.. | " | Atheroma .. |  | . | Ireland | Not state | Mfarried |
| 103 | Bowral | " | Strangulated hernia |  | . | " | 75 years | " |
| 103 | Malvern | Sth. Aust. | Senility .. |  | . | Fngland | 93 years | " |
| 103 | Salter's Spring | " . | " .. |  | . | Scotland | 80 years | " |
| 101 | Newcastle | N.S.W. | Gangrene . . |  | . | England | 50 years | " |
| 101 | Sutherland |  | Hypostatic pneumonia |  | . | Ireland | 93 years | " |
| 101 | Bendlgo | Victoria | Myocardial degeneration |  | $\cdots$ | N.S.W. | Native | " |
| 100 | Woollahra. | N.S.W. | Chronic myocarditis |  | . | England | 80 years | " |
| 100 | Newtown | Victoria | Senility . |  | $\cdots$ |  | 65 years | " |
| 100 | Geelong . |  |  |  | $\cdots$ | " | 78 years | " |
| 100 | Glanville . | Sth. Aust. | Mitral stenosis |  | - | " | 73 years | " |
| 100 | Hobart | Tasmania | Senillty .. |  | . | N.S.W. | Native | " |

Nots.-The particulars shown in this table are those given in the death certificates, and no attempt has been made by the Ccmmonwealth Bureau of Census and Statistics to verify them.
9. I.ength of Residence in Australia of Persons whe Died in 1930. -The length of residence in Australia of all persons whose deaths were reristered in the yeer 1930 is shown in the following table:-
length of residence in australia of persons who died in 1930.

10. Birthplaces of Persons who Died in 1911 and 1930.—The following table provides a summary of birthplaces of persons whose deaths were registered in 1911 and 1930. More detailed information in respect of 1911 and 1930 will be found in "Australian Demography," Bulletin No. 48.

BIRTHPLACES OF PERSONS WHO DIED IN 1911 AND 1930.—AUSTRALIA.

11. Occupations of Males who Died in 1911, 1921 and 1930.-Information as to the main groups of the occupations of the 31,148 males who died in Australia in 1930 is contained in the following table. Corresponding data for 1911 and 1921 have been added for purposes of comparison.

## OCCUPATIONS OF MALES WHO DIED IN 1911, 1921 AND 1930.—AUSTRALIA.

| Occupations in Classes. | Number of Male Deaths. |  |  | Percentage on Total. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| Professional | 1,028 | 1,307 | 1,507 | 3.73 | 4.26 | 4.84 |
| Domestic | 757 | 830 | 830 | 2.74 | 2.71 | 2.66 |
| Commercial | 2,120 | 2,739 | 3,457 | 7.68 | 8.94 | 11.10 |
| $\begin{array}{ccc}\text { Transport } \\ \text { tion } & \text { and } & \text { Communica- } \\ \text {.. }\end{array}$ | 1,614 | 1,841 | 2,060 | 5.85 | 6.01 | 6.61 |
| Industrial | 7,379 | 8,613 | 9,791 | 26.74 | 28.10 | 31.44 |
| Agricultaral, Pastoral, and Mining, \&c. .. | 5,587 | 5,711 | 5,844 | 20.25 | 18.63 | 18.76 |
| Indefinite | 1,649 | 1,436 | 1,835 | 5.98 | 4.68 | 5.89 |
| Dependent | 7,457 | 8,175 | 5,824 | 27.03 | 26.67 | 18.70 |
| Total Male Deaths | 27,591 | 30,652 | 31,148 | 100.00 | 100.00 | 100.00 |

12. Causes of Death.-(i) General. The classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909 and 1920. The Committee of Revision met again in October, 1929. The revised classification will be used in the Vital Statistics for 1931.
(ii) Mortality Statistics for 1907 and Subsequent Years. The statistics relating to causes of death in Australia from the year 1907 onward have been tabulated in the Commonwealth Burean of Census and Statistics in accordance with the above-mentioned classification, and the system is being employed also in the various State statistical offices.
(iii) Classification of Causes of Death, 1926 to 1930, according to Abridged International Classification. An abridged classification, which enumerates thirty-eight diseases and groups of diseases according to the revised classification, is in use in many European countries and American States, and a table has been prepared showing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1926 to 1930 will be found in full in Bulletins Nos. 44 to 48 of "Australian Demography." In the following tables showing deaths of males, females, and persons for the year 1930 the abridged classification has been employed.

CAUSES OF DEATH.-MALES, 1930.

\begin{tabular}{|c|c|c|c|c|c|c|c|c|c|}
\hline Cause. \& N.S.W. \& Vic. \& Q'land. \& S. Aus. \& W. Aus. \& Tas. \& Nor \& Fed. Cap. Ter. \& Aus- \\
\hline 1 Typhoid Fever \& 34 \& 9 \& 10 \& 4 \& 12 \& . \& \& \(\cdots\) \& 69 \\
\hline 2 Typhus Fever \& - \& . . \& \(\cdots\) \& \(\cdots\) \& 1 \& \(\cdots\) \& \(\cdots\) \& \(\cdots\) \& 1 \\
\hline 3 Malaria .. \& \(\geq\) \& - \& 9 \& \& \& . \& 7 \& \(\cdots\) \& 18 \\
\hline 4 Small-pox \& \(\cdots\) \& -17 \& \& \& 1 \& \& \(\cdots\) \& \& 1 \\
\hline 5 Measles \& 60 \& 17 \& 3 \& 2 \& 1 \& . \& \& . \& 83 \\
\hline 6 Scarlet Fever \& 29 \& 4 \& . \& \(\cdots\) \& 1 \& 6 \& \& \& 40 \\
\hline 7 Whooping Cough \& 69 \& 27 \& 14 \& 23 \& 6 \& 4 \& \(\ldots\) \& \(\cdots\) \& 143 \\
\hline 8 Diphtheria .. \& 90 \& 46 \& 28 \& \(\cdots\) \& 17 \& 11 \& \& \& 192 \\
\hline \(9 a\) Influenza-Pneumonic \& 31 \& 23 \& 12 \& 2 \& 9 \& 1 \& . \& \& 78 \\
\hline \(9 b\) Influenza-other \& 31 \& 18 \& 17 \& 4 \& . . \& 2 \& I \& \(\cdots\) \& 73 \\
\hline 10 Asiatic Cholera \& \(\cdots\) \& . \& . \& . \& - \& \& \& \& \\
\hline 11 Cholera Nostras \& 2 \& \(\cdots\) \& \& \& \& \& \& \& 2 \\
\hline 12 Other EpidemicDiseases. \& 57 \& 40 \& 31 \& 14 \& 11 \& 4 \& \& \& 157 \\
\hline 13 Tuberculosis of the Respiratory System \& 614 \& 482 \& 231 \& 136 \& 147 \& 51 \& 4 \& \& 1,665 \\
\hline 14 Tuberculosis of the Men. inges \& 24 \& 28 \& 10 \& 12 \& 9 \& 2 \& 1 \& \& 86 \\
\hline 15 Other forms of Tuberculosis \& 44 \& 71 \& 6 \& 10 \& 11 \& 2 \& \(\ldots\) \& \& 144 \\
\hline 16 Cancer and other Malignant Tumours \& 1,212 \& 918 \& 419 \& 297 \& 234 \& 86 \& 5 \& 1 \& 3,172 \\
\hline 17 Meningitis \& 40 \& 36 \& 16 \& , \& 13 \& 4 \& . \& \& 118 \\
\hline is Hrmorrhage, Embolism, and Softening of Brain \& 685 \& 441 \& 214 \& 170 \& 30 \& 50 \& 1 \& 2 \& 1,643 \\
\hline 19 Diseases of the Heart \& 1,933 \& 1,373 \& 737 \& 307 \& 282 \& 155 \& 6 \& \& 4,793 \\
\hline 20 Acute Bronchitis \& 54 \& 22 \& 22 \& 7 \& 3 \& 3 \& \& \& 111 \\
\hline 21 Chronic Bronchitis \& 143 \& 112 \& 46 \& 38 \& 21 \& 9 \& 1 \& \& 370 \\
\hline 22 Pneumonis .. \& 426 \& 299 \& 139 \& 104 \& 86 \& 64 \& . \& 2 \& 1,120 \\
\hline 23 Other Diseases of the Respiratory System (Tuberculosis excptd.) \& 453 \& 446 \& 200 \& 146 \& 106 \& 39 \& 1 \& \(\cdots\) \& 1,391 \\
\hline 24 Discases of the Stomach (Cancer excepted) \& 112 \& 68 \& 40 \& 28 \& 30 \& 11 \& . \& 1 \& 290 \\
\hline \(25 a\) Diarrhea and Enteritis (children under 2 years of age) \& 319 \& 129 \& 38 \& 30 \& 70 \& 15 \& \(\cdots\) \& \(\cdots\) \& 601 \\
\hline \begin{tabular}{l}
25bDiarrhœa and Enteritis \\
(2 years and over) ..
\end{tabular} \& 103 \& 65 \& 31 \& 28 \& 24 \& 3 \& . . \& \(\cdots\) \& 254 \\
\hline 26 Appendicitis \& Typhlitis \& 138 \& 86 \& 42 \& 20 \& 19 \& 8 \& \(\cdots\) \& \(\cdots\) \& 313 \\
\hline 27 Heraia, Intestinal Obstruction .. .. \& 111 \& 72 \& 44 \& 31 \& 24 \& 13 \& \(\cdots\) \& \& 295 \\
\hline 28 Cirrhosis of the Liver \& 72 \& 43 \& 32 \& 11 \& 20 \& 1 \& . \& \& 179 \\
\hline 29 Acute and Chronio Nephritis \& 746 \& 445 \& 278 \& 165 \& 126 \& 30 \& 3 \& 3 \& 1,796 \\
\hline 30 Non-cancerous Tumours and other Diseases of Female Genital Organs \& .. \& . . \& .. \& \(\ldots\) \& .. \& . . \& . \& \& \\
\hline 31 Puerperal Septicæmia (Puerperal Fever) \& \& \& \& \& \& \& \& \& \\
\hline \begin{tabular}{l}
(Puerperal Fever) \\
32 Other Puerperal Accidents of Pregnancy and Confinement ..
\end{tabular} \& \(\cdots\) \& \(\cdots\) \& \(\cdots\)
. \& \(\cdots\) \& \begin{tabular}{l} 
- \\
\\
\hline
\end{tabular} \& .

. \& $\cdots$
$\cdots$ \& \& $\cdots$ <br>
\hline 33 Congenital Debility and \& \& \& \& \& \& \& \& \& <br>
\hline Malformation \& 806 \& 519 \& 260 \& 143 \& 120 \& 84 \& 2 \& 1 \& 1,935 <br>
\hline 34 Senility .- \& 486 \& 441 \& 282 \& 154 \& 119 \& 89 \& 14 \& $\cdots$ \& 1,585 <br>
\hline $35 a \mathrm{Homicide}$ \& 28 \& 13 \& 11 \& 7 \& 3 \& 2 \& . \& \& 64 <br>
\hline $35 b$ Other Accidental Deaths \& 981 \& 654 \& 411 \& 211 \& 268 \& 90 \& 4 \& 5 \& 2,624 <br>
\hline 36 Suicide \& 298 \& 170 \& 163 \& 55 \& 83 \& 16 \& 5 \& 1 \& 791 <br>
\hline 37 Other Diseases \& 1,836 \& 1,302 \& 658 \& 365 \& 325 \& 156 \& 7 \& 6 \& 4,655 <br>
\hline 38 Unspecified or Ill-defined Diseases $\qquad$ \& 61 \& 48 \& 24 \& 76 \& 66 \& 17 \& 4 \& \& 296 <br>
\hline Total-Males .. \& 12,130 \& 8,467 \& 4,478 \& 2,609 \& 2,348 \& 1,028 \& 66 \& 22 \& 31,148 <br>
\hline
\end{tabular}

CAUSES OF DEATH.-FEMALES, 1930.

| Caus. | N.S.w. | vic. | Q'land | S. Aus. | W. Aus. | Tas. | $\underset{\text { Ter }}{ } \begin{aligned} & \text { Nor }\end{aligned}$ | $\left\|\begin{array}{c} \text { Fed. } \\ \text { Cop. } \\ \text { Ter. } \end{array}\right\|$ | $\begin{aligned} & \text { Ans- } \\ & \text { tralia. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Typhoid Fever | 14 | 8 | 10 | 3 | 7 | 2 |  |  | 4 |
| 2 Typhus Fever | . | . | , | .. | 1 | . | $\cdots$ |  |  |
| 3 Malaria |  |  | 3 |  |  |  | 1 |  |  |
| 4 Small-pox |  |  | $\cdots$ |  | 1 | $\cdots$ | $\cdots$ |  |  |
| 5 Measles | 40 | 17 |  | 5 | ${ }^{1}$ |  | $\cdots$ | 1 | 63 |
| 6 Scarlet Fever | 25 | 7 | 3 |  | 1 |  |  | 1 | 39 |
| 7 Whooping Cough | 95 | 44 | 24 | 15 | 5 | $\stackrel{2}{2}$ | 2 | . | 87 |
| 8 Diphtheria | 86 | 40 | 32 | 2 | 26 | 9 | $\cdots$ | $\because$ | 195 |
| 9 I Influenza-Pneumonic | 34 | ${ }^{6}$ | 11 |  | 7 | 1 |  |  | 59 |
| 96 Influenza-other | 33 | 13 | 14 | 3 | 4 | 1 |  |  | 68 |
| 10 Asiatic Cholera | - |  | $\cdots$ |  | . | . |  |  |  |
| 11 Cholera Nostras |  |  |  |  |  |  |  |  |  |
| 12 Other Epidemic Diseases | 60 | 31 | 13 | 29 | 10 | 11 | . |  | 154 |
| 13 Tuberculosis of the | 408 | 405 | 117 | 122 | 71 | 60 | 1 | 1 | 1,185 |
| 14 Tuberculosis of the Meninges .. .. | 19 | 28 | 5 | 5 | 3 | 7 | . | . | 67 |
| 15 Other forms of Tuberculosis | 34 | 47 | 7 | 7 | 9 | 7 | $\ldots$ |  | 11 |
| 16 Cancer and other Malignant Tumours | 1,078 | 941 | 329 | 297 | 7 | 20 | $\ldots$ |  | 2,948 |
| 17 Meningitis | 14 | 29 | 9 | 3 | 7 | 6 | $\cdots$ |  | 68 |
| 18 Hæmorrhage, Embolism, and Softening of Brain | 693 | 641 | 169 | 202 | 78 | 76 |  |  | 1,860 |
| 19 Diseases of the Heart | 1,487 | 1,230 | 495 | 293 | 182 | 144 | 1 | 1 | 3,833 |
| 20 Acute Bronchitis | 61 | 21 | 7 | 6 | 2 | 7 |  |  | 104 |
| 21 Chronic Bronchitis | 105 | 81 | 26 | 30 | 7 | 6 | $\therefore$ |  | 255 |
| 22 Pneumonia .. | 345 | 242 | 92 | 70 | 49 | 41 | $\cdots$ |  | 839 |
| 23 Other Diseases of the (Tuberculosis excptd.) | 324 | 296 | 129 | 109 | 47 | 28 | 1 |  | 33 |
| 24 Diseases of the Stomach (Cancer excepted) .. | 40 | 40 | 15 | 10 | 12 | 5 |  |  | 122 |
| 25aDiarrhcea and Enteritis (children under 2 years of age) | 238 | 100 | 35 | 38 | 56 | 10 |  |  | 477 |
| 25bDiarrhœea and Enteritis (2 years and over) .. |  | 56 | 43 | 23 | 27 | 2 |  | $\ldots$ | 208 |
| 26 Appendicitis \& Typhlitis | 73 | 67 | 30 | 14 | 8 | 3 |  |  | 195 |
| 27 Hernia, Intestinal Obstruction | 88 | 83 | 8 | 25 | 23 | 10 |  |  | 65 |
| 28 Cirrhosis of the Liver | 36 | 35 | 8 | 9 | 6 | 2 | $\cdots$ | 1 | 97 |
| 29 Acute and Chronic | 553 | 420 | 216 | 107 | 65 | 22 | 1 | 2 | 1,386 |
| 30 Non-cancerous Tumours and other Diseases of Female Genital Organs | 86 | 52 | 31 | 14 | 20 | 5 |  |  |  |
| 31 Puerperal Septicæmia | 116 | 69 | 22 | 15 | 12 | 8 |  |  |  |
| 32 Other Puerperal Accidents of Preganancy | 186 | 121 | 62 | 35 | 24 | 10 |  |  | 438 |
| 33 Congenital Debility and |  |  |  |  |  |  |  |  |  |
| Malformation | 555 | 392 | 214 | 119 | 103 | 71 |  |  | 1,454 |
| 34 Senility | 408 | 559 | 183 | 193 | 67 | 76 |  |  | 1,486 |
| $35 a$ Homicide | 15 | 7 | 6 | 4 | 7 |  |  |  | 39 |
| 35bOther Accidental Deaths | 266 | 202 | 96 | 82 | 56 | 22 | 1 |  | 725 |
| 36 Suicide | 63 | 37 | 15 | 10 | 21 | 5 | 1 |  | 152 |
| 37 Other Diseases | 1,359 | 1,104 | 457 | 309 | 200 | 132 | 2 | 2 | 3,565 |
| 38 Unspecified or Ill-defined | 11 | 21 | 13 | 34 | 19 | 7 |  |  | 105 |
| Total-Females .. | 9,105 | 7,492 | 2,977 | 2,242 | 1,426 | 920 | 11 | 10 | 24,183 |

CAUSES OF DEATH.-PERSONS, 1930.

| Cause. | N.s.w. | Vic. | Q'land. | S. Aus. | W. Aus. | Tas. | Nor. Ter. | $\begin{aligned} & \text { Fed. } \\ & \text { Cap. } \\ & \text { Ter. } \end{aligned}$ | $\begin{array}{r} \text { Aus- } \\ \text { tralla. } \end{array}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Typhoid Fever | 48 | 17 | 20 | 7 | 19 | 2 | $\cdots$ | - | 113 |
| 2 Typhus Fever |  | . |  | . . | 2 |  | . | . | 2 |
| 3 Malaria . . | 2 | . . | 12 | . | . |  | 8 | . . | 22 |
| 4 Small-pox | - | $\cdots$ | . | $\cdots$ | 2 |  | . |  | 2 |
| 5 Measles | 100 | 34 | 3 | 7 | 1 |  |  | 1 | 146 |
| 6 Scarlet Fever | 54 | 11 | 3 | . | 2 | 8 |  | 1 | 79 |
| 7 Whooping Cough | 164 | 71 | 38 | 38 | 11 | 6 | 2 | . | 330 |
| 8 Diphtheria .. | 176 | 86 | 60 | 2 | 43 | 20 | . |  | 387 |
| $9 a$ Influenza-Pnenmonic | 65 | 29 | 23 | 2 | 16 | 2 |  | $\cdots$ | 137 |
| $9 b I n f l u e n z a-o t h e r ~$ | 64 | 31 | 31 | 7 | 4 | 3 | 1 | $\cdots$ | 141 |
| 10 Asiatic Cholera |  | . . | . | . | . |  |  | $\cdots$ |  |
| 11 Cholera Nostras | 2 |  |  |  |  |  |  | . | 2 |
| 12 Other Epidemic Diseases | 117 | 71 | 44 | 43 | 21 | 15 | $\cdots$ | - | 311 |
| 13 Tuberculosis of the Respiratory System | 1,022 | 887 | 348 | 258 | 218 | 111 | 5 | 1 | 2,850 |
| 14 Tuberculosis of the Meninges | 43 | 56 | 15 | 17 | 12 | 9 | 1 | . | 153 |
| 15 Other forms of Tuberculosis | 78 | 118 | 13 | 17 | 20 | 9 | . | . | 255 |
| 16 Cancer and other Malig. nant Tumours | 2,290 | 1,859 | 748 | 594 | 417 | 206 | 5 | 1 | 6,120 |
| 17 Meningitis .. . | 54 | 65 | 25 | 12 | 20 | 10 | . | . | 186 |
| 18 Hæmorrhage, Embolism, and Softening of Brain | 1,378 | 1,082 | 383 | 372 | 158 | 126 | 1 | 3 | 3,503 |
| 19 Diseases of the Heart | 3,420 | 2,603 | 1,232 | 600 | 464 | 299 | 7 | 1 | 8,626 |
| 20 Acute Bronchitis | 115 | 43 | 29 | 13 | 5 | 10 |  | . | 215 |
| 21 Chronic Bronchitis | 248 | 193 | 72 | 68 | 28 | 15 | 1 |  | 625 |
| 22 Pneumonia .. .. | 771 | 541 | 231 | 174 | 135 | 105 | . | 2 | 1,959 |
| 23 Other Diseases of the Respiratory System (Tuberculosis excptd.) | 777 | 742 | 329 | 255 | 153 | 67 | 2 | . | 2,325 |
| 24 Diseases of the Stomach <br> (Cancer excepted) | 152 | 108 | 55 | 38 | 42 | 16 | . | 1 | 412 |
| 25aDiarrhœa and Enteritis (children under 2 years of age) | 557 | 229 | 73 | 68 | 126 | 25 | . | . | 1,078 |
| $25 b$ Diarrhœa and Enteritis <br> (2 years and ovar) .. | 160 | 121 | 74 | 51 | 51 | 5 | . | . | 462 |
| 26 Appendicitis \& Typhlitis | 211 | 153 | 72 | 34 | 27 | 11 | . | $\cdots$ | 508 |
| 27 Hernia, Intestinal Obstruction | 199 | 155 | 80 | 56 | 47 | 23 | $\ldots$ |  | 560 |
| 28 Cirrhosis of the Liver | 108 | 78 | 40 | 20 | 26 | 3 |  | 1 | 276 |
| 29 Acute and Chronic Nephritis | 1,299 | 865 | 494 | 272 | 191 | 52 | 4 | 5 | 3,182 |
| 30 Non-cancerous Tumours and other Diseases of Female Genital Organs | 86 | 52 | 31 | 14 | 20 | 5 |  |  | 208 |
| 31 Puerperal Septicæmia (Puerperal Fever) | 116 | 69 | 22 | 15 | 12 | 8 | . | $\cdots$ | 242 |
| 32 Other Puerperal Accidents of Pregnancy and Confinement .. | 186 | 121 | 62 | 35 | 24 | 10 |  |  | 438 |
| 33 Congenital Debility and |  |  |  |  |  |  |  |  |  |
| Malformation | 1,361 | 911 | 474 | 262 | 223 | 155 | 2 | 1 | 3,389 |
| 34 Senility | 894 | 1,000 | 465 | 347 | 186 | 165 | 14 | . | 3,071 |
| $35 a$ Homicide | 43 | 20 | 17 | 11 | 10 | 2 |  |  | 103 |
| 356 Other Accidental Deaths | 1,247 | 856 | 507 | 293 | 324 | 112 | 5 | 5 | 3,349 |
| 36 Suicide . . | 361 | 207 | 178 | 65 | 104 | 21 | 6 | 1 | 943 |
| 37 Other Diseases | 3,195 | 2,406 | 1,115 | 674 | 525 | 288 | 9 | 8 | 8,220 |
| 38 Unspecified or Ill-defined <br> Diseases .. .. | 72 | 69 | 37 | 110 | 85 | 24 | 4 |  | 401 |
| Total-Persons | 21,235 | 15,959 | 7,455 | 4,851 | 3,774 | 1,948 | 77 | 32 | 55,331 |

The next table shows the total deaths in Australia during the last tive years in accordance with the abridged elassification alluded to previously, The last column shows the number of deaths from each cause per one million of the mean population.

CAUSES OF DEATH.-AUSTRALIA, 1926 TO 1930.
Persons.

| Cause. | 1926. | 1927. | 1928. | 1929. | 1930. | $\begin{gathered} 1930 \\ \text { Rate per } \\ \text { 1,000,000 } \\ \text { Population } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1. Typhoid Fever | 183 | 161 | 169 | 106 | 113 | 18 |
| 2. Typhus Fever | 2 | 2 | 5 |  | 2 |  |
| 3. Malaria .- | $\stackrel{1}{25}$ | 29 | 15 | 17 | 22 | 3 |
| 5. Small-pox | 108 | 113 | $\stackrel{101}{ }$ | 143 | 146 | 23 |
| 8. Scarlet Fever | 81 | 159 | 131 | 101 | 79 | 12 |
| 7. Whooping Cough | 340 | 377 | 237 | 345 | 330 | 51. |
| 8. Diphtheria . .. | 322 | 388 | 433 | 460 | 387 | 60 |
| 9.aInfluenza-Pneumonic | 470 | 238 | 547 | 646 | 137 | 21 |
| 9. Influenza-Other .. | 285 | 189 | 252 | 373 | 141 | 22 |
| 10. Asiatic Cholera |  | $\cdots$ |  | .. |  |  |
| 11. Cholera Nostras ${ }^{\text {a }}$ | 526 |  | $1{ }^{1}$ |  | 2 |  |
| 12. Other Epidemic Diseases | 526 | 321 | 350 | 362 | 311 | 48 |
| 13. Tuberculosis of the Respiratory System | 3,142 | 3,030 | 3,202 | 3,002 | 2,850 | 442 |
| 14. Tuberculosis of the Meninges $\quad$ - | 166 | 179 | 164 | 185 | 153 | 24 |
| 15. Other forms of Tuberculosis | 237 | 232 | 277 | 277 | 255 | 40 |
| 16. Cancer and other Malignant Tumours | 5,700 | 5,758 | 6,010 | 6,256 | 6,120 | 950 |
| 17. Meningitis | 276 | 273 | 261 | 264 | 186 | 29 |
| 18. Hæmorrhage, Embolism, and Softening of the Brain | 3,149 | 3,257 | 3,361 | 3,551 | 3,503 | 544 |
| 19. Diseases of the Heart | 7,692 | 8,393 | 8,737 | 9,281 | 8,626 | 1,339 |
| 20. Acute Bronchitis . | 248 | 344 | 260 | 307 | 215 | 33 |
| 21. Chronic Bronchitis | 766 | 790 | 753 | 821 | 625 | 97 |
| 22. Pneumonia $\quad \therefore \quad .$. | 2,469 | 2,779 | 2,953 | 2,982 | 1,959 | 304 |
| 23. Other Diseases of the Respiratory System ('Tuberculosis excepted) | 2,534 | 2,767 | 2,762 | 3,039 | 2,325 | 361 |
| 24. Diseases of the Stomach (Cancer excepted) | 529 | 534 | 495 | 452 | 412 | 64 |
| 25.aDiarrhcea and Enteritis (children under two years oniy) | 1,614 | 1,330 | 1,816 | 963 | 1,078 | 167 |
| 25.bDiarrheea and Enteritis (two years and over) | 549 | 513 | 519 | 442 | 462 | 72 |
| 26. Appendicitis and Typhlitis . $\because$. | 476 | 483 | 470 | 481 | 508 | 79 |
| 27. Hernia, Intestinal Obstruction - | 578 | 517 | 539 | 583 | 500 | 87 |
|  | ${ }_{312} 3$ | 321 | 339 | 301 | 276 | 43 |
| 29. Acute and Chronic Nephritis $\quad . \cdot$ | 2,989 | 3,098 | 3,189 | 3,406 | 3,182 | 494 |
| 30. Non-cancerous Tumours and other Disesases Organs | 166 | 179 | 196 | 218 | 208 | 32 |
| 31. Puerperal Septiciemia (Puerperal Fever, Peritonitis) | 218 | 288 | 275 | 222 | 242 | 38 |
| 32. Other Puerperal Accidents of Pregnancy and Conflnement | 488 | 504 | 527 | 436 | 438 | 68 |
| 33. Congenital Debility and Malformation | 3,717 | 3,784 | 3,686 | 3,538 | 3,389 | 526 |
| 34. Senility . ${ }^{\text {35 }}$ - | 3,562 | 3,623 | 3,196 | 3,532 | 3,071 | 477 |
| 35. Violent Deaths- <br> (a) Homicide | 103 | 110 | 111 | 118 | 103 |  |
| (b) Other Accidental Deaths | 3,393 | 3,520 | 3,373 | 3,544 | 3,349 | 16 50 |
| 36. Suicide .. .. .. | 711 | 740 | 777 | 3,785 | ${ }^{3} \mathbf{9 4 3}$ | 146 |
| 37. Other Diseases | 8,133 | 8,389 | 8,386 | 8,782 | 8,220 | 1,276 |
| 38. Unspecifled or Ill-defined Diseases | 690 | 570 | 603 | 536 | 401 | 62 |
| Total | 56,952 | 58,282 | 59,378 | 60,857 | 55,331 | 8,588 |

Note.-In ronsequence of changes made in the classification of the causes of death the figures given in the table above are not on identical lines throughout the period covered.

Since death rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order therefore, to furnish a valid basis for comparison, the following table giving the number of deaths and the rates per $1,000,000$ persons for 38 causes or groups of causes for three quinquennial periods has been prepared. While the absolute number of deaths has increased, the death rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.

## CAUSES OF DEATH.—AUSTRALIA, NUMBER AND RATES, 1911-15 T0 1926-30.

Persons.

| Cause. | Number of Deaths. |  |  | Rate per $1,000,000$ of Population. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911-1915. | 1921-1925. | 1926-1930. | 1911-1915. | 1921-1925. | 1926-1930. |
| 1. Typhoid Fever | 2,848 | 1,209 | 732 | 119 | 43 | 23 |
| 9. Typhus Fever . | 112 | ${ }_{150}^{4}$ | 11 |  |  |  |
| 4. Small-pox | , | 4 | 3 |  |  |  |
| 5. Measles | 1,505 | 582 | 711 | 63 | 20 | 23 |
| 6. Scarlet Fever | 237 | 235 | 551 | 10 | 8 | 18 |
| 7. Whooping Cough | 1,657 | 1,612 | 1,629 | 69 | 57 | 52 |
| 8. Diphtheria | 3,677 | 2,565 | 1,990 | 154 | 90 | 64 |
| 9a. Influenza-Pneumonic | \} 1,804 | $\left\{\begin{array}{l}1,808 \\ 1,34 .\end{array}\right.$ | 2,038 | \} 79 | $\{\quad 63$ | 65 |
| 96. Influenza-Other | $\} 1,004$ | $\{1,344$ | 1,240 | $\} \quad 19$ | \{ 47 | 40 |
| 11. Cholera Nostras .. | 18 | 8 |  |  |  |  |
| 12. Other Lepidemic Diseases .- | 1,085 | 1,697 | 1,870 | 45 | 60 | 60 |
| 13. Tuberculosis of the Respiratory System | 15,737 | 15,321 | 15,226 | 658 | 538 | 486 |
| 14. Tuberculosis of the Meninges | 1,156 | 876 | 847 | 48 | 30 | 27 |
| 15. Other forms of Tuberculosis | 1,460 | 1,404 | 1,278 | 61 | 49 | 41 |
| 16. Cancer and other Malignant Tumours | 17,838 | 25,794 | 29,844 | 746 | 907 | 953 |
| 17. Meningitis .. .. | 4,159 | 2,045 | 1,260 | 174 | 72 | 40 |
| 18. Hæmorrhage, Embolism, and Softening of the |  |  |  |  |  |  |
| Brain $\quad \therefore$ | 10,957 | 13,637 | 16,821 | 458 | 479 | 537 |
| 19. Diseases of the Heart .. | 24,358 | 31,588 | 42,729 | 1,019 | 1,110 | 1,364 |
| 20. Acute Bronchitis ... | 2,250 | 1,580 | 1,374 | 94 | 56 | 44 |
| 21. Chronic Bronchitis | 4,962 | 4,053 | 3,755 | 208 | 142 | 120 |
| 22. Pneumonia $\ddot{\square}$ | 10,159 | 11,535 | 13,142 | 425 | 405 | 420 |
| 23. Other Diseases of the Respiratory System (Tuberculosis excepted) .. | 9,625 | 12,677 | 13,427 | 403 | 446 | 429 |
| 24. Diseases of the Stomach (Cancer excepted) | 1,993 | 2,262 | 2,422 | 83 | 80 | 77 |
| 25a. Diarrheea and Enteritis |  |  |  |  | 80 | 211 |
| 25b. Diarrhoga and Enteritis | 15,207 | 9,866 | 6,601 | 636 | 347 | 211 |
| (two years and over) .a. | 4,027 | 3,144 | 2,485 | 169 | 111 | 79 |
| 20. Appendicitis and Typhlitis | 1,761 | 2,035 | 2,418 | 74 | 72 | 77 |
| 27. Hernia, Intestinal Obstruction | 2,336 | 2,648 | 2,777 | 98 |  |  |
| 28. Cirrhosis of the Liver | 1,932 | 1,531 | 1,549 | 81 | 54 | 50 |
| 29. Acute and Chronic Nephritis | 10,751 | 12,803 | 15,864 | 450 | 450 | 507 |
| 30. Non-cancerous Tumours and other Diseases of the Female Genital Organs. . | 695 | 873 | 967 | 29 | 31 | 31 |
| 31. Puerperal Septicæmia (Puer- |  |  |  |  |  |  |
| peral Fever, Peritonitis) | 1,072 | 1,138 | 1,245 | 45 | 40 | 40 |
| 32. Other Puerperal Accidents of Pregnancy | 2,060 | 2,321 | 2,393 | 86 | 82 | 76 |
| 33. Congenital Debility and |  |  |  |  |  |  |
| Maliformation | 18,429 | 18,851 | 18,114 | 771 | 663 | 578 |
| 34. Senility .. .. | 20,905 | 20,429 | 16,984 | 875 | 718 | 542 |
| 35. Violent Deaths- <br> (a) Homicide <br> (b) Other Accidental | 446 | 439 | 545 | 19 | 15 | 17 |
| Deaths | 14,949 | 13,875 | 17,179 | 626 | 488 | 549 |
| 36. Suicide | 3,123 | 3,106 | 3,956 | 131 | 109 | 126 |
|  | 37,926 | 40,662 | 41,910 | 1,587 | 1,429 | 1,338 |
| 38. Unspecified <br> Diseases <br> or <br> IIl-defined | 3,025 | 3,460 | 2,800 | 127 | 122 | 89 |
| Total | 256,337 | 271,171 | 290,800 | 10,726 | 0,531 | 9.285 |

13. Deaths from Specific Causes.-The above table furnishes particulars for the last five years only, and comparisons will, therefore, generally be restricted to that period.
(i) Typhoid Fever. The number of deaths from typhoid fever declined from 183 in 1926 to 113 in 1930, the rate for the latter year being eighteen per $1,000,000$ living, and much lower than the average of 23 for the last five years. Of the 113 who died, 69 were males and 44 females. During the quinquennium 1911 to 1915 the death rate from typhoid fever was 119 per $1,000,000$.
(ii) Typhus. Deaths from typhus have been rare in Australia, and only two deaths were recorded during 1930, both of which occurred in Western Australia. During 1928, five deaths were recorded from this cause, three of which occurred in Queensland and two in Western Australia. In 1927, one death occurred in South Australia and one in Western Australia. In 1926, one death occurred in Victoria and one in South Australia. In 1925 there were two deaths in Queensland and one in South Australia.
(iii) Malaria. Deaths from malarial diseases are mainly confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory; 12 out of the 22 deaths registered in 1930 occurred in Queensland, 2 in New South Wales and 8 in the Northern Territory. The death rate was 3 per $1,000,000$ for the quinquennium 1926-30, as compared with a rate of 5 for 1911 to 1915, and 1921 to 1925.
(iv) Small-pox. The number of deaths from small-pox in Australia is very small and during the five years under review only three deaths occurred from this cause, of which two occurred in 1930 in Western Australia.
(v) Measles. Of the deaths from measles the greatest number occurred during 1928, when 201 were registered, while the minimum was in 1926 with a total of 108 deaths. Of the 146 deaths during 1930, 83 were males and 63 females. The death rate for the last five years, viz., 23 per $1,000,000$ was slightly greater than for the years 1921 to 1925, viz., twenty per $1,000,000$, but much less than the 63 per $1,000,000$ recorded in 1911 to 1915.
(vi) Scarlet Fever. The number of deaths has decreased each year since 1927. During 1930, there were 79 deaths, of which 40 were males and 39 females. Of these deaths 54 occurred in New South Wales. The rate per $1,000,000$, viz., 18, was the highest for the three periods reviewed on the previous page.
(vii) Whooping Cough. During 1930, deaths from whooping cough numbered 330 ( 143 males and 187 females) representing a death rate of 51 per $1,000,000$ persons. The death rate for this disease is almost invariably heavier for females than for males. For both sexes combined it has declined from 69 in 1911 to 1915, to 52 per $1,000,000$ in 1926 to 1930.
(viii) Diphtheria. The number of deaths due to diphtheria was 387 in 1930. Of these deaths (representing a death rate of 60 per $1,000,000$ persons) 192 were males and 195 females. The death rate is now less than half of that experienced during the five years ended 1915.
(ix) Influenza. The deaths from influenza during 1930 were very much lower than in the previous four years. Of the 278 deaths during 1930 from this disease, 137 were ascribed to pneumonic influenza and 141 to ordinary influenza.
(x) Asiatic Cholera. No deaths from Asiatic cholera have been recorded in Australia.
(xi) Cholera Nostras. For the five years under review only 5 deaths havo beon due to this cause.
(xii) Other Epidemic Diseases. The deaths registered under this heading numbered 311 in 1930, including 94 from dysentery, erysipelas 76, lethargic encephalitis 47, acute poliomyelitis 37 , meningococcal meningitis 27 , mumps 7 , leprosy 16 , and other epidemic diseases 7. During the period 1926-30, there were no deaths from plague.
(xiii) Tuberculosis of the Respiratory System. Of the various forms of tuberculosis prevalent in Australia, phthisis, or tuberculosis of the lungs, has attracted the most attention. The intimate relation, however, between tuberculosis of the lungs and of other parts of the respiratory system renders it desirablo that all forms of tuberculosis of the respiratory system should be brought under one head for investigations concerning the age incidence and duration of this direase.

The decline in the toll levicd by this disease on the community is plainly disclosed by the table on page (718), which shows how both the number of deaths and the death rate have declined since the period 1911 to 1915.

During 1930 there were 2,850 deaths from tuberculosis of the respiratory system, which compares favourably with the average of 3,094 for the preceding four years. The 2,850 deaths in 1930 represented a rate of 44 per 100,000 persons. Of these deaths, 1,665 were males and 1,185 females.
(xiv) Tuberculosis of the Meninges. The number of deaths ascribed to this cause in 1930 was 153, which is below the average number for the preceding four years.
(xv) Other Forms of Tuberculosis. The deaths in 1930 include the following :Tuberculosis of the intestines and peritoneum, 56 ; spinal column, 42 ; joints, 11 ; skin, \&c., 2; bones, 6; lymphatic system, 4; genito-urinary system, 29 ; other organs, 3 ; acute disseminated tuberculosis, 71 ; and chronic disseminated tuberculosis, 31.
(xva) All Forms of Tuberculosis.-(a) General. The total number of deaths in 1930 was 3,258, viz., 1,895 males and 1,363 females.
(b) Ages at Death. The following table shows the ages of these 3,258 persons. Corresponding figures for 1911 have been added :-
TUBERCULAR DISEASES.-DEATHS IN AGE-GROUPS, AUSTRALIA, 1911 AND 1930.

(c) Occupations at Death, Males. A tabulation of occupations of the males who died from tubercular diseases and the percentage that each class bears on the total male deaths from these diseases in 1911, 1921 and 1930 is given hereunder :-

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASESAUSTRALIA, 1911,1921 AND 1930.

| Occupation. | Number of Male Deaths. |  |  | Percentage on Total. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| Professional Class | 112 | 167 | 108 | 5.45 | 7.69 | 5.70 |
| Domestic Class | 87 | 95 | 71 | 4.23 | 4.38 | 3.75 |
| Commercial Class | 280 | 292 | 283 | 13.63 | 13.45 | 14.93 |
| Transport and Communication | 160 | 165 | 175 | 7.79 | 7.60 | 9.23 |
| Industrial Class | 695 | 784 | 702 | 33.82 | 36.11 | 37.05 |
| Agricultural, Pastoral, Mining, etc. $\qquad$ | 400 | 404 | 313 | 19.46 | 18.61 | 16.52 |
| Indefinite Class | 62 | 80 | 98 | 3.02 | 3.68 | 5.17 |
| Dependent Class | 259 | 184 | 145 | 12.60 | 8.48 | 7.65 |
| Total Male Deaths | 2,055 | 2,171 | 1,895 | 100.00 | 100.00 | 100.00 |

(d) Length of Residence in Australia. The length of residence in Australia of persons who died from tubercular diseases in 1930 is given in the next table.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1930.

| Length of Residence in Australia. | Male. | Fem. | Total. | Length of lesidence in Australia. | Male. | Fem. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Born in Australis | 1,418 | 1,177 | 2,595 | Resident 10 years \& nuder 15 | 29 | 12 | 41 |
| Resident under 1 year | 10 | 1 | 11 | " $150 \quad$ ", 20 | 66 | 41 | 107 |
| " $\quad 1 \begin{aligned} & \text { y } \\ & 2\end{aligned}$ | ${ }^{3}$ |  |  |  | 235 | 66 | ${ }^{301}$ |
| " $2_{3}$ years | 10 |  | 16 | Length of residence not stated | 67 | 20 | 87 |
| " $\quad 3 \quad 4$ | 16 9 | ${ }_{6}^{5}$ | 21 |  | --- | - | -.. |
|  | 32 | 29 | 61 | Total Deaths | 1,895 | 1,363 | 3,258 |

(e) Death Rates. The preceding table and the table on page (712) show that among persons who have lived less than five years in Australia, 579 deaths occurred, and of these 66 , or 12.5 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States and the change in the incidence in recent years, the death rates from tubercular diseases in respect of the years 1911 and 1930, are given in the following table, together with the proportion which deaths from tuberculosis bear to 10,000 deaths from all causes :-
TUBERCULOSIS (ALL FORMS).-DEATH RATES (a) AND PROPORTION OF TOTAL DEATHS, 1911 AND 1930.

| State or Territory. | Death Rate per 100,000 of Mean Population. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. |  |  | 1930. |  |  |
|  | Males. | Females. | Persons. | Males. | Females. | Persons. |
| New South Wales . | 85 | 67 | 76 | 54 | 38 | 46 |
| Victoria | 101 | 97 | 99 | 66 | 53 | 59 |
| Queensland | 74 | 58 | 67 | 50 | 29 | 40 |
| South Australia | 81 | 91 | 86 | 53 | 48 | 50 |
| Western Australia | 84 | 71 | 78 | 74 | 43 | 60 |
| Tasmania | 90 | 82 | 86 | 51 | 68 | 60 |
| Northern Territory | 293 | . | 241 | 165 | 62 | 129 |
| Federal Capital Territory | . . | 131 | 56 |  | 25 | 11 |
| Australia .. | 88 | 78 | 83 | 58 | 43 | 51 |


| State or Territory. | Proportion per 1,000 Deaths from all Causes. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. |  |  | 1930. |  |  |
|  | Males. | Females. | Persons. | Males. | Females. | Persons. |
| New South Wales | 737 | 737 | 737 | 562 | 506 | 538 |
| Victoria. | 801 | 936 | 862 | 686 | 641 | 665 |
| Queensland | 613 | 648 | 626 | 552 | 433 | 504 |
| South Australia | 775 | 995 | 877 | 606 | 598 | 602 |
| Western Australia | 718 | 870 | 770 | 711 | 582 | 662 |
| Tasmania | 839 | 854 | 846 | 535 | 804 | 662 |
| Northern Territory | 1,356 |  | 1,231 | 758 | 909 | 779 |
| Federal Capital Territory | .. | 2,000 | 1,000 | . | 1,000 | 313 |
| Australia | 745 | 829 | 780 | 608 | 564 | 589 |

(a) Number of deaths trom tuberculosis per 100,000 of mean population.
(f) Death Rates, Various Countries. The following comparative table for various countries shows that Australia occupies a very favourablo position as regards the death rate from this disease.

## TUBERCULOSIS.-DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

| Country | Year. | Respiratory System. | All Fornis. | Country. | Year. | Respiratory System. | $\underset{\text { Forms. }}{\text { All }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Queensland | 1930 | 37 | 40 | Scotland | 1930 | 62 | 88 |
| Union of South |  |  |  | England and |  |  |  |
| Africa (Whites) | 1929 | (a) | 45 | Wales | 1928 | 76 | 93 |
| New South Wales | 1930 | 41 | 46 | Great Britain and |  |  |  |
| New Zealand | 1930 | 37 | 46 | Northern Ire- |  |  |  |
| South Australia | 1930 | 44 | 50 | land | 1929 | 75 | 95 |
| Australia | 1930 | 44 | 51 | Belgium | 1927 | 68 | 97 |
| Victoria | 1930 | 50 | 59 | Rumania | 1926 | (a) | 99 |
| Tasmania | 1930 | 51 | 60 | Italy | 1928 | 92 | 125 |
| Western Australia | 1930 | 52 | 60 | Sweden | 1928 | (a) | 126 |
| Ceylon | 1929 | (a) | 60 | Irish Free State | 1929 | 102 | 127 |
| Denmark | 1927 | 61 | 78 | Switzerland | 1929 | 100 | 132 |
| Germany | 1930 | (a) | 78 | Greece | 1924 | 120 | 138 |
| Canada (including |  |  |  | Northern Ireland | 1928 | 103 | 140 |
| Quebec) .- | 1929 | 66 | 80 | Spain | 1927 | 123 | 153 |
| United States (Reg-: |  |  |  | Norway | 1927 | 125 | 160 |
| istration Area) | 1927 | 71 | 81 | France | 1928 | 140 | 165 |
| Egypt . . .. | 1927 | 66 | 85 | Czechoslovakia | 1927 | 174 | 195 |
| Netherlands | 1929 | 64 | 86 | Japan | 1929 | 140 | 196 |

(a) Not available.
(xvi) Cancer and other Malignant Tumours.-(a) General. The number of deaths from cancer increased continuously to 6,256 in 1929, but declined slightly to 6,120 in 1930. Of the deaths registered, 3,172 were of males, viz., 1,212 in New South Wales, 918 in Victoria, 419 in Queensland, 297 in South Australia, 234 in Western Australia, 86 in Tasmania, 5 in the Northern Territory, and 1 in Federal Capital Territory, while 2,948 were of females, viz., 1,078 in New South Wales, 941 in Victoria, 329 in Queensland, 297 in South Australia, 183 in Western Australia, and 120 in Tasmania.
(b) Type and Seat of Disease. Tables showing the type and seat of disease, in conjunction with age, and with conjugal condition, of the persons dying from cancer in 1930 will be found in Bulletin No. 48 of "Australian Demography." A summary regarding type and seat of disease for the year 1930 is given hereunder :-
dEATHS FROM CANCER.-TYPE AND SEAT OF DISEASE, AUSTRALIA, 1930.

| Type of Discase. | Males. | Females | Persong. | Seat of Disease. | Males. | Females | Persons. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carcinoma | 2,163 | 2,210 | 4,373 | Stomach and liver. . | 1,322 | 822 | 2,144 |
| Cancer | 440 | 306 | 746 | Peritoneum, intes- |  |  |  |
| Malignant disease | 167 | 158 | 325 | tines and rectum | 537 | 533 | 1,070 |
| Sarcoma . | 164 | 142 | 306 | Female genital |  |  |  |
| Epithelioma | 152 | 64 | 216 | organs |  | 565 | 565 |
| Malignant tumour | 13 | 12 | 25 | Breast | 5 | 520 | 525 |
| Rodent ulcer | 46 | 18 | 64 | Buccal cavity .. | 269 | 32 | 301 |
| Scirrhus . | 3 | 24 | 27 | Skin | 130 | 65 | 195 |
| Neoplasm | 7 | 6 | 13 | Other organs | 909 | 411 | 1,320 |
| Hypernephroma | 17 | 8 | 25 |  |  |  |  |
| Total Deaths | 3,172 | 2,948 | 6,120 | Total Deaths | 3,172 | 2,948 | 6,120 |

(c) Ages at Death. The ages of the persons who died from cancer in 1911 and 1930 are given in the following table, which shows that while the ages below 35 are not immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 65 to 70 . The table also reveals the very great increase in numbers dying from cancer. The increase in the rate is shown in a succeeding table.

DEATHS FROM CANCER.-AGES, AUSTRALIA, 1911 and 1930.

(d) Occupations. A tabulation in summarized form of occupations of the males who died from cancer in 1911, 1921 and 1930 together with the percentage of each class on the total male deaths from this disease is given hereunder:-

OCCUPATION OF MALES WHO DIED FROM CANCER.-AUSTRALIA, 19I1, 1921 AND 1930.

| Occupations. | Number of Male Deaths. |  |  | Percentage on Total. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| Professional Class | 92 | 133 | 176 | 5.23 | 5.45 | 5.55 |
| Domestic Class | 62 | 76 | 100 | 3.52 | 3.11 | 3.15 |
| Commercial Class | 179 | 275 | 427 | 10.17 | 11.27 | 13.46 |
| Transport and Communication Class | 121 | 212 | 280 | 6.87 | 8.69 | 8.83 |
| Industrial Class | 622 | 940 | 1,189 | 35.32 | 38.52 | 37.48 |
| Agricultural, Pastoral, Mining, etc., Class | 512 | 639 | 761 | 29.07 | 26.19 | 23.99 |
| Indefinite Class. | 124 | 129 | 194 | 7.04 | 5.29 | 6.12 |
| Dependent Class .. .. | 49 | 36 | 45 | 2.78 | 1.48 | 1.42 |
| Total Male Deaths . | 1,761 | 2,440 | 3,172 | 100.00 | 100.00 | 100.00 |

(e) Death Rates. The following table shows the death rates per 100,000 of mean population from cancer in each State for the years 1911 and 1930.

The substantial increase in the death rate since 1911 is reflected in both sexes and in all States.

DEATHS FROM CANCER.-RATES(a) 1911 AND 1930.

| State or Territory. | 1911. |  |  | 1930. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales . . | 77 | 71 | 74 | 96 | 88 | 92 |
| Victoria . | 80 | 85 | 82 | 104 | 105 | 104 |
| Queensland | 71 | 56 | 64 | 84 | 74 | 80 |
| South Australia | 70 | 76 | 73 | 99 | 106 | 102 |
| Western Australia | 65 | 57 | 62 | 103 | 95 | 100 |
| Tasmania | 77 | 60 | 69 | 80 | 110 | 95 |
| Northern Territory | 37 | . | 30 | 165 | . . | 108 |
| Federal Capital Territory | 99 | - | 56 | 21 | . | 11 |
| Australia | 75 | 72 | 74 | 96 | 93 | 95 |

(a) Number of deaths from cancer per 100,000 of mean population.
(f) Proportion on Total Deaths. While the death rate from all causes has diminished substantially in recent years, the rate from cancer has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,106 were due to cancer in 1930, as against 693 per 10,000 total deaths in 1911.

DEATHS FROM CANCER-PROPORTIONS ON 10,000 DEATHS, 1911 AND 1930.

| State or Territory. | 1811. |  |  | 1930. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females | Total. | Males. | Females. | Total. |
| New South Wales | 662 | 783 | 713 | 999 | 1,184 | 1,078 |
| Victoria | 637 | 819 | 719 | 1,084 | 1,256 | 1,165 |
| Queensland | 586 | 628 | 602 | 936 | 1,105 | 1,003 |
| South Australia | 675 | 828 | 745 | 1,138 | 1,325 | 1,224 |
| Western Australia | 557 | 700 | 605 | 997 | 1,283 | 1,105 |
| Tasmania | 723 | 629 | 680 | 837 | 1,304 | 1,057 |
| Northern Territory | 170 | . . | 154 | 758 | . . | 649 |
| Federal Capital Territory | 2,000 |  | 1,000 | 455 |  | 313 |
| Australia | 638 | 769 | 693 | 1,018 | 1,219 | 1,106 |

(g) Compariscn with Tuberculosis. In recent years the death rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus the death rate for tuberculosis declined by 32 per 100,000 population while the rate for cancer increased by the same amount. This equal but opposite tendency may be demonstrated by stating that the death rate from tuberculosis and cancer combined remains almost constant from period to period, the figures being: $-1901-05$, 152 per 100,000 ; $1906-10,145 ; 1911-1915,152 ; 1916-20$, 154 ; 1921-25, 153; and 1926-30, 152.

TUBERCULOSIS AND CANCER.-DEATH RATES(a) AUSTRALIA, 1901 TO 1930.

| Period. | Death Rate (a) from Tuberculosis. |  |  | Death Rate (a) from Cancer. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | mates. | Females. | Total. | Malcs. | Females. | Total. |
| 1901-05 | 100 | 77 | 89 | 64 | 61 | 63 |
| 1906-10 | 81 | 69 | 75 | 71 | 70 | 70 |
| 1911-15 | 84 | 69 | 77 | 75 | 74 | 75 |
| 1916-20 | 84 | 59 | 71 | 86 | 80 | 83 |
| 1921-25 | 71 | 52 | 62 | 93 | 88 | 91 |
| 1926-30 | 64 | 49 | 57 | 97 | 94 | 95 |

(a) Number of deaths per 100,000 of mean population.
(h) Death Rates, Various Countries. The following table shows the Australian death rate from cancer in comparison with that for other countries :-

CANCER-DEATHS PER $\mathbf{1 0 0 , 0 0 0}$ PERSONS LIVING, VARIOUS COUNTRIES.

| Country. | Year. | Rate. | Country. | Year. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Greece | 1924 | 19 | Irish Free State | 1929 | 101 |
| Egypt | 1927 | 20 | New Zealand | 1930 | 102 |
| Rumania | 1926 | 30 | Czechoslovakia | 1927 | 109 |
| Italy | 1928 | 63 | Northern Ireland | 1928 | 117 |
| Japan | 1929 | 69 | Norway . . | 1927 | 117 |
| Spain .. .. | 1927 | 70 | Netherlands | 1929 | 121 |
| Union of South Africa |  |  | Germany | 1930 | 131 |
| (Whites) . . | 1929 | 77 | Sweden | 1925 | 130 |
| Belginm .. .. | 1927 | 87 | Switzerland | 1929 | 141 |
| Canada (including |  |  | Great Britain and |  |  |
| Quebec) | 1929 | 90 | Northern Ireland | 1928 | 142 |
| Anstralia | 1930 | 85 | Denmark .. | 1928 | 143 |
| France | 1928 | 95 | England and Walea | 1928 | 143 |
| United States (Registration Area) | 1927 | 96 | Scotland . . | 1930 | 146 |

(xvii) Meningitis. The deaths during 1930 from meningitis numbered 186, representing a rate of 29 deaths per million of population. Of the deaths 118 were males and 68 females.
(xviii) Cerebral Hamorrhage, Embolism and Softening of the Brain. Tho deaths under this heading have increased in number during the period under review. The figares for 1930 are made up as follows:-Cerebral hæmorrhage and apoplexy (including cerebral hæmorrhage, etc., associated with arterio-sclerosis), 1,407 males, 1,562 females : cerebral embolism, 25 males, 35 females; cerebral thrombosis, 181 males, 229 females; and softening of the brain, 30 males, 34 females.

The total of the class, viz., 3,503 ranks fifth in magnitude of the causes shown on p. 716 and corresponds to a death rate of 544 per million.
(xix) Diseases of the Hearl. The number of deaths in 1930 was 8,626, viz., 4,793 males and 3,833 females. Of these deaths, 45 were attributed to pericarditis, 329 to acnte endocarditis and myocarditis, 553 to angina pectoris, and 276 to aortic valve disease, 573 to mitral valve disease, 46 to aortic and mitral valve disease, 852 to other and unspecified valve disease, 122 to fatty heart, 95 to cardiac dilatation, 4,506 to other unspecified myocardial diseases, 276 to disordered action of the heart and 953 to heart
disease undefined. The sex and territorial distribution of the deaths will be found in the tables on pages 714 to 716 . This class is the largest among causes of death, the death rate having grown from 1,019 per million in 1911-15 to 1,364 in 1926-30. The death rates and proportions per 10,000 deaths in 1930 were as follow :-

## death rates a) from diseases of the heart and proporition of 10,000 TOTAL DEATHS, AUSTRALIA, 1930.

| State or Territory | Death Rates (u) from Diseases of the Heart. |  |  | Proportion of 10,000 Deaths:. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales | 153 | 122 | 137 | 1,594 | 1,633 | 1,611 |
| Victoria | 155 | 137 | 146 | 1,622 | 1,642 | 1,631 |
| Queensland | 148 | 112 | 131 | 1,646 | 1,663 | 1,653 |
| South Australia | 102 | 104 | 103 | 1,177 | 1,307 | 1,237 |
| Western Australia | 125 | 95 | 111 | 1,201 | 1,276 | 1,229 |
| Tasmania.. | 144 | 132 | 138 | 1,508 | 1,565 | 1,535 |
| Northern Territory | 197 | 62 | 151 | 909 | 909 | 909 |
| Federal Capital Territory |  | 25 | 11 | . . | 1,000 | 313 |
| Australia | 146 | 122 | 134 | 1,539 | 1,585 | 1,559 |

(a) Number of deaths from diseases of the heart per 100,000 of mean population.
( xx ) Acute Bronchitis. Deaths from bronchitis are classified under the following headings :-(a) Acute, (b) chronic, (c) unspecified, under five years of age, and (d) unspecifiod, five years and over. For the purpcse of the abridged classification, (a) and (c) are treated as "acute," and (b) and ( $d$ ) as "chronic" bronchitis: Acute bronchitis caused 215 deaths in 1930, viz., 111 males and 104 females.
(xxi) Chronic Bronchitis. The deaths from this cause in 1930 numbered 625, viz., 370 males and 255 females, which was below the average for the previous four years, and much lower than the average for previous periods.
(xxii) Pneumonia. The deaths from pneumonia during 1930 were $1,959-1,120$ males and 839 females-which is 30 per cent. lower than the average, 2,796 , for the previous four years.
(xxiii) Other Diseases of the Respiratory System. Deaths under this heading in 1926 numbered, 2,534; in 1927, 2.767; in 1928, 2,762; in 1929, 3039 ; and in 1930, 2,325. The total for 1930 is made up as follows, viz. :-Diseases of the nasal fossae, 30 ; diseases of the larynx, 32 ; broncho-pneumonia, 1,354; capillary bronchitis, 15; pleurisy, 191 ; pulmonary congestion and apoplexy, 298; gangrene of the lungs, 11; asthma, 118; pulmonary emphysema, 14; chronic interstitial pneumonia, 207; and other diseases of the respiratory system (tuberculosis excepted), 55.

The experience of deaths from diseases of the respiratory system in 1930 was exceptionally favourable, the number being 23 per cent. below the average of the previous four years. The death rate of 795 per million shows a gratifying decrease on that of 1,130 and 1,049 for the respective periods 1911-15 and 1921-25.
(xxiv) Diseases of the Stomach (Cancer excepted). In 1930 this heading includes ulcer of the stomach, 145 males, 46 females; ulcer of the duodenum, 88 males, 18 females; and other diseases of the stomach (cancer excepted), 57 males, 58 females; a total of 412.
(xxva) Diarrhoea and Enteritis (Childrén under two years only). The number of deaths due to these causes was 1,078 in 1930, and with the exception of 1929 was the lowest number recorded for many years. During 1930, 7,224 children died before reaching their second birthday, and of these 1,078 , or 14.9 per cent., died from diarrhoea and enteritis. The agos of children dying from these diseases during the first year of life will be found on page 708.

The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhoea and enteritis for 1911-15, 1921-25 and 1930 are given below. Reference to the last three lines of the table will reveal the very satisfactory improvement in deaths due to these diseases.

DEATHS, DEATH RATES( $a$ ), ETC., DIARRHEA AND ENTERITIS (UNDER 2 years of age).-AUSTRALIA, 1930.

| State. | Number of Deaths from Dlarrhcea and Enteritis. <br> (Under 2 years of age.) |  |  | Death Rates (a) from Diarrhcea and Enteritis. (Under 2 years of age.) |  |  | Proportion ofDeaths. Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. | Males. | Females. | Total. | Males. | Femalcs. | Total. |
| New South Wales | 319 | 238 | 557 | 25 | 19 | 22 | 263 | 261 | 262 |
| Victoria | 129 | 100 | 229 | 15 | 11 | 13 | 152 | 133 | 143 |
| Queensland | 38 | 35 | 73 | 8 | 8 | 8 | 85 | 118 | 98 |
| South Australia | 30 | 38 | 68 | 10 | 14 | 12 | 115 | 169 | 140 |
| Western Australia | 70 | 56 | 126 | 31 | 29 | 30 | 298 | 393 | 334 |
| Tasmania | 15 | 10 | 25 | 14 | 9 | 12 | 146 | 109 | 128 |
| $\begin{array}{cc} \text { Federal } & \text { Capital } \\ \text { Territory } & \end{array}$ |  |  | . | . |  |  | . . |  |  |
| Australia, 1930 | 601 | 477 | 1,078 | 18 | 15 | 17 | 193 | 197 | 195 |
| Annual Average- |  |  |  |  |  |  |  |  |  |
| 1911-15 .. | 11,687 | 1,354 | 3,041 | 68 | 59 | 64 | 569 | 627 | 593 |
| 1921-25 | 1,114 | 859 | 1,973 | 38 | 31 | 35 | 362 | 366 | 364 |

(a) Number of deaths from these diseases per 100,000 of mean population.
(xxvb) Diarrhca and Enteritis (2 years and over). The number of deaths from the same causes in older ages, viz., 462, compared favourably with the average of 506 for the period 1926 to 1929.
(xxvi) Appendicitis and Typhlitis. Deaths under this heading numbered 508 in 1930 including 313 males and 195 females. The death rate has remained fairly constant during the periods under review, being 74 per million in 1911-15 and 79 in 1930.
(xxvii) Hernia, Intestinal Obstruction. The deaths under this heading have not varied greatly from year to year, the number registered in 1930 being 560 , viz., hernia, 164, and intestinal obstruetion, 396.
(xxviii) Cirrhosis of the liver. The deaths from this cause during 1930 numbered 276, and include 31 deaths from alcoholic cirrhosis.
(xxix) Acute and Chronic Nephritis. The number of deaths attributable to these diseases shows a considerable decrease on the number for the previous year. Of the 3,182 deaths registered in 1930, 166 were ascribed to acute nephritis, and 3,016 to chronic nephritis. Nephritis is amongst the most prolific causes of deaths and accounts in 1930 for a death rate of 494 per million persons. The death rate for the period 1926-30, viz., 507 per million shows a considerable increase on the rates of 450 per million for the periods 1911-15 and 1921-25.
(xxx) Non-Cancerous Tumours and other Diseases of the Female Genital Organs. Deaths in 1930 numbered 208. Included in the 208 deaths in 1930 were the following :Cysts, etc., of the ovary, 30 ; salpingitis and pelvic abscess, 75 ; benign tumours of the uterus, 72 ; uterine hæmorrhage (non-puerperal), 3; and other diseases of the female genital organs, 28.
(xxxi) Puerperal Septiccmia (Puerperal Fever). The 242 deaths from puerperal septicæmia during 1930 showed a decrease from the average of the previous four years, but owing to the smaller number of births recorded the rate rose to 1.88 per 1,000 live births. The corresponding rates during the preceding five years were :$1925,1.74 ; 1926,1.64 ; 1927,2.15 ; 1928,2.05$; and $1929,1.71$. The following table shows the death rate per 1,000 live births from puerperal causes in various countries.

CHILDBIRTH.-DEATHS PER 1,000 LIVE BIRTKS, VARIOUS COUNTRIES.

(a) Not available.
(xxxiia) Other Puerperal Accidents of Pregnancy and Confinement. The deaths under this heading numbered 488 in 1926 ; 504 in 1927 ; 527 in $1928 ; 436$ in 1929 ; and 438 in 1930. Included in the 438 deaths in 1930 were the following:-Accidents of pregnancy, 87 ; puerperal hæmorrhage, 87 ; other accidents of childbirth, 87 ; puerperal phlegmasia alba dolens, embolus, sudden death, 52 ; puerperal albuminuria and convulsions, 120 ; 4 deaths following childbirth, and 1 puerperal disease of the breast.
(xxxiib) All Puerperal Causes. The 680 deaths in 1930 under the two preceding headings correspond to a death rate of 22 per 100,000 females. It may be expressed in other terms by stating that 1 of every 187 women confined in 1930 died from puerperal oauses. The corresponding ratios for married women were 1 of every 192, and for single women 1 of every 120. More detailed information will be found in a series of tables in Bulletin No. 48 "Australian Demography."

A tabulation of these ages for married and single women separately will be found in the Bulletin referred to.

The total number of children left by the married mothers was 1,681, an average of 2.7 children per mother.

Forty-one of the mothers who died had been married less than one year, 81 between onc and two years, and 48 between two and three years. The duration of marriage ranged up to 28 years, apart from 5 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin No. 48 "Australian Demography," which also includes a table showing in combination the duration of marriage and previous issue.
(xxxii) Congenital Malformation, Debility, and Premature Birth. The deaths under this heading in 1930 numbered 3,389 , of which 3,323 were of children under one year of age. Of the deaths of children under one year of age 54 per cent. were due to those causes. The number of deaths for 1930 is given in the following table :-

DEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATION, 1930.

| State or Territory. | Congenital Malformation. |  |  | Congenital Debility, Icterus, Sclerema. |  |  | Premature Birth, and Injury at Birth. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Malcs. | Females. | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales | 133 | 82 | 215 | 113 | 64 | 177 | 560 | 409 | 969 |
| Victoria | 98 | 74 | 172 | 100 | 72 | 172 | 321 | 246 | 567 |
| Queensland | 50 | 49 | 99 | 35 | 30 | 65 | 175 | 135 | 310 |
| South Australia | 33 | 25 | 58 | 27 | 22 | 49 | 83 | 72 | 155 |
| Western Australis | 19 | 20 | 39 | 39 | 28 | 67 | 62 | 55 | 117 |
| Tasmanis | 18 | 12 | 30 | 14 | 11 | 25 | 52 | 48 | 100 |
| Northern Territory | , | . . | I | 1 | . . | 1 | . | . | . |
| Fed. Cap. Territory | . | . | . | $\cdots$ | . | . . | 1 | . | 1 |
| Australia | 352 | 262 | 614 | 329 | 227 | 556 | 1,254 | 965 | 2,219 |
| Number of deaths under one year per 1,000 births | 5.34 | 4.19 | 4.78 | 4.99 | 3.63 | 4.33 | 19.03 | 15.44 | 17.28 |

(xxxiv) Senility. In 1930, 3,071 deaths were attributed to this cause, as follows :1,585 males and 1,486 females.

Of the deaths described as due to senility, 5 males and 6 females were stated to be aged 100 years or over.

The death rate from senility in 1930 was 477 -per million. For the three quinquennia tabulated on page 718 the rate has declined from 875 per million in 1911-15 to 718 in 1921-25 and to 542 in 1926-30.
(xxxva) Violent Deaths, Homicides. Deaths from homicide in 1930 numbered 103, this figure being slightly lower than the average for the previous four years.
(xxxvb) Other Accidental Deaths. Deaths from accidents in 1930 numbered 3,349, compared with an average of 3,457 for the previous four years. Of the deaths in 1930, 1,247 occurred in New South Wales ; 856 in Victoria; 507 in Queensland ; 293 in South Australia; 324 in Western Australia; 112 in Tasmania; 5 in Northern Territory; and 5 in the Federal Capital Territory.

The following table shows the various kinds of violent deaths, including homicides, but excluding suicides, recorded in Australia for the year 1930, to which the death rate per million has been added in respect of the periods 1911-15, 1921-25 as well as 1930. These latter figures reveal a decrease to 1921-25 but an increase in the rates for 1930, to which the growth of automobile accidents has contributed very largely :-

DEATHS FROM EXTERNAL VIOLENCE.-AUSTRALIA, 1930.

(xxxvi) Suicide.-(a) General. Deaths by suicide have showed an increase each year since 1922, the number in 1926 being 711, viz., 583 males and 128 females; in 1927, 740 , viz., 598 males and 142 females; in 1928, 777, viz., 635 males and 142 females; in 1929, 785, viz., 644 males and 141 females; and in 1930, 943, viz., 791 males and 152 females.
(b) Modes Adopted. The modes adopted by persons who committed suicide in the years 1926 to 1930 wore as follow :-

SUICIDES, MODES ADOPTED.-AUSTRALIA, 1926 T0 1930.

| Mrode of Death. | Males |  | Females. |  | Persons. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Average of 4 years. $19 \div 6-20$ | 1930. | $\left.\begin{array}{\|c\|} \text { A verage } \\ \text { of } 4 \text { vears, } \\ 1926-29 . \end{array} \right\rvert\,$ | 1930. | $\begin{gathered} \text { A verage } \\ \text { ot vears. } \\ 1050-9 . \end{gathered}$ | 1930. |
| Poisoning . . . | 146 | 197 | 59 | 73 | 205 | 270 |
| Poisonous gas .. .. | 19 | 49 | 9 | 9 | 28 | 58 |
| Hanging or Strangulation | 91 | 99 | 23 | 16 | 114 | 115 |
| Drowning .. .. | 40 | 48 | 17 | 19 | 57 | 67 |
| Firearms . . .. .. | 186 | 239 | 8 | 7 | 194 | 246 |
| Cutting or piercing instruments | 102 | 115 | 11 | 17 | 113 | 132 |
| Jumping from a high place .. | 8 | 12 | 4 | 5 | 12 | 17 |
| Crushing .. .. | 14 | 16 | 4 | 3 | 18 | 19 |
| Other Modes | 9 | 16 | 3 | 3 | 12 | 19 |
| Total | 615 | 791 | 138 | 152 | 753 | 943 |

(c) Death Rates. The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table, corresponding rates for the periods 1911-15 and 1921-25 having been added at the foot of the table :-
SUICIDE.-DEATHS, DEATH RATES(a), AND PROPORTION OF TOTAL DEATHS, 1930.

| State or Territory. | Number of Deaths. |  |  | Death Ratea ( $a$ ) from Suicide. |  |  | Proportion of 10,000 Total Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females | Total. | Males. | Females. | Total. | Males. | Females! | Total. |
| New South Wales | 298 | 63 | 361 | 25 | 5 | 15 | 246 | 69 | 170 |
| Victoria | 170 | 37 | 207 | 19 | 4 | 12 | 201 | 49 | 130 |
| Queensland | 163 | 15 | 178 | 33 | 3 | 19 | 364 | 50 | 239 |
| South Australia .. | 55 | 10 | 65 | 18 | 4 | 11 | 211 | 45 | 134 |
| Western Australia | 83 | 21 | 104 | 37 | 11 | 25 | 353 | 147 | 276 |
| Tasmania | 16 | 5 | 21 | 15 | 5 | 10 | 150 | 54 | 108 |
| Northern Territory | 5 | 1 | 6 | 165 | 62 | 129 | 758 | 909 | 779 |
| Fed. Cap. Territory | 1 |  |  | 21 | . . | 11 | 455 |  | 313 |
| Australia-1930 | 791 | 152 | 943 | 24 | 5 | 15 | 254 | 63 | 170 |
| Average-1921-25 | 509 | 112 | 621 | 18 | 4 | 11 | 166 | 48 | 114 |
| , 1911-15 | 509 | 115 | 624 | 21 | 5 | 13 | 172 | 53 | 122 |

(a) Number of deaths from suicide per 100.000 of mean population.

These results disclose that the annual deaths which had shown a tendency to decrease displayed a strong increase in 1930, as regards the absolute numbers registered, the death rate, and the proportion on total deaths.
(d) Ages. From the following table, which shows the ages of the persons who committed suicide in 1930, it will be seen that both extreme youth and extreme old age are represented:
ages of persons who committed suicide.-australia, 1930.

| Ages. |  |  |  | M. |  | Total. |  |  |  | M. | F. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15 years and under 20 |  |  |  | 20 | 17 | 37 |  | und | 56 | 76 | 13 | 89 |
| 20 | ", | , | 25 | 38 | 14 | 52 | 65 | " | 70 | 43 | 4 | 47 |
| 25 | " | ,' | 30 | 64 | 9 | 73 | 70 |  | 75 | 34 | 3 | 37 |
| 30 | " | " | 35 | 73 | 12 | 85 | 75 | ", | 80 | 14 | 1 | 15 |
| 35 | " | " | 40 | 78 | 21 | 99 | 80 | , | 85 | 4 | . . | 4 |
| 40 | " | ", | 45 | 83 | 16 | 99 | 85 |  | 90 | 1 |  | 1 |
| 45 | " | " | 50 | 87 | 17 | 104 | 90 | ", |  | 1 |  | 1 |
| 50 | " | , | 55 | 88 | 11 | 99 |  |  | . | 7 |  | 7 |
| 55 | , | , | 60 | 80 | 14 | 94 |  | ths |  | 791 | 152 | 943 |

(e) Occupations of Males. The next table gives the ocoupations of the males whe committed suicide in 1911, 1921 and 1930 :-

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.-AUSTRALIA, 1930.

| Occupations. | Number of Male Deaths. |  |  | Percentage on Total. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| Professional Class . . | 34 | 32 | 36 | 7.62 | 6.27 | 4.55 |
| Domestic Class | 16 | 20 | 22 | 3.59 | 3.92 | 2.78 |
| Commercial Class .. .. | 63 | 81 | 147 | 14.13 | 15.88 | 18.58 |
| Transport and Communication |  |  |  |  |  |  |
| Class .. .. | 34 | 42 | 55 | 7.62 | 8.24 | 6.95 |
| Industrial Class .. .. | 172 | 180 | 294 | 38.56 | 35.29 | 37.17 |
| Agricultural, Pastoral, Mining, |  |  |  |  |  |  |
| \&c., Class . . .. | 100 | 131 | 186 | 22.42 | 25.69 | 23.52 |
| Indefinite Class | 23 | 21 | 47 | 5.16 | 4.12 | 5.94 |
| Dependent Class | 4 | 3 | 4 | 0.90 | 0.59 | 0.51 |
| Total Male Deaths .. | 446 | 510 | 791 | 100.00 | 100.00 | 100.00 |

(f) Death Rates, Various Countries. The following comparative table for various countries shows that Australia occupies a fairly favourable position as regards the death - rate from suicide.

SUICIDE.-DEATHS PER 100,000 PERSONS LIVING, VARIOUS COUNTRIES.

| Country. | Year. | Rate. | Country. | Year. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Greece | 1924 | 1.7 | England and Wales | 1928 | 12.4 |
| Egypt | 1927 | 3.2 | Sweden | 1928 | 13,1 |
| Irish Free State | 1928 | 3.3 | United States | 1927 | 13.3 |
| Spain | 1927 | 4.2 | Now Zealand | 1930 | 13.5 |
| Northern Ireland | 1928 | 5.1 | New South Wales | 1930 | 14.5 |
| Norway | 1927 | 5.6 | Australis .. | 1930 | 14.6 |
| Netherlands | 1929 | 6.5 | Belgium . . | 1927 | 15.5 |
| Rumania | 1926 | 7.8 | Denmark . | 1928 | 17.5 |
| Canada | 1929 | 8.5 | Queensland | 1930 | 18.9 |
| Italy | 1928 | 9.4 | France . | 1928 | 18.9 |
| Tasmania | 1930 | 9.7 | Japan . | 1929 | 20.2 |
| Scotland | 1930 | 10.1 | Switzerland | 1929 | 24.2 |
| South Australia | 1930 | 11.2 | Western Australia | 1930 | 24.9 |
| Union of South Africa (a) | 1928 | 11.2 | Czecho-slovakia | 1927 | 25.6 |
| Victoria .. .. | 1930 | 11.6 | Germany . . | 1930 | 30.0 |
| Great Britain and Northern Ireland | 1928 | 11.9 |  |  |  |

(a) White population only.
(xxxvii) Other Diseases. The number of causes included under this heading is very large, amounting to no less than 90 of the items shown in the detailed classification, and deaths were recorded under each of these with the exception of the following five causes :-Glanders, rabies, other chronic mineral poisoning, chronic organic poisonings and chyluria. The total number of deaths under "other diseases" in 1926 was 8,133, viz., 4,643 males and 3,490 females ; in 1927, 8,389 , viz., 4,657 males and 3,732 females; in 1928, 8,386, viz., 4,740 males and 3,646 females; in 1929, 8,782, viz., 5,033 males and

3,749 females; and in 1930, 8,220, viz., 4,655 males and 3,565 females. Some of the diseases included here account for very considerable numbers of deaths. Particulars for 1930 are shown in the following table :-

DEATHS FROM " OTHER DISEASES."-AUSTRALIA, 1930.

| Causes. | M. | F. | Total. | Causes. | M. | F. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tetanus. . | 57 | 16 | 73 | Disenses of the Eye | 2 | 3 | 5 |
| Mycoses | 5 | 6 | 11 | Discases of the Far | 49 | 45 | 94 |
| Syphilis | 111 | 55 | 166 | Aneurism | 143 | 44 | 187 |
| Soft Chancre | 1 | . | 1 | Arterio-sclerosis | 591 | 352 | 943 |
| Gonococens Infection | 4 | 2 | 6 | Other Discases of the |  |  |  |
| Purulent Infection and Septicamia | 58 | 42 | 100 | Arteries Embolism nnd Thrombosis | 58 | 21 | 79 |
| Other Infectious Diceases. | 2 | 1 | 3 | (not cerebral) ... .- | 180 | 118 | 298 |
| Other Tumours (Tumours of |  |  |  | Diseases of the Veins | 8 | 14 | 22 |
| the female genital organs |  |  |  | Discases of the Lymphatic |  |  |  |
| excepted) ${ }_{\text {acute }}$ lic | 34 97 | 31 90 | 65 187 | System | 7 | 5 | 12 |
| Acute Rheumatic Fever - | 97 | 90 | 187 | Hamorrhage (without speci- |  |  |  |
| Chronir Rheumatism and |  |  |  | fied cause) ... .. | 4 | 5 | 9 |
| Arthritis | 14 | 14 | 28 | Other Diseases of the Circu- |  |  |  |
| Rhetmatold and Osteo- | 40 | 69 | 109 | latory System Miseases of the Mouth and | 18 | 25 | 43 |
| Gout .- . | 2 | 69 | 109 |  | 19 | 14 | 33 |
| Scurvy | 1 | $\cdots$ | 1 | Discases of the Pharynx .. | 57 | 51 | 108 |
| Pellagra | 2 | 1 | 3 | Diseases of the Esophagus | 8 | 3 | 11 |
| Beri-beri | 2 |  | 2 | Ankylostomiasis .. | 1 | 5 | 6 |
| Rickets. . | 12 | 10 | 22 | Intestinal Parasites | 9 | 4 | 13 |
| Diabetes | 287 | 435 | 722 | Other Diseases of the In- |  |  |  |
| Pernicious Anæmia | 94 | 141 | 235 | testines .. | 43 | 37 | 80 |
| Other Anæmias and |  |  |  | Acute Yellow Atrophy of the |  |  |  |
| Chlorosis ${ }^{\text {a }}$ | 21 | 29 | 50 | Liver $\quad . \rightarrow$ of $\ddot{H}^{\text {L }}$ | 5 | 11 | 16 |
| Diseases of the Pituitary |  |  |  | Hydatid Tumours of the |  |  |  |
| Gland | 7 | 4 | 11 | Liver - | 20 | 18 | 38 |
| Exophthalmic Goitre | 16 | 112 | 128 | Pillary Calculi | 52 | 131 | 183 |
| Other Diseases of the Thyroid |  |  |  | Other Diseases of the Liver | 121 | 142 | 263 |
| Glands $\quad . \cdot$ | 12 | 40 | 52 | Diseases of the Pancreas . . | 40 | 30 | 70 |
| Discases of the Parathyroid Glands | 7 |  | 7 | Peritonitis (without specifled cause) | 35 | 41 | 76 |
| Discases of the Jhymus |  |  |  | Other Discases of the Digest- |  |  |  |
| Gland | 23 | 17 | 40 | ive system (Cancer and |  |  |  |
| Addison's Disease | 6 | 17 | 23 | Tuberculosis excepted).. | 1 | . | 1 |
| Discases of the Spleen | 4 |  | 4 | Other Diseases of the Kid- |  |  |  |
| Leucremia | 65 | 52 | 117 | neys and their Annexa .. | 142 | 110 | 252 |
| Hodgkin's Disease . . | 46 | 33 | 79 | Calcili of Urinary lassages | 43 | 17 | 60 |
| Acute and Chronic Alco- |  |  |  | Diseases of the Bladder ... | 82 | 24 | 106 |
| holism | 62 | 12 | 74 | Other Diseases of the Urethra, |  |  |  |
| Chronic Lead Poisoning | 11 | 3 | 14 | Urinary Abscesses, etc. . | 32 | 1 | 33 |
| Other General Diseases | 67 | 51 | 118 | Diseases of the Prostate | 418 |  | 418 |
| Encephalitis - Cerebral | 36 | 19 | 55 | Non-venereal Diseases of the | 5 |  | 5 |
| Encephalitis-Other Diseases | 32 | 29 | 61 | Non-puerperal Dlscases of | 5 |  | 5 |
| Locomotor Ataxia . | 62 | 8 | 70 | the Breast .. |  | 1 | 1 |
| Other Discases of the Spinal |  |  |  | Gangrene | 61 | 39 | 90 |
| Cord . . .. | 99 | 84 | 183 | Furuicle | 30 | 23 | 53 |
| Paralysis without specified |  |  |  | Phlegnion, Acute Abscess . | 69 | 57 | 128 |
|  | 142 | 128 | 270 | Other Discases of the Skin |  |  |  |
| General Paralysis of the Insane |  |  |  | and Annexa Non-tuberculous jiseases of | 20 | 22 | 42 |
| $\stackrel{\text { sane }}{ } \ddot{0}$ | 58 | 14 | 72 | Non-tuberculous Diseases of the Bones | 65 | 49 | 114 |
| ation | 21 | 49 | 70 | Other Diseases of the Joints |  |  |  |
| Epilepsy | 93 | 77 | 170 | (Tuberculosis and Rheu- |  |  |  |
| Convulsions (non-puerperal) | 1 | 3 | 4 | matism excepted) .. | 13 | 11 | 24 |
| Convalsions of Children under |  |  |  | Amputation |  | 1 | 1 |
| 5 years of age .. | 43 | 26 | 69 | Other Diseases of the Organs |  |  |  |
| Chorea . . ${ }^{\text {a }}$ |  | 2 | 2 | of Locomotion | 3 | 1 | 4 |
| Neuralgia and Neuritis | 5 | 12 | 17 | Discases of the Umbilicus | 12 | 11 | 23 |
| Idiocy, Imbecility | 10 | 11 | 21 | Atelectasis | 138 | 101 | 239 |
| Cerebral Tumour | 128 | 84 | 212 | Other Diseases peculiar to |  |  |  |
| Disseminated Sclerosis | 20 | 26 | 46 | Infancy | 45 | 46 | 91 |
| Paralysis Agitans | 63 | 37 | 100 | Lark of Care (Infants) | 2 | 5 | 7 |
| Other Diseases of the Nervous System | 31 | 35 | 66 | Total Deaths | 4,655 | 3,565 | 8,220 |

(xxxviii) Unspecified or Ill-defined Diseases. The number of deaths included under this heading was 690 in 1926, 570 in 1927, 603 in 1928, 536 in 1929, and 401 in 1930, of which 296 were males and 105 females. The detailed classification shows these illdefined diseases under two headings-sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:-Heart failure, asthenia, anasarca, atrophy, exhaustion, dropsy, ascites, and general œedema, etc. In 1930, the namber of deaths which came under the first of these categories was 43 , and under the
seoond, 358. It is inevitable that cases will occur regarding which the available information is insufficient to permit of a clear definition of the fatal disease in the certificate of death. In the majority of cases, however, there is little doubt that more satisfactory certificates might have been given.
14. Causes of Deaths in Classes.-The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under fifteen general headiags sdopted by the compilers of the International Nomenclature is, however, shown in the following table, together with the death rates and proportions on total deaths pertaining to those classes. A further table furnishes the death rates for the quinquennia 1911-15 and 1921-25 :-
deaths, death rates a), ETC., IN CLASSES.-AUSTRALIA, 1930.

| Class. | Total Deaths. |  |  | Death Rates.(a) |  |  | Proportion of 10,000 Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | F. | Total. | M. | F. | Total. | M. | F. | Total. |
| 1. Epidemic, Endemic, and Infectious Diseases |  |  |  |  |  | 82 | 960 | 951 | 956 |
| 2. General diseases not ${ }^{\text {a }}$ included | 2,99 |  | 5,290 | 81 |  | 82 | 960 | 851 | 956 |
| 2. above $\ldots$ | 4,104 | 4,109 | 8,213 | 125 | 130 | 127 | 1,318 | 1,699 | 1,484 |
| 8. Digeases of the Nervous System and of the Orcana of Sense |  |  |  | 66 | 68 | 67 |  | 882 | 779 |
| 4. Diseases of the Circulatory System | 6,278 | 4,904 | 11,182 | 191. | 156 | 173 | 2,015 | 2,029 | 2,021 |
| 5. Diseases of the Respiratory System | 2,992 | 2,132 | 5,124 | 91 | 68 | 80 | 961 | 882 | 926 |
| 6. Diseases of the Digestive Organs | 2,343 | 1,851 | 4,194 | 71 | 59 | 65 | 752 | 765 | -758 |
| 7. Diseases of the Genito-Urinary System and Annexa . . | 2,518 | 1,747 | 4,265 | 77 | 55 | 68 | 808 | 722 | 771 |
| 8. Puerperal Condition . |  | 680 | 680 |  | 22 | 11 | . | 281 | 123 |
| 9. Diseases of the Skin and of the Cellular Tissue | 170 | 141 | 311. | 5 | 4 | 5 | 55 | 58 | 56 |
| i0. Diserses of the Honcs and Organs of Locomotion | 81 | 62 | 143 |  | 4 | 2 | 26 | 26 | 20 |
| 11. Malformations | 352 | 262 | 614 | 111 | 8 | 10 | 113 | 108 | 111 |
| 12. Early Infancy | 1,780 | 1,355 | 3,135 | 54 | 43 | 49 | 571 | 560 | 567 |
| 13. Old Age . . | 1,585 | 1,486 | 3,071 | 48 | 47 | 48 | 509 | 615 | 556 |
| 14. Exteraal Causes | 3,479 | 916 | 4,395 | 106 | 29 | 68 | 1,117 | 379 | 794 |
| 15. Ill-deflned Diseaser | 296 | 105 | 401 | 9 | 3 | 6 | 95 | 3 | 72 |
| Total | 31,148 | 24,183 | 55,331 | 947 | 767 | 859 | 10,000 | 10,000 | 10,000 |

(a) Number of deaths per 100,000 of mean population.

DEATH RATES IN CLASSES-AUSTRALIA, 1911 TO 1915 AND 1921 TO 1925,

| Clasg. | Number of Deaths per 100,000 of Mean Population. |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Total. | Males. | Females. | Total. |
|  |  |  |  |  |  |  |
| 1. Epidemic, Endemic and Infectious Diseases |  |  |  | 120 | 95 | 108 |
| 2. General Diseases, not included above | 261 |  | 249 | 128 | 127 | 128 |
| 3. Diseases of Nervous System and of Organs of Sense | 112 | 93 : | 103 | 93 | 83 | 88 |
| 4. Diseases of Circulatory Systern .. | 147 | 116 | 132 | 150 | 118 | 134 |
| 5. Diseases of Respiratory System .. | 132 | 93 | 113 | 121 | 88 | 105 |
| 6. Diseases of Digestive System .. | 135 | 123 : | 130 | 97 | 81 | 89 |
| 7. Non-vencreal Diseases of the Genito-Urinary System and Annexa | 72 | 46 | 59 | 72 | 49 | 61 |
| 8. Puerperal Condition .. .- |  | 27 . | 13 |  | 25 | 12 |
| 9. Diseases of Skin and Cellular Tissue | 6 | 5 , | 6 | 6 | 4 | 5 |
| 10. Diseases of Organs of Locomotion | 2 | 1 | 1 | 3 | 2 | 2 |
| 11. Malformations .. .. | 12 | 9 | 10 | 12 | 10 | 11 |
| 12. Early Infancy .. | 87 | 71 | 79 | 73 | 56 | 65 |
| 13. Old-age .. | 94 | 80 | 88 | 76 | 68 | 72 |
| 14. External Causes | 117 | 33 - | 77 | 95 | 26 | 61 |
| 15. Ill-deflned Diseases | 16 | 9 | 13 | 15 | 9 | 12 |
| Total | 1,193 | 942 | 1,073 | 1,061 | 841 | 953 |

15. Ages at Death of Married Males and Females, and Issue.-Bulletin No. 48 "Australian Demography" containa a number of tables showing the age at marriage, age at death, birthplaces, and occupations, in combination with the issue of married persons who died in Australia in 1930. A summary of those tables is given hereunder. Deaths of married males in 1930 numbered 18,172, and of marriod females, 16,402. The tabulations which follow deal, however, with only 17,774 males and 16,202 females, the information in the remaining 598 cases being incomplete. Tha total number of children in the families of the 19,245 males was 87,967 , and of the 17,247 females, $83,55 S$. The average number of children is shown for various age-groups in the following table :-
ages at death of married males and females, and average issue.AUSTRALIA, 1930.


The figures in the preceding table includo the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 260 . The totals are shown in the following table :-
:SSLE OF MARRIED MALES AND FEMALES.-AUSTRALIA, 1930.

| Issue of Married <br> Males. | Males. | Females. | Total. | Issue of Married <br> Females. | Males. | Females. | Total. |
| :--- | ---: | ---: | :---: | :---: | :---: | :---: | :---: | :---: |

16. Ages at Marriage of Deceased Males and Females, and Issue.-While the table giving the average families of married males and females naturally shows an increase in the arerages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parente, shows a corresponding decrease in the averages as the age at marriage advances :-

## ages at marriage of deceased males and females, and paverage ISSUE.-AUSTRALIA, 1911, 1921 AND 1930.


17. Birthplaces of Deceased Married Males and Females, and Issue. TThe following table shows the birthplaces of married males and females who died in 1911 and 1930, together with their average issue. No generalizations can, of course, be made in those cases in which the number of deaths was small, but where the figures are comparatively large, as in the case of natives of Australia and the British Isles, differences occur between the averages of these individual countries, which appear inexplicable on any other ground than that of different age constitution of the locally born population. It will be noted that the differences occur both in the male and female averages.

## BIRTHPLACES OF DECEASED MARRIED MALES AND FEMALES, AND AVERAGB ISSUE.-AUSTRALIA, 1911 AND 1930.

| Birthplace. | Married Males. |  |  |  | Married Females. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{c\|l} 1911 . \\ \text { Deaths. } & \begin{array}{l} \text { Average } \\ \text { Family } \end{array} \end{array}$ |  | 1930. |  | 1911. |  | 1930. |  |
|  |  |  | Deaths. | verage | Deaths. | Average Family. | Deaths. | Average Family. |
| Australasia- |  |  |  |  |  |  |  |  |
| Australia . | 4,074 | 4.71 | 10,569 | 4.36 | 4,566 | 4.57 | 10,428 | 4.49 |
| New Zealand | 64 | 3.89 | 155 | 3.34 | 56 | 3.84 | 105 | 3.00 |
|  |  |  |  |  |  |  |  |  |
| England and Wales .. | 4,079 | 5.87 | 3,925 | 4.68 | 3,152 | 5.86 | 3,067 | 4.95 |
| Scotland .. | 1,133 | 5.89 | 975 | 4.65 | 1,002 | 6.09 | 798 | 5.32 |
| Ireland $\quad \cdots$ | 1,766 | 6.12 | 1,016 | 5.31 | 2,118 | 5.83 | 1,189 | 5.36 |
| Other British Possessions | 23 | 6.52 | 27 | 4.11 | 24 | 5.75 | 13 | 5.54 |
| Western .. | 199 | 4.33 | 208 | 4.63 | 55 | 5.07 | 74 | 4.99 |
| Central | 484 | 5.81 | 331 | 5.71 | 270 | 6.56 | 242 | 6.74 |
| Southern | 58 | 5.09 | 106 | 3.00 | 12 | 4.92 | 38 | 3.82 |
| Eastern | 35 | 4.37 | 47 | 3.57 | 6 | 4.50 | 20 | 4.30 |
| Abis- |  |  |  |  |  |  |  |  |
| British Possessions | 32 | 3.87 | 59 | 2.81 | 17 | 6.41 | 19 | 5.47 |
| Foreign Countries | 74 | 2.46 | 96 | 3.13 | 5 | 2.60 | 17 | 6.12 |
| Africa- |  |  |  |  |  |  |  |  |
| British Possessions | 16 | 3.56 | 20 | 5.00 | 15 | 4.80 | 26 | 3.42 |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| United States | 40 | 3.78 | 60 | 3.10 | 17 | 4.94 | 29 | 3.86 |
| Other Foreign |  |  |  |  |  |  |  |  |
| Countries | 17 | 4.53 | 7 | 4.14 | 10 | 4.50 | 6 | 2.67 |
| Polynesia .. | 5 | 4.00 | 14 | 6.14 | 9 | 3.33 | 8 | 4.62 |
| Indeflite | 72 | 4.28 | 113 | 4.04 | 72 | 4.85 | 106 | 4.46 |
| Total . . | 12,213 | 5.42 | 17,774 | 4.49 | 11,423 | 5.35 | 16,202 | 4.70 |

18. Occupations of Deceased Married Males, and Issue.-The following tabulation shows the average issue in combination with the cocupation of deceased males.

OCCUPATIONS OF DECEASED MARRIED MALES AND AVERAGE ISSUEAUSTRALIA, 1911, 1921 AND 1930.

| Occupation. | Deaths of Married Males. |  |  | Average Family. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1911. | 1921. | 1930. | 1911. | 1921. | 1930. |
| Professional Class | 681 | 926 | 1,196 | 4.55 | 4.04 | 3.10 |
| Domestic Class | 452 | 552 | 576 | 3.92 | 3.55 | 3.54 |
| Commercial Class .. .. | 1,407 | 1,977 | 2,683 | 4.70 | 4.18 | 3.61 |
| Transport and Communication Class | 1,001 | 1,254 | 1,594 | 4.56 | 4.63 | 4.02 |
| Industrial Class .. .. | 3,981 | 5,086 | 6,501 | 5.38 | 4.95 | 4.55 |
| Agricultural, Pastoral, Mining, <br> \&c., Class | 3,610 | 3,983 | 4,187 | 6.25 | 5.83 | 5.46 |
| Indefinite Class | 1,037 | 759 | 1,005 | 5.81 | 5.49 | 4.83 |
| Dependents .. | 44 | 15 | 32 | 4.30 | 4.00 | 3.25 |
| Total | 12,213 | 14,552 | 17,774 | 5.42 | 4.97 | 4.49 |

§ 4. Australian Life Tables.
Official Year Book, No. 20, pp. 962 and 969 to 973 , contained a synopsis of the various Australian Life Tables, also comparisons with other countries of the expectation of life at various ages. Considerations of space, however, do not permit of their repetition herein.

## §5. Registration of Births, Deaths and Marriages in the Territory for the Seat of Government.

Up to the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Territory for the Seat of Government. Births, deaths and marriages occurring within the Territory were registered by the District Registrars, Queanbeyan and Nowra, and were incorporated in the New South Wales records.

Towards the end of 1929, however, the Registration of Births, Deaths and Marriages Ordinances were made, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from lst January, 1930. The system has been successfully inaugurated and has functioned satisfactorily since that date. The Commonwealth Statistician is the Principal Registrar, and all registrations are made at Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance, 1929. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Territory for the Seat of Government, came into operation on let January, 1930.

## § 6. Graphical Representation of Vital Statistics.

(See Graphs pp. 689 to 694.)

1. General.-The progressive fluctuations of the number of births, marriages, and deaths are important indexes of the economic conditions and social ideals of a community. Graphs have accordingly been prepared which show these fluctuations. It should be romembered, however, that, normally, the increaso of births and marriages should be proportional to the growth of population.
2. Giraphs of Annual Births, Marriages, and Deaths.-The outstanding features of the graph representing births are:-An almost continuous rise in the numbers from 1860 to 1891 ; a decline till 1898, associated with the commercial orisis of 1891-93; a sharp fall in 1903 which accompanied a severe drought; an uninterrupted increase from 1903 to 1914 , the total for 1914 being the highest recorded; a rapid decline until 1920 , the result of war conditions. The figures for the last ten years show a tendency to greater stability, though with a general downward tendency.

The graph for marriages up to 1914 discloses approximately the same features as that for births-financial crises and droughts having a similar effect. The numbers for 1914 and 1915 showed a considerable increase over previous years. From 1916 to 1918 there was a rapid fall, the numbers being much below those of pre-war years. During 1919 and 1920 the recovery was very rapid, the total for the latter year being the highest ever recorded. The totals for 1923 to 1930 were not so favourable.

The characteristic feature of the grish of deaths is its irregular nature. On the whole, however, there is an increase which is due to the growth of population.
3. Graphs of Annual Birth, Marriage, and Death Rates, and Rate of Natural Increase. -The graph of the birth rate indicates a well-marked decline throughout the whole period. This reduction of rate has been subject to fluctuations, there being two periods of arrested docline, viz., from 1877 to 1890 , and from 1903 to 1912.

The variations in the marriage rates, though less abrupt than those in the birth and death rates, have ranged from a minimum of 6.08 per 1,000 which marked the culmination of a commercial depression in 1894 to a maximum of 9.62 per 1,000 in 1920.

On the whole, the graph for the death rate furnishes clear evidence of a satisfactory declino during the period. The graph brings into prominence six years in which the rates were very high when compared with adjacent years, viz., $1860,1866,1875,1884$, 1898, and 1919. Epidemics of measles were largely responsible for the high rates in the first five years, while influenza caused the increase during 1919.

The graph of natural increase shows roughly the same variations as that for the birth rate, but the influence of the death rate is indicated by the very low rates of natural increase for 1875,1898 , and 1919 , which resulted from the exceptionally high death rates of those years.

