## CHAPTER XXV.

## VITAL STATISTICS.

## § 1. Births.

1. Births, 1920 to 1924.-The number of male and female births and the total births registered in Australia during the years 1920 to 1924 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.

MALE BIRTHS, 1920 T0 1924.


FEMALE BIRTHS, 1920 TO 1924.


TOTAL BIRTHS, 1920 TO 1924.

| Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust | Tas. | North. Ter. | Fed. Cap. Ter. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 | 53,942 | 36.213 | 20.256 | 12,028 | 8,149 | 5,740 | 63 | 15 | 136,406 |
| 1921 | 54,636 | 25,591 | 20,329 | 11,974 | 7,807 | 5,755 | 79 | 27 | 136,198 |
| 1922 | 55,170 | 36,288 | 19,987 | 12,001 | 8,131 | 5,817 | 70 | 32 | 137,496 |
| 1923 | 54,069 | 35,877 | 19.982 | 11,692 | 7,854 | 5,657 | 72 | 19 | 135,222 |
| S Single births | 52,665 | 35,379 | 19,313 | 11,362 | 8,157 | 5,262 | 55 | 41 | 132,234 |
| 1924 Twins . . | (c)1,026 | (b) 752 | (a) 392 | 224 | (b) 144 | 118 | 2 |  | 2,658 |
| 1824 Triplets .. | (d) 14 | - 9 | (a) 3 |  |  | 3 |  |  | 35 |
| (Total births | 53,705 | 36,140 | 19,708 | 11,592 | 8,301 | 5,383 | 57 | 41 | 134,927 |

[^0]2. Birth Rates.-The next table gives the crude birth rates in each of the States and Territories and in Australia as a whole for the years 1920 to 1924.

(a) Number of births per 1,000 of the mean annual population.

Notwithstanding some undulating movements at different times, the crude birth rate of Australia has shown a constant decline for many years, and if the figures for 1919 are discarded as the result of abnormal conditions arising from the war, the rate of 23.24 per 1,000 persons is the lowest yet recorded.

The most effective 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.

To compare the relative increases to the populations of different countries accruing from births, it is of course necessary to take account of the ex-nuptial births, which vary very largely in relation to nuptial births between different countries and between different localities in the same country.

A thoroughly effective comparison of the birth rates of the different States can be made at Census periods only, because at other times accurate information is unobtainable regarding the masculinity and the age composition of the population.

The following table gives for each of the States and for Australia some of the more important factors which affect the birth rates, and also the birth rates computed on various bases as follows :-Births per 1,000 of the population (crude); births per 1,000 women of child-bearing age ; nuptial births per 1,000 married women of child-bearing age ; births per 1,000 married women of child-bearing age corrected for inequalities in the age composition by taking the female population of Australia as a whole for a standard; and ex-nuptial births per 1,000 unmarried women aged $15-44$ inclusive. The results are obtained from the births during the years 1920 , 1921, and 1922 in relation to the age and conjugal condition of the population at the time of the Census of the 4 th April, 1921.

The rates obtained from these computations place Tasmania first, and Queensland second, notwithstanding that the proportions of married women of child-bearing age in their populations were lower than the average for Australia. Some compensation to this disadvantage in its effect on the crude birth rate was provided by the relatively low average age of the married women in these States, and by the large proportion of ex-nuptial births. The relatively low proportion of married women of child-bearing age in Queensland was due to the large number of adult males engaged in localities unsuited to women, a circumstance which accounts for the high masculinity of the population.

In Tasmania the small proportion of married women in the total population arises from conditions directly opposite to those in Queensland. In Tasmania the numbers of the sexes were almost equal. Large numbers of the young adults emigrate to the mainland, leaving a population with abnormally large proportions of very young and very old. Although the proportion of married women of child-bearing age was lower in Tasmania than in Queensland, and the average age was the same in both States, Tasmania had the greater weight in the more productive age-groups-from 15 to 24 years.

Western Australia, though fifth in order of the crude birth rates, takes third place when the rates are computed in relation to women only. This change in position is due to the high masculinity. Notwithstanding that the average age of married women of reproductive ages was higher than in any other State, the uncorrected birthrate for nuptial births per 1,000 married women was higher than in New South Wales, Victoria. or South Australia. The adjustment for age improves the status of Western Australia very considerably, though not sufficiently to alter the sequence of its position.

The crude birth rate placed New South Wales third, but on the adjusted rate per 1,000 married women that State takes fifth place. The high position of New South Wales as determined by the crude birth rates was attained by the large proportion in the population of married women of child-bearing age rather than by their productiveness.

Victoria was the only State with an excess of females in its population, and the proportion to the total population of women aged $15-44$ was the largest among the States, but as the proportiun of these who were married was the lowest, the primary factor in the crude birth rate, viz., the proportion to the total population of married women of reproductive ages was the smallest.

The difference between the adjusted birth rates per 100 married women of child-bearing ages for New South Wales and Victoria was very small, and the proportions of ex-nuptial to all births in these States were almost identical.

Notwithstanding that 12.53 per cent. of the total population consisted of married women of child-bearing age-against an average of 12.20 for Australia--South Australia took fourth place in the order of crude birth rates. The advantage from this high proportion of potentially productive women was to some extent counteracted by their average age being somewhat above the average for Australia. The position was also affected by the very small proportion of ex-nuptial births. The number of nuptial birthe per 100 women of child-bearing age in South Australia, represented 18.71, as against 19.65 for Australia, although the difference is somewhat reduced by the adjusting process which makes the rate for South Australia 18.99 as against the Australian rate of 19.65 .

## BIRTH RATES, AND FACTORS AFFECTING THEM.-AVERAGE OF YEARS 1920, 1921, 1922.

| Subject. | N.S.W. | Vic. | Q'and. | S.A. | W.A. | Tas. | Aus. tralia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Orude birth rate per 1.000 persons | 25.99 | 23.54 | 26.72 | 24.23 | 24.14 | 26.99 | 25.15 |
| Birth rate per 100 women $15-44 \mathrm{incl}$. | 11.04 | 9.79 | 11.83 | 10.25 | 11.05 | 11.91 | 10.74 |
| Birth rate per 100 married women $15-44 \mathrm{incl}$. (a) | 19.39 | 19.29 | 21.26 | 18.71 | 19.62 | 21.83 | 19.65 |
| Birth rate per 100 married women $15-44$ incl. (corrected for age variation) | 19.14 | 19.44 | 20.77 | 18.99 | 20.44 | 21.24 | 19.65 |
| Ex-nuptial births-per cent. on all births .. | 4.82 | 4.84 | 5.00 | 3.28 | 4.02 | 5.11 | 4.69 |
| Ex-nuptial hirths per 100 unmarried women 15-44 incl. | 1.16 | 0.92 | 1.26 | 0.72 | 0.92 | 1.26 | 1.05 |
| Women 15-44 incl.-per cent. all persons | 23.54 | 24.02 | 22.57 | 23.65 | 21.83 | 22.67 | 23.41 |
| A verage age of all women $15-44 \mathrm{incl}$. $\mathrm{O}^{\text {a }}$ | 28.67 | 28.61 | 28.09 | 28.73 | 28.45 | 28.10 | 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 |
| A verage age of married women 15-44 incl. . | 32.34 | 32.74 | 32.16 | 32.67 | 33.02 | 32.16 | 32.48 |

(a) Nuptial births only.

The following figures gives 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 :-

3. Birth Rates of Various Countries.-(i) Crude Rates. A comparison with other countries shows that the 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."

## CRUDE BIRTH RATES (a).-VARIOUS COUNTRIES.

| Country. | Year. | Rate. | Country. | Year. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Russia, European | 1923 | 42.5 | Canada (excluding |  |  |
| Bulgaria | 1921 | 40.7 | Quebec) .. | 1924 | 23.1 |
| Chile | 1923 | 39.4 | Western Australia | 1924 | 23.1 |
| Ceylon | 1923 | 39.1 | United States (b) | 1924 | 22.6 |
| Rumania | 1922 | 37.5 | Austria | 1923 | 22.3 |
| Jamaica | 1922 | 37.3 | Northern Treland | 1924 | 22.2 |
| Quebec (Canada) | 1922 | 35.1 | Victoria | 1924 | 22.0 |
| Jruan . . | 1923 | 34.9 | Denmark | 1924 | 21.9 |
| Spain | 1924. | 29.9 | Scotland | 1924 | 21.9 |
| Italy | 1923 | 29.3 | South Australia | 1924 | 21.9 |
| Czecho-Slovakia | 1923 | 27.3 | Norway | 1924 | 21.7 |
| Union of South Africa |  |  | New Zealand | 1924 | 21.6 |
| (whites) | 1924 | 26.5 | Germany | 1924 | 21.1 |
| Hungary | 1924 | 26.3 | Belgium | 1923 | 20.7 |
| Uruguay | 1923 | 25.4 | Prussia | 1923 | 20.6 |
| Finland | 1923 | 25.4 | Irish Free State | 1924 | 20.1 |
| Tasmania | 1924 | 25.1 | Switzerland | 1923 | 19.4 |
| Netherlands | 1924 | 24.9 | Great Britain | 1924 | 19.3 |
| New South Wales | 1924 | 24.1 | France | 1924 | 19.0 |
| Queensland . | 1924 | 23.9 | England and Wales. . | 1924 | 18.8 |
| Anstralia | 1924 | 23.2 | Sweden | 1924 | 18.1 |
| Ontario (Canada) | 1924 | 23.2 |  |  |  |

[^1](ii) Nuptial Birth Rates at Child-bearing Ages. The wide discrepancies between the orude 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 caloulated per 1,000 women of child-bearing ages, the comparison gives more reliable results. The comparative results given in the following table have been taken from the Annuaire International de Statistique, and are based on ages 15 to 49 years. Australia with a rate of 198 being, again, midway between maximum and minimum:-

NUPTIAL BIRTH RATES PER 1,000 MARRIED WOMEN AGED 15 T0 49 YEARS.VARIOUS COUNTRIES.

| Country. | Period. | Rate. | Country. | Period. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Bulgaria | 1910-11 | 280 | Australia . | 1906-15 | 198 |
| Ireland | 1909-12 | 250 | Hungary | 1906-15 | 198 |
| Netherlands | 1905-14 | 233 | Germany | 1907-14 | 196 |
| Finland | 1908-15 | 230 | Sweden | 1903-13 | 196 |
| Italy | 1907-14 | 226 | Denmark | 1906-15 | 191 |
| Norway | 1907-14 | 224 | New Zealand | 1906-15 | 188 |
| Austria | 1908-13 | 219 | Switzerland | 1906-15 | 184 |
| Spain | 1906-15 | 218 | England and Wales. | 1906-15 | 171 |
| Prussia | 1907-14 | 204 | Belgium | 1908-13 | 161 |
| Scotland | 1906-15 | 202 | France | 1910-11 | 114 |

4. Masculinity of Births.--(i) General. The masculinity of births, i.e., the excess of males over females per 100 births registered, during the last five years varied from 0.32 in Tasmania in 1924 to 4.66 in Queensland in 1921. On account of the smallness of the numbers, the returns from the Northern Territory and the Federal Capital Territory have not been taken into consideration. The following table, which gives the values for the States and Australia for 1920 to 1924, shows that for Australia the masculinity of births has fallen each year since 1920.

MASCULINITY(a) OF BIRTHS REGISTERED, 1920 TO 1924.

(a) Excess of males over females per 100 total births.

Notr.-The minus sign ( - ) denotes an excess of females over males per 100 total births.
(ii) Masculinity of Ex-nuptial Births. The masoulinity of ex-nuptial births was as follows :-

MASCULINITY (a) OF EX-NUPTIAL. BIRTHS, 1920 TO 1924.

(a) Excess of males over females per 100 total births.

Notr. -The minus sign ( - ) denotes an excess of females over males per 100 total births.

Although the general tendency of the change in the sex composition of the ex-nuptial births has been the same as in the total births, the results in the smaller States do not show the same consistency in the former as in the latter. This is due, no doubt, to the relatively small numbers involved.
(iii) Masculinity of Nuptial and Ex-nuptial Births, Various Countries.-There is ordinarily a very small difference between the masculinity of nuptial and ex-nuptial births. Thus, according to the following table, for the period about 1906 to 1913 , the masculinity in various countries ranged from 4.63 to 1.91 , and from 5.90 to 0.06 for nuptial and ex-nuptial births respectively.

$$
\text { C. } 2990 .-30
$$

MASCULINITY OF BIRTHS.-VARIOUS COUNTRIES.

(a) Excess of males over females per 100 total births.
5. Ex-nuptial Births.-(i) General. The number of ex-nuptial births reached ite 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 1920-24 it was only 6,350 , a decline of 11.4 per cent., whereas the annual average total births for the same period increased by 5.3 per cent.

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.

EX-NUPTIAL BIRTHS, 1920 TO 1924.

(ii) Rate of Ex-nuptiality, 1920 to 1924. The rate of ex-nuptiality, i.e., the percentage of ex-nuptial on total births fell steadily from 4.84 in 1920 to 4.62 in 1924 . On the basis of the figures given in the preceding sub-section the ex-nuptial rate fell from 5.55 per cent. of all births during the years 1910-14 to 4.67 per cent. for the years 1920-24.

PERCENTAGE OF EX-NUPTIAL ON TOTAL BIRTHS, 1920 TO 1924.

| Year. | N.S.W. | Vic. | Q'land. | S. Aust. | W. Aust. | Tas. | Northern Territory, | Federal Capital Territory. | Australla. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 | 4.79 | \% 5.25 | $\begin{gathered} \% \\ 5.10 \end{gathered}$ | $\%$ 3.74 | 3. ${ }^{\%} 89$ | $\begin{gathered} \% \\ 5.28 \end{gathered}$ | $\begin{gathered} \% \\ 23.81 \end{gathered}$ | \% | \% 4.84 |
| 1921 | 4.83 | 4.85 | 5.22 | 3.15 | 4.03 | 5.53 | 32.91 |  | 4.75 |
| 1922 | 4.83 | 4.41 | 4.66 | 2.97 | 4.14 | 4.56 | 24.29 |  | 4.49 |
| 1923 | 4.95 | 4.45 | 5.40 | 3.08 | 3.63 | 4.44 | 40.28 | 5.26 | 4.64 |
| 1924 | 4.82 | 4.62 | 5.34 | 3.06 | 3.94 | 4.24 | 22.81 | 2.44 | 4.62 |

A comparison of greater significance 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 calculation has been made for Australia for the last five Census periods for which the information is available, and covers in each case the Census year, together with the year immediately preceding and the year immediately following. 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 $1910-12,12.53$; years $1920-22,10.50$. The comparative results given in the following table have been taken from the Annuaire International de Statistique, Vols. II.."and V., and are based on ages 15 to 49 years:-

EX-NUPTIAL BIRTHS PER 1,000 UNMARRIED WOMEN AOED 15 TO 49 YEARS.VARIOUS COUNTRIES.

| Country. |  | ; Period. | Iate. | Country. | Period. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Hungary | - | 1906-15 | 38 | Norway | 1907-14 | 13 |
| Austria |  | 1908-13 | 30 | Scotland | 1906-15 | 13 |
| Sweden | . | 1908-13 | 26 | Australia | 1906-15 | 12 |
| Denmark | . | 1906-15 | 24 | Belgium | 1908-13 | 12 |
| Germany | . | 1907-14 | 23 | New Zealand | 1906-15 | 9 |
| Prussia |  | 1907-14 | 21 | Switzerland | 1906-15 | 8 |
| Finland | . | 1906-15 | 17 | England and Wales | 1906-15 | 7 |
| France |  | 1901-11 | 16 | Netherlands | 1905-14 | 5 |
| Italy | $\cdots$ | 1907-14 | 14 | Ireland | 1909-12 | 4 |
| Spain | . | 1906-15 | 14 | Bulgaria | 1910-11 | 4 |

(iii) Comparison of Rates. The following table has been prepared to show the relative movements of the ex-nuptial and the nuptial births in relation to the total population:-

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a).—AUSTRALIA, 1920 TO 1924.

| Rates. |  |  | 1920. | 1921. | 1922. | 1923. | 1924. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ex-nuptial | . |  | 1.24 | 1.18 | 1.11 | 1.10 | 1.07 |
| Nuptial | $\cdots$ |  | 24.50 | 23.77 | 23.58 | 22.67 | 22.17 |
| Total | . |  | 25.74 | 24.95 | 24.69 | 23.77 | 23.24 |

(a) Number of births per 1,000 of mean population.
6. Multipie Births.-Among the total number of 134,927 births registered in Australia in 1924, there were 132,234 single births, 2,658 twins, and 35 triplets. The number of cases of twins was 1,337 , there being 16 stillbirths, and there were 12 cases of triplets, one child being stillborn. The total number of mothers was, therefore, 133,583, the proportion of mothers of twins being one in every 100 , and of mothers of triplets one in every 11,132 of total mothers. The proportion of multiple births is fairly constant over an extended period.

MULTIPLE BIRTHS.-AUSTRALIA, 1920 T0 1924.

|  | Year. |  | Cases of Twins. | Cabes of Triplets. | Percentage of Cases of Multiple Births on total Mothers. | Number of Mothers to each Mnltiple Birth |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 |  | . | 1,521 | 16 | 1.13 | 88 |
| 1921 |  | . | 1,453 | 12 | 1.09 | 92 |
| 1922 |  |  | 1,432 | 12 | 1.06 | 94 |
| 1923 |  | . | 1,394 | 6 | 1.04 | 96 |
| 1924 |  | - | 1,337 | 12 | 1.01 | 99 |

7. Ages of Parents.-(i) Single Births. The relative ages of the parents of ohildren registered in 1924 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shown for single ages and for every State in "Australian Demography," No. 42, published by this Bureau. In the present work the exigencies of space allow only the insertion of corresponding tables showing the relative ages of parents in groups of five years. The largest number of fathers in the case of single births is found at ages 30 to 34 , and of mothers at ages 25 to 29 . When, however, the ages of both parents are considered together, the largest number of single births occurred where both father and mother were between 25 and 29.

AGES OF PARENTS IN CASES OF SINGLE BIRTHS.-AUSTRALIA, 1924.

(ii) Twins. The ages of parents of twins in 1924 are given hereunder :-

AOES OF PARENTS OF TWINS.—AUSTRALIA, 1924.

(iii) Triplets. Particulars regarding the ages of parents in oases of triplets are given in the next table:-

AGES OF PARENTS OF TRIPLETS.-AUSTRALIA, 1924.

(a) Excluding 1 female triplet stillborn.
(iv) Influence on Masculinity. Valid deductions cannot, of course, be drawn from one year's figures as to variations in the masculinity of the births at different ages of the parents, but so far as the figures go the following conclusions are indicated :-In cases where the father is older than the mother the masculinity has a tendency to be above the average, while in cases where both parents belong to the same age group, or where the father is younger than the mother, the masculinity is rather below the average. It is also below the average in cases where the father, or both father and mother are under 25 ; and it is above the average where the mother alone is under 25.
8. Birthplaces of Parents.-The relative birthplaces of the parents of children whose births were registered during the year 1924 will be found tabulated in the Bulletin of "Australian Demography," published by this Bureau. A summary of the results of the tabulation is given hereunder.

BIRTHPLACES OF PARENTS.-AUSTRALIA, 1924.

| Pirthplaces, | PARENTS.-AUSTRALIA, 1924. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Fathers. |  |  | Mothers of Nuptial Children. |  |  | Mothers of Exnuptial Children. |  |
|  | Single Births. | Twins. | $\begin{array}{\|l\|} \text { Trip- } \\ \text { lets. } \end{array}$ | Single Births. | Twins. | $\begin{aligned} & \text { Trip- } \\ & \text { lets. } \end{aligned}$ | Single Births. | Twins. |
| AUSTRALASLA- |  |  |  |  |  |  |  |  |
| New South Wales | 41,294 | 399 | 6 | 42,917 | 404 | 4 | 2,334 | $1]$ |
| Victoria | 32,629 | 343 | 2 | 32,360 | 352 | 3 | 1,463 | 11 |
| Queensland .. | 13,417 | 135 | 1 | 15,146 | 150 |  | 901 | 12 |
| South Australiz | 11,169 | 112 | 2 | 10,689 | 110 | 2 | 353 | 1 |
| Western Australia | 2,681 | 27 |  | . 3,527 | 31 |  | 259 | 2 |
| Tasmania .. | 5,642 | 63 | 1 | 5,519 | 67 | 1 | 323 | $\underline{2}$ |
| Northern Territory . . | - 25 | . | . | 43 | . | . | 15 | $\ldots$ |
| Federal Capital Territory | 3 | . | . | 5 |  |  |  | . |
| Papua ... . | 2 | $\cdots$ | . . | 1 |  |  | 1 | $\cdots$ |
| Territory of New Guinea | 2 |  | . | 1 |  | . |  |  |
| New Zealand . . . . | 1,009 | 12 | $\cdots$ | 710 | 7 | . | 45 |  |

BIRTHPLACES OF PAREN'CS.—AUSTRALIA, 1924-conbinued.

9. Occupations of Fathers.-(i) Year 1924. A summary of the occupations of the fathers of all nuptial children whose births were registered in 1924 is given in the following table:-

OCCUPATIONS OF FATHERS OF NUPTIAL CHILDREN.-AUSTRALIA, 1924.


OCOUPATIONS OF FATHERS OF NUPTIAL CHILDREN.-AUSTRALIA, 1924
-continued.

Class V.-Industrial
Books and Publications
Musical Instruments . Prints, Pictures and Art Materials Ornaments and Small Wares .. Equipment for Sports and Games Medals, Type, and Dies Watches, Clocks, and Scientific Instruments Surgical Instruments . . 15

Arms and Ammunition
Engines, Machines, Tools, and Implements

Carriages and Vehicles $\quad$.
Harness, Saddlery \& Leatherware
$\begin{array}{lll}\text { Ships, Boats, etc. } \\ \text { Furniture . . . } & \end{array}$
Building Materials ...
Chemicals and By-products
Textile Fabrics
Dress

Fibrous Materials .. ..
Animal Food
Vegetable Food
Groceries, Drinks, Narcotics, and Stimulants
Animal Matter n.e.i. .. ..
Workers in Wood n.e.i.
Vegetable Produce for Fodder .

## Paper

Stone, Clay, Glass, etc.
Jewellery and Precious Stones . .
Metals, other than Gold \& Silver
Gas, Electric Lighting, etc.
Building-
Builders
..
Stonemasons . . ..

Bricklayers $\quad . \quad$.
$\begin{array}{ll}\text { Slaters .. } \\ \text { Carpenters } & \text {.. }\end{array}$

| Plasterers | . |  |
| :--- | :--- | :--- |
| Painters | . |  |

Plumbers .. .

Signwriters .. ..
Others ..

|  | Occupations. | $\begin{aligned} & \text { Number } \\ & \text { of } \\ & \text { Fathers. } \end{aligned}$ |
| :---: | :---: | :---: |
|  | Class V.-Industrial-cont. |  |
| 858 | Roads, Railways, Earthworks | 278 |
| 70 | Disposal of the Dead.. | 39 |
| 63 | Disposal of Refuse . . . | 146 |
| 129 | Other Industrial Workers- |  |
| 7 | Manufacturers, etc. | 791 |
| 22 | Engineers, Firemen | 3,088 |
|  | Contractors .. | 1,259 |
| 102 | Labourers, undefined | 23,744 |
| 15 | Others .. | 337 |
|  | Total Industrial | 53,899 |
| 1,671 |  |  |
| 346 |  |  |
| 140 |  |  |
| 799 |  |  |
| 1,106 |  |  |
| 47 | Class VI.-Agrioultural, |  |
| 281 | Pastoral, Mining, Eto. |  |
| 1,853 |  |  |
| 35 | Agricultural | 22,045 |
| 332 | Pastoral . . | 3,534 |
| 1,525 | Dairy Farming ... . | 932 |
|  | Bees, Fisheries, and Wild Animals | 426 |
| 302 | Forestry .. .. .. | 747 |
| 286 | Water Conservation and Supply | 103 |
| 189 | Mines and Quarries .. .. | 3,259 |
| 25 | Total Primary Producers | 31,046 |
| 224 |  |  |
| 2,804 |  |  |
| 1,207 |  |  |
| 792 | Class VII.-Indepinitr. |  |
| 151 |  |  |
| 685 | Independent Means, having no |  |
| 84 | specified occupation | 173 |
| 3,294 | Occupation not stated .. | 40 |
| 1,175 | Total Indefinite | 213 |
| 836 |  |  |
| 68 12 |  |  |
| 12 | 'Total all Occupations .. | 127,391 |

(ii) Summary, 1920 to 1924. The next table gives a summary in classes of the occupations of fathers of nuptial children in each of the last five years, with the percentage of each class on the total number of fathers. In 1924, 42.31 per cent. of fathers were of the industrial class, and 24.37 per cent. were of the agricultural, pastoral, mining, etc., class.

OCCUPATIONS OP FATHERS OF NUPTIAL CHILDREN.-AUSTRALIA, 1920 TO 1924.

10. Mother's Age, Duration of Marriage, and Issue.-(i) General. A tabulation has been made showing, in age-groups, the duration of marriage and issue of mothers. The total number of nuptial confinements in 1924 was 127,391 , but in 25 cases the necessary information was lacking, and the following series of tables refers, therefore, to 127,366 nuptial confinements, viz., 126,059 single births, 1,295 cases of twins, and 12 cases of triplets. 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. The complete tabulations are shown in "Australian Demography," No. 42.
(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 31 and 32 years, and that the average family increased fairly regularly with the duration of marriage. - The average number of children of all marriages was 3.08, the corresponding figures for 1923 being 3.08 ; for $1922,3.10$; for $1921,3.08$ :. and for $1920,3.11$.
DURATION OF MARRIAGE AND ISSUE OF MOTHERS.-AUSTRALIA, 1924.

|  | Total Mothers. | Total Issue. | Average Number of Children. | Duration <br> Marriage. | Total Mothers. | Total Issue. | Average Number o Children |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Years. |  |  |  | Years. |  |  |  |
| 0 | 19,241 | 19,485 | 1.01 | -18 | 1,647 | 11,681 | 7.09 |
| 1-2 | 12,910 | 15,763 | 1.22 | 18-19 | 1,360 | 10,259 | 7.54 |
| 2-3 | 12,297 | 22,258 | 1.81 | 19-20 | 1,073 | 8,481 | 7.90 |
| 3-4 | 12,054 | 25,577 | 2.12 | 20-21 | 833 | 6,854 | 8.23 |
| 4-5 | 10,922 | 27.313 | 2.50 | 21-22 | 607 | 5,199 | 8.57 |
| 5-6 | 8,269 | 23,578 | 2.85 | 22-23 | 487 | 4,371 | 8.98 |
| 6-7 | 6,199 | 19,675 | 3.17 | 23-24 | 366 | 3,369 | 9.20 |
| 7-8 | 5,506 | 19,159 | 3.48 | 24-25 | 250 | 2,451 | 9.80 |
| 8-9 | 5,434 | 20,543 | 3.78 | 25-26 | 133 | 1,295 | 9.74 |
| 9-10 | 5,107 | 21,242 | 4.16 | 26-27 | 72 | 747 | 10.38 |
| 10-11 | 4,866 | 22,028 | 4.53 | 27-28 | 45 | 462 | 10.27 |
| 11-12 | 4,023 | 19,631 | 4.88 | 28-29 | 21 | 238 | 11.33 |
| 12-13 | 3,643 | 19,021 | 5.22 | 29-30 | 13 | 148 | 11.38 |
| 13-14 | 3,139 | 17,520 | 5.58 | 30-31 | 4 | 40 | 10.00 |
| 14-15 | 2,706 | 16,158 | 5.97 | 31-32 | - 1 | 16 | 16.00 |
| 15-16 | 2,223 | 14,254 | 6.40 |  |  |  |  |
| 16-17 | 1,910 | 12,984 | 6.80 | Total | 127,366 | 391,800 | 3.08 |

(iii) Ages of Mothers and Issuc. The ages of mothers, issue, and average family are given in the attached table, which shows that the average family increased fairly regularly to a maximum of 7.69 children in the age-group 45 years and over, and that the greatest number of mothers occurs in the group 25 to 29 years.
ages and issue of mothers.-AUSTRALIA, 1924.

| Ages of Mothers. | $\begin{gathered} \text { Total } \\ \text { Mothers. } \end{gathered}$ | Total Jssue. | $\begin{gathered} \text { Average } \\ \text { Number } \\ \text { of } \\ \text { Children. } \end{gathered}$ | Ages of Mothers. | Total Mothers. | Total Issue. | $\begin{aligned} & \text { Average } \\ & \text { Number } \\ & \text { of } \\ & \text { of }{ }^{2 l d r e n .} \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 20 years | 5,273 | 6,274 | 1.19 | 40-44 years . . | 6,581 | 41,528 | 6.31 |
| 20-24 years .. | 28,424 | 49,277 | 1.73 | 45 yrs. and over | 578 | 4,443 | 7.69 |
| 25-29 " | 36,923 | 90,974 | 2.46 |  |  |  |  |
| 30-34 | 30,526 | 106,992 | 3.50 |  |  |  |  |
| 35-39 , | 19,061 | 92,312 | 4.84 | Àil ages | 127,300 | 391,800 | 3.08 |

(iv) Previous Issue of Mothers, Various Ages. The previous issue, according to the age of the mother, is given in the following table. One mother aged between 40 and 44 years had 19 children prior to her latest confinement:-

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES.-AUSTRALIA, 1924.

| Previons issue. | Mothers' Ages. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 20 Years. | $\begin{aligned} & 20-24 \\ & \text { Years. } \end{aligned}$ | $\begin{aligned} & 25-29 \\ & \text { Years. } \end{aligned}$ | $\begin{aligned} & 30-34 \\ & \text { Years. } \end{aligned}$ | $\begin{aligned} & 35-30 \\ & \text { Years. } \end{aligned}$ | $40-44$ Years. | 45 Years and Over. | Total. |
| 0 | 4,388 | 14,401 | 10,946 | 4,888 | 1,804 | 386 | 27 | 36,840 |
| 1 | 801 | 8,933 | 10,836 | 6,555 | 2,324 | 459 | 20 | 29,928 |
| 2 | 80 | 3,799 | 7,637 | 5,962 | 2,676 | 546 | 22 | 20,722 |
| 3 | 4 | 1,063 | 4,205 | 4,543 | 2,654 | 698 | 39 | 13,206 |
| 4 | . . | 192 | 2,057 | 3,483 | 2,490 | 713 | 46 | 8,981 |
| 5 |  | 32 | 844 | 2,457 | 2,071 | 757 | 59 | 6,220 |
| 6 | . | 4 | 295 | 1,445 | 1,835 | 694 | 64 | 4,337 |
| 7 | - | . . | 76 | 739 | 1,310 | 664 | 58 | 2,847 |
| 8 | . | . | 19 | 286 | 960 | 544 | 66 | 1,875 |
| 9 |  | . | 8 | 108 | 500 | 454 | 50 | 1,120 |
| 10 | $\cdots$ | . . | . . | 34 | 248 | 293 | 57 | 632 |
| 11 | . | $\cdots$ | $\cdots$ | 15 | 122 | 189 | 27 | 353 |
| 12 | . | $\cdots$ | . | 6 | 39 | 105 | 18 | 168 |
| 13 | . | . | . | 5 | 20 | 54 | 12 | 91 |
| 14 | $\cdots$ | . . | $\ldots$ | . . | 4 | 12 | 6 | 22 |
| 15 | . | . | . | . | 3 | 8 | 3 | 14 |
| 16 | $\cdots$ | . | . | . | 1 | 2 | 3 | 6 |
| 17 | . |  |  | $\ldots$ |  | 2 | 1 | 3 |
| 19 |  |  | . | . |  | 1 | . . | 1 |
| Total |  |  |  |  |  |  |  |  |
| Mothers | 5,273 | 28,424 | 36,923 | 30,526 | 19,061 | 6,581 | 578 | 127,366 |

(v) Previous Issue of Mothers of Twins and Triplets. Figures regarding the previous issue of mothers of twins and triplets show that 316 mothers had twins at their first confinement ; 262 at their second; 241 at their third; 134 at their fourth; 112 at their
fifth; 76 et their sixth; 52 at their seventh; 48 at their eighth; 27 at their ninth; 9 at their tenth; 11 at their eleventh; 4 at their twelfth; 2 at their thirteenth; and 1 at her fourteenth.

Of the 12 cases of triplets registered during 1924,3 were first confinements, 1 second, 4 fourth, 2 fifth, 1 sixth, and 1 fourteenth.
11. Interval between Marriage and First Birth.-(i) Interval and Sex of Children. The following table shows the interval between marriage and first birth, distinguishing the sexes of the children. Twins and triplets are included, the eldest born only being enumerated:-

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH.-AUSTRALIA, 1924.

| Interval. |  |  | Number of First Children. |  |  | Interval. |  |  | Number of First Children. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Males. | Females. | Total. |  |  |  | Males. | Females. | Total. |
| Un | der 1 mo |  | 169 | 174 | 343 |  | ears |  | 1,653 | 1,501 | 3,154 |
| 1 | month | . | 244 | 222 | 466 | 3 |  |  | 903 | 874 | 1,777 |
| 2 | months |  | 334 | 303 | 637 | 4 |  |  | 464 | 496 | 960 |
| 3 | " |  | 464 | 457 | 921 | 5 | " |  | 239 | 226 | 465 |
| 4 | ," | . | 602 | 550 | 1,152 | 6 | ," |  | 145 | 135 | 280 |
| 5 | " | . | 874 | 849 | 1,723 |  | ", |  | 98 | 124 | 222 |
| 6 | .. | . | 1,099 | 1,069 | 2,168 | 8 | " |  | 82 | 75 | 157 |
| 7 | ., | . | 1,130 | 1,016 | 2,146 | 9 | " |  | 59 | 56 | 115 |
| 8 | , |  | 743 | 662 | 1,405 | 10 | - |  | 43 | 40 | 83 |
| 9 | , |  | 1.557 | 1,463 | 3,020 | 11 | " |  | 34 | 36 | 70 |
| 10 | ," | $\cdots$ | 1,621 | 1,496 | 3,117 | 12 | " | $\cdots$ | 30 | 27 | 67 |
| 11 | " |  | 1,060 | 1,027 | 2,087 | 13 | ,, |  | 16 | 19 | 35 |
| 12 | , |  | 1,072 | 995 | 2,067 |  | ", | $\cdots$ | 9 | 7 | 16 |
| 13 | " | . | 619 | 656 | 1,275 | 15 | " |  | 5 | 6 | 11 |
| 14 | , | . | 567 | 513 | 1,080 | 16 | " |  | 9 | 5 | 14 |
| 15 | , | . | 489 | 484 | 973 |  | , | . | 4 | 8 | 12 |
| 16 | ", |  | 425 | 455 | 880 |  | ", | . | 2 | 2 | 4 |
| 17 | , | . | 395 | 347 | 742 |  | ", |  | 2 | 2 | 4 |
| 18 | ," | . | 337 | 356 | 693 |  | ", | . | 3 | 6 | 9 |
| 19 | , | . | 295 | 323 | 618 |  | , |  | 1 | 1 | 2 |
| 20 | -" | . | 312 | 258 | 570 |  | ", | . |  | 1 | 1 |
| 21 | , | . | 237 | 238 | 475 |  | " |  |  | 1 | 1 |
| 22 | , |  | 215 | 222 | 437 |  |  |  |  |  |  |
| 23 | , | . | 193 | 203 | 396 |  | tal | . | 18,854 | 17,986 | 36,840 |

The masculinity of first births was 2.36 as compared with 1.98 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 the ages of mothers in the casea 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 about 2 to 3. At all ages up to and including 2l, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births is necessarily included among the births which occurred less than nine months after marriage, but information in connexion therewith is not available.
ages of mothers and interval between marriage and first BIRTH, ETC.-AUSTRALIA, 1924.

12. Interval between Birth and Registration of Birth.-Information was obtained for the years 1911 to 1921 regarding the period 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 35 per cent. were registered in the first week.

Since the granting of the maternity allowanae the weighted average interval between the dates of birth and registration has been found to be about 13 days both for noptial and ex-nuptial children.

## § 2. Marriages.

1. Marriages, 1920 to 1924.-The number of marriages registered in Australia during 1924 was 45,869 , giving a rate of 7.90 per 1,000 of the mean population for the year. The number of marriages in each State for the years 1920 to 1924 is given here-under:-

MARRIAGES, 1920 TO 1924.

| Year. | N.s.w. | Victoria. | Q'Iand. | S. Aust. | W. Aust. | Tas. | North. Terr. | Fed. Cap. Terr. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 | 20,154 | 14,898 | 6,667 | 4,881 | 2,932 | 1,999 | 17 | 4 | 51,552 |
| 1921 | 18,506 | 13,676 | 5,963 | 4,383 | 2,656 | 1,668 | 15 | 2 | 46,869 |
| 1922 | 17,580 | 12,996 | 5,878 | 4,144 | 2,446 | 1,674 | 13 |  | 44,731 |
| 1923 | 17,523 | 13,126 | 5,814 | 4,099 | 2,376 | 1,592 | 7 | 4 | 44,541 |
| 1924 | 18,072 | 13,296 | 6,234 | 4,121 | 2,596 | 1,529 | 17 | 4 | 45,869 |

2. Marriage Rates, 1920 to 1924.-The number of marriages registered per thousand of mean population is given in the following table for the same period :-

CRUDE MARRIAGE RATES ( $a$ ), 1920 T0 1924.

| Year. | N.S.W. | Victoria. | Q'land. | S. Aust. | W. Aust. | Tas. | North. Terr. | Fed. Cap. | Australia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 | 9.75 | 9.85 | 8.94 | 10.03 | 8.88 | 9.50 | 4.04 | 1.84 | 9.62 |
| 1921 | 8.78 | 8.90 | 7.82 | 8.82 | 7.96 | 7.82 | 3.84 | 0.81 | 8.59 |
| 1922 | 8.18 | 8.27 | 7.52 | 8.19 | 7.20 | 7.79 | 3.56 |  | 8.03 |
| 1923 | 8.00 | 8.16 | 7.24 | 7.29 | 6.82 | 7.39 | 1.94 | 1.21 | 7.83 |
| 1924 .. | 8.11 | 8.10 | 7.55 | 7.78 | 7.22 | 7.12 | 4.72 | 1.04 | 7.90 |

(a) Number of marriages (not persons married) 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 available. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follows:-Years 1880-82, 48.98; years $1890-92,45.74$; уеагя $1900-02,42.14$; уears $1910-12,50.44$; years 1920-22, 56.02. These rates refer, of course, to persons married and not to marriages, as is the case in the preceding table.
3. Marriage Rates in Various Countries.-The following table shows the marriage rate for Australia in comparison with various other countries:-

## CRUDE MARRIAGE RATES.-VARIOUS COUNTRIES.

| Country. | Year. | Crude <br> Marriage Rate. | Country. | Year. | Crude Marriage Rate. Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Russia (European) | 1923 | 12.8 | England and Wales. | 1924 | 7.7 |
| Belgium | 1923 | 10.5 | Queonsland | 1924 | 7.6 |
| United States | 1922 | 10.3 | -Great Britain | 1924 | 7.5 |
| Rumania | 1922 | 10.1 | Spain | 1924 | 7.3 |
| Prussia | 1923 | 9.4 | Finland | 1923 | 7.3 |
| Czecho-Slovakia | 1923 | 9.3 | Westorn Australia | 1924 | 7.2 |
| Hungary | 1924 | 9.0 | Germany | 1924 | 7.1 |
| France | 1924 | 9.0 | Tasmania | 1924 | 7.1 |
| Netherlands | 1924 | 9.0 | Canada (excluding |  |  |
| Japan | 1923 | 8.8 | Quebec) .. | 1924 | 7.0 |
| Austria | 1923 | 8.6 | Chile | 1923 | 6.7 |
| Italy | 1923 | 8.4 | Scotland | 1924 | 6.6 |
| Victoria | 1024 | 8.1 | Quebec (Canada) | 1922 | 6.5 |
| New South Wales | 1924 | 8.1 | Sweden | 1924 | 6.2 |
| Denmark | 1924 | 8.0 | Norway | 1924 | 6.0 |
| New Zealand | 1924 | 7.9 | Northern Ireland | 1924 | 5.8 |
| South African Union | 1924 | 7.9 | Ceylon | 1923 | 5.4 |
| Australia | 1924 | 7.9 | Uruguay | 1923 | 5.3 |
| Ontario (Canada) | 1924 | 7.9 | Irish Free State | 1923 | 4.9 |
| South Australia | 1924 | 7.8 | Jamaica | 1923 | 3.8 |
| Switzerland . . | 1923 | 7.7 |  |  |  |

4. Age and Conjugal Condition at Marriage.-(i) General. The ages at marriage of bridegrooms and brides will be found in "Australian Demography," Bulletin No. 42. A summary in age groups is given in the table hereunder, which also shows the previous conjugal condition of the contracting parties. There were 2,227 males who were lese than twenty-one years of age married during 1924, while the corresponding number of females was 9,714 . At the other extreme there were 49 men of sixty-five years and upwards, who described themselves as bachelors, and 14 spinsters of corresponding age.
ages and conjugal condition of persons married,-australia, 1924.

| Age at Marriage. | Bridegrooms. |  |  |  | Brides. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bachelors. | Widowers. | Divorced. | Total. | Spinsters. | Widows. | Divorced. | Total. |
| Under 20.. | 1,098 |  |  | 1,098 | 6,783 | 3 | 2 | 6,788 |
| 20-24 years | 14,281 | 19 | 5 | 14,305 | 19,065 | 71 | 44 | 19,180 |
| 25-29 | 14,422 | 164 | 54 | 14,640 | 10,448 | 273 | 151 | 10,872 |
| 30-34 | 7,095 | 368 | 150 | 7,613 | 3,833 | 479 | 214 | 4,526 |
| 35-39 " | 3,118 | 498 | 192 | 3,808 | 1,592 | 462 | 182 | 2,236 |
| 40-44 " | 1,200 | 459 | 117 | 1,776 | 541 | 389 | 97 | 1,027 |
| 45-49 | 595 | 380 | 80 | 1,055 | 289 | 270 | 34 | 593 |
| 50-54 " | 280 | 321 | 45 | 646 | 114 | 177 | 20 | 311 |
| 55-59 " | 124 | 264 | 20 | 408 | 42 | 110 | 4 | 156 |
| 60-64 " | 60 | 183 | 8 | 251 | 25 | 62 | 4 | 91 |
| 65 years and over | 49 | 215 | 4 | 268 | 14 | 73 | 1 | 88 |
| Unspecified | 1 |  |  | 1 | 1 |  |  | 1 |
| Total | 42,323 | 2,871 | 675 | 45,869 | 42,747 | 2.369 | 753 | 45,869 |

(ii) Relative Ages, Bridegrooms and Brides. The relative ages of bridegrooms and brides are shown for single years in "Australian Demography," Bulletin No. 42; a condensation into age-groups of five years is given below :-

RELATIVE AGES OF PERSONS MARRIED.-AUSTRALIA, 1924.

(iii) Average Ages, Bridegrooms and Brides. The age at marriage of brides has remained fairly stationary during recent years at an average of about 26 years. The figures for the five years are :-1920, 26.11 years; 1921, 26.16 years; 1922, 26.14 years; 1923, 25.61 years; and 1924, 25.46 years. 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 25.90 years for the five years $1920-1924$. The average age of bridegrooms in 1920 was 29.55 years; in 1921, 29.74 years; in 1922, 29.65 years; in $1923,29.12$ years; and in 1924.28 .99 years. It follows, therefore, that brides are generally speaking rather less than three and one-half years younger than bridegrooms.
5. Previous Conjugal Condition.-The number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1924 has already been given. The following table shows the conjugal condition of the contracting parties :-

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED.-AUSTRALIA, 1924.

| Conjugal Condition. | Total Bridegrooms. | Brides. |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Spinsters. | Widows. | Divorced. |
| - Bachelors | 42,323 | 40,357 | 1,424 | 542 |
| Bridegrooms $\{$ Widowers | 2,871 | 1,907 | 839 | 125 |
| Bridegroms $\left\{\begin{array}{l}\text { Divorced }\end{array}\right.$ | 675 | 483 | 106 | 86 |
| Total Brides | 45,869 | 42,747 | 2,369 | 753 |

6. Birthplaces of Persons Married.-The following table shows the birthplaces of "persons who were married in 1924. In "Australian Demography," Bulletin No. 42, the relative birthplaces of bridegrooms and brides will be found tabulated in full detail.

BIRTHPLACES OF PERSONS MARRIED.-AUSTRALIA, 1924.

| Birthplaces. | $\begin{aligned} & \text { Bride- } \\ & \text { grooms. } \end{aligned}$ | Brides. | Rirthplaces. | Bridegrooms. | Bridee. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| - |  | - | - -- |  | - |
| AUSTRALASIA - |  |  | ASIA - |  |  |
| New South Wales 14,591 15,570 |  |  | $\begin{array}{cc:c}\text { British India and } \\ \text { Coylon } & . . & 44\end{array}$ |  |  |
| Victoria | 12,091 | 12,365 |  |  | '20' |
| Queensland | 5,002. | 5,398 | Other British Posses- |  |  |
| South Australia | 3,902 | 3,957 | $\begin{array}{ll}\text { sions in Asia } \\ \text { China } & . . \\ \end{array}$ | 6 | 3 |
| Western Australia | 1,348 | 1,708 |  | 20 | 4 |
| Tasmania | 1,822 | 1,892 | Syria <br> Other Countries in Asia .. | 18 | 18 |
| Northern Territory .. | 16 | 18 |  |  |  |
| Territory of New |  |  |  | 20 | 10 |
| Guinea . . | $36$ | $\stackrel{2}{316}$ |  | 108 | 55 |
|  |  |  | AFRICA- |  |  |
|  | 39,136 | 41,226 |  |  | 56 |
|  |  | -. | Union of South Africa | 59 |  |
| EUROPE- |  |  | sessions in Africa | 4 |  |
|  |  |  | Other African Coun- <br> tries | 7 | 6 |
| England | 3,993 | 2,999 |  | 70 | 62 |
| Wales | 133 |  |  |  |  |
| Scotland .. | 1,031 | 798 | AMERICA- | 36 | 13 |
| Ireland .. ... | 456 | 253 |  |  |  |
| Other British Possessions in Europe .. | 37 | 15 | Canada <br> Other British Possessions in America |  |  |
| Belgium .. | 4 | 3 |  | 1 | 30 |
| Denmark .. | 53 | - | United States Other American | 84 |  |
| Finland | 12 | 1 |  |  |  |
| France | 24 | 17 | $\underset{\text { Countries American }}{\underset{\text { Other }}{\text { A. }}}$ | 12 | 15 |
| Germany .. | 121 | 47 |  | 133 | 58 |
| Greece | 83 147 | 90 | POLYNESIA-- |  | 4 |
| Netherlands | 26 | 4 | Fiji | 17 |  |
| Norway | 33 | 8 | - Other British Possessions in Poly. |  |  |
| Poland | 12 | 5 |  |  |  |
| Russia | 60 | 14 | nesia .. |  |  |
| Spain | 11 | 6 |  | 3 |  |
| Sweden - | 56 | 3 | Other Polynesian Is- <br> lands.. | 15 | 11 |
| Switzerland <br> Other Countries Europe .. | 23 | 7 |  | 35 | 15 |
|  | 43 | 20 | At Sea Unspecified. <br> Total | 12 | 929 |
|  | 6,358 | 4,422 |  | 17 |  |
|  |  |  |  | 45,869 | 45,869 |

7. Occupations and Ages of Bridegrooms.-A tabulation has been made of the occupations and ages of all males married in Australia, and the results for 1924 are pub. lished in detail in "Australian Domography," Bulletin No. 42. An abridgment of this tabulation is given below. The average ages of the persons falling under the twentyeight subdivisions were determined, and it appoars 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 ranges from 26.95 years for those engaged in the preparation of animal and vegetable foodstuffs to 31.91 years in the class engaged in pastoral pursuits. On the experience of 1924 the average age at marriage of bridegrooms in the larger classes of occupations was as follows:-Professional, 29.6 years; Domestic, 30.6 years; Commercial, 29.2 years; Transport, 28.1 years; Industrial, 28.3 years; and Primary Producers, 30.4 years,

# OCCUPATIONS AND AGES OF BRIDEGROOMS.-AUSTRALIA, 1924. 


8. Fertility of Marriages. - The quotient obtained by division of the nuptial births registered, e.g., during the five years 1920 to 1924 , by the number of marriages registered during the five years 1915 to 1919 , 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 3.36 -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:-1916-20, 2.90 ; $1917-21,2.91$; 1918-22, 3.07; 1919-23, 3.25; and 1920-24, 3.36.
9. Registration of Marriages.-(i) Marriages in each Denomination. In all the Stater marriages may be celebrated either by ministers of religion whose names are registered for that purpose with the Registrar-General, or by certain civil officers-in must cases district registrars. Most of the marriages are celebrated by ministers of religion. The proportions so celebrated in 1924 were :-N6w South Wales, 84.69 per cent.; Victoria, 95.05 per cent.; Queensland, 95.68 per cent.; South Australia, 95.49 per cent.; Western Australia, 81.09 per cent. ; and Tasmania, 96.99 per cent., the percentage for Australia being 94.30. The registered ministers in 1924 belonged 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 Christians." The figures for 1924 are shown in the following table:-

MARRIAGES IN EACH DENOMINATION.-AUSTRALIA, 1924.

| Denomination. | N.S.W. | Vic. | Qld. | S.A. | W.A. | Tas. | N. | Fed. <br> Cap. <br> Ter. | $\underset{\text { tralij }}{\text { tus }}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Church of England | 7,787 | 3,864 | 1,898 | 1,080 | 970 | 615 | 11 | 4 | 16,229 |
| Roman Catholic | 3,642 | 2,547 | 1,387 | 479 | 426 | 232 | 1 | . | 8,714 |
| Methodist | 2,189 | 1,831 | 1,012 | 1,280 | 333 | 273 | 1 |  | 6,919 |
| Presbyterian | 2,435 | 2,478 | 954 | 202 | 180 | 142 |  |  | 6,391 |
| Congregational | 409 | 791 | 136 | 225 | 86 | 50 |  |  | 1,697 |
| Baptist | 248 | 596 | 173 | 207 | 31 | 72 | $\ldots$ | $\cdots$ | 1,327 |
| Church of Christ | 140 | 279 | 23 | 215 | 31 | 52 |  |  | 740 |
| Lutheran | 26 | 63 | 134 | 176 | 6 | . . |  |  | 405 |
| Greek Catholic | 28 | 14 | 7 | $\cdots$ | 10 | . | $\cdots$ | $\cdots$ | 59 |
| Unitarian . | 6 | 8 | . | 5 |  |  |  | . | 19 |
| Salvation Army | 73 | 43 | 51 | 43 | 13 | 14 |  | $\cdots$ | 237 |
| Seventh-Day Adventists | 31 | 14 | 7 | 9 | 4 | 2 | $\cdots$ | $\cdots$ | 67 |
| Other Christians . | 52 | 44 | 179 | 12 | 3 | 31 |  |  | 321 |
| Hebrew . | 46 | 66 | 4 | 2 | 12 |  |  |  | 130 |
| Registrar's Office | 960 | 658 | 269 | 186 | 491 | 46 | 4 |  | 2,614 |
| Unspecified . . | .. | . . | . . | . . | . . |  |  | $\cdots$ | . |
| Total | 18,072 | 13,296 | 6,234 | 4,121 | 2,596 | 1,529 | 17 | 4 | 45,869 |

(ii) Number and Percentage in each Denomination, 1920 to 1924.-The number of marriages according to denomination, and the percentages on total marriages, are shown in the next table :-

MARRIAGES IN EACH DENOMINATION.—AUSTRALIA, 1920 TO 1924.


## § 3. Deaths.

1. Male and Female Deaths, 1920 to 1924.-The total numbers of deaths registered in each year from 1920 to 1924 inclusive are given in the two following tahles. The annual average of male deaths during the period was 30,935 , and of female deathe 23,643 , the details being as follow :-

MALE DEATHS, 1920 TO 1924.

| Year. | N.S.w. | Victoria. | Q'land. | S. Aust. | W. Aust.i | Tas. | North Terr. | Fed. Cap. Terr. | $\begin{aligned} & \text { Aus- } \\ & \text { tralia. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 0 | 088 | 9,059 | 4,824 | 2,814 | 2,161 | 1,055 | 48 | 4 |  |
| 1921 | 11,490 | 8,662 | 4,397 | 2,655 | 2,209 | 1,166 | 70 | 3 | 30,652 |
| 1922 | 11,014 | 8,187 | 4,372 | 2,537 | 1,994 | 1,084 | 52 | 5 | 29,245 |
| 1923 | 11,969 | 9,135 | 4,699 | 2,727 | 1,907 | 1,140 | 35 | 10 | 31,622 |
| 1924 | 11,887 | 8,863 | 4,440 | 2,644 | 2,039 | 1,177 | 42 | 11 | 31,103 |
| Rate (a), 1924 | 10.46 | 10.87 | 10.19 | 9.84 | 10.58 | 10.96 | 16.47 | 4.45 | 10.50 |

(a) Number of deaths per 1,000 of mean male population.

FEMALE DEATHS, 1920 TO 1924.

(a) Number of deaths per 1,000 of nean female popuintion.
2. Male and Female Death Rates, 1924.-The crude male and female death rates for 1924 only are given in the last line of the preceding tables. Tasmania had the higheat and South Australia the lowest rate for males, and for the females Victoria had the highest and Western Australia the lowest rate. The rates for the two Territories are based on very small numbers, and comparisons with the States would be misleading.

Owing to differences in age constitution in the six States, the crude rates are not, however, strictly compiarable. A more satisfactory rate is furnished by the " Index of Mortality" (see sub-para. 13). The death rates for males and females in each State in five-year age groups for the three years 1920 to 1922 , that is, for the Census year and for the year immediately preceding and following, are shown on page 987.

The rates for the five years $1920-1924$ averaged about 10.9 per 1,000 for males, and 8.6 per 1,000 for females.

MALE AND FEMALE DEATH RATES (a).-AUSTRALIA, 1920 T0 1924.

(a) Number of deaths per 1,000 of mean population.
3. Total Deaths, 1920 to 1924. -The total number of deaths during each of the five years 1920 to 1924 is given below :-

TOTAL DEATHS, 1920 TO 1924.

4. Crude Death Rates, 1920 to 1924.-The crude death rates for the five years 1920 to 1924 are given in the next table.

CRUDE DEATH RATES ( $a$, 1920 T0 1924.

(a Number of deaths per 1,000 of mean population.
5. Death Rates of Various Countries.-The following table gives particulars of the crude death rates of various countries for the latest available years :-

DEATH RATES (a).—VARIOUS COUNTRIESS.

(a) Number of deaths per 1,000 of mean population.

[^2]tends to counteract the excess of male births is confirmed by the fact that out of 349,042 male infants born from 1920 to $1924,23,669$ ( 67.81 per 1,000 ) died during their first year of life, while of 331,207 female infants only 17,850 ( 53.89 per 1,000 ) died during the first year.

INFANTILE DEATHS AND DEATH RATES.-AUSTRALIA, 1920 TO 1924.

(a) Number of deaths under 1 year per 1,000 live births registered.
(ii) States, 1920 to 1924. For the States and Territories the rates of infantile mortality during the last five years were as follows:-

INFANTILE MORTALITY RATES (a), 1920 TO 1924.

(a) Number of deaths under 1 year per 1,000 live births registered.

The infantile mortality rate for Australia in 1922 was the lowest yet recorded, and was exceptionally low in all the States, South Australia occupying the premier position with a mortality of 47.50 per 1,000 births. Moreover, the death rate from almost every cause was low, though the groatest effect was from the comparatively low mortality from diarrhœa and enteritis and from pneumonia and whooping cough. Although the rate for 1924 was not so satisfactory as for 1922, it was much below the average for the preceding four years. In 1924, Western Australia had the lowest and Victoria the highest rate among the States.
(iii) Districts. The total number of births, of deaths of children under one year of age, and the average rate of infantile mortality for the five years 1920 to 1924 are shown in the following table for each of the fifty-nine districts for which the vital statistics bave been tabulated. To afford a better indication of the geographical position of the districts the name of a town situated in a fairly central part of each district has been added. The figures for the Federal Capital Territory and for Lord Howe Island are included for the sake of completeness, but are too small to be used in comparison with others. Remarkable
variations are shown in the mortality rate for the various districts. The lowest rate was experienced in the north-western district of Western Australia ( 40.00 per 1,000 births), and the highest in the Trans-Darling Plains (Broken Hill) of New South Wales (114.77 per l,000 births).

INFANTILE MORTALITY.-STATE DISTRICTS, 1920 T0 1924.

| States and Territories. | Districts. |  | Towns, | Total Births, 1920-24. | Total <br> Deaths of Children under one year, 1920-24. | Average Infantile Mortality per 1,000 Births, 1920-24. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| New South Wales | Metropolitan |  | Sydney | 113,664 | 7,152 | 62.92 |
|  | North Coast |  | Grafton | 22,560 | 1,066 | 47.25 |
| ", | Lower Hunter |  | Newcastle | 29,827 | 1,987 | 66.62 |
| " | Cumberland |  | Parramatta | 15,485 | 757 | 48.89 |
| " | South Coast |  | Nowra | 10,009 | 573 | 57.25 |
| " | Northern Tableland |  | Armidale | 12,784 | 675 | 52.80 |
| " | Central Tableland |  | Bathurst | 16,262 | 1,096 | 67.40 |
| ", | Sonthern Tableland |  | Goulburn | 13,703 | 897 | 65.46 |
| ", | North-Western Slope |  | Moree | -5,334 | 320 | 59.99 |
| ", . | Central-Western Slope |  | Dubbo | 9,324 | 550 | 58.99 |
| * | South-Western Slope | $\cdots$ | Temora | 10,851 | 556 | 51.24 |
| , . . | Riverina | . | Hay | 6,303 | 369 | 58.54 |
| " | Plains East of Darling |  | Cobar | 1,485 | 109 | 73.40 |
| " | Trans-Darling Phaing |  | Broken Hill | 3,947 | 453 | 114.77 |
|  | Iord Howe Island |  | - | - 4 | 1 | 250.00 |
| Victoria". | Metronolitan . |  | Melbourne | 95,222 | 6,732 | 70.70 |
| " | Central |  | Geelong | 17,364 | 1,138 | 65.54 |
| - | North-Central | . | Kyneton | 6,138 | 339 | 55.23 |
| ", .. .. | Western |  | Hamilton | 17,805 | 1,063 | 59.70 |
| " | Wimmera | . | Horshám | 7,227 | 429 | 59.36 |
| " | Mallee |  | Ultima | 6,967. | 462 | 66.31 |
| " | Northern |  | Rochester | 16,149 | 979 | 60.62 |
| " | North-Eastern | $\cdots$ | Beechworth | 4,651 | 232 | 49.88 |
| . | Gippsland |  | Sale | 8,586 | 385 | 44.84 . |
| Queensland | Metropolitan |  | Brisbane | 31,200 | 1,904 | 61.03 |
| " | Moreton |  | Ipswich | 11,016 | 493 | 44.75 |
| ", | Wide Bay |  | Maryborough | 11,995 | 530 | 44.19 |
| ", .. | Port Curtis |  | Tockhampton | 7,577 | 460 | 60.71 |
| ", .. | Edgecumbe | . | Townsville | 9,634 | 527 | 54.70 |
| ", .. | Rockingham |  | Cairns | 5,928 | 258 | 43.52 |
| ", - | York Peninsula | . | Cooktown | 1,032 | 76 | 73.64 |
| ", .. | Carpentaria . | . | Croydon | 1,616 | 105 | 64.98 |
| " | Central-Western |  | Winton | 545 | 39 | 71.56 |
| ", .. | South-Western | . | Charleville | 1,387 | 106 | 76.42 |
| " | Central | . | Blackall | 3,209 | 189 | 58.90 |
| ", . | Maranoa |  | Roma | 1,789 | 104 | 58.13 |
| "' | Downs | . | Toowoomba | 13,334 | 687 | 51.52 |
| South Australia | Metropolitan | . | Adelaide | 30,039 | 1,983 | 66.01 |
| " | Central | . | Gawler | 11,951 | 558 | 46.69 |
| " | Lower North |  | Redruth | 9,123 | 545 | 59.74 |
| " | Upper North | $\cdots$ | Port Augusta | 2,853 | 154 | 53.98 |
| ", | South-Eastern |  | Mount Gambier | 2,903 | 120 | 41.34 |
| ", . | Western |  | Port Lincoln | 2,418 | 104 | 43.01 |
| Western Australia.. | Metropolitan .. |  | Perth | 20,983 | 1,376 | 65.58 |
| , | Northern Agricuitural | . | Geraldton | 5,411 | 285 | 52.67 |
| ,' | South-Western . |  | Katanning | 9,993 | 514 | 51.44 |
| " | Eastern Goldfields |  | Kalgoorlie | 2,967 | 219 | 73.81 |
| , | Northern Goldftelds |  | Pilbara | 500 | 37 | 74.00 |
| ,, . | North-Western . |  | Roebourne | 200 | 8 | 40.00 |
|  | Northern | . | Broome | 188 | 18 | 95.74 |
| Tasmania | Hobart | . | Hobart | 7,979 | 558 | 69.93 |
| " | Launceston | . | Launceston | 4,393 | 308 | 70.11 |
| " | North-Eastern | $\ldots$ | Scottsdale | 2,616 | 149 | 56.96 |
| $\cdots$ | North-Western |  | Stanley | 7,345 | 428 | 58.27 |
| ", .. | Midland |  | Zeehan | 2,591 | 132 | 50.95 |
|  | South-Fastern | $\cdots$ | Sorell | 2,807 | 153 | 54.51 |
|  | South-Western | - | Franklin | 621 | 42 | 67.63 |
| Northern Territory | . . |  | Darwin | 341 | 24 | 70.38 |
| Federal Capital | . |  | Canberra | 134 | 6 | 44.78 |

(iv) Various Countries and Cities. Compared with other countries, the States of Australia occupy a very favourable position, being surpassed by Now Zealand only. There are, however, several continental cities which show better results than any Australian city shows. It may be pointed out also in connexion with the rates hereunder, that a high birth rate is often, though not invariably, accompanied by a high infantile death rate. The figures in the subjoined tables relate to the latest years for which returns are available :-

INFANTILE MORTALITY RATES (a).-VARIOUS COUNTRIES.

| New Zealand | 1924 | 40 | 21.6 | Northern Ireland | 1924 | 85 | 22.2 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Western Australia | 1924 | 50 | 23.1 | France | 1924 | 85 | 19.0 |
| Queensland | 1924 | 51 | 23.9 | Italy | 1923 | 88 | 29.1 |
| South Australia | 1924 | 51 | 21.9 | Finland | 1923 | 92 | 25.4 |
| Netherlands | 1924 | 51 | 24.9 | Scotland | 1924 | 98 | 21.9 |
| Tasmania | 1924 | 55 | 25.1 | Belgium | 1923 | 100 | 20.7 |
| Norway | 1922 | 55 | 23.1 | Uruguay | 1923 | 104 | 25.4 |
| Australia | 1924 | 57 | 23.2 | Germany | 1924 | 108 | 21.1 |
| New South Wales | 1924 | 59 | 24.1 | Bulgaria | 1919 | 109 | 40.2 |
| Sweren | 1924 | 60 | 18.1 | Canada (Quebec) | 1022 | 128 | 35.1 |
| Victoria | 1924 | 61 | 22.0 | Prussia | 1923 | 132 | 20.6 |
| Switzerland | 1922 | 70 | 19.6 | Spain | 1924 | 142 | 29.9 |
| Irish Free State | 1924 | 71 | 20.1 | Egypt | 1923 | 143 | 43.0 |
| United States (Registration Area) | 1924 | 72 | 22.5 | Czecho-Slovakia Austria | $\begin{aligned} & 1923 \\ & 1921 \end{aligned}$ | 147 155 15 | 27.3 22.9 |
| Union of South | 1924 | 74 | 26.5 | Japan | 1923 | 163 | 34.9 |
| Africa (Whites) |  |  |  | Jamaica | 1922 | 177 | 37.3 |
| England and Wales | 1924 | 75 | 18.8 | Hungary | 1924 | 195 | 26.3 |
| Ontario (Canada) | 1924 | 76 | 23.2 | Rumania | 1922 | 207 | 37.5 |
| Great Britain | 1924 | 78 | 19.3 | Ceylon | 1923 | 212 | 33.1 |
| Canada (excluding Quebec) | 1924 | 79 | 23.1 | Russia, European Chile . . | 1909 | 248 283 | 44.0 39.4 |
| Denmark | 1922 | 85 | 22.3 |  |  |  |  |

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 of mean population.

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



[^3]Information relative to the causes of death of children under one year of age will be found in sub-section 18.
7. Deaths in Age-Groups, 1920 to 1924.-A distribution into age-groups has been made of the 272,892 deaths which occurred in Australia from 1920 to 1924, and the results have been tabulated for each State. It is, however, sufficient to show here the resulte for Australia as a whole, which are as follows :-

DEATHS IN AGE GROUPS.-AUSTRALIA, 1920 TO 1924.

8. Deaths at Single Ages and in Age-Groups, 1924.-(i) General. The 54,980 deaths registered in Australia in the year 1924 will be found tabulated under single years, and in groups of five years for each State and Territory, in Bulletin No. 42, "Australian Demography, 1924." The deaths 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, 1924.

(ii) Rates. The following tables give the death rate per 1,000 living at each age for the three years 1920, 1921, and 1922, i.e., the Census year 1921, and the years immediately preceding and following. The Northern Territory is included with South Australia, and the Federal Capital Territory with New South Wales :-

## AVERAGE ANNUAL DEATH RATES.-AGE-GROUPS, 1920 TO 1922.



Frmales.

| 0 | to 4 | years |  | 16.92 | 17.91 | 16.05 | 16.25 | 18.80 | 16.74 | 17.09 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5 | , 9 |  |  | 1.66 | 1.95 | 1.89 | 2.27 | 1.28 | 2.09 | 1.82 |
| 10 | , 14 |  |  | 1.21 | 1.20 | 1.43 | 1.34 | 1.23 | 1.63 | 1:27 |
| 15 | " 19 |  |  | 1.63 | 2.00 | 1.99 | 2.72 | 1.34 | 2.58 | 1.90 |
| 20 | , 24 |  |  | 2.43 | 2.92 | 2.81 | 2.85 | 3.07 | 3.74 | 2.75 |
| 25 | , 29 |  |  | 3.47 | 3.55 | 3.51 | 3.85 | 3.99 | 3.87 | 3.59 |
| 30 | " 34 |  |  | 3.85 | 4.13 | 4.11 | 4.21 | 4.60 | 4.41 | 4.06 |
| 35 | , 39 | ,', |  | 4.64 | 4.98 | 5.80 | 5.18 | 4.90 | 5.98 | 5.00 |
| 40 | , 44 | ", |  | 5.15 | 5.74 | 6.03 | 4.98 | 6.39 | 5.48 | 5.51 |
| 45 | , 49 | ," |  | 6.71 | 6.91 | 6.76 | 6.40 | 8.12 | 7.31 | 6.87 |
| 50 | " 54 | " |  | 9.35 | 9.11 | 9.11 | 9.10 | 10.62 | 8.61 | 9.27 |
| 55 | " 59 | ," |  | 13.17 | 12.87 | 13.60 | 10.85 | 12.81 | 14.23 | 12.92 |
| 60 | " 64 |  |  | 19.08 | 19.06 | 19.71 | 18.27 | 17.78 | 20.13 | 19.05 |
| 65 | , 69 | ", |  | 31.59 | 31.69 | 30.81 | 32.89 | 30.49 | 34.72 | 31.76 |
| 70 | 74 | ", | . . | 50.24 | 51.83 | 50.61 | 45.65 | 54.20 | 49.42 | 50.43 |
| 75 | , 79 |  |  | 88.19 | 88.52 | 88.10 | 83.88 | 96.43 | 80.32 | 87.81 |
| 80 | " 84 |  |  | 140.29 | 143.71 | 126.40 | 132.25 | 137.07 | 126.00 | 138.32 |
| 85 | " 89 | " | . | 225.11 | 231.45 | 210.65 | 193.54 | 219.51 | 208.79 | 221.44 |
| 90 | and ov | er |  | 380.95 | 321.79 | 288.89 | 337.50 | 478.26 | 352.94 | 341.68 |

Persons.

| 0 to 4 years | . | 19.24 | 20.30 | 18.45 | 18.17 | 21.39 | 18.75 | 19.40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 5,9 |  | 1.76 | 2.05 | 1.93 | 2.26 | 1.76 | 2.07 | 1.92 |
| 10 ,, 14 |  | 1.40 | 1.40 | 1.51 | 1.45 | 1.33 | 1.73 | 1.43 |
| 15 ," 19 |  | 1.90 | 2.03 | 2.45 | 2.57 | 1.86 | 2.62 | 2.10 |
| 20 ," 24 |  | 2.58 | 2.99 | 3.17 | 3.09 | 3.52 | 3.49 | 2.92 |
| 25 ,, 29 |  | 3.42 | 3.57 | 4.00 | 3.75 | 4.03 | 4.43 | 3.64 |
| 30 ," 34 |  | 3.99 | 3.92 | 4.37 | 4.10 | 5.03 | 4.50 | 4.11 |
| 35 ,, 39 |  | 5.03 | 5.14 | 5.88 | 5.18 | 5.72 | 5.39 | 5.24 |
| 40 , 44 |  | 5.99 | 6.16 | 7.04 | 5.60 | 7.23 | 5.73 | 6.22 |
| 45 ,, 49 |  | 8.21 | 8.30 | 8.89 | 7.62 | 10.41 | 8.04 | 8.44 |
| 50 , 54 |  | 10.97 | 10.67 | 12.04 | 10.46 | 14.58 | 10.16 | 11.20 |
| 55 ,, 59 ,, |  | 16.19 | 15.60 | 17.57 | 15.32 | 19.61 | 13.80 | 16.22 |
| 60 , 64 |  | 24.11 | 23.93 | 25.99 | 22.13 | 27.90 | 22.13 | 24.22 |
| 65 ," 69 |  | 37.81 | 37.90 | 39.23 | 37.80 | 41.71 | 36.73 | 38.17 |
| 70 , 74 |  | 58.34 | 58.09 | 58.64 | 53.85 | 64.31 | 51.54 | 57.82 |
| 75 , 79 | . | 97.02 | 97.07 | 96.41 | 94.82 | 106.68 | 93.60 | 96.98 |
| 80 " 84 |  | 149.75 | 152.49 | 144.74 | 145.42 | 162.58 | 128.81 | 149.09 |
| 85 ," 89 |  | 248.05 | 246.87 | 219.48 | 206.49 | 252.00 | 219.14 | 238.91 |
| 90 and over | $\cdots$ | 374.81 | 349.09 | 304.15 | 355.73 | 528.30 | 351.64 | 357.36 |

The tables show a high death rate for children under five years of age, but it rapidly diminishes until, at ages 10 to 14 , the rate is 1.43 per 1,000 , which is the lowest at any age. The rate thereafter gradually rises with increasing age until, at the ages 90 and over, more than one-third die every year.
9. Deaths of Centenarians, 1924.-Particulars concerning the twenty-fo ir persons who died in 1924 aged 100 years and upwards, are given in the following table. It must, of course, be understood that while the Registrars-General of the various States take the greatest care to have statements as to abnormally high ages verified as far as possible, absolute reliance cannot be placed on the accuracy of the ages shown, owing to the wellknown tendency of very old people to overstate their ages. No attempt has been made by the Commonwealth Bureau of Census and Statistics to verify the truth of the statements made. Tho fact must not be disregarded in connexion with this question that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically only from 1874, the Act passed in 1836 having left many loop-holes open for those unwilling to register the births of their children.
DEATHS OF CENTENARIANS.-AUSTRALIA, 1924.

Males.

| 127 | Brisbane .. | Queensland | Senility | Gardener. | China | 108 years | Single |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 105 |  |  |  | Farmer | Ireland | 21 years | ," |
| 104 | Liverpool .. | N.S'W. | Chronic bronchitis | Labourer. | Ireland | 47 years | ", |
| 104 | Granville |  | Senility . | Unspecified |  | 80 years |  |
| 102 | Hobart . . | Tasmania | Cerebral hæmorrhage | Clerk | England | 80 years .. | Married |
| 101 | Warragul | Victoria | Arterioselerosis | Unspecified | Unspecificd | Unspecified | Unspecitied |
| 100 | Balmain Nth. | N.S.W. . | Hypostatic pneumonia | Carrier | Ireland | 46 years | Married |
| 100 | Lethbridge | Victoria.. | Senility .. | Farmer . . | N.S.W. | Native |  |
| 100 | Brisbane . . | Queensland |  | Labourer. . | Treland | 85 years | Single |

Females.

| 103 | Wagga Wagga | N.S.W. . . | Senility | , |  | Treland | 88 years | Married |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 103 | Goondiwindi | Queensland | 3 |  |  | N.S.W. | Native | " |
| 102 | Nyah . | Victoria . . | , |  |  | Scotland | 72 years | " |
| 102 | Richmond. | ${ }^{*}$ | , * . |  | 1 | England | 74 years | , |
| 102 | St. Kilda | , | , |  |  | , | 85 years | " |
| 102 | Hotham West |  | " |  |  |  | 70 years | , |
| 101 | Ryde .. | NS.W. | " |  |  | S.S.W. | Native | " |
| 101 | Petersham | ', | : |  |  | Scotland | 70 years | * |
| 101 | Manly | " | $\because$. |  |  | , | 54 years | , |
| 101 | Grafton . | , $\quad$. | Mitral regurgitation |  |  | ", | 32 years | " |
| 101 | Essendon . . | Victoria. | Senlity . . |  |  | England | 74 years | , |
| 100 | Queanbeyan | N.S.W. | $\because$ |  |  | Ireland | 80 years | ', |
| 100 | Northcote.. | Vietoria . | :\% |  |  | " | 64 years | " |
| 100 | Perth . . | W. Australiu | , |  |  |  | 50 years | " |
| 100 | Iaunceston | Tasmania | " ${ }^{*}$ |  | ! | " | 86 years | ", |

10. Length of Residence in Australia oi Persons who Died in 1924. The length of residence in Auswralia of all persons whose deaths were registered in the year 1924 has been tabulated for all the States, and a summary of the results is shown below:-

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1924.

11. Birthplaces of Persons who Died in 1924. -The following table gives the birthplaces of persons whose deaths were registered in 1924. Full particulars will be found in " Australian Demography," Bulletin No. 42.

## BIRTHPLACES OF PERSONS WHO DIED IN 1924.—AUSTRALIA.

| Birthplace. |  |  |  | Birthplace. |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| AUSTRALASIA- | ; |  |  | ASIA- |  |  |  |
| New South Wales | 7,416 | 6,236 | 13,652 | British India and |  |  |  |
| Victoria | 6,343 | 5,278 | 11,621 | Ceylon .. | 103 | 28 | 131 |
| Queensland | 2,047 | 1,641 | 3,688 | Other Brit. Posses- |  |  |  |
| South Australia | 1,965 | 1,711 | 3,676 | sions in Asia .. | 11 | 1 | 12 |
| Western Australia | 577 | 501 | 1,078 | China .. .. | 280 | 2 | 282 |
| Tasmania | 1,235 | 1,027 | 2,262 | Japan . | 19 | 3 | 22 |
| Northern Territory | 8 | 2 | 10 | Other Asiatic |  |  |  |
| Federal Capital |  |  |  | Countries | 45 | 10 | 55 |
| Territory .. |  | 2 | 2 |  | 458 | 44 | 502 |
| Papua.. | 11 | 3 | 14 |  | 458 | 44 | 502 |
| Territory of New Guinea |  |  | 1 | Union of Sth.Africa | 22 | 12 | 34 |
| New Zealand $\quad$.- | 194 | 138 | 332 | Other Brit. Possessions in Africa | 9 | 4 | 13 |
|  | 19,797 | 16,539 | 36,336 | Other African |  |  |  |
| UROPE- |  |  |  |  |  |  |  |
|  |  | 3,506 |  |  | 39 | 19 | 58 |
| Wagiand | , 128 | 3,506 | 8,034 | AMERICA- |  |  |  |
| Wales | 185 | 123 | 308 | Canada .. | 53 | 20 | 73 |
| Scotland | 1,451 | 1,005 | 2,456 | Other Brit. Posses- |  |  |  |
| Ireland | 2,007 | 1,908 | 3,915 | sions in America | 6 | 4 | 10 |
| Other Brit. Posses sions in Europe | 36 | $2{ }^{1}$ | 57 | United States of America | 77 | 33 | 110 |
| Austria $\quad$. | 15 | 5 | 20 | Other American |  |  |  |
| Denmark | 118 | $36^{\circ}$ | 154 | Countries | 25 | 11 | 36 |
| France. . | 52 | 23 | 75 |  | 161 | 68 | 229 |
| Germany | 434 | 256 | 690 |  | 161 | 68 | 229 |
| Greece | 33 | 4 | 37 | Pritish Posses. |  |  |  |
| Italy .. | 97 | $20^{\prime}$ | 117 | British Posses- | 5 | 5 | 0 |
| Netherlands | 15 | 4 | 19 | Other Polynesian |  | 5 | 0 |
| Norway | 57 | $4{ }^{1}$ | 61 | Islands | 41 | 8 |  |
| Russia | 42 | 19 | 61 |  |  | 8 | 49 |
| Sweden | 138 | 14 | 152 |  | 46 | 13 | 59 |
| Switzerland | 40 | 10 | 50 |  |  |  |  |
| Other European |  |  |  | At Sea | 61 | 67 | 128 |
| Countries | 97 | 22 | 119 | Unspecified | 596 | 147 | 743 |
|  | 9.945 | 6.980 | 16,925 | Total Deathe . . | . 103 | 23,877 | 54,980 |

12. Occupations of Males who Died in 1924.-(i) Australia, 1924. Information as to the occupations of the 31,103 males who died in Australia in 1924 is contained in the following statement:-

| Occupation. | No. of Deaths | Occupation. | No. of Deathe |
| :---: | :---: | :---: | :---: |
| Class I.-Professional. |  | Class III.-Commerclal-cont. |  |
| General Government | 162 | Hay, corn, etc. | 23 |
| Local Government | 21 | Other vegetable matter | 12 |
| Defence | 75 | Wood and coal | 7 |
| Law and order | 236 | Stone, clay, glass | 4 |
| Religion | 110 | Ironmongery .. | 15 |
| Charity | 4 | Merchants | 5 |
| Health | 211 | Shopkeepers and assistants | 254 |
| Literature | 47 | Dealers and hawkers | 129 |
| Science | 8 | Agents and brokers | 138 |
| Civil and mechanical engineering, architecture and surveying | 101 | Clerks, bookkeepers, etc. .. |  |
| Education .. .. .. | 132 | Commercial travellers and salesmen Others engaged in commercial | 274 |
| Fine arts | 33 | pursuits .. .. .. | 247 |
| Music | 46 | Speculators on chance events | 14 |
| Amusements | 141 | Storage |  |
| Total Professional | 1,327 | Total Commercial | 3,063 |
|  |  | Communication. |  |
| Hotelkeepers and assistants Others engaged in providing board and lodging | 342 | Railway traffic | 602 |
|  | 107 | Tramway traffic | 73 |
| House servants |  | Road trafic .. | 625 |
| Coachmen and grooms | 54 | Sea and river traffic |  |
| Hairdressers | 76 | Postal service .. | 101 |
| Laundrymen | 10 | Telegraph and telephone service | 71 |
| Others engaged in domestic occu pations | 20 | Messengers, etc. | 7 |
| Total Domestio | 802 | ation | 2,041 |
|  |  | Class V.-Industrial. |  |
| Class III.-Commercial. |  | Books and publications | 55 |
| Banking and finance | 124 | Musical instruments . | 13 |
| Insurance and valuation | 85 | Prints, pictures and art materials | 7 |
| Land and household property | 53 | Ornaments and small wares | 21 |
| Pruperty rights, n.e.i. | 1 | Sports and games |  |
| Books, publications and advertising | 45 | Designs, medals, type and dies | 7 |
| Musical Instruments .. | 4 | Watches and clocks .. | 28 |
| Prints, pictures, and art materials | 4 | Surgical instruments .. | 2 |
| Watches, clocks, jewellery | 1 | Arms and ammunition. | 1 |
| Machines, tools, etc. | 1 | Engines, machines, tools, et | 181 |
| Carriages and vehicles | 3 | Carriages and vehicles | 76 |
| Ships and boats | 5 | Harness, saddlery and leatherware | 95 |
| Building materials | 5 | Ships, boats and equipment | 58 |
| Furniture | 3 | Furniture | 2 |
| Paper and stationery | 12 | Building materials | 2 |
| Textile fabrics | 102 | Chemicals and by-products | 4 |
| Dress | 17 | Textile fabrics | 4 |
| Animal food | 294 | Dress | 4 |
| Vegetable food | 83 | Fibrous materials | 8 |
| Groceries and stimulants | 190 | Animal food | 7 |
| Living animals | 33 | Vegetable food | 205 |
| Leather, raw materials | 5 | Groceries and stimulants | 62 |
| Wool and tallow | 10 | Animal matter | 54 |

OCCUPATIONS OF MALES WHO DIED IN 1924.-AUSTRALIA-conlinued.

| Occupation. | No. of Deaths. | Occupation. | No. of Deaths. |
| :---: | :---: | :---: | :---: |
| Class V.-Industrial-cont. |  | Class VI.-Agrioultural, Pastoral, Minino Pursutis, etc. |  |
| classed | 26 | Agricultural | 3,385 |
| Vegetable produce for fotler | 2 | Pastoral | 886 |
| Paper | 3 | Dairy farming | 84 |
| Stone, clay, glass | 94 | Bees, fisheries and wild animals | 96 |
| Jewellery and precious stones | 37 | Forestry .. .. | 110 |
| Metals, other than gold and silver | 403 | Water conservation and supply . . | 27 |
| Gas, electric lighting, etc. . | 97 | Mines and quarries | 1,371 |
| BuildingBuilders | 120 | Total Primary Producers .. | 5,959 |
| Stonemasons | 73 |  |  |
| Bricklayers | 121 | Crass VIL - Thdeminte |  |
| Slaters | 5 | Class Vil.-Indefinite. |  |
| Carpenters | 544 | Independent means, having no |  |
| Plasterers | 70 | specified occupation.. | 686 |
| Painters and glaziers | 254 | Occupation unspecified | 745 |
| Plumbers . . | 96 |  |  |
| Signwriters | 6 | Total Indefinite | 1,431 |
| Others .. | 1 |  |  |
| Roads, railways and earth works | 61 | Class VIII.-Dependents. |  |
| Disposal of refuse | 30 | Class Viri.-Dependents. |  |
| Other industrial workers- |  | Dependent relatives (including per- |  |
| Manufacturers | 72 | sons under 20 years of age with |  |
| Engineers, firemen | 491 | no specified occupation) .. | 6,785 |
| Contractors | 273 | Supported by voluntary and State |  |
| Labourers, undefined | 4,745 | contributions .. .. | 185 |
| Others | 39 | Total Dependents | 6,970 |
| Total Industrial | 9,510 | Total Male Deaths | 31,103 |

(ii) Australia, 1920 to 1924. The male deaths in Australia grouped according to the main classes of occupations, and the percentage of each class on the total male deaths for the five years 1920 to 1924, are shown in the table hereunder :-

OCCUPATIONS OF MALES WHO DIED IN AUSTRALIA, 1920 T0 1924.

13. Index of Mortality.-(i) For Year 1924. The death rates-those for age-groups on page 987 excepted-so far quoted 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 age constitution is concerned, the International Statistical Institute in its $\mathbf{1 8 9 5}$ session recommended the universal adoption of the population of Sweden in five agegroups, as ascertained at the Census of 1890, as the standard population by which the "Index of Mortality," as distinguished from the crude death rate, should be ascertained. The calculation for 1924 is shown below for each of the States and Territories and for Australia, the distribution of the mean population of 1924 into age-groups being in accordance with the Census of 1921 :-



Explanation.-The base of each small square represents an interval of one year for both Australia and States, and the vertical height represents 2,000 persons for Australia and 1,000 for the States.

The scale on the left relates to Australia, and that on the right to the States.
The names of the States to which the curves refer are written thereon, and the characters of the lines used are as follows:-Australlis,
 Alt


DEATHS-I 860 TO 1924.


Explanation.-The base of each small square represents an interval of one year for both Australis 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.
The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 993.


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 BTRTH-RATE GRAPHS. (See page 997.)

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 998.)
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.

BIRTH RATES—STATES, 1860-1024.





INDEX OF MORTALITY, 1924-continued.


Notz.-'The small number of persons whose ages were not ascertained at the 1921 Census has been proportionately distributed among the various age-groups, and the same plan has been followed in regard to the 25 persons who died in 1924 , whose ages were not stated in the certificate of death.

On the basis of the crude rates there is a range of 1.17 per 1,000 persons between the lowest rate in Queensland (8.88) and the highest rate in Victoria ( 10.05 ), whereas the adjusted rates reduce the range to 0.94 per 1,000, i.e. between 10.84 in South Australia and 11.78 in Western Australia and Tasmania. In its application to the figures for 1924 the process of adjustment completely altered the relative positions of the various States
from those determined by the crude rates. The principal changes were that South Australia from third position took the premier place from Queensland. Western Australia from second place was made to share the lowest position with Tasmania, to the advantage of Victoria which was thus promoted from the lowest position on the basis of crude rates to the fourth position on the adjusted basis.
(ii) Years 1920 to 1924. For purposes of comparison with previous years the index of mortality is shown in the following table for each of the five years 1920 to 1924:-

INDEX OF MORTALITY, 1920 TO 1924.

| Year. | N.S.W. | Victoria | Q'land. | S. Aust. | W. Aust. | Tas. | Northern Territory | Federal Capital Territory. | $\begin{aligned} & \text { Aus- } \\ & \text { tralia. } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1920 | 13.32 | 13.72 | 14.36 | 13.49 | 15.63 | 12.28 | 18.27 | 3.20 | 13.65 |
| 192I | 12.27 | 12.85 | 12.30 | 12.47 | 15.60 | 13.16 | 22.38 | 2.15 | 12.68 |
| 1922 | 10.91 | 11.20 | 11.38 | 10.62 | 11.80 | 10.88 | 13.93 | 2.91 | 11.10 |
| 1923 | 11.79 | 12.44 | 12.35 | 11.24 | 10.74 | 11.80 | 9.69 | 3.54 | 11.95 |
| 1924 | 11.50 | 11.70 | 11.15 | 10.84 | 11.78 | 11.78 | 11.31 | 5.01 | 11.47 |

14. 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 1909 and 1920. The detailed classification groups causes of death under 205 different headings in fifteen categories, as follows:-
i. Epidemic, Endemic, and Infectious Diseases.
ii. General Diseases not included in (i).
iii. Diseases of the Nervous System and Organs of Sense.
iv. Diseases of the Circulatory System.
v. Diseases of the Respiratory System.
vi. Diseases of the Digestive System.
vii. Diseases of the Genito-urinary System and Adnexa.
viii. Puerueral Condition.
ix. Diseases of the Skin and Cellular Tissue.
x. Diseases of the Organs of Locomotion.
xi. Malformations.
xii. Early Infancy.
xiii. Old Age.
xiv. External Causes.
xv. Ill-defined Diseases.
(ii) Compilation of Vital Statistics for 1907 and Subsequent Years in Commonweallh Bureau. The vital statistics of Australia from the year 1907 onward have been tabulated according to this classification in the Commonwealth Bureau, and the system is being employed in all the State offices in the preparation of their bulletins of vital statistics.
(iii) Classification of Causes of Death, 1920 to 1924, 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 and American States, while the Australian statistics have been compiled on the detailed classification. 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 1920 to 1924 will be found in full in Bulletins Nos. 38 to 42 of "Australian Demography"; here it will suffice to give the abridged classification under thirty-eight headings for the year 1924.

CAUSES OF DEATH.-MALES, 1924.

| Cause. | N.s.W. | Vic. | Q'land. | S. Aus. | W. Aus. | Tas. | Nor. Ter. | Fed. <br> Cap. <br> Ter. | Aus. tralia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Typhoid Fever | 56 | 19 | 29 | 7 | 10 | 6 |  |  | 127 |
| 2 Typhus Fever |  | . | - |  |  |  |  |  |  |
| 3 Malaria .. | 2 | 3 | 11 |  | 1 |  | 3 |  | 20 |
| 4 Small-pox |  |  | . |  |  |  |  |  |  |
| 5 Measles | 20 | 3 | 13 |  | 23 | 4 | $\cdots$ |  | 63 |
| 6 Scarlet Fever | 7 | 7 | 1 | 1 |  | 2 |  |  | 18 |
| 7 Whooping Cough | 32 | 116 | 10 | 19 | 12 | 6 |  |  | 195 |
| 8 Diphtheria .. | 92 | 69 | 28 | 13 | 6 | 14 | $\cdots$ |  | 222 |
| 9 Intluenza-Pneumonic | 55 | 54 | 41 | 7 | 19 | 6 |  |  | 182 |
| $9 a$ Infuenza-other | 55 | 30 | 22 | 5 | 2 | 1 |  |  | 115 |
| 10 Asiatic Chulera |  | . . | . |  |  |  |  |  |  |
| 11 Cholera Nostras | 1 |  | 1 |  |  |  |  |  | 2 |
| 12 Other Epidemic Diseases | 78 | 55 | 40 | 16 | 13 | 3 | 1 | $\ldots$ | 206 |
| 13 Tuberculosis of the Respiratory System | 686 | 520 | 210 | 165 | 159 | 74. | 7 | . | 1,821 |
| 14 Tuberculosis of the Meninges | 25 | 48 | 4 | 5 | 5 | 4 | $\cdots$ |  | 91 |
| 15 Other forms of Tuberculosis | 31 | 84 | 25 | 20 | 9 | 9 | . . |  | 178 |
| 16 Cancer and other Malig. nant Tumours | 1,084 | 837 | 365 | 262 | 193 | 98 | 4 |  | 2,843 |
| 17 Meningitis | 95 | 64 | 33 | 18 | 18 | 14 | . . | 1 | 243 |
| 18 Hæmorrhage, Embolism, and Softening of Brain | 420 | 323 | 139 | 123 | 60 | 49 |  |  | 1,114 |
| 19 Diseases of the Heart. . | 1,278 | 1,070 | 511 | 300 | 197 | 169 |  | 3 | 3,528 |
| 20 Acute Bronchitis | 66 | 3 S | 22 | 11 | 5 | 8 |  | . | 150 |
| 21 Chronic Bronchitis | 173 | 130 | 62 | 46 | 22 | 10 |  |  | 443 |
| 22 Pneumonia .. .. | 595 | 388 | 169 | 109 | 83 | 72 |  | 1 | 1,417 |
| 23 Other Diseases of the Respiratory System (Tuberculosis excptd.) | 524 | 569 | 251 | 132 | 123 | 54 |  | 1. | 1,654 |
| 24 Diseases of the Stomach (Cancer excepted) | 102 | 77 | 42 | 32 | 9 | 9 |  | $\cdots$ | 271 |
| $25 a$ Diarrhcea and Enteritis (children under 2 years of age) | 454 | 254 | 154 | 61 | 69 | 12 | . | $\cdots$ | 1,004 |
| $25 b$ Diarrhœa and Enteritis <br> (2 years and over) .. | 93 | 63 | 64 | 7 | 16 | 7 |  |  | 250 |
| 26 Appendicitis \& Typhlitis | 90 | 77 | 46 | 13 | 20 | 8 |  |  | 254 |
| 27 Hernia, Intestinal Obstruction .. | 109 | 76 | 48 | 17 | 17 | 12 | 1 |  | 280 |
| 28 Cirrhosis of the Liver.. | 79 | 60 | 33 | 24 | 14 | 5 | 1 |  | 216 |
| 20 Acute and Chronic Nephritis .. .. | 688 | 496 | 232 | 132 | 72 | 40 | 1 | $\cdots$ | 1,661 |
| 30 Non-cancerous Tumours and other Diseases of Female Genital Organs | . | . . |  | . . | . . | . |  |  |  |
| 31 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis) | . |  |  |  |  |  |  |  |  |
| 32 Other Puerperal Accidents of Pregnancy and Confinement |  |  |  |  |  |  |  |  |  |
| 33 Congenital Debility and |  |  |  |  |  |  |  |  |  |
| Malformations | 89.4 | 607 | 288 | 163 | 109 | 196 | 1 | 1 | 2,169 |
| 34 Senility .. | 916 | 583 | 321 | 211 | 127 | 79 | 10 |  | 2,247 |
| 35 Violent Deaths | 893 | 579 | 370 | 180 | 175 | 87 | 2 | $\underline{9}$ | 2,288 |
| 36 Suicides | 220 | 118 | 81 | 51 | 48 | 12 | 3 | 1 | 534 |
| 37 Other Diseases | 1,829 | 1,321 | 734 | 419 | 338 | 176 | 3 | 1 | 4,821 |
| 38 Unspecified or Ill-defined Diseases | 145 | 125 | 40 | 75 | 65 | 21 | $\Sigma$ |  | 476 |
| Total-Males | 11,887 | 3,863 | -1,440 | 2,644 | 2,039 | 1,177 | 42 | 11 | 31,103 |

CAUSES OF DEATH.-FEMALES, 1924.

| Causc. | N.S.W. | Vic. | Q'land. | S. Aus. | W. Aus. | Tas. | $\begin{aligned} & \text { Nor. } \\ & \text { T'er. } \end{aligned}$ | $\begin{aligned} & \text { Fed. } \\ & \text { Cap. } \\ & \text { Tep } \end{aligned}$ | $\begin{aligned} & \text { Aus. } \\ & \text { tralis } \end{aligned}$ tralia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Typhoid Fever | 41 | 14 | 17 | 7 | 10 | 2 | $\ldots$ | $\cdots$ | 91 |
| 2 Typhus Fever |  |  |  |  |  |  | . . |  |  |
| 3 Malaria . . | 1 |  | 7 |  | 2 |  | . |  | 10 |
| 4 Small-pox |  |  |  |  | . |  |  |  |  |
| 5 Measles | 16 | 4 | 20 |  | 16 |  |  |  | 56 |
| 6 Scarlet Fever | 16 | 14 | 2 | 3 | 1 | 1 | . |  | 37 |
| 7 Whooping Cough | 32 | 131 | 13 | 29 | 12 | 8 |  |  | 225 |
| 8 Diphtheria .. | 119 | 44 | 23 | 15 | 8 | 6 |  |  | 215 |
| 9 Influenza-Pneumonic | 54 | 64 | 21 | 10 | 7 | 3 |  |  | 159 |
| $9 a$ Infuenza-other | 50 | 28 | 23 | 8 | 10 | 7 |  |  | 126 |
| 10 Asiatic Cholera |  | . |  |  |  |  |  |  |  |
| 11 Cholera Nostras |  |  |  |  |  |  |  |  |  |
| 12 Other Epidemic Diseases | 49 | 39 | 23 | 14 | 5 | 4 |  | $\cdots$ | 134 |
| 13 Tuberculosis of the Respiratory System | 452 | 413 | 96 | 167 | 62 | 54 | 1 |  | 1,245 |
| 14 Tuberculosis of the Meninges | 16 | 35 | 2 | 10 | 4 | 9 | . |  | 76 |
| 15 Other forms of Tuberculosis | 41 | 54 | 8 | 16 | 6 | 13 | $\ldots$ | $\cdots$ | 138 |
| 16 Cancer and other Malig. nant Tumours | -988 | 824 | 288 | 249 | 132 | 100 | . | . | 2,581 |
| 17 Meningitis .. | 67 | 44 | 28 | 12 | 7 | 14 | $\cdots$ |  | 172 |
| 18 Hæmorrhage, Embolism, and Softening of Brain | 454 | 380 | 124 | 130 | 52 | 51 | $\cdots$ |  | 1,191 |
| 19 Diseases of the Heart . . | 996 | 962 | 334 | 227 | 1.28 | 118 | $\cdots$ | 1 | 2,766 |
| 20 Acute Bronchitis | 79 | 28 | 17 | 19 | 2 | 5 | $\cdots$ |  | 150 |
| 21 Chronic Bronchitis | 123 | 140 | 45 | 27 | 20 | 10 | $\cdots$ |  | 365 |
| 22 Pneumonia .. .. | 377 | 292 | 103 | 76 | 52 | 57 | $\cdots$ |  | 957 |
| 23 Other Diseases of the Respiratory System (Tuberculosis excptd.) | 424 | 357 | 108 | 91 | 66 | 41 | . | 1 | 1,088 |
| 24 Diseases of the Stomach (Cancer excepted) | 56 | 46 | 25 | 18 | 18 | 2 | $\cdots$ | 1 | 166 |
| 25aDiarrhœa and Enteritis (children under 2 years of age) | 396 | 194 | 107 | 51 | 51 | 7 | $\cdots$ | $\cdots$ | 806 |
| $25 b$ Diarrhoea and Enteritis <br> (2 years and over) . . | 82 | 67 | 53 | 18 | S | 8 |  | $\cdots$ | 236 |
| 26 Appendicitis \& Typhlitis | 56 | 48 | 25 | 11 | 8 | 6 |  |  | 154 |
| 27 Hernia, Intestinal Obstruction .. | 96 | S3 | 37 | 27 | 12 | 16 |  |  | 271 |
| 28 Cirrhosis of the Liver. . | 26 | 29 | 8 | 8 | 10 | 3 | . |  | 84 |
| 29 Acute and Chronic Nephritis .. | 425 | 431 | 181 | 108 | 56 | 31 |  | $\cdots$ | 1,232 |
| 30 Non-cancerous Tumours and other Diseases of Female Genital Organs | 76 | 54 | 35 | 20 | 11 | 3 |  |  | 199 |
| 31 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis) | 115 | 87 | 27 | 15 | 12 | 9 |  |  | 265 |
| 32 Other Puerperal Accidents of Pregnancy and Confinement .. | 200 | 111 | 72 | 50 | 24 | 16 |  |  | 473 |
| 33 Congenital Debility and |  |  |  |  |  |  |  |  |  |
| Malformations | 689 | 498 | 201 | 141 | 90 | 71 |  |  | 1,690 |
| 34 Senility | 650 | 657 | 209 | 211 | 81 | 101 | . |  | 1,909 |
| 35 Violent Deaths | 252 | 184 | 107 | 50 | 31 | 28 |  | 1 | 653 |
| 36 Suicides | 51 | 34 | 16 | 11 | 4 | 3 |  |  | 119 |
| 37 Other Diseases | 1,301 | 1,169 | 466 | 336 | 182 | 125 |  |  | 3,579 |
| $3 S$ Unspecified or Ill-defined Diseases | 82 | 81 | 16 | 41 | 24 | 14 | 1 |  | 259 |
| Total-Females . . | 8,948 | 7.640 | 2.887 | 2,226 | 1,224 | 946 | 2 | 4 | 23.877 |

CAUSES OF DEATH.-PERSONS, 1924.

| Cause. | N.S.W. | Vic. | Q'land. | S. Aus. | W. Aus. | Tas. | Nor. Ter. | Fed. Cap. Ter. | Allstralia. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 Typhoid Fever | 97 | 33 | 46 | 14 | 20 | 8 | $\cdots$ |  | 218 |
| 2 Typhus Fever |  | . |  | . . |  | . . | . | $\cdots$ |  |
| 3 Malaria | 3 | 3 | 18 |  | 3 |  | 3 |  | 30 |
| 4 Small-pox | . |  |  |  | . |  | . |  |  |
| 5 Measles | 36 | 7 | 33 |  | 39 | 4 |  |  | 119 |
| 6 Scarlet Fever | 23 | 21 | 3 | 4 | 1 | 3 |  |  | 55 |
| 7 Whooping Cough | 64 | 247 | 23 | 48 | 24 | 14 |  |  | 420 |
| 8 Diphtheria .. | 211 | 113 | 51 | 28 | 14 | 20 |  |  | 437 |
| 9 Influenza-Pneumonic | 109 | 118 | 62 | 17 | 26 | 9 |  |  | 341 |
| 9a Influenza-other | 105 | 58 | 45 | 13 | 12 | 3 | . |  | 241 |
| 10 Asiatic Cholera | . . | . |  | . | . . |  |  |  |  |
| 11 Cholera Nostras | 1 |  | 1 |  |  |  | - |  | 2 |
| 12 Other Epidemic Diseases | 127 | 94 | 63 | 30 | 18 | 7 | 1 |  | 340 |
| 13 Tuberculosis of the Respiratory System | 1,138 | 933 | 306 | 332 | 221 | 128 | 8 |  | 3,066 |
| 14 Tuberculosis of the Meninges | 41 | 83 | 6 | 15 | 9 | 13 | . | . | 167 |
| 15 Other forms of Tuberculosis | 72 | 138 | 33 | 36 | 15 | 22 | $\cdots$ | . | 316 |
| 16 Cancer and other Malignant Tumours | 2,072 | 1,661 | 653 | 511 | 325 | 198 | 4 |  | 5,424 |
| 17 Meningitis .. .. | 162 | 108 | 61 | 30 | 25 | 28 | . | 1 | 415 |
| 18 Hæmorrhage, Emi bolism, and Softening of Brain | 874 | 703 | 263 | 253 | 112 | 100 |  |  | 2,305 |
| 19 Diseases of the Heart. . | 2,274 | 2,032 | 845 | 527 | 325 | 287 |  | 4 | 6,294 |
| 20 Acute Bronchitis | 145 | 66 | 39 | 30 | 7 | 13 |  | . | 300 |
| 21 Chronic Bronchitis | 296 | 270 | 107 | 73 | 42 | 20 |  |  | 808 |
| 22 Preumonia .. | 972 | 680 | 272 | 185 | 135 | 129 | $\cdots$ | 1 | 2,374 |
| 23 Other Diseases of the Respiratory System (Tuberculosis excptd.) | 948 | 926 | 359 | 223 | 189 | 95 | $\cdots$ | 2 | 2,742 |
| 24 Diseases of the Stomach (Cancer excepted) .. | 158 | 123 | 67 | 50 | 27 | 11 | - | 1 | 437 |
| 25aDiarrhœa and Enteritis (children under 2 years of age) | 850 | 448 | 261 | 112 | 120 | 19 | $\ldots$ | $\cdots$ | 1,810 |
| $25 b$ Diarrhœa and Enteritis (2 years and over) .. | 175 | 130 | 117 | 25 | 24 | 15 | . | $\cdots$ | 486 |
| 26 Appendicitis \& Typhlitis | 146 | 125 | 71 | 24 | 28 | 14 | $\cdots$ | $\ldots$ | 408 |
| 27 Hernia, Intestinal Obstruction .. | 205 | 159 | 85 | 44 | 29 | 28 | 1 | $\ldots$ | 551 |
| 28 Cirrhosis of the Liver. . | 165 | 89 | 41 | 32 | 24 | 8 | 1 | $\cdots$ | 300 |
| $\begin{array}{cc}29 \text { Acute and Chronic } \\ \text { Nephritis .. } & \text {.. }\end{array}$ | 1,113 | 927 | 413 | 240 | 128 | 71 | 1 | $\cdots$ | 2,893 |
| 30 Non-cancerous Tumours and other Diseases of Female Genital Organs | 76 | 54 | 35 | 20 | 11 | 3 |  | $\cdots$ | 199 |
| 31 Puerperal Septicæmia (Puerperal Fever, |  |  |  |  |  |  |  |  |  |
| Puerperal Peritonitis) | 115 | 87 | 27 | 15 | 12 | 9 | $\cdots$ | . | 265 |
| 32 Other Puerperal Accidents of Pregnancy and Confinement .. | 200 | 111 | 72 | 50 | 24 | 16 |  |  | 473 |
| 33 Congenital Debility and |  |  |  |  |  |  |  |  | 3850 |
| Malformations | 1,583 | 1,105 | 489 | 304 | 199 | 177 | 1 | 1 | 3,859 |
| 34 Senility | 1,566 | 1,240 | 530 | 422 | 208 | 180 | 10 |  | 4,156 |
| 35 Violent Deaths | 1,145 | 763 | 477 | 230 | 206 | 115 | 2 | 3 | 2,941 |
| 36 Suicides | 271 | 152 | 97 | 62 | 52 | 15 | 3 | 1 | 653 |
| 37 Other Diseases | 3,130 | 2,490 | 1,200 | 755 | 520 | 301 | 3 | 1 | 8,400 |
| 38 Unspecified or Ill-defined Diseases | 227 | 206 | 56 | 116 | 89 | 35 | 6 |  | 735 |
| Total-Persons | 20.8:5 | 16,503 | 7,327 | 4,870 | 3,263 | 2,123 | 44 | 15 | 54,980 |

The classification for the years 1920 to 1924 is shown for Australia in the following table, and for purposes of comparison the figures for the year 1924 have been repeated from the preceding table. Male and female deaths for 1920 are shown on pages 129 and 130 of the fourteenth issue, for 1921 on pages 122 and 123 of the fifteenth issue, for 1922 on pages 1001 and 1002 of the sixteenth issue, and for 1923 on pages 1006 and 1007 of the seventeenth issue of this book.

## CAUSES OF DEATH.—AUSTRALIA, 1920 TO 1924.

Persons.

(ii) Includes acute disseminated tuberculosis.

- Note.-In consequence 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.

15 Deaths from Special 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 in 1924 was 218 , which was equivalent to 4 per bundred thousand living. This rate is much lower than the average for the last five years. Of the 218 who died, 127 were males and 91 females.
(ii) Typhus. Only one death from typhus, which occurred in South Australia in 1923, has been recorded in 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; 18 out of the 30 deaths registered in 1924 occurred in Queensland, 3 in New South Wales, 3 in Victoria, 3 in Western Australia, and 3 in the Northern Territory.
(iv) Small-pox. The number of deaths from small-pox in Australia is very small. During the five years under review there were only four deaths from this cause.
(v) Measles. Of the deaths from measles the greatest number occurred during 1920, when 482 were registered, while the minimum was in 1922 with a total of 28 deaths. During 1924 there were 119 deaths, of which 63 were males and 56 females; of these, 36 were registered in New Súuth Wales, 7 in Victoria, 33 in Quecnaland, 30 in Western Australia, and 4 in Tasmania.
(vi) Scarlet Fever. The mortality from this source is very light, the average number of deaths from 1920 to 1924 being 54 per annum.
(vii) Whooping Cough. In 1924 there were 420 deaths, equal to a death rate of 7 per 100,000 persons. Of the 420 deaths, 195 were males and 225 females. Sixty-four deaths occurred in New South Wales, 247 in Victoria, 23 in Queensland, 48 in South Australia, 24 in Western Anstralia, and 14 in Tasmania. The greatest number of deaths from whooping cough in any year of the period 1920-1924 was 561 in 1920.
(viii) Diphtheria. The number of deaths due to diphtheria has varied from a minimum of 395 in 1923 to a maximum of 917 in 1921. During 1924 there were 437 deaths from this cause- 222 males and 215 females-representing a death rate of 8 per 100,000 persons living. The corresponding rates for the separate States were-Victoria, Qucensland, and Western Australia, 5; South Australia, 9 ; New South Wales, 10 ; and Tasmania, 14.
(ix) Influenza. The deaths from influenza during 1924 were less than in 1923, when they were more numerous than in any year since the extraordinary epidemic of 1919. In 1924, there were 582 deaths from this disease, representing a rate of 10 per 100,000 persons. Of these deaths, 241 were ascribed to ordinary influenza, and 341 to pneumonic influenza.
(x) Asiatic Cholera. No deaths from Asiatic cholera have been recorded in Australia.
(xi) Cholera Nostras. For the five years under review only nine deaths have been due to this cause.
(xii) Other Epidemic Diseases. The deaths registered under this heading numbered 340 in 1924. The list in 1924 includes the following diseases :-Dysentery 92, meningococcal meningitis 89 , erysipelas 75 , lethargic encephalitis 45 , acute poliomyelitis 26 , leprosy 6, and other epidemic diseases 4. There were no deaths from plague in the years 1920 and 1924. Outbreaks occurred in 1921 and 1922, causing 61 deaths in Queensland and 10 in New South Wales, and 1 death occurred in 1923 in New South Wales.
(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 deairable 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 disease.

During 1924 there were 3,066 deaths from tuberculosis of the respiratory system, which compares favourably with the average of 3,091 for the preceding four years. The 3,066 deaths in 1924 represented a rate of 53 per 100,000 persons. Of these deaths, 1,821 were males and 1,245 females.
(xiv) Tuberculosis of the Meninges. The number of deaths ascribed to this cause in 1924 was 167 . During the last five years the greatest number, viz., 218, occurred in 1921, and the least number, viz., 159, in 1923.
(xv) Other Forms of Tuberculosis. The deaths in 1924 include the following :Tuberculosis of the intestines and peritoneum, 77 ; tuberculosis of the spinal column, 52 ; tuberculosis of the joints, 27 : tuberculusis of other organs, 42; acute disseminated tuberculosis, 69 ; and chronic disseminated tuberculosis, 49.
(xva) All Forms of Tuberculosis.-(a) General. A complete tabulation of all the different tubercular diseases from which deaths occurred in 1924 will be found in Bulletin No. 42 of "Australian Demography." The total number of deaths due to tubercular diseases was 3,549 , viz., 2,030 males and 1,459 females.
(b) Ages at Death. The following table shows the ages of these 3,549 persons :-

TUBERCULAR DISEASES.-DEATHS IN AGE-GROUPS, AUSTRALIA, 1924.

(c) Occupations at Death, Males. A tabulation of the occupations of males dying from tubercular diseases during 1924 is given in summary form hereunder:-

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES.AUSTRALIA, 1924.

| Occupation. | No. of Male Deaths | Occupation. | No. of Male Deaths. |
| :---: | :---: | :---: | :---: |
| Professional Class- |  | Industrial Class- |  |
| Government, Defence, Law | 40 | Art and Mechanic Productions | 102 |
| Others .. | 73 | Textiles and Fibrous Materials | 54 |
|  |  | Food and Drinks .. .. | 20 |
| Domestic Class- |  | Animal and Vegetable Sub- |  |
| Board and Lodging | 31 | stances .. .. | 9 |
| Others | 31 | Metals and Minerals | 40 |
|  |  | Fuel, Light and Energy | 13 |
| Commercial Class- |  | Building and Construction | 91 |
| Property and Finance .. | 16 | Others | 469 |
| Art, Mechanic and Textile Products .. .. . .. | 21 | Agricultural, ${ }^{\circ}$ Pastoral, |  |
| Food and Drinks .. | 41 | Mining, etc., Class- |  |
| Animal and Vegetable Sub- |  | Agricultural - | 144 |
| stances . . . | 4 | Pastural .. .. | 43 |
| Fuel, Light and Metals | 6 | Mining and Quarrying | 159 |
| Merchants and Dealers | 50 | Others | 17 |
| Others | 170 |  |  |
|  |  | Inderendent Means | 36 |
| Transport and Communication Class- |  | Derendents | 161 |
| Railway Traffic | 49 |  |  |
| Ruad and Tramway Traffic | 70 | Occuration Not Stated | 47 |
| Sea and River Traffic | 58 |  | 2090 |
| Otherz | 25 | Total Male Deaths | 2,090 |

(d) Length of Residence in Australia. The length of residence in Australia of persons who died from tubercular diseases in 1924 is given in the next table.

| LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1924. |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Jength of Residence in Australia. | Male. | Fem. | Total. | Length of Residence in Australia. | Mate. | Fem. | Total. |
| Born in Australia | 1,504 | 1,244 | 2,748 | Resident 10 years \& under 15 | 102 | 53 | 155 |
| Resident, under 1 yoar | 1, 17 | 1, 1 | - 18 | ," 15 , ", 20 | 42 | 8 | 50 |
| ,, 1 year | 13 | ${ }^{7}$ | 20 | ", 20 , over ... |  | 88 | 340 |
| $\because \quad 2 \text { years }$ | 19 | 10 | 21 | Length of residence not stated | 97 | 18 | 115 |
| $\begin{array}{lll} \because & 3 \\ " & 4 \end{array}$ | 7 10 | 10 | 17 21 18 | - |  | - | - |
| " $\quad 5 \quad$ ", and under 10 | 27 | 13 | 36 | Total Deaths . | 2,030 | 1,459 | 3,549 |

(e) Death Rates. The preceding table and the table on page 989 show that, among persons who had lived less than five years in Austintia, 702 deaths occurred, and of these 105 , or 14.9 per cent., were due to tubercular diseases.

In order to show the prevalence of tuberculosis in the several States, the death rates from tubercular diseases 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, 1924.

| State. |  | Death Rates (a) from Tuberculosis. |  |  | Proportion per 10,000 Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales | $\cdots$ | 65 | 47 | 56 | 624 | 569 | 600 |
| Victoria .. | . | 81 | 61 | 70 | 736 | 657 | 699 |
| Queensland | . | 55 | 27 | 42 | 538 | 367 | 471 |
| South Australia | $\cdots$ | 71 | 74 | 72 | 719 | 867 | 786 |
| Western Australia | . | 90 | 43 | 68 | 849 | - 588 | 751 |
| Tasmania | . . | 81 | 71 | 76 | 739 | 803 | 768 |
| Northern Territory | $\ldots$ | 275 | 95 | 222 | 1,667 | 5,000 | 1,818 |
| Australia | . | 71 | 51 | 61 | 672 | 611 | 646 |

(a) Number of deaths trom tubercutosis per 100,000 of mean population.
(f) Death Rates, Various Countries. The following table, which gives for a number of countries the death rates from tuberculosis of the respiratory system, and all forms of tuberculosis, per 100,000 persons living, shows that Australia occupies a very favourable position in comparison with other countries :-

## TUBERCULOSIS.-DEATHS PER 100.000 PERSONS LIVING, VARIOUS COUNTRIES.

| Country. | Year. | Respiratory System. | Forms. | Country. | Year. | Respiratory System | $\begin{gathered} \text { All } \\ \text { Forms. } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Rumania | 1914 | 40 | (a) | Scotland | 1923 | 82 | 118 |
| Union of South |  |  |  | Irish Free State | 1923 | 111 | 141 |
| Africa (Whites) | 1923 | 35 | 41 | Prussia | 1922 | (a) | 143 |
| New Zealand .. | 1924 | 44 | 57 | Italy .. | 1923 | 110 | 143 |
| Ontario (Canada) | 1924 | 50 | 60 | Jamaica | 1915 | (a) | 147 |
| Australia .. | 1924 | 53 | 61 | Germany | 1920 | 132 | $154{ }^{\circ}$ |
| Canada (exclusive |  |  |  | Spain Northern Ireland | 1921 | (a) | 158 |
| of Quebec) | 1924 | 55 | 68 | Northern Ireland | 1923 | 120 | 159 |
| Ceylon | 1923 | 72 | 81 | Sweden | 1920 | 131 | 163 |
| Denmark | 1922 | 77 | 84 | Switzerland | 1920 | 131 | 180 |
| United States (Reg- |  |  |  | Norway | 192 I | 157 | 198 |
| istration Area) | 1923 | 82 | 94 | Japan | 1923 | 139 | 202 |
| Netherlands .. | 1923 | 79 | 105 | Finland | 1920 | (a) | 207 |
| England and Wales | 1923 | 84 | 106 | France | 1917 | (a) | 215 |
| Great Britain . . | 1923 | 84 | 109 | Austria | 1921 | (a) | 227 |
| Belgium | 1922 | 87 | 111 | Chile . . | 1914 | (a) | 255 |
| Quebec (Canada) | 1922 | 106 | 116 | Hungary | 1915 | (a) | 354 |

(a) Not available.
(xvi) Cancer and other Malignant Tumours.-(a) General. The number of deaths from cancer has increased continuously to 5,424 in 1924 . Of the deaths registered in 1924, 2,843 were of males, viz., 1,084 in New South Wales, 837 in Victoria, 365 in Queensland, 262 in South Australia, 193 in Western Australia, 98 in Tasmania, and 4 in the Northern Territory; while 2,581 were of females, viz., 988 in New South Wales, 824 in Victoria, 288 in Queensland, 249 in South Australia, 132 in Western Australia, and 100 in Tasmania. Bulletin No. 42 of "Australian Demography" contains a complete tabulation of the various types of cancer and of the seat of the disease.
(b) Type and Seat of Disease. Tables showing the type and seat of disease, in conjunction with age, and also with conjugal condition, of the persons dying from cancer in 1924 will be found in Bulletin No. 42 of "Australian Demography." A summary showing type and seat of disease for the year 1924 is given hereunder :-

DEATHS FROM CANCER.-TYPE AND SEAT OF DISEASE, AUSTRALIA, 1924.

| Type of Disease. | Males. | Females | Persons | Seat of Disease. | Males. | Females | Persons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Carcinoma | 1,590 | 1,566 | 3,156 | Stomach and liver. . | 1,205 | 722 | 1,927 |
| Cancer | 575 | 455 | 1,030 | Peritoneum, intes- |  |  |  |
| Malignant disease | 266 | 252 | 518 | tines and rectum | 428 | 382 | 810 |
| Sarcoma . . | 168 | 135 | 303 | Female genital |  |  |  |
| Epithelioma | 127 | 52 | 179 | organs.. | . | 540 | 540 |
| Rodent ulcer | 43 | 25 | 68 | Breast . . |  | 415 | 415 |
| Malignant tumour. | 47 | 60 | 107 | Buccal cavity | 321 | 33 | 354 |
| Neoplasm | 20 | 14 | 34 | Skin . | 118 | 76 | 194 |
| Scirrhus .. | 1 | 17 | 18 | Other organs .. | 771 | 413 | 1,184 |
| Hypernephroma | 6 |  | 11 |  |  |  |  |
| Total Deaths | 2,843 | 2,581 | 5,42土 | Total Deaths | 2,843 | 2,581 | 5,424 |

(c) Ages at Death. The ages of the 5,424 persons who died from cancer in 1924 are given in the following table, which shows that while the ages below 35 are not by any means immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age-group 60 to 65 :-

DEATHS FROM CANCER.-AGES, AUSTRALIA, 1924.

| Ages. |  |  |  | Male. | Female. | Total. |  |  |  |  | Male. | Female. | Totni. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 15 years .. <br> 15 years and under 20 |  |  |  | 24 | 14 | 38 |  | years a | und | 65 | 529 | 381 | 910 |
|  |  |  |  | 8 | 10 | 18 | 65 | , | " |  | 489 | 336 | 825 |
| 2025 | " | " | 25 | 11 | 6 | 17 | 70 | " | , |  | 403 | 282 | 685 |
|  |  | " | 30 | 8 | 19 | 27 | 75 | " | " |  | 265 | 227 | 492 |
| 30 | ", | , | 35 | 27 | 42 | 69 |  | " | " |  | 123 | 117 | 240 |
| 35 | " | " | 40 | 47 | 94 | 141 |  | years a | over |  | 53 | 74 | 127 |
| 40 | " | " | 45 | 92 | 152 | 244 |  | pecifie |  |  |  | . . |  |
| 45 | " | " | 50 | 162 | 215 | 377 |  |  |  |  |  |  |  |
| 50 | " | " | 55 | 245 | 281 | 526 |  |  |  |  |  |  |  |
| 55 | " | " | 60 | 357 | 331 | 688 |  | Total | eaths |  | 2,843 | 2,581 | 5,424 |

(d) Occupations. A summarized tabulation of the occupation of males who died from cancer is given hereunder :-

DEATHS FROM CANCER.-OCCUPATIONS (MALES), AUSTRALIA, 1924.

| Occupation. | No. of Male Deaths. | Occupation. | No. of Male Deaths. |
| :---: | :---: | :---: | :---: |
| Professtonal Class- |  | Industrtal Class- |  |
| Government, Defence, Law | 62 | Art, and Mechanie Productions | 117 |
| Others | 98 | Textiles and Fibrous Materials | 64 |
|  |  | Food and Drinks .. .. | 33 |
| Domestic Class- |  | Animal and Vegetable Sub- |  |
| Board and Lodging. | 46 | stances . ${ }^{\text {setals }}$. ${ }^{\text {a }}$ | 11 |
| Others | 25 | Metals and Mineral <br> Fuel, Light and Energy | 62 4 |
| Commerclal Class- |  | Building and Construction | 165 |
| Property and Finance | 27 | Others | 680 |
| Art, Mechanic and Textile Products | 25 | Agricultural, Pastorat, |  |
| Food and Drinks . | 68 | Mining, etc., Ciass- |  |
| Animal and Vegetable Substances | 7 | Agricultural Pastoral .. | 448 109 |
| Fuel, Light and Metals | 4 | Mining and Quarrying | 128 |
| Merchants and Dealers | 71 | Others | 30 |
| Others . | 146 | Independent Means | 64 |
| Tranport and Communication Class- |  | Dependent | 43 |
| Railway Traffic | - 79 |  |  |
| Road and Tramway Traffic | 90 | Occupation Unspecified | 74 |
| Sea and River Traffic Others | 50 |  |  |
| Others | 13 | Total Male Deaths | 2,843 |

(e) Death Rates. The following table shows that the death rate for males is higher than that for females in every State with the exception of Tasmania :-

DEATHS FROM CANCER.-RATES (a) AND PROPORTIONS, 1924.

(a) Number of deaths from cancer per 100,000 of mean population.
(f) Comparison with Tuberculosis. In recent years the death rate from tuberculosis has shown a tendency to decrease, while that for cancer has displayed an almost continuous increase. The table hereunder shows that for each of the years under review, the death rate for cancer has been greater than that for tuberculosis, the excess varying from 17 per 100,000 persons in 1920 to 32 in 1924 . During the whole period the mortality of both sexes from cancer was always greater than that from tuberculosis.

TUBERCULOSIS AND CANCER.-DEATH RATES (a), AUSTRALIA, 1920 T0 1924.

| Year. |  | Death Rate (a) from Tuberculosis. |  |  | Death Rate (a) from Cancer. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males. | Females. | Total. | Males. | Females. | Total. |
| 1920 |  | 79 | 55 | 67 | 86 | 82 | 84 |
| 1921 |  | 78 | 56 | 68 | 88 | 87 | 87 |
| 1922 |  | 71 | 51 | 61 | 93 | 88 | 91 |
| 1923 |  | 71 | 53 | 62 | 91 | 88 | 89 |
| 1924 |  | 71 | 51 | 61 | 96 | 91 | 93 |

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

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

| Country. | Year. | Rate. | Country. | Year. | Rate. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Ceylon | 1923 | 9 | United States (Regis- |  |  |
| Rumania | 1914 | 13 | tration Area) | 1923 | 89 |
| Serbia | 1911 | 14 | Prussia | 1922 | 97 |
| Jamaica | 1915 | 17 | Australia | 1924 | 93 |
| Chile | 1914 | 36 | Germany | 1920 | 95 |
| Hungary | 1915 | 48 | New Zealand | 1924 | 96 |
| Quebec (Canada) | 1922 | 56 | Ontario, (Canada) . . | 1924 | 97 |
| Spain | 1921 | 60 | Norway .. | 1921 | 105 |
| Italy | 1923 | 71 | Northern Ireland | 1923 | 107 |
| Japan | 1923 | 70 | Sweden . . | 1920 | 110 |
| Union of South Africa |  |  | Netherlands | 1923 | 113 |
| (Whites) | 1923 | 71 | Switzerland | 1920 | 126 |
| France | 1917 | 75 | Great Britain | 1923 | 127 |
| Belgium | 1922 | 78 | England and Wales | 1923 | 127 |
| Canada (exclusive of |  |  | Austria . . | 1921 | 128 |
| Quebec) | 1924 | 82 | Scotland | 1923 | 130 |
| Irish Free State | 1923 | 86 | Denmark | 1922 | 141 |

The fifth issue of this Year Book contains on pages 230, et seq., a paper dealing, inter alia, with the incidence of cancer in Australia.
(xvii) Meningitis. The deaths during 1924 from meningitis numbered 415, of which 162 occurred in New South Wales, 108 in Victoria, 61 in Queensland, 30 in South Australia, 25 in Western Australia, 28 in Tasmania, and 1 in the Federal Capital Territory.
(xviii) Cerebral Hamorrhage, Embolism and Softening of the Brain. The deaths under this heading have been remarkably uniform in number during the period under review. The figures for 1924 are made up as follows :-Cerebrai hæmorrhage and apoplexy, 928 males and 974 females; cerebral embolism, 147 males, 181 females; softening of the brain, 39 males and 36 females. Prior to 1924 deaths arising from cerebral hæmorrhage combined with arterio-sclerosis were included under this heading. They are now included, in the abridged list, under No. 37 " Other Diseases."
(xix) Diseases of the Heart. The number of deaths in 1924 was 6,294 , viz., 3,528 males and 2,766 females; of the 6,294 deaths 77 were attributed to pericarditis, 725 to endocarditis and acute myocarditis, 310 to angina pectoris, and 5,182 to other diseases of the heart. Of these deaths, New South Wales contributed 1,278 males and 996 females; Victoria, 1,070 males and 962 females; Queensland, 511 males and 334 females; South Australia, 300 males and 227 females; Western Australia, 197 males and 128 females; 'Tasmania, 169 maies and 118 femaies; and Federai Capitai Territury, 3 males and 1 female. The death rates and proportions per 10,000 deaths in 1924 were as follows :-

DEATH RATES (a) FROM DISEASES OF THE HEART AND PROPORTION OF 10,000 TOTAL DEATHS, AUSTRALIA, 1924.

| State. | Death Rates (a) from Diseases of the Heart. |  |  | Proportion of 10,000 Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females, | Total. | Mates. | Femates. | Total. |
| New South Wales | 113 | 91 | 102 | 1,075 | 1,113 | 1,091 |
| Victoria | 131 | 116 | 124 | 1,207 | 1,259 | 1,231 |
| Queensland | 117 | 86 | 102 | 1,151 | 1,157 | 1,153 |
| South Australia | 112 | 87 | 100 | 1,135 | 1,020 | 1,082 |
| Western Australia | 102 | 77 | 90 | 966 | 1,046 | 996 |
| Tasmania .. | 157 | 110 | 134 | 1,436 | 1,247 | 1,353 |
| Federal Capital Territory | 121 | 73 | 104 | 2,727 | 2,500 | 2,666 |
| Australia | 119 | 97 | 108 | 1,134 | 1,158 | 1,145 |

(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) unspecified, five years and over. For the purpose of the abridged classification, $(a)$ and (c) are treated as "acute," and (b) and (d) as "chronic" bronchitis. Acute bronchitis caused 393 deaths in 1920, 386 in 1921, 283 in 1922, 351 in 1923, and 300 in 1924, viz., 150 males and 150 females.
(xxi) Chronic Bronchitis. The deaths from this cause in 1924 numbered 808, viz., 443 males and 365 females.
(xxii) Pneumonia. The deaths from pneumonia during 1924 were $2,374-1,417$ males and 957 females-which is slightly above the average for the previous four years.
(xxiii) Other Diseases of the Respiratory System. Deaths under this heading in 1920 numbered 2,527; in 1921, 2,304; in 1922, 2,208; in 1923, 2,901; and in 1924, 2,742. The total for 1924 is made up as follows, viz. :-Diseases of the nasal fossae, 6 ; diseases of the larynx, 60; broncho-pneumonia, 1,436; capillary bronchitis, 22 ; pleurisy, 236 ; pulmonary congestion and apoplexy, 288; gangrene of the lungs, 26; asthma, 275 ; pulmonary emphysema, 34; chronic interstitial pneumonia, 341 ; other diseases of the respiratory system (tuberculosis excepted), 18.
(xxiv) Diseases of the Stomach (Cancer excepted). In 1924 this heading includes ulcer of the stomach, 115 males, 57 females; ulcer of the duodenum, 61 males, 18 females; and other diseases of the stomach (cancer excepted), 95 males, 91 females; a total of 437 .
(xxva) Diarrhcea and Enteritis (Children under two years only). The number of deaths due to these causes is always a large one, varying from 1,743 in 1922 to a maximum of 3,067 in 1920 . The total for 1924 was 1,810 . During 1924, 9,114 children died before reaching their second birthday, and of these, 1,810 , or 19.9 per cent., died from diarrhcea and enteritis. The age distribution of children dying from these diseases during the first year of life will be found on page 1020.

The number of deaths (under 2 years of age), the death rates, and proportions of 10,000 deaths due to diarrhœa and enteritis are given below :-

DEATHS, DEATH RATES ( $a$ ), ETC., DIARRHGEA AND ENTERITIS (UNDER 2 YEARS OF AGE).-AUSTRALIA, 1924.

| State. | Number of Deaths from Infantile Diarrhœa and Enteritis. |  |  | Death Rates (a) from Infantile Diarrhca and Enteritis. |  |  | Proportions of $\mathbf{1 0 , 0 0 0}$ Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mates. | Females. | Total. | Males. | Females | Total. | Males. | Females. | Total. |
| New South Wales | 454 | 396 | 850 | 40 | 36 | 38 | 382 | 443 | 408 |
| Victoria | 254 | 194 | 448 | 31 | 24 | 27 | 287 | 254 | 272 |
| Queensland | 154 | 107 | 261 | 35 | 28 | 32 | 347 | 371 | 356 |
| South Australia .. | 61 | 51 | 112 | 23 | 20 | 21 | 231 | 229 | 230 |
| Western Australia | 69 | 51 | 120 | 36 | 31 | 33 | 338 | 417 | 368 |
| Tasmania | 12 | 7 | 19 | 11 | 7 | 9 | 102 | 74 | 90 |
| Australia | 1,004 | 806 | 1,810 | 34 | 28 | 31 | 323 | 338 | 329 |

(a) Number of deaths from these diseases per 100,000 of mean population.
(xxvb) Diarrhoea and Enteritis ( 2 years and over). As in the case of Infantile Diarrhcea, the number of deaths from the same causes in older ages shows a very material decline, having fallen from 1,140 in 1920 to 486 in 1924.
(xxvi) Appendicitis and Typhlitis. Deaths under this heading numbered 382 in 1920, 351 in 1921, 402 in 1922, 436 in 1923, and 408 in 1924; the total for the last year included 254 males and 154 females.
(xxvii) Hernia, Intestinal Obstruction. The deaths under this heading have not varied greatly from year to year, the number registered in 1924 being 551, viz., hernia 115, and intestinal obstruction, 436.
(xxviii) Cirrhosis of the Liver. The deaths from this cause during 1924 numbered 300 , while the average for the previous four years was 315.
(xsix) Acute and Chronic Nephritis. The number of deaths attributable to these diseases shows a considerable increase. In 1920 there were 2,286; in 1921, 2.139; in 1922, 2,333; in 1923, 2,460; and in 1924, 2,893; viz., 1,661 males and 1,232 females. Of the deaths registered in 1924, 186 were ascribed to acute nephritis, and 2,707 to chronic nephritis. New South Wales was responsible for 1,113 deaths; Victoria for 927 ; Queensland for 413; South Australia for 240; Western Australia for 128; Tasmania for 71; and Northern Territory 1.
(xxx) Non-Cancerous Tumours and other Diseases of the Female Genital Organs. Deaths in 1920 numbered 154; in 1921, 166 ; in 1922, 169 ; in 1923, 174 ; and in 1924, 199. Included in the 199 deaths in 1924 were the following:-Cysts, etc., of the ovary, 35 ; salpingitis and pelvic abscess, 65; benign tumours of the uterus, 57; uterine hæmorrhage (non-puerperal), 5 ; other diseases of the female genital organs, 37.
(xxxi) Puerperai Septiccemia (Puerperal Fever). The number of deaths from puerperal septicæmia during 1924 was greater than in any of the previous four years, being 256 or 1.96 to every 1,000 live births. The corresponding rates during the preceding four years were:- $1920,1.83 ; 1921,1.53 ; 1922,1.43$; and $1923,1.72$. A statement is appended which shows the death rate per 1,000 live births from puerperal causes in various countries, and the comparisons indicate that in this connexion Australia does not hold a favourable position.

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

| Country. | Year. | Rates per 1,000 Live Births from-- |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Puerperal Sepsis. | Other Puerperal Causes. | All Puerperal Causes |
| Netherlands | 1923 | 0.62 | 1.71 | 2.33 |
| Sweden | 1920 | 1.29 | 1.34 | 2.63 |
| Italy | 1923 | 1.06 | 1.63 | 2.69 |
| Japan | 1923 | 1.31 | 2.06 | 3.37 |
| England and Wales | 1923 | 1.30 | 2.52 | 3.82 |
| Great Britain | 1923 | 1.44 | 2.89 | 4.33 |
| Western Australia | 1924 | 1.45 | 2.89 | 4.34 |
| Union of South Africa (whites) | 1923 | 2.16 | 2.37 | 4.53 |
| Tasmania | 1924 | 1.67 | 2.97 | 4.64 |
| Irish Free State | 1923 | 2.19 | 2.62 | 4.81 |
| Northern Ireland | 1923 | 1.63 | 3.29 | 4.92 |
| New Zeaiand | 1924 | 1.86 | 3.14 | 5.00 |
| Queensland | 1924 | 1.37 | 3.65 | 5.02 |
| Belgium . | 1922 | 2.14 | 3.25 | 5.39 |
| Australia | 1924 | 1.96 | 3.51 | 5.47 |
| Victoria | 1924 | 2.41 | 3.07 | 5.48 |
| South Australia | 1924 | 1.29 | 4.32 | 5.61 |
| New South Wales | 1924 | 2.14 | 3.72 | 5.86 |
| Ontario (Canada) | 1924 | 1.67 | 4.20 | 5.87 |
| Canada (excluding Quebec) | 1924 | 1.72 | 4.31 | 6.03 |
| Scotland | 1923 | 1.95 | 4.47 | 6.42 |
| United States | 1923 | 2.50 | 4.10 | 6.60 |
| Ceylon .. .. | 1923 | 8.64 | 12.92 | 21.56 |

(xxxii) Other Puerperal Accidents of Pregnancy and Confinement. The deaths under this heading in 1920 numbered 433 ; in 1921, 435 ; in 1922, 425 ; in 1923, 458 ; and in 1924, 473. Included in the 473 deaths in 1924 were the following :-Accidents of pregnancy, 96 ; puerperal hæmorrhage, 65; other accidents of childbirth, 97 ; puerperal albuminuria and convulsions, 153 ; puerperal phlegmasia alba dolens, embolus, sudden death, 54; death following childbirth, 6; diseases of the breast, 2.
(xxxiia) All Puerperal Causes. The 738 deaths in 1924 under the two preceding headings correspond to a death rate of 26 per 100,000 females. It may be expressed in other terms by stating that 1 out of every 181 women confined in 1924 died from puerperal causes. The corresponding ratios for married women were 1 out of every 187, and for single women 1 out of every 107. More detailed information will be found in a series of tables in Bulletin No. 42, "Australian Demography."

The ages of the mothers who died varied from 14 to 47 years as shown in the following table:-
DEATHS FROM PUERPERAL CAUSES.-AGES OF MOTHERS, AUSTRALIA, 1924.


The total number of children left by the married mothers was 1,799 , an average of 2.6 children par mother.

Forty-two of the mothers who died had been married less than one year, 94 between one and two years, and 53 between two and three years. The duration of marriage ranged up to 29 years, apart from 11 cases in which the date of marriage was not stated. A tabulation, distinguishing the ages at marriage, will be found in Bulletin No. 42, "Australian Demography," which also gives a table showing in combination the duration of marriage and previous issue.

- (xxxiii) Congenital $\dot{\text { Debility, Premature Birth, and Malformations. The deaths under }}$ this heading in 1924 numbered 3,859 , of which 3,792 were of children under one year of age. Over 49 per cent. of the deaths of children under one year of age were due to these causes. Returns for 1924 are given in the following table :-
dEATHS FROM CONGENITAL DEBILITY, ETC., AND MALFORMATIONS, 1924.

| State orTerritory. | Congenital Malformations. |  |  | Congenital Debility, Ieterus, Sclerema, |  |  | Premature Birth, and Injury at Birth. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females | Total. | Males. | Females. | Total. | Males. | Females. | Total. |
| New South Wales | 1.48 | 105 | 253 | 202 | 156 | 358 | 544 | 428 | 972 |
| Victoria .. | 94 | 77 | 171 | 138 | 94 | 232 | 375 | 327 | 702 |
| Queensland .. | 48 | 38 | 86 | 60 | 40 | 100 | 180 | 123 | 303 |
| South Australia | 34 | 30 | 64 | 40 | 24 | 64 | 89 | 87 | 176 |
| Western Australia | 16 | 11 | 27 | 17 | 19 | 36 | 76 | 60 | 136 |
| Tasmania .. | 19 | 14 | 33 | 30 | 17 | 47 | 57 | 40 | 97 |
| North'n Territory | .. | .. | .. |  | .. | , | 1 | .. | 1 |
| Australia | 359 | 275 | 634 | 488 | 350 | 838 | 1,322 | 1,065 | 2,387 |
| Number of deaths under one year per 1,000 births | 4.68 | 3.70 | 4.20 | 7.09 | 5.29 | 6.21 | 19.21 | 16.11 | 17.69 |

(xxxiv) Senility. The deaths ascribed to "old age" form a large group, and are in excess of those due to infantile debility. In 1924, 4,156 deaths were attributed to this cause, as follows: 1,566 occurred in New South Wales, viz., 916 males and 650 females; 1,240 in Victoria, viz., 583 males and 657 females; 530 in Queensland, viz., 321 males and 209 females; 422 in South Australia, viz., 211 males and 211 females; 208 in Western Australia, viz., 127 males and 81 females; 180 in Tasmania, viz., 79 males and 101 females; and 10 males in the Northern Territory.

Of the males whose deaths were described as due to senility, five were stated to be over 100 , and of the females, fourteen were 100 or over.
(xxxv) Violent Deaths. A very large number of deaths is due every year to external violence, and, as may be expected, male deaths largely predominate. The figures quoted are exclusive of suicides, which have been treated in a separate group. Deaths ascribed to violence numbered in 1920, 2,791, riz., 2,159 males and 632
females; in 1921, 2,892, viz., 2,301 wales and 591 females; in 1922, 2,590, viz., 2,016 males and 574 females; in 1923, 2,674, viz., 2,080 males and 594 females; and in 1924, 2,941 , viz., 2,238 males and 653 females. Of the deaths in 1924,893 males and $252^{\circ}$ females died in New South Wales; 579 males and 184 females in Victoria; 370 males and 107 females in Queensland; 180 males and 50 females in South Australia; 175 males and 31 females in Western Australia; 87 males and 28 females in Tasmania; 2 males in the Northern Territory ; and 2 males and 1 female in the Federal Capital Territory.

The following table shows the various kinds of violent deaths which occurred in 1924, distinguishing males and females:-

DEATHS FROM EXTERNAL VIOLENCE.-AUSTRALIA, 1924.

(xxxvi) Suicide. (a) General. Deaths by suicide have remained fairly stationary during recent years, the number in 1920 being 636, viz., 516 males and 120 females; in 1921, 621 , viz., 510 males and 111 females; in 1922, 533 , viz., 441 males and 92 females; in 1923, 599, viz., 492 males and 107 females; and in 1924, 653, viz., 534 males and 119 females.
(b) Modes Adopted. The modes adopted by persons who committed suicide in the years 1920 to 1924 were as follows :-

SUICIDES, MODES ADOPTED.—AUSTRALIA, 1920 T0 1924.

| Mode of Death. | Males. |  | Females. |  | Persons. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Total <br> of 4 years. 1920-23. | 1924. | $\begin{aligned} & \text { Total } \\ & \text { of } 4 \text { years } \\ & 1920-23 . \end{aligned}$ | 1924. | Total of 4 years 1920-23. | 1924. |
| Poisoning | 394 | 104 | 196 | 44 | 590 | 148 |
| Poisonous gas | 16 | 7 | 9 | 5 | 25 | 12 |
| Hanging or Strangulation | 277 | 80 | 57 | 21 | 334 | 101 |
| Drowning . . . . | 176 | 50 | 84 | 20 | 260 | 70 |
| Firearms . | 619 | 167 | 25 | 12 | 644 | 179 |
| Cutting or piercing instruments | 377 | 100 | 31 | 11 | 408 | 111 |
| Jumping from a high place .. | 25 | 7 | 12 | 2 | 37 | 9 |
| Crushing . . . | 40 | 13 | 10 | 3 | 50 | 16 |
| Other Modes | 35 | 6 | 6 | 1 | 41 | 7 |
| Total | 1,959 | 534 | 430 | 119 | 2,389 | 653 |

(c) Death Rates. The death rates from suicide and the proportion per 10,000 of total deaths are given in the following table :-
SUICIDE-DEATHS, DEATH RATES (a), AND PROPORTION OF TOTAL DEATHS, 1924.

| State or Territory. | Number of Deaths. |  |  | Death Rates (a) from Suicide. |  |  | Proportion of 10,000 Total Deaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Mates. | anles. | Total. | Males. | Eemales. | Total. | Males. | Females. | Total. |
| New South Wales ${ }^{\text {- }}$ | 220 | 51 | 271 | 19 | 5 | 12 | 185 | 57 | 130 |
| Victoria. . | 118 | 34 | 152 | 15 | 4 | 9 | 133 | 45 | 92 |
| Queensland | 81 | 16 | 97 | 19 | 4 | 12 | 182 | 55 | 132 |
| South Australia .. | 51 | 11 | 62 | 19 | 4 | 12 | 193 | 49 | 127 |
| Western Australia | 48 | 4 | 52 | 25 | 2 | 15 | 235 | 33 | 159 |
| Tasmania | 12 | 3 | 15 | 11 | 3 | 7 | 102 | 32 | 71 |
| Northern Terr. . . | , | . . | 3 | 118 | . . | 83 | 714 | . | 682 |
| Fed. Cap. Territory | 1 | . | 1 | 41 |  | 26 | 909 |  | 667 |
| Australia | 534 | 119 | 653 | 18 | 4 | 11 | 172 | 50 | 119 |

(a) Number of deaths from suicide per 100,000 of mean population.
(d) Ages. From the following table, which shows the ages of the persons who committed suicide in 1924, it will be seen that both extreme youth and extreme old age are represented:-

AGES OF PERSONS WHO COMMITTED SUICIDE--AUSTRALIA, 1924.

(e) Occupations of Males. The following table gives the occupations of the males who committed suicide in 1924 :-

OCCUPATIONS OF MALES WHO COMMITTED SUICIDE.-AUSTRALIA, 1924.

| Occupation. | Deaths. | Occupation. | Deaths. |
| :---: | :---: | :---: | :---: |
| Professional Class- |  | Indestrial Class- |  |
| Government, Defence, Law .. | 8 | Art and Mechanic Productions | 17 |
| Others .. | 21 | Textiles and Fibrous Materials | 7 |
| Domestic Class- |  | Food and Drinks | 9 |
| Board and Lodging. . .. | 14 | Animal and Vegetable Sub- |  |
| Others .. . | 15 | stances .. | 1 |
| Commerclal Class- |  | Metals and Minerals | 13 |
| Property and Finance | 8 | Fuel, Light and Energy | 2 |
| Art, Mechanic and Textile |  | Building and Construction | 18 |
| Products | 4 | Others .. .. | 138 |
| Food and Drinks | 17 | Agricultural, Pastoral, |  |
| Animal and Vegetable Sub. stances | 3 | Mining, etc., ClassAgricultural | 75 |
| Merchants and Dealers | 13 | Pastoral .. | 22 |
| Others . . . | 28 | Mining and Quarrying | 16 |
| Transport and Communication Class- |  | Others Independent Means | 6 |
| Railways | 9 | Dependents | 9 |
| Roads and Trams | 20 | Occupation not stated | 19 |
| Sea and Rivers | 11 |  |  |
| Others | 5 | Total Male Deaths | 534 |

(f) Frequency. The following table has been prepared to show the change which has taken place in the suicide rate during the past fifty years. The results show a fairiy general increase in the rates from 99.07 per million during the years $1871-75$ to a maximum of 131.17 per million for the period $1911-15$, since when the rate has again subsided to a rate about 7 per cent. higher than that of 1871-75. The notes appended to the table show the limitations of the figures for the earlier years.

SUICIDES.—AUSTRALIA, 1871-75 TO 1924.

| Period. | Number of Sulcides. |  |  | Suicides per One Million of Persons Living. Average Annual Rate. |  |  | Suicides of Femates to 100 Suicides of Males. Based on- |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males. | Females. | Persons. | Males. | Females. | Persons. | A bsolute Figures. | Rates. |
| 1871-75 | 715 | 150 | 865 | 150.94 | 37.56 | 99.07 | 20.98 | 24.88 |
| 1876-80 | 878 | 145 | 1,023 | 159.69 | 31.06 | 100.62 | 16.51 | 19.45 |
| 1881-85 | 999 | 183 | 1,182 | 152.58 | 32.90 | 97.61 | 18.32 | 21.56 |
| 1886-90 | - 1,394 | 292 | (a) 1,686 | 179.20 | 43.97 | (c) 116.92 | 20.95 | 24.54 |
| 1891-95 | 1,574 | 337 | (b) 1,911 | 181.34 | 44.09 | (d) 117.07 | 21.41 | 24.31 |
| 1896-1900 | 1,838 | 410 | 2,248 | 191.11 | 47.88 | 123.65 | 22.31 | 25.05 |
| 1901-05 | 2,054 | 380 | 2,434 | 201.78 | 40.88 | 124.98 | 18.50 | 20.26 |
| 1906-10 | 2,031 | 437 | 2,468 | 186.11 | 43.22 | 117.39 | 21.51 | 23.22 |
| 1911-15 | 2,546 | 577 | 3,123 | 206.15 | 50.36 | 131.17 | 22.66 | 24.43 |
| 1916-20 | 2,238 | 521 | 2,759 | 175.46 | 40.93 | 108.27 | 23.28 | 23.33 |
| 1921 | 510 | 111 | 621 | 183.89 | 41.33 | 113.76 | 21.76 | 22.47 |
| 1922 | 441 | 92 | 533 | 155.78 | 33.61 | 95.72 | 20.86 | 21.58 |
| 1923 | 492 | 107 | 599 | 169.81 | 38.33 | 105.29 | 21.75 | 22.57 |
| 1924 | 534 | 119 | 653 | 180.36 | 41.81 | 112.46 | 22.28 | 23.18 |

[^4] (c) 116.49 inclusive of Western Australian figures. (d) 119.11 inclusive of Western Australian figures.
(xxxvii) Other Diseases. The number of causes included under this heading is very large, amounting to no less than 81 of the items shown in the detailed classification, and deaths were recorded under every one of these with the exception of the following:Glanders, anthrax, rabies, soft chancre, chyluria, pellagra, diseases of parathyroid gland, ankylostomiasis, other diseases of digestive system, non-puerperal diseases of breast, and other diseases of organs of locomotion. The total number of deaths under "other diseases" in 1920 was 8,219 , viz., 4,753 males and 3,466 females; in 1921, 8,279 , viz., 4,668 males and 3,611 females; in 1922, 7,856 , viz., 4,488 males and 3,368 females; in 1923, 8,203 , viz., 4,712 males and 3,491 females; and in $1924,8,400$, viz., 4,821 males and 3,579 females. Some of the diseases included here account for very considerable numbers of deaths. Particulars of the deaths included in 1924 are shown in the following table :-

DEATHS FROM " OTHER DISEASES."—AUSTRALIA, 1924.

| Causes. | M. | F. | Total. | Causes. | M. | F. | Total. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Tetanus. . | 59 | 21 | 80 | Diseases of the Arteries, |  |  |  |
| Mycoses | 2 | 3 | 5 | Aneurism, Atheroma | 943 | 553 | 1,496 |
| Gonococcus Infection | 2 |  | 2 | Embolism and Thrombosis |  |  |  |
| Syphilis | 79 | 41 | 120 | (not cerebral) . ${ }^{\text {a }}$ | 54 | 73 | 127 |
| Purulent Infection and Septi- cæmin | 74 | 37 | 111 | Diseases of the Veins Diseases of the Lymphatic | 16 | 12 | 28 |
| Other Infectious Diseases .- | 1 | 1. | 1 | System | 12 | 4 | 16 |
| Other 'T'umours ('Tumours of the femalo genital organs |  |  |  | Hæmorrhage (without specifled cause) | 9 | 9 | 18 |
| excepted) .. | 19 | 13 | 32 | Other Diseases of the Cir- |  |  |  |
| Acute Rheumatic Fever .- | 124 | 124 | 248 | culatory System | 47 | 44 | 91 |
| $\begin{array}{cc}\text { Chronic } \\ \text { Gout } & \text { Rheumatism and } \\ \text {.. }\end{array}$ | 83 | 96 | 179 | Diseases of the Mouth and its Associated Organs | 10 | 8 | 18 |
| Scurvy .. | 1 | 2 | 3 | Diseases of the Pharynx .. | 24 | 26 | 50 |
| Beri-beri | 23 |  | 23 | Diseases of the Cisophagus | 7 | 5 | 12 |
| Rickets | 1 |  | 1 | Intestinal Parasites . | 7 | 5 | 12 |
| Diabetes | 282 | 391 | 673 | Other Diseases of the In- |  |  |  |
| Anxemia, Chlorosis $\quad$. | 186 | 232 | 418 | testines .. | 44 | 24 | 68 |
| Diseases of the Pituitary Gland | 6 | 2 | 8 | Acute Yellow Atrophy of the Liver | $\underline{9}$ | 13 | 15 |
| Exophthalmic Goitre | 8 | 74 | 82 | Hydatid Tumours of the |  |  |  |
| Diseases of the Thyroid Gland | $\underline{2}$ | 40 | 42 | Liver Biliary Calcull | 23 45 | 16 | 89 141 |
| Diseases of the Thymus | 2 | 40 | 42 | Other Diseases of the Liver | 89 89 | 166 126 | 1415 |
| Gland . | 2 | 5 | 7 | Diseases of the Pancreas .. | 28 | 40 | 68 |
| Addison's Disease | 7 | 11 | 18 | Peritonitis (without specified |  |  |  |
| Diseases of the Spleen | 5 | 4 | 9 | cause) . . | 57 | 51 | 108 |
| Leucamia $\quad$. | 47 | 44 | 91 | Other Diseases of the Kid- |  |  |  |
| Hodgkin's Disease $\quad$. | 31. | 13 | 44 | neys and their Adnexa | 125 | 118 | 243 |
| Acute and Chronic Alcoholism | 163 | 40 | 203 | Calculi of Urinary Passages | 40 | 17 | 57 |
| Chronic Lead Polsoning .- | 24 | 2 | 26 | Diseases of the Bladder .. | 113 | 22 | 135 |
| Chronic Organic Poisonings | 7 | 2 | 9 | Other Diseases of the Urethra, |  |  |  |
| Other General Diseases | 27 | 35 | 62 | Urinary Abscesses, etc. | 31 | 1 | 32 |
| Encephalitis .. | 63 | 52 | 115 | Diseases of the Prostate .. | 288 |  | 288 |
| Locomotor Ataxia | 55 | 11. | 66 | Non-venereal Diseases of the |  |  |  |
| Other Diseases of the Spinal |  |  |  | Male Genital Organs .. | 3 |  | 3 118 |
| Cord | 119 | 72 | 191 | Gangrene .. | 76 | 42 | 118 36 |
| Paralysis without specifled |  |  |  | Furuncle ${ }^{\text {Plo }}$ - | 18 | 18 | 136 |
| cause | 188 | 137 | 325 | Phlegmon, Acute Abscess | 63 | 50 | 113 |
| General Paralysis of the Insane | 124 | 19 | 143 | Other Diseases of the Skin and Adnexa | 59 | 26 | 55 |
| Other Forms of Mental Alienation | 38 | 63 | 101 | Non-tuberculous Diseases of the Bones | 65 | 21 | 84 |
| Epilepsy $\quad \cdots$ | 112 | 94 | 206 | Other Diseases of the Joints |  |  |  |
| Convulsions (non-puerperal) | 4 | 5 | 9 | (Tuberculosis and Rheu- |  |  |  |
| Convulsions of Children under 5 years of age | 115 | 79 | 194 | matism excepted) ${ }_{\text {Other }}^{\text {Diseases peculiar to }}$ | 18 | 14 | 32 |
| Chorea .. .- | 2 | 7 | 9 | Infancy ... | 213 | 194 | 405 |
| Neuralgia and Neuritis $\because$ | 13 | 14 | 27 | Lack of Care (Infants) . | 5 | 2 | 7 |
| Other Diseases of the Nervous System.. <br> Diseases of the Eye <br> Diseases of the Ear | $\begin{array}{r} 182 \\ 1 \\ 3 \mathrm{G} \end{array}$ | 134 -29 | 316 6.5 | Total Deaths | 4,821 | 3,579 | 8,400 |

(xxxviii) Unspecified or Ill-defined Diseases. The number of cases included under this heading was 805 in 1920, 721 in 1921, 665 in 1922, 691 in 1923, and 735 in 1924, of which 476 were males and 259 females. The detailed classification places these ill-defined 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 œdema, etc. In 1924, the number of deaths which came under the first of these categories was 61 , and under the second, 674. 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.
16. 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 headings adopted by the compilers of the International Nomenclature is, however, shown in the following table, together with the death rates and percentages on total deaths pertaining to those classes :-

DEATHS, DEATH RATES (a), ETC., IN CLASSES.-AUSTRALIA, 1924.

| Cless. | Total Deaths. |  |  | Death Rates. (a) |  |  | Proportion ofDeaths. |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | M. | F. | Total. | M. | F. | Total | M. | F. | Total. |
| 1. Epidemic, Endemic, and Infectious |  |  |  |  |  |  |  |  |  |
| Diseral diseases not ${ }^{\text {D }}$ - included | 3,457 | 2,615 | 6,072 | 117 | 92 | 105 | 1,112 | 1,095 | 1,104 |
| above ... .. | 3,891 | 3,711 | 7,602 | 131 | 130 | 131 | 1,251 | 1,554 | 1,383 |
| 3. Diseases of the Nervous System and of the Organs of Sense .. | 2,409 | 2,079 |  | 81 | 73 | 77 | 774 | 871 |  |
| 4. Diseases of the Circulatory System | 4,609 | 3,461 | 8,070 | 156 | 122 | 139 | 1,482 | 1,450 | 1,468 |
| 5. Diseasces of the Respiratory System | 3,664 | 2,560 | 6,224 | 124 | 90 | 107 | 1,178 | 1,072 | 1,132 |
| 6. Diseases of the Digestive Organs | 2,611 | 2,127 | 4,738 | 88 | 75 | 82 | 840 | 891 | 862 |
| 7. Dieases of the Genito-Urinary System and Adnexa | 2,261 | 1.559 | 3,850 | 76 | 56 | 66 | 7.7 | 666 | 700 |
| 8. Puerperal Condition .- |  | 738 | 738 |  | 26 | 13 |  | 309 | 134 |
| 9. Diseases of the skin and of the Cellular Tissue | 180 | 136 | 322 | 0 | 5 | 5 | 60 | 57 | 59 |
| 10. Diseases of the Bones and Organs of Locomotion | 83 |  | 118 |  | 1 | 2 | 7 | 15 | 21 |
| 11. Malformations | 359 | 275 | 634 | 12 | 10 | 11 | 115 | 115 | 115 |
| 12. Early Infancy | 2,028 | 1,611 | 3,639 | 69 | 56 | 63 | 652 | 675 | 662 |
| 13. Old Age | 2,247 | 1,909 | 4,156 | 76 | 67 | 71 | 722 | 799 | 756 |
| 14. External Causes | 2,822 | 772 | 3,594 | 95 | 27 | 62 | 907 | 323 | 654 |
| 15. III-defined Diseaseg | 476 | 259 | 735 | 10 | 9 | 13 | 153 | 108 | 134 |
| Total | 31,103 | 23,877 | 54,980 | 1,050 | 839 | 947 | 10,000 | 10,000 | 10,000 |

(a) Number of deaths per 100,000 of mean population.
17. Causes of Deaths of Children under one Year.-"Bulletin No. 42, Australian Demography," contains tables showing for twenty-six causes the ages at death of children dying during the first year of life. In the Bulletin mentioned, the particulars are given for males and females separately for Australia, but the totals for Australia only are shown hereunder for both sexes combined :-

CAUSES OF DEATHS OF CHILDREN UNDER ONE YEAR.—AUSTRALIA, 1924.


Pre-natal influences, as evidenced in malformations, congenital debility, and premature birth, together with injuries at birth, accounted for 3,792 , or 49 per cent., of all deaths under one year ; and of these 3,792 deaths, 2,460 , or 65 per cent., occurred within a week of birth. Among the survivors of the first week, diarrhœea and enteritis had the most fatal effects. These diseases were responsible for 1,355 deaths, representing nearly 18 per cent. of all deaths under one year, or 10.04 per 1,000 births. Excluding deaths from pre-natal causes already referred to, over 47 per cent. of the deaths between three months and one year of age were due to diarrhoea and enteritis.
18. Ages at Death of Married Males and Females, and Issue.-"Bulletin No. 42 Australian Demography," contains a number of tables, showing the age at marriage,
age at death, duration of life after marriage, birthplaces, and occupations, in combinabion with the issue of married persons who died in Australia in 1924. A short summary of the tables mentioned is given hereunder. Deaths of married males in 1924 numbered 16,566 , and of married females, 15,202 . The tabulations which follow deal, however, with only 16,215 males and 14,946 females, the information in the remaining 607 cases being incomplete. The total number of children in the families of the 16,215 males was 77,849 ; and of the 14,946 females, 74,379 . 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, 1924.

| Age at Death. |  | A verage Family of Males. | A verage Family of Females. | Age at Death. | Average Family of Males. | A verape Family of Females. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 20 years | $\ldots$ | 0.60 | 0.82 | 70 to 74 years | 5.77 | 5.91 |
| 20 to 24 years | . | 1.00 | 1.17 | 75 , 79 " | 6.30 | 6.47 |
| 25 , 29 , | . | 1.20 | 1.71 | 80," 84 " | 6.66 | 6.70 |
| 30 , 34 , | $\cdots$ | 1.93 | 2.30 | 85 " 89 " | 6.96 | 6.77 |
| 35 , 39 , | . | 2.56 | 3.22 | 90,, 94 , | 7.14 | 6.53 |
| 40,14 | . | 3.05 | 3.62 | 95 ", 99 " | 6.94 | 6.44 |
| 45 , 49 " | $\cdots$ | 3.45 | 3.67 | 100 years and up- |  |  |
| 50 , 54 , | . | 3.66 | 3.91 | wards | 8.67 | 7.00 |
| 55 , 59 , | . | 4.11 | 4.55 | Age unspecified |  | 2.33 |
| 60 , 64 " |  | 4.59 | 5.04 |  |  |  |
| 65,69 , | . . | 5.21 | 5.59 | All ages . . | 4.80 | 4.98 |

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 284 . The totals are shown in the following table :-

ISSUE OF MARRIED MALES AND FEMALES.-AUSTRALIA, 1924.


These figures show a masculinity in the issue of 2.46 , which is in harmony with the experience of the birth statistics.
19. 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 averages 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 parents, shows a corresponding decrease in the averages as the age at marriage advances :-

20. Duration of Life after Marriage of Males and Females.-The duration of life after marriage has been tabulated tor males and females hoth in combination with the age at marriage, and with the total and average issue. The tables containing the results do not, however, lend themselves to condensation, and are, therefore, omitted here. They will be found in Bulletin No. 42 of "Australian Demography."
21. Birthplaces of Deceased Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females who died in 1924, 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, differences occur between the averages of the individual States which appear inexplicable on any other ground than that of different age constitution of the locally burn population of the various States due to the different dates of the foundation of settlement. Thus, New South Wales and Tasmania, owing to their early settlement, contain a larger number of locally-born inhabitants of advanced ages than Victoria and Queensland, in which colonization was begun almost fifty years after the toundation of New South Wales. It will be noted that the differences occur both in the male and female averages. Although the figures apply to Australia as a whole, it must be borne in mind that the vast majority of deaths of natives of any one State are regiatered in that particular State.
BIRTHPLACES 0F DECEASED MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.-AUSTRALIA, 1924.

| Birthplace. | Married Males. |  | Married Females. |  | Birthplace. | Married Males. | Married <br> Females. |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  |
| New South Wales | 3,149 | 4.77 | 3,272 | 4.94 | British India and |  |  |  |
| Victoria | 2,930 | 4.08 | 2,770 | 4.12 | Ceylon .- | $44 \quad 3.70$ | 27 | 5.30 |
| Queensland | 563 | 3.91 | 650 | 3.89 | Other British Pos- |  |  |  |
| South Australia | 1,090 | 4.65 | 1,024 | 4.63 | sessions in Asia . . | $2{ }^{2} 5.50$ | 1 | 5.00 |
| Western Australia | 104 | 4.89 | 138 | 4.73 | China ${ }^{\text {a }}$ - | 61 3.33 | 2 | 4.00 |
| Tasmania . | 658 | 5.07 | 627 | 5.27 | Other Asiatic Coun- | 29.50 |  |  |
| Federal Capital Terri- |  |  |  |  | Unios ${ }^{\text {tries }}$ of. South | 293.50 | 0 | 5.11 |
| New Zealand | 121 | 3.31 | 1 114 | 2.00 3.68 | $\begin{array}{cc}\text { Union of. } \\ \text { Africa } & \text {. South } \\ \end{array}$ | 15 3.53 | 10 | 3.40 |
| England | 3,957 | 5.20 | 3,092 | 5.39 | Other African Coun- |  | 10 | 3.40 |
| Wales | 147 | 4.80 | 116 | 5.92 | tries .. | 5.540 | 6 | 2.83 |
| Scotland | 1,077 | 5.15 | 881 | 5.61 | Canada $\because$ a ${ }^{\text {a }}$ | $33 ; 4.21$ | 18 | 4.28 |
| Ireland $\square^{-}$. | 1,286 | 5.62 | 1,652 | 5.74 | Other British Pos- | i |  |  |
| Other British Posses- |  |  |  |  | sessions in America | 44.25 | 2 | 7.00 |
| sions in Europe | 22 | 4.36 | 18 | 4.83 | United States ... | $48 ; 4.67$ | 25 | 4.84 |
| Denmark .. | 84 | 5.04 | 35 | 6.00 | Other American | 1 |  |  |
| France | 36 | 5.11 | 22 | 2.95 | Countries $\quad$. | $16 \quad 2.69$ | 7 | 6.43 |
| Germany | 342 | 6.08 | 241 | 6.25 | Other Polynesian | - |  |  |
| Italy | 55 | 2.75 | 16 | 4.31 | Islands | $\bigcirc 4.14$ | 10 | 4.30 |
| Norway | 31 | 4.77 | 4 | 5.50 | At Sea | $52 \quad 6.15$ | 64 | 6.19 |
| Russia | 25 | 4.72 | 17 | 6.18 | Unspecifled | 343.35 | 29 | 4.86 |
| Sweden .. .. | 71 | 3.85 | 12 | 3.83 |  |  |  |  |
| Other European Countries | 124 | 3.61 | 34 | 5.29 | Total | $16,2154.80$ | 14,949 | 4.98 |

22. Occupations of Deceased Married Males, and Issue.-A final tabulation shows the average issue in combination with the occupation of deceased males.

OCCUPATIONS OF DECEASED MARRIED MALES, AND AVERAGE ISSUE.AUSTRALIA, 1924.

| Occupation. | Deaths of Married Males. | $\begin{aligned} & \text { A verage } \\ & \text { Family } \end{aligned}$ | Occupation. | Deaths of Married Males. | A verage l'amily. |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Professional Class- |  |  | Indostrial Class- |  |  |
| Government, Defence, and Law | 398 | 4.20 | Art and Mechanic Procincta | 741 | 4.44 |
| Otihẹ̄̃̂ . . . . | 617 | 4.10 | Textiles and Fibrous Materials | 363 | 4.42 |
|  |  |  | Food and Drinks Animat and Vegetuble Sub-- | 216 | 4.46 |
| DOMESTIO Class- |  |  | Anmal and vegetatio sub- | 63 | 5.27 |
| Board and Lodging .. | 275 | 3.40 | Metals and Minerals | 398 | 5.14 |
| Others .. .. | 255 | 3.88 | Fuel, Light and Energy . | 66 | 308 |
|  |  |  | Building and Construction. | 1,049 | 4.92 |
| Combercial ClassProperty and Finance | 219 | 3.84 | Others . . | 2,997 | 4.85 |
| Art, Mechanic and Textile |  |  | agricultural, Pastoral, |  |  |
| Products . . . | 158 | 3.47 | mining, Etc., Class- |  |  |
| Food and Drinks .. .. | 438 | 4.50 | Agricultural .. . | 2,480 | 5.99 |
| Animal and Vegetable Sub- |  |  | Pastoral - . | 653 | 5.35 |
| stances $\quad \cdots$ | 65 | 4.15 | Mining and Quarrying | 003 | 5.00 |
| Fuel, Light and Mptals | 37 | 4.86 | Others .. | 121 | 4.08 |
| Merrhants and Dealers | 477 | 4.50 |  |  |  |
| Others | 875 | 3.48 | Independent Mrans | 481 | 5.59 |
| Transport and communica- |  |  | DEPENDENTS | 32 | 3.78 |
| Railways. | 501 | 4.77 | Ocoupation not stated | 341 | 5.06 |
| Roads and Trams | 546 | 4.30 |  |  |  |
| Sea and Rivers . | 319 | 3.87 |  |  |  |
| Others | 131 | 3.93 | Total | 16,215 | 4.80 |

## § 4. Graphical Representation of Vital Statistics.

1. General.-The progressive fluctuations of the numbers 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 remembered, however, that, normally, the increase of births and marriages should be proportional to the growth of population.
2. Graphs 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 1998, associated with the commercial crisis of 1891-3; 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 five years show a tendency to return to normal.

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 wos very rapid, the total for the latter year being the highest ever recorded. The totals for 1921 to 1924 were not so favourable.

The characteristic feature of the graph 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 Natura 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 desline, 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 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 decline 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.


[^0]:    (a) Two stillbory twins not included.
    (b) Four stillborn twins not included.
    (c) Six etillborn twins not included.
    (d) One stillborn triplet not included.

[^1]:    (a) Number of births per 1,000 of the mean population.
     tration area," which includes about 85 per cent. of the population.

[^2]:    6. Infantile Deaths and Death Rate.-(i) Ausiralia, 1920 to 1924. In the following table, which shows both the total number of deaths of children under one year and the rate per thousand live births since 1920 , males and females are distinguished. The universal experience that during the first few years of life the higher death rate of male infants
[^3]:    (a) Number of deaths under 1 year per 1,000 births registered.

[^4]:    (a) 1705 inclusive of Western Australlan figures. (b) 1984 inclusive of Western Anstralian fgures

