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## DISAAIMER

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## CHAPTER X

## VITAL STATISTICS

Nore.-The tables in this chapter are confined to the principal characteristics of vital statistics tor Australia, and relate, in the mann, to the year 1963, except for the totals of marriages, births, deaths and infant deaths, for which it nas been possible to include figures for 1964. Comparisons have been restricted, in general, to the individual years 1960 to 1964 and the tive-year periods 1926-30 to 1956-60, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed tigures such as single age particulars and cross-classifications of various characteristics, will be found in the annual bulletin, Demography. For 1963 and following years a separate bulletin Causes of Death is being published. This will contain the detailed tables based on the International Statistical Classification of Diseases, Injuries and Causes of Death which were formerly published in Demography. Current information is published in the Monthly Review of Business Statistics, the Quarterly Summary of Ausiratian Statistics and the Australian Demographic Review (a mimeographed series issued at intervals throughout the year on population and vital statistics).

Figures of births and deaths for Australia are exclusive throughout of full-blood Aboriginals.

Vital statistics for the principal countries of the world are set out in § 7. International Vital Statistics.

## § 1. Provisions for Registration and Compilation of Statistics

In Australia vital statistics are compiled from information supplied for the registration of births, deaths and marriages. Each State and Territory has an independent system of registration. Provisıons for the civil registration of births, deaths and marriages have been in force in Tasmania from 1839, in Western Austratia from 1841, in South Australia from 1842, in Victoria from 1853, and in New South Wales and Queensland (then part of New South Wales) from 1856. Registration in the Territories is administered by the Commonwealth Government, registration having been taken over in respect of the Northern Territory from South Australia in 1911 and in respect of the Australian Capital Territory from New South Wales in 1930. The authority responsible for the registration of births, deaths and marriages occurring withon his particular State or Territory is the RegistrarGeneral (the Government Statist in Victoria) or the Principal Registrar.

Information concerning a birth is required to be supplied within 28 days in the Australian Capital Territory and the Northern Territory, 42 days in South Australia, and 60 days in other States. For the registration of a death the period allowed is 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, Australian Capital Territory and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

The Marriage Act 1961 came into operation on 1st September, 1963, placing the marriage laws of all States, the mainland Territories and Norfolk Island on a uniform basis. Provision is made for the celebration of marriage by ministers of religion registered with the Registrar of Ministers of Religion appointed in each State and Territory by the AttorneyGeneral, and by certain civil officers. In all cases, the authorized celebrant is required to register particulars of the parties married with the appropriate registering authority in each State or Territory. The celebrant is requested to register a marriage as soon as practicable and in any case not later than fourteen days after the marriage.

The registration of stillbirths is compulsory in all the States and Territories except Tasmania. Western Australia in 1908 was the first State to introduce compulsory registration, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937, the Northern Territory in 1949, Victoria in 1953, and Queensland in 1959.

Stillbirths are entered in both the birth and death registers in New South Wales and Western Australia, in the birth register in the Australian Capital Territory and the Northern Territory, and in separate stillbirth registers in Victoria, South Australia and Tasmania. Stillbirths are not entered in a register in Queensland but the papers are kept for a period of at least ten years. Though registration is not compulscry in Tasmania it is believed that for various reasons nearly all stillbirths are notified voluntarily. In this chapter stillbirths have been excluded from all tables of births and deaths and are shown only in those specially relating to stillbirths.

The data for the compilation of vital statistics are obtained from registry records and dispatched, through the Statistical Ofhce in each State and Territory, to the Commonwealth Statustucian. The compilation and publication ol vital statistics for Australia is one of the functions of the Commonwealth Statistician. The Deputy Commonweath Statisticians compile and publish statistics relatıng to their respective States.

## § 2. Marriages

1. Number of Marriages.-The numbers of marriages registered in each State and Territory in five-year periods from 1926-30 to 1956-60. and for each of the years 1960 to 1964, are shown in the following table. Annual averages for each five-vear period trom 1861 to 1950 were published in Year Book No. 39, page 575. A graph showing the number of marriages in each year from 1870 to 1964 appears on page 309 of this issue.

## MARRIAGES

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Annual Averages

| $1926-30$ | . | 19,253 | 12,955 | 6,279 | 4,036 | 3,167 | 1,506 | 23 | 30 | 47,249 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1931-35$ | . | 18,742 | 12,773 | 6,950 | 3,967 | 3,328 | 1,638 | 29 | 53 | 47,480 |
| $1936-40$ | $\ldots$ | 25,295 | 17,784 | 8,982 | 5,726 | 4,399 | 2,187 | 83 | 85 | 64,541 |
| $1941-45$ | . | 28,506 | 19,450 | 10,563 | 6,517 | 4,668 | 2,097 | 71 | 109 | 71,981 |
| $1946-50$ | $\ldots$ | 30,162 | 20,453 | 10,666 | 6,581 | 5,205 | 2,529 | 114 | 181 | 75,891 |
| $1951-55$ | $\ldots$ | 28,483 | 20,007 | 10,171 | 6,290 | 5,232 | 2,539 | 146 | 234 | 73,102 |
| $1956-60$ | .. | 28,432 | 20,422 | 10,254 | 6,517 | 5,145 | 2,573 | 190 | 321 | 73,854 |

Annual Totals

| 1960 | . | 29,328 | 20,627 | 10,227 | 6,607 | 5,323 | 2,713 | 208 | 395 | 75,428 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1961 | $\ldots$ | 29,773 | 21,264 | 10,392 | 6,804 | 5,150 | 2,677 | 207 | 419 | 76,686 |
| 1962 | $\ldots$ | 30,360 | 22,393 | 10,642 | 7,021 | 5,466 | 2,485 | 243 | 480 | 79,090 |
| 1963 | $\ldots$ | 30,909 | 22,061 | 11,431 | 7,302 | 5,755 | 2,579 | 260 | 529 | 80,916 |
| 1964 | .. | 32,633 | 24,169 | 11,752 | 7,765 | 6,023 | 2,869 | 233 | 569 | 86,013 |

2. Crude Marriage Rates.-The crude marriage rates for each State and Territory from 1926-30 to 1956-60, and for each of the years 1960 to 1964, are given hereunder.

CRUDE MARRIAGE RATES( $\boldsymbol{a}$ )

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Average Annual Rates

| $1926-30$ | $\cdots$ | 7.86 | 7.42 | 7.10 | 7 | 12 | 780 | 6.97 | 5.11 | 3.86 | 7.52 |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1931-35$ | $\cdots$ | 7.20 | 7.02 | 7.35 | 6 | 83 | 7.58 | 7.19 | 592 | 5.74 | 7.16 |
| $1936-40$ | $\ldots$ | 9 | 29 | 9.52 | 8.80 | 9 | 65 | 9.49 | 9.25 | 13.28 | 7.22 |
| $1941-45$ | $\ldots$ | 997 | 9.86 | 10.04 | 10 | 61 | 9.74 | 8.61 | 7.18 | 7.57 | 9.94 |
| $1946-50$ | $\ldots$ | 9 | 90 | 9.72 | 9.41 | 9 | 87 | 10 | 01 | 9.56 | 9.39 |
| $1951-55$ | $\ldots$ | 8 | 41 | 8.34 | 7.91 | 8 | 11 | 8.44 | 8.35 | 9.13 | 8.20 |
| $1956-60$ | . | 7.70 | 7.50 | 7.14 | 7.26 | 7.36 | 7.69 | 8.63 | 7.51 | 7.50 |  |

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

CRUDE MARRIAGE RATES(a)-continued

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual Rates |  |  |  |  |  |  |  |  |  |
| 1960 | 7.65 | 7.22 | 6.86 | 6.99 | 7.36 | 7.82 | 8.28 | 7.51 | 7.34 |
| 1961 | 7.61 | 7.26 | 6.86 | 7.02 | 6.98 | 7.57 | 7.89 | 7.13 | 7.30 |
| 1962 | 7.63 | 7.49 | 6.91 | 7.10 | 7.24 | 6.91 | 9.01 | 7.31 | 7.39 |
| 1963 | 7.65 | 722 | 7.32 | 7.24 | 7.44 | 7.08 | 9.07 | 7.21 | 7.41 |
| 1964 | 7.92 | 7.72 | 7.41 | 7.52 | 7.62 | 7.81 | 7.42 | 7.05 | 7.72 |

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

The crude marriage rates for Australia and the more populous countries of the world are shown for the latest available year in § 7. International Vital Statistics, pp. 344-6.
3. Marriage Rates based on Marriageable Population.-As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over the corresponding rates have been calculated for Australia for the nine census periods to 1960-62. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows.

PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA

| Period |  |  |  | Rate(a) | Period |  |  |  | Rate(a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1880-82 |  | $\cdots$ | . | 48.63 | 1932-34 |  | . | $\cdots$ | 42.88 |
| 1890-92 |  | - | - | 44.04 | 1946-48 |  | . | . | 71.24 |
| 1900-02 |  | . | . . | 42.14 | 1953-55 |  | $\cdots$ | . | 65.32 |
| 1910-12 |  | . | . | 50.12 | 1960-62 | - | - | $\cdots$ | 62.27 |
| 1920-22 | - | . | . | 55.97 |  |  |  |  |  |

(a) A verage annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.
4. Age and Conjugal Condition at Marriage.-(i) General. Particulars of age at marriage in age groups, and previous conjugal condition, of bridegrooms and brides in 1963 are given hereunder. There were 9,712 males under 21 years of age married during 1963, while the corresponding number of females was 32,844 . At the other extreme there were 1,047 bridegrooms and 468 brides in the age group 65 years and over.

AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1963

| Age at marriage (years) | Bridegrooms |  |  |  | Brides |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Bachelors | Widowers | Divorced | Total | Spinsters | Widows | Divorced | Total |
| Under 20 | 5,036 |  |  | 5,036 | 23,033 | 5 | 7 | 23,045 |
| 20-24 | 37,793 | 16 | 46 | 37,855 | 37,631 | 78 | 298 | 38,007 |
| 25-29 | 19,137 | 73 | 470 | 19,680 | 7,479 | 160 | 865 | 8,504 |
| 30-34 | 6,298 | 131 | 786 | 7,215 | 2,207 | 208 | 1,014 | 3,429 |
| 35-39 | 2,626 | 200 | 902 | 3,728 | 1,066 | 325 | 979 | 2,370 |
| 40-44 | 1,077 | 261 | 772 | 2,110 | 571 | 406 | 699 | 1,676 |
| 45-49 | 597 | 327 | 601 | 1,525 | 347 | 483 | 526 | 1,356 |
| 50-54 | 322 | 388 | 481 | 1,191 | 222 | 403 | 309 | 934 |
| 55-59 | 175 | 422 | 284 | 881 | 133 | 355 | 154 | 642 |
| 60-64 | 100 | 401 | 147 | 648 | 86 | 328 | 71 | 485 |
| 65 and over. | 96 | 831 | 120 | 1,047 | 58 | 367 | 43 | 468 |
| Total | 73,257 | 3,050 | 4,609 | 80,916 | 72,833 | 3,118 | 4,965 | 80,916 |

(ii) Proportional Distribution. In the following table the proportional distribution of bridegrooms and brides according to previous conjugal condition is shown in five-year periods from 1926-30 to 1956-60 and for each of the years 1959 to 1963.

## CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: PROPORTIONAL DISTRIBUTION, AUSTRALIA

(Per cent.)

| Period |  | Bridegrooms |  |  |  | Brides |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Bachelors | Widowers | Divorced | Total | Spinsters | Widows | Divorced | Total |
| 1926-30 | $\cdots$ | 92.31 | 5.93 | 1.76 | 100.00 | 93.46 | $4.55{ }^{-}$ | 1.99 | 100.00 |
| 1931-35 | . | 92.63 | 5.39 | 1.98 | 100.00 | 94.37 | 3.53 | 2.10 | 100.00 |
| 1936-40 |  | 92.59 | 4.82 | 2.59 | 10000 | 93.94 | 3.38 | 2.68 | 100.00 |
| 1941-45 | $\cdots$ | 91.44 | 4.77 | 3.79 | 100.00 | 92.11 | 3.93 | 3.96 | 100.00 |
| 1946-50 | . | 88.82 | 4.74 | 6.44 | 100.00 | 88.71 | 4.74 | 6.55 | 100.00 |
| 1951-55 | $\cdots$ | 88.77 | 4.63 | 6.60 | 100.00 | 88.04 | 4.81 | 7.15 | 100.00 |
| 1956-60 | . | 89.86 | 4.18 | 5.96 | 100.00 | 88.80 | 4.47 | 6.73 | 100.00 |
| 1959 | $\cdots$ | 89.66 | 4.21 | 6.13 | 100.00 | 88.62 | 4.44 | 6.94 | 100.00 |
| 1960 | . | 90.04 | 4.00 | 5.96 | 100.00 | 88.93 | 4.43 | 6.64 | 100.00 |
| 1961 | . | 90.13 | 3.95 | 5.92 | 100.00 | 89.47 | 4.30 | 6.23 | 100.00 |
| 1962 | . | 90.18 | 3.87 | 5.95 | 100.00 | 89.58 | 4.04 | 6.38 | 100.00 |
| 1963 | . | 90.53 | 3.77 | 5.70 | 10000 | 90.01 | 3.85 | 6.14 | 100.00 |

(iii) Relative Ages of Bridegrooms and Brides. The relative ages of bridegrooms and brides in 1963 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1963

| Age of bridegroom (years) | Total bridegrooms | Age of bride (years) |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Under 15 | 15-19 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 and over |
| Under 20 | 5,036 | 32 | 4,282 | 697 | 25 |  |  |  |  |
| 20-24 | 37,855 | 18 | 14,631 | 21,635 | 1,393 | 142 | 27 | 6 | 3 |
| 25-29 | 19,680 | 5 | 3,389 | 11,898 | 3,560 | 619 | 158 | 38 | 13 |
| 30-34 | 7,215 | 1 | 539 | 2,823 | 2,142 | 1,113 | 431 | 116 | 50 |
| 35-39 | 3,728 | . | 105 | 688 | 938 | 860 | 671 | 329 | 137 |
| 40-44 | 2,110 | $\cdots$ | 26 | 180 | 303 | 389 | 500 | 407 | 305 |
| 45-49 | 1,525 | $\cdots$ | 14 | 60 | 91 | 186 | 316 | 349 | 509 |
| 50-54 | 1,191 | . | 3 | 18 | 31 | 77 | 156 | 227 | 679 |
| 55-59 | 881 |  | . . | 7 | 10 | 23 | 62 | 113 | 666 |
| 60-64 | 648 |  | . | . | 6 | 15 | 31 | 60 | 536 |
| 65 and over. . | 1,047 |  |  | 1 | 5 | 5 | 18 | 31 | 987 |
| Total Brides | 80,916 | 56 | 22,989 | 38,007 | 8,504 | 3,429 | 2,370 | 1,676 | 3,885 |

(iv) Average Ages of Bridegrooms and Brides. The average age at marriage of brides and bridegrooms has declined during recent years. The average ages. in years, of brides for each of the five years to 1963 were:- $1959,25.01 ; 1960,24.84 ; 1961,24.73 ; 1962$, 24.68 ; and 1963, 24.42. The average ages, in years, of bridegrooms were:-1959, 28.39; $1960,28.15 ; 1961,28.07 ; 1962,28.03$; and $1963,27.76$. The difference in the average age at marriage between brides and bridegrooms is generally just over three years, the difference in 1963 being 3.34 years.
5. Previous Conjugal Condition.-The following table shows the relative conjugal condition of bridegrooms and brides in 1963.

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1963

6. Countries of Birth of Persons Marrying.-The following table shows the relative countries of birth of bridegrooms and brides married in 1963.

## RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1963


7. Occupation of Bridegrooms.-The distribution of the 80,916 bridegrooms for 1963 amongst classes of occupations was as follows:-craftsmen, 27,480; administrative and clerical workers, 10,229 ; labourers, 9,634 ; rural and mining workers, 8,018 ; professional and technical workers, 7,595 ; workers in transport and communication, 5,924 ; service, sport, and other workers, 5,502 ; sales workers, 5.240 ; persons not in the work force, 1,294 .
8. Celebration of Marriages.-Under the provisions of the Marriage Act 1961 marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar of Ministers of Religion in each State or Territory, or by certain civil officers, in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1963 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been combined under the heading " Other Christian ". The figures for 1963 are shown in the following table.

MARRIAGES IN EACH DENOMINATION, 1963

| Denomination | N.S.W. | Vic. | Qld | S.A. | W.A. | Tas. | N.T. | A.C.T. | Australia |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  |  |  |  |  | No. | Proportion of total |
| Church of England | 9,645 | 4,988 | 3,095 | 1,436 | 1,702 | 918 | 53 | 127 | 21,964 | 27.14 |
| Roman Catholic | 8,612 | 6,279 | 3,068 | 1,520 | 1,503 | 522 | 66 | 193 | 21,763 | 26.90 |
| Methodist | 2,701 | 2,658 | 1,710 | 1,798 | 689 | 400 | 13 | 32 | 10,001 | 12.36 |
| Presbyterian .. | 3,011 | 3,314 | 1,866 | 291 | 405 | 115 | 23 | 30 | 9,055 | 11.19 |
| Orthodox(Greek, Russian, etc.) | 1,021 | 1,154 | 127 | 247 | 53 | 17 | 15 | 9 | 2,643 | 3.27 |
| Baptist .. | 488 | 338 | 217 | 176 | 83 | 84 | 2 | 16 | 1,404 | 1.73 |
| Lutheran .. | 175 | 264 | 323 | 389 | 17 | 11 | 2 | 13 | 1,194 | 1.48 |
| Churches of Christ | 135 | 448 | 77 | 242 | 106 | 23 |  | 6 | 1,037 | 1.28 |
| Congregational | 244 | 253 | 114 | 238 | 133 | 46 | 4 |  | 1,032 | 1.28 |
| Salvation Army | 156 | 98 | 103 | 55 | 32 | 21 | 2 | 5 | 472 | 0.58 |
| Seventh-day Adventist | 90 | 50 | 43 | 25 | 27 | 6 |  | . | 241 | 0.30 |
| United Church. . | . . |  | . . | 1 | . . | . . | 28 | $\cdots$ | 29 | 0.04 |
| Unitarian .. | 2 | 23 |  | 2 |  |  |  | $\cdot$ | 27 | 0.03 |
| Other Christian | 212 | 142 | 174 | 67 | 147 | 44 | 1 | 1 | 788 | 0.97 |
| Hebrew .. | 100 | 151 | 4 | 3 | 10 |  |  | . | 268 | 0.33 |
| Other Christian Non- |  |  |  | 2 |  |  |  |  | 2 | 0.00 |
| Total | 26,592 | 20,160 | 10,921 | 6,492 | 4,907 | 2,207 | 209 | 432 | 71,920 | 88.88 |
| Civil Officers . . | 4,407 | 1,901 | 510 | 810 | 848 | 372 | 51 | 97 | 8,996 | 11.12 |
| Grand Total | 30,999 | 22,061 | 11,431 | 7,302 | 5,755 | 2,579 | 260 | 529 | 80,916 | 100.00 |

## Proportion of Total

(Per cent.)

| Denominational | 85.78 | 91.38 | 95.54 | 88.91 | 85.26 | 85.58 | 80.38 | 81.66 | 88.88 |  |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | :--- |
| Civil .. | . | 14.22 | 8.62 | 4.46 | 11.09 | 14.74 | 14.42 | 19.62 | 18.34 | 11.12 |

## § 3. Divorce

The number of dissolutions of marriage, nullities of marriage and judicial separations was 7,446 in 1963 and 7,799 in 1964. Further information may be found in Chapter XVII. Public Justice.

BIRTHS, DEATHS, AND MARRIAGES : AUSTRALIA, I870 то 1964


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE


INFANT DEATHS: AUSTRALIA, I9IO то 1964


INFANT MORTALITY RATES: AUSTRALIA, I9IO то 1964
(Infant deaths per i,000 Live births)


## § 4. Fertility and Reproduction

1. Introduction.-Natural increase has been a significant element of increase in the population of Australia for many years. The level of natural increase depends on the excess of births over deaths, and the relation between fertility and mortality determines the rate of reproduction or replacement of the population.
2. Number of Live Births and Confinements.-(i) Year 1963. There are various methods of measuring the fertility of the population by relating the number of births to the numbers of the population. In each, the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1963 is shown in the following table. The table shows also the number of confinements resulting in one or more live births. The figures exclude cases where the births were of still-born children only.

LIVE BIRTHS AND CONFINEMENTS, 1963

| Particulars | N.S.W. | Vic. | Q'land | S. Aust. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |

Live Births

| Single births ${ }_{\text {d }}$ | 82,235 | 64,101 | 35,184 | 20,914 | 16,956 | 8,361 | 848 | 1,953 | 230.552 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Twins | 1,801 | 1,530 | 739 | 453 | 332 | 169 | 11 | 42 | 5,077 |
| Triplets | 29 | 18 | 11 | . . | 2 | . | . . | . . | 60 |
| Quadruplets |  |  | . . | . | . |  | . | . | .. |
| Males | 43,059 | 33,988 | 18,316 | 11,006 | 8,869 | 4,428 | 459 | 1,011 | $\overline{121,136}$ |
| Females | 41,006 | 31,661 | 17,618 | 10,361 | 8,421 | 4,102 | 400 | 984 | 114,553 |
| Total | 84,065 | 65,649 | 35,934 | 21,367 | 17,290 | 8,530 | 859 | 1,995 | 235,689 |

Stillbirths Associated with Multiple Births Included Above


Confinements Resulting in Births Shown Above

| Nuptial | 78,391 | 61,846 | 32,934 | 20,090 | 15,907 | 7,987 | 752 | 1,936 | 219,843 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Ex-nuptial | 4,773 | 3,037 | 2,632 | 1,053 | 1,220 | 459 | 102 | 38 | 13,314 |
| Total | 83,164 | 64,883 | 35,566 | 21,143 | 17,127 | 8,446 | 854 | 1,974 | 233,157 |

[^0]LIVE BIRTHS

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Annual Averages

| $1926-30$ | $\cdots$ | 53,308 | 34,333 | 19,361 | 11,006 | 8,748 | 4,819 | 70 | 118 | 131,763 |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| $1931-35$ | $\cdots$ | 44,964 | 28,380 | 17,480 | 8,646 | 8,061 | 4,547 | 79 | 145 | 112,302 |
| $1936-40$ | $\cdots$ | 47,679 | 30,282 | 19,534 | 9,388 | 8,877 | 4,866 | 125 | 221 | 120,972 |
| $1941-45$ | $\cdots$ | 56,583 | 38,002 | 23,431 | 12,546 | 10,409 | 5,418 | 113 | 384 | 146,886 |
| $1946-50$ | $\cdots$ | 68,856 | 47,372 | 28,003 | 16,270 | 13,130 | 7,064 | 289 | 734 | 181,718 |
| $1951-55$ | $\cdots$ | 73,737 | 53,770 | 30,983 | 18,045 | 15,724 | 7,774 | 468 | 922 | 201,423 |
| $1956-60$ | $\cdots$ | 79,613 | 61,279 | 34,171 | 19,977 | 16,922 | 8,517 | 694 | 1,286 | 222,459 |

Annual Totals

| 1960 |  | 81,983 | 64,025 | 35,213 | 20,966 | 16,926 | 8,853 | 777 | 1,583 | 230,326 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 |  | 86,392 | 65,886 | 36,637 | 22,399 | 17,078 | 8,982 | 878 | 1,734 | 239,986 |
| 1962 |  | 85,439 | 65,890 | 35,690 | 21,361 | 17,064 | 8,894 | 924 | 1,819 | 237,08 |
| 1963 |  | 84,065 | 65,649 | 35,934 | 21,367 | 17,290 | 8,530 | 859 | 1,995 | 235,689 |
| 1964 |  | 80,518 | 64,990, | 34,972 | 20,866 | 16,685 | 8,252 | 911 | 1,955 | 229,149 |

A graph showing the number of births in each year from 1870 to 1964 will be found on page 309.
3. Crude Birth Rates.-The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 315-17.

Crude birth rates for each five-year period from 1926 to 1960 and for each year from 1960 to 1964 for each State and Territory are set out below.

CRUDE BIRTH RATES( $\boldsymbol{a}$ )

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Average Annual Rates

| $1926-30$ | $\ldots$ | 21.76 | 19.65 | 21.90 | 19.41 | 21.54 | 22.29 | 15.60 | 14.96 | 20.98 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| $1931-35$ | $\cdots$ | 17.28 | 15.60 | 18.48 | 14.89 | 18.36 | 19.95 | 15.99 | 15.77 | 16.94 |
| $1936-40$ | $\ldots$ | 17.51 | 16.20 | 19.48 | 15.82 | 19.16 | 20.58 | 19.96 | 18.68 | 17.52 |
| $1941-45$ | $\ldots$ | 19.79 | 19.27 | 22.28 | 20.43 | 21.72 | 22.23 | 11.40 | 26.82 | 20.28 |
| $1946-50$ | $\cdots$ | 22.60 | 22.51 | 24.69 | 24.41 | 25.24 | 26.71 | 23.77 | 37.92 | 23.39 |
| $1951-55$ | $\ldots$ | 21.78 | 22.42 | 24.11 | 23.25 | 25.37 | 25.58 | 29.37 | 32.22 | 22.86 |
| $1956-60$ | . | 21.55 | 22.52 | 23.80 | 22.27 | 24.20 | 25.45 | 31.49 | 30.10 | 22.59 |

Annual Rates

| 1960 | $\ldots$ | 21.38 | 22.41 | 23.62 | 22.19 | 23.41 | 25.52 | 30.95 | 30.12 | 22.42 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1961 | $\ldots$ | 22.07 | 22.51 | 24.17 | 23.10 | 23.16 | 25.40 | 33.46 | 29.49 | 22.85 |
| 1962 | $\ldots$ | 21.46 | 22.04 | 23.19 | 21.59 | 22.59 | 24.75 | 34.26 | 27.69 | 22.14 |
| 1963 | $\ldots$ | 20.75 | 21.49 | 23.00 | 21.18 | 22.36 | 23.42 | 29.96 | 27.20 | 21.59 |
| 1964 | $\ldots$ | 19.54 | 20.77 | 22.06 | 20.22 | 21.11 | 22.46 | 29.02 | 24.22 | 20.58 |

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

Nors.-The birth rates in the table above are based on live births registered in the respective States and Territories. Some confinements, however, take place in States other than the State in which the mother usually resides, particularly in areas near State borders.

The variations thus caused in the birth rates for the States and Territories by referring the birth registrations to the mother's usual residence are shown by the following corrected rates for 1964-New South Wales, 19.59 ; Victoria, 20.76; Queensland, 21.96; South Australia, 20.12; Western Australia, 21.14; Tasmania, 22.51; Northern Territory, 30.20; and Australian Capital Territory, 24.18.

See Year Book No. 47 (p. 339) for the effect of the variations in the availability of hospital facilities on the birth rate in the Australian Capital Territory and in the neighbouring town of Queanbeyan in Now South Wales.

A graph showing the birth rate for each year from 1870 to 1964 will be found on page 310.

The crude birth rates of Australia and the more populous countries of the world for the latest available year are shown in § 7. International Vital Statistics on pages 344-6.
4. Fertility Rates.-The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical.

In order to compare fertilities births are sometimes related to the number of women of child-bearing age or, alternatively, nuptial births are related to the number of married women of child-bearing age. Thus births are related to potential mothers, giving the fertility rate.

The following table sets out for certain periods, commencing with 1880-82, the number of births per thousand of mean population, the number of births per thousand women of child-bearing age and the number of nuptial births per thousand married women of child-bearing age. For purposes of this table the child-bearing age has been taken to be 15-44 years inclusive, but births to mothers who were stated to be under 15 or over 44 years have been included in the compilations.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA

|  |  |  | rage annual | rates | Index nos | (Base: 1880 | $82=100)$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Fertili | $y$ rates |  | Fertili | y rates |
| Period |  | Crude birth rate( $a$ ) | $\begin{gathered} \text { Births } \\ \text { per } 1,000 \\ \text { women } \\ \text { aged } 15-44 \\ \text { years } \end{gathered}$ | Nuptial births per 1,000 married women aged 15-44 years | Crude rate(a) | Births <br> per 1,000 women aged 15-44 years | $\begin{gathered} \text { Nuptial } \\ \text { births } \\ \text { per } 1,000 \\ \text { married } \\ \text { women } \\ \text { aged } 15-44 \\ \text { years } \end{gathered}$ |
| 1880-82.. | . | 35.3 | 170 | 321 | 100 | 100 | 100 |
| 1890-92.. | $\cdots$ | 34.5 | 159 | 332 | 98 | 94 | 103 |
| 1900-02.. | . | 27.2 | 117 | 235 | 77 | 69 | 73 |
| 1910-12.. |  | 27.2 | 117 | 236 | 77 | 69 | 74 |
| 1920-22.. | . | 25.0 | 107 | 197 | 71 | 63 | 61 |
| 1932-34.. | . | 16.7 | 71 | 131 | 47 | 42 | 41 |
| 1946-48.. | . | 23.6 | 104 | 160 | 67 | 61 | 50 |
| 1953-55.. | $\cdots$ | 22.7 | 109 | 149 | 64 | 64 | 46 |
| 1960-62.. | . | 22.5 | 112 | 154 | 64 | 66 | 48 |

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

The table above shows how increasing proportions both of women of child-bearing age and of married women of child-bearing age inflate the crude birth rate. Thus, while the nuptial birth rate for married women increased by only 22 per cent. over the period 1932-34 to 1946-48, the crude birth rate rose by 41 per cent. owing principally to the greatly increased number of marriages during that period.

[^1]Age-specific fertility rates are more commonly expressed in age groups than in single ages. In the following table such rates, calculated in terms of female births for the purpose of obtaining the gross and net reproduction rates described in para. 6, are shown in five-year age groups for Australia for the period 1926 to 1963.

AGE-SPECIFIC FERTILITY RATES( $a$ ): AUSTRALIA

| Age group (years) |  | 1926 | 1931 | 1936 | 1941 | 1946 | 1951 | 1956 | 1961 | 1963 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 15-19. |  | 14.02 | 13.08 | 12.18 | 11.90 | 12.63 | 18.59 | 20.84 | 22.87 | 22.22 |
| 20-24. | $\ldots$ | 60.23 | 53.08 | 50.33 | 59.42 | 73.52 | 85.84 | 101.46 | 110.01 | 100.74 |
| 25-29.. | . | 76.82 | 62.47 | 62.02 | 70.78 | 89.51 | 90.24 | 98.11 | 107.73 | 102.27 |
| 30-34.. | . | 61.90 | 51.25 | 46.33 | 49.72 | 65.03 | 59.16 | 59.65 | 63.62 | 60.11 |
| 35-39.. | $\ldots$ | 43.55 | 33.23 | 28.89 | 28.69 | 37.43 | 32.29 | 31.32 | 30.53 | 2903 |
| 40-44.. | . | 17.63 | 13.61 | 10.19 | 9.52 | 11.87 | 9.97 | 9.48 | 9.36 | 9.07 |
| 45-49.. | $\cdots$ | 1.90 | 1.45 | 1.11 | 0.80 | 1.03 | 0.80 | 0.76 | 0.70 | 0.53 |

(a) Number of female births per 1,000 women in each age group.
6. Gross and Net Reproduction Rates for Females.-A single measure of reproduction, known as the gross reproduction rate, is obtained by adding together the specific fertility rates for each age in the child-bearing group. This measure indicates the number of female children who would be born on an average to women living right through the child-bearing period, if the conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility rates by the number of females in the corresponding age group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality, and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase; if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of marriage fertility in paragraph 8, page 317.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA

| Year |  |  | Gross reproduction rate | Net reproduction rate |  | Year |  |  | Gross reproduction rate |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1881(a) | - | . | 2.65 | (b) | 1.88 | 1947 |  | . | 1.493 | (g) | 1.416 |
| 1891(a) | . | . | 2.30 | (b) | 1.73 | 1954 | . | $\cdots$ | 1.558 | (h) | 1.497 |
| 1901(a) | . | . | 1.74 | (c) | 1.39 | 1959 | . | . | 1.678 | (h) | 1.614 |
| 1911 |  | . | 1.705 | (d) | 1.421 | 1960 |  | $\cdots$ | 1.677 | (h) | 1.613 |
| 1921 |  |  | 1.511 | (e) | 1.313 | 1961 | . |  | 1.724 | (h) | 1.658 |
| 1931 |  |  | 1.141 | (f) | 1.039 | 1962 |  | . | 1.659 | (h) | 1.596 |
| 1941 | . | . | 1.154 | (f) | 1.053 | 1963 | . |  | 1.620 | (h) | 1.558 |

(a) Approximate only. $\quad$ (b) 1881-1890 mortality experience used.
(c) 1891-1900 mortality experience used. (d) 1901-1910 mortality experience used. (e) 1920-1922 mortality experienco used. (f) 1932-1934 mortality experience used. (g) 1946-1948 mortality experience used. (h) 1953-1955 mortality experience used.

Note.-It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age. without taking account of previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.
7. Gross and Net Reproduction Rates, Various Countries.-In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1963. These represent the latest available international comparisons.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

| Country | Period | $\begin{gathered} \text { Reproduction } \\ \text { rate } \end{gathered}$ |  | Country | Period | Reproduction rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Gross | Net |  |  | Grose | Net |
| Thailand.. | 1954 | 2.26 | 1.70 | Yugoslavia | 1960 | 1.36 | 1.12 |
| New Zealand(a) | 1962 | 1.97 | 1.91 | England and Wales | 1961 | 1.35 | 1.30 |
| Canada | 1962 | 1.84 | 1.77 | Finland | 1961 | 1.32 | 1.30 |
| United States of |  |  |  | Belgium . | 1961 | 1.29 | 1.24 |
| America(b) | 1961 | 1.70 | 1.65 | Denmark | 1960 | 1.24 | n.a. |
| Australia(c) | 1963 | 1.62 | 1.56 | Czechoslovakia | 1961 | 1.16 | 1.12 |
| Ireland, Republic of | 1955 | 1.59 | 1.45 | Germany- |  |  |  |
| Netherlands | 1962 | 1.55 | 1.50 | Federal Rep. | 1960 | 1.16 | 1.11 |
| Scotland | 1963 | 1.47 | 1.42 | Democratic Rep. | 1955 | 1.13 | n.a. |
| Portugal. | 1958 | 1.47 | 1.26 | Switzerland | 1959 | 1.15 | 1.09 |
| Norway | 1961 | 1.39 | 1.34 | Sweden | 1961 | 1.07 | 1.05 |
| Austria | 1962 | 1.38 | 1.28 | Japan | 1961 | 0.95 | 0.90 |
| France | 1961 | 1.37 | 1.32 | Hungary .. . . | 1962 | 0.87 | 0.81 |

## (a) Excludes Maoris. <br> (b) White population only. <br> (c) Excludes full-blood Aboriginals.

In comparing the reproduction rates of the countries shown above allowance should be made for any differences in years, as the rates for any one country from year to year aro affected by variations in the incidence of marriage, as well as the stationary or life table population used.
8. Fertility of Marriages.-More satisfactory estimates of the fertility of marriages may be made by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES: AUSTRALIA

| Year | Nuptial confinements per marriage | Year |  | Nuptial confinements per marriage | Year |  | Nuptial confinements per marriago |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1949 | 2.45 | 1954. |  | 2.66 | 1959.. |  | 2.93 |
| 1950.. | 2.56 | 1955.. | $\cdots$ | 2.71 | 1960.. | $\cdots$ | 2.96 |
| 1951.. | 2.55 | 1956. | . | 2.76 | 1961.. |  | 3.05 |
| 1952.. | 2.63 | 1957.. | . | 2.87 | 1962.. | . . | 2.98 |
| 1953.. | 2.66 | 1958.. | . | 2.88 | 1963. |  | 2.92 |

Note-See Note to table on p. 316.
The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.
9. Masculinity of Live Births.-The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The averages for the ten years 1951-60 were as follows:-New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1962 to 1964.

MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA

| Particulars | $1901-10$ | $1911-20$ | $1921-30$ | $1931-40$ | $1941-50$ | $1951-60$ | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Total births | -105.22 | 105.27 | 105.55 | 105.12 | 105.38 | 105.43 | 106.21 | 105.75 | 106.28 |
| Ex-nuptial birthis | 104.08 | 105.25 | 105.16 | 105.36 | 105.34 | 103.99 | 106.23 | 106.76 | 106.00 |

(a) Number of males born for every 100 female births.
10. Ex-nuptial Live Births.-(i) General. The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1964 are shown below.

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1964

| Particulars | N.S.W. | Vic. | Q'land | S.A. | W.A. | Tas. | N.T. | A.C.T. | Aust. |
| :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Number <br> Proportion of <br> total births $\%$ | 5,427 | 3,402 | 2,898 | 1,239 | 1,311 | 502 | 103 | 43 | 14,925 |

The number and proportion of ex-nuptial births at intervals from 1901 to 1964 are as follows.

EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, AUSTRALIA

| Particulars | Annual average |  |  |  |  |  | 1960 | 1961 | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | ${ }_{10}^{1901-}$ | $\begin{gathered} 1911- \\ 20 \end{gathered}$ | ${ }_{30}^{1921-}$ | $\begin{gathered} 1931- \\ 40 \end{gathered}$ | $\begin{gathered} 1941- \\ 50 \end{gathered}$ | ${ }_{60}^{1951-}$ |  |  |  |  |  |
| Number.. <br> Pronortion | $\overline{6,498}$ | $\overline{6,836}$ | $\overline{6,238}$ | 5,133 | $\overline{6,780}$ | 9,013 | 10,987 | 12,269 | $\overline{12,813}$ | $\overline{13,454}$ | 14,925 |
| oi total births \% | 6.05 | 5.22 | 4.66 | 4.40 | 4.13 | 4.25 | 4.77 | 5.11 | 5.40 | 5.71 | 6.51 |

(ii) Rate of Ex-nuptiality. A further measure of ex-nuptiality is obtained by calculating the number of ex-nuptial births per thousand of the single, widowed and divorced female population aged from 15 to 44 years. On this basis. the number of ex-nuptial births per 1,000 unmarried women of ages 15 to 44 is as follows:-1880-82, 14.49;1890-92, 15.93; 1900-02, 13.30 ; 1910-12, 12.53; 1920-22, 10.50; 1932-34, 6.91; 1946-48, 11.45 ; 1953-55,14.45; and 1960-62, 18.49. Ex-nuptial births to married women, which are not recorded separately, are included in these figures and it is not possible to determine to what extent they influence the trend shown.
(iii) Comparison of Rates. The following table shows the relative ratios of ex-nuptial and nuptial births to the total population for periods from 1901.

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a): AUSTRALIA

| Birth rate | Annual average |  |  |  |  |  | 1962 | 1963 | 1964 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1901-10 | 1911-20 | 1921-30 | 1931-40 | 1941-50 | 1951-60 |  |  |  |
| Ex-nuptial . . | 1.60 | 1.39 | 1.04 | 0.76 | 0.90 | 0.97 | 1.19 | 1.23 | 1.34 |
| Nuptial . . | 24.91 | 25.18 | 21.40 | 16.47 | 20.99 | 21.75 | 20.95 | 20.36 | 19.24 |
| Total . . | 26.51 | 26.57 | 22.44 | 17.23 | 21.89 | 22.72 | 22.14 | 21.59 | 20.58 |

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


#### Abstract

11. Legitimations.-Under the provisions of the Commonwealth Marriage Act 1961, which came into operation on 1st September, 1963, a child whose parents were not married to each other at the time of its birth becomes legitimized on the subsequent marriage of its parents. The legitimization takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before ist September, 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The number of children legitimized in Australia during 1963 was 2,436.


12. Multiple Births.-Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated-firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

Multiple births recorded on this basis during 1963 comprised 2,584 cases of twins and 21 cases of triplets, the resultant numbers of live-born and still-born children being respectively 5,077 and 91 for twins, 60 and 3 for triplets. This represents an average of 11.08 recorded cases of twins and 0.09 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 90 mothers and mothers of triplets 1 in every 11,103 . Total cases of multiple births represented 11.17 per 1,000 confinements or 1 in every 90 mothers.

The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.
13. Ages of Parents. - The relative ages of the parents of children whose births were registered in 1963 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in Demography, Bulletin No. 81. In the following table the relative ages of parents are shown in five-year groups.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1963

(a) Includes one father age " Not stated."
14. Countries of Birth of Parents.-The following table shows the countries of birth of parents of children whose births from nuptial confinements were registered during 1963.

NUPTLAL CONFINEMENTS: RELATTVE COUNTRIES OF BIRTH OF PARENTS, AUSTRALIA, 1963

| Country of birth of father | Country of birth of mother |  |  |  |  |  |  |  |  |  |  | Total fathery |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Australia | New Zealand | United King- dom and Ireland | Germany | Greece | Italy | Netherlands | Poland | Yugoslavia | Other European | Other and unspecified |  |
| Australia - . | 160,064 | 545 | 5,319 | 417 | 92 | 231 | 647 | 81 | 73 | 518 | 1,033 | 169,020 |
| New Zealand . . | 629 | 141 | 50 | 2 | 1. | 1 | 8 | 1 | . | 1 | 15 | 849 |
| United Kingdom and Ireland | 7,277 | 75 | 5,646 | 75 | 3 | 22 | 73 | 14 | 12 | 124 | 232 | 13,553 |
| Germany .. | 835 | 13 | S, 99 | 1,197 | 10 | 12 | 49 | 29 | 22 | 134 | 51 | 2,451 |
| Greece. . | 332 | 1 | 21 | 1,19 | 4,363 | 11 | 5 | 4 | 9 | 129 | 55 | 4,838 |
| Italy .. | 1,779 | 11 | 111 | 51 | -37 | 9,076 | 55 | 9 | 90 | 124 | 80 | 11,423 |
| Neiberlands .. | 1,291 | 8 | 142 | 48 | 3 | , 6 | 2,266 | 6 | 5 | 48 | 109 | 3,932 |
| Poland. . . . | 333 | 3 | 51 | 98 | 7 | 11 | 2, 10 | 577 | 10 | 117 | 20 | 1,237 |
| Yugoslavia .. | 420 | 5 | 56 | 116 | 56 | 112 | 26 | 36 | 1,269 | 100 | 22 | 2,218 |
| Other European.. | 1,807 | 29 | 266 | 273 | 74 | 60 | 81 | 92 | 81 | 3,213 | 157 | 6,133 |
| Other and unspecified | 1,615 | 24 | 218 | 47 | 148 | 52 | 97 | 18 | 17 | 93 | 1,860 | 4,189 |
| Total Mothers. . | 176,382 | 855 | 11,979 | 2,332 | 4,794 | 9,594 | 3,317 | 867 | 1,588 | 4,501 | 3,634 | 219,843 |

15. Occupation of Fathers.-In the 219,843 cases where nuptial confinements resulted in one or more live births, the classes of occupations of the fathers were distributed as follows:-craftsmen, 69.751 ; rural and mining workers, 28,919 ; administrative and clerical workers, 28,806 ; labourers, 23,462 ; workers in transport and communication, 19,885; professional and technical workers, 19,546; sales workers. 14,403 ; service, sport and other workers, 14,380 ; persons not in the work force, 691.
16. Age, Duration of Marriage and Issue of Mothers.-(i) General. The total number of nuptial confinements resulting in live births in 1963 was 219,843 , compri-ing 217,378 single births, 2,446 cases of twins and 19 cases of triplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.
(ii) Duration of Marriage and Issue of Mothers. The following table shows that in 1963 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1963 was 2.60, compared with 2.61 in 1962, 2.60 in 1961, 2.59 in 1960, and 2.58 in 1959.

NUPTIAL CONFINEMENTS: DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1963

| Duration of marriage |  |  | Total married mothers | Total issue | Average issue | Duration of marriage |  | Total married mothers | Total issue | $\begin{aligned} & \text { Average } \\ & \text { issue } \end{aligned}$ |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Und | der 1 | year | 31,513 | 32,170 | 1.02 | 15 years |  | 2,910 | 14,711 | 5.06 |
|  | year | .. | 24,720 | 32,127 | 1.30 | 16 |  | 2,436 | 12,761 | 5.24 |
|  | years |  | 25,274 | 44,692 | 1.77 |  |  | 1,852 | 10,105 | 5.46 |
| 3 | " | $\ldots$ | 22,712 | 48,019 | 2.11 | 18 " |  | 1,191 | 6,822 | 5.73 |
| 4 | " | $\cdots$ | 18,886 | 46,197 | 2.45 | 19 |  | 877 | 5,205 | 5.94 |
| 5 | " | $\cdots$ | 16,292 | 44,963 | 2.76 | 20 |  | 733 | 4,512 | 6.16 |
| 6 | ", |  | 13,777 | 41,636 | 3.02 | 21 |  | 618 | 3,865 | 6.26 |
| 7 | " | $\cdots$ | 11,751 | 38,989 | 3.32 | 22 |  | 384 | 2,545 | 6.63 |
| 8 | ", |  | 9,666 | 34,467 | 3.57 | 23 |  | 240 | 1,730 | 7.21 |
| 9 | " |  | 8,207 | 31,143 | 3.79 |  |  | 130 | 946 | 7.28 |
| 10 | " |  | 6,734 | 26,987 | 4.01 | 25 years | and |  |  |  |
| 11 | " |  | 5,981 | 25,392 | 4.25 | over |  | 152 | 1,303 | 8.57 |
| 12 | " |  | 5,166 | 23,104 | 4.47 |  |  |  |  |  |
| 13 |  |  | 4,309 | 20,125 | 4.67 |  |  |  |  |  |
| 14 | " | $\cdots$ | 3,332 | 16,096 | 4.83 | Total |  | 219,843 | 570,612 | 2.60 |

(iii) Age and Average Issue of Mothers. The following table shows the average number of children born to mothers of different ages.

NUPTLAL CONFINEMENTS: AVERAGE ISSUE OF MOTHERS,
BY AGE, AUSTRALIA

| Perlod | Average issue of mothers aged- |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 20 years | $\begin{aligned} & 20-24 \\ & \text { years } \end{aligned}$ | $\underset{\text { years }}{25-29}$ | $\begin{aligned} & 30-34 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 35-39 \\ & \text { years } \end{aligned}$ | $\begin{aligned} & 40-44 \\ & \text { years } \end{aligned}$ | 45 years and over | $\begin{gathered} \text { All } \\ \text { ages } \end{gathered}$ |
| 1911-20 | 1.21 | 1.75 | 2.61 | 3.74 | 5.11 | 6.69 | 8.16 | 3.25 |
| 1921-30 | 1.20 | 1.71 | 2.46 | 3.48 | 4.80 | 6.27 | 7.74 | 3.04 |
| 1931-40 | 1.20 | 1.68 | 2.30 | 3.19 | 4.41 | 5.89 | 7.40 | 2.71 |
| 1941-50 | 1.17 | 1.56 | 2.15 | 2.85 | 3.67 | 4.79 | 6.19 | 2.37 |
| 1951-60 | 1.23 | 1.71 | 2.42 | 3.12 | 3.84 | 4.63 | 5.57 | 2.51 |
| 1963 | 1.25 | 1.78 | 2.59 | 3.42 | 4.12 | 4.84 | 5.65 | 2.60 |

(iv) Previous Issue of Mothers, Various Ages. A classification of mothers by age and previous issue is given for 1963 in the following table.

NUPTIAL CONFINEMENTS: AGE OF MOTHER AND PREVIOUS ISSUE, AUSTRALIA, 1963

| Previous issue | Age of mother (years) |  |  |  |  |  |  | Total married mothers |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 20 | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | 45 and over |  |
| 0 | 12,934 | 33,329 | 14,999 | 5,190 | 2,104 | 546 | 28 | 69,130 |
| 1 | 3,087 | 23,536 | 20,421 | 7,813 | 2,858 | 624 | 22 | 58,361 |
| 2 | 366 | 9,369 | 17,032 | 10,117 | 4,065 | 935 | 38 | 41,922 |
| 3 | 33 | 2,741 | 8,596 | 7,836 | 4,038 | 1,040 | 41 | 24,325 |
| 4 | 2 | 674 | 3,424 | 4,454 | 3,070 | 913 | 50 | 12,587 |
| 5 | . . | 149 | 1,286 | 2,313 | 1,937 | 691 | 41 | 6,417 |
| 6 | $\ldots$ | 19 | 467 | 1,145 | 1,122 | 452 | 39 | 3,244 |
| 7 | . | 1 | 145 | 596 | 681 | 349 | 31 | 1,803 |
| 8 | . | .. | 45 | 267 | 385 | 222 | 10 | 929 |
| 9 | . | . | 13 | 144 | 217 | 157 | 8 | 539 |
| 10 and over. . | . | . | 4 | 77 | 254 | 224 | 27 | 586 |
| Total Married Mothers | 16,422 | 69,818 | 66,432 | 39,952 | 20,731 | 6,153 | 335 | 219,843 |

(v) Multiple Births-Previous Issue of Mothers. Figures regarding the previous issue of married mothers of twins in 1963 show that 634 mothers had no previous issue either living or deceased, 606 had one child previously, 529 had two previous issue, 295 three, 170 four, 98 five, 52 six, 20 seven, 21 eight, 12 nine, 4 ten, 2 eleven, 2 twelve, and 1 fifteen.

Of the 19 cases of nuptial triplets registered during 1963, 3 mothers had no previous issue, 4 had one, 4 had two, 2 had three, 2 had four, 1 had five, 1 had six, 1 had seven, and 1 had nine previous issue.
17. Nuptial First Births.-(i) Duration of Marriage. The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA


Proportion of Total Nuptial First Births

| (Per cent.) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under 8 months |  | 27.72 | 27.15 | 27.21 | 15.00 | 18.32 | 23.71 | 25.49 |
| 8 months | . . | 4.65 | 4.01 | 3.61 | 3.58 | 3.33 | 3.19 | 3.19 |
| 9 | . | 10.47 | 8.53 | 6.80 | 7.31 | 7.26 | 7.04 | 6.64 |
| 10 | . | 8.56 | 7.63 | 5.61 | 5.86 | 6.13 | 5.63 | 要5.42 |
| 11 | . | 6.01 | 5.65 | 4.68 | 4.92 | 5.11 | 4.77 | 4.45 |
| Total under 1 year | . | 57.41 | 52.97 | 47.91 | 36.67 | 40.15 | 44.34 | 45.19 |
| 1 year and under 2 years | $\ldots$ | 25.49 | 26.58 | 27.00 | 30.20 | 28.68 | 26.60 | 25.68 |
| 2 years " " 3 | . | 7.82 | 8.84 | 11.01 | 13.65 | 12.33 | 11.16 | 11.36 |
| 3 " $\quad$ " 4 |  | 3.66 | 4.57 | 5.64 | 7.41 | 6.79 | 6.17 | 6.24 |
| 4 " " " 5 |  | 2.08 | 2.47 | 3.07 | 4.37 | 4.09 | 3.78 | 3.74 |
| 5 " " , 10 |  | 2.92 | 3.79 | 4.50 | 6.69 | 6.62 | 6.41 | 6.28 |
| 10 ", " 15 |  | 0.50 | 0.63 | 0.73 | 0.85 | 1.12 | 1.24 | 1.18 |
| 15 years and over | $\cdots$ | 0.12 | 0.15 | 0.14 | 0.16 | 0.22 | 0.30 | 0.33 |
| Total | . | 100.00 | 100.00 | $\overline{100.00}$ | 100.00 | 100.00 | 100.00 | $\mathbf{1 0 0 . 0 0}$ |

In 1963, the masculinity of nuptial first births was 105.99 and of total births 105.75 .
(ii) Age of Mother and Duration of Marriage. A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table.

NUPTIAL FIRST BIRTHS: AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA, 1963

| Duration of marriage | Age of mother (years) |  |  |  |  |  |  |  | Total |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | $\begin{array}{\|c} \text { SUnder } \\ 20 \end{array}$ | 20-24 | 25-29 | 30-34 | 35-39 | 40-44 | $\begin{gathered} 45 \text { and } \\ \text { over } \end{gathered}$ | Not stated |  |
|  | Number of Nuptial First Births |  |  |  |  |  |  |  |  |
| Under 8 months | 9,077 | 6,787 | 1,125 | 374 | 192 |  | 1 |  | 17,621 |
| 8 months | 440 | 1,204 | , 371 | 130 | 50 | 8 | 2 | $\because$ | 2,205 |
| $9 \%$ | 620 | 2,749 | 828 | 297 | 82 | 18 |  | . | 4,594 |
| 10 | 481 | 2,305 1,873 | 645 575 | 219 167 | 85 | 12 | 2 | $\ldots$ | $\mathbf{3 , 7 4 9}$ $\mathbf{3 , 0 7 4}$ |
| Total under 1 year | 11,007 | 14,918 | 3,544 | 1.187 | 470 | 112 | 5 |  | 31,243 |
| 1 year and under 2 years | 1,655 | 10,909 | 3,590 | 1,075 | 404 | 116 | 2 | $\because$ | 17,751 |
|  | 213 | 4,550 | 2,266 | +546 | 207 | 66 | 4 |  | 7,852 |
|  | 48 9 | 1,870 729 | 2,770 1,407 | 423 308 | 149 96 | 51 31 | 2 | $\because$ | 4,313 2,582 |
|  | 2 | 350 | 1,467 | 1,185 | 361 | 76 | 6 | $\because$ | 4,343 |
| 10 y years änd over $15 \cdots$ |  | 3 | 59 | 443 23 | ${ }_{151}^{266}$ | 43 51 | 3 | $\cdots$ | 817 229 |
| Total . . . | 12,934 | 33,329 | 14,999 | 5,190 | $\underline{2,104}$ | 546 | 28 | $\ldots$ | 69,130 |

(iii) Nuptial First Births and Subsequent Births. The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1911 and shows also the proportion of first to total nuptial confinements.

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS: AUSTRALIA

| Period | Nuptial confinements |  |  | Proportion <br> of first to <br> total nuptial <br> confne- <br> ments |
| :---: | :---: | :---: | :---: | :---: | :---: |
| (Per cent.) |  |  |  |  |

Annual Averages

| 1911-20 | . |  |  | 33,595 | 88,997 | 122,592 | 27.40 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1921-30 | . |  |  | 38,120 | 88,086 | 126,206 | 30.20 |
| 1931-40 | $\cdots$ | . |  | 39,243 | 71,136 | 110,379 | 35.55 |
| 1941-50 | $\cdots$ |  |  | 58,818 | 96,994 | 155,812 | 37.75 |
| 1951-60 | . | . | . | 64,379 | 136,264 | 200,643 | 32.09 |

Annual Totals

| 1959 | . | $\ldots$ | $\ldots$ | . | 66,717 | 147,145 | 213,862 | 31.20 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1960 | . | $\ldots$ | $\ldots$ | . | 66,890 | 150,073 | 216,963 | 30.83 |
| 1961 | $\ldots$ | $\ldots$ | $\ldots$ | . | 70,177 | 155,105 | 225,282 | 31.15 |
| 1962 | $\ldots$ | $\ldots$ | $\ldots$ | . | 68,310 | 153,547 | 221,857 | 30.79 |
| 1963 | $\ldots$ | $\ldots$ | $\ldots$ | . | 69,130 | 150,713 | 219,843 | 31.45 |

18. Stillbirths.-Interstate comparisons of the figures and rates in the following tables are affected by the differences in the definitions of stillbirths adopted by the various States, and only the trends in the rates for the States should be compared.

For various reasons, the registration of stillbirths is not as complete as for live births and deaths. Particulars for the Territories and smaller States are more affected on this account than are those for the larger States.

The number of stillbirths recorded in each State and Territory since 1936 is shown in the following table.

## STILLBIRTHS

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |

Annual Averages

| 1936-40 |  | 1,409 | 854 | (a) | (b) 274 | 234 | 144 | (a) | 5 | (a) |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1941-45 |  | 1,478 | 966 | (c) 657 | 324 | 248 | 143 | (a) | 9 | de 3,825 |
| 1946-50 |  | 1,405 | 949 | 626 | 368 | 274 | 161 | (a) | 12 | (e) 3,795 |
| 1951-55 |  | 1,239 | 849 | 581 | 290 | 271 | 139 | 8 | 16 | 3,393 |
| 1956-60 | . | 1,253 | 839 | 558 | 274 | 235 | 109 | 6 | 19 | 3,293 |

Annual Totals

| 1959 | $\cdots$ | 1,241 | 799 | 553 | 281 | 225 | 109 | 5 | 18 | 3,231 |
| ---: | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1960 | $\cdot$. | 1,261 | 850 | 551 | 280 | 226 | 106 | 13 | 22 | 3,309 |
| 1961 | . | 1,306 | 885 | 553 | 272 | 240 | 111 | 17 | 19 | 3,403 |
| 1962 | .. | 1,099 | 775 | 520 | 278 | 203 | 102 | 9 | 20 | 3,006 |
| 1963 | .. | 1,163 | 792 | 476 | 262 | 178 | 63 | 30 | 14 | 2,978 |

(a) Not available.
(b) Three years 1938-40.
(c) Four years 1942-45.
(d) Excludes

Queensland for 1941. (e) Excludes Northern Territory.
The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

PROPORTION OF STILLEIRTHS $(a)$

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aurt. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average annual Rates |  |  |  |  |  |  |  |  |  |
| 1936-40 | 28.71 | 27.43 | (b) | c27.49 | 25.70 | 28.75 | (b) | 22.18 | (b) |
| 1941-45 | 25.46 | 24.79 | $d 26.76$ | 25.17 | 23.29 | 25.68 | (b) | 22.87 | ef 25.25 |
| 1946-50 | 19.99 | 19.64 | 21.87 | 22.12 | 20.46 | 22.26 | (b) | 16.35 | $f 20.46$ |
| 1951-55 | 16.52 | 15.55 | 18.41 | 15.80 | 16.97 | 17.54 | 17.20 | 17.05 | 16.57 |
| 1956-60 | 15.49 | 13.50 | 16.07 | 13.55 | 13.70 | 12.64 | 8.57 | 14.26 | 14.59 |


| ANUAL RATES |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1959 | $\cdots$ | 15.11 | 12.67 | 15.30 | 13.61 | 12.98 | 12.48 | 6.24 | 13.04 | 14.04 |
| 1960 | $\cdots$ | 15.15 | 13.10 | 15.41 | 13.18 | 13.18 | 11.83 | 16.46 | 13.71 | 14.16 |
| 1961 | $\cdots$ | 14.89 | 13.25 | 14.87 | 12.00 | 13.86 | 12.21 | 18.99 | 10.84 | 13.98 |
| 1962 | $\cdots$ | 12.70 | 11.63 | 14.36 | 12.85 | 11.76 | 11.34 | 9.65 | 10.88 | 12.52 |
| 1963 | $\cdots$ | 13.65 | 11.92 | 13.07 | 12.11 | 10.19 | 7.33 | 33.75 | 6.97 | 12.48 |

(a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes ( $f$ ) Excludes Northern Territory.

Note.-Because of the smallness of the numbers of stillbirths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e. the number per thousand live births and stillbirths) are subject to considerable fluctuation.

## § 5. Mortality

1. Number of Deaths.-(i) Year 1964. The following table shows the number of deaths, male and female, registered in each State and Territory during the year. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

## DEATHS, 1964

| Sex |  | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Males | . | 21,899 | 14,992 | 8,480 | 5,008 | 3,738 | 1,797 | 117 | 215 | 56,246 |
| Females | $\cdots$ | 17,588 | 12,556 | 6,043 | 3,898 | 2,691 | 1,377 | 47 | 148 | 44,348 |
| Persons | $\cdots$ | 39,487 | 27,548 | 14,523 | 8,906 | 6,429 | 3,174 | 164 | 363 | 100,594 |

(ii) Years 1926 to 1964. A summary of the number of deaths in each State and Territory from 1926 to 1964 is given in the following table. Annual averages for each five-ycar period from 1861 to 1950 were published in Year Book No. 39, page 597.

## DEATHS

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | T | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual Averages |  |  |  |  |  |  |  |  |  |
| 1926-30 | 22,677 | 16,698 | 8,007 | 5,008 | 3,617 | 2,040 | 71 | 42 | 58,160 |
| 1931-35 | 22,591 | 17,680 | 8,147 | 5,063 | 3,876 | 2,194 | 67 | 35 | 59,653 |
| 1936-40(a) | 25,735 | 19,361 | 9,107 | 5,540 | 4,270 | 2,342 | 73 | 54 | 66,482 |
| 1941-45(a) | 27,807 | 20,964 | 9,715 | 6,303 | 4,724 | 2,488 | 64 | 71 | 72,136 |
| 1946-50(a) | 29,552 | 21,827 | 10,357 | 6,507 | 4,802 | 2,459 | 76 | 103 | 75,683 |
| 1951-55 | 32,135 | 22,900 | 11,187 | 7,182 | 5,263 | 2,576 | 109 | 131 | 81,483 |
| 1956-60 | 34,002 | 24,254 | 12,008 | 7,732 | 5,523 | 2,668 | 117 | 184 | 86,488 |
| Annual Totals |  |  |  |  |  |  |  |  |  |
| 1960 | 35,030 | 24,547 | 12,370 | 7,804 | 5,697 | 2,670 | 134 | 212 | 88,464 |
| 1961 | 35,048 | 24,500 | 12,756 | 7,815 | 5,729 | 2,789 | 128 | 196 | 88,961 |
| 1962 | 36,861 | 25,847 | 13,182 | 8,232 | 5,810 | 2,870 | 144 | 217 | 93,163 |
| 1963 | 37,226 | 26,920 | 13,275 | 8,201 | 5,976 | 2,818 | 161 | 317 | 94,894 |
| 1964 | 39,487 | 27,548 | 14,523 | 8,906 | 6,429 | 3,174 | 164 | 363 | 100,594 |

(a) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September, 1939 to June. 1947.

A graph showing the number of deaths in each year from 1870 to 1964 will be found on page 309.
2. Crude Death Rates.-The commonest method of measuring the mortality rate is to relate the number of deaths for a given period to the mean population for that period, thus obtaining the crude death rate. This rate for a given period measures the number per thousand of population by which the population is depleted through deaths during that period. Crude death rates for each State and Territory from 1926 to 1964 are shown in the following table.

CRUDE DEATH RATES(a)

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Annual Rates |  |  |  |  |  |  |  |  |  |
| 1926-30 | 9.26 | 9.56 | 9.06 | 8.83 | 8.91 | 9.44 | 15.83 | 5.36 | 9.26 |
| 1931-35 | 8.68 | 9.72 | 8.62 | 8.72 | 8.83 | 9.63 | 13.46 | 3.81 | 9.00 |
| 1936-40(b) | 9.45 | 10.36 | 9.08 | 9.33 | 9.22 | 9.91 | 11.69 | 4.54 | 9.63 |
| 1941-45(b) | 9.73 | 10.63 | 9.24 | 10.26 | 9.86 | 10.21 | 6.43 | 4.98 | 9.96 |
| 1946-50(b) | 9.70 | 10.37 | 9.13 | 9.76 | 9.23 | 9.30 | 6.27 | 5.31 | 9.74 |
| 1951-55 | 9.49 | 9.55 | 8.71 | 9.25 | 8.49 | 8.48 | 6.86 | 4.58 | 9.25 |
| 1956-60 | 9.20 | 8.91 | 8.36 | 8.62 | 7.90 | 7.97 | 5.32 | 4.31 | 8.78 |

Annual Rates

| 1960 | 9.14 | 8.59 | 8.30 | 8.26 | 7.88 | 7.70 | 5.34 | 4.03 | 8.61 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1961 | 8.95 | 8.37 | 8.42 | 8.06 | 7.77 | 7.89 | 4.88 | 3.33 | 8.47 |
| 1962 | 9.26 | 8.64 | 8.56 | 8.32 | 7.69 | 7.99 | 5.34 | 3.30 | 8.70 |
| 1963 | 9.19 | 8.81 | 8.50 | 8.13 | 7.73 | 7.74 | 5.62 | 4.32 | 8.69 |
| 1964- |  |  |  |  |  |  |  |  |  |
| Males | 10.58 | 9.54 | 10.54 | 9.62 | 9.32 | 9.67 | 6.39 | 5.12 | 10.02 |
| Females | 8.58 | 8.06 | 7.74 | 7.62 | 6.92 | 7.58 | 3.60 | 3.82 | 8.03 |
| Persons | 9.58 | 8.80 | 9.16 | 8.63 | 8.14 | 8.64 | 5.22 | 4.50 | 9.03 |

(a) Number of deaths per 1,000 of mean population.
(b) Excludes deaths of defence personnel etc., from September, 1939 to June, 1947.

Note--Crude death rates (i.e. the number of deaths per thousand of mean population) are affected by the particular age and sex composition of the population. In the Australian Capital Territory and the Northern Territory the population at risk in the higher ages is lower proportionately than in other States, largely as a result of the rapid increases of the population in the lower ages.

A graph showing the crude death rate for each year from 1870 to 1964 will be found on page 310 .
3. Standardized Death Rates.-(i) General. The death rates quoted above are crude rates, i.e., they simply show the number of deaths per thousand of mean population without taking into consideration differences in the sex and age composition of the population. Other conditions being equal, however, the crude death rate of a community will be low if it contains a large proportion of young people (not infants), and conversely it will be relatively high if the population includes a large proportion of elderly people. The foregoing table of crude death rates, therefore, does not indicate comparative incidence of mortality either as between States in the same year or in any one State over a period of years. In order to obtain a comparison of mortality rates on a uniform basis as far as sex and age constitution are concerned, "standardized" death rates may be computed. These are computed by selecting a particular distribution of age and sex as a standard, and then calculating what would have been the general death rate if the death rates for each sex and in each age group had been as recorded, but the age and sex distribution had been the same as in the standard population. For the standardized rates which follow, the standard population compiled by the International Institute of Statistics has been used. This standard is based upon the age distribution according to sex of nineteen European countries at their censuses nearest to the year 1900 .

An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 7, pages 332-4.
(ii) Comparison of Crude and Standardized Death Rates. The relative incidence of mortality as between individual States and as between the years 1921, 1933, 1947, 1954 and 1961 is illustrated in the following statement of crude and "standardized" death rates. These years have been chosen for comparison because the census data give essential information as to sexes and ages of the State populations. Crude death rates are shown to indicate the degree to which they disguise the true position.

CRUDE AND STANDARDIZED DEATH RATES

| Particulars |  |  | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Crude death rate(a)- |  |  |  |  |  |  |  |  |  |
| 1921 | .. .. | . | 9.50 | 10.52 | 9.37 | 10.02 | 10.42 | 10.30 | 9.91 |
| 1933 | . . | .. | 8.58 | 9.59 | 8.84 | 8.44 | 8.64 | 9.60 | 8.92 |
| 1947 |  | . | 9.53 | 10.44 | 9.15 | 9.61 | 9.39 | 9.17 | 9.69 |
| 1954 | - | $\ldots$ | 9.46 | 9.20 | 8.63 | 9.01 | 8.38 | 8.67 | 9.10 |
| 1961 |  | . . | 8.95 | 8.37 | 8.42 | 8.06 | 7.77 | 7.89 | 8.47 |
| Standardized death rate $(b)-$ |  |  |  |  |  |  |  |  |  |
| 1921 |  | $\cdots$ | 10.35 | 10.79 | 10.24 | 10.38 | 11.88 | 10.83 | 10.58 |
| 1933 | .. . | . | 8.52 | 8.74 | 9.10 | 7.66 | 8.74 | 8.86 | 8.62 |
| 1947 | .. .. | . | 7.44 | 7.31 | 7.47 | 6.77 | 7.28 | 7.21 | 7.34 |
| 1954 | .. . | . | 7.24 | 6.63 | 6.80 | 6.52 | 6.71 | 7.02 | 6.90 |
| 1961 | . | $\cdots$ | 6.56 | 6.12 | 6.26 | 5.90 | 6.02 | 6.19 | 6.27 |

[^2]The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.
4. True Death Rates.-The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in a stationary population one person in 50 or 20 per thousand will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.
COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH RATES: AUSTRALIA

| Period |  |  |  |  | Complete expectation of life at birth (years) |  | True death rate |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  |  |  | Males | Females | Males(a) | Females(b) |
| 1881-1890 | - | - | . | - | 47.20 | 50.84 | 21.19 | 19.67 |
| 1891-1900 | . | . | . | .. | 51.06 | 54.76 | 19.58 | 18.26 |
| 1901-1910 | . | . | . . | .. | 55.20 | 58.84 | 18.12 | 17.00 |
| 1920-1922 | . | . | . | . | 59.15 | 63.31 | 16.91 | 15.80 |
| 1932-1934 | $\cdots$ | $\cdots$ | $\cdots$ | . | 63.48 | 67.14 | 15.75 | 14.89 |
| 1946-1948 | . | . | - | . | 66.07 | 70.63 | 15.14 | 14.16 |
| 1953-1955 | . | . | . | . | 67.14 | 72.75 | 14.89 | 13.75 |

(a) Number of deaths per 1,000 males in stationary population.
females in stationary population.
(b) Number of deaths per 1,000

The crude death rates and the true death rates of Australia and the more populous countries of the world for the latest available year are shown in the table in § 7. International Vital Statistics, pages 344-6.


#### Abstract

5. Australian Life Tables.-(i) Life Tables prior to 1954. It has been the practice at each census from 1911 onwards to prepare Life Tables representative of the mortality experience of Australia. The mortality of the Australian population for the thirty years from 1881 to 1910 inclusive was investigated in 1911 by the Commonwealth Statistician. Tables were compiled for each State and for Australia as a whole in respect of each sex for each of the decennial periods 1881-1890, 1891-1900 and 1901-1910. These compilations furnished a comprehensive view of Australian mortality in respect of sex, time, and geographical distribution, and practically superseded all Life Tables prepared in Australia prior to 1911. In addition, monetary tables based on the experience for the whole of Australia for the ten years 1901-1910 were prepared and published.


At the Census of 1921, Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933 and 1947, Life Tables based on the census population and the deaths in the years 1932 to 1934 and 1946 to 1948 respectively were compiled by the Commonwealth Actuary.
(ii) Life Tables of Census of 1954. On the occasion of the 1954 Census, the seventh Life Tables in the series were compiled by the Commonwealth Actuary. These were based on the population recorded at the Census, adjusted to allow for variation the net movement into Australia over the years 1953 to 1955, and deaths during these years. Full particulars of the data used, the method of construction and the tabulations of these Life Tables will be found in the report of the Commonwealth Actuary, which was published by the Commonwealth Statistician in 1958. This report also appears in Volume VIII. of the detailed tables of the 1954 Census.

The main features of the tables are set out in the following summary table. Comparisons with earlier Australian tables and with the latest experience in the United Kingdom and New Zealand are provided in Year Book No. 48, pages 338-40.

LIFE TABLES, 1953-55

|  | $\underset{(x)}{\text { Age }}$ |  | Males |  |  | Females |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  |  | Rate of mortality $\left({ }^{\prime}{ }_{x}\right)$ | Number of survivors $\left({ }_{x}\right)$ |  | Rate of mortality $\left({ }^{( }{ }_{x}\right)$ | Number of survivors $\left({ }^{\prime}{ }_{x}\right)$ | Complete expectation of life ( ${ }^{\circ}{ }^{6}$ ) |
| 0 | . | $\cdots$ | . 02521 | 100,000 | 67.14 | . 01989 | 100,000 | 72.75 |
| 10 | . | . | . 00056 | 96,488 | 59.53 | . 00035 | 97,228 | 64.78 |
| 20 | . | $\cdots$ | . 00186 | 95,460 | 50.10 | . 00064 | 96,774 | 55.06 |
| 30 | . | . . | . 00170 | 93,801 | 40.90 | . 00096 | 96,055 | 45.43 |
| 40 | . | . | . 00297 | 91,861 | 31.65 | . 00217 | 94,715 | 36.00 |
| 50 | - | - | . 00819 | 87,553 | 22.92 | . 00530 | 91,573 | 27.03 |
| 60 | - | . | . 02221 | 76,256 | 15.47 | . 01203 | 84,665 | 18.78 |
| 70 |  | . | . 05315 | 54,054 | 9.59 | . 03250 | 69,613 | 11.62 |
| 80 | . | . | . 11958 | 23,658 | 5.47 | . 09314 | 39,633 | 6.30 |

$a_{x}=$ probability of dying within one year at specified ages. $\quad{ }^{\prime} x=$ number surviving at specifiod ages out of 100,000 births. $\quad{ }^{\circ} \boldsymbol{e}_{\boldsymbol{x}}=$ complete expectation of life at specified ages.

The following table shows a comparison of the complete expectation of life at selected ages for males and females as calculated from the life tables of 1920-22, 1932-34, 1946-48 and 1953-55.

COMPLETE EXPECTATION OF LIFE ( ${ }^{\circ} e_{x}$ ) AT SELECTED AGES: AUSTRALIA

| $\begin{aligned} & \text { Ago } \\ & (x) \end{aligned}$ |  | Males |  |  |  | Females |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 1920-22 | 1932-34 | 1946-48 | 1953-55 | 1920-22 | 1932-34 | 1946-48 | 1953-55 |
| 0 |  | 59.15 | 63.48 | 66.07 | 67.14 | 63.31 | 67.14 | 70.63 | 72.75 |
| 10 |  | 56.01 | 58.02 | 59.04 | 59.53 | 59.20 | 61.02 | 63.11 | 64.78 |
| 20 |  | 46.99 | 48.81 | 49.64 | 50.10 | 50.03 | 51.67 | 53.47 | 55.06 |
| 30 |  | 38.44 | 39.90 | 40.40 | 40.90 | 41.48 | 42.77 | 44.08 | 45.43 |
| 40 |  | 30.05 | 31.11 | 31.23 | 31.65 | 33.14 | 34.04 | 34.91 | 36.00 |
| 50 |  | 22.20 | 22.83 | 22.67 | 22.92 | 24.90 | 25.58 | 26.14 | 27.03 |
| 60 |  | 15.08 | 15.57 | 15.36 | 15.47 | 17.17 | 17.74 | 18.11 | 18.78 |
| 70 |  | 9.26 | 9.60 | 9.55 | 9.59 | 10.41 | 10.98 | 11.14 | 11.62 |
| 80 |  | 5.00 | 5.22 | 5.36 | 5.47 | 5.61 | 6.01 | 6.02 | 6.30 |

6. Infant Deaths and Death Rates.-(i) States. (a) Under One Year. For each State and Territory, the number of deaths under one year of age and the rates of infant mortality during the period 1926 to 1964 were as follows.

INFANT MORTALITY: UNDER ONE YEAR

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Annual Averages |  |  |  |  |  |  |  |  |  |
| 1926-30 | 2,918 | 1,797 | 918 | 517 | 431 | 257 | 5 | 8 | 6,851 |
| 1931-35 | 1,885 | 1,214 | 690 | 304 | 329 | 202 | 6 | 5 | 4,635 |
| 1936-40 | 1,963 | 1,139 | 718 | 311 | 352 | 201 | 6 | 5 | 4,695 |
| 1941-45 | 2,034 | 1,311 | 804 | 413 | 347 | 213 | 7 | 7 | 5,136 |
| 1946-50 | 1,990 | 1,129 | 770 | 431 | 370 | 187 | 11 | 14 | 4,902 |
| 1951-55 | 1,852 | 1,113 | 730 | 407 | 384 | 184 | 17 | 14 | 4,701 |
| 1956-60 | 1,770 | 1,205 | 717 | 410 | 362 | 176 | 25 | 18 | 4,683 |
| annual Totals |  |  |  |  |  |  |  |  |  |
| 1960 | 1,735 | 1,182 | 740 | 397 | 366 | 169 | 26 | 28 | 4,643 |
| 1961 | 1,800 | 1,173 | 733 | 448 | 336 | 151 | 21 | 27 | 4.689 |
| 1962 | 1,825 | 1,219 | 754 | 409 | 380 | 184 | 37 | 32 | 4,840 |
| 1963 | 1,673 | 1,242 | 722 | 399 | 353 | 153 | 27 | 38 | 4,607 |
| 1964 | 1,634 | 1,098 | 673 | 397 | 328 | 166 | 30 | 41 | 4.367 |
| Average Annual Rates(a) |  |  |  |  |  |  |  |  |  |
| 1926-30 | 54.74 | 52.34 | 47.41 | 46.95 | 49.27 | 53.37 | 66.09 | 71.31 | 51.99 |
| 1931-35 | 41.92 | 42.76 | 39.46 | 35.12 | 40.81 | 44.47 | 80.60 | 34.48 | 41.27 |
| 1936-40 | 41.18 | 37.63 | 36.75 | 33.08 | 39.70 | 41.23 | 44.80 | 21.78 | 38.81 |
| 1941-45 | 35.95 | 34.50 | 34.30 | 32.95 | 33.30 | 39.31 | 61.73 | 18.72 | 34.97 |
| 1946-50 | 28.91 | 23.82 | 27.49 | 26.50 | 28.15 | 26.53 | 37.37 | 19.89 | 26.98 |
| 1951-55 | 25.11 | 20.70 | 23.58 | 22.55 | 24.41 | 23.67 | 36.28 | 15.40 | 23.34 |
| 1956-60 | 22.24 | 19.67 | 20.99 | 20.50 | 21.42 | 20.62 | 36.00 | 13.68 | 21.05 |


| AnNuAL Rates $(a)$ |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1960 | $\cdots$ | 21.16 | 18.46 | 21.01 | 18.94 | 21.62 | 19.09 | 33.46 | 17.69 | $20-16$ |
| 1961 | $\cdots$ | 20.84 | 17.80 | 20.01 | 20.00 | 19.67 | 16.81 | 23.92 | 15.57 | 19.54 |
| 1962 | $\cdots$ | 21.36 | 18.50 | 21.13 | 19.15 | 22.27 | 20.69 | 40.04 | 17.59 | 20.41 |
| 1963 | $\cdots$ | 19.90 | 18.92 | 20.09 | 18.67 | 20.42 | 17.94 | 31.43 | 19.05 | 19.55 |
| 1964 | $\ldots$ | 20.29 | 16.89 | 19.24 | 19.03 | 19.66 | 20.12 | 32.93 | 20.97 | 19.06 |

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

Compared with other countries, Australia occupies a favourable position in respect of infant mortality. In 1963, only a few countries recorded a lower rate than Australia. Rates for Australia and the more populous countries of the world for the latest available year are shown in the tables in § 7. International Vital Statistics, pages 344-6.
(b) Under Four Weeks. The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1926 to 1963.

INFANT MORTALITY RATES $(a)$ : UNDER FOUR WEEKS

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Average Annual Rates |  |  |  |  |  |  |  |  |  |
| 1926-30 | 29.63 | 29.75 | 27.66 | 26.84 | 25.10 | 33.12 | 14.37 | 28.86 | 28.96 |
| 1931-35 | 27.62 | 27.78 | 27.91 | 22.99 | 25.11 | 30.09 | 35.26 | 23.45 | 27.27 |
| 1936-40 | 27.63 | 25.94 | 26.15 | 21.62 | 22.62 | 29.56 | 28.80 | 16.33 | 26.19 |
| 1941-45 | 24.34 | 24.27 | 24.34 | 20.88 | 20.62 | 27.13 | 3527 | 12.48 | 23.85 |
| 1946-50 | 20.53 | 17.55 | 19.95 | 18.38 | 19.53 | 19.34 | 21.45 | 15.80 | 19.34 |
| 1951-55 | 17.34 | 15.18 | 17.09 | 14.95 | 17.27 | 16.34 | 19.63 | 11.28 | 16.45 |
| 1956-60 | 16.04 | 14.50 | 15.15 | 13.67 | 15.01 | 13.29 | 24.19 | 9.64 | 15.07 |

Annual Rates

| 1959 | $\ldots$ | 16.37 | 15.22 | 14.61 | 14.03 | 13.79 | 14.84 | 27.63 | 8.81 | 15.31 |
| :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- | :--- |
| 1960 | $\ldots$ | 15.25 | 15.84 | 13.70 | 13.26 | 15.89 | 11.18 | 27.03 | 12.00 | 14.64 |
| 1961 | $\ldots$ | 14.86 | 13.46 | 14.80 | 12.99 | 12.76 | 11.91 | 14.81 | 10.96 | 14.01 |
| 1962 | $\ldots$ | 15.46 | 14.17 | 1502 | 13.44 | 14.48 | 14.06 | 19.48 | 11.54 | 14.71 |
| 1963 | $\ldots$ | 14.10 | 14.88 | 14.80 | 12.92 | 14.87 | 12.08 | 20.95 | 13.54 | 14.32 |

(a) Number of deaths of children aged under four weeks per 1,000 live births registered.

Note.-Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the 1 ates for these Territories (i.e. number of such deaths per thousand live births) are subject to considerable fluctuation.
(c) Four Weeks and under One Year. Infant mortality rates for children aged four weeks and under one year are shown in the following table for the period 1926 to 1963.

INFANT MORTALITY RATES $(a)$ : FOUR WEEKS AND UNDER ONE YEAR

| Period | N.S.W. | Vic. | Q'land | S. Aust. | W. Aust. | Tas. | N.T. | A.C.T. | Aust. |
| :---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| Average AnNUAL RATES |  |  |  |  |  |  |  |  |  |
| $1926-30$ | $\ldots$ | 25.11 | 22.59 | 19.75 | 20.11 | 24.17 | 20.25 | 51.72 | 42.45 |
| $1931-35$ | $\ldots$ | 14.30 | 14.98 | 11.55 | 12.13 | 15.70 | 14.38 | 45.34 | 11.03 |
| $1936-40$ | $\ldots$ | 13.55 | 11.69 | 10.60 | 11.46 | 17.08 | 11.67 | 16.00 | 5.00 |
| $1941-45$ | $\ldots$ | 11.61 | 10.23 | 9.97 | 12.07 | 12.68 | 12.18 | 26 | 46 |
| $1946-50$ | $\ldots$ | 8.38 | 6.27 | 7.54 | 8.12 | 8.64 | 11.12 |  |  |
| $1951-55$ | $\ldots$ | 7.77 | 5.52 | 6.49 | 7.60 | 7.14 | 7.19 | 15.92 | .09 |
| $1956-60$ | . | 6.19 | 5.17 | 5.85 | 6.84 | 6.41 | 7.33 | 16.65 | 4.12 |


| ANNAL RATES |  |  |  |  |  |  |  |  |  |  |
| :--- | :--- | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: | ---: |
| 1959 | $\cdots$ | 6.28 | 5.99 | 5.64 | 6.68 | 6.37 | 8.58 | 11.31 | 2.94 | 6.23 |
| 1960 | $\cdots$ | 5.91 | 4.76 | 5.17 | 5.68 | 5.73 | 7.91 | 6.43 | 5.69 | 5.52 |
| 1961 | $\cdots$ | 5.98 | 4.34 | 5.21 | 7.01 | 6.91 | 4.90 | 9.11 | 4.61 | 5.53 |
| 1962 | $\cdots$ | 5.90 | 4.33 | 6.11 | 5.71 | 7.79 | 6.63 | 20.56 | 6.05 | 5.70 |
| 1963 | $\cdots$ | 5.80 | 4.04 | 5.29 | 5.75 | 5.55 | 5.86 | 10.48 | 5.51 | 5.23 |

(a) Number of deaths of children aged four weeks and under one year per 1,000 live births registered.

Note.-Because of the smallness of the numbers of these deaths occurring in the Australian Capital Territory and the Northern Territory, the rates for these Territories (i.e., number of such deaths per thousand live births) are subject to considerable fluctuation.
(ii) Australia. (a) Under One Year. The fact that out of 601,014 male infants born from 1959 to $1963,13,561$ (22.56 per 1,000) died during the first year of life, while of 569,044 female infants only 10,107 (17.76 per 1,000 ) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

As shown by the following table, the disparity is greater during the first four weeks of life, termed the neonatal period, than during the remainder of the first year of life, or the post-neonatal period.

INFANT DEATHS AND MORTALITY RATES: AUSTRALIA

| Period |  | Number of deaths |  |  |  |  |  | Rates(a) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Neonatalunder four weeks |  | Post-neonatalfour weeks and under one year |  | Total under one year |  | Neonatalunder four weeks |  | Post-neonatalfour weeks and under one year |  | Total under one year |  |
|  |  | Males | Fe males | Males | Fe- | Males | Females | Males | Females | Males | $\underset{\text { males }}{\mathrm{Fe}}$ | Males | Females |
|  |  | Annual Averages |  |  |  |  |  | Average annual Rates |  |  |  |  |  |
| 1926-30 | . | 2,203 | 1,612 | 1,706 | 1,330 | 3.909 | 2,942 | 32.50 | 25.20 | 25.16 | 20.79 | 57.66 | 45.99 |
| 1931-35 | . | 1,763 | 1,299 | 886 | 687 | 2,649 | 1,986 | 30.62 | 23.73 | 15.38 | 12.55 | 46.00 | 36.28 |
| 1936-40 | . | 1,816 | 1,353 | 863 | 663 | 2,679 | 2,016 | 29.30 | 22.93 | 13.93 | 11.23 | 43.23 | 34.16 |
| 1941-45 | . | 2,007 | 1,495 | 914 | 720 | 2,921 | 2,215 | 26.66 | 20.88 | 12.14 | 10.05 | 38.80 | 30.93 |
| 1946-50 |  | 2,024 | 1,490 | 784 | 604 | 2,808 | 2,094 | 21.68 | 16.86 | 8.40 | 6.84 | 30.08 | 23.70 |
| 1951-55 |  | 1,907 | 1,406 | 776 | 612 | 2,683 | 2,018 | 18.47 | 14.32 | 7.52 | 6.24 | 25.99 | 20.56 |
| 1956-60 | $\cdots$ | 1,921 | 1,432 | 741 | 589 | 2,662 | 2,021 | 16.81 | 13.24 | 6.48 | 5.45 | 23.29 \| | 18.69 |
|  |  | annual totals |  |  |  |  |  | Annual Rates |  |  |  |  |  |
| 1959 | - | 2,017 | 1,458 | 777 | 637 | 2,794 | 2,095 | 17.35 | 13.17 | 6.69 | 5.75 | 24.04 | 18.92 |
| 1960 | . | 1,934 | 1,437 | 717 | 555 | 2,651 | 1,992 | 16.33 | 12.84 | 6.06 | 4.96 | 22.39 | 17.80 |
| 1961 | . | 1,951 | 1,410 | 739 | 589 | 2,690 | 1,999 | 15.85 | 12.06 | 6.00 | 5.04 | 21.85 | 17.10 |
| 1962 | . | 2,038 | 1,451 | 752 | 599 | 2,790 | 2,050 | 16.69 | 12.62 | 6.16 | 5.21 | 22.85 | 17.83 |
| 1963 | $\cdots$ | 1,946 | 1,429 | 690 | 542 | 2,636 | 1,971 | 16.06 | 12.48 | 5.70 | 4.73 | 21.76 | 17.21 |

(a) Number of deaths per 1,000 male or female live births registered.
(b) Under Four Weeks. The following table shows particulars of infant deaths in the first four weeks of life, or the neonatal period, from 1931 to 1963 . It will be seen that for both males and females the risk of death is very much greater during the first day of life than subsequently.

INFANT DEATHS AND MORTALITY RATES-UNDER FOUR WEEKS:
AUSTRALIA

| Period |  | Number of deaths |  |  |  |  |  | Rates(a) |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Early neonatal |  |  |  | Late neonatalone week and under four weeks |  | Early neonatal |  |  |  | Late neonatalone week and under four week. |  |
|  |  | Under one day |  | One and one | day under week |  |  | Under one day |  | One day and under one week |  |  |  |
|  |  | Males | Females | Males | Females | Males | Females | Males | Females | Males | Females | Males | Femalea |
| $\begin{aligned} & 1931-35 \\ & 1936-40 \\ & 1941-45 \\ & 1946-50 \\ & 1951-55 \\ & 1956-60 \end{aligned}$ |  | Annual Averages |  |  |  |  |  | Average Annual Ratbs |  |  |  |  |  |
|  |  | (b) | (b) | c 1,442 | c 1,066 | 321 | 233 | (b) | (b) | c25.04\| | c19.48\| | 5.58 | 4.25 |
|  |  | (b) ${ }^{\text {a }}$ | (b) | c 1,496 | c 1,120 | 320 373 | 233 | (b) | (b) | c24.13 | c18.99 | 5.17 | 3.94 |
|  |  | 906 | 674 | 728 | 541 | 373 | 280 | 12.03 | 9.42 | 9.67 | 7.55 | 4.96 | 3.91 |
|  |  | 986 | 731 | 758 | 539 | 280 | 220 | 10.56 | 8.28 | 8.12 | 6.09 | 3.00 | 2.49 |
|  |  | 918 | 713 | 742 | 508 | 247 | 185 | 8.88 | 7.26 | 7.19 | 5.17 | 2.40 | 1.89 |
|  |  | 972 | 765 | 705 | 490 | 244 | 177 | 8.50 | 7.07 . | 6.17 | 4.53 | 2.13 | 1.64 |
|  |  | annual totals |  |  |  |  |  | Annual Rates |  |  |  |  |  |
| 1959 |  | 1,003 | 7841 | 762 | 497 | 252 | 177 | 8.631 | 7.08 | 6.55 | 4.491 | 2.17 | 1.60 |
| 1960 |  | 967 | 755 | 715 | 516 | 252 | 166 | 8.17 | 6.75 | 6.04 | 4.61 | 2.13 | 1.48 |
| 1961 |  | 976 | 744 | 739 | 490 | 236 | 176 | 7.93 | 6.36 | 6.00 | 4.19 | 1.92 | 1.51 |
| 1962 |  | 1,080 | 733 | 719 | 548 | 239 | 170 | 8.84 | 6.38 | 5.89 | 4.76 | 1.96 | 1.48 |
| 1963 | . | 1,043 | 765 | 691 | 509 | 212 | 155) | 8.61 | 6.68 | 5.70 | 4.44 | 1.75 | 1.36 |

(a) Number of deaths per 1,000 male or female live births registered.
(b) Not available.
(a) Includes under one day.

Graphs showing infant deaths and infant mortality rates for each year from 1910 to 1964 will be found on pages 311 and 312 respectively.
(iii) Causes of death-Chlldren under One Year. (a) Numbers. Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies.

A summary for 1963 of deaths of children under one year of age, classified according to principal causes of death and age at death, is given in the following table.

CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE, AUSTRALIA, 1963

(a) Age four weeks and under three months.
(b) 490-493, 500-502, 763.
(c) 053, 690-698, 765-768. (d) 001-052, 054-056, 058-138, 391-393, 470-483, 518, 519. (e) E800-E920, E927E979, E990-E999.
(b) Proportions. The following table summarizes the detail contained in the previous table, and, in addition, shows the proportions of deaths from the various causes in each of the periods-under one week, one week and under one month, one month and under one year, and total under one year.

## CAUSES OF DEATH: CHILDREN UNDER ONE YEAR OF AGE-NUMBERS AND PROPORTIONS, AUSTRALIA, 1963


(a) 490-493, 500-502, 763.
7. Age Distribution.-(i) Number of Deaths. Age at death is recorded for statistical purposes in days for the first week of life, in weeks for the first four weeks, in months for the first year and in completed years of life thereafter. These ages are usually combined in groups for publication, the most common being weeks for the first four weeks, months or groups of months for the first year, single years of age for the first five years, and thereafter the five-year groups 5-9 years, $10-14$ years, etc. A summary in this form for the year 1963 is given for Australia in the following table.

AGE AT DEATH: AUSTRALIA, 1963


There are different mortality rates at various stages of life, and the actual number of deaths in any period is related to the numbers living at the respective stages. Changes in the number of deaths from one period to another are associated with changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups.

The combined effect of various influences, i.e., the steady decline in the rate of mortality, the long-term decline in the birth-rate, and the effects of past and present migration on the age distribution of the population, is shown in the following table, which shows the proportion of deaths in various age groups in ten-year periods from 1901 to 1960 and for the year 1963.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA
(Per cent.)

| Period | Age at death (years) |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Under 1 | 1-4 | 5-19 | 20-39 | 40-59 | 60-64 | 65 and over | Unspecified | Total |
| 1901-10 | 20.51 | 6.45 | 6.37 | 14.99 | 17.99 | 5.31 | 28.26 | 0.12 | 100.00 |
| 1911-20 | 16.66 | 6.09 | 5.49 | 14.44 | 20.32 | 6.19 | 30.68 | 0.13 | 100.00 |
| 1921-30 | 13.10 | 4.51 | 4.85 | 12.12 | 20.55 | 8.26 | 36.53 | 0.08 | 100.00 |
| 1931-40 | 7.40 | 2.56 | 3.83 | 9.36 | 20.54 | 8.36 | 47.92 | 0.03 | 100.00 |
| 1941-50 | 6.79 | 1.71 | 2.26 | 6.01 | 19.04 | 9.33 | 54.84 | 0.02 | 100.00 |
| 1951-60 | 5.59 | 1.33 | 1.80 | 4.90 | 17.27 | 9.18 | 59.90 | 0.03 | 100.00 |
| 1963- |  |  |  |  |  |  |  |  |  |
| Males | 4.95 | 0.88 | 2.07 | 5.00 | 20.20 | 10.30 | 56.59 | 0.01 | 100.00 |
| Females | 4.73 | 0.98 | 1.30 | 3.28 | 13.71 | 7.11 | 68.89 | 0.00 | 100.00 |
| Persons | 4.85 | 0.92 | 1.73 | 4.25 | 17.35 | 8.90 | 61.99 | 0.01 | 100.00 |

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.
(ii) Age-specific Death Rates. In previous issues of the Year Book, average annuar age-specific death rates were given for each State and Australia for the periods 1932-34, 1946-48 and 1953-55 (see Year Books, No. 37, pp. 778-9, No. 39, pp. 615-6 and No. 44, pp. 640-1). These rates were based on the age distribution of the population at the relevant censuses.

Intercensal estimates of the age distribution of the population are available for Australia and for the larger States. The following table shows age-specific death rates for Australia for the year 1963, for males, females and persons.

AGE-SPECIFIC DEATH RATES(a): AUSTRALIA, 1963

| $\begin{gathered} \text { Age group } \\ \text { (years) } \end{gathered}$ | Males | Females | Persons | $\underset{\text { (years) }}{\text { Age group }}$ | Males | Females | Persons |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Under $1(b)$ | 21.8 | 17.2 | 19.5 | 45-49 | 6.4 | 3.7 | 5.0 |
| 1-4 | 1.0 | 0.9 | 1.0 | 50-54 | 10.1 | 5.6 | 7.9 |
| 5-9 | 0.5 | 0.4 | 0.4 | 55-59 | 16.6 | 8.5 | 12.7 |
| 10-14 | 0.5 | 0.3 | 0.4 | 60-64 | 27.0 | 13.8 | 20.2 |
| 15-19 | 1.2 | 0.5 | 0.8 | 65-69 | 43.4 | 21.4 | 31.1 |
| 20-24 | 1.6 | 0.6 | 1.1 | 70-74 | 63.3 | 37.2 | 48.5 |
| 25-29 | 1.5 | 0.7 | 1.1 | 75-79 | 96.8 | 62.3 | 76.6 |
| 30-34 | 1.7 | 1.0 | 1.3 | 80-84 | 144.4 | 107.7 | 121.7 |
| 35-39 | 2.3 | 1.5 | 1.9 | 85 and over | 241.1 | 201.9 | 215.3 |
| 40-44 | 3.5 | 2.4 | 3.0 |  |  |  |  |

(a) Average number of deaths per 1,000 of mid-year population in each age group estimated in respect of 30 th June, 1963 . (b) Infant deaths per 1,000 live births registered.
8. Causes of Death.-The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death was used in Australia for deaths registered in 1950 to 1957. The Seventh Revision has been used for deaths registered in 1958 and subsequent years. The Sixth Revision, for the first time in connexion with the International Classification, laid down rules for a uniform method of selecting the main cause to be tabulated if more than one cause is stated on the death certificate. These rules were maintained in the Seventh Revision, which was concerned mainly with certain essential changes and amendment of errors and inconsistencies in the previous classification. Prior to 1950, the rules adopted in Australia for the selection of the cause of death to be tabulated were those laid down in the United States Manual of Joint Causes of Death, first published in 1914 and revised to conform to successive revisions of the International List.

The adoption of the new method introduced with the Sixth Revision and maintained in the Seventh marked a fundamental change in Australian cause of death statistics, emphasis now being placed on the underlying cause of death as indicated by the certifying practitioner. This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. A complete detailed classification of causes of death for Australia for 1950 according to both the Fifth and Sixth Revisions was shown in Demography, Bulletin No. 68, 1950.

In order to facilitate the concise presentation of cause of death statistics, the present International Classification provides two special lists of causes for tabulation-the Intermediate List of 150 causes and the Abbreviated List of 50 causes. The latter has been used as the base of the cause of death tabulations for 1963 which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Tables A and $B$ show deaths of males and females, respectively, in age groups, and Table $C$ shows the total numbers of males and females who died, the death rates per million of mean population, and the percentage of total deaths.

## A.-CAUSES OF DEATH: MALES, AUSTRALIA, 1963

Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)

| Cause of death(a) | Detailed list numbers | Age groups (years) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over | Total |
| B 1 Tuberculosis of respiratory system | 001-008 | 1 | 1 |  | . | 3 | 17 | 55 | 76 | 175 | 328 |
| B 2 Tuberculosis, other forms | 010-019 |  | 1 |  | . | 3 |  | 4 | 3 | 7 | 18 |
| 83 Syphilis and its sequelae .. | 020-029 | 1 |  |  |  |  | 2 | 6 | 13 | 34 | 56 |
| B 6 Dysentery, all forms . | 045-048 | 1 | 2 |  | . | . | 3 | .. |  | 1 | 7 |
| B 7 Scarlet fever and streptococcal sore throat | 050, 051 | $\cdots$ | 2 |  |  |  |  |  |  |  | 2 |
| B 8 Diphtheria ... | 055 | 2 |  | 1 | . |  | . |  |  |  | 1 |
| B 9 Whooping cough . . | 056 | 2 |  |  |  |  | . | 1 |  |  | 2 |
| B10 Meningococcal infections. . | 057 | 2 | 4 | 2 |  |  |  |  |  |  | 9 |
| B12 Acute poliomyelitis | 080 | $\cdots 3$ | $\cdots 6$ | 1 |  | 1 |  | . |  |  | 2 |
| B14 Measles . | 085 | 3 | 6 | 1 | . |  |  |  |  | - | 10 |
| B17 All other diseases classified as infective and parasitic [ Malignant neoplasms of: | (b) | 18 | 9 | 14 | 12 | 12 | 12 | 25 | 17 | 29 | 148 |
| Digestive organs and peritoneum | 150-159 |  | 1 | 3 | 6 | 30 | 107 | 316 |  | d 1,774 | 2,884 |
| Lung .. .. | 162,163 |  | . . | 1 | 3 | 9 | 57 | 251 | 614 | -924 | 1,859 |
| Breast .. | 170 |  | $\cdots$ |  |  |  |  | 2 | 6 | 4 | 12 |
| B18 Genital Organs | 171-179 |  |  |  | 11 | 15 |  | 16 | 75 | 717 | 841 |
| B18 Urinary organs .. | 180, 181 |  | 1 | 2 | 1 |  | 9 | 41 | 108 | 310 | 472 |
| Leukaemia and aleuk- | 204 | 3 | 27 | 34 | 20 | 15 | 20 | 37 | 49 | 116 | 321 |
| Other malignant and |  |  |  |  |  |  |  |  |  |  | 321 |
| ( lymphatic neoplasms.. | (c) | 4 | 21 | 38 | 44 | 62 | 130 | 260 | 371 | 649 | 1,579 |
| B19 Benign neoplasms and neoplasms of unspecified |  |  |  |  |  |  |  |  |  |  |  |
| B20 Diature mellitus ${ }^{\text {n }}$ | $210-239$ 260 | 2 | 1 | 6 | 1 | 10 | 8 16 | 21 40 | 21 | 31 357 | 96 |
| B21 Anaetes mellitus | 290-293 |  | 3 | 4 | - 2 | 10 | 16 3 | 40 | 121 | 357 79 | 545 |
| B22 Vascular lesions affecting central nervous system .. | 330-334 | 4 | 1 | 2 | 13 | 27 | 114 | 342 | 796 | d 4.084 | 5,383 |
| B23 Non-meningococcal meningitis |  | 18 |  | 4 |  |  |  |  |  |  |  |
| 824 Rheumatic fever | $\begin{aligned} & 340 \\ & 400-402 \end{aligned}$ | 18 | 12 | 4 | 4 | 1 | . | 2 1 | 4 | 7 | 47 12 |
| B25 Chronic rheumatic heart disease | 410-416 |  |  |  |  |  |  |  |  |  |  |
| disease <br> Arteriosclerntic heart | 410-416 |  | . | 1 | 14 | 14 | 39 | 69 | 65 | 111 | 313 |
| B26 ${ }^{\text {discase }}$ di | 420 |  |  |  | 3 | 41 | 478 | 1,960 | 3,945 | d9,551 | 15,978 |
| B26 Degenerative heart disease | 421,422 |  | 1 |  | 6 | 11 | 44 | 107 | 239 | d 1,764 | 2,173 |
| B27 Other diseases of beart .. | 430-434 | 3 | 3 | 9 | 7 | 10 | 27 | 79 | 164 | 1,249 | 1,551 |
| B28 Hypertension with heart disease | 440-443 |  |  |  |  |  | 16 | 50 | 98 | 432 | 1,596 |
| B29 Hypertension without mention of heart |  |  |  |  | 1 | 8 | 33 | 45 | 57 | 236 | 380 |
| B30 Influenza | 480-483 | 3 | $\cdots$ | 1 | 1 | 8 | 33 | 45 3 | 57 | 236 18 | 380 32 |
| B31 Pneumonia .. .. | 490-493 | 205 | 50 | 12 | 12 | 13 | 46 | 101 | 174 | 1,135 | 1,748 |
| B32 Bronchitis .. .. | 500-502 | 16 | 9 | 2 | 1 | 3 | 19 | 65 | 324 | 1,176 | 1,615 |
| B33 Ulcer of stomach and duodenum | 540, 541 |  |  | 2 | 2 | 6 | 21 | 43 | 88 | 235 | 397 |
| B34 Appendicitis .. | 550-553 | .. | 4 | 9 | 4 | 3. | 4 | 1 | 16 | 29 | 73 |
| B35 Intestinal obstruction and $\begin{gathered}\text { hernia } \\ \text {.. }\end{gathered}$ | , 561, 570 | 31 | 2 | 2 | 3 | 4 | 7 | 12 | 28 | 139 | 228 |

For footnotes see following page.

## A.-CAUSES OF DEATH: MALES, AUSTRALIA, 1963-continued

## Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)-continued

| Cause of death(a) | Detailed list numbers | Age groups (years) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over | Total |
| B36 Gastritis, duodenitis, enteritis, and colitis. except diarrhoea of the newborn | 543,571, 572 | 50 | 27 | 3 | 1 | 2 | $\begin{array}{r}4 \\ 29 \\ \hline\end{array}$ |  | 14 | 88 | 204 |
| B37 Cirrhosis of liver | 581 | 2 |  | 1 |  |  |  | 83 | 117 | 120 | 363 |
| B38 Nephritis and nephrosis. | 590-594 | 2 | 3 | 7 | 15 | 32 | 43 | 76 | 102 | 235 | 515 |
| B39 Hyperplasia of prostate .. | 610 |  |  |  | . | . | . ${ }_{12}$ | 1 | 25 | 385 | 411 |
| B41 Congenital malfornations | 750-759 | 486 | 47 | 37 | 26 | 6 | 12 | 21 | 11 | . | 71569 |
| B42 Birth injuries, postnatal | $\begin{aligned} & 760-762 \\ & 763-768 \end{aligned}$ | $\begin{array}{r} 715 \\ 69 \end{array}$ |  |  |  |  |  | $\ldots$ | . |  |  |
| B43 Infections of the newborn |  |  | . | . |  |  |  |  |  |  |  |
| B44 Other diseases peculiar to early infancy, and immaturity unqualified | 769-776 | 809 |  | $\cdots$ |  |  |  |  |  |  | 809 |
| B45 Senility without mention of psychosis, ill-defined and unk nown causes | 780-795 | 8 | 4 | 1 | 1 | 7 | 9 | 13 | 24 | 254 | 321 |
| $\left(\begin{array}{l}\text { General arteriosclerosis } \\ \text { Other diseases of sircula- }\end{array}\right.$ | \{ $\begin{gathered}450 \\ \left.\begin{array}{c}451-468 \\ 470-475 \\ 510-527 \\ \text { Residual }\end{array}\right\}\end{gathered}$ | $\cdots 34$ | $15$ | , | . 1 | , | 2 | 9 | 46 | 1,059 | 1,116 |
| B46 $\left\{\begin{array}{l}\text { Other diseases of circula- } \\ \text { tory system }\end{array}\right.$ |  |  |  | 2 | 2 | 8 | 16 | 57 | 124 | 395 | 604 |
| B46 $\left\{\begin{array}{l}\text { Other diseases of respira- } \\ \text { tory system }\end{array}\right.$ |  |  |  | 4 58 | 2 | 9 61 | 14 | 32 | 107 | 375 988 | 591 1983 |
| AE47 Mll other diseases .. |  | 34627 | 15 41 | 58 | $\begin{array}{r} 60 \\ 569 \end{array}$ | 61 | 129 | 226 | $\begin{aligned} & 358 \\ & 230 \end{aligned}$ | 988 | 1,983 |
| EE47 Motor vehicle accidents $\{$ | E810-E835 |  | 48 | 118 |  | 267 | 245 | 255 |  | (d) 297 | 2,036 |
| BE48 All other accidents \{ | $\begin{aligned} & \text { E800-E802, } \\ & \text { E840-E962 } \end{aligned}$ | \} 71 | 115 | 145 | 211 | 209 | 235 | 217 | 196 | 352 | 1,751 |
| BE49 Suicide and self-inflicted $\{$ injury <br> BE50 Homicide and operations of war | $\begin{gathered} \text { E963, E970 } \\ \text { E979 } \end{gathered}$ | .. | . | 6 | 108 | 197 |  | 258 | 179(e) 164 |  | 1,143 |
|  | $\begin{aligned} & \text { E964, E965, } \\ & \text { E980-E999 } \end{aligned}$ | $\begin{cases}\} & 3\end{cases}$ | 3 |  | 9 | 12 |  | 9 | 10 | 21 | 95 |
| All Causes .. | $\ldots \quad \mid 2,636$ |  | 467 | 541 | 1,180 | 1,124 | 2,233 | 5,238 | 9,676 | $\begin{aligned} & 30,117,53,212 \\ & (f) \end{aligned}$ |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |

(a) No male deaths were recorded in the following categories in 1963: B4, Typhoid Fever (040); B5, Cholera (043); B11, Plague (058); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108): B16, Malaria (110-117). (b) $030-039,041,042,044,049,052-054,059-074,081-083,086-096,120-138$. (c) All causes, 140-205, not shown above.
(d) Includes 1, age " not stated ".
(e) Includes 2, age " not stated"
( $f$ ) Includes 7, age " not
stated ".

## B.-CAUSES OF DEATH: FEMALES, AUSTRALIA, 1963

## Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)

| Cause of death(a) | $\begin{aligned} & \text { Derailed } \\ & \text { Iist } \\ & \text { numbers } \end{aligned}$ | Age groups (years) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | 0 | 1-4 | 5-14 | 15-24 | 25-34 | 35-44 | 45-54 | 55-64 | 65 and over | Total] |
| B 1 Tuberculosis of respiratory | 001-008 | $\cdots$ |  |  | $\cdots$ | 2 | 11 | 17 | 12 | 40 |  |
| B 2 Tuberculosis, other forms | 010-019 | $\cdots$ |  |  | $\cdots$ | $\cdots$ |  | 1 3 | 3 |  |  |
| B 6 Syphilis and its sequelae .. | 045-048 | 1 | $\cdots$ | ${ }^{-1}$ | $\cdots$ |  | $\cdots$ |  | 1 | 12 |  |
| B 8 Diphtheria | 055 | , | $\cdots 1$ | 2 | $\cdots$ |  | . $\cdot$ | $\because$ | .. | .. | 1 |
| B 9 Whooping Cough ${ }_{\text {B10 }}$ | 056 057 | 1 | $\cdots$ |  | $\because$ | $\because$ | $\because$ |  | $\because$ | $\cdots$ |  |
| B14 Measles .. | 085 | 3 | $\cdots 11$ | ${ }^{\bullet} 1$ | $\cdots$ | $\cdots$ | . |  | $\because$ | ${ }^{\cdot} 1$ | 116 |
| B17 All other diseases classified as infective and parasitic | (b) | 24 |  |  | 12 | 10 | 11 | 11 | 13 | 29 | 122 |

For footnotes see following page
B.-CAUSES OF DEATH: FEMALES, AUSTRALIA, 1963-continued Abbreviated List of 50 Causes (Based on the Seventh Revision of thb International List)-continued

(a) No female deaths were recorded in the following categories in 1963: B4, Typhoid fever (040); B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat ( 050,051 ); B11, Plague ( 058 ); B12, Acute poliomyelitis (080); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100-108); B16, Malaria (110-117). (b) $030-039,041,042,044$, 049, 052-054, 059-074, 081-083, 086-096 120-138.
(c) All causes, 140-205, not shown above.
age" not stated ".
C.-CAUSES OF DEATH: AUSTRALIA, 1963

Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)

| Cause of death |  | $\begin{aligned} & \text { Detailed } \\ & \text { list } \\ & \text { numbers } \end{aligned}$ | Number of deaths |  |  | Rate per $1,000,000$of mean population | Percentage of total . |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Males | Fernales | Persons |  |  |
| B 1 | Tuberculosis of respiratory system. |  | 001-008 | 328 | 82 | 410 | 38 | 0.43 |
| B 2 | Tuberculosis, other forms | 010-019 | 18 | 12 | 30 | 3 | 0.03 |
| B 3 | Syphilis and its sequelae | 020-029 | 56 | 20 | 76 | 7 | 0.08 |
| $\begin{aligned} & \text { B } 4 \\ & \text { B } 5 \\ & \text { B } 6 \\ & \text { B } 7 \end{aligned}$ | Typhoid fever .. | 040 |  |  |  |  |  |
|  | Cholera | 043 |  |  |  |  |  |
|  | Dysentery, all forms .. | 045-048 | 7 | 4 | 11 | 1 | 0.01 |
|  | throat | 050-051 | 2 |  | 2 | (a) | 0.00 |
|  | Diphtheria | 055 | 1 | 4 | 5 | (a) | 0.00 |
|  | Whooping coush | 056 | 2 | 1 | 3 | (a) | 0.00 |
|  | Meningococcal infections | 057 | 9 | 8 | 17 | 1 | 0.02 |
|  | Plague | 058 |  |  |  |  |  |
|  | Acure poliomyelitis | 080 | 2 |  | 2 | (a) | 0.00 |
| B13 | Smallpox | 084 |  |  |  |  |  |
|  | Measles | 085 | 10 | 16 | 26 | 2 | 0.03 |
|  | Malaria | 100-108 |  |  |  |  |  |
| B17 | All other diseases classified as infective and parasitic | (b) | 148 | 122 | 270 | 25 | 0.29 |
|  | Malignant neoplasms of- ${ }^{\text {Digestive organs and peritoneum }}$ | 150-159 | 2884 |  | 5,412 | 496 | . 70 |
|  | Lung .. | 162, 163 | 1,859 | 262 | 2,121 | 194 | 2.24 |
|  | Breast .. | 170 | 12 | 1,278 | 1,290 | 118 | 1.36 |
| B18 | Genital organs | 171-179 | 841 | 1,108 | 1,949 | 179 | 2.05 |
|  | Urinary organs $\quad$. | 180, 181 | 472 | 203 | 675 | 62 | 0.71 |
|  | Leukemia and aleukemia Other malignant and lymphatic | 204 | 321 | 251 | 572 | 52 | 0.60 |
|  | neoplasms ... ${ }^{\text {a }}$, | (c) | 1,579 | 1,178 | 2,757 | 253 | 2.91 |
| 819 | Benign and unspecified neoplasms | 210-239 | 96 | 102 | 198 | 18 | 0.21 |
|  | Diabetes mellitus | 260 | 545 | 797 | 1,342 | 123 | 1.42 |
|  | Anaemias | 290-293 | 112 | 150 | 262 | 24 | 0.28 |
|  | Vascular lesions affecting central nervous system | 330-334 | 5,383 | 7,196 | 12,579 | 1,152 | 13.26 |
| B23 | Non-meningococcal meningitis | 340 | 47 | 47 |  |  | 0.10 |
| B24 | Rheumatic fever | 400-402 | 12 | 9 | 21 | 2 | 0.02 |
|  | Chronic rheumatic heart disease | 410-416 | 313 | 429 | 742 | 68 | 0.78 |
|  | Arteriosclerotic heart disease | 420 | 15,978 | 9,148 | 25,126 | 2,302 | 26.48 |
|  | Degenerative heart disease | 421-422 | 2,173 | 2,506 | 4,679 | 429 | 4.93 |
| 827 | Other diseases of heart | 430-434 | 1,551 | 1,545 | 3,096 | 284 | 3.26 |
| B28 | Hypertension with heart disease | 440-443 | 596 | 859 | 1,455 | 133 | 1.53 |
| B29 | Hypertension witbout mention of | 444-447 | 380 | 403 | 783 | 72 | 0.83 |
| B30 | Influenza | 480-483 | 32 | 35 | 67 | 6 | 0.07 |
| B31 | Preumonia | 490-493 | 1,748 | 1,410 | 3,158 | 289 | 3.33 |
| 832 | Bronchitis | 500-502 | 1,615 | 315 | 1,930 | 177 | 2.03 |
| 833 | Ulcer of stomach and duodenum | 540-541 | 397 | 174 | 571 | 52 | 0.60 |
| B34 | Appendicitis | 550-553 | 73 | 35 | 108 | 10 | 0.12 |
|  | Intestinal obstruction and hernia | 560, 561, 570 | 228 | 216 | 444 | 41 | 0.47 |
|  | Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn | 543, 571, 572 | 204 | 225 | 429 | 39 | 0.45 |
| B37 | Cirrhosis of liver | 54,581, | 363 | 172 | 535 | 49 | 0.56 |
| ${ }^{\text {B38 }}$ | Nephritis and nephrosis | 590-594 | 515 | 449 | 964 | 88 | 1.02 |
|  | Hyperplasia of prostate . . | 610 | 411 |  | 411 | 38 | 0.43 |
|  | Complications of pregnancy, child | \{ 640-652 6 |  | 64 | 64 | 6 | 0.07 |
| ${ }_{842}^{841}$ | birth and the puerperium Congenital malformations | $\left\{\begin{array}{c}670-689 \\ 750-759\end{array}\right\}$ | 656 | 528 | 1,184 | 108 | . 25 |
|  | Birth injuries, post-natal asphyxia |  |  |  |  |  |  |
|  | and atelectasis | 760-762 | 715 | 474 | 1,189 | 109 | 1.25 |
|  | Infections of the newborn | 763-768 | 69 | 66 | 135 | 12 | 0.14 |
|  | Other diseases peculiar to early infancy, and immaturity unqualified | 769-776 | 809 | 615 | 1,424 | 130 | 1.50 |
|  | Senility without mention of psycho- |  |  |  |  |  |  |
|  | sis, ill-defined and unknown causes | 780-795 | 321 | 380 | 701 | 64 | 0.74 |
|  | General arteriosclerosis | 450 | 1,116 | 1,270 | 2,386 | 218 | 2.52 |
| B46 | Other diseases system Of | 451-468 | 604 | 377 | 981 | 90 | 1.03 |
|  | Other diseases of respiratory | $\left\{\begin{array}{l}470-475 \\ 50\end{array}\right\}$ | 591 | 284 | 875 | 80 | 0.92 |
|  | sill other diseases $\quad \cdots$ | $\left\{\begin{array}{c}510-527 \\ \text { Residua }\end{array}\right.$ |  |  |  |  |  |
| BE47 | Allother diseases ${ }^{\text {Motor vehicle accidents }}$. | Residual |  | $\begin{array}{r} 2,119 \\ 634 \end{array}$ | $\begin{aligned} & 4,102 \\ & 2,670 \end{aligned}$ | $\begin{aligned} & 376 \\ & 245 \end{aligned}$ | $\begin{aligned} & 4.32 \\ & 2.81 \end{aligned}$ |
| BE48 | All other accidents | E800-E802 | \} 1,751 | 932 | 2,683 | 246 | 2.83 |
| BE49 |  | E840-E962 |  |  |  |  |  |
|  | Suicide and self-inflicted injury | $\begin{gathered} \text { E963 } \\ \text { E970-E979 } \end{gathered}$ | 1,143 | 575 | 1,718 | 157 | 1.81 |
| BE50 | Homicido and operations of war | E964, E965 | \} 95 | 65 | 160 | 15 | 0.17 |
|  | All Causes .. . |  | 53.212 | 41,682 | 94,894 | 8,692 | 100.0 |

(a) Less than 0.5. (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) $140-18,160,161,164,165,190-203,205$.
9. Deaths from Principal Causes.-(i) General. In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pp. 335-8) are indicated in parentheses for each cause or group of causes.
(ii) All Forms of Tuberculosis (B1, B2). (a) General. The total number of deaths classified to all forms of tuberculosis in 1963 was 440 , consisting of 346 males and 94 females. In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Year Book No. 39, page 626.
(b) Age at Death. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1963, together with figures for 1931, 1941, 1951, and 1961.

TUBERCULOSIS (ALL FORMS): DEATHS IN AGE GROUPS, AUSTRALIA

| $\begin{gathered} \text { Age group } \\ \text { (years) } \end{gathered}$ | Males |  |  |  |  | Females |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1931 | 1941 | 1951 | 1961 | 1963 | 1931 | 1941 | 1951 | 1961 | 1963 |
| 0-14 .. | 90 | 63 | 23 | 5 | 3 | 81 | 54 | 35 | 1 | 2 |
| 15-29 | 294 | 162 | 46 | 2 | 3 | 487 | 275 | 68 |  | 1 |
| 30-44 .. | 585 | 428 | 135 | 25 | 20 | 422 | 319 | 142 | 20 | 13 |
| 45-64 .. | 674 | 793 | 570 | 128 | 138 | 252 | 251 | 126 | 41 | 33 |
| 65 and over | 193 | 279 | 306 | 175 | 182 | 89 | 110 | 86 | 50 | 45 |
| Not stated | .. | .. | .. | .. | .. | .. | .. | 1 | .. | . |
| Total | 1,836 | 1,725 | 1,080 | 335 | 346 | 1,331 | 1,009 | 458 | 112 | 94 |

(c) Death Rates. The reduction in mortality from tuberculosis is shown by the decline in the crude death rate from tubercular diseases, which fell from 49 per 100,000 of mean population in 1931 to 18 in 1951, and to 4 in 1963. The reductions in the younger age groups are much greater, as can be seen from the table above. In making these comparions, consideration of the effect of the change in basis from the Fifth to the Sixth Revision of the International List (see ii (a) above) is particularly important.

Of the more populous countries, those with lowest death rates from tuberculosis per 100,000 of population are: Netherlands, 2.5; Israel (Jewish population), 3.3; Denmark, 3.8; Australia, 4.0; Canada, 4.2; United States of America, 5.1; and New Zealand, 5.2.

Rates for selected countries in each continent are:
Africa-South Africa (white population), 7.1; United Arab Republic, 21.6.
North America-Dominican Republic, 15.5; Mexico, 27.3; Guatemala, 31.4.
South America-Argentine, 19.9; Peru, 56.4. Brazil, 82.3;
Asia-Japan, 29.2; India, 82.7; Philippines, 87.1.
Europe-England and Wales, 6.6; Scotland, 8.4; Italy, 16.3; France, 19.2; Poland, 39.9.
(iii) Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18). (a) General. Deaths classified under this heading according to the Sixth and Seventh Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (see Year Book No. 39, p. 628). This should be kept in mind in considering the comparisons shown in the following pages.
(b) Seat of Disease. Tabies showing the seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1963 are included in Causes of Death, Bulletin No. 1. A summary regarding seat of disease for 1963 is given on page 340.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES: AUSTRALIA, 1963.

(c) Age at Death. The ages of males and females who died from malignant neoplasms in 1963 are given below, together with figures for 1931, 1941, 1951, and 1961. The increase in the number of deaths from malignant neoplasms in the years since 1931 is due principally to the increase in the number of people in the higher age groups, at which ages the risks of cancer are much greater. While the total population increased by about 67 per cent. between 1931 and 1963, the number of people aged 55 years and over increased by about 109 per cent. The increase in the number of deaths in the lower age groups from 1951 is due partly to the inclusion of neoplasms of lymphatic and haematopoietic tissues, and it is probable also that part of the increased number of deaths from cancer recorded in recent years has been due to improved diagnosis and certification on the part of the medical profession.

## MALIGNANT NEOPLASMS $(a)$ : NUMBER OF DEATHS IN AGE GROUPS, aUSTRALIA


(a) Includes neoplasms of lymphatic and haematopoietic tissues.
(d) Death Rates. The death rates from malignant neoplasms have continued to rise over recent years. The rates are crude death rates representing the number of deaths from malignant neoplasms per 100,000 of mean population and do not take account of changes in the age constitution of the population, and to a substantial extent they reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (see previous paragraph). In 1931, the rate for Australia was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119 ; females, 120); and in 1951 it had risen to 126 (males, 130: females, 122). Figures for 1961 gave a rate of 130 (males, 139; females, 121), and for 1963 a rate of 135 (males, 148 ; females 126 ).

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:-Brazil, 94; Poland, 97; Japan, 103; Israel Jewish population), 110; South Africa (white population), 111; Canada, 132; Australia, 135; United States of America, 149; Italy, 150; Netherlands, 172; France, 200; England and Wales, 218; Scotland, 221. The rates are for the latest available year in each case.
(iv) Diseases of the Heart (B25 to B28). The number of deaths classified to diseases of the heart in 1963 was 35,098 ( 20,611 males and 14,487 females). This class is the largest among causes of death, the rate having increased from 112 per 100,000 of mean population in 1911-15 to 321 in 1963. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates for heart diseases for various years from 1931 were as follows:-1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); 1961, 304 (males, 356; females, 250); and 1963, 321 (males, 374 ; females, 268). Deaths from heart diseases in 1963 represented 37 per cent. of the total deaths.
(v) Puerperal Causes (B40). It was shown in Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes has fallen rapidly during recent years and in 1963 the rate was 0.3 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 64 deaths in 1963 correspond to a death rate of 1.18 per 100,000 females. The death rate may be expressed in other terms by stating that for every 3,683 babies born alive in 1963 one woman died from puerperal causes.

The death rate per 1,000 live births from puerperal causes in various countries for the latest available year is as follows:-Denmark and Sweden, 0.2; Australia, Netherlands, Norway and New Zealand, 0.3; United States of America, United Kingdom, Canada and France, 0.4; Finland and Switzerland, 0.5; and Italy, Japan and Venezuela, 1.1.

Tables showing ages at marriage and at death, duration of marriage, and issue for 1963 are given in Demography, Bulletin No. 81.
(vi) Causes of Infant Mortality. See paragraph devoted to causes of infant deaths on pages 331-2.
(vii) Accidents, Poisonings and Violence (BE47 to BE50). (a) General. Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

The following table, showing the death rates in the main sub-groups per 100,000 of mean population, indicates that the death rate from violence is between two and three times as great for males as for females. It can be seen also that in 1963 the proportion of deaths caused by violence was 7.62 per cent., compared with 6.76 per cent. in 1931-35.

The low level of the rates and proportions for the years 1941-45 is due largely to the exclusion of deaths of detence personnel from accidents, suicide and homicide, though the rates have been based on total mean population (including defence personnel). A further contributing factor is the decrease during this period in the number of automobile accidents. From July, 1947, deaths of defence personnel from accidents, etc., have again been included.

ACCIDENTS, POISONINGS AND VIOLENCE: DEATH RATES(a), AUSTRALIA

| Period | Death rate from- |  |  |  |  |  |  |  |  |  |  |  | All violence, proportion per 10,000 deaths |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Accidents(b) |  |  | Suicide |  |  | Homicide(c) |  |  | Total violence |  |  |  |  |  |
|  | M. | F. | P. | M. | F. | P. | M. | F. | P. | M. | F. | P. | M. | F. | P. |
| 1931-35.. | 71 | 22 | 47 | 19 | 5 | 12 | 2 | 1 | 2 | 92 | 28 | 61 | 929 | 353 | 676 |
| 1936-40.. | 86 | 28 | 58 | 17 | 5 | 11 | 2 | 1 | 1 | 105 | 34 31 | 70 55 | 979 | 399 | 724 |
| 1941-45.. | 67 | 26 | 46 | 11 | 4 | 8 | 1 | 1 | 1 | 79 | 31 | 55 | 730 | 348 | 558 |
| 1946-50.. | 76 | 27 | 51 | 14 | 5 | 10 | 1 | 1 | 1 | 91 | 33 | 62 | 844 | 383 | 640 |
| 1951-55.. | 82 | 31 | 57 | 15 | 5 | 10 | 2 | 1 | $\frac{1}{2}$ | 99 | 37 | 68 | 964 | 453 | 740 |
| 1956-60.. | 75 | 32 | 53 | 16 | 6 | 11 | 2 | 1 | 2 | 93 | 39 | 66 | 957 | 495 | 754 |
| 1959 | 74 | 31 | 53 | 16 | 6 | 11 | 2 | 1 | 1 | 92 | 38 | 65 | 931 | 484 | 736 |
| 1960 .. | 72 | 33 | 52 | 15 | 6 | 11 | 2 | 1 | 2 | 89 | 40 | 65 | 934 | 518 | 751 |
| 1961 .. | 72 | 30 | 52 | 17 | 7 | 12 | 2 |  | 1 | 91 | 38 | 65 | 966 | 514 | 769 |
| 1962 .. | 71 | 33 | 52 | 19 | 9 | 14 | 2 | 1 | 2 | 92 | 43 | 68 | 952 | 559 | 780 |
| 1963 | 69 | 29 | 49 | 21 | 11 | 16 | 2 | 1 | 1 | 92 | 41 | 66 | 944 | 529 | 762 |

(a) Number of deaths per 100,000 of mean population.
(b) Includes "open verdict". (c) Includes late effects of injuries due to operations of war.
(b) Accidents (BE47, BE48). In 1963, the total number of deaths from accidental causes was 5,353 ( 3,787 males and 1,566 females). Over half of the accidental deaths were the result of transport accidents. Of these, the numbers attributable to the major causes, and the percentages of the total accidental deaths in each case, were as follows:-Motor vehicle traffic accidents, 2,611 (48.78 per cent.); motor vehicle non-traffic accidents, 59 ( 1.10 per cent.); other road vehicle accidents, 48 ( 0.90 per cent.); railway accidents, 96 ( 1.79 per cent.); water transport accidents, 88 ( 1.65 per cent.); aircraft accidents, 27 ( 0.50 per cent.); a total of 2,929 ( 54.72 per cent.). Other important causes were accidental falls, 864 ( 16.14 per cent.); accidental drowning, 384 ( 7.17 per cent.); and accidents caused by fire and explosion of combustible material, 199 (3.72 per cent.).
(c) Suicide (BE49). Modes Adopted. Deaths from suicide in 1963 numbered 1,718 (males, 1,143 ; females, 575). Poisoning, other than by gases, was used in 724 cases ( 42.14 per cent. of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows:-firearms and explosives, 336 (19.56 per cent.); poisoning by gases, 323 ( 18.80 per cent.); hanging or strangulation, 157 ( 9.14 per cent.); submersion (drowning), 81 (4.71 per cent.); other and unspecified modes, 97 ( 5.65 per cent.).

Of the 1,143 males who committed suicide, 312 ( 27.30 per cent.) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 340 cases ( 59.13 per cent.).

Age at Death. The following table shows the age of persons who committed suicide in 1963.

AGE OF PERSONS WHO COMMITTED SUICIDE: AUSTRALIA, 1963

(d) Homicide and Operations of War (BE50). Of the 160 deaths recorded in 1963, there were 148 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 61, assault by cutting and piercing instruments 23, and assault by other means 64. Deaths from injury resulting from the operations of war numbered 12 , but all were deaths from late effects of such injuries.


#### Abstract

10. Age at Death and Average Issue of Deceased Married Males and Females.Demagraphy, Bulletin No. 81, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1963. Deaths of married males in 1963 numbered 41,397, and those of married females, 33,659. The tables which follow deal, however, with only 40,811 males and 33,423 females, the information regarding issue in the remaining 822 cases being incomplete. The total number of children in the families of the 40,811 males was 118,562 and of the 33,423 females, 105,179 . The average number of children is shown for various age groups in the following table.


## AGE AT DEATH AND AVERAGE ISSUE OF DECEASED MARRIED( $a$ ) MALES AND FEMALES: AUSTRALIA

| $\begin{aligned} & \text { Age at death } \\ & \text { (years) } \end{aligned}$ | Average issue |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |  | Females |  |  |  |  |
|  | 1931 | 1941 | 1951 | 1961 | 1963 | 1931 | 1941 | 1951 | 1961 | 1963 |
| Under 20 | 0.75 |  | 0.43 | 0.33 |  | 0.66 | 0.79 | 0.83 | 0.75 | 0.67 |
| 20-24.. | 0.81 | 0.73 | 0.96 | 0.93 | 0.97 | 1.13 | 0.95 | 0.86 | 1.12 | 1.11 |
| 25-29. | 1.33 | 1.12 | 1.29 | 1.56 | 1.70 | 1.81 | 1.45 | 1.61 | 2.00 | 1.83 |
| 30-34. | 1.79 | 1.76 | 1.79 | 2.23 | 2.16 | 2.34 | 1.91 | 1.98 | 2.37 | 2.36 |
| 35-39.. | 2.13 | 2.11 | 2.12 | 2.37 | 2.56 | 2.89 | 2.30 | 2.49 | 2.47 | 2.58 |
| 40-44.. | 2.77 | 2.49 | 2.30 | 2.44 | 2.57 | 3.29 | 2.77 | 2.39 | 2.44 | 2.59 |
| 45-49. . | 3.10 | 2.68 | 2.51 | 2.49 | 2.50 | 3.55 | 2.93 | 2.59 | 2.38 | 2.40 |
| 50-54.. | 3.46 | 2.96 | 2.56 | 2.46 | 2.50 | 3.60 | 3.29 | 2.76 | 2.43 | 2.40 |
| 55-59. | 3.69 | 3.28 | 2.71 | 2.45 | 2.53 | 4.01 | 3.55 | 3.03 | 2.50 | 2.52 |
| 60-64. | 4.02 | 3.55 | 3.07 | 2.58 | 2.53 | 4.21 | 3.79 | 3.29 | 2.69 | 2.72 |
| 65-69. | 4.41 | 3.73 | 3.25 | 2.77 | 2.70 | 4.82 | 4.01 | 3.63 | 3.04 | 2.90 |
| 70-74. | 5.06 | 4.17 | 3.58 | 3.00 | 2.92 | 5.41 | 4.29 | 3.64 | 3.30 | 3.06 |
| 75-79.. | 5.65 | 4.56 | 3.83 | 3.31 | 3.19 | 6.02 | 4.85 | 3.96 | 3.44 | 3.41 |
| 80-84. | 6.17 | 4.93 | 4.30 | 3.62 | 3.41 | 6.26 | 5.39 | 4.19 | 3.58 | 3.48 |
| 85-89.. | 6.59 | 5.70 | 4.63 | 3.94 | 3.73 | 6.57 | 5.85 | 4.68 | 3.78 | 3.72 |
| 90-94. | 6.94 | 6.57 | 5.06 | 4.39 | 3.93 | 6.73 | 6.11 | 5.08 | 3.99 | 3.91 |
| 95-99.. | 6.69 | 7.04 | 5.78 | 4.76 | 4.65 | 7.10 | 6.34 | 5.76 | 4.51 | 4.19 |
| 100 and over | 7.00 | 8.69 | 5.71 | 5.38 | 4.62 | 8.20 | 6.73 | 7.72 | 4.63 | 4.79 |
| Age not stated. | 5.00 |  | 8.00 |  |  | 5.00 |  | 5.50 | 5.00 |  |
| All Ages | 4.44 | 3.91 | 3.39 | 2.98 | 2.91 | 4.72 | 4.22 | 3.68 | 3.22 | 3.15 |

(a) Includes widowed or divorced.

[^3]AGE AT MARRIAGE AND AVERAGE ISSUE OF DECEASED MALES AND FEMALES: AUSTRALIA

| $\underset{\text { (years)(a) }}{\text { Age at marriage }}$ | Average issue |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Males |  |  |  |  | Females |  |  |  |  |
|  | 1931 | 1941 | 1951 | 1961 | 1963 | 1931 | 1941 | 1951 | 1961 | 1963 |
| Under 15 |  |  |  |  |  | 6.36 | 7.80 | 4.88 | 4.45 | 5.39 |
| 15-19.. | 6.15 | 5.40 | 4.63 | 4.11 | 4.26 | 6.79 | 6.10 | 5.41 | 4.74 | 4.64 |
| 20-24. . | 5.56 | 4.89 | 4.23 | 3.65 | 3.59 | 5.23 | 4.80 | 4.28 | 3.77 | 3.64 |
| 25-29.. | 4.70 | 4.21 | 3.65 | 3.16 | 3.04 | 3.79 | 3.51 | 3.14 | 2.85 | 2.74 |
| 30-34.. | 3.96 | 3.41 | 3.00 | 2.64 | 2.55 | 2.42 | 2.35 | 2.23 | 1.98 | 1.99 |
| 35-39.. | 3.14 | 2.80 | 2.45 | 2.11 | 2.06 | 1.40 | 1.26 | 1.16 | 1.14 | 1.02 |
| 40-44. . | 2.36 | 2.01 | 1.69 | 1.49 | 1.41 | 0.39 | 0.35 | 0.36 | 0.31 | 0.28 |
| 45-49.. | 1.96 | 1.52 | 1.33 | 1.11 | 0.99 | 0.12 | 0.01 | 0.07 | 0.06 | 0.02 |
| 50-54.. | 1.60 | 1.05 | 0.80 | 0.71 | 0.48 | .. | . . | . . | . . | . |
| 55-59. | 0.95 | 0.79 | 0.49 | 0.25 | 0.35 | . | . . | $\cdots$ | . |  |
| 60-64.. | 0.63 | 0.29 | 0.24 | 0.25 | 0.34 | $\cdots$ | $\cdots$ | $\ldots$ |  |  |
| 65 and over | 0.18 | 0.01 | 0.29 | 0.24 |  |  |  |  |  |  |
| Age not stated.. | 3.64 | 2.95 | 2.81 | 2.40 | 2.34 | 3.96 | 2.45 | 3.17 | 2.44 | 2.46 |
| All Ages . . | 4.44 | 3.91 | 3.39 | 2.98 | 2.91 | 4.72 | 4.22 | 3.68 | 3.22 | 3.15 |

(a) In cases where the deceased was married more than once this represents age at first marriage.

## § 6. Vital Statistics of External Territories

The following table shows, for the year 1963, the number of marriages, births and deaths registered in the external territories under the control of Australia. More detailed information will be found in a series of tables in Demography, Bulletin No. 81.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1963

| Territory |  | Marriages | Births | Deaths |
| :---: | :---: | :---: | :---: | :---: |
| Christmas Island(a) | . | 4 | 91 | 9 |
| Cocos (Keeling) Islands( $a$ ) | . | 2 | 19 | 3 |
| Norfolk Island ( $a$ ) | . | 4 | 8 | 13 |
| Papua(b) |  | 99 | 311 | 32 |
| Trust Territory of New Guinea(b) | . | 119 | 518 | 62 |
| Trust Territory of Nauru(b) | . | 5 | 10 | 2 |

(a) Total population.
(b) Non-indigenous population only.

## § 7. International Vital Statistics

Vital Statistics Rates-Selected Countries.-In the following table, vital statistics rates for selected countries are shown. Crude marriage, birth, and death rates represent the number of " events" reported for the year stated per 1,000 of the population. Infant mortality rates
are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nations Demographic Yearbook, 1963 (see explanation of true death rates, para. 4, p. 326).

In many instances the rates shown in the following table are estimates and the results of sample surveys only. Reference should be made to the detailed comments contained in the United Nations Demographic Yearbook, 1963 (see particularly Technical Notes on Statistical Tables and footnotes to the tables). The countries are arranged in the same order as in the table on page 301-2 of the Population chapter.

VITAL STATISTICS RATES: SELECTED COUNTRIES-LATEST AVAILABLE YEAR
(Source: United Nations Demographic Yearbook, 1963)

| Country | Year | Rates(a) |  |  |  | Year | True death rates (b) |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Marriage | Birth | Death | Infant mortality |  | Male | Female |
| Africa- <br> South Africa- |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
| White population . | 1963 | (c) 8.9 | 23.9 | 9.1 | 29.0 | 1950-52 | 15.5 | 14.3 |
| Coloured population.. | 1963 | (c) 6.2 | 46.3 | 15.3 | 126.9 | 1950-52 | 22.3 | 20.9 |
| Asian population ${ }^{\text {a }}$ | 1962 | (c) 7.4 | 38.6 | 7.4 | 53.7 | 1950-52 | 17.9 | 18.3 |
| Congo (Leopoldville)( $j$ ) | 1955-57 | (d) | 43 | 20 | 104 | 1950-52 | 26.6 | 25.0 |
| Morocco . . . | 1962 | (d) | 46.1 | 18.7 | 149 | 1960 | 20 |  |
| Upper Volta . . . | 1960-61 | (d) | 49.1 | 30.5 | 174.3 | 1960-61 | 31.2 | 32.2 |
| Southern Rhodesia( $j$ ) | 1954 | (d) | 44.8 | 14.4 | 122 | 1953-55 | 20.8 | 20.4 |
| Northern Rhodesia( $j$ ) | 1950 | (d) | 568 | 32. 2 | 259 | 1950 | 27 |  |
| Ivory Coast . . | 1961 | (d) | 56.1 | 33.3 | (e) 138 | 1956-58 | 28 |  |
| Senegal | 1960-61 | (d) | 43.3 | 16.7 | 92.9 | 1957 | 27 |  |
| Guinea | 1954 | (d) | 62 | 40 | 220 | 1954-55 | $\{27.9$ ( | Urban) |
| Dahomey | 1961 | (d) | 54 | 26 | 110 | 1961 | (32.8 27 |  |
| Central African Republic | 1959 | (d) | 48 | 30 | 200 | 1959-60 | 28 | 6 |
| North America- |  |  |  |  |  |  |  |  |
| United States of America | 1963 | 8.7 | 21.6 | 9.6 | 25.2 | 1962 | 15.0 | 13.6 |
| Mexico | 1963 | 6.4 | 45.0 | 10.4 | (f) 69.5 | 1956 | 18.1 | 17.3 |
| Canada | 1963 | 6.9 | 24.8 | 7.8 | (f) 27.6 | 1955-57 | 14.8 | 13.7 |
| Haiti | 1963 | (d) | 43.6 | 21.6 | 180.4 | 1950 | 30 |  |
| Guatemala | 1962 | 3.6 | 47.7 | 17.3 | 91.3 | 1949-51 | 22.8 | 23.0 |
| El Salvador | 1963 | 3.7 | 48.8 | 10.9 | 67.9 | 1960-61 | 17.7 | 16.6 |
| Puerto Rico | 1963 | 9.3 | 30.9 | 6.9 | 42.5 | 1960 | 149 | 13.9 |
| Jamaica | 1963 | 4.7 | 39.6 | 9.1 | 49.2 | 1950-52 | 17.9 | 17.0 |
| Costa Rica | 1963 | 5.8 | 49.9 | 8.5 | (f)76.7 | 1949-51 | 18.3 | 17.5 |
| South America- |  |  |  |  |  |  |  |  |
| Brazil(k) | 1953-57 | (d) | 42-45 | 16-19 | 170 | 1949-50 | 25.4 | 22.0 |
| Argentine ${ }^{\text {- }}$ | 1963 | 6.5 | 218 | 79 | 59.6 | 1947 | 17.6 | 16.3 |
| Colombia(k). | 1953-57 | (f) 5.8 | 4.4-45 | 15-17 | (f) 89.6 | 1950-52 | 22.6 | 21.8 |
| Peru(k) | 1953-57 | (c) 2.9 | 42-48 | 15-22 | (c) 97.2 |  | (d) | (d) 6 |
| Chile | 1962 | (g) 6.9 | 34.4 | 11.9 | (c) 116.6 | 1952 | 20.1 | 18.6 |
| Venczuela (k). | 1953-57 | (f) 5.0 | 44-47 | 12-15 | (f) 45.7 |  | (d) | (d) |
| Bolivia(k) . | 1953-57 | (c) 4.9 | 41-45 | 18-25 | (h) 86.0 | 1949-51 | 20 |  |
| Asia- |  |  |  |  |  |  |  |  |
| China (mainland) | 1957 | (d) | 34 | 11 | (d) |  | (d) | (d) |
| India(i) | 1951-61 | (d) | 40.9 | 22.0 | 145.9 | 1957-58 | 22.1 | 21.5 |
| Indonesia | 1962 | 10.6 | 43 | 21.4 | 125 |  | (d) | (d) |
| Pakistan | 1962 | (d) | 43-46 | 16-17 | (d) |  | (d) | (d) |
| Japan | 1963 | 9.8 | 17.2 | 7.0 | (f) 26.5 | 1962 | 15.1 | 14.1 |
| Philippines( $i$ ) | 1962 | 5.4 | (l) 50 | (i) 7.3 | 67.7 | 1946-49 | 20.5 | 18.7 |
| Thailand | 1956 | (f) 2.1 | (i) 42 | (i) 20 | (c) 50.1 | 1947-48 | 20.5 | 19.3 |
| Turkey (in Asia) | 1960 | (c) 7.6 | (I) 43 | (1) 10.9 | (f) 165 | 1950-51 | 21.7 | 19.8 |
| Korea, Republic of | 1963 | (c) 8.9 | 40.6 | 12.2 | 32.6 | 1955-60 | 19.6 | 18.6 |
| Burma $\because$ | 1955 | (d) | 50 | 35. | (a) | 1954 | 24.5 | 22.8 |
| China (Taiwan) | 1962 | 7.8 | 37.4 | 6.4 | 29.1 | 1959-60 | 16.3 | 15.2 |
| Federation of Malaya | 1962 | (c) 1.0 | 40.3 | 9.3 | (c) 59.7 | 1956-58 | 17.9 | 17.2 |
| Cambodia .. | 1959 | (d) | 41.4 | 19.7 | 127.0 | 1958-59 | 22.6 | 23.1 |
| Hong Kong | 1963 | (d) | 32.1 | 5.5 | 33.0 | 1961 | 15.7 | 14.2 |
| Israel | 1963 | 7.5 | 24.6 | 6.2 | 28.3 | 1962 m | 14.1 | 13.7 |

VITAL STATISTICS RATES: SELECTED COUNTRIES-LATEST AVAILABLE YEAR-continued


[^4]
[^0]:    Nore.-Owing to the registration procedure adopted in some States, it is possible that in some cases where one child only of a multiple pregnancy was live-born, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para, 12, p. 319.
    (ii) Live Births, Years 1926 to 1964. The average annual number of live births in each State and Territory for each five-year period from 1926 to 1960 and the total number of live births for each year from 1960 to 1964 are given in the following table. Corresponding figures for earh five-year period from 1861 to 1950 were published in Year Book No. 39, page 583.

[^1]:    5. Age-specific Fertility Rates for Females.-So long as customary ages at marriage do not change drastically the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably, and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific fertility rates, that is, the number of births to women of specified ages per thousand women of those particular ages.
[^2]:    (a) Total deaths per 1,000 of mean population.
    (b) See explanation of standardized death rates in para. 3 (i) p. 325.

[^3]:    11. Age at Marriage of Deceased Males and Females, and Issue.-The following table shows the average issue of males and females according to the age at marriage of the deceased parent.
[^4]:    (a) Crude marriage, birth and death rates, i.e. number of marriages, births and deaths per 1,000 of population. Infant mortality-number of deaths of children under one year of age per 1,000 live births. (b) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (see explanation on p. 326. (c) 1961. (d) Not available, or available information relates to a segment of population only. (c) 1961.
    (d) NOt ava
    (g) 1963.
    (h) 1958.
     population. Latin America.
    (k) Estimates specially prepared and published by U.N. Economic Commission for (l) 1950-55. (m) Jewish population.

