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CHAPTER 8

VITAL STATISTICS

The tables in this chapter are confined to the principal characteristics of vital statistics for Australia and relate, in the main, to the year 1972 for marriages and 1971 for births, deaths, and infant deaths. Comparisons have been restricted, in general, to the individual years 1968 to 1972 and the five-year periods 1946–50 to 1966–70, while age data have been shown in five-year groups. Comparisons over longer periods, together with more detailed figures such as single age particulars and cross-classifications of various characteristics, are published in the annual bulletins, *Demography* (4.9) and *Causes of Death* (4.7). Current information is published in the *Monthly Review of Business Statistics* (1.4), the *Quarterly Summary of Australian Statistics* (1.3), the mimeograph bulletins *Births* (4.4), *Deaths* (4.8), *Marriages* (4.10) (annual) and *Vital and Population Statistics* (quarterly) (4.11).

In most tables the statistics of births, deaths and marriages exclude particulars of full-blood Aborigines for years before 1966. Differences between the statistics now published and those formerly published which implied the exclusion of Aboriginal vital events cannot be taken as reliable statistics of births, deaths, or marriages among full-blood Aborigines, because in many areas no satisfactory administrative or other basis existed for distinguishing vital events of full-blood Aborigines from those of part-Aborigines or the rest of the population.

Vital statistics for certain countries of the world are set out in *International Vital Statistics* at the end of this chapter.

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. Provisions for the civil registration of births, deaths, and marriages have been in force in Tasmania from 1839, in Western Australia 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 from South Australia in 1911 in respect of the Northern Territory and from New South Wales in 1930 in respect of the Australian Capital Territory. The authority responsible for the registration of births, deaths, and marriages occurring within his particular State or Territory is the Registrar-General (the Government Statist in Victoria) or the Principal Registrar.

The statistics in this chapter refer to events registered by the State and Territorial registrars during the year shown. There is usually an interval of at least several days between the occurrence and the registration of an event. As a result of the delay in registration some events occurring in one year are not registered until the following year. Events which are registered more than ten years after date of occurrence are excluded from the statistics.

For tables showing statistics for the States and Territories, figures are compiled from registrations of events which took place in each State and Territory. Some events take place in States other than the State in which the persons concerned (e.g. mother, deceased, bride/groom) usually resided. The effect of such interstate registrations on State totals however is slight. See page 166.

Marriages

The *Marriage Act* 1961-1966 came into operation on 1 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 Attorney-General, and by certain civil officers, in most cases district registrars. In each State or Territory the authorised celebrant is required to register particulars of the parties married with the appropriate registering authority as soon as practicable and in any case not later than fourteen days after the marriage.

The marriage of minors is not permissible without the consent of parents or guardians or (where this is not obtainable) of a magistrate or some other prescribed authority. The *Marriage Act* 1961-1966 provides that the minimum age at which persons are legally free to marry is 18 years for males and 16 years for females. A judge or magistrate may, in exceptional circumstances, make an order authorising a male who has attained 16 years or a female who has attained 14 years to marry a person of marriageable age.

Numbers of marriages and crude marriage rates

MARRIAGES(a): STATES AND TERRITORIES, 1946 TO 1972

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50	30,162	20,453	10,666	6,581	5,205	2,529	114	181	75,891
1951-55	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
1961-65	31,788	23,262	11,437	7,514	5,768	2,700	248	533	83,250
1966-70	39,216	29,481	14,717	9,920	8,147	3,330	394	983	106,188
Annual total—									
1968	39,213	29,724	14,860	9,652	8,086	3,426	419	965	106,345
1969	41,286	30,860	15,669	10,599	8,993	3,532	413	1,118	112,470
1970	42,928	31,729	16,082	10,864	9,227	3,535	501	1,200	116,066
1971	43,038	32,386	16,538	10,833	9,382	3,578	485	1,397	117,637
1972	41,520	31,206	16,066	10,829	9,120	3,426	490	1,372	114,029

(a) Excludes particulars of full-blood Aborigines before 1966.

CRUDE MARRIAGE RATES(a): STATES AND TERRITORIES, 1946 TO 1972

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1946-50	9.90	9.72	9.41	9.87	10.01	9.56	9.39	9.36	9.77
1951-55	8.41	8.34	7.91	8.11	8.44	8.35	9.13	8.20	8.29
1956-60	7.70	7.50	7.14	7.26	7.36	7.69	8.63	7.51	7.50
1961-65	7.86	7.64	7.27	7.42	7.43	7.49	8.09	7.26	7.63
1966-70	8.96	8.84	8.49	8.82	8.87	8.76	5.81	8.68	8.81
Annual rate—									
1968	8.99	8.93	8.59	8.60	8.83	9.02	6.20	8.60	8.85
1969	9.29	9.11	8.88	9.30	9.41	9.17	5.65	9.19	9.16
1970	9.48	9.20	8.96	9.38	9.28	9.11	6.32	9.10	9.26
1971	9.33	9.23	9.03	9.21	9.09	9.15	5.60	9.68	9.20
1972	8.89	8.78	8.58	9.10	8.63	8.71	5.26	8.67	8.78

(a) Number of marriages per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.

The crude marriage rates for Australia and the more populous countries of the world are shown for the latest available year in International Vital Statistics at the end of this chapter.

Previous marital status

In most years about ninety per cent of grooms and brides are single at marriage, six per cent divorced and three per cent widowed.

PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1972

Previous marital status of bridegrooms	Previous marital status of brides			Total bridegrooms
	Spinsters	Widows	Divorced	
Bachelors . . .	96,925	1,159	4,156	102,240
Widowers . . .	802	1,732	938	3,472
Divorced . . .	4,379	977	2,961	8,317
Total brides . . .	102,106	3,868	8,055	114,029

Age and previous marital status at marriage

There were 18,011 males under 21 years of age married during 1972, while the corresponding number of females was 50,754.

AGE AND PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1972

Age at marriage (years)	Bridegrooms				Brides			
	Bachelors	Widowers	Divorced	Total	Spinsters	Widows	Divorced	Total
Under 20 . . .	8,746	..	..	8,746	34,836	9	3	34,848
20-24 . . .	60,706	29	199	60,934	53,106	128	823	54,057
25-29 . . .	23,225	101	1,534	24,860	10,009	224	2,029	12,262
30-34 . . .	5,448	131	1,611	7,190	2,278	221	1,454	3,953
35-39 . . .	1,836	149	1,272	3,257	823	283	1,116	2,222
40-44 . . .	971	242	1,104	2,317	396	393	876	1,665
45-49 . . .	601	369	1,016	1,986	265	536	839	1,640
50-54 . . .	322	429	711	1,462	177	555	503	1,235
55-59 . . .	184	543	438	1,165	94	541	256	891
60-64 . . .	115	495	269	879	50	440	100	590
65 and over . . .	86	984	163	1,233	72	538	56	666
Total . . .	102,240	3,472	8,317	114,029	102,106	3,868	8,055	114,029

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1972

Age of bridegroom (years)	Age of bride (years)								Total bridegrooms
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	
Under 20 . . .	4	7,296	1,380	57	8	1	..	..	8,746
20-24 . . .	6	23,279	34,825	2,502	267	39	11	5	60,934
25-29 . . .	..	3,691	14,441	5,600	881	191	40	16	24,860
30-34 . . .	..	453	2,534	2,535	1,099	403	108	58	7,190
35-39 . . .	..	80	571	920	830	488	226	142	3,257
40-44 . . .	..	22	179	384	454	479	413	386	2,317
45-49 . . .	..	6	78	171	249	359	394	729	1,986
50-54 . . .	..	7	35	64	101	163	260	832	1,462
55-59 . . .	..	2	9	21	44	59	136	894	1,165
60-64 . . .	..	1	2	5	16	33	52	770	879
65 and over . . .	..	1	3	3	4	7	25	1,190	1,233
Total brides	10	34,838	54,057	12,262	3,953	2,222	1,665	5,022	114,029

The median age at marriage of brides and bridegrooms has declined during recent years. The median ages, in years, of brides for each of the five years to 1972 were: 1968, 21.50; 1969, 21.54; 1970, 21.46; 1971, 21.39 and 1972, 21.41. The median ages, in years, of bridegrooms were: 1968, 23.89; 1969, 23.78; 1970, 23.74; 1971, 23.78 and 1972, 23.80. The difference in the median age at marriage between brides and bridegrooms is generally about two years, the difference in 1972 being 2.39 years. The median age is the age at which half of the bridegrooms or brides were younger and half were older than that age. It gives a better indication of the most common age at marriage than the average age (mean).

Countries of birth of persons marrying

RELATIVE COUNTRIES OF BIRTH OF BRIDEGROOMS AND BRIDES AUSTRALIA, 1972

Country of birth of bridegroom	Country of birth of bride											Total bridegrooms
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European	Other and unspecified	
Australia	75,560	455	4,989	674	67	311	171	712	99	529	1,192	84,759
New Zealand	1,011	142	116	14	..	5	3	21	4	11	39	1,366
United Kingdom and Ireland	6,948	119	2,200	150	11	40	34	132	14	110	329	10,087
Germany	1,288	10	179	157	4	16	15	20	21	81	79	1,870
Greece	232	3	27	11	1,515	9	6	2	11	19	81	1,916
Italy	1,311	4	134	37	13	1,621	27	19	39	65	104	3,374
Malta	369	3	50	14	2	3	299	6	..	6	12	764
Netherlands	1,124	9	138	31	1	8	14	167	5	20	57	1,574
Yugoslavia	311	12	44	38	15	37	8	8	1,412	56	28	1,969
Other European	1,033	20	174	122	10	27	10	32	45	676	162	2,311
Other and unspecified	1,851	35	243	61	67	36	16	46	17	88	1,579	4,039
Total brides	91,038	812	8,294	1,309	1,705	2,113	603	1,165	1,667	1,661	3,662	114,029

Celebration of marriages

Marriages may be celebrated by a minister of religion registered as an authorised celebrant, by a district registrar or by other suitable persons authorised by the Attorney-General. Notice of the intended marriage must be given to the celebrant at least seven days before the marriage. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1972 belonged to more than fifty different religious denominations.

MARRIAGES BY AUTHORISED CELEBRANTS: STATES AND TERRITORIES, 1972

Category of authorised celebrant	Australia									Proportion of total	
	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	No.		
Registered ministers of recognised religious denominations—											
Roman Catholic	11,541	9,222	4,362	2,193	2,395	721	112	429	30,975	25.4	
Church of England	12,142	6,645	3,768	2,052	2,589	1,332	59	351	28,938	27.2	
Methodist	4,441	2,984	2,418	2,460	962	412	57	58	13,792	12.1	
Presbyterian	3,489	4,541	2,084	348	452	161	22	122	11,219	9.8	
Orthodox	1,067	1,236	109	166	83	10	26	20	2,717	2.4	
Baptist	721	516	332	296	127	101	2	21	2,116	1.9	
Lutheran	181	284	460	603	47	6	7	13	1,601	1.4	
Churches of Christ	178	574	172	319	163	21	..	13	1,440	1.4	
Congregational	312	366	127	290	98	47	10	2	1,252	1.1	
Salvation Army	188	192	88	61	47	26	4	4	610	0.5	
Other	793	961	398	221	237	88	4	7	2,709	2.4	
Other authorised celebrants—											
Ministers of religion	213	180	51	59	30	..	3	3	539	0.5	
Civil officers	6,254	3,505	1,697	1,761	1,890	501	184	329	16,121	14.1	
Grand Total	41,520	31,206	16,066	10,829	9,120	3,426	490	1,372	114,029	100.0	
Proportion of total (per cent)—											
Ministers of religion	84.94	88.77	89.44	83.74	79.28	85.38	62.45	76.02	85.86	..	
Civil officers	15.06	11.23	10.56	16.26	20.72	14.62	37.55	23.98	14.14	..	

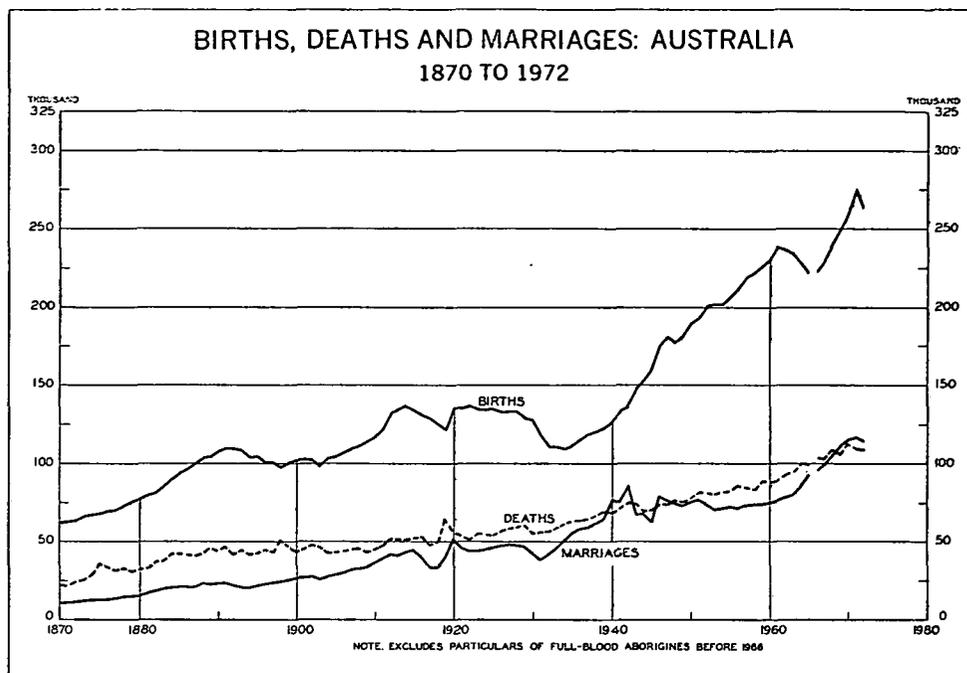


PLATE 19

Divorce

See the chapter Law, Order, and Public Safety.

Births and fertility

Information concerning a birth is required to be supplied to the registration authority within 28 days in the Australian Capital Territory and the Northern Territory, and 60 days in the States.

Information is required in all States and Territories concerning what have been commonly known as 'stillbirths'. These are excluded from all the tables of births and deaths in this chapter and are included only in the special tables on stillbirths shown on pages 175-6.

Number of live births

Plate 19, above compares the annual number of births, deaths and marriages. During the 1940s, 1950s and 1960s annual births increased rapidly as fertility rose following the low birthrates of the depression years. The fall from 1961 to 1966 resulted from a steep decline in fertility. Since 1966, numbers have been increasing again.

LIVE BIRTHS^(a): STATES AND TERRITORIES, 1946 TO 1972

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50 .	68,856	47,372	28,003	16,270	13,130	7,064	289	734	181,718
1951-55 .	73,737	53,770	30,983	18,045	15,724	7,774	468	922	201,423
1956-60 .	79,613	61,279	34,171	19,977	16,922	8,517	694	1,286	222,459
1961-65 .	82,896	65,193	35,357	21,377	16,861	8,439	897	1,932	232,952
1966-70 .	82,560	68,755	35,378	21,310	19,426	7,979	2,134	2,783	240,325
Annual total—									
1968 .	81,696	70,228	35,190	21,207	19,541	8,317	2,084	2,643	240,906
1969 .	86,036	71,035	36,576	21,977	20,754	8,445	2,274	3,079	250,176
1970 .	88,448	73,019	37,530	22,617	21,618	8,185	2,624	3,475	257,516
1971 .	98,466	75,498	39,970	22,996	24,239	8,321	2,832	4,040	276,362
1972 .	95,278	71,807	39,251	21,844	22,177	7,824	2,722	4,066	264,969

(a) Excludes particulars of full-blood Aborigines before 1966.

Masculinity of live births

There is a universal tendency for the number of male births to exceed female births usually by between 5 to 6 per cent. The masculinity of live births, is the number of males born for every 100 female births. When the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The following table shows the figures for Australia for each five year period from 1946 to 1970 and for each of the years 1968 to 1972.

MASCULINITY^(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA, 1946 TO 1972

	1946-50	1951-55	1956-60	1961-65	1966-70	1968	1969	1970	1971	1972
Total births	105.60	105.19	105.65	105.83	105.41	105.41	105.22	105.12	104.34	105.47
Ex-nuptial births	104.46	103.36	104.49	106.88	105.11	104.21	103.95	106.96	106.05	106.38

(a) Number of males born for every 100 female births. Excludes particulars of full-blood Aborigines before 1966.

Crude birth rates

The simplest method of measuring fertility is to relate the number of births to the mean population, which gives 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 168-70. The difference between the crude birth rate and the crude death rate is the rate of natural increase (the hatched area in plate 20, page 167). In the past 100 years the crude birth rate has shown a general downward trend. Since 1967 there has been a small upward movement, which is expected to continue for a few years, partly as a consequence of the increasing number of young women from the postwar baby boom who are now reaching maturity.

CRUDE BIRTH RATES^(a): STATES AND TERRITORIES, 1946 TO 1972

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rates—									
1946-50	22.60	22.51	24.69	24.41	25.24	26.71	23.77	37.92	23.39
1951-55	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
1961-65	20.49	21.42	22.49	21.11	21.71	23.41	29.30	26.31	21.34
1966-70	18.87	20.63	20.41	18.94	21.14	21.00	31.49	24.60	19.95
Annual rates—									
1968	18.72	21.10	20.33	18.89	21.34	21.89	30.85	23.56	20.04
1969	19.35	20.96	20.73	19.28	21.72	21.93	31.09	25.31	20.38
1970	19.52	21.16	20.90	19.52	21.74	21.09	33.09	26.36	20.55
1971	21.35	21.51	21.84	19.55	23.50	21.27	32.69	28.00	21.62
1972	20.39	20.20	20.95	18.37	20.99	19.90	29.23	25.68	20.39

(a) Number of births per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.

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 1971—New South Wales, 21.41; Victoria, 21.48; Queensland, 21.77; South Australia, 19.46; Western Australia, 23.53; Tasmania, 21.34; Northern Territory, 33.68 and Australian Capital Territory, 27.48

The crude birth rates of Australia and the more populous countries of the world for the latest available year are shown in *International Vital Statistics at the end of this chapter*.

Fertility rates

Changes in the crude birth rate are in general indicative of changes in fertility. However they may result from changes in the proportion of women of childbearing age in the population. Changes in the proportion of such women who are married may also affect fertility and the crude birth rate.

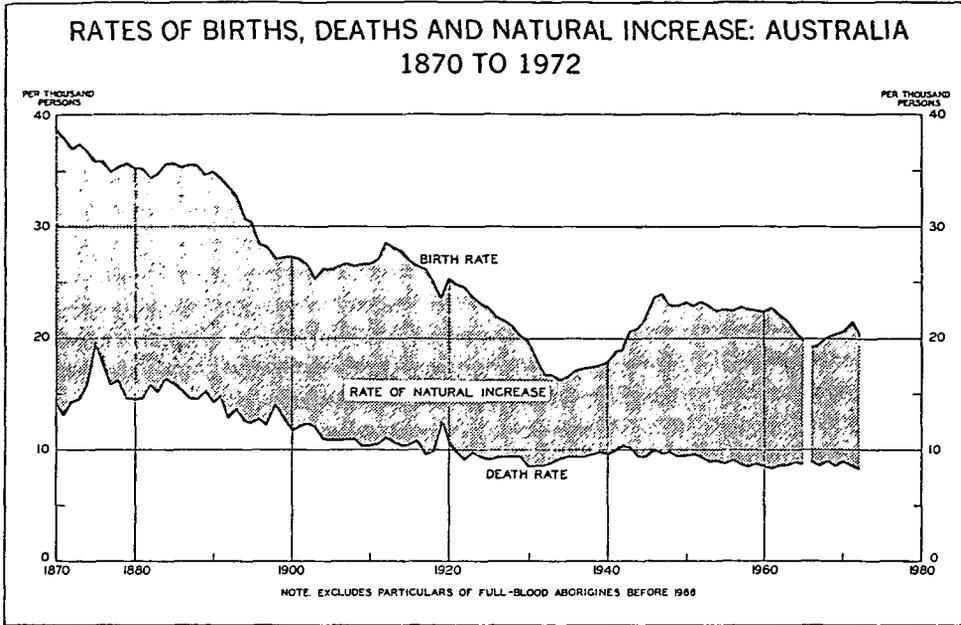


PLATE 20

The fertility rates in the following table are for the Census years 1881 to 1971. The births for the three years around the census are related to women of childbearing age as enumerated at each census. Although the childbearing age has been taken to be 15-44 years, births to younger and older women are included in the computations. Nuptial births are related to married women aged 15-44 years to give married fertility rates.

Although married fertility fell by 58 per cent between 1880-82 and 1970-72, total fertility and the crude birth rate fell by only 41 per cent. The effect of a decline in the fertility of married women on total fertility and the crude birth rate is partly offset by an increase in the proportion of such women in the population. In 1881 only 51 per cent of females aged 15-44 were married but in 1966, 68 per cent were married. Also during this time births to unmarried women increased from 14 to 29 per thousand for single, widowed and divorced females aged 15-44.

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA, 1880-82 TO 1970-72(a)

Period	Average annual rates			Index Nos (Base: 1880-82 = 100)		
	Crude birth rate(b)	Fertility rates		Crude birth rate(b)	Fertility rates	
		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years		Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years
1880-82 . . .	35.3	170	321	100	100	100
1890-92 . . .	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 . . .	22.7	109	149	64	64	46
1960-62 . . .	22.5	112	154	64	66	48
1965-67 . . .	19.5	95	132	55	56	41
1970-72 . . .	20.85	100	134	59	59	42

(a) Excludes particulars of full-blood Aborigines before 1965-67. (b) Number of births per 1,000 of mean population.

Age-specific birth rates

Fertility within the childbearing group varies considerably, as may be seen from the five-year age-specific rates in the following table. These rates were obtained by dividing births according to age of mother by the estimated number of women in the corresponding five-year age group.

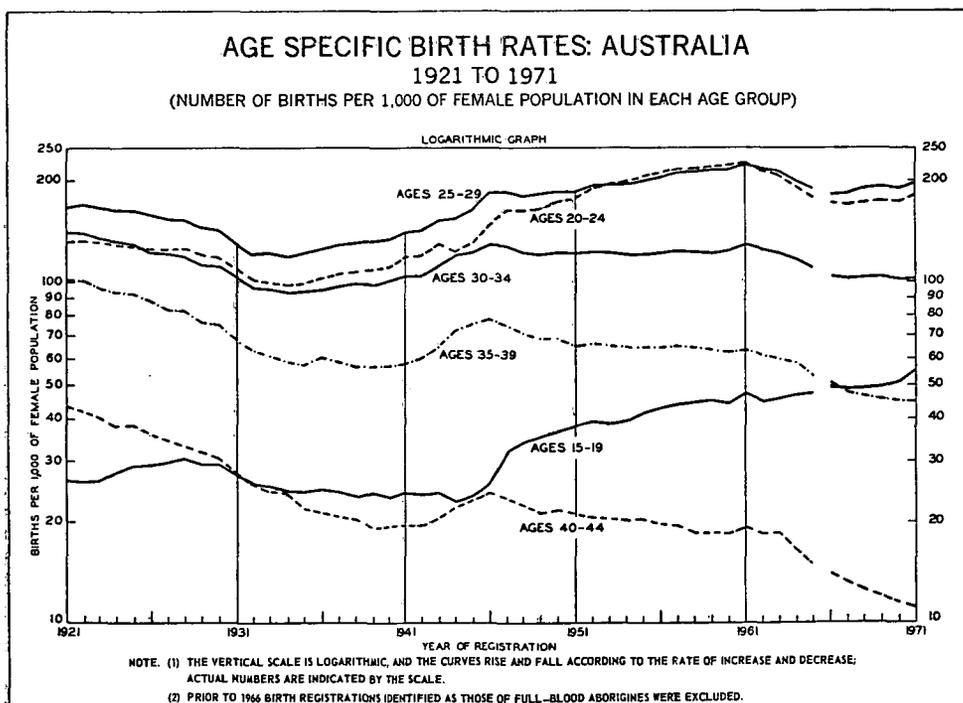
Total fertility is obtained by summing single age specific rates or by summing five-year age-specific rates and multiplying by 5. This total, divided by 1000, represents the hypothetical number of children a woman would bear during her lifetime if she experienced the rates of the year shown.

Since 1946, the fertility of younger women has increased, largely as a result of younger marriage, whereas fertility in the thirty and forty age groups has declined. Total fertility rose to a peak in 1961, of 3.4 children per woman, declined to 2.8 in 1967 and has been about 2.9 since.

AGE-SPECIFIC BIRTH RATES(a): AUSTRALIA, 1946 TO 1971

Period	Age group (years)							Total fertility
	15-19	20-24	25-29	30-34	35-39	40-44	45-49	
1946-50(b)	33.05	164.22	183.29	126.56	72.33	22.71	1.76	3.020
1951-55(b)	39.54	192.81	192.97	123.51	65.05	20.50	1.53	3.180
1956-60(b)	44.20	216.42	211.47	126.06	63.91	18.96	1.45	3.412
1961-65(b)	46.50	203.95	207.15	122.38	59.18	17.54	1.19	3.289
1966-70(b)	49.32	172.65	187.64	103.00	46.85	12.86	0.99	2.867
1967	48.43	170.64	184.78	102.49	47.72	13.49	1.09	2.843
1968	48.99	173.65	189.94	103.01	46.43	12.87	1.05	2.880
1969	49.16	173.88	190.99	103.13	45.19	12.10	1.01	2.877
1970	51.13	171.99	188.63	101.24	44.29	11.69	0.78	2.849
1971	55.17	180.92	195.39	102.26	44.90	11.42	0.78	2.954

(a) Number of births per 1,000 women in each age group. Excludes particulars of full-blood Aborigines before 1966.
(b) Average annual rates.



Gross and net reproduction rates

The gross reproduction rate is derived from total fertility and the ratio of female to total births. It indicates the number of female children who would be born on average to women supposing the rates from which it was calculated were to apply throughout the reproductive period. It is an indication of the extent to which the population is reproducing itself except that it does not allow for females who failed to survive to the end of the childbearing period. The net reproduction rate allows for such mortality. It is obtained by multiplying the age-specific rates by the survivor proportions in the corresponding age group of the stationary or life table population. Mortality in childhood and young adulthood is now so low that there is little difference between current gross and net reproduction rates.

GROSS AND NET REPRODUCTION RATES(a): AUSTRALIA, 1947 TO 1971

Year	Gross reproduction rate	Net reproduction rate	Year	Gross reproduction rate	Net reproduction rate
1947	1.494	(b)1.416	1968	1.402	(e)1.359
1954	1.559	(c)1.499	1969	1.402	(e)1.359
1961	1.728	(d)1.672	1970	1.389	(e)1.347
1966	1.400	(e)1.355	1971	1.441	(e)1.397
1967	1.385	(e)1.342			

(a) Excludes particulars of full-blood Aborigines before 1966. (b) 1946-1948 mortality experience used. (c) 1953-1955 mortality experience used. (d) 1960-1962 mortality experience used. (e) 1965-1967 mortality experience used.

In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1966 to 1971. The registration of vital events has not been fully established in many countries and consequently details for the calculation of reproduction rates for those countries are not available.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES

(Source: *Population Index, April-June 1972, Office of Population Research, Princeton University*)

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Panama	1967	2.55	2.30	England and Wales	1969	1.19	1.16
Mauritius	1968	2.24	1.98	United States of America	1968	1.20	1.16
Taiwan	1970	1.94	1.84	Italy	1967	1.19	1.14
Ireland	1968	1.91	1.82	Yugoslavia	1967	1.23	1.14
Israel	1968	1.85	1.78	Canada	1969	1.22	1.13
Romania	1968	1.70	1.60	Germany, Dem. Rep.	1967	1.14	1.10
Chile	1967	1.88	1.56	Belgium	1968	1.12	1.09
Iceland	1967	1.59	1.55	Greece	1969	1.13	1.07
New Zealand	1968	1.54	1.50	Japan	1967	1.08	1.05
Australia	1971	1.44	1.40	Germany, Fed. Rep.	1969	1.07	1.03
Scotland	1968	1.35	1.30	Czechoslovakia	1969	0.99	0.95
Netherlands	1968	1.32	1.29	Denmark	1969	0.97	0.95
Norway	1969	1.31	1.28	Hungary	1968	1.00	0.95
Portugal	1967	1.39	1.25	Sweden	1970	0.94	0.92
France	1967	1.29	1.25	Finland	1969	0.90	0.86
Austria	1969	1.22	1.17				

Fertility of marriages

Estimates of the fertility of marriages may be made by relating nuptial births in each year to the marriages from which they could have resulted. Births to women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously and the resulting rates are added to give a total for all durations, namely, the index of current marriage fertility.

The figure for a particular year gives the estimated number of children which a thousand marriages would produce according to the fertility conditions of that year.

Births are omitted from the calculation if the marriage did not take place in Australia. Births which occur overseas to Australian marriages cannot be included and hence some understatement is present.

The following table gives an analysis of the index, shown in the total column, according to duration of marriage, expressing the results as births per thousand marriages.

DURATION-SPECIFIC FERTILITY RATES(a): AUSTRALIA, 1959 TO 1971

Births occurring in—	Duration of marriage (years)										Total
	Under 1	1	2	3	4	Total under 5	5-9	10-14	15-19	20 and over	
1959	379	319	316	279	249	1,542	760	298	99	25	2,724
1960	382	322	317	288	249	1,558	772	302	100	25	2,757
1961	403	332	328	290	254	1,607	789	314	106	26	2,842
1962	389	318	324	290	247	1,568	781	308	101	22	2,780
1963	384	307	318	288	241	1,538	756	302	105	24	2,725
1964	368	288	296	275	231	1,458	712	283	99	21	2,573
1965	341	275	287	261	222	1,386	662	260	90	19	2,417
1967	308	251	273	268	222	1,322	648	239	80	18	2,307
1968	308	247	280	267	235	1,337	668	234	79	17	2,335
1969	290	246	279	270	231	1,316	688	233	75	17	2,329
1970	278	236	275	262	231	1,282	675	230	75	16	2,278
1971	282	240	279	270	235	1,306	694	231	75	15	2,321

(a) Number of births per thousand marriages. From 1966 includes births of Aborigines where parents were legally married and excludes births of tribal marriages.

The summation of duration-specific rates for a particular year without reference to changing patterns in age at marriage or age of parents contributes to the hypothetical nature of the index. It is more satisfactory, therefore, to express the rates in cohort form by following the experience of marriages of a particular year cumulated over successive durations of marriage.

Since the fertile period of a marriage has a duration of up to some thirty years, completed fertility can only be determined with certainty for marriages occurring before 1940. Fortunately, because of the concentration of births in the early years of marriage the ultimate level of fertility and the size of family can be assessed with a fair degree of precision by the end of the fifteenth year. The most recent cohort to reach this duration was that of 1956-57.

To determine the relevant marriage cohorts from which births can have derived, a system of quarterly weights is applied. Births in 1969 to marriages in their third year, for example, could have arisen from marriages in any one of the eight quarters of 1966 and 1967. Proportions of the marriages in each of these quarters, namely $\frac{1}{8}$, $\frac{2}{8}$, $\frac{3}{8}$, $\frac{4}{8}$, $\frac{5}{8}$, $\frac{6}{8}$, $\frac{7}{8}$, and $\frac{8}{8}$ respectively, are summed to arrive at the total marriages in the 1966-67 cohort. This method is applied to all marriages of completed durations three or more years. The first two years of marriage are weighted on a monthly basis.

**CUMULATED DURATION-SPECIFIC FERTILITY RATES, MARRIAGE COHORTS(a)
AUSTRALIA, 1955 TO 1971**

Marriages of year—	Completed duration of marriage (years)						
	1	2	3	4	5	10	15
1955-56	352	674	983	1,262	1,511	2,262	2,497
1956-57	367	685	1,001	1,289	1,543	2,262	2,495
1957-58	365	684	1,001	1,291	1,538	2,219	..
1958-59	379	701	1,029	1,319	1,560	2,216	..
1959-60	382	714	1,038	1,326	1,557	2,210	..
1960-61	403	721	1,039	1,314	1,536	2,194	..
1961-62	389	696	992	1,253	1,468	2,125	..
1962-63	384	672	959	1,219	1,441	..	..
1963-64	368	643	925	1,193	1,428	..	..
1964-65	341	599	872	1,139	1,370	..	..
1965-66	324	575	855	1,125	1,356	..	..
1966-67	308	555	834	1,096	1,331	..	..
1967-68	308	554	829	1,099	..	..	..
1968-69	290	526	805	..	..	..	..
1969-70	278	518	..	..	..	..	..
1970-71	282	..	..	..	..	..	..

(a) Cumulated number of births per thousand marriages. From 1966 includes births of Aborigines where parents were legally married and excludes births of tribal marriages.

A more detailed analysis of the figures in the above table and of earlier cohorts has been made by tabulating the number of births within each duration of marriage which were first, second, third or subsequent births to the marriages under consideration. Details then derived of relative family size at each duration of marriage have enabled the computation of duration-parity-specific fertility rates.

Ex-nuptial live births

A birth is registered as ex-nuptial if the parents were not married to one another at the time of the confinement. Births to tribally-married Aborigines are classified as nuptial. Ex-nuptial births have been increasing and in 1971 they comprised 9.27 per cent of all births. The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1971 and for Australia at intervals from 1946 to 1971 are shown in the following tables. The high ex-nuptial birth rate for the Northern Territory is due in part to difficulties in identifying births where parents were tribally married. It is suspected that a substantial number of ex-nuptial births for the Northern Territory are in fact births to women adhering to tribal marriage systems.

EX-NUPTIAL LIVE BIRTHS
NUMBER AND PROPORTION, STATES AND TERRITORIES, 1971

	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Number	9,674	5,010	4,859	1,782	2,720	722	664	198	25,629
Proportion of total births %	9.82	6.64	12.16	7.75	11.22	8.68	23.45	4.90	9.27

EX-NUPTIAL LIVE BIRTHS: NUMBERS, PROPORTION AND RATES(a)
AUSTRALIA, 1946 TO 1971

	<i>Annual average</i>					1966-70	1967	1968	1969	1970	1971
	1946-50	1951-55	1956-60	1961-65							
Number	7,349	7,999	10,027	13,798	18,937	17,734	19,171	19,585	21,367	25,629	
Rates(b)	0.95	0.91	1.02	1.25	1.57	1.50	1.60	1.60	1.71	2.01	
Proportion of total births%	4.04	3.97	4.51	5.92	7.88	7.73	7.96	7.83	8.30	9.27	

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Number of ex-nuptial births per 1,000 of mean population.

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: 1946-48, 11.45; 1953-55, 14.45; 1960-62, 18.49; 1965-67, 20.96; and 1970-72, 28.59. 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.

Legitimations

Under the provisions of the Commonwealth *Marriage Act* 1961-1966, which came into operation on 1 September 1963, a child whose parents were not married to each other at the time of its birth becomes legitimised on the subsequent marriage of its parents. The legitimisation 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 1 September 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimise 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 legitimised in Australia during 1971 was 3,896.

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 stillborn 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.

Number of confinements

The following table shows the number of single and multiple confinements and the number of live births. The table includes only those confinements resulting in at least one live birth.

LIVE BIRTHS AND CONFINEMENTS: STATES AND TERRITORIES, 1971

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS									
Single births	96,436	73,923	39,222	22,535	23,827	8,156	2,792	3,947	270,838
Twins	1,998	1,567	744	449	406	156	37	93	5,450
Triplets	21	8	4	12	6	9	3	..	63
Other multiple	11	..	..	..	..	..	..	..	11
Males	50,271	38,432	20,365	11,797	12,498	4,205	1,478	2,068	141,114
Females	48,195	37,066	19,605	11,199	11,741	4,116	1,354	1,972	135,248
Total	98,466	75,498	39,970	22,996	24,239	8,321	2,832	4,040	276,362

STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE

Twins	58	13	20	1	10	2	1	3	108
Triplets	3	1	2	..	..	..	..	..	6
Other multiple	2	..	..	..	..	..	..	..	2

CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE

Nuptial	87,887	69,753	34,785	20,993	21,343	7,525	2,154	3,798	248,238
Ex-nuptial	9,587	4,963	4,821	1,771	2,694	713	658	197	25,404
Total	97,474	74,716	39,606	22,764	24,037	8,238	2,812	3,995	273,642

NOTE. 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 liveborn, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also page 174.

Multiple births recorded during 1971 comprised 2,779 cases of twins, 23 cases of triplets, and two cases of other multiple births the resulting number of live-born and stillborn children respectively 5,450 and 108 for twins, 63 and 6 for triplets, 11 and 2 for other multiple births. This represents an average of 10.16 recorded cases of twins and 0.08 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 98 mothers and mothers of triplets 1 in every 11,900. Total cases of multiple births represented 10.25 per 1,000 confinements or 1 in every 98 mothers.

Confinements—relative ages of parents

The relative ages of the parents of children whose births were registered in 1971 have been tabulated separately for male and female births, multiple births being distinguished from single births. For confinements and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 86.

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1971

Age of father (years)	Age of mother (years)								Not stated	Total
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over		
Under 20	4	3,783	669	19	2	..	..	..	1	4,478
20-24	4	13,548	37,910	3,661	219	20	3	..	1	55,366
25-29	2	2,507	40,364	40,953	3,116	207	25	1	1	87,176
30-34	2	424	8,226	29,702	17,225	1,521	134	4	..	57,238
35-39 . . . . .	..	63	1,416	6,440	11,951	6,301	512	11	1	26,695
40-44 . . . . .	..	32	353	1,526	3,606	4,766	1,799	43	..	12,125
45-49 . . . . .	..	6	113	389	772	1,326	1,056	126	..	3,788
50-54 . . . . .	..	2	28	100	180	286	274	50	..	920
55-59 . . . . .	..	2	17	34	65	75	63	17	..	273
60-64 . . . . .	..	1	7	15	18	24	19	2	..	86
65 and over(a) . . . . .	..	1	16	21	24	13	9	4	5	93
Total nuptial	12	20,369	89,119	82,860	37,178	14,539	3,894	258	9	248,238
Total ex-nuptial	144	9,807	8,488	3,685	1,904	966	354	40	16	25,404
Total	156	30,176	97,607	86,545	39,082	15,505	4,248	298	25	273,642

(a) Includes 54 confinements in which the age of the father was not stated.

Confinements—relative countries of birth of parents

The following table shows the relative countries of birth of parents of children whose births from nuptial confinements were registered during 1971.

NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS
AUSTRALIA, 1971

Country of birth of father	Country of birth of mother											Total fathers
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European	Other and unspecified	
Australia	158,910	937	8,495	1,513	117	455	411	1,476	113	846	1,705	174,978
New Zealand	1,069	597	151	14	1	7	2	16	..	12	36	1,905
United Kingdom and Ireland	10,590	219	9,852	231	18	75	96	204	23	192	519	22,019
Germany	2,021	34	302	826	12	21	27	96	28	161	95	3,623
Greece	461	7	40	22	7,405	18	12	12	30	28	182	8,217
Italy	2,249	27	245	106	31	8,398	69	85	62	120	147	11,539
Malta	652	3	116	19	5	10	1,694	17	4	15	27	2,562
Netherlands	2,136	19	260	70	2	13	20	1,182	10	34	111	3,857
Yugoslavia	716	13	102	143	70	121	12	42	4,151	137	55	5,562
Other European	1,845	47	343	335	55	52	23	78	75	2,127	227	5,207
Other and unspecified	2,436	83	438	115	168	69	31	79	15	158	5,177	8,769
Total mothers	183,085	1,986	20,344	3,394	7,884	9,239	2,397	3,287	4,511	3,830	8,281	248,238

Confinements—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1971 was 248,238, comprising 245,666 single births, 2,550 cases of twins, 20 cases of triplets, two cases of other multiple births. The following tables relating to previous issue exclude the issue of former marriages and stillborn 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 calculation of average issue shown.

The following table shows that in 1971 the average size of family increased fairly regularly with the duration of the marriage. However, the average issue relates only to those women who gave birth in 1971. The table should not be interpreted to mean that, for example, *all* women who have been married for over ten years have an average of more than four children or those married twenty years, six children. The average issue of all married mothers who bore children in 1971 was 2.22 compared with 2.27 in 1970, 2.30 in 1969, 2.34 in 1968, and 2.38 in 1967.

NUPTIAL CONFINEMENTS BY DURATION OF MARRIAGE, AND AVERAGE ISSUE OF MOTHERS: AUSTRALIA, 1971

Duration of marriage	Total nuptial confinements	Average issue of mother	Duration of marriage	Total nuptial confinements	Average issue of mother
Under 1 year	33,986	1.03	15 years	2,152	4.89
1 year	29,279	1.24	16 "	1,688	5.07
2 years	32,669	1.54	17 "	1,358	5.24
3 "	29,756	1.82	18 "	1,042	5.65
4 "	25,109	2.09	19 "	747	5.87
5 "	21,135	2.38	20 "	585	6.20
6 "	16,582	2.66	21 "	417	6.50
7 "	12,436	2.98	22 "	218	6.83
8 "	9,778	3.24	23 "	207	6.48
9 "	7,653	3.50	24 "	91	6.96
10 "	6,209	3.72	25 years and over	102	7.99
11 "	4,947	4.02	Not stated	483	3.94
12 "	3,926	4.14			
13 "	3,110	4.42			
14 "	2,573	4.63	Total	248,238	2.22

**NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE
AUSTRALIA, 1971**

Previous issue	Age of mother (years)							45 and over	Not stated	Total married mothers
	Under 20	20-24	25-29	30-34	35-39	40-44				
0	16,914	47,412	23,815	5,242	1,609	394	28	4	95,418	
1	3,195	30,321	30,018	8,664	2,121	409	21	3	74,752	
2	259	8,959	18,698	10,353	3,036	600	30	3	41,938	
3	12	1,968	7,076	6,895	2,821	650	22	..	19,444	
4 . . . . .	..	375	2,155	3,278	2,002	517	38	..	8,365
5 . . . . .	..	69	750	1,512	1,241	412	31	..	4,015
6	1	14	245	704	698	299	25	..	1,986	
7 . . . . .	..	1	75	285	459	204	18	..	1,042
8 . . . . .	..	..	22	143	262	142	14	..	583
9 . . . . .	..	..	4	53	144	100	9	..	310
10 and over . . . . .	..	..	2	49	146	167	21	..	385
Total married mothers	20,381	89,119	82,860	37,178	14,539	3,894	257	10	248,238	

Multiple births—previous issue of mothers

Of married mothers of twins in 1971, 803 had no previous issue either living or dead, 805 had one child previously, 468 had two previous issue, 241 three, 110 four, 62 five, 28 six, 13 seven, 9 eight, 5 nine, 1 ten, 2 eleven, 2 twelve and 1 fifteen. Of the 20 cases of nuptial triplets, and two cases of other multiple births registered during 1971, 5 mothers had no previous issue, 6 had one, 6 had two, 4 had three and 1 had four previous issue.

Nuptial first births

A nuptial first birth is defined as the first birth to the existing marriage. About two-thirds of first births occur to women aged under 25, and over half occur within the first two years of marriage, (in 1971, 35 per cent in the first and 24 per cent in the second year).

The following table shows the number of nuptial first births classified by grouped ages of mothers and grouped durations of marriage of mothers.

**NUPTIAL FIRST BIRTHS, BY AGE OF MOTHER AND DURATION OF MARRIAGE
AUSTRALIA, 1971**

Duration of marriage	Age of mother (years)							45 and over	Not stated	Total
	Under 20	20-24	25-29	30-34	35-39	40-44				
Under 8 months	12,418	9,067	1,348	396	139	47	1	..	23,416	
8 months	354	894	295	103	32	7	..	..	1,685
9 "	517	1,692	515	184	66	9	2	..	2,985	
10 "	511	1,530	461	160	47	12	..	1	2,722	
11 "	396	1,517	435	121	41	10	..	..	2,520
Total under 1 year	14,196	14,700	3,054	964	325	85	3	1	33,328	
1 year and under 2 years	2,234	14,643	4,505	1,130	351	80	6	1	22,950	
2 years " " 3 "	387	10,423	4,666	718	222	48	8	1	16,473	
3 " " " 4 "	41	5,087	4,149	530	125	42	3	..	9,977	
4 " " " 5 "	6	1,788	3,330	384	91	21	..	1	5,621	
5 " " " 10 "	2	746	4,024	1,165	218	57	4	..	6,216	
10 " " " 15 " . . . . .	..	1	81	327	165	22	1	..	597
15 years and over . . . . .	..	..	..	23	108	36	3	..	170
Not stated	48	24	6	1	4	3	..	..	86
Total	16,914	47,412	23,815	5,242	1,609	394	28	4	95,418	

The following table provides a comparison between the numbers of nuptial first births and subsequent births in periods since 1946 and shows also the proportion of first to total nuptial confinements.

**NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS(a)
AUSTRALIA, 1946 TO 1971**

Period	Nuptial confinements			Proportion of first to total nuptial confinements (per cent)
	First births	Other births	Total	
Annual average—				
1946-50	63,413	109,044	172,457	36.77
1951-55	63,062	128,176	191,238	32.98
1956-60	65,695	144,352	210,047	31.28
1961-65	69,280	147,549	216,829	31.95
1966-70	81,103	138,000	219,103	37.02
Annual total—				
1967	76,127	133,302	209,429	36.35
1968	81,341	138,124	219,465	37.06
1969	85,650	142,539	228,189	37.53
1970	88,412	145,227	233,639	37.84
1971	95,418	152,820	248,238	38.44

(a) Excludes particulars of full-blood Aborigines before 1966.

Stillbirths

Comparison of the figures and rates in the following tables are affected by the differences in the definitions adopted by the various States in earlier years. Beginning in 1964, steps were taken to amend the States' registration laws and so make uniform the criteria whereby stillbirths are registered. The amended legislation provides for all foetal deaths of at least twenty weeks' gestation (or 400 grammes weight) to be registered. The dates on which the legislation came into effect for each State are as follows: New South Wales, January 1969; Victoria, May 1971; Queensland, October 1967; South Australia, January 1968; Western Australia, January 1968; Tasmania, March 1967; Northern Territory, September 1964; Australian Capital Territory, September 1969. Prior to these dates the statistics of stillbirths shown relate to those in several States of at least seven months gestation and in other States to those of at least twenty-eight weeks gestation. So as to preserve as much comparability as possible with figures for earlier years the figures shown for each State since the amended legislation relate to stillbirths of at least twenty-eight weeks gestation.

STILLBIRTHS(a): STATES AND TERRITORIES, 1946 TO 1971

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50	1,405	949	626	368	274	161	n.a.	12	(b)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
1961-65	1,104	794	468	264	194	87	17	18	2,946
1966-70	876	767	361	215	192	86	(c)39	27	2,563
Annual total—									
1967	863	797	372	211	188	83	(c)49	24	2,587
1968	806	734	318	217	183	79	(c)39	26	2,402
1969	857	761	295	208	203	79	(c)35	26	2,464
1970	888	782	312	200	211	80	(c)30	29	2,532
1971	893	760	329	199	206	67	(c)24	41	2,519

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Excludes Northern Territory. (c) Figures from 1966 include foetal deaths occurring in remote localities for which the period of gestation was not known. The numbers of such cases were: 1967, 25; 1968, 13; 1969, 13; 1970, 14; 1971, 3. The Registration Ordinance requires registration of any foetal death of at least twenty weeks gestation.

PROPORTION OF STILLBIRTHS(a): STATES AND TERRITORIES, 1946 TO 1971

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Average annual rate—									
1946-50	20.0	19.6	21.9	22.1	20.5	22.3	n.a.	16.3	(b)20.5
1951-55	16.5	15.5	18.4	15.8	17.0	17.5	17.2	17.1	16.6
1956-60	15.5	13.5	16.1	13.5	13.7	12.6	8.6	14.3	14.6
1961-65	13.1	12.0	13.1	12.2	11.4	10.2	18.4	9.3	12.5
1966-70	10.5	11.0	10.1	10.0	9.8	10.7	18.3	9.7	10.6
Annual rate—									
1967	10.8	12.0	10.6	10.2	10.3	10.9	24.9	9.9	11.2
1968	9.8	10.3	9.0	10.1	9.3	9.4	18.4	9.7	9.9
1969	9.9	10.6	8.0	9.4	9.7	9.3	15.2	8.4	9.8
1970	9.9	10.6	8.2	8.8	9.7	9.7	11.3	8.3	9.7
1971	9.0	10.0	8.2	8.6	8.4	8.0	8.4	10.0	9.0

(a) Number of stillbirths per 1,000 of all births (live and still). Excludes particulars of full-blood Aborigines before 1966. (b) 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 are subject to considerable fluctuation.

Mortality

This section contains statistics of general mortality and infant mortality. Statistics of foetal deaths (stillbirths) are shown separately in the preceding section. For the registration of a death the period allowed is 8 days in Tasmania, 14 days in South Australia, Western Australia, Australian Capital Territory, and Northern Territory, 21 days in Victoria, and 30 days in New South Wales and Queensland.

Number of deaths

The following table shows the number of deaths registered in each State and Territory for years commencing 1946. Stillbirths, although registered as both births and deaths in some States are excluded from the death statistics.

DEATHS(a): STATES AND TERRITORIES, 1946 TO 1972

Period	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Annual average—									
1946-50(b)	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
1961-65	37,514	26,569	13,570	8,388	6,043	2,939	152	290	95,465
1966-70	41,249	29,265	15,711	9,562	7,208	3,231	540	497	107,263
Annual total—									
1968	41,803	29,967	16,078	9,916	7,468	3,284	543	488	109,547
1969	40,665	28,976	15,786	9,337	7,350	3,309	485	588	106,496
1970	43,601	30,335	17,055	10,138	7,543	3,174	608	594	113,048
1971	41,691	30,598	16,339	9,686	7,806	3,295	637	598	110,650
1972—									
Males	23,044	16,215	9,526	5,477	4,317	1,793	351	393	61,116
Females	18,608	13,641	7,072	4,287	3,124	1,434	202	276	48,644
Persons	41,652	29,856	16,598	9,764	7,441	3,227	553	669	109,760

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Excludes deaths of defence personnel and of internees and prisoners of war from overseas for the period September 1939 to June 1947.

NOTE: Annual averages for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 597.

Crude death rates

The simplest method of measuring mortality is to relate the number of deaths for a given period to the mean population for that period, which gives 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^(a): STATES AND TERRITORIES, 1946 TO 1972

<i>Period</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Average annual rate—									
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
1961–65	9.27	8.73	8.63	8.28	7.78	8.15	4.95	3.94	8.75
1966–70	9.43	8.78	9.07	8.50	7.84	8.50	7.97	4.40	8.90
Annual rate—									
1968	9.58	9.00	9.29	8.83	8.15	8.64	8.04	4.35	9.11
1969	9.15	8.55	8.95	8.19	7.69	8.59	6.63	4.83	8.68
1970	9.62	8.79	9.50	8.75	7.59	8.18	7.67	4.51	9.02
1971	9.04	8.72	8.93	8.23	7.57	8.42	7.35	4.15	8.66
1972—									
Males	9.84	9.13	10.09	9.23	7.98	9.08	6.78	4.84	9.36
Females	7.98	7.66	7.62	7.19	6.06	7.33	4.89	3.58	7.52
Persons	8.91	8.40	8.86	8.21	7.04	8.21	5.94	4.23	8.45

(a) Number of deaths per 1,000 of mean population. Excludes particulars of full-blood Aborigines before 1966.

(b) Excludes deaths of defence personnel, etc., from September 1939 to June 1947.

A graph showing the crude death rate for each year from 1870 to 1972 is shown on plate 20 page 167.

The crude death rate is affected by the particular sex and age composition of the population. While it is an element in the rate of natural increase of the population it cannot validly be used to compare the relative incidence of mortality in different populations. The crude death rate will tend to be low if the community contains a large proportion of young people and high if the population is elderly. Age specific death rates and true death rates are a guide to comparative mortality.

True death rates

A composite measure of mortality unaffected by the age structure of the population can be obtained from life tables. The basic life table functions include expectation of life remaining at each year of age. The reciprocal of the expectation of life at birth is known as the true death rate, since, if the expectation of life of a person at birth is say, fifty years, then each person will on the average die fifty years after birth, so that in a stationary population one person in fifty or twenty 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 mortality from each year of age to the next. The next table sets out true death rates for the periods covered by Australian life tables.

**TRUE DEATH RATES: AUSTRALIA
1946-48 TO 1971(a)**

Period	True death rate	
	Males(b)	Females(c)
1946-48	15.14	14.16
1953-55	14.89	13.75
1960-62	14.72	13.48
1965-67	14.79	13.49
1968	14.82	13.48
1969	14.81	13.40
1970	14.84	13.49
1971	14.72	13.42

(a) Excludes particulars of full-blood Aborigines before 1965-67. (b) Number of deaths per 1,000 males in stationary population. (c) Number of deaths per 1,000 females in stationary population.

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 International Vital Statistics at the end of this chapter.

Australian Life Tables

It has been the practice at each census from 1911 onwards to prepare complete 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 1881-90, 1891-1900 and 1901-10. 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. For subsequent censuses the official life tables have been prepared only for Australia as a whole. They have been based upon recorded census population and the deaths of the three years around the census. The 1965-67 life tables included particulars of Aborigines for the first time. The 1920-22 life tables were prepared by the Commonwealth Statistician, those of 1932-34, 1946-48, 1953-55, 1960-62 and 1965-67 by the Commonwealth Actuary. Full particulars of the data used and the methods of construction are to be found in the reports of the Commonwealth Actuary.

COMPLETE EXPECTATION OF LIFE (e_x^0) AT SELECTED AGES

Age (x)	Males				Females			
	1901-10	1953-55	1960-62	1965-67(a)	1901-10	1953-55	1960-62	1965-67(a)
0	55.20	67.14	67.92	67.63	58.84	72.75	74.18	74.15
10	53.53	59.53	59.93	59.50	56.38	64.78	65.92	65.75
20	44.74	50.10	50.40	49.98	47.52	55.06	56.16	56.00
30	36.52	40.90	41.12	40.72	39.33	45.43	46.49	46.34
40	28.56	31.65	31.84	31.44	31.47	35.99	36.99	36.85
50	21.16	22.92	23.13	22.76	23.69	27.03	27.92	27.83
60	14.35	15.47	15.60	15.27	16.20	18.78	19.51	19.52
70	8.67	9.59	9.77	9.52	9.96	11.62	12.19	12.23
80	4.96	5.47	5.57	5.51	5.73	6.30	6.68	6.72

(a) Includes particulars of full-blood Aborigines.

NOTE. e_x^0 = complete expectation of life at specified ages.

The progress towards lower mortality rates evident over the past sixty years or more, did not continue in the 1960's. Expectation of life at birth was slightly less in 1965-67 than in 1960-62 for both males and females. The detailed 1965-67 life tables show that lower mortality rates were experienced only at ages 0-14, 28 to 32 and over 88 for males and at ages 0-13 and over 72 for females.

Age distribution at death

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 1971 is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1971

Age at death	Males	Fe- males	Per- sons	Age at death	Males	Fe- males	Per- sons
Under 1 week	1,710	1,318	3,028	5- 9 years	292	189	481
1 week and under 2 weeks	90	87	177	10-14 "	287	132	419
2 weeks and under 3 weeks	41	44	85	15-19 "	907	374	1,281
3 weeks and under 4 weeks	43	31	74	20-24 "	1,070	353	1,423
<i>Total under 4 weeks</i>	<i>1,884</i>	<i>1,480</i>	<i>3,364</i>	25-29 "	705	302	1,007
4 weeks and under 3 months	287	201	488	30-34 "	653	368	1,021
3 months and under 6 months	279	215	494	35-39 "	883	491	1,374
6 months and under 12 months	234	197	431	40-44 "	1,376	860	2,236
<i>Total under 1 year</i>	<i>2,684</i>	<i>2,093</i>	<i>4,777</i>	45-49 "	2,423	1,439	3,862
1 year	183	175	358	50-54 "	3,320	1,825	5,145
2 years	108	87	195	55-59 "	5,052	2,566	7,618
3 "	90	65	155	60-64 "	6,431	3,353	9,784
4 "	86	48	134	65-69 "	7,676	4,218	11,894
<i>Total under 5 years</i>	<i>3,151</i>	<i>2,468</i>	<i>5,619</i>	70-74 "	7,940	6,063	14,003
				75-79 "	7,603	7,751	15,354
				80-84 "	6,322	7,892	14,214
				85 years and over	4,971	8,930	13,901
				Age not stated	12	2	14
				<i>Total all ages</i>	<i>61,074</i>	<i>49,576</i>	<i>110,650</i>

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 decline in the rate of mortality, the long term decline in the birthrate, 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 five-year periods from 1946 to 1970 and for the year 1971.

PROPORTION OF DEATHS IN EACH AGE GROUP: AUSTRALIA, 1946 TO 1971(a)

(Per cent)

Age at death (years)						1971		
	1946-50	1951-55	1956-60	1961-65	1966-70	Males	Females	Persons
Under 1 year	6.48	5.77	5.41	4.74	4.06	4.39	4.22	4.31
1- 4 years	1.46	1.48	1.19	0.96	0.81	0.76	0.76	0.76
5-19 "	1.89	1.85	1.76	1.76	1.83	2.43	1.40	1.97
20-39 "	5.69	5.18	4.64	4.26	4.12	5.42	3.05	4.36
40-59 "	18.72	17.54	17.02	17.28	17.37	19.93	13.49	17.05
60-64 "	9.61	9.63	8.75	8.74	8.87	10.53	6.76	8.84
65 and over	56.12	58.52	61.20	62.24	62.92	56.51	70.31	62.69
Age not stated	0.03	0.03	0.03	0.02	0.02	0.03	0.01	0.02
<i>Total . . . . .</i>	100.00	100.00	100.00	100.00	100.00	100.00	100.00	<i>100.00</i>

(a) Excludes particulars of full-blood Aborigines before 1966.

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.

Age-specific death rates

In previous issues of the Year Book, average annual age-specific death rates, i.e. the average number of deaths per 1,000 of population in each age group, were given for each State and Australia for the periods 1932-1934, 1946-1948, 1953-1955, 1960-1962 and 1965-1967 (see Year Books, No. 37, pp. 778-9, No. 39, pp. 615-6, No. 44, pp. 640-1, No. 52, p. 253, and No. 55, p. 189). These rates were based on the age distribution of the population at the relevant censuses.

AGE-SPECIFIC DEATH RATES(a): STATES, 1971

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(b)
MALES							
Under 1(c)	19.43	15.59	20.82	17.29	21.20	17.36	19.02
1-4	0.94	0.76	1.00	0.93	1.15	1.00	0.94
5-9	0.43	0.49	0.52	0.36	0.55	0.63	0.47
10-14	0.51	0.35	0.59	0.32	0.51	0.47	0.46
15-19	1.54	1.41	1.92	1.55	1.22	2.57	1.58
20-24	1.81	1.95	2.09	1.54	1.84	2.51	1.88
25-29	1.55	1.22	1.74	1.01	1.69	1.78	1.47
30-34	1.50	1.51	1.92	1.55	1.72	1.59	1.59
35-39	2.33	2.08	2.77	2.17	2.43	2.22	2.34
40-44	3.43	3.21	4.13	2.76	3.15	3.65	3.37
45-49	6.29	6.48	6.09	5.04	5.16	6.18	6.12
50-54	10.41	10.24	10.50	8.20	8.29	10.54	10.02
55-59	17.48	16.71	17.16	15.78	15.03	15.82	16.81
60-64	27.58	26.57	26.49	23.23	25.34	24.95	26.44
65-69	43.34	44.63	37.20	39.23	40.90	39.27	41.98
70-74	66.29	65.77	58.06	65.45	63.92	67.17	164.76
75-79	102.07	105.72	91.92	93.79	101.99	93.10	100.60
80-84	144.65	157.13	142.20	143.76	161.27	132.15	147.97
85 and over	235.09	263.68	216.91	240.71	245.75	232.31	240.49
FEMALES							
Under 1(c)	15.21	13.71	17.44	14.47	16.95	9.96	15.48
1-4	0.72	0.64	1.00	0.62	1.09	0.33	0.79
5-9	0.33	0.30	0.26	0.33	0.42	0.41	0.32
10-14	0.23	0.25	0.18	0.16	0.20	0.35	0.22
15-19	0.66	0.61	0.70	0.79	0.76	0.78	0.68
20-24	0.56	0.66	0.88	0.73	0.60	0.70	0.65
25-29	0.69	0.59	0.91	0.69	0.39	0.78	0.67
30-34	0.97	0.81	1.14	1.02	0.87	0.70	0.95
35-39	1.57	1.15	1.43	1.15	1.39	1.25	1.38
40-44	2.50	2.08	2.67	1.87	1.64	1.28	2.26
45-49	3.96	3.73	4.13	2.70	3.64	3.65	3.79
50-54	5.86	5.15	6.04	4.94	4.84	5.78	5.54
55-59	9.46	7.64	8.73	6.72	8.36	7.81	8.47
60-64	13.74	13.17	12.63	11.25	11.20	13.43	13.04
65-69	21.80	21.11	18.66	20.02	20.74	21.77	20.50
70-74	38.68	37.48	30.92	35.22	35.69	38.07	36.65
75-79	65.27	64.58	57.07	55.22	59.51	67.60	62.62
80-84	107.79	105.33	98.22	95.33	93.57	112.35	103.65
85 and over	193.82	201.02	197.82	193.28	196.22	217.46	197.22

(a) Number of deaths per 1,000 of population in each age group at the Census of 30 June 1971. (b) Includes the Australian Capital Territory and the Northern Territory. (c) Infant deaths per 1,000 live births registered.

AGE-SPECIFIC DEATH RATES(a): AUSTRALIA, 1946 TO 1971(b)

Age group (years)	1946-48 (c)	1953-55 (c)	1960-62 (c)	1965-67 (c)	1967	1968	1969	1970	1971
MALES									
Under 1(d)	31.71	25.18	22.36	20.85	20.57	19.83	20.14	20.60	19.02
1-4	2.09	1.69	1.15	1.08	0.97	0.95	0.95	1.07	0.94
5-9	0.92	0.67	0.52	0.45	0.44	0.47	0.48	0.47	0.47
10-14	0.77	0.63	0.48	0.46	0.42	0.50	0.48	0.40	0.46
15-19	1.41	1.51	1.23	1.33	1.30	1.46	1.33	1.52	1.58
20-24	1.73	1.82	1.62	1.67	1.69	1.79	1.70	1.88	1.88
25-29	1.69	1.68	1.49	1.48	1.53	1.42	1.48	1.43	1.47
30-34	2.02	1.79	1.69	1.64	1.64	1.59	1.65	1.56	1.59
35-39	2.66	2.40	2.26	2.45	2.31	2.36	2.35	2.37	2.34
40-44	4.12	3.64	3.67	3.82	3.90	3.74	3.75	3.65	3.37
45-49	6.86	6.01	5.96	6.14	6.29	6.13	6.43	6.19	6.12
50-54	11.39	10.44	10.01	10.45	10.10	10.61	10.31	10.60	10.02
55-59	17.58	17.03	16.57	16.96	17.21	17.41	17.08	17.39	16.81
60-64	27.43	26.58	26.44	27.59	27.28	28.73	27.33	27.94	26.44
65-69	42.42	41.28	41.68	43.66	43.69	44.20	43.69	45.52	41.98
70-74	63.69	64.53	63.04	66.84	65.98	68.20	65.18	67.67	64.76
75-79	99.65	98.77	94.43	99.77	97.86	104.40	101.97	107.13	100.60
80-84	149.31	145.88	141.83	146.95	144.00	157.39	139.85	153.27	147.97
85 and over	253.48	248.14	243.69	241.98	230.06	266.49	239.80	244.46	240.49
FEMALES									
Under 1(d)	24.96	19.88	17.57	16.35	15.82	15.61	15.57	15.02	15.48
1-4	1.72	1.35	1.08	1.14	0.85	0.86	0.87	0.80	0.79
5-9	0.64	0.50	0.38	0.34	0.32	0.36	0.36	0.34	0.32
10-14	0.52	0.37	0.29	0.27	0.24	0.26	0.25	0.33	0.22
15-19	0.70	0.58	0.50	0.54	0.51	0.56	0.58	0.58	0.68
20-24	1.08	0.67	0.60	0.63	0.60	0.57	0.54	0.56	0.65
25-29	1.50	0.83	0.71	0.72	0.70	0.61	0.68	0.69	0.67
30-34	1.77	1.11	0.95	0.98	0.89	0.97	0.79	0.92	0.95
35-39	2.42	1.74	1.47	1.54	1.34	1.51	1.37	1.66	1.38
40-44	3.31	2.55	2.26	2.31	2.38	2.36	2.23	2.31	2.26
45-49	4.92	4.19	3.65	3.86	3.79	3.68	3.52	3.63	3.79
50-54	7.63	6.43	5.55	5.87	5.93	5.73	5.91	5.85	5.54
55-59	10.46	9.25	8.14	8.67	8.61	8.72	8.39	8.77	8.47
60-64	16.52	14.75	13.31	13.56	13.50	13.82	13.19	13.96	13.04
65-69	26.17	23.89	21.99	21.94	21.17	22.36	21.99	22.39	20.50
70-74	45.84	40.93	37.14	37.47	36.60	37.10	35.59	35.76	36.65
75-79	75.14	69.72	63.18	62.37	60.86	65.14	62.69	64.78	62.62
80-84	123.46	117.36	105.10	107.93	103.78	108.33	99.20	108.01	103.65
85 and over	222.12	213.69	210.20	119.73	193.50	217.87	191.75	198.59	197.22

(a) Number of deaths per 1,000 of population of the same age group and sex. The populations used in the calculation of these rates are based on census populations at 30 June 1947, 1954, 1961 and 1966. Rates for years 1967 to 1971 are based on population estimates revised in accordance with the final results of the 1971 Census. (b) Excludes particulars of full-blood Aborigines prior to 1965. (c) Average annual rate per 1,000 of census population, based on deaths in the three year period, i.e. census year and the years preceding and following it. (d) Infant deaths per 1,000 live births registered.

Infant deaths and death rates—States and Territories

The next table shows for each State and Territory, for the period 1946 to 1972, the number of deaths under one year of age and the rates of infant mortality under one year. Rates for Australia and the more populous countries of the world for the latest available year are shown in the table International Vital Statistics at the end of this Chapter.

INFANT MORTALITY UNDER ONE YEAR(a): STATES AND TERRITORIES, 1946 TO 1972

<i>Period</i>	<i>N.S.W.</i>	<i>Vic.</i>	<i>Qld</i>	<i>S.A.</i>	<i>W.A.</i>	<i>Tas.</i>	<i>N.T.</i>	<i>A.C.T.</i>	<i>Aust.</i>
Annual average—									
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
1961-65	1,685	1,168	696	407	350	156	28	34	4,524
1966-70	1,567	1,071	669	354	393	127	117	51	4,349
Annual total—									
1968	1,525	1,010	716	345	398	143	101	45	4,283
1969	1,625	1,066	691	347	453	139	103	58	4,482
1970	1,743	1,060	672	367	459	116	126	61	4,604
1971	1,710	1,107	766	366	464	114	170	80	4,777
1972	1,663	1,048	697	367	348	127	113	67	4,430
Annual average rate(b)—									
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
1961-65	20.32	17.92	19.69	19.07	20.73	18.46	30.76	17.80	19.42
1966-70	18.99	15.57	18.90	16.60	20.25	15.94	54.91	18.25	18.10
Annual rate(b)—									
1968	18.67	14.38	20.35	16.27	20.37	17.19	48.46	17.03	17.78
1969	18.89	15.01	18.89	15.79	21.83	16.46	45.29	18.84	17.92
1970	19.71	14.52	17.91	16.23	21.23	14.17	48.02	17.55	17.88
1971	17.37	14.66	19.16	15.92	19.14	13.70	60.03	19.80	17.29
1972	17.45	14.59	17.76	16.80	15.69	16.23	41.51	16.48	16.72

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Number of deaths of children aged under one year per 1,000 live births registered.

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.

Infant deaths and death rates—Australia

The fact that out of 642,664 male infants born from 1967 to 1971, 12,859 (20.01 per 1,000) died during the first year of life, while of 611,592 female infants only 9,474 (15.49 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(a): AUSTRALIA, 1946 TO 1971

Period	Age at death										Total under one year			
	Days		Total under one week	Weeks			Total under four weeks	Months						
	Under 1	1-6		1	2	3		1-2 (b)	3-5	6-8	9-11	Males	Fe-males	Per-sons
Annual average—														
1946-50	1,717	1,297	3,014	259	138	103	3,514	404	415	318	251	2,808	2,094	4,902
1951-55	1,631	1,250	2,881	237	109	86	3,313	396	431	316	245	2,683	2,018	4,701
1956-60	1,737	1,195	2,932	221	116	84	3,353	398	457	271	204	2,662	2,021	4,683
1961-65	1,709	1,187	2,896	191	102	71	3,260	426	417	245	176	2,596	1,928	4,524
1966-70	1,696	1,125	2,821	160	88	72	3,141	407	420	226	155	2,515	1,834	4,349
Annual total—														
1967	1,572	1,144	2,716	169	91	77	3,053	385	390	215	144	2,421	1,766	4,187
1968	1,768	1,050	2,818	146	70	72	3,106	408	394	221	154	2,452	1,831	4,283
1969	1,755	1,151	2,906	155	110	69	3,240	407	432	241	162	2,584	1,898	4,482
1970	1,857	1,150	3,007	160	90	71	3,328	459	454	215	148	2,718	1,886	4,604
1971	1,907	1,121	3,028	177	85	74	3,364	488	494	250	181	2,684	2,093	4,777
Annual average rate(c)—														
1946-50	9.45	7.14	16.59	1.43	0.76	0.56	19.34	2.22	2.29	1.75	1.38	30.08	23.70	26.98
1951-55	8.09	6.20	14.29	1.18	0.54	0.43	16.44	1.97	2.14	1.57	1.22	25.99	20.56	23.34
1956-60	7.81	5.37	13.18	0.99	0.52	0.38	15.07	1.79	2.06	1.22	0.92	23.29	18.69	21.05
1961-65	7.34	5.09	12.43	0.82	0.44	0.30	13.99	1.83	1.79	1.05	0.76	21.67	17.03	19.42
1966-70	7.06	4.68	11.74	0.66	0.37	0.30	13.07	1.69	1.75	0.94	0.65	20.40	15.67	18.10
Annual rate(c)—														
1967	6.85	4.99	11.84	0.74	0.40	0.33	13.31	1.68	1.70	0.94	0.63	20.57	15.82	18.26
1968	7.34	4.36	11.70	0.60	0.29	0.30	12.89	1.69	1.64	0.92	0.64	19.83	15.61	17.78
1969	7.02	4.60	11.62	0.61	0.44	0.28	12.95	1.63	1.73	0.96	0.65	20.14	15.57	17.92
1970	7.21	4.47	11.68	0.62	0.35	0.27	12.92	1.78	1.76	0.84	0.58	20.60	15.02	17.88
1971	6.90	4.06	10.96	0.64	0.31	0.26	12.17	1.77	1.78	0.90	0.65	19.02	15.48	17.29

(a) Excludes particulars of full-blood Aborigines before 1966. (b) Age four weeks and under three months. (c) Number of deaths of children aged under one year per 1,000 live births registered.

Plate 22 below, shows infant mortality rates for each year from 1910 to 1972.

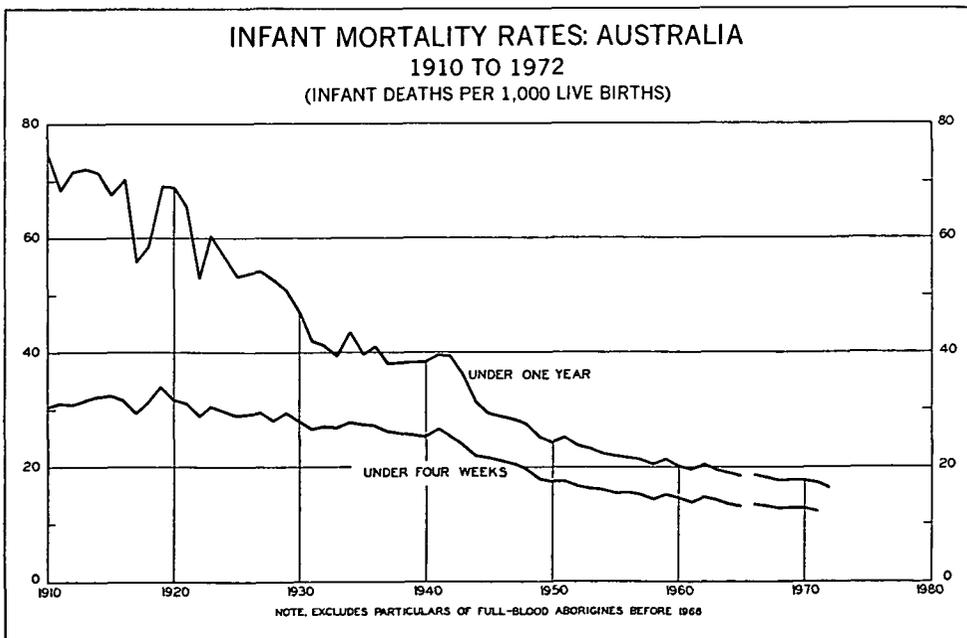


PLATE 22

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), 1955 (Seventh) and 1965 (Eighth), were successively adopted for use in Australian statistics.

The Eighth Revision of the classification (now known as the International Classification of Diseases, Injuries and Causes of Death) was used in Australia for the first time in 1968. Hence, cause of death figures for 1968 and subsequent years are not comparable, for some causes, with figures for 1967 and earlier years.

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 basis of the cause of death tabulations for 1971 which follow. Some categories have been sub-divided to show additional particulars of interest in Australian statistics. Table A shows the total number of males and females who died, the death rates per million of mean population, and the percentage of total deaths. Table B shows deaths for males and females, classified by age groups. More detailed data on causes of death will be found in the bulletin *Causes of Death* (4.7), No. 8.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1971

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS

Cause of death	Males			Females			Crude rates(a)
	ICD numbers	Number of deaths	Percentage of total	Number of deaths	Percentage of total	Crude rates(a)	
B 1 Cholera	000	..	..	..	..	..	..
B 2 Typhoid fever	001	..	..	..	..	..	..
B 3 Bacillary dysentery and amoebiasis	004, 006	6	(b)	1	3	(b)	(c)
B 4 Enteritis and other diarrhoeal diseases	008, 009	177	0.3	28	175	0.4	28
B 5 Tuberculosis of respiratory system	010-012	91	0.1	14	26	0.1	4
B 6 Other tuberculosis, including late effects	013-019	42	0.1	7	23	(b)	4
B 7 Plague	020	..	..	..	..	..	..
B 8 Diphtheria	032	..	..	1	(b)	(c)	(c)
B 9 Whooping cough	033	1	(b)	(c)	..	..	..
B10 Streptococcal sore throat and scarlet fever	034	3	(b)	(c)	..	..	..
B11 Meningococcal infection	036	13	(b)	2	10	(b)	2
B12 Acute poliomyelitis	040-043	1	(b)	(c)	..	..	..
B13 Smallpox	050	..	..	..	..	..	..
B14 Measles	055	11	(b)	2	7	(b)	1
B15 Typhus and other rickettsioses	080-083	..	..	1	(b)	(c)	(c)
B16 Malaria	084	..	..	1	(b)	(c)	(c)
B17 Syphilis and its sequelae	090-097	16	(b)	2	5	(b)	1
B18 All other infective and parasitic diseases	Remainder of 000-136	170	0.3	26	131	0.3	21
B19 Malignant neoplasms—							
(i) Digestive organs	150-159	3,187	5.2	496	2,817	5.7	443
(ii) Lung	162	2,886	4.7	449	520	1.0	82
(iii) Skin	172, 173	293	0.5	46	196	0.4	31
(iv) Breast	174	12	(b)	2	1,601	3.2	252
(v) Genital organs	180-187	1,030	1.7	160	1,118	2.3	176
(vi) Urinary organs	188, 189	570	0.9	89	272	0.5	43
(vii) Leukaemia and aleukaemia	204-207	439	0.7	68	297	0.6	47
(viii) Other malignant and lymphatic neoplasms	Remainder of 140-209	1,778	2.9	277	1,322	2.7	208
Total, B19		10,195	16.7	1,587	8,143	16.4	1,281
B20 Benign neoplasms and neoplasms of unspecified nature	210-239	90	0.1	14	99	0.2	16
B21 Diabetes mellitus	250	780	1.3	121	1,021	2.1	161
B22 Avitaminoses and other nutritional deficiency	260-269	63	0.1	10	62	0.1	10
B23 Anaemias	280-285	82	0.1	13	130	0.3	20
B24 Meningitis	320	46	0.1	7	31	0.1	5
B25 Active rheumatic fever	390-392	4	(b)	1	8	(b)	1
B26 Chronic rheumatic heart disease	393-398	464	0.8	72	467	0.9	73
B27 Hypertensive disease	400-404	659	1.1	103	970	2.0	153
B28 Ischaemic heart disease	410-414	20,116	32.9	3,131	13,457	27.1	2,117
B29 Other forms of heart disease	420-429	1,996	3.3	311	2,554	5.2	402
B30 Cerebrovascular disease	430-438	6,497	10.6	1,011	9,234	18.6	1,452
B31 Influenza	470-474	50	0.1	8	46	0.1	7
B32 Pneumonia	480-486	1,415	2.3	220	1,310	2.6	206
B33 Bronchitis, emphysema and asthma	490-493	3,151	5.2	490	760	1.5	120
B34 Peptic ulcer	531-533	355	0.6	55	197	0.4	31
B35 Appendicitis	540-543	32	0.1	5	16	(b)	3
B36 Intestinal obstruction and hernia	550-553, 560	159	0.3	25	198	0.4	31
B37 Cirrhosis of liver	571	529	0.9	82	239	0.5	38
B38 Nephritis and nephrosis	580-584	371	0.6	58	375	0.8	59
B39 Hyperplasia of prostate	600	219	0.4	34	..	..	..
B40 Abortion	640-645	..	..	..	11	(b)	..

For footnotes see end of table next page.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1971—continued

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS—continued

Cause of death	Males			Females			
	ICD numbers	Number of deaths	Percentage of total	Crude rates(a)	Number of deaths	Percentage of total	Crude rates(a)
B41 Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	630-639, 650-678	656	1.1	102	40	0.1	6
B42 Congenital anomalies	740-759	656	1.1	102	624	1.3	98
B43 Birth injury, difficult labour and other anoxic and hypoxic conditions	764-768, 772, 776	479	0.8	75	332	0.7	52
B44 Other causes of perinatal mortality	Remainder of 760-779	989	1.6	154	754	1.5	119
B45 Symptoms and ill-defined conditions	780-796	310	0.5	48	336	0.7	53
B46 (i) Arteriosclerosis	440	994	1.6	155	1,356	2.7	213
(ii) Other diseases of circulatory system	441-448, 450-458	1,018	1.7	158	818	1.6	129
(iii) Other diseases of respiratory system	460-466, 500-508, 510-519	548	0.9	85	394	0.8	62
(iv) All other diseases	Remainder of 240-738	2,114	3.5	329	2,429	4.9	382
Total, B46	4,674	7,727	7.7	727	4,997	10.1	786
BE47 Motor vehicle accidents	E810-E823	2,895	4.7	451	952	1.9	150
BE48 All other accidents	E800-E807, E825-E949	1,857	3.0	289	1,098	2.2	173
BE49 Suicide and self-inflicted injuries	E950-E959	1,150	1.9	179	588	1.2	92
BE50 All other external causes	E960-E999	260	0.4	40	144	0.3	23
All causes		61,074	100.0	9,506	49,576	100.0	7,798

(a) Number of deaths per million of estimated mean population. (b) Less than 0.05. (c) Less than 0.5.

B. CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA, 1971

ABBREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)

Cause of death(a)	Sex	Number of deaths in age groups (years)										75 and over	Not stated	Total
		Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74				
B 3 Bacillary dysentery and amoebiasis	M	..	1	..	1	..	..	..	..	1	1	2	..	6
	F	1	..	..	..	..	..	..	..	..	..	2	..	3
B 4 Enteritis and other diarrhoeal diseases	M	75	40	4	2	..	..	6	5	16	29	..	..	177
	F	62	33	5	1	..	2	6	13	15	38	..	..	175
B 5 Tuberculosis of respiratory system	M	..	..	..	..	3	1	12	18	27	30	..	..	91
	F	..	..	..	..	..	1	5	8	7	5	..	..	26
B 6 Other tuberculosis, including late effects	M	..	2	..	..	1	1	6	10	13	9	..	..	42
	F	1	..	..	..	..	4	6	4	3	5	..	..	23
B 8 Diphtheria	F	..	..	1	..	..	..	..	..	..	..	..	..	1
B 9 Whooping cough	M	..	..	..	1	..	..	..	..	..	..	..	..	1
B10 Streptococcal sore throat and scarlet fever	M	1	..	1	..	..	..	1	..	..	..	..	..	3
	F	3	2	4	1	..	1	2	..	..	..	..	..	13
B11 Meningococcal infection	M	4	2	..	1	..	..	2	1	..	..	..	..	10
	F	..	..	..	..	..	..	..	..	..	..	..	..	1
B12 Acute poliomyelitis	M	3	5	1	1	..	1	..	1	..	..	..	..	11
B14 Measles	M	1	1	3	1	..	..	..	..	..	1	..	..	7
	F	..	..	..	..	..	..	..	..	..	..	..	..	1
B15 Typhus and other rickettsioses	F	1	..	..	..	..	..	..	..	..	..	..	..	1
B16 Malaria	F	..	..	..	..	..	..	..	..	1	..	..	..	1
B17 Syphilis and its sequelae	M	2	..	..	..	..	..	2	3	5	4	..	..	16
	F	..	..	..	..	..	1	2	2	2	..	..	..	5
B18 All other infective and parasitic diseases	M	53	12	7	10	7	10	17	23	15	16	..	..	170
	F	32	7	5	4	6	4	8	17	22	26	..	..	131
B19 Malignant neoplasms—														
(i) Digestive organs	M	..	1	..	4	18	83	355	749	1,028	949	..	..	3,187
	F	1	1	2	10	15	78	256	506	760	1,188	..	..	2,817
(ii) Lung	M	..	..	..	1	5	75	346	911	1,047	501	..	..	2,886
	F	..	1	1	..	2	17	98	148	161	94	..	..	520
(iii) Skin	M	..	..	..	6	24	38	67	53	54	49	..	..	293
	F	..	..	..	5	12	24	38	30	24	63	..	..	196
(iv) Breast	M	..	..	..	..	1	1	1	3	5	2	..	..	12
	F	..	..	..	4	31	115	340	393	318	400	..	..	1,601
(v) Genital organs	M	..	..	1	16	19	13	21	108	306	546	..	..	1,030
	F	1	1	..	17	51	207	281	290	261	..	..	..	1,118
(vi) Urinary organs	M	..	2	3	3	2	8	65	126	173	188	..	..	570
	F	1	5	1	2	3	7	14	63	68	108	..	..	272
(vii) Leukaemia and aleukaemia	M	1	29	50	22	19	27	31	76	105	79	..	..	459
	F	1	19	43	25	13	17	17	43	57	62	..	..	297
(viii) Other malignant and lymphatic neoplasms	M	5	19	35	58	44	107	282	493	440	295	..	..	1,778
	F	5	11	24	40	35	76	159	291	335	346	..	..	1,322
Total, B19	M	6	52	90	110	131	352	1,168	2,519	3,158	2,609	..	..	10,195
	F	9	37	70	95	128	385	1,129	1,755	2,013	2,522	..	..	8,143

For footnote see end of table next page.

B. CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA, 1971—*continued*
 ABBREVIATED LIST OF 50 CAUSES (BASED ON THE EIGHTH REVISION OF THE INTERNATIONAL LIST)—*continued*

Cause of death(a)		Sex	Number of deaths in age groups (years)									75 and over	Not stated	Total
			Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74			
B20	Benign neoplasms and neoplasms of unspecified nature	M	3	..	2	5	5	10	5	20	30	10	..	90
		F	3	3	3	5	7	8	11	20	21	18	..	99
B21	Diabetes mellitus	M	..	..	2	6	8	20	44	155	265	280	..	780
		F	1	3	3	3	4	21	33	137	303	516	..	1,021
B22	Avitaminoses and other nutritional deficiency	M	12	3	..	1	..	1	5	9	10	22	..	63
		F	7	8	1	..	1	1	1	8	8	28	..	62
B23	Anaemias	M	1	1	2	4	..	..	2	6	17	48	..	82
		F	1	1	3	1	4	4	5	13	22	76	..	130
B24	Meningitis	M	22	2	3	..	2	1	4	2	7	3	..	46
		F	14	1	4	1	1	..	3	..	6	1	..	31
B25	Active rheumatic fever	M	..	..	1	..	..	..	..	..	1	2	..	4
		F	..	2	1	1	..	..	1	1	..	1	..	8
B26	Chronic rheumatic heart disease	M	..	1	2	15	17	39	61	108	139	82	..	464
		F	..	..	1	5	14	23	63	83	122	156	..	467
B27	Hypertensive disease	M	..	..	..	..	7	27	45	140	172	268	..	659
		F	..	..	..	..	1	24	51	109	170	615	..	970
B28	Ischaemic heart disease	M	..	..	..	7	56	534	2,207	4,914	6,161	6,233	4	20,116
		F	..	..	..	5	18	135	538	1,671	3,636	7,454	..	13,457
B29	Other forms of heart disease	M	5	3	3	18	28	44	106	215	407	1,166	1	1,996
		F	10	3	3	12	12	39	63	105	413	1,894	..	2,534
B30	Cerebrovascular disease	M	3	2	4	15	36	110	348	952	1,830	3,196	1	6,497
		F	3	2	2	14	41	141	384	755	1,866	6,025	1	9,234
B31	Influenza	M	4	2	..	..	3	..	8	2	12	19	..	50
		F	2	1	..	2	1	1	5	7	26	..	..	46
B32	Pneumonia	M	205	33	14	19	17	37	92	134	240	624	..	1,415
		F	138	41	7	10	17	22	43	77	160	795	..	1,310
B33	Bronchitis, emphysema and asthma	M	7	3	10	21	20	37	151	572	1,105	1,225	..	3,151
		F	3	5	7	21	16	33	71	141	166	297	..	760
B34	Peptic ulcer	M	..	..	..	1	4	14	43	76	101	116	..	355
		F	..	..	..	1	5	8	16	20	46	101	..	197
B35	Appendicitis	M	1	2	3	1	2	2	3	4	6	8	..	32
		F	..	..	1	..	1	..	1	3	7	3	..	16
B36	Intestinal obstruction and hernia	M	17	1	3	1	..	4	10	20	36	67	..	159
		F	23	1	..	1	4	4	12	12	27	114	..	198
B37	Cirrhosis of liver	M	1	1	5	1	8	66	168	135	111	33	..	529
		F	1	2	1	2	7	29	60	66	44	27	..	239
B38	Nephritis and nephrosis	M	1	4	3	10	9	21	36	82	86	119	..	371
		F	1	2	2	9	11	24	59	86	63	118	..	375
B39	Hyperplasia of prostate	M	..	..	..	..	..	..	..	5	48	166	..	219
B40	Abortion	F	..	..	..	2	5	4	..	..	..	..	..	11
B41	Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	F	..	..	..	12	17	11	..	..	..	..	..	40
B42	Congenital anomalies	M	471	59	29	25	7	10	14	22	15	4	..	656
		F	458	49	28	19	10	12	19	14	12	3	..	624
B43	Birth injury, difficult labour and other anoxic and hypoxic conditions	M	475	2	1	..	1	..	..	..	..	..	..	479
		F	332	..	..	..	..	..	..	..	..	..	..	332
B44	Other causes of perinatal mortality	M	987	1	..	..	1	..	..	..	..	..	..	989
		F	750	1	3	..	..	..	..	..	..	..	..	754
B45	Symptoms and ill-defined conditions	M	49	3	4	15	21	18	39	25	25	108	3	310
		F	35	3	5	11	7	11	15	13	26	209	1	336
B46	(i) Arteriosclerosis	M	..	..	..	..	1	..	10	35	175	773	..	994
		F	..	..	..	..	..	2	2	16	115	1,221	..	1,356
	(ii) Other diseases of circulatory system	M	3	1	3	7	5	26	59	180	332	402	..	1,018
		F	..	1	3	3	9	23	40	80	173	486	..	818
	(iii) Other diseases of respiratory system	M	130	13	7	6	7	7	26	75	110	167	..	548
		F	83	15	3	9	4	14	23	33	49	161	..	394
	(iv) All other diseases	M	49	32	41	82	60	118	241	413	490	587	1	2,114
		F	36	22	35	51	64	127	287	368	481	958	..	2,429
	Total, B46	M	182	46	51	95	73	151	336	703	1,107	1,929	1	4,674
		F	119	38	41	63	77	166	352	497	818	2,826	..	4,997
BE47	Motor vehicle accidents	M	11	56	180	1,107	462	271	268	235	171	132	2	2,895
		F	14	48	80	280	96	69	90	107	94	74	..	952
BE48	All other accidents	M	80	119	135	265	200	228	223	182	148	277	..	1,857
		F	60	75	32	57	32	36	53	66	112	575	..	1,098
BE49	Suicide and self-inflicted injuries	M	..	..	8	182	187	202	254	158	104	55	..	1,150
		F	..	..	3	67	108	106	139	91	57	17	..	588
BE50	All other external causes	M	4	9	7	37	41	46	57	27	27	5	..	260
		F	7	9	6	21	19	22	22	21	12	5	..	144
	All causes	M	2,684	467	579	1,977	1,358	2,259	5,743	11,483	15,616	18,896	12	61,074
		F	2,093	375	321	727	670	1,351	3,264	5,919	10,281	24,573	2	49,576

(a) Categories of the Abbreviated List for which no deaths were recorded in 1971 have been omitted from this table. For details of such categories see Table A, pages 184-5.

Causes of death—children under one year

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 1971, 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.

DEATHS OF CHILDREN UNDER ONE YEAR OF AGE, BY CAUSE OF DEATH
AUSTRALIA, 1971

Inter- national Classifi- cation of Diseases number	Cause of death	Age at death										
		Days		Total under one week	Weeks			Total under four weeks	Months			Total under one year
		Under 1	1-6		1	2	3		1-2 (a)	3-5	6-11	
760	Chronic circulatory and genito-urinary diseases in mother . . .	14	7	21	2	..	..	23	1	..	..	24
761	Other maternal conditions un-related to pregnancy . . .	72	22	94	3	1	3	101	..	..	..	101
762	Toxaemias of pregnancy . . .	76	56	132	3	..	..	135	..	1	..	137
763	Maternal ante and intrapartum infection . . .	35	5	40	2	..	1	43	..	..	..	43
764-768	Difficult labour . . .	121	62	183	5	..	..	188	1	2	..	191
769	Other complications of pregnancy and childbirth . . .	443	175	618	11	..	2	631	3	..	..	634
770	Conditions of placenta . . .	219	97	316	7	..	2	325	1	..	..	326
771	Conditions of umbilical cord . . .	29	19	48	..	..	..	48	..	..	..	48
772, 773	Birth injury without mention of cause . . .	19	31	50	4	1	3	58	1	2	1	62
774, 775	Haemolytic disease of newborn . . .	44	32	76	4	2	..	82	..	1	..	83
776	Anoxic and hypoxic conditions not elsewhere classified . . .	270	247	517	19	2	4	542	8	3	1	554
777	Immaturity unqualified . . .	224	51	275	1	1	..	277	1	1	..	279
778, 779	Other conditions of newborn . . .	16	35	51	4	1	2	58	2	1	1	62
740-759	Congenital anomalies . . .	272	212	484	71	39	25	619	136	97	77	929
000-136	Infections . . .	5	23	28	11	10	2	51	52	52	84	239
480-486	Pneumonia . . .	11	22	33	12	10	15	70	92	109	72	343
(b)	Other diseases . . .	33	23	56	14	12	10	92	139	178	137	546
E911-E913	Inhalation or ingestion of food or other object causing obstruction or suffocation, and accidental mechanical suffocation . . .	..	1	1	3	2	3	9	37	36	28	110
(c)	Other external causes . . .	4	1	5	1	4	2	12	13	11	30	66
	All causes . . .	1,907	1,121	3,028	177	85	74	3,364	488	494	431	4,777

(a) Age four weeks and under 3 months.

(b) 140-474, 490-738, 780-796.

(c) E800-E910, E914-E999.

Deaths from certain important causes

In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Eighth Revision of the International List. Certain important causes are discussed in detail below. The Abbreviated Classification numbers used in Tables A and B (pages 184-6) are indicated in parentheses for each cause or group of causes.

All forms of tuberculosis (B5, B6). 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 1.4 in 1971. The reductions in the younger age groups are much greater. In making these comparisons, consideration of the effect of the change in basis from the Fifth to the Sixth Revision of the International List is particularly important.

Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues (B19). Deaths classified under this heading according to the Sixth, Seventh and Eighth 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).

The most common sites of malignant neoplasms causing death in 1971 are identified in Table B (pages 185-6). Malignant neoplasms are predominantly diseases of advanced age, but leukaemia and aleukaemia frequently cause death at early ages.

Deaths in age groups and age-specific death rates for males and females who died from malignant neoplasms in 1971 are given in the table below, together with figures for 1950 and 1960.

**DEATHS AND DEATH RATES FROM MALIGNANT NEOPLASMS(a), BY AGE GROUP AND SEX
AUSTRALIA, 1950 TO 1971(b)**

Age group (years)	1950				1960				1971			
	Number		Rate(c)		Number		Rate(c)		Number		Rate(c)	
	M	F	M	F	M	F	M	F	M	F	M	F
Under 15	92	53	8	5	141	110	9	7	148	116	8	6
15-29	95	75	10	8	112	75	10	7	163	146	10	10
30-44	249	413	27	47	361	517	32	49	430	462	36	41
45-54	552	669	118	148	852	831	138	143	1,168	1,129	160	159
55-64	1,294	1,171	347	299	1,671	1,186	401	276	2,519	1,755	462	312
65 and over	3,072	2,694	1,014	748	4,067	3,373	1,075	679	5,767	4,535	1,291	734
Total	5,355	5,075	130	125	7,207	6,092	139	120	10,195	8,143	159	128
	(d)				(e)							

(a) Includes neoplasms of lymphatic and haematopoietic tissues. (b) Excludes particulars of full-blood Aborigines prior to 1967. (c) Number of deaths per 100,000 of population at risk. For the individual age groups, the population at risk is that estimated at 30 June. For the total of all ages, the population at risk is the calendar year mean population. (d) Includes 1 male, age not stated. (e) Includes 3 males, age not stated.

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries for the latest available year are as follows: Israel, 116; Japan, 116; South Africa (white population), 135; Poland, 138; Canada, 141; Australia, 143; United States of America, 162; Italy, 174; Uruguay, 190; Netherlands, 195; France, 206; England and Wales, 236; Scotland, 242.

Causes of infant mortality. See paragraph devoted to causes of infant deaths on page 187.

Diseases of the circulatory system (B25-B30, part B46). This class is the largest among causes of death, representing 55 per cent of total deaths in 1971. The following table shows the number of deaths and death rates per 100,000 of mean population from diseases of the circulatory system for the years 1950-71. Comparability of the figures is not significantly affected by the various revisions of the International Classification of Diseases.

**DEATHS AND DEATH RATES FROM DISEASES OF THE CIRCULATORY SYSTEM
BY SEX, AUSTRALIA, 1950 TO 1971(a)**

Year	Cerebrovascular disease				Heart disease				Other diseases of circulatory system				Total			
	Number		Rate(b)		Number		Rate(b)		Number		Rate(b)		Number		Rate(b)	
	M	F	M	F	M	F	M	F	M	F	M	F	M	F	M	F
1950	4,035	5,351	98	132	14,687	10,256	356	253	1,736	1,802	42	44	20,458	17,409	496	429
1955	4,811	6,224	103	137	16,382	11,303	352	249	1,843	1,886	40	42	23,036	19,413	495	427
1960	5,183	6,659	100	131	18,654	13,173	359	259	2,068	1,970	40	39	25,905	21,802	499	429
1965	5,809	7,835	101	139	21,843	15,546	381	275	2,029	2,071	35	37	29,681	25,452	517	450
1970	6,508	9,178	103	148	23,639	17,269	376	278	2,266	2,516	36	40	32,413	28,963	515	466
1971	6,497	9,234	101	145	22,980	17,176	358	270	2,271	2,454	35	39	31,748	28,864	494	454

(a) Excludes particulars of full-blood Aborigines prior to 1967. (b) Per 100,000 of mean population.

Accidents, poisonings and violence (BE47 to BE50). 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; injuries undetermined whether accidentally or purposely inflicted; 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. The low level of the rates and proportions for the years 1941-45 is due largely to the exclusion of deaths of defence 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), BY SEX
AUSTRALIA, 1941 TO 1971(b)

Period	Death rate from—										All violence, percentage of total deaths	
	Motor vehicle accidents		Suicide		Homicide(c)		Other violence(d)		Total violence			
	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
1941-45 .	19	5	11	5	1	1	48	21	79	31	7.30	3.48
1946-50 .	30	6	14	5	1	1	46	21	91	33	8.44	3.83
1951-55 .	38	9	15	5	2	1	44	22	99	37	9.64	4.53
1956-60 .	37	11	17	6	2	1	38	20	93	39	9.57	4.95
1961-65 .	38	13	19	9	2	1	34	19	93	42	9.54	5.50
1966-70 .	43	15	17	9	2	1	33	20	95	45	9.61	5.71
1967 .	42	14	19	11	2	1	35	20	98	47	10.08	6.11
1968 .	43	14	17	8	2	1	34	21	95	45	9.43	5.51
1969 .	44	16	17	8	2	1	30	18	92	43	9.54	5.65
1970 .	46	17	17	8	2	1	32	19	97	45	9.67	5.58
1971 .	45	15	18	9	2	1	31	18	96	44	10.09	5.61

(a) Number of deaths per 100,000 of mean population. (b) Excludes particulars of full-blood Aborigines before 1967. (c) Includes deaths from injury purposely inflicted by other persons (not in war) and legal intervention. (d) Includes deaths from injury undetermined whether accidentally or purposely inflicted.

In 1971 the total number of deaths from *accidental causes* (BE47, BE48) was 6,802 (4,752 males and 2,050 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, 3,740 (54.98 per cent); motor vehicle non-traffic accidents, 107 (1.57 per cent); other road vehicle accidents, 31 (0.46 per cent); railway accidents, 83 (1.22 per cent); water transport accidents, 101 (1.48 per cent); aircraft accidents, 41 (0.60 per cent); a total of 4,103 (60.32 per cent). Other important causes were accidental falls, 1,171 (17.22 per cent); accidental drowning (not in transport), 422 (6.20 per cent); accidents caused by fires and flames, 168 (2.47 per cent); and accidental poisonings, 119 (1.75 per cent).

Deaths from *suicide* (BE49) in 1971 numbered 1,738 (males 1,150; females, 588). Poisoning, other than by gases, occurred in 705 cases (40.56 per cent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows; firearms and explosives, 402 (23.13 per cent); poisoning by gases, 209 (12.03 per cent); hanging or strangulation 204 (11.74 per cent); submersion (drowning), 83 (4.78 per cent); other and unspecified modes, 135 (7.77 per cent). Of the 1,150 males who committed suicide, 374 (32.52 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 390 cases (66.33 per cent).

Of the 404 deaths assigned in 1971 to all other external causes (BE50), there were 228 deaths from homicide and injury purposely inflicted by other persons, 5 deaths from legal intervention by firearms, 163 deaths from injury undetermined whether accidentally or purposely inflicted (of which 76 were due to poisoning other than by gases) and 8 deaths from late effects of injury due to operations of war.

Vital statistics of External Territories

The following table shows, for the year 1971, the number of marriages, births and deaths registered in the External Territories under the control of Australia. More detailed information will be found in *Demography*, Bulletin No. 86.

EXTERNAL TERRITORIES: VITAL STATISTICS, 1971

Territory	Marriages	Births	Deaths
Christmas Island(a)	8	34	4
Cocos (Keeling) Islands(a)	11	13	5
Norfolk Island(a)	11	24	16
Papua New Guinea(b)	388	1,323	170

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

International vital statistics

In the following table vital statistics rates for certain 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*, 1971 (see explanation of true death rates, pages 177-8).

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*, 1971 (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 147 of the Population chapter.

VITAL STATISTICS RATES: CERTAIN COUNTRIES—LATEST AVAILABLE YEAR

(Source: United Nations *Demographic Yearbook*, 1971)

Country	Year	Rates(a)				True death rates(b)		
		Marriage	Birth	Death	Infant mortality	Male	Female	
Africa—								
Arab Republic of Egypt	1970	9.7	34.9	15.0	(d)119.0	1960	19.4	18.6
Ethiopia	1965-70	n.a.	45.6	25.0	(f)84.2	1965-70	26.0	
South Africa—								
Asian population	1970	8.8	33.8	7.0	(k)37.5	1959-61	17.3	16.8
Coloured population	1970	6.7	36.7	14.2	(k)121.3	1959-61	20.2	18.4
White population	1970	11.0	23.6	8.1	(k)19.4	1959-61	15.4	14.0
Morocco	1965-70	n.a.	49.5	16.5	(i)149.0	1965-70		19.8
Algeria	1965-70	(e)4.7	49.1	16.9	(h)86.3	1965-70		19.7
Tanzania	1967	n.a.	47.6	22.0	160-165	1967		24-25
Kenya	1966-70	n.a.	47.8	17.5	(d)55.0	1965-70		21.1
North America—								
United States of America	1971	10.6	17.3	9.3	19.2	1970	14.1	
Mexico	1970	7.3	43.4	9.9	68.5	1965-70	16.4	15.7
Canada	1969	8.6	17.0	7.3	19.3	1965-67	14.5	13.3
South America—								
Brazil	1966-70	(d)3.8	37.8	9.5	n.a.	1965-70		16.5
Argentina	1968	(e)6.7	21.7	9.5	(e)58.3	1965-70	15.6	14.2
Colombia	1966-70	(d)3.7	44.6	10.6	(h)70.4	1950-52	22.6	21.8
Peru	1971	(h)4.1	22.6	(c)11.1	(e)72.5	1960-65	19.0	18.0
Venezuela	1970	6.0	(c)40.9	(c)7.8	48.7	1961	15.1	
Asia—								
Indonesia	1966-70	(i)10.6	48.3	19.4	(i)125.0	1960	21.1	21.1
Pakistan	1966-70	n.a.	50.9	18.4	(j)142.0	1962	18.6	20.5
Japan	1971	10.5	19.2	6.6	12.4	1968	14.5	13.5
Philippines	1966-70	(d)6.5	44.7	12.0	(d)67.3	1946-49	20.5	18.7
Thailand	1965-70	4.2	42.8	10.4	(d)26.2	1960	18.7	17.0
Turkey	1967	n.a.	39.6	14.6	153.0	1966		18.6
Korea, Republic of	1965-70	n.a.	35.6	11.0	n.a.	1966	16.7	15.6
China, Peoples Republic	1965-70	n.a.	33.1	15.3	n.a.	1965-70		20.0
Korea, North	1965-70	n.a.	38.8	11.2	n.a.	1965-70		17.3
Sri Lanka (Ceylon)	1970	6.8	29.4	7.5	(h)50.3	1962	16.2	16.3
Nepal	1965-70	n.a.	44.6	22.9	n.a.	1965-70	24.6	
Europe—								
Germany—								
Eastern Germany	1970	7.7	13.9	14.1	18.8	1967-68	14.5	13.4
Federal Republic of	1971	7.2	12.7	11.9	(g)23.6	1966-68	14.8	13.6
United Kingdom	1971	(g)8.5	16.2	11.6	18.0	1968-70	14.6	13.4
England and Wales	1971	(g)8.5	16.0	11.6	17.6	1968-70	14.6	13.4
Northern Ireland	1971	(g)8.1	20.7	10.6	23.0	1968-70	14.7	13.6
Scotland	1971	(g)8.1	16.6	11.8	19.9	1968-70	15.0	13.7
Italy	1971	7.5	16.8	9.6	28.3	1964-67	14.7	13.6
France	1971	7.9	17.1	10.7	14.4	1969	14.8	13.3
Spain	1970	7.4	19.6	8.5	27.9	1960	14.9	13.9
Poland	1971	8.9	17.2	(g)8.2	29.7	1965-66	15.0	13.7
Yugoslavia	1971	8.9	18.2	8.7	(g)55.2	1967-68	15.6	14.5
Romania	1970	7.2	21.1	9.5	49.4	1968	15.3	14.3
Czechoslovakia	1970	8.7	15.8	11.4	22.1	1966	14.9	13.6
Netherlands	1971	9.3	18.8	8.4	11.1	1970	14.1	13.1
Hungary	1971	9.1	14.5	11.9	34.9	1968	15.0	13.9
Greece	1971	8.0	16.0	8.3	27.0	1960-62	14.8	14.1
Oceania—								
Australia	1971	9.2	21.7	8.7	17.4	1970	14.8	13.5
New Zealand	1970	9.2	22.1	8.8	16.7	1960-62	14.6	13.6
U.S.S.R.—								
Union of Soviet Socialist Republics	1971	10.0	17.8	8.2	22.9	1968-69	15.4	13.5

(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 page 177). (c) 1966-70. (d) 1969. (e) 1967. (f) 1963. (g) 1970. (h) 1968. (i) 1962. (j) 1962-65. (k) 1971.