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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 1973 for marriages and divorces and 1972 for births, deaths, and infant deaths. Comparisons have been restricted, in general, to the individual years 1969 to 1973 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), *Divorce* (13.1) (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 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 of the rest of the population.

Statistics of divorce have been shown in the chapter on Law, Order and Public Safety in previous issues of this publication.

Birth, death and marriage rates 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, statistics of births, deaths and marriages are compiled from information supplied for the registration of the event. 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 Australian 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 of births, deaths and marriages 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 of births, deaths and marriages 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 179.

Statistics of divorce are compiled from petitions filed with and decrees granted by the Supreme Court of a State or Territory.

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 minimum marriageable age at which a person is legally free to marry is 18 years for males and 16 years for females. The marriage of a female between 16 and 18 years of age is not permissible without the consent of her parents or guardians or, where this is not obtainable of a magistrate or other prescribed authority. 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)									
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—									
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
1973 . . .	40,722	30,203	16,490	10,806	9,102	3,395	513	1,469	112,700

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

CRUDE MARRIAGE RATES(a)									
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—									
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
1973 . . .	8.64	8.40	8.59	8.99	8.49	8.55	5.35	8.69	8.56

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

Previous marital status

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

**PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND
BRIDES: AUSTRALIA, 1973**

<i>Previous marital status of bridegrooms</i>	<i>Previous marital status of brides</i>			<i>Total bride- grooms</i>
	<i>Spinsters</i>	<i>Widows</i>	<i>Divorced</i>	
Bachelors . . .	94,274	1,085	4,382	99,741
Widowers . . .	827	1,746	1,041	3,614
Divorced . . .	4,849	1,075	3,421	9,345
Total brides . .	99,950	3,906	8,844	112,700

Age and previous marital status at marriage

There were 17,898 males under 21 years of age married during 1973, while the corresponding number of females was 50,433.

**AGE AND PREVIOUS MARITAL STATUS OF BRIDEGROOMS AND BRIDES
AUSTRALIA, 1973**

<i>Age at marriage (years)</i>	<i>Bridegrooms</i>				<i>Brides</i>			
	<i>Bachelors</i>	<i>Widowers</i>	<i>Divorced</i>	<i>Total</i>	<i>Spinsters</i>	<i>Widows</i>	<i>Divorced</i>	<i>Total</i>
Under 20 . . .	8,382	1	..	8,383	34,665	7	7	34,679
20-24 . . .	59,142	24	247	59,413	50,848	107	839	51,794
25-29 . . .	22,902	89	1,809	24,800	10,083	231	2,402	12,716
30-34 . . .	5,334	111	1,983	7,428	2,418	240	1,735	4,393
35-39 . . .	1,821	136	1,418	3,375	832	267	1,139	2,238
40-44 . . .	954	245	1,174	2,373	403	379	961	1,743
45-49 . . .	563	385	1,082	2,030	249	582	822	1,653
50-54 . . .	297	501	745	1,543	197	528	520	1,245
55-59 . . .	132	554	455	1,141	113	514	246	873
60-64 . . .	110	555	235	900	66	477	100	643
65 and over . .	104	1,013	197	1,314	76	574	73	723
Total . . .	99,741	3,614	9,345	112,700	99,950	3,906	8,844	112,700

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1973

<i>Age of bride- groom (years)</i>	<i>Age of bride (years)</i>								<i>Total bride- grooms</i>
	<i>Under 15</i>	<i>15-19</i>	<i>20-24</i>	<i>25-29</i>	<i>30-34</i>	<i>35-39</i>	<i>40-44</i>	<i>45 and over</i>	
Under 20 . . .	3	6,976	1,343	55	5	1	..	..	8,383
20-24 . . .	3	23,292	33,413	2,396	254	38	13	4	59,413
25-29 . . .	2	3,860	13,774	5,801	1,087	209	44	23	24,800
30-34 . . .	..	432	2,460	2,715	1,226	385	148	62	7,428
35-39 . . .	..	71	539	995	867	526	227	150	3,375
40-44 . . .	..	25	160	451	520	475	407	335	2,373
45-49 . . .	..	8	77	201	253	347	423	721	2,030
50-54 . . .	..	3	17	59	126	154	270	914	1,543
55-59 . . .	..	1	4	32	37	65	135	867	1,141
60-64 . . .	..	3	5	6	9	26	56	795	900
65 and over . .	..	..	2	5	9	12	20	1,266	1,314
Total brides	8	34,671	51,794	12,716	4,393	2,238	1,743	5,137	112,700

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 1973 were: 1969, 21.54; 1970, 21.46; 1971, 21.39; 1972, 21.41 and 1973, 21.41. The median ages, in years, of bridegrooms were: 1969, 23.78; 1970, 23.74; 1971, 23.78; 1972, 23.80 and 1973, 23.85. The difference in the median age at marriage between brides and bridegrooms is generally about two years, the difference in 1973 being 2.44 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, 1973

Country of birth of bridegroom	Country of birth of bride										Other European	Other and un-specified	Total bridegrooms
	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia				
Australia	75,090	470	4,998	577	83	289	210	632	104		506	1,333	84,292
New Zealand	974	119	120	15	..	5	3	14	2		11	54	1,317
United Kingdom and Ireland	7,032	127	2,223	117	10	44	52	107	25		114	325	10,176
Germany	1,117	23	133	157	6	9	5	23	20		74	75	1,642
Greece	309	3	23	9	1,293	10	5	5	15		11	98	1,781
Italy	1,296	8	119	31	14	1,438	31	16	20		48	85	3,106
Malta	372	3	52	5	..	9	283	6	2		3	8	743
Netherlands	1,120	9	136	19	..	7	6	151	..		25	44	1,517
Yugoslavia	340	7	42	21	16	25	11	9	1,291		59	27	1,848
Other European	971	27	130	100	9	21	7	15	40		628	135	2,083
Other and un-specified	1,887	42	295	42	69	38	12	37	26		101	1,646	4,195
Total brides	90,508	838	8,271	1,093	1,500	1,895	625	1,015	1,545		1,580	3,830	112,700

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 although the proportion of civil marriages has been increasing. The registered ministers in 1973 belonged to more than fifty different religious denominations.

MARRIAGES BY AUTHORISED CELEBRANTS: 1973

	Australia									Pro- portion of total
Category of authorised celebrant	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	No.	
Registered ministers of recognised religious denominations—										
Roman Catholic	11,152	8,775	4,288	2,089	2,268	696	115	441	29,824	26.5
Church of England	11,207	6,197	3,784	1,867	2,435	1,265	65	316	27,136	24.1
Methodist	4,352	2,740	2,419	2,347	973	466	46	58	13,401	11.9
Presbyterian	3,480	4,212	2,081	309	490	148	46	114	10,880	9.7
Orthodox	988	1,146	101	169	105	6	25	25	2,565	2.3
Baptist	737	566	337	236	138	89	3	15	2,121	1.9
Lutheran	160	275	419	596	42	5	13	16	1,526	1.4
Churches of Christ	206	589	187	316	171	19	2	15	1,505	1.3
Congregational	334	378	114	290	115	53	14	3	1,301	1.2
Salvation Army	191	179	107	73	58	35	2	11	656	0.6
Other	745	1,013	387	192	246	104	8	12	2,707	2.4
Other authorised celebrants—										
Ministers of religion	211	206	59	55	34	2	..	9	576	0.5
Civil officers	6,959	3,927	2,207	2,267	2,027	507	174	434	18,502	16.4
Grand Total	40,722	30,203	16,490	10,806	9,102	3,395	513	1,469	112,700	100.0
Proportion of total (per cent)—										
Ministers of religion	82.91	87.00	86.62	79.02	77.73	85.07	66.08	70.46	83.58	..
Civil officers	17.09	13.00	13.38	20.98	22.27	14.93	33.92	29.54	16.42	..

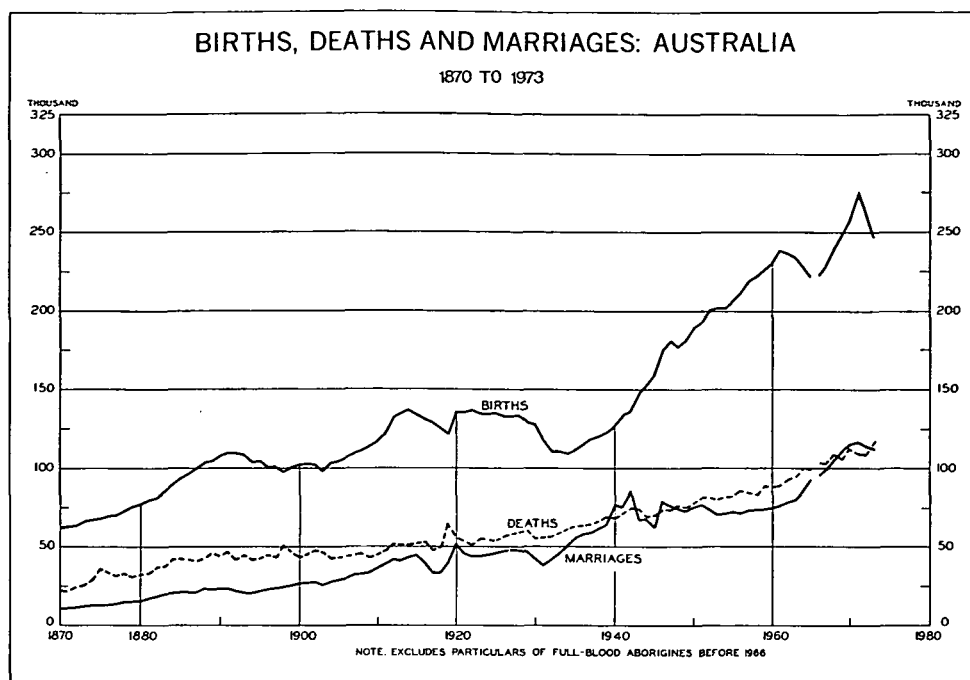


PLATE 25

Divorce and other matrimonial causes

The *Matrimonial Causes Act* 1959 came into operation on 1 February 1959, placing the divorce laws of all States and Territories on a uniform basis. Under this legislation a court may grant decrees of dissolution of marriage (divorce), nullity of marriage, judicial separation, restitution of conjugal rights, and jactitation of marriage (i.e., that a person should refrain from making a false claim that a marriage has taken place between him and another person). Orders may be made for maintenance, the custody and welfare of children, and settlement of property, and damages for adultery. The following statistics refer only to petitions for, and decrees of, dissolution, nullity, and judicial separation. A description of legislation governing divorce and other matrimonial causes in Australia is contained in Year Book No. 55, page 580.

Petitions filed

Statistics of petitions exclude cross-petitions contained in answers by respondents. The following table shows the number of petitions for dissolution of marriage, nullity of marriage, and judicial separation filed in each State and Territory during 1973.

PETITIONS FILED FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION, 1973

Petition for—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution—										
By husband . . .		2,902	2,091	939	809	816	281	64	153	8,055
By wife . . .		5,505	3,067	1,497	1,326	1,059	352	56	282	13,144
Total . . .		8,407	5,158	2,436	2,135	1,875	633	120	435	21,199
Nullity—										
By husband . . .		7	6	1	2	2	..	..	..	18
By wife . . .		18	9	6	5	..	1	1	1	41
Total . . .		25	15	7	7	2	1	1	1	59
Dissolution or nullity—										
By husband . . .		2	1	1	2	..	..	..	..	6
By wife . . .		2	5	..	3	..	..	..	..	10
Total . . .		4	6	1	5	..	..	..	..	16
Judicial separation—										
By husband . . .		10	..	7	12	1	..	..	..	1
By wife . . .		..	1	..	2	1	..	..	..	33
Total . . .		10	1	7	12	3	1	..	..	34
All petitions—										
By husband . . .	No.	2,911	2,038	941	813	819	281	64	153	8,080
	per cent	34	41	38	38	44	44	53	35	38
By wife . . .	No.	5,535	3,082	1,510	1,346	1,061	354	57	283	13,228
	per cent	66	59	62	62	56	56	47	65	62
Grand total . . .		8,446	5,180	2,451	2,159	1,880	635	121	436	21,308

Decrees granted

Statistics of decrees granted refer to decrees *nisi* made absolute except for the following cases, where no decree *nisi* is granted.

- (i) Decrees of judicial separation, which do not dissolve the marriage and may be discharged on resumption of cohabitation.
- (ii) Decrees of nullity of void marriage, as distinct from nullity of voidable marriage. A void marriage is invalid because of failure to meet a legal requirement, and the original decree of nullity is final. A valid marriage is voidable on proof of one or more of the grounds set out in Section 21 of the *Matrimonial Causes Act 1959–1966*, e.g. that either party is incapable of consummating the marriage.

The following tables show the number of dissolutions of marriage, nullities of marriage, and judicial separations granted in each State and Territory during 1973 classified according to petitioner, and the grounds on which decrees were granted during the years 1969 to 1973.

DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL SEPARATION, 1973

Decree of—		N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Dissolution—										
To husband . . .		2,606	1,200	665	585	630	186	48	91	6,011
To wife . . .		4,770	1,991	1,029	997	794	257	38	179	10,055
To both . . .		20	9	..	..	..	..	..	..	29
Total . . .		7,396	3,200	1,694	1,582	1,424	443	86	270	16,095
Nullity—										
To husband . . .		10	1	..	2	2	..	..	2	17
To wife . . .		24	10	4	4	2	1	..	1	46
Total . . .		34	11	4	6	4	1	..	3	63
Judicial separation—										
To husband . . .		..	..	2	..	..	..	..	..	..
To wife . . .		4	1	..	..	..	..	..	..	7
Total . . .		4	1	2	..	..	..	..	..	7
All decrees—										
To husband . . .	No.	2,616	1,201	665	587	632	186	48	93	6,028
	per cent	35	37	39	37	44	42	56	34	37
To wife . . .	No.	4,798	2,002	1,035	1,001	796	258	38	180	10,108
	per cent	65	62	61	63	56	58	44	66	63
To both . . .	No.	20	9	..	..	..	..	..	..	29
Grand total . . .		7,434	3,212	1,700	1,588	1,428	444	86	273	16,165

**DECREES FOR DISSOLUTION, NULLITY, AND JUDICIAL
SEPARATION, GROUNDS: AUSTRALIA**

<i>Ground</i>	<i>1969</i>	<i>1970</i>	<i>1971</i>	<i>1972</i>	<i>1973</i>
DISSOLUTION					
Single grounds—					
Desertion	4,730	5,098	5,076	5,814	5,891
Adultery	2,916	3,419	3,977	5,088	5,490
Separation	1,758	2,023	2,243	2,442	2,186
Cruelty	750	942	983	1,368	1,660
Drunkenness	136	142	165	203	224
Intoxication by drugs	4	5	4	5	3
Non-compliance with resti- tution decree	5	2	1	3	5
Refusal to consummate	32	42	29	39	41
Insanity	7	6	3	1	4
Frequent convictions	18	25	15	19	14
Imprisonment	3	3	8	7	5
Other single grounds	15	15	20	19	16
Dual grounds—					
Desertion and adultery	102	90	87	80	80
Desertion and separation	145	96	79	106	85
Desertion and cruelty	77	59	49	68	75
Desertion and drunkenness	8	14	10	10	14
Desertion and failure to pay maintenance	5	3	6	2	3
Desertion and other	4	7	5	3	5
Adultery and separation	3	4	3	7	5
Adultery and cruelty	16	17	14	26	22
Adultery and other	2	2	1	3	3
Separation and other	2	3	..	3	1
Cruelty and drunkenness	143	160	146	237	226
Cruelty and other	7	5	1	3	3
Other dual grounds	3	1	8	6	7
Three grounds or more	39	15	14	22	27
<i>Total</i>	<i>10,930</i>	<i>12,198</i>	<i>12,947</i>	<i>15,584</i>	<i>16,095</i>
NULLITY					
Bigamy	14	15	23	9	15
Invalid marriage	1	..	1	3	1
Incapacity to consummate	28	29	15	34	44
Other grounds	3	1	4	3	3
<i>Total</i>	<i>46</i>	<i>45</i>	<i>43</i>	<i>49</i>	<i>63</i>
JUDICIAL SEPARATION					
Desertion . . . . .	..	..	1	..	4
Adultery	1	3	2	2	2
Cruelty	5	..	5	1	..
Other grounds	2	3	4	..	1
<i>Total</i>	<i>8</i>	<i>6</i>	<i>12</i>	<i>3</i>	<i>7</i>
ALL DECREES					
<i>Grand total</i>	<i>10,984</i>	<i>12,249</i>	<i>13,002</i>	<i>15,636</i>	<i>16,165</i>

Divorced persons at each census, 1921 to 1971

The following table shows the number and proportion of divorced persons in Australia as recorded from returns supplied at each census from 1921 to 1971. A classification of divorced persons by ages for the censuses from 1891 to 1947 appeared in earlier issues of the Year Book (*see* No. 39, page 269). The number of divorced persons at the 1911 Census is shown in Year Book No. 58, page 453. Before 1911 no record was made of divorced persons in South Australia, so comparisons cannot be made prior to that date.

DIVORCED PERSONS AT CENSUS DATES: AUSTRALIA, 1921 TO 1971

Sex	Number							Number per 10,000 of males or females 15 years of age and over						
	1921	1933	1947	1954	1961	1966	1971	1921	1933	1947	1954	1961	1966	1971
Males	4,233	10,298	25,052	32,389	38,640	42,908	61,479	23	42	89	100	105	105	136
Females	4,304	10,888	27,516	36,650	43,339	51,174	71,421	24	46	96	115	119	125	157

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 188-9.

Number of live births

Plate 25, page 175, 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. From 1966 to 1971 annual births rose as increasing numbers of young women reached marriageable age, but in 1972 and 1973 the numbers fell with a further decline in fertility.

LIVE BIRTHS(a)

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—									
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
1973	87,332	67,123	38,067	20,407	20,510	7,326	2,809	4,096	247,670

(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 1969 to 1973.

MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA 1946-1973

	1946-50	1951-55	1956-60	1961-65	1966-70	1969	1970	1971	1972	1973
Total births	105.60	105.19	105.65	105.83	105.41	105.22	105.12	104.34	105.47	105.19
Ex-nuptial births	104.46	103.36	104.49	106.88	105.11	103.95	106.96	106.05	106.38	104.69

(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 181-3. The difference between the crude birth rate and the crude death rate is the rate of natural increase (the hatched area in plate 26, page 180). In the past 100 years the crude birth rate has shown a general downward trend. From 1967 to 1971 there was a small upward movement, as a consequence of the increasing number of young women from the postwar baby boom reaching maturity. There was again a decline after 1971.

CRUDE BIRTH RATES(a)

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—									
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
1973	18.52	18.66	19.83	16.97	19.12	18.46	29.30	24.24	18.81

(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 1972—New South Wales, 20.46; Victoria, 20.17; Queensland, 20.84; South Australia, 18.29; Western Australia, 21.02; Tasmania, 20.00; Northern Territory, 30.16 and Australian Capital Territory, 25.23.

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.

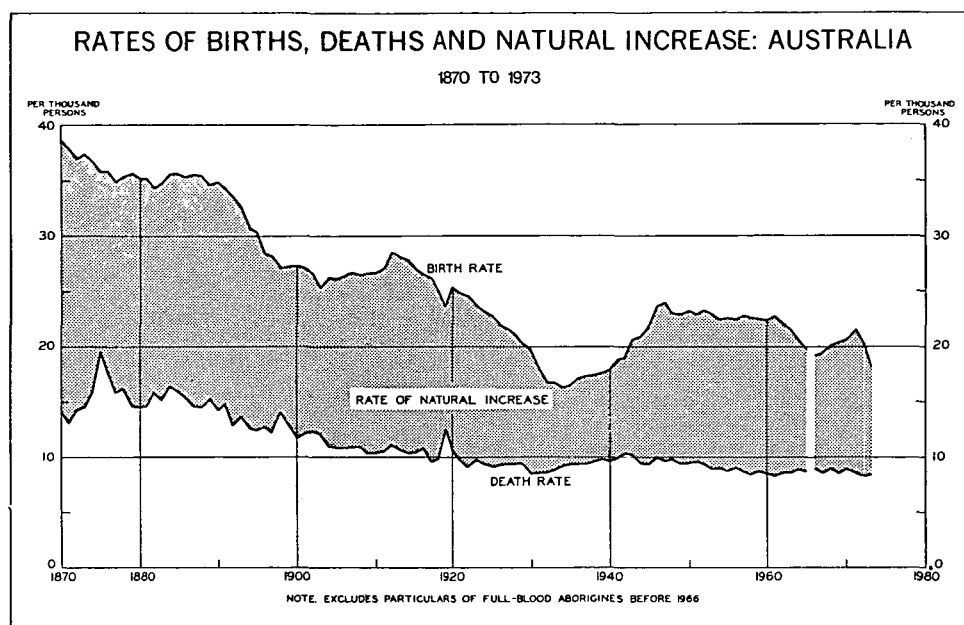


PLATE 26

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 birthrate 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)		
	Fertility rates			Fertility rates		
	Crude birth rate(b)	Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years	Crude birth rate(b)	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 . . .	20.8	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.

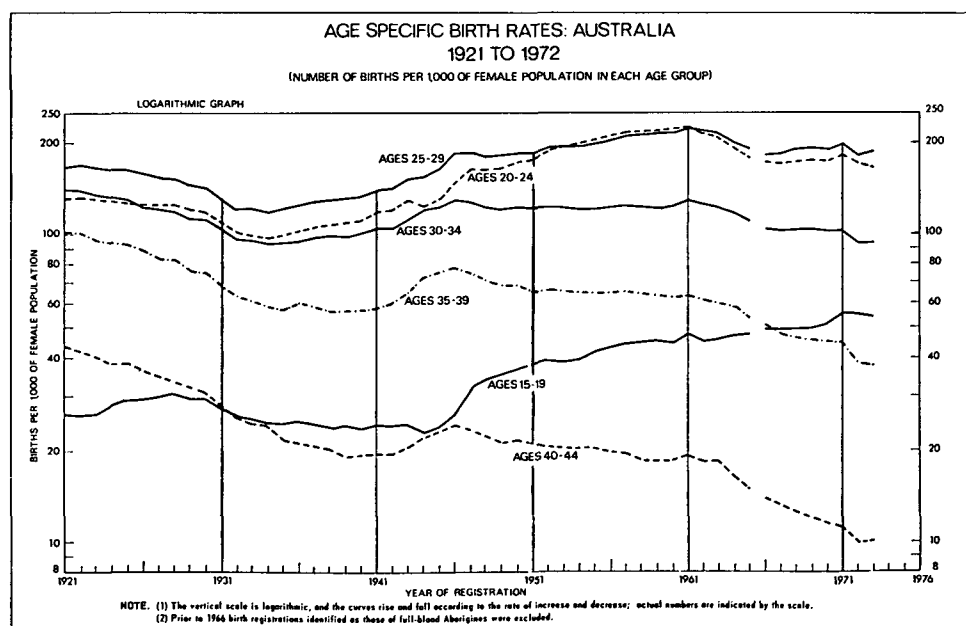
Total fertility is obtained by summing single age specific rates or by summing five-year age-specific rates and multiplying by 5. This total, divided by 1000, represents the hypothetical number of children a woman would bear during her lifetime if she experienced the rates of the year shown.

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 to 2.7 in 1972.

AGE-SPECIFIC BIRTH RATES(a): AUSTRALIA

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
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	55.50	181.87	193.50	101.78	44.15	11.31	0.78	2.944
1972	54.44	168.66	181.65	94.03	38.87	10.01	0.74	2.742

(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

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	1.401	(e)1.357	1971	1.441	(e)1.397
1967	1.385	(e)1.342	1972	1.334	(e)1.294

(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 recently for various countries. 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 1973, Office of Population Research, Princetown University)

Country	Period	Reproduction rate		Country	Period	Reproduction rate	
		Gross	Net			Gross	Net
Panama	1970	2.49	2.25	England and Wales	1971	1.16	1.13
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	1969	1.93	1.85	Yugoslavia	1969	1.17	1.09
Israel	1968	1.85	1.78	Canada	1971	1.05	1.03
Romania	1968	1.70	1.60	Germany, Dem. Rep.	1967	1.14	1.10
Chile	1967	1.89	1.66	Belgium	1969	1.09	1.06
Iceland	1967	1.59	1.55	Greece	1969	1.13	1.07
New Zealand	1970	1.49	1.45	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	1970	1.01	0.97
Netherlands	1968	1.32	1.29	Denmark	1970	0.95	0.93
Norway	1971	1.22	1.19	Hungary	1969	0.98	0.93
Portugal	1967	1.39	1.25	Sweden	1970	0.94	0.92
France	1969	1.23	1.20	Finland	1969	0.90	0.86
Austria	1971	1.08	1.04				

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

Births occurring in—	Duration of marriage (years)										
	Under 1	1	2	3	4	Total under 5	5-9	10-14	15-19	20 and over	Total
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
1966	324	258	282	260	215	1,339	633	238	84	19	2,318
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
1972	257	220	260	258	225	1,220	638	203	64	15	2,140

(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 1957-58.

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

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	2,441
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	2,109	..
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	1,324	..	..
1968-69	290	526	805	1,063	..	..	..
1969-70	278	518	778	..	..	..	..
1970-71	282	502	..	..	..	..	..
1971-72	257	..	..	..	..	..	..

(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 1972 they comprised 9.68 per cent of all births. The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1972 and for Australia at intervals from 1946 to 1972 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, 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number	9,766	5,001	5,185	1,803	2,632	695	356	221	25,659
Proportion of total births %	10.25	6.96	13.21	8.25	11.87	8.88	13.08	5.44	9.68

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

	Annual average					1968	1969	1970	1971	1972
	1946-50	1951-55	1956-60	1961-65	1966-70					
Number	7,349	7,999	10,027	13,798	18,937	19,171	19,585	21,367	25,629	25,659
Rates(b)	0.95	0.91	1.02	1.25	1.57	1.60	1.60	1.71	2.01	1.97
Proportion of total births %	4.04	3.97	4.51	5.92	7.88	7.96	7.83	8.30	9.27	9.68

(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 1972 was 3,800.

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, 1972

	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
LIVE BIRTHS									
Single births .	93,358	70,258	38,547	21,459	21,763	7,667	2,686	3,981	259,719
Twins .	1,891	1,535	689	382	411	154	33	82	5,177
Other multiple .	29	14	15	3	3	3	3	3	73
Total .	95,278	71,807	39,251	21,844	22,177	7,824	2,722	4,066	264,969
Of which—									
Males .	48,928	36,842	20,128	11,299	11,337	3,935	1,433	2,107	136,009
Females .	46,350	34,965	19,123	10,545	10,840	3,889	1,289	1,959	128,960
STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE									
Twins .	29	7	15	..	9	2	3	2	67
Other multiple .	2	1	..	..	..	..	..	..	3
CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE									
Nuptial .	84,669	66,087	33,766	19,860	19,359	7,058	2,352	3,804	236,955
Ex-nuptial .	9,659	4,947	5,138	1,791	2,615	688	353	220	25,411
Total .	94,328	71,034	38,904	21,651	21,974	7,746	2,705	4,024	262,366

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 187.

Multiple births recorded during 1972 comprised 2,622 cases of twins, 24 cases of triplets, and one case of other multiple births the resulting number of live-born and stillborn children respectively 5,177 and 67 for twins, 70 and 2 for triplets, 3 and 1 for other multiple births. This represents an average of 9.99 recorded cases of twins and 0.09 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 100 mothers and mothers of triplets 1 in every 10,932. Total cases of multiple births represented 10.09 per 1,000 confinements or 1 in every 99 mothers.

Confinements—relative ages of parents

The relative ages of the parents of children whose births were registered in 1972 have been tabulated separately for total nuptial and ex-nuptial confinements and for nuptial multiple confinements in *Births*, 1972 (4.4).

CONFINEMENTS, BY RELATIVE AGES OF PARENTS: AUSTRALIA, 1972

Age of father (years)	Age of mother (years)									Total
	Under 15	15-19	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	
Under 20	6	3,771	580	14	2	..	..	..	1	4,374
20-24	7	12,901	33,847	3,537	191	21	4	1	..	50,509
25-29	3	2,479	38,590	42,979	3,195	254	24	4	1	87,529
30-34	3	387	7,216	28,827	16,655	1,423	94	3	1	54,609
35-39 . . . . .	..	87	1,294	6,199	10,845	5,460	431	11	..	24,327
40-44 . . . . .	..	14	302	1,347	3,352	4,163	1,561	41	2	10,782
45-49	2	16	95	337	727	1,212	981	130	..	3,500
50-54	1	4	30	93	185	247	242	38	..	840
55-59 . . . . .	..	4	12	33	62	74	48	18	..	251
60-64 . . . . .	..	4	1	15	17	19	18	5	..	79
65 and over(a)	5	29	44	15	24	14	14	4	6	155
Total nuptial	27	19,696	82,011	83,396	35,255	12,887	3,417	255	11	236,955
Total ex-nuptial	146	10,366	7,908	3,846	1,858	958	288	28	13	25,411
Total	173	30,062	89,919	87,242	37,113	13,845	3,705	283	24	262,366

(a) Includes 110 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 1972.

**NUPTIAL CONFINEMENTS, BY RELATIVE COUNTRIES OF BIRTH OF PARENTS
AUSTRALIA, 1972**

Country of birth of mother												
Country of birth of father	Australia	New Zealand	United Kingdom and Ireland	Germany	Greece	Italy	Malta	Netherlands	Yugoslavia	Other European	Other and unspecified	Total fathers
Australia . . .	151,169	858	8,223	1,480	140	526	389	1,478	134	739	1,745	166,881
New Zealand . . .	1,052	590	127	19	..	3	4	21	2	19	46	1,883
United Kingdom and Ireland . . .	10,554	201	8,996	215	17	56	98	204	13	181	498	21,033
Germany . . .	1,957	20	279	693	6	30	27	62	26	153	110	3,363
Greece . . .	465	6	40	19	6,474	24	6	5	23	37	182	7,281
Italy . . .	2,239	20	237	95	39	7,760	70	64	43	109	156	10,832
Malta . . .	684	4	111	25	2	13	1,560	24	4	7	30	2,464
Netherlands . . .	2,172	24	259	73	4	14	22	954	8	49	94	3,673
Yugoslavia . . .	649	5	83	118	68	98	17	30	4,373	123	47	5,611
Other European . . .	1,706	45	298	259	50	49	19	71	72	1,884	183	4,636
Other and unspecified	2,438	76	455	96	163	69	27	91	24	143	5,716	9,298
Total mothers	175,085	1,849	19,108	3,092	6,963	8,642	2,239	3,004	4,722	3,444	8,807	236,955

Confinements—age, duration of marriage and issue of mothers

The total number of nuptial confinements resulting in live births in 1972 was 236,955, comprising 234,563 single births, 2,370 cases of twins, 21 cases of triplets, one case 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 1972 the average size of family increased fairly uniformly with the duration of the marriage. However, the average issue relates only to those women who gave birth in 1972. 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 1972 was 2.17 compared with 2.22 in 1971, 2.27 in 1970, 2.30 in 1969, and 2.34 in 1968.

**NUPTIAL CONFINEMENTS BY DURATION OF
MARRIAGE, AND AVERAGE ISSUE OF MOTHERS
AUSTRALIA, 1972**

Duration of marriage	Total nuptial confinements	Average issue of mother
Under 1 year . . .	30,696	1.03
1 year . . .	27,537	1.23
2 years . . .	31,655	1.54
3 " . . .	30,337	1.79
4 " . . .	25,021	2.05
5 " . . .	19,966	2.32
6 " . . .	16,285	2.60
7 " . . .	12,413	2.88
8 " . . .	9,353	3.16
9 " . . .	7,055	3.40
10-14 years . . .	18,553	4.00
15-19 " . . .	5,999	5.11
20-24 " . . .	1,368	6.45
25 years and over . . .	101	7.68
Not stated . . .	616	3.41
Total . . .	236,955	2.17

**NUPTIAL CONFINEMENTS, BY AGE OF MOTHER AND PREVIOUS ISSUE
AUSTRALIA, 1972**

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	16,246	43,163	24,936	5,407	1,567	330	29	5	91,683	
1	3,219	29,015	31,517	8,686	2,096	441	20	2	74,996	
2	242	7,715	17,963	9,901	2,712	537	21	1	39,092	
3	14	1,689	6,194	6,222	2,500	528	30	..	17,177	
4	2	347	1,887	2,853	1,567	435	29	2	7,122	
5 . . . . .	..	67	618	1,200	1,025	365	27	..	3,302
6 . . . . .	..	14	185	539	651	252	26	..	1,667
7 . . . . .	..	1	80	249	342	192	29	..	893
8 . . . . .	..	..	15	121	202	131	11	..	480
9 and over . . . . .	..	..	1	77	225	206	33	1	543
Total married mothers	19,723	82,011	83,396	35,255	12,887	3,417	255	11	236,955	

Multiple births—previous issue of mothers

Of married mothers of twins in 1972, 732 had no previous issue either living or dead, 767 had one child previously, 438 had two previous issue, 230 three, 100 four, 51 five, 26 six, 12 seven, 5 eight, and 9 had previous issue of nine or more. Of the 21 cases of nuptial triplets, and one case of other multiple births registered during 1972, 8 mothers had no previous issue, 6 had one, 1 had two, 4 had three and 3 had six 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 1972, 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, 1972**

Age of mother (years)										
Duration of marriage	Under 20	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated	Total	
Under 8 months	11,807	7,649	1,322	422	126	35	4	1	21,366	
8 months	338	831	273	101	39	2	..	..	1,584
9 "	523	1,339	463	176	42	11	2	..	2,556	
10 "	443	1,252	434	135	58	7	..	..	2,329
11 "	383	1,167	395	146	50	11	1	..	2,153	
Total under 1 year	13,494	12,238	2,887	980	315	66	7	1	29,988	
1 year and under 2 years	2,230	13,408	4,417	1,151	391	79	5	..	21,681	
2 years " " 3 "	358	9,909	4,753	779	195	44	3	..	16,041	
3 " " " 4 "	48	5,166	4,651	580	140	28	3	..	10,616	
4 " " " 5 "	6	1,746	3,583	394	77	18	1	..	5,825	
5 " " " 10 "	1	656	4,563	1,158	225	35	4	1	6,643	
10 " " " 15 " . . . . .	..	1	69	339	126	23	2	..	560
15 years and over . . . . .	..	..	..	14	90	33	2	..	139
Not stated	109	39	13	12	8	4	2	3	190	
Total	16,246	43,163	24,936	5,407	1,567	330	29	5	91,683	

The following table shows for nuptial confinements, a comparison between the numbers of mothers having their first confinement and those having a subsequent confinement.

**NUPTIAL FIRST BIRTHS AND SUBSEQUENT CONFINEMENTS(a)
AUSTRALIA**

<i>Period</i>	<i>Nuptial confinements</i>			<i>Proportion of first to total nuptial confinements (per cent)</i>
	<i>First</i>	<i>Other</i>	<i>Total</i>	
<i>Annual average—</i>				
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
<i>Annual total—</i>				
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
1972	91,683	145,272	236,955	38.69

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

Stillbirths

For 1972, statistics of stillbirths have been compiled on the basis of amended legislation which 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. Comparisons of the figures and rates prior to 1972 are affected by the differences in the definitions adopted by the various states.

STILLBIRTHS(a)

<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>
<i>Annual average—</i>									
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	341	215	192	86	(c)39	27	2,543
<i>Annual total—</i>									
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
1972 . . .	1,151	842	429	229	258	88	(c)44	48	3,089

(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: 1968, 13; 1969, 13; 1970, 14; 1971, 3; 1972, 11. The Registration Ordinance requires registration of any foetal death of at least twenty weeks gestation.

PROPORTION OF STILLBIRTHS(a)

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	9.5	10.0	9.8	10.7	18.3	9.7	10.5
Annual rate—									
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	7.9	8.4	10.0	9.0
1972	11.9	11.6	10.8	10.4	11.5	11.1	15.9	11.7	11.5

(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. Stillbirths, although registered as both births and deaths in some States are excluded from the death statistics.

DEATHS(a)

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—									
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	41,652	29,856	16,598	9,764	7,441	3,227	553	669	109,760
1973—									
Males	22,663	16,562	9,633	5,501	4,586	1,894	375	374	61,588
Females	18,459	14,134	7,099	4,334	3,259	1,453	205	291	49,234
Persons	41,122	30,696	16,732	9,835	7,845	3,347	580	665	110,882

(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)

<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—									
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	7.37	4.15	8.66
1972	8.91	8.39	8.86	8.21	7.04	8.21	6.04	4.26	8.45
1973—									
Males	9.60	9.22	9.96	9.18	8.36	9.51	7.20	4.32	9.32
Females	7.84	7.85	7.46	7.18	6.22	7.35	4.68	3.53	7.51
Persons	8.72	8.53	8.72	8.18	7.31	8.43	6.05	3.93	8.42

(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 1973 is shown on plate 26 page 180.

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

Period	True death rate(a)	
	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
1972	14.66	13.34

(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 1960s. 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, 28-32 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 is given for Australia in the following table.

DEATHS, BY AGE AT DEATH AND SEX: AUSTRALIA, 1972

<i>Age at death</i>	<i>Males</i>	<i>Fe- males</i>	<i>Per- sons</i>	<i>Age at death</i>	<i>Males</i>	<i>Fe- males</i>	<i>Per- sons</i>
Under 1 week	1,704	1,174	2,878	5-9 years	272	192	464
1 week and under 2 weeks	66	75	141	10-14 "	261	158	419
2 weeks and under 3 weeks	46	43	89	15-19 "	860	305	1,165
3 weeks and under 4 weeks	33	34	67	20-24 "	968	315	1,283
<i>Total under 4 weeks</i>	<i>1,849</i>	<i>1,326</i>	<i>3,175</i>	25-29 "	646	299	945
4 weeks and under 3 months	269	187	456	30-34 "	613	348	961
3 months and under 6 months	267	183	450	35-39 "	834	465	1,299
6 months and under 12 months	192	157	349	40-44 "	1,396	810	2,206
<i>Total under 1 year</i>	<i>2,577</i>	<i>1,853</i>	<i>4,430</i>	45-49 "	2,436	1,353	3,789
1 year	198	165	363	50-54 "	3,333	1,860	5,193
2 years	129	87	216	55-59 "	4,927	2,568	7,495
3 "	104	60	164	60-64 "	6,734	3,343	10,077
4 "	74	66	140	65-69 "	7,694	4,256	11,950
<i>Total under 5 years</i>	<i>3,082</i>	<i>2,231</i>	<i>5,313</i>	70-74 "	8,233	5,859	14,092
				75-79 "	7,524	7,433	14,957
				80-84 "	6,272	7,962	14,234
				85 years and over	5,022	8,885	13,907
				Age not stated	9	2	11
				<i>Total all ages</i>	<i>61,116</i>	<i>48,644</i>	<i>109,760</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 and for the latest available year.

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

<i>Age at death (years)</i>						1972		
	1946-50	1951-55	1956-60	1961-65	1966-70	<i>Males</i>	<i>Females</i>	<i>Persons</i>
Under 1 year	6.48	5.77	5.41	4.74	4.06	4.22	3.81	4.04
1-4 years	1.46	1.48	1.19	0.96	0.81	0.83	0.78	0.80
5-19 "	1.89	1.85	1.76	1.76	1.83	2.28	1.35	1.87
20-39 "	5.69	5.18	4.64	4.26	4.12	5.01	2.93	4.09
40-59 "	18.72	17.54	17.02	17.28	17.37	19.79	13.55	17.02
60-64 "	9.61	9.63	8.75	8.74	8.87	11.02	6.87	9.18
65 and over	56.12	58.52	61.20	62.24	62.92	56.85	70.71	62.99
Age not stated	0.03	0.03	0.03	0.02	0.02	0.01	0.00	0.01
<i>Total</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<i>100.00</i>	<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): 1972

Age group (years)	N.S.W.	Vic.	Qld	S.A.	W.A.	Tas.	Aust.(b)
MALES							
Under 1(c)	20.10	15.98	19.80	18.72	17.61	20.29	18.93
1-4	0.94	0.95	1.07	1.07	0.95	1.05	0.99
5-9	0.46	0.42	0.43	0.44	0.45	0.40	0.44
10-14	0.37	0.41	0.49	0.45	0.44	0.28	0.41
15-19	1.37	1.32	1.88	1.34	1.49	2.36	1.47
20-24	1.65	1.61	2.14	1.43	1.70	1.88	1.72
25-29	1.34	1.03	1.51	1.17	1.31	1.74	1.26
30-34	1.41	1.19	1.73	1.26	1.65	2.47	1.44
35-39	2.23	2.11	2.59	1.77	2.15	1.58	2.19
40-44	3.47	3.41	3.97	3.34	2.72	2.96	3.46
45-49	6.69	5.87	6.19	5.63	5.17	4.42	6.14
50-54	10.06	9.29	10.90	9.47	7.72	9.06	9.70
55-59	17.01	16.15	16.89	15.65	14.52	15.26	16.36
60-64	29.06	25.67	27.23	25.22	24.59	26.44	27.08
65-69	41.91	41.40	39.54	42.03	37.75	43.14	41.11
70-74	67.98	66.34	59.63	59.91	61.83	65.12	64.94
75-79	105.69	103.11	90.22	97.90	93.78	90.74	100.29
80-84	150.97	152.32	135.45	141.03	145.20	143.29	147.14
85 and over	246.26	249.00	211.11	238.34	252.34	204.91	239.04
FEMALES							
Under 1(c)	14.66	12.72	15.36	14.47	12.66	11.69	14.38
1-4	0.70	0.59	0.93	0.60	1.09	1.16	0.77
5-9	0.30	0.34	0.41	0.35	0.28	0.37	0.33
10-14	0.26	0.20	0.37	0.33	0.25	0.20	0.26
15-19	0.57	0.56	0.61	0.57	0.49	0.38	0.55
20-24	0.54	0.62	0.80	0.33	0.56	0.52	0.59
25-29	0.58	0.64	0.68	0.56	0.43	1.04	0.62
30-34	0.90	0.79	1.05	0.86	0.81	0.61	0.87
35-39	1.42	1.00	1.42	0.98	1.45	1.54	1.29
40-44	2.34	2.04	2.51	1.66	1.61	2.69	2.16
45-49	3.79	3.25	4.12	3.01	3.12	3.28	3.56
50-54	5.97	5.21	5.59	4.38	4.83	4.87	5.47
55-59	8.54	8.38	8.65	8.25	6.99	8.64	8.40
60-64	13.11	12.99	12.38	11.43	11.57	12.36	12.68
65-69	21.41	20.73	19.42	18.45	18.34	19.48	20.34
70-74	36.07	35.01	33.18	30.70	30.93	39.38	34.65
75-79	62.19	60.26	55.90	54.68	58.63	57.31	59.64
80-84	103.35	106.06	99.40	94.68	95.75	106.76	102.28
85 and over	190.27	194.10	184.83	178.92	181.42	200.75	188.82

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

AGE-SPECIFIC DEATH RATES(a)(b): AUSTRALIA

Age group (years)	1946-48 (c)	1953-55 (c)	1960-62 (c)	1965-67 (c)	1970-72 (c)	1969	1970	1971	1972
MALES									
Under 1(d)	31.71	25.18	22.36	20.85	19.50	20.14	20.60	19.02	18.93
1- 4	2.09	1.69	1.15	1.08	1.00	0.95	1.07	0.94	0.99
5- 9	0.92	0.67	0.52	0.45	0.46	0.48	0.47	0.47	0.44
10-14	0.77	0.63	0.48	0.46	0.42	0.48	0.40	0.46	0.41
15-19	1.41	1.51	1.23	1.33	1.54	1.33	1.52	1.58	1.47
20-24	1.73	1.82	1.62	1.67	1.83	1.70	1.88	1.88	1.72
25-29	1.69	1.68	1.49	1.48	1.39	1.48	1.43	1.47	1.26
30-34	2.02	1.79	1.69	1.64	1.52	1.65	1.56	1.59	1.44
35-39	2.66	2.40	2.26	2.45	2.29	2.35	2.37	2.34	2.19
40-44	4.12	3.64	3.67	3.82	3.49	3.75	3.65	3.37	3.46
45-49	6.86	6.01	5.96	6.14	6.08	6.43	6.19	6.12	6.14
50-54	11.39	10.44	10.01	10.45	10.05	10.31	10.60	10.02	9.70
55-59	17.58	17.03	16.57	16.96	16.80	17.08	17.39	16.81	16.36
60-64	27.43	26.58	26.44	27.59	27.13	27.33	27.94	26.44	27.08
65-69	42.42	41.28	41.68	43.66	42.72	43.69	45.52	41.98	41.11
70-74	63.69	64.53	63.04	66.84	65.21	65.18	67.67	64.76	64.94
75-79	99.65	98.77	94.43	99.77	102.26	101.97	107.13	100.60	100.29
80-84	149.31	145.88	141.83	146.95	148.51	139.85	153.27	147.97	147.14
85 and over	253.48	248.14	243.69	241.98	239.96	239.80	244.46	240.49	239.04
FEMALES									
Under 1(d)	24.96	19.88	17.57	16.35	14.96	15.57	15.02	15.48	14.38
1- 4	1.72	1.35	1.08	1.14	0.79	0.87	0.80	0.79	0.77
5- 9	0.64	0.50	0.38	0.34	0.33	0.36	0.34	0.32	0.33
10-14	0.52	0.37	0.29	0.27	0.27	0.25	0.33	0.22	0.26
15-19	0.70	0.58	0.50	0.54	0.61	0.58	0.58	0.68	0.55
20-24	1.08	0.67	0.60	0.63	0.59	0.54	0.56	0.65	0.59
25-29	1.50	0.83	0.71	0.72	0.66	0.68	0.69	0.67	0.62
30-34	1.77	1.11	0.95	0.98	0.91	0.79	0.92	0.95	0.87
35-39	2.42	1.74	1.47	1.54	1.43	1.37	1.66	1.38	1.29
40-44	3.31	2.55	2.26	2.31	2.23	2.23	2.31	2.26	2.16
45-49	4.92	4.19	3.65	3.86	3.64	3.52	3.63	3.79	3.56
50-54	7.63	6.43	5.55	5.87	5.59	5.91	5.85	5.54	5.47
55-59	10.46	9.25	8.14	8.67	8.51	8.39	8.77	8.47	8.40
60-64	16.52	14.75	13.31	13.56	13.15	13.19	13.96	13.04	12.68
65-69	26.17	23.89	21.99	21.94	21.29	21.99	22.39	20.50	20.34
70-74	45.84	40.93	37.14	37.47	36.12	35.59	35.76	36.65	34.65
75-79	75.14	69.72	63.18	62.37	62.35	62.69	64.78	62.62	59.64
80-84	123.46	117.36	105.10	107.93	103.78	99.20	108.01	103.65	102.28
85 and over	222.12	213.69	210.20	119.73	194.37	191.75	198.59	197.22	188.82

(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, 1966 and 1971. (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 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)

<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	408	350	156	28	34	4,524
1966-70	1,567	1,071	669	354	393	127	117	51	4,349
Annual total—									
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
1973	1,491	958	666	276	394	137	100	63	4,085
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)—									
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
1973	17.07	14.27	17.50	13.52	19.21	18.70	35.60	15.83	16.49

(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 660,993 male infants born from 1968 to 1972, 13,015 (19.69 per 1,000) died during the first year of life, while of 628,936 female infants only 9,561 (15.20 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

Period	Age at death											Total under one year		
	Days		Total under one week	Weeks			Total under four weeks	Months						
	Under			1	2	3		1-2 (h)	3-5	6-8	9-11			
	1	1-6												
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—														
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
1972	1,924	954	2,878	141	89	67	3,175	456	450	223	126	2,577	1,853	4,430
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)—														
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	0.27	12.17	1.77	1.78	0.90	0.65	19.02	15.48	17.29
1972	7.26	3.60	10.86	0.53	0.34	0.25	11.98	1.72	1.70	0.84	0.48	18.95	14.37	16.72

(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 28 below, shows infant mortality rates for each year from 1910 to 1972.

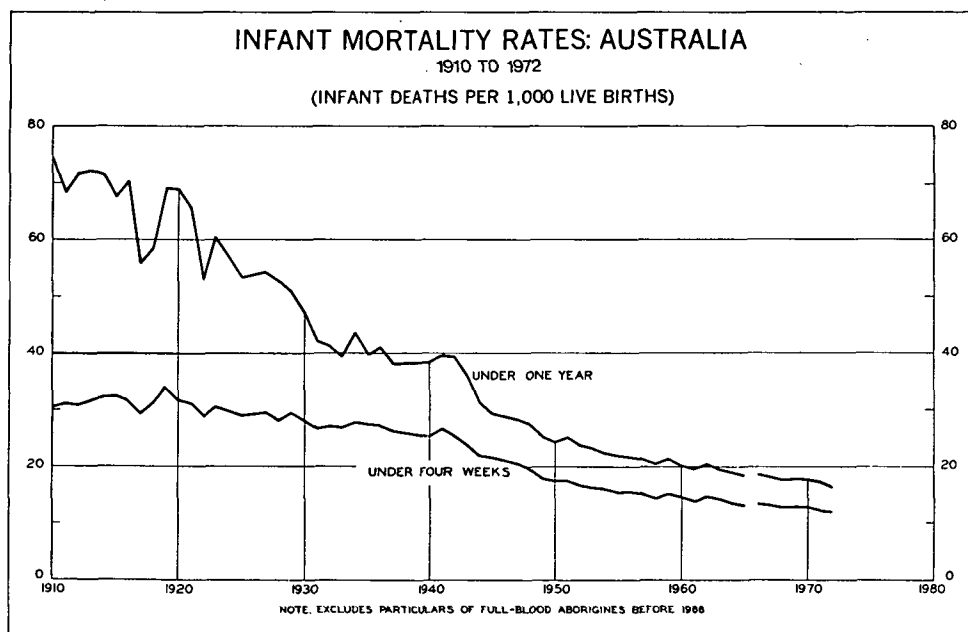


PLATE 28

Causes of death

Causes of death in Australia are classified according to the International Classification of Diseases (I.C.D.) produced by the World Health Organization. The classification is periodically revised and in Australia the Eighth Revision was adopted for use from 1968. Hence, cause of death figures for 1968 and subsequent years are not strictly comparable, for some causes with those for 1967 and earlier years.

The following two tables show the number of deaths in 1972 according to the Abbreviated List of 50 causes for tabulation of mortality recommended by W.H.O. with some large categories sub-divided to show further details. 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. 9.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1972

ABBREVIATED LIST OF 50 CAUSES WITH CERTAIN SUB-DIVISIONS

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)
B 1 Cholera	000	..	..	..	..	..	..
B 2 Typhoid fever	001	..	..	..	..	..	..
B 3 Bacillary dysentery and amoebiasis	004, 006	6	(b)	1	4	(b)	1
B 4 Enteritis and other diarrhoeal diseases	008, 009	139	0.2	21	141	0.3	22
B 5 Tuberculosis of respiratory system	010-012	70	0.1	11	30	0.1	5
B 6 Other tuberculosis, including late effects	013-019	33	0.1	5	17	(b)	3
B 7 Plague	020	..	..	..	..	..	..
B 8 Diphtheria	032	1	(b)	(c)	..	..	..
B 9 Whooping cough	033	1	(b)	(c)	3	(b)	(c)
B10 Streptococcal sore throat and scarlet fever	034	..	..	..	1	(b)	(c)
B11 Meningococcal infection	036	15	(b)	2	8	(b)	1
B12 Acute poliomyelitis	040-043	..	..	..	..	..	..
B13 Smallpox	050	..	..	..	..	..	..
B14 Measles	055	4	(b)	1	2	(b)	(c)
B15 Typhus and other rickettsioses	080-083	..	..	..	..	..	..
B16 Malaria	084	..	..	..	..	..	..
B17 Syphilis and its sequelae	090-097	16	(b)	2	10	(b)	2
B18 All other infective and parasitic diseases	Remainder of 000-136	151	0.2	23	153	0.3	24
B19 Malignant neoplasms—							
(i) Digestive organs	150-159	3,276	5.4	502	2,891	5.9	447
(ii) Lung	162	2,970	4.9	455	504	1.0	78
(iii) Skin	172, 173	298	0.5	46	198	0.4	31
(iv) Breast	174	12	(b)	2	1,543	3.2	239
(v) Genital organs	180-187	1,043	1.7	160	1,175	2.4	182
(vi) Urinary organs	188, 189	562	0.9	86	266	0.5	41
(vii) Leukaemia and aleukaemia	204-207	432	0.7	66	342	0.7	53
(viii) Other malignant and lymphatic neoplasms	Remainder of 140-209	1,916	3.1	294	1,358	2.8	210
Total, B19		10,509	17.2	1,610	8,277	17.0	1,280
B20 Benign neoplasms and neoplasms of unspecified nature	210-239	83	0.1	13	107	0.2	17
B21 Diabetes mellitus	250	821	1.3	126	1,019	2.1	158
B22 Avitaminoses and other nutritional deficiency	260-269	51	0.1	8	42	0.1	6
B23 Anaemias	280-285	97	0.2	15	118	0.2	18
B24 Meningitis	320	43	0.1	7	30	0.1	5
B25 Active rheumatic fever	390-392	6	(b)	1	4	(b)	1
B26 Chronic rheumatic heart disease	393-398	378	0.6	58	492	1.0	76
B27 Hypertensive disease	400-404	672	1.1	103	825	1.7	128
B28 Ischaemic heart disease	410-414	19,963	32.7	3,059	13,193	27.1	2,041
B29 Other forms of heart disease	420-429	2,000	3.3	306	2,441	5.0	378
B30 Cerebrovascular disease	430-438	6,621	10.8	1,014	9,148	18.8	1,415
B31 Influenza	470-474	74	0.1	11	117	0.2	18
B32 Pneumonia	480-486	1,420	2.3	218	1,127	2.3	174
B33 Bronchitis, emphysema and asthma	490-493	3,278	5.4	502	800	1.6	124
B34 Peptic ulcer	531-533	365	0.6	56	208	0.4	32
B35 Appendicitis	540-543	32	0.1	5	19	(b)	3
B36 Intestinal obstruction and hernia	550-553, 560	172	0.3	26	196	0.4	30
B37 Cirrhosis of liver	571	573	0.9	88	232	0.5	36
B38 Nephritis and nephrosis	580-584	375	0.6	57	362	0.7	56
B39 Hyperplasia of prostate	600	177	0.3	27	..	..	..
B40 Abortion	640-645	..	..	..	6	(b)	1

For footnotes see end of table next page.

A. CAUSES OF DEATH: NUMBERS, PROPORTIONS AND CRUDE RATES(a), MALES AND FEMALES, AUSTRALIA, 1972—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	692	1.1	106	27	0.1	4
B42 Congenital anomalies	740-759				630	1.3	97
B43 Birth injury, difficult labour and other anoxic and hypoxic conditions	764-768, 772, 776	442	0.7	68	260	0.5	40
B44 Other causes of perinatal mortality	Remainder of 760-779	977	1.6	150	702	1.4	109
B45 Symptoms and ill-defined conditions	780-796	356	0.6	55	321	0.7	50
B46 (i) Arteriosclerosis	440	898	1.5	138	1,311	2.7	203
(ii) Other diseases of circulatory system	441-448, 450-458	1,039	1.7	159	743	1.5	115
(iii) Other diseases of respiratory system	460-466, 500-508, 510-519	534	0.9	82	351	0.7	54
(iv) All other diseases	Remainder of 240-738	2,096	3.4	321	2,434	5.0	376
Total, B46		4,567	7.5	700	4,839	9.9	748
BE47 Motor vehicle accidents	E810-E823	2,617	4.3	401	954	2.0	148
BE48 All other accidents	E800-E807, E825-E949	1,951	3.2	299	1,117	2.3	173
BE49 Suicide and self-inflicted injuries	E950-E959	1,085	1.8	166	540	1.1	84
BE50 All other external causes	E960-E999	283	0.5	43	122	0.3	19
All causes		61,116	100.0	9,364	48,644	100.0	7,524

(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, 1972

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

Cause of death(a)		Number of deaths in age groups (years)											Not stated	Total
		Sex	Under 1	1-4	5-14	15-24	25-34	35-44	45-54	55-64	65-74	75 and over		
B 3	Bacillary dysentery and amoebiasis	M	3	..	2	..	..	..	..	..	..	1	..	6
		F	..	1	2	..	..	..	..	1	..	..	..	4
B 4	Enteritis and other diarrhoeal diseases	M	46	19	9	2	4	3	5	12	14	25	..	139
		F	45	21	2	2	..	2	8	8	14	39	..	141
B 5	Tuberculosis of respiratory system	M	1	..	..	..	3	2	11	13	23	17	..	70
		F	..	..	..	..	1	2	5	7	6	9	..	30
B 6	Other tuberculosis, including late effects	M	..	..	1	1	1	8	5	11	5	..	..	33
		F	..	..	1	1	..	4	3	4	4	..	..	17
B 8	Diphtheria	M	..	..	1	..	..	..	..	..	..	..	..	1
B 9	Whooping cough	M	1	..	..	..	..	..	..	..	..	..	..	1
		F	2	1	..	..	..	..	..	..	..	..	..	3
B10	Streptococcal sore throat and scarlet fever	F	..	..	..	..	..	..	..	..	1	..	..	1
B11	Meningococcal infection	M	7	4	2	..	..	..	1	1	..	..	..	15
		F	3	3	..	..	..	..	..	..	..	2	..	8
B14	Measles	M	..	..	4	..	..	..	..	..	..	..	..	4
		F	2	..	..	..	..	..	..	..	..	..	..	2
B17	Syphilis and its sequelae	M	1	..	..	..	..	..	2	4	6	3	..	16
		F	1	..	..	1	..	1	1	2	3	2	..	10
B18	All other infective and parasitic diseases	M	38	14	3	5	10	6	14	18	18	25	..	151
		F	27	13	7	4	9	12	19	18	14	30	..	153
B19	Malignant neoplasms—													
(i)	Digestive organs	M	..	3	3	6	22	116	350	844	1,043	888	1	3,276
		F	..	1	1	5	24	74	273	536	756	1,221	..	2,891
(ii)	Lung	M	..	..	1	..	10	54	364	884	1,113	544	..	2,970
		F	..	1	..	..	3	14	92	139	153	102	..	504
(iii)	Skin	M	..	..	..	7	19	33	60	75	53	51	..	298
		F	..	..	..	6	19	21	38	32	37	45	..	198
(iv)	Breast	M	..	..	..	..	..	3	22	4	4	3	..	12
		F	..	..	..	2	25	114	318	396	323	365	..	1,543
(v)	Genital organs	M	..	1	..	13	17	11	20	95	332	554	..	1,043
		F	..	..	3	11	31	63	213	293	302	259	..	1,175
(vi)	Urinary organs	M	..	1	4	..	1	12	42	132	190	180	..	562
		F	..	1	1	1	3	3	22	48	87	100	..	266
(vii)	Leukaemia and aleukaemia	M	2	25	50	19	18	24	42	66	100	86	..	432
		F	3	20	37	20	21	20	27	52	60	82	..	342
(viii)	Other malignant and lymphatic neoplasms	M	6	22	43	60	60	106	292	463	528	335	1	1,916
		F	2	14	26	22	28	74	168	276	344	404	..	1,358
Total, B19		M	8	52	101	105	147	356	1,173	2,561	3,363	2,641	2	10,599
		F	5	37	68	67	154	383	1,151	1,772	2,062	2,578	..	8,277

For footnote see end of table next page.

B. CAUSES OF DEATH: MALES AND FEMALES IN AGE GROUPS, AUSTRALIA, 1972—continued
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				
B20	Benign neoplasms and neoplasms of unspecified nature	M	2	1	4	5	3	4	10	18	19	17	..	83	
		F	3	2	1	4	4	16	19	20	20	18	..	107	
B21	Diabetes mellitus	M	2	2	2	4	8	22	83	177	249	272	..	821	
		F	..	..	1	4	12	14	40	143	314	491	..	1,019
B22	Avitaminoses and other nutritional deficiency	M	2	2	1	..	..	1	5	3	9	27	1	51
		F	2	3	..	1	..	2	6	4	4	20	..	42	
B23	Anaemias	M	1	1	3	2	1	3	1	12	24	49	..	97	
		F	1	1	3	1	1	3	4	13	22	69	..	118	
B24	Meningitis	M	15	10	5	..	1	..	..	8	3	1	..	43
		F	11	5	5	..	..	1	1	1	4	2	..	30
B25	Active rheumatic fever	M	..	1	1	..	..	..	1	2	1	..	..	6
		F	..	2	..	1	4	..	..	..	..	..	..	4
B26	Chronic rheumatic heart disease	M	..	..	1	4	12	20	65	104	103	69	..	378
		F	..	..	2	5	10	20	48	106	145	156	..	492
B27	Hypertensive disease	M	..	1	..	1	5	14	64	122	199	266	..	672	
		F	..	..	..	..	3	29	39	60	186	508	..	825
B28	Ischaemic heart disease	M	..	..	..	5	73	551	2,164	4,951	6,137	6,082	..	19,563
		F	..	..	1	2	16	121	523	1,618	3,485	7,427	..	13,193
B29	Other forms of heart disease	M	6	4	8	17	15	45	92	219	402	1,192	..	2,000	
		F	11	4	4	11	22	28	54	111	337	1,859	..	2,441	
B30	Cerebrovascular disease	M	6	3	4	22	22	124	372	959	1,872	2,237	..	6,621	
		F	1	..	3	12	37	142	368	748	1,877	5,960	..	9,148	
B31	Influenza	M	5	1	1	2	2	2	4	12	14	36	..	74	
		F	5	1	..	2	3	6	9	16	16	59	..	117	
B32	Pneumonia	M	187	26	12	13	20	39	81	151	244	647	..	1,420	
		F	112	27	9	9	15	22	36	77	114	706	..	1,127	
B33	Bronchitis, emphysema and asthma	M	6	5	12	15	19	35	146	556	1,228	1,256	..	3,278	
		F	5	7	10	17	11	14	90	149	196	301	..	800	
B34	Peptic ulcer	M	..	..	2	..	3	13	51	64	110	122	..	365
		F	1	..	..	3	1	8	13	38	40	107	..	208
B35	Appendicitis	M	..	1	1	2	2	3	4	7	5	6	..	32	
		F	..	..	2	2	1	3	..	3	1	7	..	19
B36	Intestinal obstruction and hernia	M	19	1	1	1	..	1	9	18	40	82	..	172	
		F	21	..	2	4	..	5	7	27	32	98	..	196	
B37	Cirrhosis of liver	M	2	1	1	6	8	67	169	179	107	33	..	573	
		F	2	..	..	1	3	22	65	75	46	18	..	232
B38	Nephritis and nephrosis	M	1	1	3	9	6	17	49	83	91	115	..	375	
		F	1	3	2	4	5	16	57	82	70	122	..	362	
B39	Hyperplasia of prostate	M	..	..	..	..	..	2	7	31	137	..	..	177
B40	Abortion	F	..	..	..	1	3	2	..	..	..	..	..	6
B41	Other complications of pregnancy, childbirth and the puerperium. Delivery without mention of complication	F	..	..	..	5	11	11	..	..	..	..	..	27
B42	Congenital anomalies	M	472	66	37	25	21	18	12	28	9	4	..	692	
		F	434	58	34	23	16	13	16	20	9	7	..	630	
B43	Birth injury, difficult labour and other anoxic and hypoxic conditions	M	439	..	1	2	..	..	..	..	..	..	..	442
		F	258	..	..	..	..	..	..	..	..	..	..	260
B44	Other causes of perinatal mortality	M	976	1	..	..	..	..	..	..	..	..	..	977
		F	699	2	1	..	..	..	..	..	..	..	..	702
B45	Symptoms and ill-defined conditions	M	84	9	5	22	8	20	30	23	45	109	1	356	
		F	35	7	2	8	9	11	16	12	30	191	..	321	
B46	(i) Arteriosclerosis	M	..	..	..	..	..	1	5	44	167	678	..	898
		F	..	..	..	..	..	..	..	21	121	1,163	..	1,311
	(ii) Other diseases of circulatory system	M	2	3	3	6	4	16	59	201	381	364	..	1,039	
		F	4	1	7	7	20	44	75	153	432	..	..	743
	(iii) Other diseases of respiratory system	M	106	18	10	4	5	11	27	62	113	178	..	534	
		F	58	14	4	4	11	13	20	32	43	152	..	351	
	(iv) All other diseases	M	46	36	32	64	49	126	257	403	440	643	..	2,096	
		F	38	25	33	53	60	103	240	398	485	998	1	2,434	
	Total, B46	M	154	57	45	74	58	154	351	710	1,101	1,863	..	4,567	
		F	100	39	38	64	78	137	309	526	802	2,745	1	4,839	
RE47	Motor vehicle accidents	M	16	86	136	1,011	378	218	278	221	168	105	..	2,617	
		F	12	56	94	249	89	71	105	89	92	97	..	954	
BE48	All other accidents	M	76	126	117	266	214	219	225	227	169	309	3	1,951	
		F	50	74	47	33	36	24	49	67	116	621	..	1,117	
BE49	Suicide and self-inflicted injuries	M	..	..	4	164	179	209	228	150	96	54	1	1,085
		F	..	..	1	64	77	115	134	85	41	22	1	540
BE50	All other external causes	M	5	11	3	42	36	63	59	36	16	11	1	283	
		F	4	9	7	18	20	20	17	10	12	5	..	122	
	All causes	M	2,577	505	533	1,828	1,259	2,230	5,769	11,661	15,927	18,818	9	61,116	
		F	1,853	378	350	620	647	1,275	3,213	5,911	10,115	24,280	2	48,644	

(a) Categories of the Abbreviated List for which no deaths were recorded in 1972 have been omitted from this table. For details of such categories see Table A, pages 197-8.

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, the majority of deaths in the first week of life being due to conditions arising during pregnancy and birth. A summary for 1972, 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, 1972**

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 weeks		1-2 (a)	3-5	6-11	
760	Chronic circulatory and genito- urinary diseases in mother	12	12	24	..	..	..	24	1	..	..	25
761	Other maternal conditions un- related to pregnancy	85	26	111	5	1	1	118	2	1	..	121
762	Toxaemias of pregnancy	72	56	128	3	1	1	133	..	..	..	133
763	Maternal ante and intrapartum infection	45	9	54	3	..	..	57	..	..	..	57
764-768	Difficult labour	135	58	193	..	2	..	195	1	..	..	196
769	Other complications of pregnancy and childbirth	480	149	629	9	5	2	645	2	..	..	647
770	Conditions of placenta	217	88	305	1	2	1	309	2	..	..	311
771	Conditions of umbilical cord	37	13	50	..	1	..	51	..	..	..	51
772, 773	Birth injury without mention of cause	21	16	37	2	3	..	42	1	1	..	44
774, 775	Haemolytic disease of newborn	40	20	60	1	1	..	62	..	..	..	62
776	Anoxic and hypoxic conditions not elsewhere classified	259	183	442	8	..	4	454	2	1	..	457
777	Immaturity unqualified	181	38	219	1	..	..	220	1	..	..	221
778, 779	Other conditions of newborn	23	17	40	5	1	1	47	..	..	..	47
740-759	Congenital anomalies	270	205	475	74	43	21	613	115	96	82	906
000-136	Infections	3	11	14	5	8	9	36	39	41	61	177
480-486	Pneumonia	7	17	24	8	8	6	46	109	89	55	299
(b)	Other diseases	33	35	68	15	11	16	110	134	164	105	513
E911-E913	Inhalation or ingestion of food or other object causing obstruction or suffocation, and accidental mechanical suffocation	..	..	..	1	1	2	4	32	40	19	95
(c)	Other external causes	4	1	5	..	1	3	9	15	17	27	68
	All causes	1,924	954	2,878	141	89	67	3,175	456	450	349	4,430

(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

As can be seen from the preceding tables, infective and parasitic diseases (Nos B1-B18) no longer cause many deaths in Australia, being responsible for only 0.7 per cent of total deaths. Of far greater importance are diseases of the circulatory system causing 54.0 per cent, malignant neoplasms causing 17.1 per cent and accidents, poisonings and violence causing 7.8 per cent of all deaths in 1972.

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 1972 are identified in Table B (pages 198-9). 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 are given in the table on the following page.

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

Age group (years)	1950				1960				1972			
	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	161	110	8	6
15-29	95	75	10	8	112	75	10	7	175	135	11	9
30-44	249	413	27	47	361	517	32	49	433	469	36	41
45-54	552	669	118	148	852	831	138	143	1,173	1,151	158	160
55-64	1,294	1,171	347	299	1,671	1,186	401	276	2,561	1,772	466	311
65 and over	3,072	2,694	1,014	748	4,067	3,373	1,075	679	6,004	4,640	1,327	739
Total	5,355	5,075	130	125	7,207	6,092	139	120	10,509	8,277	161	128
	(d)				(e)				(f)			

(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. (f) Includes 2 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, 145; United States of America, 162; Italy, 174; Uruguay, 190; Netherlands, 195; France, 206; England and Wales, 236; Scotland, 242.

Diseases of the circulatory system (B25-B30, part B46). This class is the largest among causes of death, representing 54 per cent of total deaths in 1972. 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 1950-72. 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 (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
1972	6,621	9,148	101	142	22,769	16,673	349	258	2,187	2,336	34	36	31,577	28,157	484	436

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

As can be seen from Table B (page 199), these conditions predominantly affect people of advanced age, only 9.1 per cent of deaths being at ages under 55 years in 1972.

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.

While not as numerically important as the above two groups in total this class of causes of death has a much greater influence at the younger ages, being responsible for 75 per cent of all deaths at ages 15-24 years in 1972.

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 (b)**

Death rate from—												
Period	Motor vehicle accidents		Suicide		Homicide(c)		Other violence(d)		Total violence		All violence, percentage of total deaths	
	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
1972 .	40	15	17	8	2	1	32	18	91	42	9.71	5.62

(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 1972 the total number of deaths from *accidental causes* (BE47, BE48) was 6,639 (4,568 males and 2,071 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, 3,450 (51.97 per cent); motor vehicle non-traffic accidents, 121 (1.82 per cent); other road vehicle accidents, 33 (0.50 per cent); railway accidents, 81 (1.22 per cent); water transport accidents, 111 (1.67 per cent); aircraft accidents, 54 (0.81 per cent); a total of 3,850 (57.99 per cent). Other important causes were accidental falls, 1,264 (19.04 per cent); accidental drowning (not in transport), 409 (6.16 per cent); accidents caused by fires and flames, 208 (3.13 per cent); and accidental poisonings, 128 (1.93 per cent).

Deaths from *suicide* (BE49) in 1972 numbered 1,625 (males, 1,085; females, 540). Poisoning, other than by gases, occurred in 653 cases (40.18 per cent of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows; firearms and explosives, 381 (23.45 per cent); poisoning by gases, 241 (14.83 per cent); hanging or strangulation 185 (11.38 per cent); submersion (drowning), 62 (3.82 per cent); other and unspecified modes, 103 (6.34 per cent). Of the 1,085 males who committed suicide, 354 (32.63 per cent) used firearms or explosives. For females the most common mode was poisoning (other than by gases). This was used in 374 cases (69.26 per cent).

Of the 405 deaths assigned in 1972 to all other external causes (BE50), there were 219 deaths from homicide and injury purposely inflicted by other persons, 2 deaths from legal intervention by firearms, 178 deaths from injury undetermined whether accidentally or purposely inflicted (of which 75 were due to poisoning other than by gases) and 6 deaths from late effects of injury due to operations of war.

Vital statistics of External Territories

The following table shows, for the year 1972, 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, 1972

Territory	Marriages	Births	Deaths
Christmas Island(a)	11	34	8
Cocos (Keeling) Islands(a)	8	18	4
Norfolk Island(a)	15	21	9
Papua New Guinea(b)	347	1,359	118

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

International vital statistics

Vital statistics rates for selected countries with relatively complete civil registration data are shown in the following table. The source of this information is the United Nations *Demographic Yearbook*. The yearbook contains rates for most countries and identifies the qualifications of the data applicable to different countries. The crude marriage, birth and death rates shown represent the number of 'events' 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. An explanation of the meaning of 'expectation of life at birth' is shown on page 191.

VITAL STATISTICS RATES: CERTAIN COUNTRIES—LATEST AVAILABLE YEAR

(Source: United Nations *Demographic Yearbook* 1972)

Country	Year	Rates(a)				Year	Expectation of life at birth	
		Marriage	Birth	Death	Infant mortality		Male	Female
Australia	1972	8.8	20.4	8.5	16.7	1972	68.2	75.0
Canada	1971	8.9	16.8	7.3	17.6	1965-67	68.8	75.2
Czechoslovakia	1971	9.0	16.5	11.5	21.6	1969	66.2	73.2
France	1972	8.1	16.9	10.6	13.3	1970	68.6	76.1
Germany, Federal Republic of	1972	6.7	11.4	11.8	23.3	1966-68	67.6	73.6
Greece	1971	8.3	15.9	8.3	26.9	1960-62	67.5	70.7
Hungary	1972	9.4	14.7	11.4	32.7	1970	66.3	72.1
Italy	1972	7.7	16.3	9.6	28.3	1964-67	67.9	73.4
Japan	1971	10.5	19.2	6.6	12.4	1968	69.1	74.3
Netherlands	1972	8.8	16.1	8.5	11.4	1971	71.0	76.7
New Zealand	1971	9.5	22.6	8.5	16.5	1960-62	68.4	73.8
Poland	1972	9.3	17.4	8.0	28.5	1965-66	66.9	72.8
Romania	1971	7.3	19.6	9.5	42.4	1968	65.5	69.8
Spain	1972	7.6	19.4	8.2	18.5	1960	67.3	71.9
Sri Lanka (Ceylon)	1971	6.7	29.9	7.6	50.3	1962	61.9	61.4
Union of Soviet Socialist Republics	1972	9.4	18.0	8.5	24.3	1968-69	65.0	74.0
United Kingdom	1972	8.3	14.9	11.9	17.9	1969-71	68.8	75.1
United States of America	1972	10.9	15.6	9.4	18.5	1971	71.1	
Yugoslavia	1972	9.0	18.2	9.1	43.2	1968-70	64.8	69.2

