This page was added on 03 December 2012 to included the Disclaimer below. No other amendments were made to this Product
DISCLAIMER
Users are warned that this historic issue of this publication series may contain language or views which, reflecting the authors' attitudes or that of the period in which the item was written, may be considered to be inappropriate or offensive today.

#### CHAPTER X

#### VITAL STATISTICS

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

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

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

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

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

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

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

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

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

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

#### § 2. Marriages

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

#### MARRIAGES

Period	l	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
		÷.		Ann	UAL AVE	RAGES	•			
1926-30		19,253	12,955	6,279	4,036	3,167	1,506	23	30	47,249
1931-35		18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480
1936-40		25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541
1941-45		28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981
1946-50		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
				An	NUAL TO	TALS				
1960		29,328	20,627	10,227	6,607	5,323	2,713	208	395	75,428
1961		29,773	21,264	10,392	6,804	5,150	2,677	207	419	76,686
1962		30,360	22,393	10,642	7,021	5,466	2,485	243	480	79,090
1963		30,999	22,061	11,431	7,302	5,755	2,579	260	529	80,916
1964		32,633	24,169	11,752	7,765	6,023	2,869	233	569	86,013

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

#### CRUDE MARRIAGE RATES(a)

Period		N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
				AVERAG	E ANNU	AL RATES				
1926-30	<del></del>	7.86	7.42	7.10	7 12	7 80	6.97	5.11	3.86	7.52
1931-35		7.20	7.02	7.35	6 83	7.58	7.19	5 92	5.74	7.16
1936-40		9 29	9.52	8.80	9 65	9.49	9.25	13.28	7.22	9.35
1941-45		9 97	9.86	10.04	10 61	974	8.61	7.18	7.57	9.94
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

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

### CRUDE MARRIAGE RATES(a)-continued

Per	riod	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
		<u>' </u>		A۱	INUAL R	ATES		•		
1960		7.65	7.22	6.86	6.99	7.36	7.82	8.28	7.51	7.34
1961		7.61	7.26	6.86	7.02	6.98	7.57	7.89	7.13	7.30
1962		7.63	7.49	6.91	7.10	7.24	6.91	9.01	7.31	7.39
1963		7.65	7 22	7.32	7.24	7.44	7.08	9.07	7.21	7.41
1964		7.92	7.72	7.41	7.52	7.62	7.81	7.42	7.05	7.72

<sup>(</sup>a) Number of marriages per 1,000 of mean population.

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

3. Marriage Rates based on Marriageable Population.—As the marriage rates in some international tabulations are based on the unmarried population aged 15 years and over the corresponding rates have been calculated for Australia for the nine census periods to 1960-62. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows.

#### PERSONS MARRYING PER 1,000 OF UNMARRIED POPULATION: AUSTRALIA

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

<sup>(</sup>a) Average annual number of persons who married per 1,000 unmarried persons, including widowed and divorced, aged 15 years and over.

4. Age and Conjugal Condition at Marriage.—(i) General. Particulars of age at marriage in age groups, and previous conjugal condition, of bridegrooms and brides in 1963 are given hereunder. There were 9,712 males under 21 years of age married during 1963, while the corresponding number of females was 32,844. At the other extreme there were 1,047 bridegrooms and 468 brides in the age group 65 years and over.

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

Age at		Brides	rooms		Brides							
marriage (years)	Bach- elors	Wid- owers	Divorced	Total	Spinsters	Widows	Divorced	Total				
Under 20	5,036			5.036	23,033	5	7	23,045				
20-24	37,793	16	46	37,855	37,631	78	298	38,007				
25-29	19,137	73	470	19,680	7,479	160	865	8,504				
30-34	6,298	131	786	7,215	2,207	208	1,014	3,429				
35–39	2,626	200	902	3,728	1.066	325	979	2,370				
40-44	1,077	261	772	2,110	571	406	699	1,676				
45-49	597	327	601	1,525	347	483	526	1,356				
50-54	322	388	481	1,191	222	403	309	934				
55~59	175	422	284	881	133	355	154	642				
60-64	100	401	147	648	86	328	71	485				
65 and over	96	831	120	1,047	58	367	43	468				
Total	73,257	3,050	4,609	80,916	72,833	3,118	4,965	80,916				

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

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

(Per cent.)

			Brider	grooms		Brides						
Period	1	Bach- elors	Wid- owers	Divorced	Total	Spinsters	Widows	Divorced	Total			
1926-30		92.31	5.93	1.76	100.00	93.46	4.55	1.99	100.00			
1931-35		92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00			
1936-40		92.59	4.82	2.59	100 00	93.94	3.38	2.68	100.00			
1941-45		91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00			
1946-50		88.82	4.74	6.44	100.00	88.71	4.74	6.55	100.00			
1951-55		88.77	4.63	6.60	100.00	88.04	4.81	7.15	100.00			
1956-60		89.86	4.18	5.96	100.00	88.80	4.47	6.73	100.00			
1959		89.66	4.21	6.13	100.00	88.62	4.44	6.94	100.00			
1960		90.04	4.00	5.96	100.00	88.93	4.43	6.64	100.00			
1961		90.13	3.95	5.92	100.00	89.47	4.30	6.23	100.00			
1962	[	90.18	3.87	5.95	100.00	89.58	4.04	6.38	100.00			
1963	]	90.53	3.77	5.70	100 00	90.01	3.85	6.14	100.00			

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

RELATIVE AGES OF BRIDEGROOMS AND BRIDES: AUSTRALIA, 1963

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

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

5. Previous Conjugal Condition.—The following table shows the relative conjugal condition of bridegrooms and brides in 1963.

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

Co	njugal con	dition		Total	Conjugal condition of brides					
	of bridegro		,	bridegrooms	Spinsters	Widows	Divorced			
Bachelors		•••	•••	73,257	69,391	1,123	2,743			
Widowers				3,050	1,020	1,361	669			
Divorced				4,609	2,422	634	1,553			
Tota	l Brides			80,916	72,833	3,118	4,965			

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

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

	Country of birth of bride												
Country of birth of bridegroom	Austra- lia	New Zeal- and	United King- dom and Ireland	Ger- many	Greece	Italy	Nether- lands	Poland	Yugo- slavia	Other Euro- pean	Other and un- specified	Total bride- grooms	
Australia New Zealand United Kingdom	55,718 424	188 47	2,804 40	353 5	46	99 1	381 6	41	30	379 3	444 10	60,483 536	
and Ireland	3,762	58	1,083	56	5	11	50	8	2	82	99	5,216	
Germany	559	6	91	337	6	12	47	21	18	80	34	1,211	
Greece	148	2 8	18	8	2,604	6	3	5	.7	11	58	2,870	
Italy	734	8	62	38 31	11	2,560	27	6	34	79	47	3,606	
Netherlands	717	5 2	76 17	31	4 5	4	356	3	17	35	33	1,265	
Poland	120 266	4	44	81	56	8 63	24	188 13	10 477	43 57	16 25	1,110	
Yugoslavia Other European	917	15	133	149	42	33	33	53	48	951	70	2,444	
Other and un-	717	13	133	147	72	33	33	23	40	331	/0	2,444	
specified	882	15	107	28	81	22	29	6	7	45	507	1,729	
Total Brides	64,247	350	4,475	1,119	2,860	2,819	960	344	634	1,765	1,343	80,916	

<sup>7.</sup> Occupation of Bridegrooms.—The distribution of the 80,916 bridegrooms for 1963 amongst classes of occupations was as follows:—craftsmen, 27,480; administrative and clerical workers, 10,229; labourers, 9,634; rural and mining workers, 8,018; professional and technical workers, 7,595; workers in transport and communication, 5,924; service, sport, and other workers, 5,502; sales workers, 5.240; persons not in the work force, 1,294.

<sup>8.</sup> Celebration of Marriages.—Under the provisions of the Marriage Act 1961 marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar of Ministers of Religion in each State or Territory, or by certain civil officers, in most cases district registrars. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1963 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been combined under the heading "Other Christian". The figures for 1963 are shown in the following table.

### VITAL STATISTICS

### MARRIAGES IN EACH DENOMINATION, 1963

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

### PROPORTION OF TOTAL

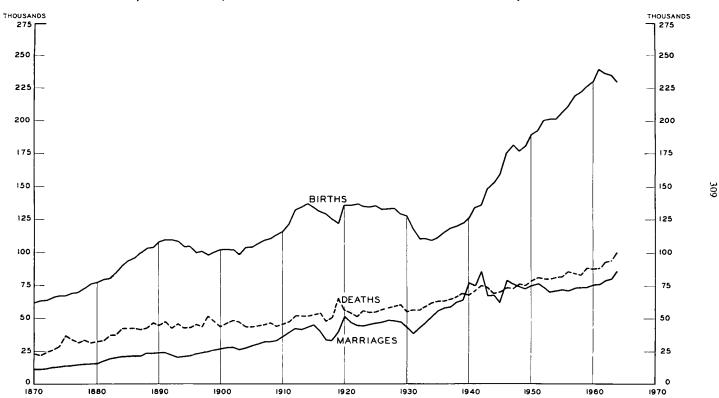
### (Per cent.)

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

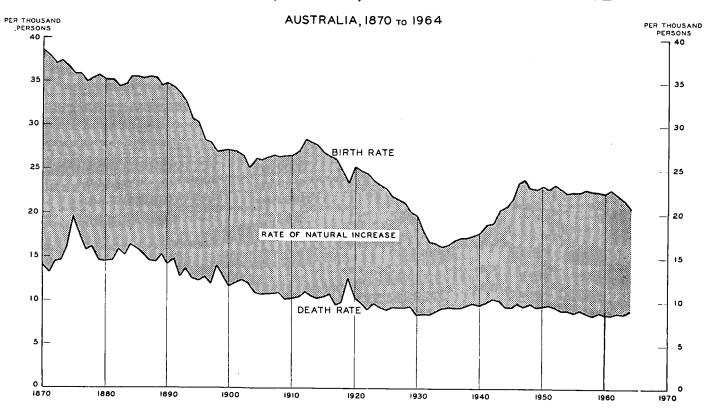
### § 3. Divorce

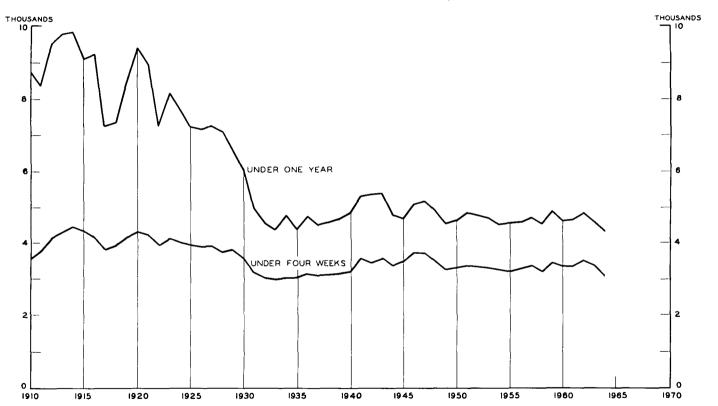
The number of dissolutions of marriage, nullities of marriage and judicial separations was 7,446 in 1963 and 7,799 in 1964. Further information may be found in Chapter XVII, Public Justice.

# BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1870 to 1964

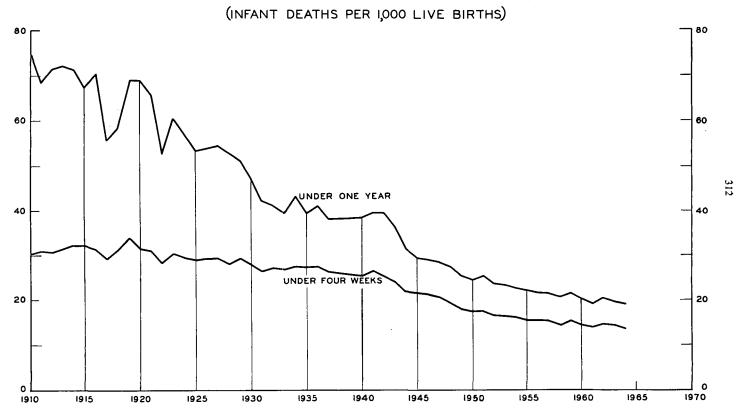


# RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE





# INFANT MORTALITY RATES: AUSTRALIA, 1910 to 1964



#### § 4. Fertility and Reproduction

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

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

#### LIVE BIRTHS AND CONFINEMENTS, 1963

Particulars	N.S.W.	Vic.	Q'land	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Aust.
			I	ive Birt	нѕ				
Single births Twins Triplets Quadruplets Males Females	82,235 1,801 29  43,059 41,006	64,101 1,530 18  33,988 31,661	35,184 739 11  18,316 17,618	453	16,956 332 2  8,869 8,421	8,361 169  4,428 4,102	848 11  459 400	42  1,011	
Total	84,065	65,649	35,934	21,367	17,290	8,530	859	1,995	235,689

#### STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE

Twins Triplets		37	22	17	5	8	1	1	 91 3
	1	,	l l	1	1	1	1		

#### CONFINEMENTS RESULTING IN BIRTHS SHOWN ABOVE

Nuptial Ex-nuptial	78,391 4,773		32,934 2,632	, ,	,				219,843 13,314
Total	83,164	64,883	35,566	21,143	17,127	8,446	854	1,974	233,157

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 live-born, the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para. 12, p. 319.

(ii) Live Births, Years 1926 to 1964. The average annual number of live births in each State and Territory for each five-year period from 1926 to 1960 and the total number of live births for each year from 1960 to 1964 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in Year Book No. 39, page 583.

#### LIVE BIRTHS

	_				AE DIV	7 7 7 7		_			
Period	i	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.	
Annual Averages											
1926-30		53,308	34,333	19,361	11,006	8,748	4,819	70	118	131,763	
1931-35		44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302	
1936-40		47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972	
1941-45		56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886	
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	
				An	NUAL TO	OTALS					
1960		81,983	64,025	35,213	20,966	16,926	8,853	777	1,583	230,326	
1961		86,392	65,886	36,637	22,399	17,078	8,982	878	1,734	239,986	
1962		85,439	65,890	35,690	21,361	17,064	8,894	924	1,819	237,081	
1963		84,065	65,649	35,934	21,367	17,290	8,530	859	1,995	235,689	
1964		80,518	64,990	34,972	20,866	16,685	8,252	911	1,955	229,149	

A graph showing the number of births in each year from 1870 to 1964 will be found on page 309.

3. Crude Birth Rates.—The oldest and most popular method of measuring fertility is to relate the number of births to the total population, thus obtaining the crude birth rate. The crude birth rate measures the rate per thousand persons (irrespective of age or sex) at which the population has added to its numbers by way of births during a given period. Other methods of measuring fertility are shown on pages 315-17.

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

#### CRUDE BIRTH RATES(a)

CRODE BIRTH RATES(II)											
Period		N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.	
Average Annual Rates											
1926-30		21.76	19.65	21.90	19.41	21.54	22.29	15.60	14.96	20.98	
1931-35		17.28	15.60	18.48	14.89	18.36	19.95	15.99	15.77	16.94	
1936-40		17.51	16.20	19.48	15.82	19.16	20.58	19.96	18.68	17.52	
1941-45		19.79	19.27	22.28	20.43	21.72	22.23	11.40	26.82	20.28	
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	
				A	NNUAL F	RATES					
1960		21.38	22.41	23.62	22.19	23.41	25.52	30.95	30.12	22.42	
1961		22.07	22.51	24.17	23.10	23.16	25.40	33.46	29.49	22.85	
1962		21.46	22.04	23.19	21.59	22.59	24.75	34.26	27.69	22.14	
1963		20.75	21.49	23.00	21.18	22.36	23.42	29.96	27.20	21.59	
1964		19.54	20.77	22.06	20.22	21.11	22.46	29.02	24.22	20.58	

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

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

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

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

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

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

4. Fertility Rates.—The principal demographic factors affecting the level of crude birth rates are the proportion of women of child-bearing age in the population and the proportion of such women who are married. These factors may vary considerably at different periods and for different countries, and a population with a higher proportion of married women of child-bearing age will have a much higher crude birth rate than one with a low proportion, although the fertilities of the two populations may be identical.

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

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

	Av	erage annual	rates	index nos	. (Base: 1880	-82 - 100)
		Fertili	ty rates		Fertili	ty rates
Period	Crude birth rate(a)	Births per 1,000 women aged 15-44 years	Nuptial births per 1,000 married women aged 15-44 years	Crude birth rate(a)	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

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA

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

104

109

112

23.6

22.7

22.5

1946-48..

1953-55..

1960-62..

160

149

154

67

64

61

64

66

50

46

48

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

5. Age-specific Fertility Rates for Females.—So long as customary ages at marriage do not change drastically the main demographic factor affecting the number of births is the age composition of the potential mothers in the population. Within the child-bearing group the fertility of women of different ages varies considerably, and a clearer view of the fertility of the population can be obtained from an examination of what are known as its age-specific fertility rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

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

AGE-SPECIFIC F	ERTILITY	RATES(a):	AUSTRALIA
----------------	----------	-----------	-----------

Age group (years)	1926	1931	1936	1941	1946	1951	1956	1961	1963
15-19	14.02	13.08	12.18	11.90	12.63	18.59	20.84	22.87	22.22
	60.23	53.08	50.33	59.42	73.52	85.84	101.46	110.01	100.74
	76.82	62.47	62.02	70.78	89.51	90.24	98.11	107.73	102.27
	61.90	51.25	46.33	49.72	65.03	59.16	59.65	63.62	60.11
35-39	43.55	33.23	28.89	28.69	37.43	32.29	31.32	30.53	29 03
40-44	17.63	13.61	10.19	9.52	11.87	9.97	9.48	9.36	9.07
45-49	1.90	1.45	1.11	0.80	1.03	0.80	0.76	0.70	0.53

(a) Number of female births per 1,000 women in each age group.

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

GROSS AND NET REPRODUCTION RATES: AUSTRALIA

Year		Gross repro- duction rate	Net repro- duction rate		Year		Gross repro- duction rate	Net repro- duction rate	
1881(a)	<del></del>	·	2.65	(b) 1.88	1947			1.493	(g) 1.416
1891(a)			2.30	(b) 1.73	1954		!	1.558	(h) 1.497
1901(a)			1.74	(c) 1.39	1959		]	1.678	(h) 1.614
1911			1.705	(d) 1.421	1960			1.677	(h) 1.613
1921			1.511	(e) 1.313	1961			1.724	(h) 1.658
1931			1.141	(f) 1.039	1962			1.659	(h) 1.596
1941			1.154	(f) 1.053	1963			1.620	(h) 1.558

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

Note.—It is not strictly correct to assume, as in the calculations of the rates above, that a particular age-specific fertility rate can be applied to a hypothetical group of women reaching that age, without taking account of previous fertility and marriage experience. Reproduction rates are therefore unreliable when birth and marriage rates have been changing. The indexes of marriage fertility shown on the next page are also of doubtful reliability in similar circumstances.

7. Gross and Net Reproduction Rates, Various Countries.—In the following table a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1954 to 1963. These represent the latest available international comparisons.

CROSS	AND	NET	REPRODUCTION	DATES.	VADIOUS	COUNTRIES

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

<sup>(</sup>a) Excludes Maoris.

In comparing the reproduction rates of the countries shown above allowance should be made for any differences in years, as the rates for any one country from year to year are affected by variations in the incidence of marriage, as well as the stationary or life table population used.

8. Fertility of Marriages.—More satisfactory estimates of the fertility of marriages may be made by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

#### FERTILITY OF MARRIAGES: AUSTRALIA

Year	Year Nuptial confinements per marriage			Nuptial confine- ments per marriage	Year	•	Nuptial confine- ments per marriage
1949	2.45	1954		2.66	1959		2.93
1950	2.56	1955		2.71	1960		2.96
1951	2.55	1956		2.76	1961		3.05
1952	2.63	1957		2.87	1962		2.98
1953	2.66	1958		2.88	1963		2.92

NOTE .- See NOTE to table on p. 316.

The figure for a particular year gives the estimated number of children which a marriage would produce according to the fertility conditions of that year. The figures for 1949 and subsequent years present a somewhat inflated index, as many of the births which have been used to calculate the index relate to marriages of immigrants which took place overseas and consequently are not included in Australian marriage records. Partial investigation suggests that this factor probably overstated the index by very little in 1949, but that the overstatement at present is about 8 per cent.

9. Masculinity of Live Births.—The masculinity of live births, i.e., the number of males born for every 100 female births, has remained fairly stable for Australia at about 105. But when the number of births for which masculinity is being calculated is small (for example, totals for smaller States) considerable variation is shown. The averages for the ten years 1951-60 were as follows:—New South Wales, 105.38; Victoria, 105.50; Queensland, 105.80; South Australia, 104.89; Western Australia, 105.25; Tasmania, 104.96; Northern Territory, 107.16; Australian Capital Territory, 108.77; Australia, 105.43. The following table shows the figures for Australia for each ten-year period from 1901 to 1960 and for each of the years 1962 to 1964.

<sup>(</sup>b) White population only.

<sup>(</sup>c) Excludes full-blood Aboriginals.

#### MASCULINITY(a) OF LIVE BIRTHS REGISTERED: AUSTRALIA

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

<sup>(</sup>a) Number of males born for every 100 female births.

10. Ex-nuptial Live Births.—(i) General. The variations in the proportions of ex-nuptial live births as between the individual States and Territories for 1964 are shown below.

#### EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, 1964

Particulars	N.S.W.	Vic.	Q'land	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number Proportion of	5,427	3,402	2,898	1,239	1,311	502	103	43	14,925
total births %	6.74	5.23	8.29	5.94	7.86	6.08	11.31	2.20	6.51

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

#### EX-NUPTIAL LIVE BIRTHS: NUMBER AND PROPORTION, AUSTRALIA

			Annual	average								
Particulars	1901- 10	1911- 20	1921- 30	1931- 40	1941- 50	1951- 60	1960	1961	1962	1963	1964	
Number Proportion or total	6,498	6,836	6,238	5,133	6,780	9,013	10,987	12,269	12,813	13,454	14,925	
births %	6.05	5.22	4.66	4.40	4.13	4.25	4.77	5.11	5.40	5.71	6.51	

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

(iii) Comparison of Rates. The following table shows the relative ratios of ex-nuptial and nuptial births to the total population for periods from 1901.

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

DI-151				Annual	average			10.00	1963	104
Birth rat	c 	1901-10	1911-20	1921–30	1931–40	1941–50	1951–60	1962	1903	1964
Ex-nuptial Nuptial	•••	1.60 24.91	1.39 25.18	1.04 21.40	0.76 16.47	0.90 20.99	0.97 21.75	1.19 20.95	1.23 20.36	1.34 19.24
Total	••	26.51	26.57	22.44	17.23	21.89	22.72	22.14	21.59	20.58

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

- 11. Legitimations.—Under the provisions of the Commonwealth Marriage Act 1961, which came into operation on 1st September, 1963, a child whose parents were not married to each other at the time of its birth becomes legitimized on the subsequent marriage of its parents. The legitimization takes place whether or not there was a legal impediment to the marriage of the parents at the time of the child's birth and whether or not the child was still living at the time of the marriage, or in the case of a child born before 1st September, 1963, at that date. Prior to the introduction of this Act, legitimations took place under Acts passed in the several States to legitimize children born before the marriage of their parents, provided that no legal impediment to the marriage existed at the time of birth. On registration in accordance with the provisions of the Legitimation Acts, any child who came within the scope of their purposes, born before or after the passing thereof, was deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. The number of children legitimized in Australia during 1963 was 2,436.
- 12. Multiple Births.—Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born the confinement is excluded, and secondly, because some cases of multiple births in which only one child was live-born are registered as single births.

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

The proportion of mothers of multiple births to total mothers does not vary greatly from year to year.

13. Ages of Parents.—The relative ages of the parents of children whose births were registered in 1963 have been tabulated separately for male and female births, multiple births being distinguished from single births. For total births and for multiple births, the relative ages of parents are shown in *Demography*, Bulletin No. 81. In the following table the relative ages of parents are shown in five-year groups.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1963

Age of f	ather (years)		Total				Age of	mother	(years)			
and typ	pe of birth			Under 15	15–19	20-24	25-29	30-34	35-39	40-44	45 and over	Not stated
Under 20			3,030	9	2,537	474	9		1			
20-24			38,672	7	10,605	25,522		142	22	3		
25-29			68,282	4		33,031	29,561	2,758	262	32		
30-34			55,442		483	8,566		18,097	2,325	189	5	
35–39			33,362		103	1,757		14,093	9,485	915		
40-44			14 189		21	336		3,730	6,113	2,670		
45–49			4,844		11	83	324	809	1,827	1,632	158	
50–54			1,452		6	35	84	238	499	512	78	
55-59			408		1	7	31	58	141	146	24	
60-64			126		2	6	6	21	42	45	4	
65 and over(a	)		36			1	5	6	14	9	1	
Mothers	Single		217,378	20	16.293	69.165	65,704	39,384	20,417	6,062	333	
of	Twins		2,446		109	650		565	310	90	2	
nuptial <sup>5</sup>	Triplets		19			3	8	3	4	1	l l	
children	Total		219.843	20	16 402	69.818	66,432	39.952	20.731	6,153	335	
Mothers	Single		13,174	67	4,343	3,865	2,072			362	22	2
of	Twins		138		33	39	24	17	18	7		
ex-nuptial	Triplets		2			1	l i			`		
children	Total		13,314	67	4,376	3,905	2,097	1,457	1.019	369	22	
	Ceinela		230,552	87				40,824		6,424	355	
Total	Single Twins	• •	2,584		20,636 142	689		582	328	6,424 97	333	
mothers	Triplets	• •	2,364	•••	142	667	744	202	320	9/	4	• •
momers	Total	• • •		··-		====		44 400	41 550	( 500		<u> </u>
,	TOTAL	••	233,157	87	20,778	73,723	68,529	41,409	21,750	6,522	357	2

(a) Includes one father age " Not stated."

14. Countries of Birth of Parents.—The following table shows the countries of birth of parents of children whose births from nuptial confinements were registered during 1963.

# NUPTIAL CONFINEMENTS: RELATIVE COUNTRIES OF BIRTH OF PARENTS, AUSTRALIA, 1963

				С	ountry of	birth of	mother					
Country of birth of father	Aus- tralia	New Zeal- and	United King- dom and Ireland	Ger- many	Greece	Italy	Nether- lands	Poland	Yugo- slavia	Other Euro- pean	Other and un- specified	Total fathers
Australia New Zealand United Kingdom	160,064 629	545 141		417 2	92 1	231 1	647 8	81 1	73	518 1	1,033 15	169,020 849
and Ireland	7,277 835	75 13	<b>5,6</b> 46 99	75 1,197	3 10	22 12	73 49	14 29	12 22	124 134		13,553 2,451
Greece	332 1,779	1	21 111	8 51	4,363	11 9,076	5	4	90	29 124	55	4,838 11,423
Netherlands Poland	1,291 333	8 3	142 51	48 98	3 7	6 11	2,266 10	577	5 10	48 117	109 20	3,932 1,237
Yugoslavia Other European	420 1,807		56 266	116 273	56 74	112 60	26 81	36 92	1,269 81	100 3,213		2,218 6,133
Other and unspeci- fied	1,615	24	218	47	148	52	97	18	17	93	1,860	4,189
Total Mothers	176,382	855	11,979	2,332	4,794	9,594	3,317	867	1,588	4,501	3,634	219,843

- 15. Occupation of Fathers.—In the 219,843 cases where nuptial confinements resulted in one or more live births, the classes of occupations of the fathers were distributed as follows:—craftsmen, 69,751; rural and mining workers, 28,919; administrative and clerical workers, 28,806; labourers, 23,462; workers in transport and communication, 19,885; professional and technical workers, 19,546; sales workers, 14,403; service, sport and other workers, 14,380; persons not in the work force, 691.
- 16. Age, Duration of Marriage and Issue of Mothers.—(i) General. The total number of nuptial confinements resulting in live births in 1963 was 219,843, comprising 217,378 single births, 2,446 cases of twins and 19 cases of triplets. The following tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include in some States children by the same father who were born to the mother prior to the marriage. Children born at the present confinement are included in the total issue shown.
- (ii) Duration of Marriage and Issue of Mothers. The following table shows that in 1963 the duration of marriage of mothers of nuptial children ranged from less than one year to over 25 years and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1963 was 2.60, compared with 2.61 in 1962, 2.60 in 1961, 2.59 in 1960, and 2.58 in 1959.

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

	uratio narria		Total married mothers	Total issue	Average issue		uration marriag		Total married mothers	Total issue	Average issue
Unde	er 1	year	31,513	32,170	1.02	15 v	ears		2,910	14,711	5.06
1 ye	ar	٠	24,720	32,127	1.30	16	••		2,436	12,761	5.24
2 ye	ars		25,274	44,692	1.77	17	,,		1,852	10,105	5.46
3	,,		22,712	48,019	2.11	18	,,		1,191	6,822	5.73
4	,,		18,886	46,197	2.45	19	,,		877	5,205	5.94
5	,,		16,292	44,963	2.76	20	,,		733	4,512	6.16
6	,,		13,777	41,636	3.02	21	,,		618	3,865	6.26
	,,		11,751	38,989	3.32	22	,,		384	2,545	6.63
8	,,		9,666	34,467	3.57	23	,,		240	1,730	7.21
9	,,		8,207	31,143	3.79	24	,,		130	946	7.28
10	,,		6,734	26,987	4.01	25	years	and			
11 ,	,,		5,981	25,392	4.25	OV	er		152	1,303	8.57
12	,,		5,166	23,104	4.47						
13	• >		4,309	20,125	4.67						
14	,,		3,332	16,096	4.83	l	Total		219,843	570,612	2.60
		,	<u> </u>								

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

<b>NUPTIAL CONFINEMENTS:</b>	AVERAGE ISS	SUE OF	MOTHERS,
BY AGE	, AUSTRALIA		

				Aver	age Issue of	mothers a	ged—		
Perloc	i	Under 20 years	20-24 years	25-29 years	30-34 years	35-39 years	40-44 years	45 years and over	Ali ages
1911–20		1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921-30		1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931-40		1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1941-50		1.17	1.56	2.15	2.85	3.67	4.79	6.19	2.37
1951-60	••	1.23	1.71	2.42	3.12	3.84	4.63	5.57	2.51
1963		1.25	1.78	2.59	3.42	4.12	4.84	5.65	2.60

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

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

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

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

Of the 19 cases of nuptial triplets registered during 1963, 3 mothers had no previous issue, 4 had one, 4 had two, 2 had three, 2 had four, 1 had five, 1 had six, 1 had seven, and 1 had nine previous issue.

17. Nuptial First Births.—(i) Duration of Marriage. The following table shows the interval between marriage and first birth for periods since 1911. In cases of multiple births, the first live-born child only is enumerated.

NUPTIAL FIRST BIRTHS: DURATION OF MARRIAGE, AUSTRALIA

Duration of			An	nual aver	age			
marriage		1911-20	1921-30	1931-40	1941-50	1951-60	1962	1963
	Nυ	MBER OF	NUPTIAL	FIRST E	BIRTHS		·	
Under 8 months		9,312	10,351	10,677	8,822	11,796	16,198	17,621
8 months		1,562	1,530	1,417	2,104	2,144	2,180	2,205
9 ,,		3,517	3,253	2,668	4,298	4,673	4,808	4,594
10 ,,		2,877	2,907	2,202	3,447	3,947	3,847	3,749
11 ,,		2,018	2,152	1,836	2,896	3,287	3,256	3,074
Total under 1 year		19,286	20.193	18,800	21,567	25.847	30,289	31,243
1 year and under 2 years	••	8,563	10.133	10,595	17,762	18,463	18,167	17,751
2 years ,, ,, 3 ,,		2,626	3,369	4,319	8,028	7,937	7,625	7.852
3 ,, ,, 4 ,,		1,230	1,743	2,214	4,361	4,373	4.213	4,313
4 ,, ,, ,, 5 ,,		700	941	1,205	2,569	2,632	2,585	2,582
5 ,, ,, ,, 10 ,,		980	1,446	1,766	3,936	4,262	4,380	4,343
10 ,, ,, 15 ,,		168	240	289	501	721	848	817
15 years and over		42	55	55	94	144	203	229
Total		33,595	38,120	39,243	58,818	64,379	68,310	69,130
Peop	OPTI	ON OF TO	TAI NI	DTIAL EL	per Ripi	Tre .		
1 KOP	OKII		(Per cent		KSI DIKI	113		
Under 8 months		27.72	27.15	27.21	15.00	18.32	23.71	25.49
8 months		4.65	4.01	3.61	3.58	3.33	3.19	3.19
9 "		10.47	8.53	6.80	7.31	7.26	7.04	6.64
10		8.56	7.63	5.61	5.86	6.13	5.63	至5.42
11 ,		6.01	5.65	4.68	4.92	5.11	4.77	4.45
Total under 1 year		57.41	52.97	47.91	36.67	40.15	44.34	45.19
1 year and under 2 years		25.49	26.58	27.00	30.20	28.68	26.60	25.68
2 years ,, ,, 3 ,,		7.82	8.84	11.01	13.65	12.33	11.16	11.36
3 ,, ,, 4 ,,		3.66	4.57	5.64	7.41	6.79	6.17	6.24
4 ,, ,, , 5 ,,		2.08	2.47	3.07	4.37	4.09	3.78	3.74
5 ,, ,, ,, 10 ,,		2.92	3.79	4.50	6.69	6.62	6.41	6.28
10 ,, ,, 15 ,,		0.50	0.63	0.73	0.85	1.12	1.24	1.18
15 years and over		0.12	0.15	0.14	0.16	0.22	0.30	0.33
Total	••					_	100.00	·
		1-20.00						,

In 1963, the masculinity of nuptial first births was 105.99 and of total births 105.75.

(ii) Age of Mother and Duration of Marriage. A summary showing grouped ages and grouped durations of marriage of mothers of nuptial first-born children is given in the following table.

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

				A	ge of mo	ther (yea	rs)			
Duration of mar	riage	Under 20	20-24	25–29	30–34	35–39	40-44	45 and over	Not stated	Total
			N	UMBER C	F NUPT	IAL FIRS	T BIRTH	S		
Under 8 months		9,077	6,787	1,125	374	192	65	1		17,621
8 months	• •	440	1,204	371	130	50	8	2	١	2,205
9 ,,	• •	620	2,749	828	297	82	18			4,594
10 ,,	• •	481	2,305	645	219	85	12	2		3,749
11 ,,		389	1,873	575	167	61	9			3,074
Total under 1 ye	ar	11,007	14.918	3.544	1.187	470	112	5	· · · ·	31,243
1 year and under		1,655	10,909	3,590	1.075	404	116	ا 2	::	17,751
2 years 3		213	4,550	2,266	546	207	66	4	::	7,852
3 ,, ,, 4	,,	48	1.870	1,770	423	149	51	2	l ::	4,313
4 ,, ,, ,, 5	,,	9	729	1,407	308	96	31	2		2,582
5 ,, ,, ,, 10	,,	2	350	2,363	1.185	361	76	6		4,343
10 ,, ,, ,, 15		·	3	59	443	266	43	l š l		817
5 years and over					23	151	51	4		229
Total		12,934	33,329	14,999	5,190	2,104	546	28		69,130

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

#### NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS: AUSTRALIA

					Nup	ents	Proportion of first to	
	Period				First births	Other births	Total	total nuptial confine- ments (Per cent.)
			F	NNUAL .	Averages	·		
1911-20					33,595	88,997	122,592	27.40
1921-30					38,120	88,086	126,206	30.20
1931-40					39,243	71,136	110,379	35.55
1941-50					58,818	96,994	155,812	37.75
1951-60	••	••	••	<u></u> !_	64,379	136,264	200,643	32.09
				Annual	TOTALS			
1959					66,717	147,145	213,862	31.20
1960					66,890	150,073	216,963	30.83
1961					70,177	155,105	225,282	31.15
1962				1	68,310	153,547	221,857	30.79
1963					69,130	150,713	219,843	31.45

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

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

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

#### **STILLBIRTHS**

Period	l	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
				Ann	UAL AVI	RAGES	•			
1936-40		1,409	854	(a)	(b) 274	234	144	(a)	5	(a)
1941-45		1,478	966	(c) 657	324	248	143	(a)	9	de 3,825
1946-50		1,405	949	626	368	274	161	(a)	12	(e) 3,795
1951-55		1,239	849	581	290	271	139	8	16	3,393
1956-60		1,253	839	558	274	235	109	6	19	3,293
				An	NUAL TO	TALS				
1959		1,241	799	553	281	225	109	5	1 18	3,231
1960		1,261	850	551	280	226	106	13	22	3,309
1961		1,306	885	553	272	240	111	17	19	3,403
1962		1,099	775	520	278	203	102	9	20	3.006
1963		1,163	792	476	262	178	63	30	14	2,978
(a) Not Queensland				e years l	1938–40.		our years	1942-45	. (d	) Exclude:

The incidence of stillbirths in each State and Territory as measured by the rate per 1,000 of all births, both live and still, is as follows.

PROPORTION OF STILLBIRTHS(a)

Period	ļ	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
		·		Avera	GE ANNU	JAL RATI	ES .	<u>'</u>	<u></u>	
1936-40		28.71	27.43	(b)	c27.49	25.70	28.75	(b)	22.18	(b)
1941-45		25.46	24.79	d26.76	25.17	23.29	25.68	(b)	22.87	ef 25.25
1946-50		19.99	19.64	21.87	22.12	20.46	22.26	(b)	16.35	f 20.46
1951-55		16.52	15.55	18.41	15.80	16.97	17.54	17.20	17.05	16.57
195660		15.49	13.50	16.07	13.55	13.70	12.64	8.57	14.26	14.59
				Α	NNUAL I	RATES				
1959		15.11	12.67	15.30	13.61	12.98	12.48	6.24	13.04	14.04
1960		15.15	13.10	15.41	13.18	13.18	11.83	16.46	13.71	14.16
1961		14.89	13.25	14.87	12.00	13.86	12.21	18.99	10.84	13.98
1962		12.70	11.63	14.36	12.85	11.76	11.34	9.65	10.88	12.52
1963		13.65	11.92	13.07	12.11	10.19	7.33	33.75	6.97	12.48

<sup>(</sup>a) Numbers of stillbirths per 1,000 of all births (live and still). (b) Not available. (c) Three years 1938-40. (d) Four years 1942-45. (e) Excludes Queensland for 1941. (f) Excludes Northern Territory.

### § 5. Mortality

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

#### **DEATHS, 1964**

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

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

#### DEATHS

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

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

A graph showing the number of deaths in each year from 1870 to 1964 will be found on page 309.

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

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

#### CRUDE DEATH RATES(a)

Period	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
			Avera	ge Ann	UAL RATE	es.			
1926–30	9.26	9.56	9.06	8.83	8.91	9.44	15.83	5.36	9.26
1931-35	8.68	9.72	8.62	8.72	8.83	9.63	13.46	3.81	9.00
1936-40(b)	9.45	10.36	9.08	9.33	9.22	9.91	11.69	4.54	9.63
1941-45(b)	9.73	10.63	9.24	10.26	9.86	10.21	6.43	4.98	9.96
1946-50(b)	9.70	10.37	9.13	9.76	9.23	9.30	6.27	5.31	9.74
1951–55	9.49	9.55	8.71	9.25	8.49	8.48	6.86	4.58	9.25
1956–60	9.20	8.91	8.36	8.62	7.90	7.97	5.32	4.31	8.78
			A	NNUAL ]	RATES			1	
1960	9.14	8.59	8.30	8.26	7.88	7.70	5.34	4.03	8.61
1961	8.95	8.37	8.42	8.06	7.77	7.89	4.88	3.33	8.47
1962	9.26	8.64	8.56	8.32	7.69	7.99	5.34	3.30	8.70
1963	9.19	8.81	8.50	8.13	7.73	7.74	5.62	4.32	8.69
1964—	J	]						]	
Males	10.58	9.54	10.54	9.62	9.32	9.67	6.39	5.12	10.02
Females	8.58	8.06	7.74	7.62	6.92	7.58	3.60	3.82	8.03
Persons	9.58	8.80	9.16	8.63	8.14	8.64	5.22	4.50	9.03

<sup>(</sup>a) Number of deaths per 1,000 of mean population. etc., from September, 1939 to June, 1947.

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

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

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

An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 7, pages 332-4.

<sup>(</sup>b) Excludes deaths of defence personnel

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

CRIDE	AND	STAND	ARDIZED	DEATH	DATES

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

<sup>(</sup>a) Total deaths per 1,000 of mean population. in para. 3 (i) p. 325.

The comparisons above relate to individual years in which a census of population was taken and should not be used as the basis for general conclusions as to changes in incidence of mortality for other than those years.

4. True Death Rates.—The main objections to standardized death rates are that the choice of a standard population is arbitrary and that the standardized rates have little value except for comparative purposes, and even then variation of the standard population may make appreciable differences. However, a correct measurement of the mortality of the population can be obtained from life tables. A life table represents the number of survivors at each age from a group of newly-born children who are subject to given mortality conditions, and from such a table the complete expectation of life at birth can be calculated. The reciprocal of this figure is known as the true death rate, since, if the complete expectation of life of a person at birth is 50 years, say, then each person will on the average die 50 years after birth, so that in a stationary population one person in 50 or 20 per thousand will die each year. The true death rate for a given period is unaffected by the particular age distribution of that period and is determined solely by the mortality experience of the period as manifested in the rate of survival from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

COMPLETE EXPECTATION OF LIFE AT BIRTH AND TRUE DEATH RATES: AUSTRALIA

		Period				rpectation of th (years)	True death rate		
		renou			Males	Females	Males(a)	Females(b)	
1881-1890		••	•••		47.20	50.84	21.19	19.67	
1891-1900			• •		51.06	54.76	19.58	18.26	
1901-1910	••				55.20	58.84	18.12	17.00	
1920-1922					59.15	63.31	16.91	15.80	
1932-1934					63.48	67.14	15.75	14.89	
1946-1948	••	• •	••	• •	66.07	70.63	15.14	14.16	
1953-1955					67.14	72.75	14.89	13.75	

<sup>(</sup>a) Number of deaths per 1,000 males in stationary population. females in stationary population.

<sup>(</sup>b) See explanation of standardized death rates

<sup>(</sup>b) Number of deaths per 1,000

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

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

At the Census of 1921, Life Tables were prepared by the Commonwealth Statistician from the recorded census population and the deaths in the three years 1920 to 1922. In 1933 and 1947, Life Tables based on the census population and the deaths in the years 1932 to 1934 and 1946 to 1948 respectively were compiled by the Commonwealth Actuary.

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

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

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

LIFE TABLES, 1953-55

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

 $q_x$  = probability of dying within one year at specified ages.  $l_x$  = number surviving at specified ages out of 100,000 births.  $^{\circ}e_x$  = complete expectation of life at specified ages.

COMPLETE EXPECTATION OF LIFE (°ex) AT SELECTED AGES: AUSTRALIA

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

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

INFANT MORTALITY: UNDER ONE YEAR

		111	TANT.	WORTA	LIII. (	UNDER	ONE I	EAR		
Perio	d	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
-				An	NUAL AV	ERAGES		•		`
1926-30	· · ·	2,918	1,797	918	517	431	257	5	8	6,851
1931-35		1,885	1,214	690	304	329	202	6	5	4,635
1936-40		1,963	1,139	718	311	352	201	6	5	4,695
1941-45		2,034	1,311	804	413	347	213	7	7	5,136
1946-50		1,990	1,129	770	431	370	187	11	14	4,902
1951-55		1,852	1,113	730	407	384	184	17	14	4,701
195660		1,770	1,205	717	410	362	176	25	18	4,683
				An	NUAL T	OTALS				
1960		1,735	1,182	740	397	366	169	26	28	4,643
1961		1,800	1,173	733	448	336	151	21	27	4,689
1962		1,825	1,219	754	409	380	184	37	32	4,840
1963		1,673	1,242	722	399	353	153	27	38	4,607
1964		1,634	1,098	673	397	328	166	30	41	4.367
				Averagi	ANNUA	L RATES	(a)			
1926-30		54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931-35		41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936-40		41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941-45		35.95	34.50	34.30	32.95	33.30	39.31	61.73	18.72	34.97
1946-50		28.91	23.82	27.49	26.50	28.15	26.53	37.37	19.89	26.98
1951-55		25.11	20.70	23.58	22.55	24.41	23.67	36.28	15.40	23.34
1956–60		22.24	19.67	20.99	20.50	21.42	20.62	36.00	13.68	21.05
				An	NUAL RA	TES(a)				
1960	• • •	21.16	18.46	21.01	18.94	21.62	19.09	33.46	17.69	20.16
1961		20.84	17.80	20.01	20.00	19.67	16.81	23.92	15.57	19.54
1962		21.36	18.50	21.13	19.15	22.27	20.69	40.04	17.59	20.41
1963		19.90	18.92	20.09	18.67	20.42	17.94	31.43	19.05	19.55
1964	• •	20.29	16.89	19.24	19.03	19.66	20.12	32.93	20.97	19.06

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

Compared with other countries, Australia occupies a favourable position in respect of infant mortality. In 1963, only a few countries recorded a lower rate than Australia. Rates for Australia and the more populous countries of the world for the latest available year are shown in the tables in § 7. International Vital Statistics, pages 344-6.

MORTALITY 329

(b) Under Four Weeks. The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1926 to 1963.

INFANT MORTALITY RATES(a): UNDER FOUR WEEKS

Period	1	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
		, , , , , , , , , , , , , , , , , , , ,		Avera	GE ANNI	JAL RATI	ES .			
1926-30		29.63	29.75	27.66	26.84	25.10	33.12	14.37	28.86	28.96
1931-35		27.62	27.78	27.91	22.99	25.11	30.09	35.26	23.45	27.27
1936-40		27.63	25.94	26.15	21.62	22.62	29.56	28.80	16.33	26.19
1941-45		24.34	24.27	24.34	20.88	20.62	27.13	35 27	12.48	23.85
1946-50		20.53	17.55	19.95	18.38	19.53	19.34	21.45	15.80	19.34
1951-55		17.34	15.18	17.09	14.95	17.27	16.34	19.63	11.28	16.45
1956–60		16.04	14.50	15.15	13.67	15.01	13.29	24.19	9.64	15.07
				A	nnual I	RATES				
1959	•••	16.37	15.22	14.61	14.03	13.79	14.84	27.63	8.81	15.31
1960		15.25	15.84	13.70	13.26	15.89	11.18	27.03	12.00	14.64
1961		14.86	13.46	14.80	12.99	12.76	11.91	14.81	10.96	14.01
1962		15.46	14.17	15 02	13 44	14.48	14.06	19.48	11.54	14.71
1963		14.10	14.88	14.80	12.92	14.87	12.08	20.95	13.54	14.32

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

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

(c) Four Weeks and under One Year. Infant mortality rates for children aged four weeks and under one year are shown in the following table for the period 1926 to 1963.

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

Period	i	N.S.W.	Vic.	Q'land	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
		-	-	Averac	GE ANNL	IAL RATE	:S			
1926-30		25.11	22.59	19.75	20.11	24.17	20.25	51.72	42.45	23.03
1931-35		14.30	14.98	11.55	12.13	15.70	14.38	45.34	11.03	14.00
1936–40		13.55	11.69	10.60	11.46	17.08	11.67	16.00	5 45	12.62
1941-45		11.61	10.23	9.97	12.07	12.68	12.18	26 46	6.24	11.12
1946–50		8.38	6.27	7.54	8.12	8.62	7.19	15.92	.09	7.64
1951-55		7.77	5.52	6.49	7.60	7.14	7.33	16.65	4.12	6.89
1956–60		6.19	5.17	5.85	6.84	6.41	7.33	11.81	4.04	5.98
				A	NNUAL R	ATES				
1959	•••	6.28	5.99	5.64	6.68	6.37	8.58	11.31	2.94	6.23
1960		5.91	4.76	5.17	5.68	5.73	7.91	6.43	5.69	5.52
1961		5.98	4.34	5.21	7.01	6.91	4.90	9.11	4.61	5.53
1962		5.90	4.33	6.11	5 71	7.79	6.63	20.56	6.05	5.70
1963		5.80	4.04	5.29	5.75	5.55	5.86	10.48	5.51	5.23

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

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

(ii) Australia. (a) Under One Year. The fact that out of 601,014 male infants born from 1959 to 1963, 13,561 (22.56 per 1,000) died during the first year of life, while of 569,044 female infants only 10,107 (17.76 per 1,000) died during the first year, accords with the universal experience that during the first few years of life the higher death rate of male infants tends to counteract the excess of male births. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

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

INFANT DEATHS AND MORTALITY RATES: AUSTRALIA

			N	lumber	of deat	hs				Rat	es(a)		
Period	i		atal— r four eks	Po neona four and a	atal— weeks under		under year	unde	atal— r four eks	Post- neonatal— four weeks and under one year		Total under one year	
		Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males
			Aı	NNUAL .	AVERAG	ES .			Aver	AGE AN	NUAL I	RATES	
1926-30 1931-35 1936-40 1941-45 1946-50 1951-55 1956-60		2,203 1,763 1,816 2,007 2,024 1,907 1,921	1,299 1,353 1,495 1,490 1,406	886 863 914 784 776	663 720 604 612	2,649 2,679 2,921 2,808 2,683	2,942 1,986 2,016 2,215 2,094 2,018 2,021	29.30 26.66	23.73 22.93 20.88 16.86 14.32	15.38 13.93 12.14 8.40 7.52	12.55 11.23 10.05 6.84 6.24	43.23 38.80 30.08 25.99	36.28 34.16 30.93 23.70 20.56
			A	NNUAL	TOTAL	S				ANNUAL	. RATES	}	
1959 1960 1961 1962 1963	::	2,017 1,934 1,951 2,038 1,946	1,410 1,451	717 739 752	637 555 589 599 542	2,794 2,651 2,690 2,790 2,636	2,095 1,992 1,999 2,050 1,971	16.33 15.85 16.69	12.84 12.06 12.62	6.06 6.00 6.16	4.96 5.04 5.21		17.80 17.10 17.83

<sup>(</sup>a) Number of deaths per 1,000 male or female live births registered.

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

INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS:

		1	N	umber	of deat	hs				Rate	:s(a)		
			Early n	eonatal		La			Early n	conatal			ate_
Perio	d		der day	One and u	ınder	one	week inder		der day	One and a one	ınder	one and	atal— week under weeks
		Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males	Males	Fe- males
			Aı	NUAL A	<b>Avera</b> G	ES			Aver	AGE AN	NUAL 1	RATES	
1931 <b>-35</b> 1936-40	••	(b) (b)	(b)	c 1,442 c 1,496	c 1,120	320	233 233	(b) (b)	(b) (b)	c25.04 c24.13	c18.99	5.17	4.25 3.94
1941-45 1946-50 1951-55		906 986 918	674 731 713	728 758 742	541 539 508	373 280 247	280 220 185	10.56		8.12		3.00	
1956-60		972		705	490		177	8.50			4.53		
			F	NNUAL	TOTAL	S		İ		Annu	AL RA	ΓES	
1959 1960	::	1,003 967 976	784 755 744	762 715 739	497 516 490		177 166 176	8.63 8.17 7.93		6.04	4.49 4.61 4.19		1.48
1961 1962 1963	•	1,080 1,043	733	719	548 509	239 212	170 155	8.84	6.38	5.89	4.76 4.44		1.48

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

Graphs showing infant deaths and infant mortality rates for each year from 1910 to 1964 will be found on pages 311 and 312 respectively.

(iii) Causes of death—Children under One Year. (a) Numbers. Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies.

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

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

Inter-					Ag	e at d	leath					
Statistical Classi-	Cause of death	Da	iys	Total		Veeks			Mo	iths	_	Total under one
fication number		Un- der 1	1-6	under one week	1	2	3	1-2 (a)	3-5	6-8	9 <u>-</u> 11	year
	Causes mainly of pre-natal and	Ì										
750-759 760, 761	natal origin— Congenital malformations Birth injury	202 343	196 238	398 581	90 24	40 6	31	144	105 	. 53	24 	885 611
762	Post-natal asphyxia and atelectasis	358	200	558	12	1		2	2	2	1	578
769 770	Attributed to maternal toxaemia Erythroblastosis	51 89	33 29	84 118	4 5			,		::		88 125
771	Haemorrhagic disease of the newborn	11	45	56	7	1			••			64
<b>7</b> 73	Ill-defined diseases of early infancy	127	105		9	2	1	8		1	1	259
774-776	Immaturity alone, or primary to diseases other than of						Ī.,				Ī	
	early infancy	579	262	841	13	3		6	1	1	••	865
	Total	1,760	1,108	2,868	164	53	32	161	114	57	26	3,475
	Causes mainly of post-natal											
571, 764	origin— Gastro-enteritis (including											
(b) (c)	diarrhoea of newborn) Pneumonia and bornchitis Septicaemia, skin and sub-	io	47	1 57	20 20	4 17	1 16	22 110	29 130	19 68	18 63	
(3)	cutaneous tissue infections, sepsis of newborn	1	4	5	7	4	2	4	5	6	3	36
057, 340	Meningococcal infections and non-meningococcal menin-											
(d)	gitis  Causes classified as infective or mainly infective in origin		3	3	2	2	2	12	7	7	3	38
E921-E925	not specified above Accidental mechanical suf-	1	1	2	3	4	1	19	21	14	14	78
E921-E923	focation from vomit, food, foreign body or in cot	l	1	1	2	5	2	23	29	7	12	81
E926, E980-E985	Lack of care, neglect, in- fanticide	7	1	8				1	2		1	12
(e)	Other accidents, poisonings and violence	l'	1	1		••		8	11		18	46
	Total	19			_	36	24	_		129	132	868
140–239 Residual	Neoplasms Other causes remaining	27	. 33	2 60	1 10		5	2 53	4 61	2 31	6 21	17 247
	All Causes	1,808	1,200	3,008	211	95	61	415	413	219	185	4,607

<sup>(</sup>a) Age four weeks and under three months. (b) 490-493, 500-502, 763. (c) 053, 690-698, 765-768. (d) 001-052, 054-056, 058-138, 391-393, 470-483, 518, 519. (e) E800-E920, E927-E979, E990-E999.

(b) Proportions. The following table summarizes the detail contained in the previous table, and, in addition, shows the proportions of deaths from the various causes in each of the periods—under one week, one week and under one month, one month and under one year, and total under one year.

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

				Age a	t death				
Inter- national Statistical Classi- fication number	Cause of death		er one eek	and	week under nonth	and	month under year		under year
Humoer	_	Num- ber	Per cent.	Num- ber	Per cent.	Num- ber	Per cent.	Num- ber	Per cent.
<b>75</b> 0–759 760, 761 762	Causes mainly of pre-natal and natal origin— Congenital malformations Birth injury Post-natal asphyxia and	398 581	13.2 19.3	161 30	43.9 8.2	326	26.5	885 611	19.2 13.3
769	atelectasis	558	18.5	13	3.5	7	0.6	578	12.5
770 771	toxaemia Erythroblastosis	84 118	2.8 3.9	4 5	1.1	2	0.2	88 125	1.9
771	Haemorrhagic disease of the newborn  Ill-defined diseases of early	56	1.9	8	2.2			64	1.4
774–776	infancy	232	7.7	12	3.3	15	1.2	259	5.6
774-770	to diseases other than of early infancy	841	28.0	16	4.3	8	0.6	865	18.8
	Total	2,868	95.3	249	67.9	358	29.1	3,475	75.4
<b>5</b> 71, 764	Causes mainly of post-natal origin— Gastro-enteritis (including					ļ •			
(a)	diarrhoea of newborn) Pneumonia and bronchitis Other	57 20	i.9 0.7	7 53 36	1.9 14.4 9.8	88 371 235	7.1 30.1 19.1	96 481 291	2.1 10.4 6.3
	Total	78	2.6	96	26.1	694	56.3	868	18.8
140-239, residual	Neoplasms and other causes remaining	62	2.1	22	6.0	180	14.6	264	5.8
	All Causes	3,008 (65.3 %)	100.0	367 (8.0 %)	100.0	1,232 (26.7 %)	100.0	<b>4,607</b> (100.0 %)	100.0

(a) 490-493, 500-502, 763.

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

#### MORTALITY

#### AGE AT DEATH: AUSTRALIA, 1963

Age at death	Males	Fe- males	Per- sons	Age at death	Males	Fe- males	Per- sons
Under 1 week 1 week and under 2 weeks 2 weeks and under 3 weeks 3 weeks and under 4 weeks	1,734 126 56 30	85 39	3,008 211 95 61	15-19 ",	. 265 . 562 . 618	190 133 219 224 240 333	466 398 781 842 751 946
Total under 4 weeks	1,946	1,429	3,375	35–39 ,,	. 613 921 . 1,312 . 2,106	569 849	1,490 2,161 3,296
4 weeks and under 3 months 3 months and under 6 months 6 months and under 12 months	239 233 218			50-54 " 55-59 " 60-64 " 65-69 " 70-74 "	3,132 4,197 5,479 6,420 7,495	1,639 2,039 2,962 3,978 5,747	
Total under 1 year	2,636	1,971	4,607	80–84 ,, 85–89 ,,	5,013 2,765	6,066 4,073	11,079
1 year	189 111 87 80	94 66	205 153	95-99 ,, 100 years and over	212 14 7	434	
Total under 5 years	3,103	2,379	5,482	Total, All Ages	. 53,212	41,682	94,894

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

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

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

<b>75.</b> 2. 4					Age a	at death (y	ears)			
Period		Under 1	1-4	5–19	20–39	40-59	60-64	65 and over	Unspeci- fied	Total
1901–10		20.51	6.45	6.37	14.99	17.99	5.31	28.26	0.12	100.00
1911-20		16.66	6.09	5.49	14.44	20.32	6.19	30.68	0.13	100.00
1921-30		13.10	4.51	4.85	12.12	20.55	8.26	36.53	0.08	100.00
1931-40		7.40	2.56	3.83	9.36	20.54	8.36	47.92	0.03	100.00
1941-50		6.79	1.71	2.26	6.01	19.04	9.33	54.84	0.02	100.00
1951–60	••	5.59	1.33	1.80	4.90	17.27	9.18	59.90	0.03	100.00
1963—		, ,								
Males		4.95	0.88	2.07	5.00	20.20	10.30	56.59	0.01	100.00
Females		4.73	0.98	1.30	3.28	13.71	7.11	68.89	0.00	100.00
Persons		4.85	0.92	1.73	4.25	17.35	8.90	61.99	0.01	100.00

A table showing these proportions for males and females separately for the period 1901 to 1950 was published in Year Book No. 39, page 614.

(ii) Age-specific Death Rates. In previous issues of the Year Book, average annual age-specific death rates were given for each State and Australia for the periods 1932-34, 1946-48 and 1953-55 (see Year Books, No. 37, pp. 778-9, No. 39, pp. 615-6 and No. 44, pp. 640-1). These rates were based on the age distribution of the population at the relevant censuses.

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

AGE-SPECIFIC DI	EATH RATES(a)	AUSTRALIA,	1963
-----------------	---------------	------------	------

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

<sup>(</sup>a) Average number of deaths per 1,000 of mid-year population in each age group estimated in respect of 30th June, 1963.

(b) Infant deaths per 1,000 live births registered.

8. Causes of Death.—The classification of causes of death adopted for Australia by the Commonwealth Bureau of Census and Statistics at the inception of its mortality statistics in 1907 was that introduced by the International Institute of Statistics in 1893, reviewed by that Institute in 1899, and revised by an International Commission in 1900. This classification became known as the International List of Causes of Death, and further international revisions in 1909 (Second), 1920 (Third), 1929 (Fourth), 1938 (Fifth), 1948 (Sixth), and 1955 (Seventh), were successively adapted for use in Australian statistics.

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

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

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

A.—CAUSES OF DEATH: MALES, AUSTRALIA, 1963

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

	Detailed				A	ge grou	ps (yea	rs)			
Cause of death(a)	list numbers	0	1-4	5-14	15–24	25–34	35-44	45–54	55-64	65 and over	Total
3 1 Tuberculosis of respiratory											
system	001-008 010-019	1	1 1	•••	•••	3	17	55	76 3	175	328 18
3 2 Tuberculosis, other forms 3 3 Syphilis and its sequelae	020-029	1	*		::	٠. ا	2	4 6	13	34	56
6 Dysentery, all forms	045-048	i	2		- ::	· :: }	3	1		1	7
3 7 Scarlet fever and strepto-			_				ļ			-	
coccal sore throat	050, 051		2					••	• •		2 1 2 9 2 10
3 8 Diphtheria	055 056		• • •	1				• • •	• •		1
310 Meningococcal infections.	057	2 2	4	2		::	::	1	• •		4
312 Acute poliomyelitis	080		1	ī	- ::	1		1	::		2
314 Measles	085	3	6	1							10
317 All other diseases classified			ام		أحد			[			
as infective and parasitic	(b)	18	9	14	12	12	12	25	17	29	148
Malignant neoplasms of:— Digestive organs and											
peritoneum	150-159		1	3	6	30	107	316	647	d 1,774	2.884
Lung	162, 163			1	3	9	57	251	614	924	1,859
Breast	170_							2	_6	4	12
B18   Genital Organs	171-179		1		11	15	6	16	75	717	841
Urinary organs Leukaemia and aleuk-	180, 181		1	2	1	•••	9	41	108	310	472
aemia	204	3	27	34	20	15	20	37	49	116	321
Other malignant and								٠,١		110	22.1
lymphatic neoplasms	(c)	4	21	38	44	62	130	260	371	649	1,579
319 Benign neoplasms and neo-		i	- 1	- 1			l				
plasms of unspecified	210-239	2	1	6	1	اء	8				
nature 320 Diabetes mellitus	210-239	- 7	il	O	-1	5 10	16	21 40	21 121	31 357	96 545
321 Anaemias	290-293		3	4	2	4	13	40	121	337 79	343 112
322 Vascular lesions affecting				- 1	-1		٦	ĭ		' '	112
central nervous system	330-334	4	1]	2	13	27	114	342	796	d 4.084	5,383
323 Non-meningococcal men-		4.0		ا			}	_			
ingitis 324 Rheumatic fever	340 400–402	18	12	4	4	••••	• • •	2	4	7	47
324 Kheumatic fever 325 Chronic rheumatic heart	400-402		*	7	7	1	• •	• •	• •	1	12
disease	410-416	/	1	1	14	14	39	69	65	111	313
(Arteriosclerotic heart				- 1		1			-	• • • • • • • • • • • • • • • • • • • •	
326 { _ disease	420				3	41	478	1,960		d9,551	
Degenerative heart disease 327 Other diseases of heart	421, 422 430–434	1	1	9	6	11 10	44 27	107		d 1,764	
327 Other diseases of heart	430-434	3	3	,	<b>'</b> l	10	21	79	164	1,249	1,551
disease	440-443	l l					16	50	98	432	596
329 Hypertension without men-								ارت		, ,,,,	) ),
tion of heart	444-447				1	8	33	45	57	236	
30 Influenza	480-483	3	50	. 1			2	3	5	18	32
331 Pneumonia	490-493 500-502	205 16	30	12	12	13	46 19	101 65	174 324		
33 Ulcer of stomach and duo-	300-302	10	1	-	٠,	3	19	65	324	1,176	1,615
denum	540, 541			2	2	6	21	43	88	235	397
34 Appendicitis	550-553		4	9	4	3	-4	74	16	29	73
35 Intestinal obstruction and			اء	_	اء		_	[			
hernia	, 561, 570	31	2	2	3	4	7	12	28	139	228

For footnotes see following page.

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

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

	Detailed	 			A	ge šton	ps (year	rs)			
Cause of death(a)	list numbers	0	1-4	5–14	15–24	25-34	35–44	45-54	55-64	65 and over	Total
B36 Gastritis, duodenitis, en- teritis, and colitis. except diarrhoea of the newborn	543, 571, 572	50	27	3	1	,	4	15	14	88	204
B37 Cirrhosis of liver B38 Nephritis and nephrosis B39 Hyperplasia of prostate	581 590-594 610	2	3	1 7	6 15			83 76 1	117	120 235	363 515
B41 Congenital malformations B42 Birth injuries, postnatal	750–759	486	47	37	26	6	12	21	11	10	656
asphyvia and atelectasis B43 Infections of the newborn B44 Other diseases peculiar to	760-762 763-768	715 69	::		::	::	::			::	715 69
early infancy, and imma- turity unqualified  B45 Senility without mention of psychosis, ill-defined and	769–776	809		••		••			••		809
unknown causes  General arteriosclerosis  Other diseases of circula-	780-795 450	8	4	1	1	7	9 2	13 9	24 46		321 1,116
B46 tory system	451-468 ( 470-475, )		]	2	2	8	16	57	124		
tory system	\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	34	15	4	2	8	14	32			591
All other diseases BE47 Motor vehicle accidents	Residual E810-E835	62	41 48	58 118	60 <b>5</b> 69		129 245	226 255		988 (d) 297	1,983 2,036
BE48 All other accidents {	E800-E802, E840-E962	71	115	145	211	209	235	217	196	352	1,751
BE49 Suicide and self-inflicted	E963, E970 E979	}		4	108	197	233	258	179	(e) 164	1,143
BE50 Homicide and operations of war	E964, E965, E980-E999	} 3	3	6	9	12	22	9	10	21	95
All Causes		2,636	467	541	1,180	1,124	2,233	5,238	9,676	30,117 (f)	53,212

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

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

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

Cause of death(a)	Detailed				A	ge grou	ps (year	rs)			
Cause of deam(a)	list numbers	0	1-4	5–14	15-24	25–34	35-44	45–54	55–64	65 and over	Total
B 1 Tuberculosis of respiratory	001-008					2	11	17	12	40	82
B 2 Tuberculosis, other forms	010-019		1	1		٠. آ	Ĩ	-i	1 3	5	, 12
B 3 Syphilis and its sequelae B 6 Dysentery, all forms	020-029 045-048	1	••	1			• •	3	4	12	20
B 8 Diphtheria	055	i	1	2	::		::	::	*	1	1 4
B 9 Whooping Cough	056	1		••			••				1 1
B10 Meningococcal infections B14 Measles	057 085	6			• • •		••	2	• • •	· · .	1 16
B17 All other diseases classified	003	ا" ا	*1				••	١	٠٠.	1	7 10
as infective and parasitic	(b)	24	8	4	12	10	11	11	13	29	122

For footnotes see following page.

#### MORTALITY

# B.—CAUSES OF DEATH: FEMALES, AUSTRALIA, 1963—continued Abbreviated List of 50 Causes (Based on the Seventh Revision of the International List)—continued

		Detailed				Aį	ge group	ps (year	3)			
Cause of d	eath(a)	list numbers	0	1-4	5-14	15-24	25-34	35–44	45-54	55–64	65 and over	Total
Malignant r	eoplasms of-											
Digestive	organs and	450 450	1	ľ	ľ	_	20	100	214	440	1 743	2,528
periton		150-159	• • •	•••	• •	3	26 3	100 11	41	61	1,743 145	
Lung Breast		162, 163 170	::	::	• •		15	132	290	276	565	262 1,278
318 Genital o		171-179	::	1		11	20	107	211	275	483	1,108
Urinary of	rgans	180, 181		1	2		1	7	15	37	140	203
	and alcuk-	204	1	16	30	19	15	14	25	31	100	25
aemia Other ma	lignant and	204	1	10	30	1,	13	14	23	31	100	
	neoplasms	(c)	3	12	22	41	48	99	177	249	527	1,178
plasms of	unspecified	210 220	اء	_		١,		1.4	18	21	30	102
nature 320 Diabetes mell		210–239 260	4	2	4	3	6 9	14 13	26		625	79
320 Diabetes men 321 Anaemias	itus	290-293	1	4	2 5	4	4	وَ '	ľš		104	150
322 Vascular lesi central ner	ous system	330-334	2	1	4	8	21	136	363		5,962	7,190
B23Non-meningo	coccal men-	240	10	10	7	1	1	2	1	3	10	47
ingitis B24 Rheumatic fe		340 400–402	12	10	2	1	2	2	2		10	7
B25 Chronic rhe		100 402	•••	••	-	1 *	_					
disease		410-416			1	7	15	43	68	81	214	429
Arteriosclei disease	otic heart	420				2	14	84	358	1,335	7,355	9,148
	e heart dis-	120	•	••	٠. ا	_	1 .	-		<b>'</b>	· 1	
ease		421, 422		٠	٠٠ _	1		28			2,274	2,500
B27 Other disease	of heart	430-434	5	6	3	9	10	21	34	105	1,352	1,54
B28 Hypertension disease	with heart	440-443			l		5	12	23	76	743	859
B29 Hypertension	without men-	170-173	•••	••	''	٠٠.						
tion of hear	t	444 447					3	20	39	41	300	403
B30 Influenza		480-483	1	_2	1		1	1	3	2	21	35 1,410
B31 Pneumonia	• • • • • • • • • • • • • • • • • • • •	490-493	140	57	20	15	18	27	40 21		1,026	315
B32 Bronchitis B33 Ulcer of ston	ach and duo.	500-502	11	10	'	4	1	′	21	33	223	
denum		540, 541			1	2	5	16	16		112	174
B34 Appendicitis		550-553		3	7	2	1	2	2	6	12	3:
B35 Intestinal ob	struction and	560 561 570	24	1		2	2	7	9	19	152	216
hernia <b>B36 G</b> astritis, du	odenitis en-	560, 561, 570	24	1			1 4	<b>'</b>	1	1	1.52	
teritis and	colitis, except				1	ì					_	
diarrhoea o	f the newborn	543, 571, 572	38	20	4	1	1	3		19	129	225
B37 Cirrhosis of I		581	1	1	1	3		13			52 221	177 449
B38 Nephritis and B40 Complication		590-594	2	5	4	11	17	45	69	13	221	, ,,,,
nancy, ch	s of preg- ildbirth and	∫ 640 <u>-</u> 652, \			]			••				64
the puerper	ium	lገ 670–689 <i>(</i> i	••	• •	• • •	19			į.	1	٠٠	
B41 Congenital i	nalformations	750-759	399	43	26	13	17	4	9	9	8	52
B42 Birth injurie		760–762	474					1	1	1		47-
B43 Infections of	nd atelectasis	763-768	66	::	\ ::	1 ::		1 ::	1 ::	1 ::		6
B44 Other disease	s peculiar to	100 700	00	•••	''	''	1	1	1	''		!
early infan	y, and imma- alified	500 550			1							61:
turity unqu <b>B45 Sen</b> ility witho	alified .	769–776	615	••		• • •		• • •	• •	•••		01.
	ll-defined and					ĺ						i
unknown c		780-795	7	3	1	3	1	4			347	380
(General a	rteriosclerosis	450						1	3	28	1,238	1,270
	ses of circula-	451 460	_	٠.	3			1.	30	49	257	37
B46   tory system	ses of respira-	451-468 { 470-475, }	20	1 11	_			16				
tory syste		\{510\_527'\}	20			· '	1	1	1 *`	1 -		
( All other d	seases	Residual	48	40								2,11
BE47 Motor vehic	le accidents	E810-E835	5	45	47	121	47	61	60	72	1	
BE48 All other ac	cidents {	E800-E802 E840-E962	> 51	88	51	28	21	39	76	5 58	520	93
BE49 Suicide and		E963.E970-						120			(A) 76	57
injury	{	E979	<b>}</b> ···	• • •	• • •	29	81	130	148	9 111	(d) 76	31
BE50 Homicide	ánd opera-∫	E964, E965,	2 ﴿	4	10	12	13	وا	) 5	5 4	6	6
		E980-E999	1 2	, ,		1 11	1 13	1	1 *		1	1
tions of w All Ca			1,971	408	323	443	573	1,418	2,829	E 000	28,716	A1 40

<sup>(</sup>a) No female deaths were recorded in the following categories in 1963: B4, Typhoid fever (040); B5, Cholera (043); B7, Scarlet fever and streptococcal sore throat (050, 051); B11, Plague (058); B12, Acute poliomyelitis (080); B13, Smallpox (084); B15, Typhus and other rickettsial diseases (100–108); B16, Malaria (110–117). (b) 030–039, 041, 042, 044, 049, 052–054, 059–074, 081–083, 086–096 120–138. (c) All causes, 140–205, not shown above. (d) Includes 1, age "not stated".

C.—CAUSES OF DEATH: AUSTRALIA, 1963
ABBREVIATED LIST OF 50 CAUSES (BASED ON THE SEVENTH REVISION OF THE INTERNATIONAL LIST)

	T ERNATIONA	L LIST)			τ=	
Cause of death	Detailed list		nber of de	1	Rate per 1,000,000 of mean	Percen- tage of total
	numbers	Males	Females	Persons		deaths
B 1 Tuberculosis of respiratory system	001-008	328	82	410	38	0.43
B 2 Tuberculosis, other forms	010-019	18	12	30	3	0.03
B 3 Syphilis and its sequelae B 4 Typhoid fever	020-029 040	56	20	76	7	0.08
B 5 Cholera	043			• •		• •
B 6 Dysentery, all forms	045-048	7	4	``11	1 1	0.01
8 7 Scarlet fever and streptococcal sore			1		[ ·	
throat	050-051	2		2	(a)	0.00
B 8 Diphtheria B 9 Whooping cough	055	1	4	5	(a)	0.00
B 9 Whooping cough B10 Meningococcal infections	056 057	2 9	1 8	3 17	(a) 1	0.00
B11 Plague	058	l 1	· °	17		0.02
B12 Acute poliomyelitis	080	2		2	(a)	0.00
B13 Smallpox	084					21.2
Bi4 Measles	085	10	16	26	2	0.03
B15 Typhus and other rickettsial diseases B16 Malaria	100-108			••		• •
BI7 All other diseases classified as in-	110-117	• • •		••	• • •	• •
fective and parasitic	(b)	148	122	270	25	0.29
Malignant neoplasms of—	1	ì	1		1	
Digestive organs and peritoneum	150-159	2,884	2,528	5,412	496	5.70
Lung	162, 163 170	1,859	262	2,121	194	2.24
B18 Genital organs	170	12 841	1,278 1,108	1,290 1,949	118 179	1.36 2.05
Urinary organs	180, 181	472	203	675	62	0.71
Leukemia and aleukemia	204	321	251	572	52	0.60
Other malignant and lymphatic	-7.	1				
neoplasms	(c)	1,579	1,178	2,757	253	2.91
B19 Benign and unspecified neoplasms	210–239	96	102	198	18	0.21
B20 Diabetes mellitus B21 Anaemias	260 290–293	545 112	797	1,342	123 24	1.42 0.28
B22 Vascular lesions affecting central	230-233	112	150	262	24	0.20
nervous system	330-334	5,383	7,196	12,579	1,152	13.26
B23 Non-meningococcal meningitis	340	47	47	94	. 9	0.10
B24 Rheumatic fever	400-402	12	9	21	2	0.02
B25 Chronic rheumatic heart disease	410-416 420	313 15,978	429	742	2,302	0.78 26.48
B26 Arteriosclerotic heart disease Degenerative heart disease	421-422	2,173	9,148 2,506	25,126 4,679	429	4.93
B27 Other diseases of heart	430-434	1,551	1,545	3,096	284	3.26
B28 Hypertension with heart disease	440-443	596	859	1,455	133	1.53
B29 Hypertension without mention of	1				]	
heart	444-447	380	403	783	72	0.83 0.07
B30 Influenza B31 Pneumonia	480–483 490–493	32 1,748	35 1,410	67 3,158	289	3.33
B31 Prieumonia B32 Bronchitis	500-502	1,615	315	1,930	177	2.03
B33 Ulcer of stomach and duodenum	540-541	397	174	571	52	0.60
B34 Appendicitis	550-553	73	35	108	10	0.12
B35 Intestinal obstruction and hernia	560, 561, 570	228	216	444	41	0.47
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the						
newborn	543, 571, 572	204	225	429	39	0.45
B37 Cirrhosis of liver	581	363	172	535	49	0.56
B38 Nephritis and nephrosis	590-594	515	449	964	88	1.02
B39 Hyperplasia of prostate	610	411	•••	411	38	0.43
B40 Complications of pregnancy, child birth and the puerperium	{640–652 670–689}		64	64	6	0.07
B41 Congenital malformations	750-759	656	528	1,184	108	1.25
B42 Birth injuries, post-natal asphyxia				i		
and atelectasis	760-762	715	474	1,189	109	1.25
B43 Infections of the newborn	763-768	69	66	135	12	0.14
B44 Other diseases peculiar to early infancy, and immaturity un-	Į.				ŀ	
qualified	769-776	809	615	1,424	130	1.50
B45 Senility without mention of psycho-	1		015	.,		
sis, ill-defined and unknown						
causes	780-795	321	380	701	64	0.74
General arteriosclerosis Other diseases of circulatory	450	1,116	1,270	2,386	218	2.52
system	451-468	604	377	981	90	1.03
Other diseases of respiratory	<b>∫470-475</b> }	1 1				
system	<b>₹ 510–527</b>	591	284	875	80	0.92
All other diseases	Residual	1,983	2,119	4,102	376	4.32
BE47 Motor vehicle accidents	E810-E835	2,036	634	2,670	245	2.81
BE48 All other accidents	E800-E802 E840-E962	} 1,751	932	2,683	246	2.83
DEMO Culate and asternative and total	E963	l <b>K</b> .				
BE49 Suicide and self-inflicted injury {	E970-E979	} 1,143	575	1,718	157	1.81
BE50 Homicide and operations of war	E964, E965	5 95	65	160	15	0.17
	E980-E999	<u></u>				
All Causes		53.212	41,682	94,894	8,692	100.0
(a) I are then 0.5 (b) 030.020	041 040 044	040 0	50 054	NEO 001	004 000	104 104

<sup>(</sup>a) Less than 0.5. (b) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138. (c) 140-48, 160, 161, 164, 165, 190-203, 205.

- 9. Deaths from Principal Causes.—(i) General. In the preceding tables, particulars have been given for each of the causes of death comprising the Abbreviated Classification according to the Seventh Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification numbers used in tables A to C (pp. 335-8) are indicated in parentheses for each cause or group of causes.
- (ii) All Forms of Tuberculosis (B1, B2). (a) General. The total number of deaths classified to all forms of tuberculosis in 1963 was 440, consisting of 346 males and 94 females. In comparing any of the figures for 1950 and subsequent years with those for 1949 and earlier years, consideration should be given to the effect of the change in basis from the Fifth to the Sixth Revision of the International List. This was discussed in Year Book No. 39, page 626.
- (b) Age at Death. The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1963, together with figures for 1931, 1941, 1951, and 1961.

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

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

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

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

Rates for selected countries in each continent are:

Africa—South Africa (white population), 7.1; United Arab Republic, 21.6. North America—Dominican Republic, 15.5; Mexico, 27.3; Guatemala, 31.4. South America—Argentine, 19.9; Peru, 56.4. Brazil, 82.3;

Asia—Japan, 29.2; India, 82.7; Philippines, 87.1.

Europe-England and Wales, 6.6; Scotland, 8.4; Italy, 16.3; France, 19.2; Poland, 39.9.

- (iii) Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18). (a) General. Deaths classified under this heading according to the Sixth and Seventh Revisions of the International List (used in Australia for deaths registered since 1950) are not directly comparable in total with those on the Fifth Revision basis (see Year Book No. 39, p. 628). This should be kept in mind in considering the comparisons shown in the following pages.
- (b) Seat of Disease. Tables showing the seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1963 are included in Causes of Death, Bulletin No. 1. A summary regarding seat of disease for 1963 is given on page 340.

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

Sea	at of disea	se			Males	Females	Persons
Malignant neoplasms—							
Buccal cavity and pha	ırynx				202	80	282
Digestive organs and	peritone	ım		1		i	
Oesophagus	- ••				195	85	280
Stomach				\	992	677	1,669
Small intestine					24	16	40
Large intestine					728	931	1,659
Other	••				945	819	1,764
Respiratory system					1,999	304	2,303
Breast					12	1,278	1,290
Uterus		•	• •			610	610
Other female genital			• •			498	498
Male genital organs	0160110		••	1	841		841
Urinary organs	••	••	••		472	203	675
Skin		• •	••	••	264	194	458
Other and unspecified	i organe	••	• •	••	582	560	1,142
Other and unspecimen	ı Organis	••	• •	}-			
Total, Malignant	Neoplas	ms	••		7,256	6,255	13,511
Neoplasms of lymphatic	and hae	matopoie	tic tissu	ies—			
Lymphosarcoma and					193	156	349
Hodgkin's disease					83	64	147
Other forms of lympl	homa (re	ticulosis)			41	23	64
Multiple myeloma (p					72	57	129
Leukaemia and aleuk					321	251	572
Mycosis fungoides		• •	•		2	231	4
Total, Neoplasn	an of Is			1.			
topoietic Tissu		•	unu 1	1	712	652	1 265
topotetic 1 issu	EJ	• •	••	••	/12	553_	1,265
Grand Total					7,968	6,808	14,776

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

MALIGNANT NEOPLASMS(a): NUMBER OF DEATHS IN AGE GROUPS, AUSTRALIA

Age group	D			Males					Females		
(years)		1931	1941	1951 (a)	1961 (a)	1963 (a)	1931	1941	1951 (a)	1961 (a)	1963 (a)
Under 15	•••	25	21	91	130	136	23	25	71	114	88
15-29 30-44	::	43 196	49 176	103 275	109 380	134 411	38 326	45 344	76 387	84 481	127 548
45-54		410	465	584	823	923	548	685	692	847	973
55-64		868	983	1.334	1.699	1.870	744	926	1.180	1,207	1,369
65 and over		1,942	2,561	3.128	4,239	4,493	1,426	2,198	2,698	3,575	3,703
Not stated		}	1		· · · ·	1	· · · ·		·	1	
Total		3,484	4,255	5,515	7,380	7.968	3,105	4,223	5,104	6,309	6,808

<sup>(</sup>a) Includes neoplasms of lymphatic and haematopoietic tissues.

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

Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:—Brazil, 94; Poland, 97; Japan, 103; Israel Jewish population), 110; South Africa (white population), 111; Canada, 132; Australia, 135; United States of America, 149; Italy, 150; Netherlands, 172; France, 200; England and Wales, 218; Scotland, 221. The rates are for the latest available year in each case.

(iv) Diseases of the Heart (B25 to B28). The number of deaths classified to diseases of the heart in 1963 was 35,098 (20,611 males and 14,487 females). This class is the largest among causes of death, the rate having increased from 112 per 100,000 of mean population in 1911-15 to 321 in 1963. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past twenty years. The rapid increase in mortality is partly a reflection of the ageing of the population, but the figures have been influenced mainly by improved diagnosis and certification by medical practitioners.

The death rates for heart diseases for various years from 1931 were as follows:—1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); 1961, 304 (males, 356; females, 250); and 1963, 321 (males, 374; females, 268). Deaths from heart diseases in 1963 represented 37 per cent. of the total deaths.

(v) Puerperal Causes (B40). It was shown in Year Book No. 39, page 634, that the changes introduced with the Sixth Revision of the International List did not significantly affect the comparability of the total number of deaths from puerperal causes. The Seventh Revision, introduced in 1958, did not affect comparability. The death rate from these causes has fallen rapidly during recent years and in 1963 the rate was 0.3 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 64 deaths in 1963 correspond to a death rate of 1.18 per 100,000 females. The death rate may be expressed in other terms by stating that for every 3,683 babies born alive in 1963 one woman died from puerperal causes.

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

Tables showing ages at marriage and at death, duration of marriage, and issue for 1963 are given in *Demography*, Bulletin No. 81.

- (vi) Causes of Infant Mortality. See paragraph devoted to causes of infant deaths on pages 331-2.
- (vii) Accidents, Poisonings and Violence (BE47 to BE50). (a) General. Deaths in this class are classified according to external cause and not according to nature of injury. The classification provides sub-groups for accidents, including adverse reactions to prophylactic inoculations, therapeutic misadventures and late effects of accidental injury; suicide; homicide and injuries purposely inflicted by other persons; and injury resulting from operations of war, including delayed effects.

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

The low level of the rates and proportions for the years 1941—45 is due largely to the exclusion of deaths of 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), AUST
--

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

<sup>(</sup>a) Number of deaths per 100,000 of mean population. (c) Includes late effects of injuries due to operations of war.

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

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

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

AGE OF PERSONS WHO COMMITTED SUICIDE: AUSTRALIA, 1963

Age group (	years)	Males	Females	Persons	Age group (ye	ars)	Males	Females	Persons
10-14		4	·	4	60-64		84	55	139
15-19		36	8	44	65-69		67	30	97
20-24		72	21	93	70–74		42	26	68
25-29		93	35	128	75-79		27	9	36
30-34		104	46	150	80-84		21	10	31
35-39		121	66	187	85 and over		5		5
40-44	• •	112	64	176	Not Stated		2	1	3
45-49	• •	138	63	201			_	_	_
5054	• •	120	85	205					
55-59	• • •	95	56	151	Total Death	ıs	1,143	575	1,718

<sup>(</sup>b) Includes "open verdict".

- (d) Homicide and Operations of War (BE50). Of the 160 deaths recorded in 1963, there were 148 deaths from homicide and injury purposely inflicted by other persons (not in war), of which assault by firearms and explosives caused 61, assault by cutting and piercing instruments 23, and assault by other means 64. Deaths from injury resulting from the operations of war numbered 12, but all were deaths from late effects of such injuries.
- 10. Age at Death and Average Issue of Deceased Married Males and Females.— Demography, Bulletin No. 81, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married (including widowed or divorced) persons who died in Australia in 1963. Deaths of married males in 1963 numbered 41,397, and those of married females, 33,659. The tables which follow deal, however, with only 40,811 males and 33,423 females, the information regarding issue in the remaining 822 cases being incomplete. The total number of children in the families of the 40,811 males was 118,562 and of the 33,423 females, 105,179. The average number of children is shown for various age groups in the following table.

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

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

<sup>(</sup>a) Includes widowed or divorced.

<sup>11.</sup> Age at Marriage of Deceased Males and Females, and Issue.—The following table shows the average issue of males and females according to the age at marriage of the deceased parent.

# AGE AT MARRIAGE AND AVERAGE ISSUE OF DECEASED MALES AND FEMALES: AUSTRALIA

					Averag	ge issue				
Age at marriage (years)(a)		-	Males					Females		
	1931	1941	1951	1961	1963	1931	1941	1951	1961	1963
Under 15						6.36	7.80	4.88	4.45	5.39
15-19	6.15	5.40	4.63	4.11	4.26	6.79	6.10	5.41	4.74	4.64
20-24	5.56	4.89	4.23	3.65	3.59	5.23	4.80	4.28	3.77	3.64
25-29	4.70	4.21	3.65	3.16	3.04	3.79	3.51	3.14	2.85	2.74
30-34	3.96	3.41	3.00	2.64	2.55	2.42	2.35	2.23	1.98	1.99
35–39	3.14	2.80	2.45	2.11	2.06	1.40	1.26	1.16	1.14	1.02
40–44	2.36	2.01	1.69	1.49	1.41	0.39	0.35	0.36	0.31	0.28
45–49	1.96	1.52	1.33	1.11	0.99	0.12	0.01	0.07	0.06	0.02
50-54	1.60	1.05	0.80	0.71	0.48	٠				
55–59	0.95	0.79	0.49	0.25	0.35			• • •		
60–64	0.63	0.29	0.24	0.25	0.34					
65 and over	0.18	0.01	0.29	0.24			• • •			
Age not stated	3.64	2.95	2.81	2.40	2.34	3.96	2.45	3.17	2.44	2.46
All Ages	4.44	3.91	3.39	2.98	2.91	4.72	4.22	3.68	3.22	3.15

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

#### § 6. Vital Statistics of External Territories

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

#### **EXTERNAL TERRITORIES: VITAL STATISTICS, 1963**

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

<sup>(</sup>a) Total population.

#### § 7. International Vital Statistics

Vital Statistics Rates—Selected Countries.—In the following table, vital statistics rates for selected countries are shown. Crude marriage, birth, and death rates represent the number of "events" reported for the year stated per 1,000 of the population. Infant mortality rates

<sup>(</sup>b) Non-indigenous population only.

are the number of deaths which occurred under one year of age per 1,000 live births. The true death rates (reciprocals of the expectation of life at birth) have been computed from the life tables for the respective countries as published in the United Nations Demographic Yearbook, 1963 (see explanation of true death rates, para. 4, p. 326).

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

# VITAL STATISTICS RATES: SELECTED COUNTRIES—LATEST AVAILABLE YEAR

(Source: United Nations Demographic Yearbook, 1963)

Country	Year	Rates(a)					True death rates	
		Mar- riage	Birth	Death	Infant mor- tality	Year	Male	Female
Africa—	1			Ì			İ	
South Africa—			}	1		1	i	
White population	1963	(c) 8.9	23.9	9.1	29.0	1950-52	15.5	14.3
Coloured population	1963	(c) 6.2	46.3	15.3	126.9	1950-52	22.3	20.9
Asian population	1962	(c) 7.4	38.6	7.4	53.7	1950-52	17.9	18.3
Congo (Leopoldville)(j)	1955-57	(d)	43	20	104	1950-52	26.6	
Morocco Upper Volta	1962	(d)	46.1	18.7	149	1960	2. 20	
Southern Rhodesia(j)	1960-61 1954	(d)	49.1 44.8	30.5	174.3 122	1960~61 1953~55	31.2	32.2
Northern Rhodesia(j)	1950	(d) (d)	56.8	32.2	259	1955	20.8	
Ivory Coast	1961	$\begin{pmatrix} a \\ d \end{pmatrix}$	56.1	33.3	(e)138	1956~58	28	
Senegal	1960-61	(d)	43.3	16.7	92.9	1957	27	
							(27.9 (1	
	1954	(d)	62	40	220	1954-55	1 32.8 (F	Rural)
Dahomey Central African Republic	1961 1959	(d) (d)	54 48	26 30	110 200	1961 1959-60	27 28	.0 .6
North America-		}						
United States of America	1963	8.7	21.6	9.6	25.2	1962	15.0	13.6
Mexico	1963	6.4	45.0	10.4	(f) 69.5	1956	18.1	17.3
Canada	1963	6.9	24.8	7.8	(f) 27.6	1955-57	14.8	
Haiti	1963	(d)	43.6	21.6	180.4	1950	30	7 13.7
Guatemala	1962	3.6	47.7	17.3	91.3	1949-51	22.8	23.0
El Salvador	1963	3.7	48.8	10.9	67.9	1960-61	17.7	16.6
Puerto Rico	1963	9.3	30.9	6.9	42.5	1960	14 9	13.9
Jamaica	1963	4.7	39.6	9.1	49.2	1950-52	17.9	17.0
Costa Rica	1963	5.8	49.9	8.5	(f)76.7	1949-51	18.3	17.5
South America-			i	<u> </u>				
Brazil(k)	1953-57	(d)	42-45	16-19	170	1949-50	25.4	22.0
Argentine	1963	6.5	21 8	7 9	59.6	1947	17.6	16.3
Colombia(k)	1953-57	(f) 5.8	41-45	15-17	(f) 89.6	1950-52	22.6	21.8
Peru(k)		(c) 2.9	42-48	15-22	(c) 97.2		(d)	(d)
Chile	1962	(g) 6.9	34.4	11.9	(c)116.6	1952	ŽÓ. 1	18.6
Venezuela (k)	1953-57	(f) 5.0	44-47	12-15	(f) 45.7		(d)	(d)
Bolivia $(k)$	1953-57	(c) 4.9	41-45	18-25	(h) 86.0	1949-51	20	. 1
Asia	[		ſ					
China (mainland)	1957	(d)	34	11	(d)		(d)	(d)
India(i)	1951-61	(d)	40.9	22.0	145.9	1957-58	22.1	21.5
Indonesia	1962	10.6	43	21.4	125	155. 50	(d)	(d)
Pakistan	1962	(d)	43-46	16-17	(d)	[ ]]	(d)	ìà
Japan	1963	`9́.8	17.2	7.0	(f) 26.5	1962	15.1	14.1
Philippines(i)	1962	5.4	( <i>l</i> ) 50	7.3	67.7	1946-49	20.5	18.7
Thailand	1956	(f) 2.1	(i) 42	(i) 20	(c) 50.1	1947-48	20.5	19.3
Turkey (in Asia)	1960	7.6	(1) 43	10.9	(f) 165	1950-51	21.7	19.8
Korea, Republic of	1963	(c) 8.9	40.6	12.2	32.6	1955-60	19.6	18.6
Burma	1955	(d)	50	35	(d)	1954	24.5	22.8
China (Taiwan)	1962	7.8	37.4	6.4	29.1	1959-60	16.3	15.2
Federation of Malaya		(c) 1.0	40.3	9.3	(c) 59.7	1956-58	17.9	17.2
Cambodia Hong Kong	1959 1963	(d)	41.4 32.1	19.7 5.5	127.0 33.0	1958-59 1961	22.6	23.1 14.2
Israel	1963	(d) 7.5	24.6	6.2	28.3	1961 1962 m	15.7 14.1	13.7

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

Country	Year	Rates(a)				Year	True death rates (b)	
		Mar- riage	Birth	Death	Infant mor- tality	rear	Malo	Female
Europe— Germany, Federal Republic of United Kingdom of	1963	8.8	18.5	11.4	26.9	1959–60	15.0	13.9
Great Britain and Northern Ireland England and Wales Northern Ireland Scotland Italy France Spain Poland Yugoslavia Romania Czechoslovakia Netherlands Hungary Belgium Portugal Bulgaria Sweden Austria Switzerland Denmark Finland Norway Ireland	1962 1963 1963 1963 1963 1963 1963 1963 1963	(c) 7.5 (c) 7.5 7.6 8.4 7.6 7.6 8.3 9.3 9.3 8.0 8.8 7.8 8.9 8.1 8.1 8.1 8.3 7.8 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8.1 8	18.3 18.2 22.7 19.7 19.1 21.5 19.0 21.4 15.7 16.9 20.9 13.1 17.1 14.8 18.9 16.7 18.7	10.2 11.7 9.0 7.5 8.9 8.3 9.5 9.9 12.7 10.7 8.2 10.1	22.4 20.9 26.5 (f) 26.5 39.5 25.5 40.7 49.1 77.5 55.3 22.0 15.8 42.6 28.3 (f) 78.6 31.5 (f) 21.2 20.1 (f) 17.7 26.7	1960-62 1960-62 1960-62 1960-62 1960-1954-57 1960 1960-61 1958-59 1961 1959-60 1946-49 1957-58 1961 1959-61 1959-60 1959-60	(d) 14.7 14.8 15.1 15.2 14.9 15.6 14.8 14.0 15.3 16.1 16.7 15.6 14.0 15.4 14.0 15.4 14.4 14.2 15.4	(d) 13.5 13.8 13.9 14.3 13.5 13.9 14.8 13.7 13.4 14.9 15.4 14.9 15.4 14.8 13.3 14.1 13.6 14.0 13.4
Oceania— Australia New Zealand	1963 1963	7.4 7.8	21.6 25.5	8.7 8.8	20.0 19.6	1953–55 1955–57	14.9 14.7	13.7 13.7
U.S.S.R.— Union of Soviet Socialist Republics	1962	10	22.4	7.5	32	1960–61	15.4	13.7

<sup>(</sup>a) Crude marriage, birth and death rates, i.e. number of marriages, births and deaths per 1,000 of population. Infant mortality—number of deaths of children under one year of age per 1,000 live births.

(b) Number of deaths per 1,000 males and 1,000 females respectively in stationary population (see explanation on p. 326). (c) 1961. (d) Not available, or available information relates to a segment of population only. (e) 1957. (f) 1962. (g) 1963. (h) 1958. (f) Derived from census results by United Nations Statistical Office using reverse survival methods. (j) African population. (k) Estimates specially prepared and published by U.N. Economic Commission for Latin America. (l) 1950-55. (m) Jewish population.