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CHAPTER XVII.

VITAL STATISTICS.

NOTE.—1. Owing to considerations of space, the tables in this chapter contain only summaries of the principal vital statistics for Australia. They relate, in the main, to the year 1955, except for the totals of marriages, births, deaths and infant deaths, for which it has been possible to include figures for 1956. Comparisons have been restricted, in general, to the individual years 1952 to 1956 and the five-year periods 1931–35 to 1951–55, while age data have been shown in groups. Comparisons over longer periods, together with more detailed figures such as single age distributions and cross-classifications of various characteristics, will be found in the annual bulletin, *Demography*.

2. Figures for Australia throughout are exclusive of full-blood aboriginals.

§ 1. Provisions for Registration and Compilation of Statistics.

In Australia, vital statistics are compiled from information obtained from the registers 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 in respect of the Northern Territory having been taken over 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 or the Principal Registrar, or, as in the case of Victoria, the Government Statist.

In the Australian Capital Territory and the Northern Territory, information concerning a birth is required to be supplied within 21 days, in South Australia in 42 days, and in all other States 60 days is allowed. In all States, however, provision has been made for the late registration of births. For the registration of a death, the length of time varies more considerably, being 8 days in Tasmania, 10 days in South Australia, 14 days in Western Australia, the Northern Territory and the Australian Capital Territory, 21 days in Victoria and 30 days in New South Wales and Queensland. Provision is made in all States and Territories for the celebration of marriages by ministers of religion registered for that purpose with the Registrar-General or the Principal Registrar of Births, Deaths and Marriages of the State or Territory and also by certain civil officers. In all cases the celebrant, whether minister of religion or civil officer, is required to register particulars of the parties married with the Registrar of the district in which the marriage has taken place. The length of time allowed for registration of marriage also shows considerable variation as between States and Territories. In Victoria, Western Australia, the Northern Territory and the Australian Capital Territory, registration is required immediately following the ceremony, in Tasmania and South Australia within 7 days and in New South Wales and Queensland within 30 days.

For all States except Queensland and Tasmania, the registration of stillbirths is compulsory. Western Australia was the first State to introduce compulsory registration in 1908, followed by the Australian Capital Territory in 1930, New South Wales in 1935, South Australia in 1937 and Victoria in 1953. No statutory provision has been made in Queensland or Tasmania for the registration of stillbirths but provision is made in these States for voluntary registration and it appears likely that such births are notified to the Registrar-General. In this chapter, stillbirths have been excluded from all tables of births and deaths and shown only in those specially relating to stillbirths.

While there is every indication that the registration work of the several States and the Territories is very efficiently carried out, it is clear that in those States with a large area and scattered population, failure to register births and deaths may occur in some cases. It is believed, however, that consequent on the abolition, in 1943, of income limits previously restricting eligibility for maternity allowances (claims for which are checked against birth registers before payment), the proportion of births occurring now which is not registered is very small.

The data required for the compilation of vital statistics are copied from the registers of births, deaths and marriages in the Registrar General's Office and forwarded, through the Government Statistician in each State, and direct from the Principal Registrars in the two Territories, to the Commonwealth Statistician. The compilation and publication of vital statistics for Australia is a function of the Commonwealth Statistician. The Statisticians in the various States compile and publish statistics relating to their respective States.

§ 2. Marriages.

NOTE.—See NOTE at the beginning of this chapter.

1. **Number of Marriages.**—The number of marriages registered in Australia during the year ended 31st December, 1956 was 71,780, giving a rate of 7.61 per 1,000 of the mean population for the year. A summary of the number of marriages registered in each State and Territory from 1931 to 1956 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, p. 575. A graph showing the number of marriages in each year from 1860 to 1956 appears on p. 597 of this issue.

MARRIAGES.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
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
ANNUAL TOTALS.									
1952 ..	29,351	20,220	10,056	6,241	5,389	2,553	137	225	74,172
1953 ..	27,573	19,238	9,859	6,149	5,032	2,424	154	211	70,640
1954 ..	27,503	19,404	10,027	6,190	5,204	2,512	143	246	71,229
1955 ..	27,645	20,056	10,098	6,226	5,145	2,600	151	251	72,172
1956 ..	27,313	20,137	9,934	6,277	5,080	2,601	160	278	71,780

2. **Crude Marriage Rates.**—The crude marriage rates for each State and Territory from 1931 to 1956 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.
AVERAGE ANNUAL RATES.									
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	9.74	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	7.92	8.11	8.44	8.35	9.21	8.22	8.29
ANNUAL RATES.									
1952 ..	8.78	8.63	8.01	8.27	8.97	8.56	9.08	8.47	8.59
1953 ..	8.14	8.03	7.66	7.92	8.10	7.91	9.91	7.35	8.01
1954 ..	8.02	7.91	7.64	7.77	8.13	8.07	8.82	8.10	7.92
1955 ..	7.92	7.94	7.54	7.59	7.81	8.22	8.86	7.74	7.84
1956 ..	7.68	7.73	7.27	7.40	7.50	8.07	8.94	8.01	7.61

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

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 eight census periods to 1953–55. The period in each case comprises the census year with the year immediately preceding and the year immediately following, and the figures are as follows:—

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

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

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

4. **Crude Marriage Rates of Various Countries.**—The following table gives the crude marriage rates for Australia in comparison with the rates for various other countries.

CRUDE MARRIAGE RATES(a) : VARIOUS COUNTRIES.

Country.	1921–25.	1926–30.	1931–35.	1955.	Country.	1921–25.	1926–30.	1931–35.	1955.
Union of South Africa(b)	8.0	9.3	9.4	(c)9.5	Switzerland	7.7	7.5	7.7	8.0
United States of America	10.6	9.9	9.2	9.3	Japan	8.0	8.0	7.6	8.0
Yugoslavia	10.6	9.5	7.8	9.3	Belgium	10.6	9.1	7.8	7.8
New Zealand(d)	8.0	7.6	7.3	8.3	Australia(e)	8.0	7.5	7.2	7.8
Netherlands	8.2	7.7	7.2	8.3	Finland	7.1	7.2	7.2	7.7
Austria	9.6	7.5	6.8	8.1	Denmark	7.9	7.8	8.7	7.6
Spain	7.3	7.3	6.5	8.1	Norway	6.3	6.1	6.5	7.5
Canada	7.3	7.3	6.4	8.1	Italy	9.0	7.3	6.8	7.4
United Kingdom	7.7	7.5	7.9	8.0	France	9.5	8.2	7.4	7.2
					Sweden	6.3	6.7	7.3	7.1
					Ireland, Republic of	4.9	4.6	4.6	5.5

(a) Number of marriages per 1,000 of mean population. (b) European population only.
(c) 1953. (d) Includes Maoris. (e) Excludes full-blood aborigines.

5. **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 1955 are given hereunder. There were 5,613 males under 21 years of age married during 1955, while the corresponding number of females was 22,440. At the other extreme there were 96 bachelors and 73 spinsters in the age group 65 years and over.

AGE AND CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES : AUSTRALIA, 1955.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bach-lors.	Wid-owers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
Under 20	2,643	..	..	2,643	16,689	4	10	16,703
20–24	29,779	6	43	29,828	31,663	66	304	32,033
25–29	20,135	85	543	20,763	9,150	223	1,025	10,398
30–34	6,541	168	990	7,699	3,183	350	1,227	4,760
35–39	2,443	219	866	3,528	1,272	412	956	2,640
40–44	1,331	320	834	2,485	778	493	759	2,030
45–49	769	392	556	1,717	450	496	387	1,333
50–54	357	418	368	1,143	240	408	230	878
55–59	220	423	185	828	122	366	88	576
60–64	93	450	92	635	93	298	43	434
65 and over	96	735	72	903	73	294	20	387
Total	64,407	3,216	4,549	72,172	63,713	3,410	5,049	72,172

(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 1931 to 1955 and for each of the years 1953 to 1955:—

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

(Per Cent.)

Period.	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
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
1953 ..	88.27	4.68	7.05	100.00	87.65	4.75	7.60	100.00
1954 ..	88.95	4.69	6.36	100.00	88.17	4.85	6.98	100.00
1955 ..	89.24	4.46	6.30	100.00	88.28	4.72	7.00	100.00

(iii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1955 are shown below in age groups of five years.

RELATIVE AGES OF BRIDEGROOMS AND BRIDES : AUSTRALIA, 1955.

Age of Bridegroom (Years).	Total Bridegrooms.	Age of Bride (Years).							
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.
Under 20 ..	2,643	7	2,123	486	25	1	..	..	1
20-24 ..	29,828	9	10,687	17,144	1,732	204	32	16	4
25-29 ..	20,763	8	3,245	11,219	4,877	1,089	236	64	25
30-34 ..	7,699	1	483	2,438	2,416	1,623	515	180	43
35-39 ..	3,528	..	103	511	890	878	676	328	142
40-44 ..	2,485	..	25	156	305	556	584	523	336
45-49 ..	1,717	..	5	52	107	272	329	427	525
50-54 ..	1,143	..	5	17	29	87	179	266	560
55-59 ..	828	..	2	7	9	40	56	130	584
60-64 ..	635	..	..	3	4	6	25	55	542
65 and over	903	..	..	..	4	4	8	41	846
Total Brides	72,172	25	16,678	32,033	10,398	4,760	2,640	2,030	3,608

(iv) *Average Ages of Bridegrooms and Brides.* The age at marriage of brides has remained fairly constant during recent years at an average of about 25½ years, although in the period 1937-39 the average rose to almost 26 years. The average ages, in years, of brides for each of the five years to 1955 were:—1951, 25.71; 1952, 25.61; 1953, 25.73; 1954, 25.59; and 1955, 25.42. For the following five-year periods the average ages in years were:—1931-35, 25.50; 1936-40, 25.72; 1941-45, 25.68; 1946-50, 25.61; and 1951-55, 25.61. The average ages, in years, of bridegrooms were 28.92 in 1951, 28.79 in 1952, 28.96 in 1953, 28.82 in 1954, and 28.68 in 1955. It follows, therefore, that brides are, generally speaking, a little more than three years younger than bridegrooms. The difference in age was 3.21 years in 1951, 3.18 in 1952, 3.23 in 1953 and 1954, and 3.26 in 1955.

6. *Previous Conjugal Condition.*—The following table shows the relative conjugal condition of the contracting parties to marriages in 1955.

CONJUGAL CONDITION OF BRIDEGROOMS AND BRIDES : AUSTRALIA, 1955.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	64,407	59,907	1,466	3,034
Widowers	3,216	1,240	1,350	626
Divorced	4,549	2,566	594	1,389
Total Brides	72,172	63,713	3,410	5,049

7. **Birthplaces of Persons Marrying.**—A table showing the relative birthplaces of bridegrooms and brides married in each year will be found in the annual bulletin, *Demography*.

8. **Occupation of Bridegrooms.**—The distribution of the 72,172 bridegrooms for 1955 amongst classes of occupations was as follows:—Craftsmen, 19,364; commercial and clerical, 12,397; operatives, 11,948; rural, fishing and hunting, 8,366; labourers, 6,803; domestic and protective service, 4,594; professional and semi-professional, 3,916; administrative, 2,808; and not gainfully occupied and not stated, 1,976.

9. **Celebration of Marriages.**—In all the States, marriages may be celebrated either by ministers of religion who are registered for that purpose with the Registrar-General, or by certain civil officers—in most cases district registrars—but most of the marriages are celebrated by ministers of religion. The registered ministers in 1955 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been bracketed under the heading "Other Christian". The figures for 1955 are shown in the following table.—

MARRIAGES IN EACH DENOMINATION, 1955.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Proportion of Total.
										%
Church of England ..	9,622	5,269	2,728	1,273	1,523	929	26	89	21,459	29.73
Roman Catholic ..	6,812	4,843	2,571	1,051	1,142	492	33	84	17,028	23.59
Presbyterian ..	3,095	3,645	1,924	297	375	143	8	16	9,503	13.17
Methodist ..	2,723	2,494	1,492	1,615	599	429	26	9	9,387	13.01
Baptist ..	366	324	204	173	48	69	..	1	1,185	1.64
Congregational ..	277	286	121	261	122	58	..	2	1,127	1.56
Lutheran ..	123	244	263	407	32	11	11	5	1,096	1.52
Church of Christ ..	88	382	63	173	75	17	..	2	800	1.11
Greek Orthodox ..	240	278	66	60	51	..	1	3	699	0.97
Salvation Army ..	96	84	91	35	29	25	9	..	369	0.51
Seventh-Day Adventist ..	89	43	34	9	20	13	..	..	208	0.29
Other Christian ..	182	227	140	47	119	29	3	..	747	1.04
Hebrew ..	137	183	11	4	15	1	..	..	351	0.48
Total ..	23,850	18,302	9,708	5,405	4,150	2,216	117	211	63,959	88.62
Civil Officers ..	3,795	1,754	390	821	995	384	34	40	8,213	11.38
Grand Total	27,645	20,056	10,098	6,226	5,145	2,600	151	251	72,172	100.00

PROPORTION OF TOTAL.
(Per cent.)

Denominational ..	86.27	91.25	96.14	86.81	80.66	85.23	77.48	84.06	88.62
Civil ..	13.73	8.75	3.86	13.19	19.34	14.77	22.52	15.94	11.38

§ 3. Divorces.

Chapter XIII.—Public Justice shows details of the number of marriages dissolved annually by divorce, nullity of marriage and judicial separation. The number dissolved by decrees for divorce and nullity of marriage made absolute and by judicial separation in 1955 was 6,782. Detailed tables relating to divorce statistics for 1955 and summary tables for earlier years are shown also in *Demography*, Bulletin No. 73.

§ 4. Fertility and Reproduction.

NOTE.—See NOTE at the beginning of this chapter.

1. **Introductory.**—Of the two elements of increase in the population, namely, natural increase and net migration, the former has been by far the more important over the past few decades. 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 1955.* There are various methods of measuring the fertility of the population by relating the number of births to the numbers in the population. In each the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1955 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, 1955.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W.A.	Tas.	N.T.	A.C.T.	Australia.
LIVE BIRTHS.									
Single births ..	72,770	54,994	31,682	18,069	16,207	7,911	501	835	202,969
Twins ..	1,616	1,321	649	419	410	173	14	26	4,628
Triplets ..	21	21	17	6	6	5	..	..	76
Quadruplets ..	..	..	4	..	..	..	..	..	4
Males ..	38,081	28,888	16,701	9,524	8,436	4,122	257	441	106,450
Females ..	36,326	27,448	15,651	8,970	8,187	3,967	258	420	101,227
Total ..	74,407	56,336	32,352	18,494	16,623	8,089	515	861	207,677

STILLBIRTHS ASSOCIATED WITH MULTIPLE BIRTHS INCLUDED ABOVE.

Twins ..	58	11	15	5	14	5	..	2	110
Triplets ..	..	..	1	..	..	1	..	..	2

CONFINEMENTS RESULTING IN ABOVE BIRTHS.

Nuptial ..	70,619	53,778	30,188	17,675	15,646	7,728	450	833	196,917
Ex-nuptial ..	2,995	1,889	1,833	608	775	274	58	16	8,448
Total ..	73,614	55,667	32,021	18,283	16,421	8,002	508	849	205,365

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 is live-born the confinement has been treated as a single birth. However, the numbers of multiple births are not significantly affected. See also para. 13.

(ii) *Live Births, Years 1931 to 1956.* The average annual number of live births in each State and Territory for each five-year period from 1931 to 1955 and the total number of live births in each State and Territory for each year from 1952 to 1956 are given in the following table. Corresponding figures for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, p. 583.

LIVE BIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
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
ANNUAL TOTALS.									
1952 ..	74,196	53,738	30,953	17,884	15,413	7,916	448	1,102	201,650
1953 ..	74,890	53,561	30,782	18,156	15,862	7,736	460	788	202,235
1954 ..	73,125	54,660	31,176	18,227	15,928	7,770	513	857	202,256
1955 ..	74,407	56,336	32,352	18,494	16,623	8,089	515	861	207,677
1956 ..	75,714	58,393	32,409	18,964	16,916	8,104	556	1,077	212,133

A graph showing the number of births in each year from 1860 to 1956 will be found on p. 597.

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.

Crude birth rates for each five-year period from 1931 to 1955 and for each year from 1952 to 1956 for each State and Territory are set out below:—

CRUDE BIRTH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
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	22.41	24.13	23.25	25.35	25.57	29.64	32.30	22.85
ANNUAL RATES.									
1952 ..	22.20	22.93	24.65	23.69	25.66	26.53	29.69	41.48	23.35
1953 ..	22.11	22.36	23.91	23.39	25.54	25.25	29.61	27.43	22.94
1954 ..	21.33	22.28	23.74	22.89	24.88	24.97	31.64	28.21	22.50
1955 ..	21.31	22.30	24.16	22.55	25.23	25.59	30.22	26.56	22.57
1956 ..	21.29	22.42	23.72	22.35	24.98	25.15	31.07	31.04	22.50

(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. Prior to 1939, a large proportion of births in respect of which the mother's usual residence was the Australian Capital Territory took place in Queanbeyan, just over the New South Wales border. With improved hospital facilities in the Territory, the position was reversed until late in 1952, when maternity accommodation was provided at the Queanbeyan District Hospital. Since 1952, the movements in either direction have been only small. Particularly for years prior to 1953, the following rates, based on births in respect of which the mother's usual residence is the Australian Capital Territory, are a truer measure of birth rates in the Australian Capital Territory.

Annual Average.	Year.
1931-1935 ..	19.53
1936-1940 ..	19.29
1941-1945 ..	23.06
1946-1950 ..	27.13
1951-1955 ..	28.39
1951 ..	28.51
1952 ..	31.09
1953 ..	27.61
1954 ..	28.67
1955 ..	26.53

The variations similarly caused in the birth rates for the States and the Northern Territory by referring the birth registrations to the State or Territory in which the mother was usually resident are shown by the following corrected rates for 1955:—New South Wales, 21.29; Victoria, 22.28; Queensland, 24.24; South Australia, 22.46; Western Australia, 25.26; Tasmania, 25.66; and Northern Territory, 30.93.

A graph showing the birth rate for each year from 1860 to 1956 will be found on p. 598.

In the earlier years of the present century the crude birth rate fluctuated somewhat, but from 1912, when 28.60 was recorded, there was an almost continuous decline to the very low figure of 16.39 in 1934. The decline in the depression years was to some extent occasioned by the postponement of marriages, and with subsequent improvement in economic conditions the rate rose. From 1940 the rate increased quite appreciably, owing to a continued improvement in the economic welfare of the community and the war-time boom in marriages. The latter resulted in an abnormal number of first births but investigation indicates that rates for births other than first were generally slightly higher than might have been expected from pre-war experience. The improvement in the birth rate has been substantially maintained since the end of the war despite some falling off in marriage rates. The post-war peak of 24.07 was recorded in 1947.

4. **Crude Birth Rates of Various Countries.**—The following table gives crude birth rates for Australia in comparison with rates for various other countries.

CRUDE BIRTH RATES(a) : VARIOUS COUNTRIES.

Country.	1921- 25.	1926- 30.	1931- 35.	1955.	Country.	1921- 25.	1926- 30.	1931- 35.	1955.
Canada	27.4	24.1	21.4	28.3	Spain	29.8	28.5	27.1	20.6
Yugoslavia ..	35.0	34.2	31.8	26.9	Japan	34.6	33.5	31.6	19.4
Union of South Africa(b) ..	27.1	25.9	24.1	26.0	Norway	22.2	18.0	15.2	18.7
New Zealand(c) ..	22.2	19.7	17.0	24.9	France	19.3	18.2	16.5	18.4
United States of America	22.5	19.7	d16.9	24.6	Italy	29.8	26.8	23.8	17.7
Australia(e) ..	23.9	21.0	16.9	22.6	Denmark	22.3	19.4	17.7	17.5
Netherlands ..	25.7	23.2	21.2	21.4	Switzerland ..	19.5	17.6	16.4	17.1
Ireland, Republic of	20.3	20.1	19.4	21.2	Belgium	20.4	18.6	16.8	16.8
Finland	24.7	22.5	19.5	20.9	Austria	22.2	17.6	14.4	15.5
					United Kingdom ..	20.4	17.2	15.5	15.4
					Sweden	19.1	15.9	14.1	14.8

(a) Number of births per 1,000 of mean population. (b) European population only.
(c) Excludes Maoris. (d) 1933-35. (e) Excludes full-blood aboriginals.

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

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

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

CRUDE BIRTH RATES AND FERTILITY RATES: AUSTRALIA.

Period.	Average Annual Rates.			Index Nos. (Base: 1880-82 = 100).		
	Crude Birth Rate.(a)	Fertility Rates.		Crude Birth Rate.(a)	Fertility Rates.	
		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.
1880-82 ..	35.3	170	321	100	100	100
1890-92 ..	34.5	159	332	98	94	103
1900-02 ..	27.2	117	235	77	69	73
1910-12 ..	27.2	117	236	77	69	74
1920-22 ..	25.0	107	197	71	63	61
1932-34 ..	16.7	71	131	47	42	41
1946-48 ..	23.6	104	160	67	61	50
1953-55 ..	22.7	109	149	64	64	46

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

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

6. 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. 7, are shown in five-year age groups for Australia for the period 1921 to 1955.

AGE-SPECIFIC FERTILITY RATES(a): AUSTRALIA.

Age Group (Years).	1921.	1926.	1931.	1936.	1941.	1946.	1951.	1953.	1954.	1955.
15-19 ..	12.83	14.02	13.08	12.18	11.90	12.63	18.59	18.45	19.12	20.30
20-24 ..	65.45	60.23	53.08	50.33	59.42	73.52	85.84	94.53	96.24	99.48
25-29 ..	82.24	76.82	62.47	62.02	70.78	89.51	90.24	94.73	94.49	97.12
30-34 ..	68.50	61.90	51.25	46.33	49.72	65.03	55.16	61.17	59.91	60.14
35-39 ..	49.48	43.55	33.23	28.89	28.69	37.43	32.22	31.87	31.17	31.12
40-44 ..	21.66	17.63	13.61	10.19	9.52	11.87	9.97	9.77	9.85	9.92
45-49 ..	2.10	1.90	1.45	1.11	0.80	1.03	0.80	0.67	0.71	0.71

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

The table shows that from 1954 the most fertile age group has been 20-24 years, whereas previously fertility had been highest between the ages of 25 and 29 years. The decline in fertility between 1921 and 1936 was general but was more pronounced in the higher age groups. During the period 1936 to 1955, a rise in fertility occurred in all age groups below 40. The most noticeable increase has been in the 20 to 24 age group, in which, as mentioned, fertility is now highest, as the result of a marked trend towards earlier marriage.

7. 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 the 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 9 hereof.

GROSS AND NET REPRODUCTION RATES: AUSTRALIA.

Year.	Gross Reproduction Rate.	Net Reproduction Rate.	Year.	Gross Reproduction Rate.	Net Reproduction Rate.(g)
1881(a)	2.65	(b) 1.88	1949	1.457	1.382
1891(a)	2.30	(b) 1.73	1950	1.491	1.415
1901(a)	1.74	(c) 1.39	1951	1.485	1.409
1911	1.705	(d) 1.421	1952	1.547	1.468
1921	1.511	(e) 1.313	1953	1.556	1.477
1931	1.141	(f) 1.039	1954	1.558	1.478
1941	1.154	(f) 1.053	1955	1.594	1.513

(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.

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 experiences. 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.

Since 1881, there has been a substantial downward trend in both rates, but the gross rate has fallen considerably more than the net, showing that the decline in fertility has been offset to some extent by a decline in mortality. The net reproduction rate was below unity over the period 1932 to 1939. If such low levels were to be experienced indefinitely, ultimate population decline would be certain. The progressive rise in both gross and net reproduction rates from 1939 to 1947 was due largely to higher marriage rates during the war and early post-war years than had been experienced in the immediate pre-war years. Such fluctuations in marriage rates affect both gross and net reproduction rates substantially. When fluctuations in marriage rates are transient, reproduction rates calculated as above are not valid as indicators of relative fertility nor of the extent to which population will replace itself. Owing to various influences, the number of marriages in each year since 1948 has remained at a relatively high level and the net reproduction rates have been steady between 1.4 and 1.5. The fertility of marriages is measured in paragraph 9 below.

8. **Gross and Net Reproduction Rates of Various Countries.**—In the following table, a comparison is given of the gross and net reproduction rates recorded for various countries in the period 1950 to 1955. These represent the latest available international comparison.

GROSS AND NET REPRODUCTION RATES: VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Canada	1954	1.87	(a)	France	1953	1.30	1.22
New Zealand(b) ..	1954	1.76	1.69	Norway	1953	1.28	1.21
United States of America(c) ..	1953	1.60	1.54	Switzerland ..	1953	1.25	1.15
Australia(d)	1955	1.59	1.51	Denmark	1954	1.23	1.12
Ireland, Republic of	1950-52	1.60	1.47	Scotland	1952	1.18	1.12
Netherlands	1953	1.47	1.40	England and Wales	1953	(a)	1.03
Finland	1953	1.44	1.34	Belgium	1953	1.13	1.03
Portugal	1953	1.50	1.27	Sweden	1952	1.08	1.03

(a) Not available. (b) Excludes Maoris. (c) White population only. (d) Excludes full-blood aboriginals.

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

9. **Fertility of Marriages.**—Estimates of the fertility of marriages which were published in issues of the Official Year Book prior to No. 36 were calculated by relating the births of one five-year period to the marriages in the preceding five years (*see* Official Year Book No. 35, p. 329). Since the publication of that issue, an improved method has been formulated for measuring current marriage fertility by relating nuptial confinements in each year to the marriages from which they could have resulted. Confinements of women of a certain number of years duration of marriage are related to the number of marriages taking place that number of years previously. The table below sets out this index of current fertility per marriage in respect of confinements in the individual years shown.

FERTILITY OF MARRIAGES : AUSTRALIA.

Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
1941.. ..	2.19	1946.. ..	2.55	1951.. ..	2.55
1942.. ..	2.12	1947.. ..	2.55	1952.. ..	2.63
1943.. ..	2.21	1948.. ..	2.44	1953.. ..	2.66
1944.. ..	2.28	1949.. ..	2.45	1954.. ..	2.66
1945.. ..	2.36	1950.. ..	2.56	1955.. ..	2.71

NOTE.—*See* NOTE to table opposite.

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. There was an almost continuous decline for a number of years to 1942, but a pronounced increase has since occurred. Comparing this index with the net reproduction rate, it is evident that the rise in the latter since 1935 has been caused mainly by a rise in the marriage rate, due firstly to postponed depression marriages, and secondly to war-time and post-war marriages which have resulted in very high proportions of women married, particularly in the most fertile age groups. Only since 1944 has there been an increase in the fertility of marriages compared with pre-war levels.

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 are consequently 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 at least 6 per cent.

10. **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, State totals), considerable variation is shown. For 1956, the figures ranged from 103.82 in Tasmania to 113.69 in the Australian Capital Territory. The averages for the ten years 1941–50 were as follows:—New South Wales, 105.49; Victoria, 105.47; Queensland, 105.49; South Australia, 105.78; Western Australia, 104.27; Tasmania, 104.45; Northern Territory, 100.20; Australian Capital Territory, 104.91; Australia, 105.38. The following table shows the figures for Australia for each ten-year period from 1901 to 1950 and for each of the years 1953 to 1956:—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901–10.	1911–20.	1921–30.	1931–40.	1941–50.	1953.	1954.	1955.	1956.
Total Births ..	105.22	105.27	105.55	105.12	105.38	104.82	104.92	105.16	106.87
Ex-nuptial Births	104.08	105.25	105.16	105.36	105.34	105.69	101.58	104.72	(b)

(a) Number of males born for every 100 female births.

(b) Not available.

11. **Ex-nuptial Live Births.**—(i) *General.* The highest proportion of ex-nuptial births in any one year since 1901 was recorded in 1905 when there were 6,545 ex-nuptial births, representing 6.24 per cent. of total births. Since then the proportion has declined steadily. The largest number of ex-nuptial births was recorded in 1955 when 8,537 were registered, but this number represented only 4.11 per cent. of total births. The lowest proportion was 3.78 per cent. in 1940.

The variations in the proportions of ex-nuptial births as between the individual States and Territories for 1955 are shown below.

EX-NUPTIAL LIVE BIRTHS : NUMBER AND PROPORTION, 1955.

Particulars.	N.S.W.	Vic.	Q'land.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
Number ..	3,024	1,908	1,859	615	780	276	59	16	8,537
Proportion of Total Births %	4.06	3.39	5.75	3.33	4.69	3.41	11.46	1.86	4.11

The number and proportion of ex-nuptial births at intervals from 1901 to 1955 are as follows:—

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

Particulars.	Annual Average.					1952.	1953.	1954.	1955.
	1901-10.	1911-20.	1921-30.	1931-40.	1941-50.				
Number ..	6,498	6,836	6,238	5,133	6,780	7,842	8,032	8,027	8,537
Proportion of Total Births %	6.05	5.22	4.66	4.40	4.13	3.89	3.97	3.97	4.11

It is of course possible that the number of ex-nuptial births is somewhat understated owing to diffidence in proclaiming the fact of ex-nuptiality.

(ii) *Rate of Ex-nuptiality.* A further comparison 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 has been found to be 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; and 1953-55, 14.45. 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, showing the relative proportions of ex-nuptial and nuptial births to the total population, discloses a much greater proportional reduction in the ex-nuptial birth rate than in the nuptial rate:—

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

Birth Rate.	Annual Average.					1952.	1953.	1954.	1955.
	1901-10.	1911-20.	1921-30.	1931-40.	1941-50.				
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.90	0.91	0.91	0.89	0.93
Nuptial ..	24.91	25.18	21.40	16.47	20.99	22.44	22.03	21.61	21.64
Total ..	26.51	26.57	22.44	17.23	21.89	23.35	22.94	22.50	22.57

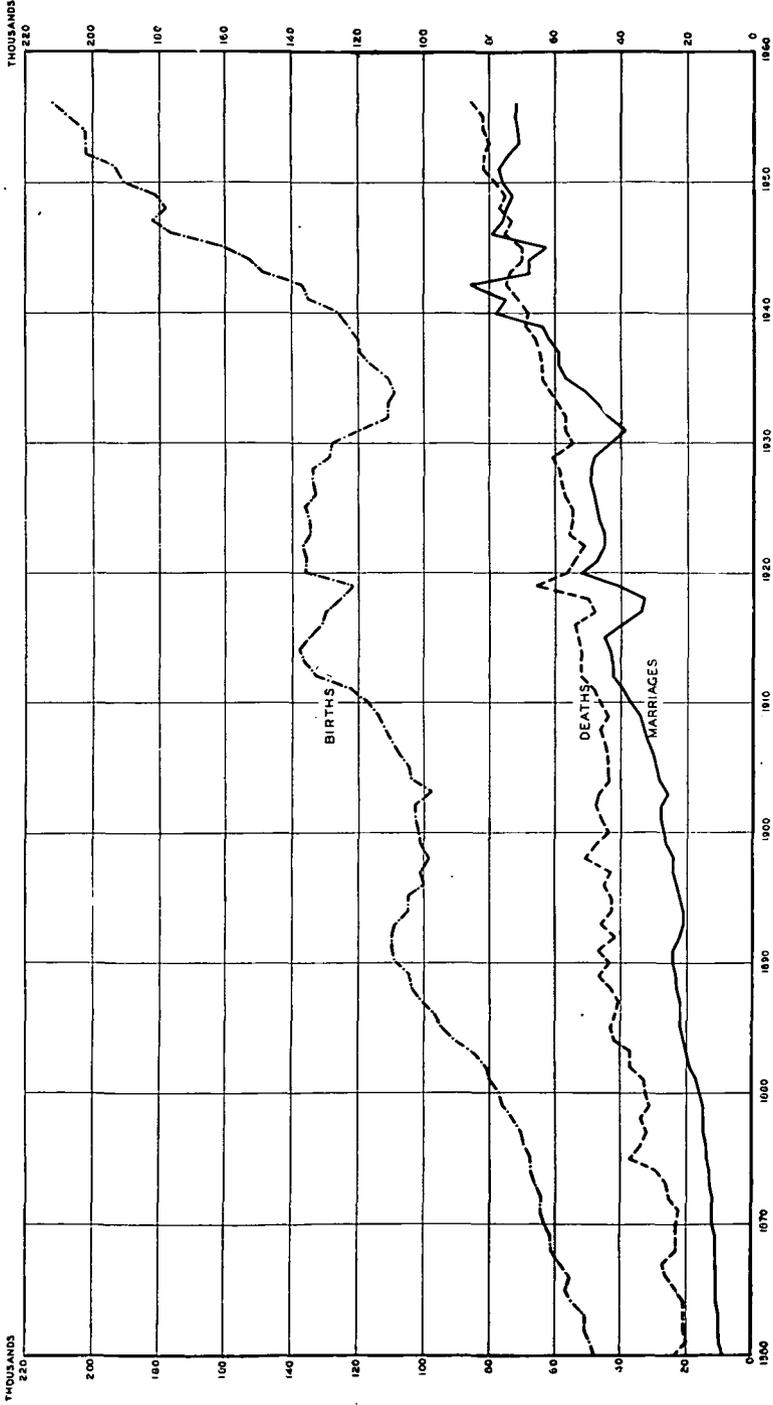
(a) Number of births per 1,000 of mean population.

12. *Legitimations.*—Acts have been 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 comes within the scope of their purposes, born before or after the passing thereof, is deemed to be legitimate from birth by the post-natal union of its parents, and entitled to the status of offspring born in wedlock. During 1955, the number of children legitimized in Australia was 912.

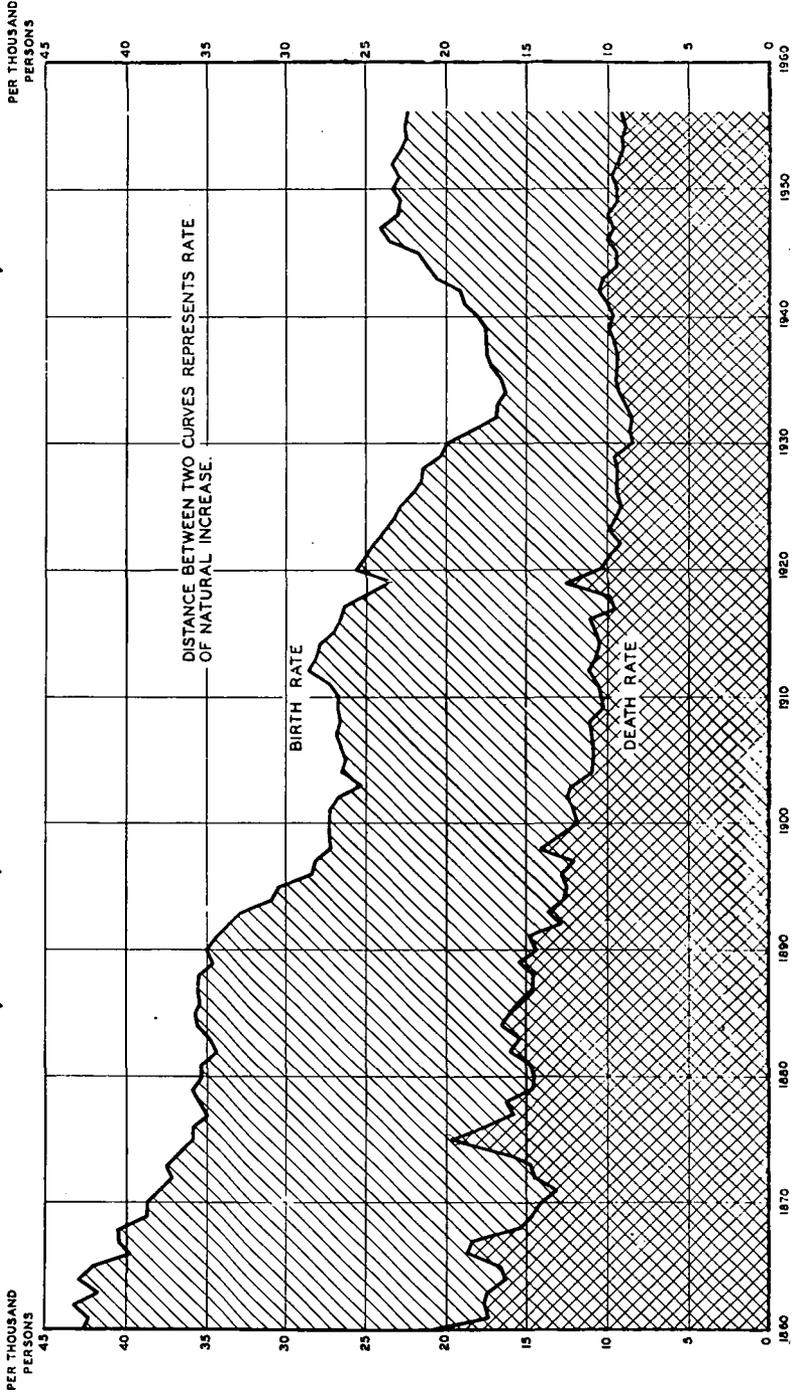
13. *Multiple Births.*—Because the current Australian birth statistics are based only on those confinements which resulted in a live-born child, the number of confinements for multiple births for Australia is understated—firstly, because in cases where all children of a multiple birth are still-born 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.

During 1955, multiple births recorded on the above basis comprised 2,369 cases of twins, 26 cases of triplets and 1 case of quadruplets, all live-born, the resultant numbers of live-born and still-born children being respectively 4,628 and 110 for twins, 76 and 2 for

BIRTHS, DEATHS, AND MARRIAGES: AUSTRALIA, 1860 to 1956



RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE: AUSTRALIA, 1860 TO 1956



PER THOUSAND PERSONS

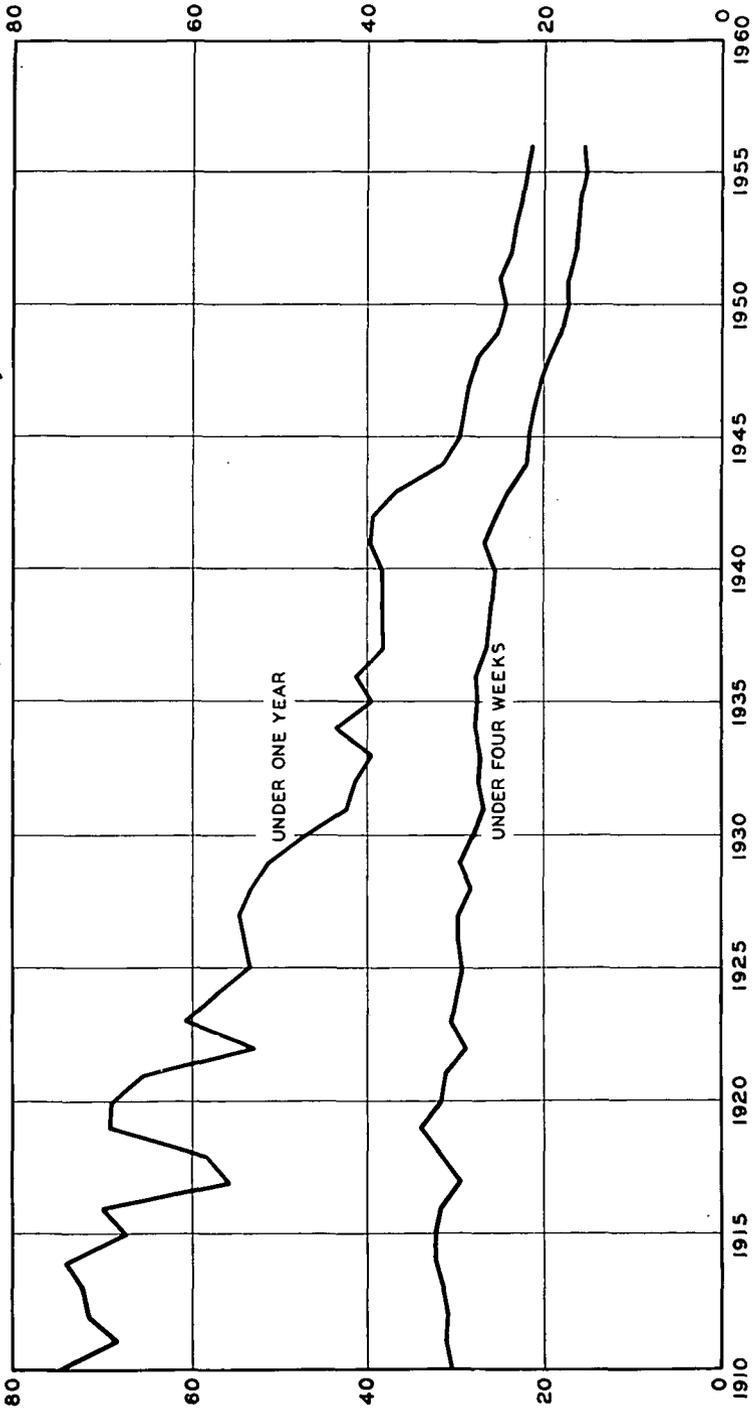
DISTANCE BETWEEN TWO CURVES REPRESENTS RATE OF NATURAL INCREASE.

BIRTH RATE

DEATH RATE

PER THOUSAND PERSONS

INFANT MORTALITY RATES: AUSTRALIA, 1910 TO 1956
(INFANT DEATHS PER 1,000 LIVE BIRTHS)





triplets and 4 live-born for quadruplets. This represents an average of 11.54 recorded cases of twins and 0.13 recorded cases of triplets per 1,000 confinements or, alternatively, mothers of twins represented 1 in every 87 mothers and mothers of triplets 1 in every 7,900. Total cases of multiple births represented 11.66 per 1,000 confinements or 1 in every 86 mothers.

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

14. Ages of Parents.—The relative ages of the parents of children registered in 1955 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. 73. In the present work the exigencies of space allow only the insertion of a table showing, in respect of confinements resulting in one or more live births, the relative ages of parents in groups of five years.

CONFINEMENTS: RELATIVE AGES OF PARENTS, AUSTRALIA, 1955.

Age of Father (Years) and Type of Birth.	Total.	Age of Mother (Years).								
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 20	1,291	3	1,055	222	11	..	..	..	..
20-24	28,862	..	6,532	19,273	2,811	220	22	4	..	
25-29	63,418	2	2,343	27,253	29,376	4,030	375	36	3	
30-34	51,865	1	406	6,781	23,369	18,744	2,374	186	4	
35-39	28,439	..	80	1,317	6,050	12,206	7,869	898	19	
40-44	15,106	..	23	389	1,641	4,580	5,840	2,569	64	
45-49	5,641	..	6	106	464	1,146	2,094	1,659	166	
50-54	1,667	..	7	27	119	329	275	528	82	
55-59	437	..	1	12	34	86	152	134	18	
60-64	121	..	..	2	10	28	30	41	10
65 and over	70	..	1	4	8	8	33	10	6	
Mothers of Nuptial Children	Single	194,613	6	10,400	54,873	63,157	40,791	19,049	5,967	370
	Twins	2,277	..	53	511	727	578	308	98	2
	Triplets	26	..	1	2	9	7
	Quadruplets	1
Total	196,917	6	10,454	55,386	63,893	41,377	19,364	6,065	372	
Mothers of Ex-nuptial Children	Single	8,356	33	1,965	2,438	1,755	1,196	689	272	8
	Twins	92	..	7	17	23	28	15	2	..
	Triplets
	Total	8,448	33	1,972	2,455	1,778	1,224	704	274	8
Total Mothers	Single	202,969	39	12,365	57,311	64,912	41,987	19,738	6,239	378
	Twins	2,369	..	60	528	750	606	323	100	2
	Triplets	26	..	1	2	9	7
	Quadruplets	1	1
Total	205,365	39	12,426	57,841	65,671	42,601	20,068	6,339	380	

15. Birthplaces of Parents.—A table showing birthplaces of parents of children whose births were registered during 1955 appears in *Demography*, Bulletin No. 73.

16. Occupation of Fathers.—A table showing occupations of the fathers of all nuptial children registered in 1955 appears in *Demography*, Bulletin No. 73.

17. Age, Duration of Marriage and Issue of Mothers.—(i) *General.* The total number of nuptial confinements resulting in live births in 1955 was 196,917, comprising 194,613 single births, 2,277 cases of twins, 26 cases of triplets and 1 case of quadruplets. The tables relating to previous issue exclude the issue of former marriages and still-born children. On the other hand, they include 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 1955 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 1955 was 2.50, compared with 2.48 in 1954, 2.45 in 1953, 2.42 in 1952, and 2.40 in 1951.

NUPTIAL CONFINEMENTS : DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1955.

Duration of Marriage (Years).	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage (Years).	Total Married Mothers.	Total Issue.	Average Issue.
0-1 ..	24,873	25,303	1.02	14-15 ..	3,096	14,370	4.64
1-2 ..	22,178	27,293	1.23	15-16 ..	2,417	11,858	4.91
2-3 ..	21,630	36,934	1.71	16-17 ..	1,721	8,927	5.19
3-4 ..	20,651	41,723	2.02	17-18 ..	1,314	7,259	5.52
4-5 ..	18,388	42,525	2.31	18-19 ..	1,070	6,129	5.73
5-6 ..	15,732	41,026	2.61	19-20 ..	837	5,135	6.14
6-7 ..	13,371	38,249	2.86	20-21 ..	563	3,698	6.57
7-8 ..	11,616	36,374	3.13	21-22 ..	430	2,968	6.90
8-9 ..	10,004	33,923	3.39	22-23 ..	284	2,094	7.37
9-10 ..	7,486	27,011	3.61	23-24 ..	210	1,592	7.58
10-11 ..	5,684	21,611	3.80	24-25 ..	134	1,088	8.12
11-12 ..	4,554	18,252	4.01	25 and over ..	170	1,423	8.37
12-13 ..	4,384	18,199	4.15				
13-14 ..	4,120	17,960	4.36				
				Total ..	196,917	492,924	2.50

(iii) *Age and Average Issue of Mothers.* The following table shows the average number of children born to mothers of different ages. In the younger ages there is, naturally, little difference in the average number of children to each mother from year to year, but with the increase of the age of the mother the number of issue has until recently fallen in comparison with past years. In 1955, average issue was greater in all age groups under 40 years than in the decade 1941-50. The average issue of mothers of all ages recorded for 1955 (namely, 2.50) is 23.1 per cent. below the average of 3.25 for the years 1911-20.

AGE AND AVERAGE ISSUE OF MOTHERS : AUSTRALIA.

Period.	Age of Mother (Years).							All Ages.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
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
1955 ..	1.22	1.72	2.41	3.09	3.79	4.61	5.44	2.50

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers by age and previous issue is given for 1955 in the following table:—

NUPTIAL CONFINEMENTS : AGE OF MOTHER AND PREVIOUS ISSUE, AUSTRALIA, 1955.

Previous Issue.	Age of Mother (Years).							Total Married Mothers.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
0 ..	8,438	28,031	16,420	6,385	2,279	651	34	62,238
1 ..	1,807	18,400	22,186	10,253	3,379	821	39	56,885
2 ..	201	6,578	14,819	11,074	4,245	952	43	37,912
3 ..	13	1,865	6,614	7,017	3,692	1,016	47	20,264
4 ..	1	409	2,485	3,479	2,445	801	52	9,672
5 ..	..	81	928	1,650	1,403	558	32	4,652
6 ..	..	16	305	808	772	402	36	2,339
7 ..	..	5	96	409	514	291	25	1,340
8 ..	..	1	31	181	288	188	18	707
9 ..	..	..	9	71	152	142	18	392
10 and over ..	..	..	..	50	195	243	28	516
Total Married Mothers ..	10,460	55,386	63,893	41,377	19,364	6,065	372	196,917

The masculinity of nuptial first births in 1955 was 105.16, the same as that for total births.

(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:—

FIRST BIRTHS : AGE OF MOTHER AND DURATION OF MARRIAGE, AUSTRALIA, 1955.

Duration of Marriage.	Age of Mother (Years).							Total.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 8 months ..	4,968	4,536	1,006	441	177	55	2	11,185
8 months ..	411	1,099	384	141	37	11	1	2,084
9 ..	601	2,631	925	283	85	18	..	4,543
10 ..	470	2,171	772	245	91	23	1	3,773
11 ..	372	1,806	631	223	63	19	..	3,114
Total under 1 year ..	6,822	12,243	3,718	1,333	453	126	4	24,699
1- 2 years ..	1,426	9,716	4,254	1,402	500	131	10	17,439
2- 3 ..	159	3,739	2,620	804	263	83	4	7,672
3- 4 ..	26	1,556	2,017	554	188	48	4	4,393
4- 5 ..	4	518	1,582	445	135	49	5	2,738
5-10 ..	1	256	2,177	1,509	430	99	5	4,477
10-15 ..	..	3	52	322	251	52	2	682
15 years and over ..	..	..	..	16	59	63	..	138
Total ..	8,438	28,031	16,420	6,385	2,279	651	34	62,238

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

NUPTIAL FIRST BIRTHS AND SUBSEQUENT BIRTHS : AUSTRALIA.

Period.	Nuptial Confinements.			Proportion of First to Total Nuptial Confinements (Per Cent.).
	First Births.	Other Births.	Total.	
ANNUAL 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
ANNUAL TOTALS.				
1951	62,078	121,594	183,672	33.80
1952	65,238	126,432	191,670	34.04
1953	63,726	128,187	191,913	33.21
1954	62,029	129,989	192,018	32.30
1955	62,238	134,679	196,917	31.61

19. *Stillbirths.*—Registration of stillbirths is not compulsory in all Australian States. It has been compulsory in Western Australia since 14th January, 1908; in the Australian Capital Territory since 1st January, 1930; in New South Wales since 1st April, 1935; in South Australia since 1st May, 1937; and in Victoria from 1st January, 1953. In Queensland and Tasmania where registration is not enforced, some information is obtained by notification of stillbirths for various purposes. Because registration is not compulsory in all States, detailed statistics of stillbirths for Australia as a whole have not been compiled.

The number of stillbirths in each State and Territory, as recorded since 1936 by the means outlined above, is shown in the following table:—

STILLBIRTHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
1936-40 ..	1,409	854	(a)	(b) 274	234	144	(a)	5	(a)
1941-45 ..	1,478	966	(c) 657	324	248	143	(a)	9	de 3,825
1946-50 ..	1,405	949	626	368	274	161	(a)	12	e 3,795
1951-55 ..	1,238	849	576	290	271	139	8	15	3,386

ANNUAL TOTALS.

1951 ..	1,291	929	651	316	297	166	5	15	3,670
1952 ..	1,195	919	596	320	283	154	13	10	3,490
1953 ..	1,256	817	562	287	268	141	8	16	3,355
1954 ..	1,207	794	550	254	270	124	8	19	3,226
1955 ..	1,243	788	521	271	239	109	7	13	3,191

(a) Not available. (b) Three years 1938-40. (c) Four years 1942-45. (d) Excludes Queensland for 1941. (e) Excludes Northern Territory.

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

PROPORTION OF STILLBIRTHS.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1936-40 ..	28.71	27.43	(b)	c27.49	25.70	28.75	(b)	22.18	(b)
1941-45 ..	25.46	24.79	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	18.25	15.80	16.97	17.54	17.20	15.58	16.53

ANNUAL RATES.

1951 ..	17.60	18.05	21.48	17.77	19.68	22.07	12.14	14.73	18.63
1952 ..	15.85	16.81	18.89	17.58	18.03	19.08	28.20	8.99	17.01
1953 ..	16.49	15.02	17.93	15.56	16.62	17.90	17.09	19.90	16.32
1954 ..	16.24	14.32	17.34	13.74	16.67	15.71	15.36	21.69	15.70
1955 ..	16.43	13.79	15.85	14.44	14.17	13.30	13.41	14.87	15.13

(a) Number 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.

NOTE.—See NOTE at the beginning of this chapter. A detailed analysis of causes of death and issue for 1955 will be found in *Demography*, Bulletin No. 73.

1. Number of Deaths.—(i) Year 1956. The following table shows the number of deaths, male and female, registered in each state and Territory during the year. Stillbirths, although registered as both births and deaths in some States, are excluded from the death statistics published herein.

DEATHS, 1956.

Sex.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	19,166	12,862	7,079	4,243	3,265	1,378	83	116	48,192
Females ..	14,898	11,024	5,107	3,350	2,307	1,135	24	51	37,896
Persons ..	34,064	23,886	12,186	7,593	5,572	2,513	107	167	86,088

(ii) *Years 1931 to 1956.* A summary of the number of deaths in each State and Territory from 1931 to 1956 is given in the following table. Annual averages for each five-year period from 1861 to 1950 were published in Official Year Book No. 39, p. 597.

DEATHS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
ANNUAL AVERAGES.									
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
ANNUAL TOTALS.									
1952 ..	32,038	23,322	11,171	7,050	5,209	2,579	89	139	81,597
1953 ..	31,707	22,650	11,006	6,962	5,072	2,551	116	124	80,188
1954 ..	32,444	22,554	11,344	7,179	5,364	2,696	106	118	81,805
1955 ..	32,553	22,527	11,307	7,536	5,379	2,489	119	126	82,036
1956 ..	34,064	23,886	12,186	7,593	5,572	2,513	107	167	86,088

(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 1860 to 1956 will be found on p. 597.

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 numbers per thousand of population by which the population is depleted through deaths during that period. Crude death rates for each State and Territory from 1931 to 1956 are shown in the following table.

CRUDE DEATH RATES.(a)

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
1931-35 ..	8.68	9.72	8.62	8.72	8.83	9.62	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	8.47	6.92	4.60	9.25
ANNUAL RATES.									
1952 ..	9.59	9.95	8.89	9.34	8.67	8.64	5.90	5.23	9.45
1953 ..	9.36	9.45	8.55	8.97	8.17	8.33	7.47	4.32	9.09
1954 ..	9.46	9.19	8.64	9.01	8.38	8.67	6.54	3.88	9.10
1955 ..	9.32	8.92	8.44	9.19	8.17	7.87	6.98	3.89	8.91
1956—									
Males ..	10.73	9.79	10.09	9.84	9.36	8.35	7.74	6.19	10.09
Females ..	8.42	8.55	7.68	8.02	7.02	7.22	3.35	3.19	8.15
Persons ..	9.58	9.17	8.92	8.95	8.23	7.80	5.98	4.81	9.13

(a) Number of deaths per 1,000 of mean population.
from September, 1939 to June, 1947.

(b) Excludes deaths of defence personnel

A graph showing the crude death rate for each year from 1860 to 1956 will be found on p. 598.

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 were as recorded, but the age and sex distribution were 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. Full details of the "Standard Population" are given in Official Year Book No. 22, p. 962.

(ii) *Death Rates in Age Groups.* An examination of the age distribution of deaths and the resultant age-specific death rates is made in paragraph 9, p. 615.

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

CRUDE AND STANDARDIZED DEATH RATES.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
Crude Death Rate(a)—							
1921	9.50	10.52	9.37	10.02	10.42	10.30	9.91
1933	8.58	9.59	8.84	8.44	8.64	9.60	8.92
1947	9.53	10.44	9.15	9.61	9.39	9.17	9.69
1954	9.46	9.19	8.64	9.01	8.38	8.67	9.10
Standardized Death 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

(a) Total deaths per 1,000 of mean population.
in para. 3 (i) above.

(b) See explanation of standardized death rates

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. A correct measurement of the mortality of the population can be obtained, however, 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 the standard 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 survivorship from each year of age to the next. The table below sets out complete expectation of life at birth and true death rates for the periods covered by Australian life tables.

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

Period.	Complete Expectation of Life at Birth (Years).		True Death Rate.	
	Males.	Females.	Males.(a)	Females.(b)
1881-1890	47.20	50.84	21.19	19.67
1891-1900	51.06	54.76	19.58	18.26
1901-1910	55.20	58.84	18.12	17.00
1920-1922	59.15	63.31	16.91	15.80
1932-1934	63.48	67.14	15.75	14.89
1946-1948	66.07	70.63	15.14	14.16

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

5. Crude Death Rates of Various Countries.—The following table gives crude death rates for Australia in comparison with rates for various other countries.

CRUDE DEATH RATES(a) : VARIOUS COUNTRIES.

Country.	1921-25.	1926-30.	1931-35.	1955.	Country.	1921-25.	1926-30.	1931-35.	1955.
Netherlands ..	10.4	9.9	8.9	7.6	United States of America ..	11.8	11.8	e10.9	9.3
Japan ..	21.8	19.3	17.9	7.8	Spain ..	20.2	17.9	16.4	9.3
Canada ..	11.2	11.1	9.7	8.1	Sweden ..	12.1	12.1	11.6	9.4
Norway ..	11.5	11.0	10.4	8.3	Switzerland ..	12.5	12.1	11.8	10.1
Union of South Africa(b) ..	9.7	9.7	9.8	8.6	Yugoslavia ..	20.2	20.0	17.9	11.4
Denmark ..	11.3	11.1	10.9	8.8	United Kingdom..	12.4	12.3	12.2	11.7
Australia(c) ..	9.5	9.3	9.0	8.9	France ..	17.2	16.8	15.7	12.0
New Zealand(d) ..	8.6	8.6	8.2	9.0	Austria ..	15.8	14.4	13.5	12.1
Italy ..	17.4	16.0	14.1	9.2	Ireland, Republic of ..	14.6	14.4	14.0	12.6
Finland ..	15.1	14.8	13.3	9.3	Belgium ..	13.4	13.7	12.9	12.7

(a) Number of deaths per 1,000 of mean population. (b) European population only. (c) Excludes full-blood aborigines. (d) Excludes Maoris. (e) 1933-35.

6. True Death Rates of Various Countries.—The following table gives true death rates for Australia in comparison with rates for various other countries:—

TRUE DEATH RATES : VARIOUS COUNTRIES.

Country.	Period.	True Death Rate.		Country.	Period.	True Death Rate.	
		Males. (a)	Females. (b)			Males. (a)	Females. (b)
Netherlands ..	1950-52	14.2	13.7	Scotland ..	1955	15.2	14.2
Norway ..	1946-50	14.4	13.8	Northern Ireland ..	1950-52	15.3	14.5
Sweden ..	1946-50	14.5	14.0	Germany, Federal Republic ..	1949-51	15.5	14.6
New Zealand(c) ..	1950-52	14.6	13.8	France ..	1950-51	15.7	14.4
Denmark ..	1946-50	14.7	14.3	Japan ..	1955	15.7	14.6
United States of America—				Union of South Africa(e) ..	1945-47	15.7	14.6
Whites ..	1954	14.8	13.6	Finland ..	1951-53	15.9	14.5
Others ..	1954	16.4	15.2	Belgium ..	1946-49	16.1	14.9
England and Wales ..	1954	14.8	13.7	Austria ..	1949-51	16.2	14.9
Canada ..	1950-52	15.1	14.1	Ireland, Republic of ..	1945-47	16.5	16.0
Switzerland ..	1948-53	15.1	14.1				
Australia(d) ..	1946-48	15.1	14.2				

(a) Number of deaths per 1,000 males in life table or stationary population (see explanation on p. 607). (b) Number of deaths per 1,000 females in life table or stationary population (see explanation on p. 607). (c) Excludes Maoris. (d) Excludes full-blood aborigines. (e) European population only.

7. **Australian Life Tables.**—(i) *Life Tables prior to 1947.* 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, of time, and of 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 population recorded and the deaths in the three years 1920–22. Similarly, in 1933, the Life Tables were based on the census population and the deaths in the calendar years 1932–34.

(ii) *Life Tables of Census of 1947.* On the occasion of the 1947 Census, Life Tables representing the sixth in the series were compiled by the Commonwealth Actuary. These were based on the population recorded, in conjunction with the deaths during 1946, 1947 and 1948, as it was considered undesirable to take into account deaths occurring prior to 1946 owing to the possible effects on the civilian population of conditions arising from the 1939–45 War. Full particulars of the data used, the methods of construction and tabulation of these Life Tables will be found in the report of the Commonwealth Actuary which was published by the Commonwealth Statistician in 1950. This report also appeared in Volume III. of the Census of the Commonwealth of Australia, 1947. Monetary tables for both single and joint lives have also been prepared by the Commonwealth Actuary.

Comparative tables showing the number of survivors (l_x) out of 100,000 births, rates of mortality (q_x) and probability of surviving ten years (${}_{10}p_x$), at selected ages, in respect of the Australian Life Tables of 1920–22, 1932–34 and 1946–48, together with a summary of the main characteristics of the tables, were published in Official Year Book No. 39, pp. 602–3. The expectation of life at selected ages taken from these three Life Tables is as follows:—

AUSTRALIAN LIFE TABLES : COMPLETE EXPECTATION OF LIFE (e_x^o) AT SELECTED AGES.

Age (x).	Males.			Females.		
	1920–22.	1932–34.	1946–48.	1920–22.	1932–34.	1946–48.
0	59.15	63.48	66.07	63.31	67.14	70.63
10	56.01	58.02	59.04	59.20	61.02	63.11
20	46.99	48.81	49.64	50.03	51.67	53.47
30	38.44	39.90	40.40	41.48	42.77	44.08
40	30.05	31.11	31.23	33.14	34.04	34.91
50	22.20	22.83	22.67	24.90	25.58	26.14
60	15.08	15.57	15.36	17.17	17.74	18.11
70	9.26	9.60	9.55	10.41	10.98	11.14

8. 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 1931 to 1956 were as follows:—

INFANT MORTALITY : UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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ANNUAL AVERAGES.

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

ANNUAL TOTALS.

1952 ..	1,818	1,198	772	413	384	172	14	26	4,797
1953 ..	1,846	1,133	769	375	378	177	18	17	4,713
1954 ..	1,850	1,055	695	388	359	186	9	4	4,546
1955 ..	1,850	1,035	656	431	373	189	26	12	4,572
1956 ..	1,777	1,128	737	377	384	171	24	11	4,609

AVERAGE ANNUAL RATES.(a)

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 ..	36.29	34.73	34.55	33.20	33.37	39.54	55.97	18.75	35.24
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

ANNUAL RATES.(a)

1952 ..	24.50	22.29	24.94	23.09	24.91	21.73	31.25	23.59	23.79
1953 ..	24.65	21.15	24.98	20.65	23.83	22.88	39.13	21.57	23.30
1954 ..	25.30	19.30	22.29	21.29	22.54	23.94	17.54	4.67	22.48
1955 ..	24.86	18.37	20.28	23.30	22.44	23.37	50.49	13.94	22.01
1956 ..	23.47	19.32	22.74	19.88	22.70	21.10	43.17	10.21	21.73

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

(b) Under Four Weeks. The following table shows infant mortality rates under four weeks of age in each State and Territory during the period 1931 to 1956.

INFANT MORTALITY RATES (a): UNDER FOUR WEEKS.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
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AVERAGE ANNUAL RATES.

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 ..	24.52	24.40	24.41	20.86	20.60	27.24	33.57	12.54	23.97
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

ANNUAL RATES.

1952 ..	16.56	16.39	17.96	15.04	18.04	14.65	17.86	17.24	16.64
1953 ..	17.17	15.70	17.80	13.99	16.45	15.51	23.91	13.96	16.48
1954 ..	17.70	14.42	16.81	15.25	16.07	16.47	7.80	3.50	16.19
1955 ..	17.31	13.49	14.84	14.11	16.00	16.81	33.01	11.61	15.50
1956 ..	(b)	(b)	16.35	13.55	15.90	14.56	30.58	7.43	(b)

(a) Number of deaths of children aged under four weeks per 1,000 live births registered. (b) Not yet available.

(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 1931 to 1956.

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

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
AVERAGE ANNUAL RATES.									
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 ..	11.77	10.33	10.14	12.34	12.77	12.30	22.40	6.21	11.27
1946-50 ..	8.38	6.27	7.54	8.12	8.62	7.19	15.92	4.09	7.64
1951-55 ..	7.77	5.52	6.49	7.60	7.14	7.33	16.65	4.12	6.89

ANNUAL RATES.

1952 ..	7.94	5.90	6.98	8.05	6.87	7.08	13.39	6.35	7.15
1953 ..	7.48	5.45	7.18	6.66	7.38	7.37	15.22	7.61	6.82
1954 ..	7.60	4.88	5.48	6.04	6.47	7.47	9.74	1.17	6.29
1955 ..	7.55	4.88	5.44	9.19	6.44	6.56	17.48	2.33	6.51
1956 ..	(b)	(b)	6.39	6.33	6.80	6.54	12.59	2.78	(b)

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

(b) Not yet available.

(ii) *Australia. (a) Under One Year.* 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 is confirmed by the fact that out of 526,474 male infants born from 1952 to 1956, 13,251 (25.17 per 1,000) died during the first year of life, while of 499,477 female infants only 9,986 (19.99 per 1,000) died during the first year. Stillbirths, for which masculinity is also higher, are not included in any of the tables relating to deaths.

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

INFANT DEATHS AND MORTALITY RATES : AUSTRALIA.

Period.	Number of Deaths.						Rates.(a)					
	Neonatal— Under Four Weeks.		Post- Neonatal— Four Weeks and under One Year.		Total under One Year.		Neonatal— under Four Weeks.		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.
ANNUAL AVERAGES.												
1931-35 ..	1,763	1,299	886	687	2,649	1,986	30.62	23.73	15.38	12.55	46.00	36.28
1936-40 ..	1,816	1,353	863	663	2,679	2,016	29.30	22.93	13.93	11.23	43.23	34.16
1941-45 ..	2,007	1,495	914	720	2,921	2,215	26.66	20.88	12.14	10.05	38.80	30.93
1946-50 ..	2,024	1,490	784	604	2,808	2,094	21.68	16.86	8.40	6.84	30.08	23.70
1951-55 ..	1,907	1,406	776	612	2,683	2,018	18.47	14.32	7.52	6.24	25.99	20.56
ANNUAL TOTALS.												
1952 ..	1,948	1,408	826	615	2,774	2,023	18.84	14.33	7.99	6.26	26.83	20.59
1953 ..	1,889	1,443	772	609	2,661	2,052	18.25	14.61	7.46	6.17	25.71	20.78
1954 ..	1,914	1,361	694	577	2,608	1,938	18.48	13.79	6.70	5.85	25.18	19.64
1955 ..	1,863	1,355	762	592	2,625	1,947	17.50	13.39	7.16	5.84	24.66	19.23

(a) Number of deaths per 1,000 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 1955. It will be seen that, for both males and females, the risk of death is very much greater during the first day of life than subsequently.

**INFANT DEATHS AND MORTALITY RATES—UNDER FOUR WEEKS :
AUSTRALIA.**

Period.	Number of Deaths.						Rates.(a)					
	Early Neonatal.				Late Neonatal— One Week and under Four Weeks.		Early Neonatal.				Late Neonatal— One Week and under Four Weeks.	
	Under One Day.		One Day and under One Week.		Males.	Fe- males.	Under One Day.		One Day and under One Week.		Males.	Fe- males.
	Males.	Fe- males.	Males.	Fe- males.			Males.	Fe- males.	Males.	Fe- males.		
	ANNUAL AVERAGES.						AVERAGE ANNUAL RATES.					
1931-35 ..	(b)	(b)	c 1,442	c 1,066	321	233	(b)	(b)	c25.04	c19.48	5.58	4.25
1936-40 ..	(b)	(b)	c 1,496	c 1,120	320	233	(b)	(b)	c24.13	c18.99	5.17	3.94
1941-45 ..	906	674	728	541	373	280	12.03	9.42	9.67	7.55	4.96	3.91
1946-50 ..	986	731	758	539	280	220	10.56	8.28	8.12	6.09	3.00	2.49
1951-55 ..	918	713	742	508	247	185	8.88	7.26	7.19	5.17	2.40	1.89
	ANNUAL TOTALS.						ANNUAL RATES.					
1952 ..	958	732	753	489	237	187	9.27	7.45	7.28	4.98	2.29	1.90
1953 ..	870	751	738	485	281	207	8.41	7.60	7.13	4.91	2.71	2.10
1954 ..	943	696	725	520	246	245	9.11	7.05	7.00	5.27	2.37	1.47
1955 ..	889	686	740	496	234	173	8.35	6.78	6.95	4.90	2.20	1.71

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

The foregoing tables indicate the decrease in infant mortality in Australia, the mortality rate of children aged under one year per 1,000 live births for 1955 being 53 per cent. of the average rate for 1931-35. The improvement was due largely to the decrease in deaths from preventable causes, the mortality rate for children aged one week but under one year of age declining by 53 per cent. while that for children aged under one week declined by only 43 per cent.

A graph showing infant mortality rates for each year from 1910 to 1956 will be found on page 599.

(iii) *Statistical Divisions.* The total numbers of births and of deaths of children under one year of age in each statistical division are shown in the annual bulletin, *Demography*.

(iv) *Various Countries.* Compared with other countries Australia occupies a favourable position in respect of infant mortality. In 1955, only New Zealand, Sweden the Netherlands and Norway recorded a lower rate than Australia.

INFANT MORTALITY RATES : VARIOUS COUNTRIES.

Country.	Infant Mortality Rate.(a)						Crude Birth Rate(b), 1955.
	1921-25.	1926-30.	1931-35.	1936-40.	1954.	1955.	
Sweden	60	58	50	42	19	17	14.8
New Zealand(c)	43	37	32	32	20	20	24.9
Netherlands	64	56	45	37	21	20	21.4
Norway	52	49	45	(d) 40	21	21	18.7
Australia(f)	58	52	41	39	22	22	22.6
Denmark	82	82	71	60	27	25	17.5
United Kingdom	78	70	65	59	26	26	15.4
United States of America	74	68	59	51	27	26	24.6
Switzerland	65	54	48	45	27	26	17.1
Finland	96	88	72	72	31	30	20.9
Canada	98	93	75	64	32	31	28.3
Union of South Africa(g)	73	67	63	53	34	31	26.0
Ireland, Republic of	69	70	68	69	38	37	21.2
France	95	89	73	70	36	38	18.4
Japan	159	137	120	(h) 112	45	40	19.4
Austria	136	117	99	81	48	45	15.5
Belgium	100	95	82	77	49	48	16.8
Italy	127	119	105	103	53	50	17.7
Spain	143	124	113	121	54	56	20.6
Yugoslavia	(e)	151	153	(h) 141	102	115	26.9

(a) Number of deaths under one year per 1,000 live births registered. (b) Number of live births per 1,000 of mean population. (c) Excludes Maoris. (d) 1935-39. (e) Not available. (f) Excludes full-blood aboriginals. (g) European population only. (h) 1935-38.

(v) *Causes of Death: Children under one Year.* Causes of death of children under one year of age should be considered in relation to age at death, because the emphasis on various causes changes rapidly as age at death varies. In 1955, 2,740 (97.5 per cent.) of the deaths occurring during the first week of life were caused by congenital malformations (12.2 per cent.) and certain diseases of early infancy (85.3 per cent.). Of the latter, 67.2 per cent. were associated with immaturity (*see table below*). At ages one week and under four weeks the proportions were 35.1 per cent. and 49.6 per cent. respectively. Of deaths of children over four weeks and under one year of age 24.4 per cent. were caused by congenital malformations and only 4.0 per cent. by diseases of early infancy, the emphasis having shifted to respiratory and digestive diseases (42.8 per cent.), accidents and violence (8.8 per cent.), infective and parasitic diseases (5.8 per cent.) and diseases of the nervous system (5.4 per cent.). A summary for 1955 of the 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, 1955.

Cause of Death.	Age at Death.											Under One Year.				
	Weeks.			Months.												
	Under 1.	1.	2.	3.	1. (a)	2.	3.	4.	5.	6.	7.		8.	9.	10.	11.
Tuberculosis .. .. .	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	2
Septicæmia and pyæmia .. .. .	..	..	2	1	2	2	4	..	1	2	1	1	2	1	..	19
Diphtheria .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1	3
Whooping cough .. .. .	..	..	..	..	3	1	..	1	1	..	..	1	1	..	1	9
Meningococcal infections	1	..	1	2	3	2	..	5	1	5	4	3	1	2	4	34
Measles .. .. .	..	..	..	..	..	..	..	1	..	1	..	1	1	3	..	7
Other infective and parasitic diseases	1	1	..	..	..	2	..	..	2	1	2	1	1	..	3	13
Neoplasms	5	1	2	1	2	..	3	1	..	1	2	1	..	..	2	21
Allergic, endocrine system, etc., diseases	7	2	..	..	..	2	2	3	1	..	2	4	..	2	1	26
Diseases of the blood	3	1	..	..	..	1	..	..	2	..	..	1	1	..	1	9
Mental, etc., disorders	5	3	1	1	3	1	6	1	4	3	2	2	3	2	2	39
Meningitis	4	3	4	2	5	4	2	4	7	2	6	2	3	1	4	53
Encephalitis	2	..	..	..	..	1	..	1	1	..	1	..	..	1	..	7
Erythroedema polyneuritica .. .. .	..	..	..	..	..	..	..	..	1	1	..	..	..	1	1	4
Otitis media and mastoiditis	1	..	..	..	2	..	..	..	1	1	..	..	1	..	..	6
Other diseases of the nervous system, etc.	..	..	1	..	3	3	2	2	2	2	1	..	2	1	1	20
Diseases of the circulatory system ..	..	1	..	..	1	..	..	3	..	1	1	..	3	..	..	10
Pneumonia, age four weeks and over	..	..	..	..	44	37	46	35	26	31	28	25	18	15	13	318
Bronchitis	1	4	1	..	2	3	5	6	1	7	5	4	4	1	2	46
Other diseases of the respiratory system	1	1	2	3	9	6	8	4	5	3	6	1	4	2	..	55
Hernia and intestinal obstruction ..	17	2	1	1	7	4	5	5	4	1	4	2	..	..	1	54
Gastro-enteritis and colitis, age four weeks and over	..	..	..	..	15	15	12	14	13	11	11	7	8	9	7	122
Other diseases of the digestive system	2	..	..	2	3	5	1	..	5	1	2	..	1	..	1	23
Diseases of the genito-urinary system	..	..	..	..	1	2	3	2	2	3	..	..	3	..	1	17
Diseases of the skin and cellular tissue	..	2	2	..	2	1	1	3	3	1	1	..	..	..	1	17
Diseases of the bones and organs of movement	..	..	..	2	2	..	4	1	..	2	2	..	..	1	..	16
Congenital malformations	342	63	48	32	76	57	39	32	25	25	16	17	14	18	11	815
Certain diseases of early infancy (b)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Without mention of immaturity (b)	786	69	22	23	10	4	5	7	3	6	1	2	..	2	1	941
With immaturity (b)	1,612	64	14	10	9	1	1	1	..	..	..	..	..	..	1	1,713
Symptoms and ill-defined conditions	3	..	1	1	2	..	1	1	..	..	..	..	..	..	..	9
Accidents, poisonings and violence	18	2	4	1	8	16	23	15	8	6	12	4	11	4	12	144
All Causes	2,811	219	106	82	214	169	175	148	114	120	111	80	83	69	71	4,572

(a) Age four weeks and under two months.

(b) For further detail of this group of causes *see* next table.

The individual categories representing the causes of death which come within Class XV.—Certain Diseases of Early Infancy are designed to show the effect of immaturity in such causes of infant death. In 1955, 67 per cent. of deaths in this class during the first week of life and 44 per cent. of those in the next three weeks of life were due, directly or indirectly, to immaturity. The relationship between immaturity and each of the individual categories of Class XV. is shown for the year 1955 in the following table.

**DEATHS OF CHILDREN UNDER ONE YEAR OF AGE FROM CERTAIN DISEASES
OF EARLY INFANCY : AUSTRALIA, 1955.**

Category No.	Cause of Death.	Without Mention of Immaturity.			With Immaturity:			Total.		
		Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.
760	Intracranial and spinal injury at birth ..	177	109	286	57	32	89	234	141	375
761	Other birth injury ..	58	41	99	81	44	125	139	85	224
762	Post-natal asphyxia and atelectasis ..	108	86	194	161	125	286	269	211	480
763	Pneumonia of the newborn ..	68	43	111	14	13	27	82	56	138
764	Diarrhoea of the newborn ..	1	2	3	1	..	1	2	2	4
765	Ophthalmia neonatorum ..	..	..	..	..	..	..	..	1	1
766	Pemphigus neonatorum ..	..	1	1	..	..	..	..	1	1
767	Umbilical sepsis ..	1	..	1	..	..	..	1	..	1
768	Other sepsis of newborn ..	9	2	11	..	2	2	9	4	13
769	Neonatal disorders arising from maternal toxæmia ..	16	8	24	30	37	67	46	45	91
770	Haemolytic disease of newborn (erythroblastosis) ..	72	38	110	23	11	34	95	49	144
771	Haemorrhagic disease of newborn ..	23	25	48	8	8	16	31	33	64
772	Nutritional maladjustment ..	11	6	17	1	..	1	12	6	18
773	Ill-defined diseases peculiar to early infancy ..	16	20	36	24	23	47	40	43	83
774	Immaturity with mention of any other subsidiary condition ..	..	..	..	14	9	23	14	9	23
775	Immaturity subsidiary to some other cause ..	..	..	..	..	..	..	..	..	..
776	Immaturity unqualified ..	..	..	..	576	419	995	576	419	995
	Total, Class XV. ..	560	381	941	990	723	1,713	1,550	1,104	2,654

(vi) *Deaths of Ex-nuptial Children under one Year of Age.* Distinction between nuptial and ex-nuptial children in death statistics for Australia as a whole has been made since 1925. Results show that death rates during infancy have generally been much higher for ex-nuptial children than for nuptial children, but the disparity has become smaller in recent years. The following table shows the number of deaths of children under one year of age and the infant mortality rates for nuptial, ex-nuptial and all children in five-year periods since 1931 and for each year from 1952 to 1955.

DEATHS UNDER ONE YEAR OF AGE : NUPTIAL AND EX-NUPTIAL, AUSTRALIA.

Period.	Nuptial Children.		Ex-Nuptial Children.			All Children.	
	Number of Deaths.	Infant Mortality Rate.(a)	Number of Deaths.	Infant Mortality Rate.(b)		Number of Deaths.	Infant Mortality Rate.(c)
				Actual.	Ratio to Nuptial Rate. (Per Cent.)		
1931-35 ..	21,460	40.09	1,713	65.37	163	23,173	41.27
1936-40 ..	21,792	37.59	1,680	66.87	178	23,472	38.81
1941-45 ..	24,053	34.20	1,627	52.39	153	25,680	34.97
1946-50 ..	23,139	26.54	1,373	37.37	141	24,512	26.98
1951-55 ..	22,529	23.29	977	24.43	105	23,506	23.34
1952 ..	4,609	23.78	188	23.97	101	4,797	23.79
1953 ..	4,515	23.25	198	24.65	106	4,713	23.30
1954 ..	4,353	22.41	193	24.04	107	4,546	22.48
1955 ..	4,365	21.92	207	24.25	111	4,572	22.01

(a) Number of deaths under one year of age per 1,000 nuptial live births registered. (b) Number of deaths under one year of age per 1,000 ex-nuptial live births registered. (c) Number of deaths under one year of age per 1,000 total live births registered.

For the five years 1951-55, the ratio of the ex-nuptial to the nuptial rate at various ages of infancy was as follows:—Under one month, 99 per cent.; one month, 144 per cent.; 2 months, 113 per cent.; 3 months, 154 per cent.; 4 months, 119 per cent.; 5 months, 158 per cent.; under one year, 105 per cent.

Detailed information for Australia as to the age at which ex-nuptial children died from each cause of death will be found in *Demography*, Bulletin No. 73. Because of the small number of ex-nuptial deaths involved in each case, it is difficult to assess the real significance of the differences between the numbers of nuptial and ex-nuptial deaths from each individual cause.

9. 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 two years 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 Australia is given in the following table for the year 1955.

AGE AT DEATH : AUSTRALIA, 1955.

Age at Death.	Males.	Fe-males.	Per-sons.	Age at Death.	Males.	Fe-males.	Per-sons.
Under 1 week	1,629	1,182	2,811	Total 5-9 years	284	212	496
1 week and under 2 weeks ..	122	97	219	" 10-14 "	223	135	358
2 weeks and under 3 weeks ..	63	43	106	" 15-19 "	487	156	643
3 weeks and under 28 days ..	49	33	82	" 20-24 "	528	183	711
				" 25-29 "	612	221	833
Total under 28 days ..	1,863	1,355	3,218	" 30-34 "	683	378	1,061
				" 35-39 "	749	503	1,252
28 days and under 3 months	242	141	383	" 40-44 "	1,163	790	1,953
3 months and under 6 " "	250	187	437	" 45-49 "	1,748	1,062	2,810
6 months and under 12 " "	270	264	534	" 50-54 "	2,520	1,355	3,875
				" 55-59 "	3,438	1,898	5,336
Total under 1 year ..	2,625	1,947	4,572	" 60-64 "	4,686	2,874	7,560
				" 65-69 "	6,247	3,979	10,226
1 year	270	221	491	" 70-74 "	6,317	4,763	11,080
2 years	175	119	294	" 75-79 "	5,459	5,228	10,687
3 "	120	90	210	" 80-84 "	4,194	4,711	8,905
4 "	89	86	175	" 85-89 "	2,520	3,311	5,831
				" 90-94 "	877	1,314	2,191
Total under 5 years ..	3,279	2,463	5,742	" 95-99 "	137	286	423
				" 100 and over	21	20	41
				Age not stated	16	6	22
				Total, All Ages	46,188	35,848	82,036

There are different mortality rates at various stages of life and the actual number of deaths in any period depends upon the impact of these rates on the numbers living at the respective stages. Changes in the number of deaths from one period to another are caused by changes in the rate of mortality in the various age groups and by the changed proportions of persons living in the different groups.

In Australia, during the last fifty years, there has been a steady improvement in the rate of mortality at all ages, which has tended to reduce the number of deaths. This has been most pronounced at ages under one year. The increased length of life due to this factor, coupled with the long-term decline in the birth rate and the effects of past and present migration, has been a significant cause in changing the age distribution of the population and consequently the age distribution of deaths, thus obscuring the effects of improved mortality rates.

The combined effect of these various influences can be seen from the following table, which shows the proportion of deaths in various age groups in periods of ten years from 1901 to 1950 and for the year 1955.

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

Period.	Age at Death (Years).								Total.
	Under 1.	1-4.	5-19.	20-39.	40-59.	60-64.	65 and over.	Unspec-ified.	
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
1955—									
Males ..	5.68	1.42	2.15	5.57	19.20	10.15	55.80	0.03	100.00
Females ..	5.43	1.44	1.40	3.58	14.24	8.02	65.87	0.02	100.00
Persons ..	5.57	1.43	1.83	4.70	17.03	9.21	60.20	0.03	100.00

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

(ii) *Age-specific Death Rates.* The following table gives the average annual age-specific death rates for each State and Australia for the years 1953-55 based on the age distribution of the population at the Census of 30th June, 1954. Similar tables for the years 1932-34 and 1946-48 were published in earlier issues of the Official Year Book (see No. 37, p. 778 and No. 39, pp. 615-6).

AGE-SPECIFIC DEATH RATES(a), 1953-55.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
MALES.							
0- 4	7.30	5.88	6.62	6.41	7.04	6.62	6.69
5- 9	0.75	0.61	0.60	0.52	0.70	0.70	0.67
10-14	0.70	0.53	0.69	0.65	0.52	0.59	0.63
15-19	1.56	1.21	1.70	1.48	1.61	1.97	1.51
20-24	1.85	1.66	1.93	1.85	1.97	1.74	1.82
25-29	1.61	1.54	1.90	1.70	1.89	1.44	1.67
30-34	1.93	1.49	2.07	1.58	1.81	1.97	1.80
35-39	2.50	2.11	2.71	2.32	2.22	1.90	2.38
40-44	4.02	3.13	4.02	3.55	3.22	3.23	3.65
45-49	6.56	5.60	5.68	5.51	5.77	5.05	5.96
50-54	10.96	9.65	10.12	10.16	9.04	8.95	10.18
55-59	19.48	16.82	16.96	15.79	15.81	15.43	17.63
60-64	29.08	25.45	26.02	24.22	24.85	23.39	26.71
65-69	43.39	41.30	38.69	39.28	41.49	36.53	41.43
70-74	67.28	64.88	61.70	63.06	62.80	61.57	64.94
75-79	101.18	98.81	93.63	94.23	93.80	92.27	97.91
80-84	150.20	148.13	143.48	141.12	146.87	153.31	147.61
85-89	236.29	232.63	211.09	209.28	225.73	230.41	227.85
90 and over ..	329.46	331.78	281.63	329.71	299.02	304.35	319.63
FEMALES.							
0- 4	5.79	4.62	5.38	5.01	5.07	5.73	5.28
5- 9	0.52	0.47	0.50	0.45	0.52	0.54	0.50
10-14	0.39	0.36	0.42	0.41	0.23	0.23	0.37
15-19	0.66	0.51	0.51	0.52	0.68	0.47	0.58
20-24	0.67	0.61	0.76	0.65	0.67	0.68	0.67
25-29	0.87	0.71	0.92	0.85	0.78	0.99	0.82
30-34	1.21	0.91	1.37	1.00	0.96	1.21	1.11
35-39	1.76	1.56	2.20	1.78	1.47	1.23	1.73
40-44	2.64	2.33	2.82	2.56	2.13	2.94	2.54
45-49	4.50	3.69	4.58	3.63	3.58	4.34	4.14
50-54	6.50	6.25	6.19	5.87	5.95	6.54	6.28
55-59	10.21	9.28	9.39	9.08	8.57	10.10	9.61
60-64	15.03	14.72	14.21	14.07	13.88	15.04	14.66
65-69	24.65	25.26	22.34	22.97	20.74	22.84	24.07
70-74	41.77	41.15	37.62	40.38	39.29	40.51	40.73
75-79	71.39	69.56	67.82	72.30	67.81	73.65	70.31
80-84	116.39	117.91	117.17	110.09	109.71	122.03	116.04
85-89	193.81	197.40	182.59	183.50	189.56	212.06	192.86
90 and over ..	298.18	296.80	275.59	317.31	284.81	312.17	296.55

(a) Average annual number of deaths per 1,000 of population in each age group at 30th June, 1954.

AGE-SPECIFIC DEATH RATES(a), 1953-55—continued.

Age Group (Years).	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Aust.
PERSONS.							
0-4	6.56	5.26	6.01	5.73	6.07	6.19	6.00
5-9	0.64	0.54	0.55	0.48	0.61	0.62	0.58
10-14	0.55	0.45	0.56	0.54	0.38	0.41	0.50
15-19	1.12	0.87	1.11	1.01	1.15	1.23	1.06
20-24	1.28	1.16	1.37	1.29	1.35	1.23	1.27
25-29	1.25	1.14	1.44	1.30	1.37	1.23	1.27
30-34	1.58	1.21	1.74	1.30	1.40	1.60	1.46
35-39	2.13	1.84	2.46	2.06	1.85	1.57	2.06
40-44	3.34	2.74	3.44	3.07	2.70	3.09	3.11
45-49	5.57	4.68	5.16	4.62	4.77	4.72	5.09
50-54	8.76	7.98	8.24	8.06	7.66	7.78	8.28
55-59	14.66	12.89	13.20	12.29	12.32	12.71	13.51
60-64	21.65	19.68	20.08	18.82	19.31	18.99	20.37
65-69	33.47	32.55	30.53	30.60	30.91	29.31	32.27
70-74	53.26	51.35	49.31	50.57	50.37	50.36	51.66
75-79	84.16	81.50	79.89	81.59	79.80	82.25	82.20
80-84	130.17	129.51	129.00	122.51	125.91	135.82	128.94
85-89	210.52	210.58	195.20	193.40	205.60	220.46	206.82
90 and over	309.91	308.19	278.22	321.61	290.38	309.21	305.00

(a) Average annual number of deaths per 1,000 of population in each age group at 30th June, 1954.

10. **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) and 1948 (Sixth) were successively adapted for use in Australian statistics.

The Sixth Revision of the International Statistical Classification of Diseases, Injuries and Causes of Death has been used in Australia since 1950. For the first time in connexion with the International List, international rules for a uniform method of selecting the main cause to be tabulated, if more than one cause is stated on the death certificate, were laid down. 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 with successive revisions of the International List.

The adoption of the new method marked a fundamental change in Australian cause of death statistics, with emphasis now placed on the underlying cause of death as indicated by the certifying practitioner. The introduction of this method required the adoption by all States of a form of medical certificate substantially identical with the International Form of Medical Certificate of Cause of Death as laid down in Article 9 of the World Health Organization Regulations No. 1. By 1950, all States had adopted satisfactory forms of certificate and it was possible to apply the new principles uniformly to all State cause of death records.

This change in principle affects the comparability of the statistics for 1950 and subsequent years with those for earlier years. For convenience in assessing the extent of the change and in accordance with a recommendation of the Sixth Decennial Revision Conference, causes of death for Australia for 1950 were also classified according to the detailed classification of the Fifth Revision, 1938, on the joint cause rules current for that revision. A complete detailed classification according to both the Fifth and Sixth Revisions was shown in *Demography*, Bulletin No. 68. Commencing with 1951, the classification is according to the Sixth Revision only.

In order to facilitate the briefer 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 for the cause of death tabulations A to C which follow. Tables A and B show deaths of males and females, respectively, for 1955 and Table C shows the numbers of persons who died and the death rates and proportion per 10,000 deaths for the years 1954 and 1955.

A.—CAUSES OF DEATH : MALES, 1955.

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

Cause of Death.	Detailed List Numbers.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
B 1 Tuberculosis of respiratory system ..	001-008	179	163	105	30	25	18	..	1	521
B 2 Tuberculosis, other forms ..	010-019	7	9	6	2	..	2	..	..	26
B 3 Syphilis and its sequelae ..	020-029	35	32	17	14	7	8	..	..	113
B 4 Typhoid fever ..	040	..	..	..	..	1	..	..	..	1
B 5 Cholera ..	043	..	..	..	..	..	..	..	..	..
B 6 Dysentery, all forms ..	045-048	8	2	1	2	2	1	..	..	16
B 7 Scarlet fever and streptococcal sore throat ..	050, 051	1	..	..	..	1	..	..	..	2
B 8 Diphtheria ..	055	9	1	7	3	3	..	..	..	23
B 9 Whooping cough ..	056	..	2	..	2	..	..	..	..	4
B10 Meningococcal infections ..	057	15	16	6	3	2	3	..	..	45
B11 Plague ..	058	..	..	..	..	..	..	..	..	..
B12 Acute poliomyelitis ..	080	6	4	2	5	1	..	..	..	18
B13 Smallpox ..	084	..	..	..	..	..	..	..	..	..
B14 Measles ..	085	3	9	1	1	1	..	..	..	15
B15 Typhus and other rickettsial diseases ..	100-108	..	..	1	..	..	..	..	..	1
B16 Malaria ..	110-117	1	..	..	..	..	..	..	..	1
B17 All other diseases classified as infective and parasitic ..	(a)	72	41	33	25	14	6	1	..	192
B18 Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues ..	140-205	2,471	1,715	913	561	410	187	3	11	6,271
B19 Benign and unspecified neoplasms ..	210-239	47	31	24	11	10	3	..	..	126
B20 Diabetes mellitus ..	260	142	143	46	37	22	10	..	1	401
B21 Anaemias ..	290-293	42	50	18	14	7	3	1	..	135
B22 Vascular lesions affecting central nervous system ..	330-334	2,052	1,209	640	475	288	134	5	8	4,811
B23 Non-meningococcal meningitis ..	340	30	18	15	6	4	1	..	..	74
B24 Rheumatic fever ..	400-402	12	18	8	5	1	..	..	..	45
B25 Chronic rheumatic heart disease ..	410-416	117	87	42	30	28	11	..	..	315
B26 Arteriosclerotic and degenerative heart disease ..	420-422	5,673	3,679	1,762	1,304	974	361	10	21	13,784
B27 Other diseases of heart ..	430-434	681	227	240	85	26	40	3	2	1,304
B28 Hypertension with heart disease ..	440-443	396	244	175	73	68	22	..	1	979
B29 Hypertension without mention of heart ..	444-447	224	115	91	28	36	13	..	..	507
B30 Influenza ..	480-483	22	13	13	3	5	3	..	..	59
B31 Pneumonia ..	490-493	748	297	155	172	118	54	4	1	1,549
B32 Bronchitis ..	500-502	273	216	77	43	38	35	1	3	686
B33 Ulcer of stomach and duodenum ..	540, 541	188	152	82	48	24	14	..	2	510
B34 Appendicitis ..	550-553	41	19	20	14	9	2	..	..	105
B35 Intestinal obstruction and hernia ..	560, 561, 570	131	69	48	27	22	7	..	..	304
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	105	41	49	25	10	8	..	..	238
B37 Cirrhosis of liver ..	581	100	105	29	34	13	7	3	..	291
B38 Nephritis and nephrosis ..	590-594	292	173	146	62	40	26	1	1	741
B39 Hyperplasia of prostate ..	610	162	212	85	56	44	22	..	..	581
B41 Congenital malformations ..	750-759	231	146	93	69	46	23	4	2	614
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	231	175	114	48	46	24	2	2	642
B43 Infections of the newborn ..	763-768	29	29	14	7	11	4	..	..	94
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	363	144	112	82	76	29	6	2	814
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	242	108	97	55	16	9	6	1	534
B46 All other diseases ..	Residual	1,502	1,221	695	372	270	133	17	9	4,219
BE47 Motor vehicle accidents ..	E810-E835	648	469	239	171	147	54	12	7	1,747
BE48 All other accidents ..	E800-E802, E840-E962	798	416	335	154	159	55	16	5	1,938
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	299	148	112	53	68	16	2	3	701
BE50 Homicide and operations of war ..	E964, E965, E980-E999	42	18	13	4	9	2	2	1	91
All Causes ..	..	18,670	11,986	6,681	4,211	3,106	1,351	99	84	46,188

(a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

B.—CAUSES OF DEATH : FEMALES, 1955.

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

Cause of Death.	Detailed List Numbers.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Aust.
B 1 Tuberculosis of respiratory system ..	001-008	57	39	25	15	6	9	..	..	151
B 2 Tuberculosis, other forms ..	010-019	9	12	1	5	2	2	..	..	31
B 3 Syphilis and its sequelae ..	020-029	4	10	8	3	..	1	..	..	26
B 4 Typhoid fever ..	040	..	..	1	..	..	..	..	..	1
B 5 Cholera ..	043	..	..	..	..	..	..	..	..	..
B 6 Dysentery, all forms ..	045-048	1	2	1	6	..	..	..	..	10
B 7 Scarlet fever and streptococcal sore throat ..	050, 051	..	..	2	1	..	..	..	..	3
B 8 Diphtheria ..	055	5	1	3	..	3	..	..	..	12
B 9 Whooping cough ..	056	2	4	..	1	..	..	..	..	7
B10 Meningococcal infections ..	057	17	13	6	1	2	2	..	..	41
B11 Plague ..	058	..	..	..	..	..	..	..	..	..
B12 Acute poliomyelitis ..	080	2	5	3	1	..	1	..	..	12
B13 Smallpox ..	084	..	..	..	..	..	..	..	..	..
B14 Measles ..	085	1	7	1	2	5	..	..	..	16
B15 Typhus and other rickettsial diseases ..	100-108	..	..	..	..	1	..	..	..	1
B16 Malaria ..	110-117	..	..	..	..	..	..	..	..	..
B17 All other diseases classified as infective and parasitic ..	(a)	45	41	16	10	10	3	1	1	127
B18 Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues ..	140-205	2,086	1,817	688	489	351	181	..	3	5,615
B19 Benign and unspecified neoplasms ..	210-239	56	45	24	11	14	5	..	..	155
B20 Diabetes mellitus ..	260	241	276	91	63	41	19	..	1	732
B21 Anaemias ..	290-293	79	66	32	21	5	6	..	1	210
B22 Vascular lesions affecting central nervous system ..	330-334	2,418	1,850	763	596	376	212	1	8	6,224
B23 Non-meningococcal meningitis ..	340	18	10	7	8	5	1	..	..	49
B24 Rheumatic fever ..	400-402	15	9	7	5	3	1	..	..	40
B25 Chronic rheumatic heart disease ..	410-416	152	118	43	44	21	17	..	..	395
B26 Arteriosclerotic and degenerative heart disease ..	420-422	3,485	2,564	973	846	639	199	..	10	8,716
B27 Other diseases of heart ..	430-434	490	266	139	72	24	26	1	3	1,021
B28 Hypertension with heart disease ..	440-443	434	355	175	105	77	25	..	..	1,171
B29 Hypertension without mention of heart ..	444-447	204	214	111	37	36	23	..	..	625
B30 Influenza ..	480-483	24	16	15	3	8	4	..	..	70
B31 Pneumonia ..	490-493	499	271	162	128	61	54	..	1	1,176
B32 Bronchitis ..	500-502	95	66	26	20	12	6	..	..	225
B33 Ulcer of stomach and duodenum ..	540, 541	67	48	14	9	5	6	..	1	150
B34 Appendicitis ..	550-553	28	12	8	8	3	1	1	..	61
B35 Intestinal obstruction and hernia ..	560, 561, 570	105	56	39	24	15	3	..	..	242
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn ..	543, 571, 572	93	52	53	33	19	5	2	..	257
B37 Cirrhosis of liver ..	581	53	49	17	15	8	8	..	..	150
B38 Nephritis and nephrosis ..	590-594	244	139	125	33	27	16	..	..	584
B40 Complications of pregnancy, childbirth and the puerperium ..	{ 640-652, 670-689 }	55	31	20	8	14	4	..	1	133
B41 Congenital malformations ..	750-759	185	153	77	41	38	18	1	2	515
B42 Birth injuries, post-natal asphyxia and atelectasis ..	760-762	169	129	62	31	25	18	1	2	437
B43 Infections of the newborn ..	763-768	26	15	9	4	6	3	..	..	63
B44 Other diseases peculiar to early infancy, and immaturity unqualified ..	769-776	255	110	88	47	59	37	7	2	605
B45 Senility without mention of psychosis, ill-defined and unknown causes ..	780-795	313	119	86	104	20	21	2	2	667
B46 All other diseases ..	Residual	1,155	1,162	458	291	211	150	3	..	3,430
BE47 Motor vehicle accidents ..	E810-E835	158	117	49	36	48	11	..	2	421
BE48 All other accidents ..	E800-E802, E840-E962	397	214	156	122	54	33	..	1	977
BE49 Suicide and self-inflicted injury ..	E963, E970-E979	119	47	39	19	13	7	..	1	245
BE50 Homicide and operations of war ..	E964, E965, E980-E999	22	11	3	7	6	..	..	..	49
All Causes ..	..	13,883	10,541	4,626	3,325	2,273	1,138	20	42	35,848

(a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

C.—CAUSES OF DEATH : PERSONS, AUSTRALIA.

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

Cause of Death.	Detailed List Numbers.	Number of Deaths.		Rate per 1,000,000 of Mean Population.		Proportion per 10,000 Deaths.	
		1954.	1955.	1954.	1955.	1954.	1955.
B 1 Tuberculosis of respiratory system	001-008	823	672	91	73	101	82
B 2 Tuberculosis, other forms	010-019	74	57	8	6	9	7
B 3 Syphilis and its sequelae	020-029	174	139	19	15	21	17
B 4 Typhoid fever	040	3	2	..	..	..	..
B 5 Cholera	043	..	..	..	..	..	..
B 6 Dysentery, all forms	045-048	27	26	3	3	3	3
B 7 Scarlet fever and streptococcal sore throat	050, 051	9	5	1	1	1	1
B 8 Diphtheria	055	34	35	4	4	4	4
B 9 Whooping cough	056	15	11	2	1	2	1
B10 Meningococcal infections	057	128	86	14	9	16	10
B11 Plague	058	..	..	..	..	..	..
B12 Acute poliomyelitis	080	80	30	9	3	10	4
B13 Smallpox	084	..	..	..	..	..	..
B14 Measles	085	43	31	5	3	5	4
B15 Typhus and other rickettsial diseases	100-108	..	2	..	..	..	..
B16 Malaria	110-117	5	1	1	..	1	..
B17 All other diseases classified as infective and parasitic	(a)	275	319	31	35	34	39
B18 Malignant neoplasms, including neoplasms of lymphatic and haematopoietic tissues	140-205	11,611	11,886	1,292	1,292	1,419	1,449
B19 Benign and unspecified neoplasms	210-239	348	281	39	31	43	34
B20 Diabetes mellitus	260	1,096	1,133	122	123	134	138
B21 Anaemias	290-293	305	345	34	38	37	42
B22 Vascular lesions affecting central nervous system	330-334	10,963	11,035	1,220	1,199	1,340	1,345
B23 Non-meningococcal meningitis	340	126	123	14	13	15	15
B24 Rheumatic fever	400-402	76	85	8	9	9	10
B25 Chronic rheumatic heart disease	410-416	779	710	87	77	95	87
B26 Arteriosclerotic and degenerative heart disease	420-422	21,963	22,500	2,443	2,445	2,685	2,743
B27 Other diseases of heart	430-434	2,365	2,325	263	253	289	283
B28 Hypertension with heart disease	440-443	2,317	2,150	258	234	283	262
B29 Hypertension without mention of heart	444-447	1,253	1,132	139	123	153	138
B30 Influenza	480-483	396	129	44	14	49	16
B31 Pneumonia	490-493	2,774	2,725	309	296	339	332
B32 Bronchitis	500-502	862	911	96	99	105	111
B33 Ulcer of stomach and duodenum	540, 541	690	660	77	72	84	81
B34 Appendicitis	550-553	152	166	17	18	19	20
B35 Intestinal obstruction and hernia	560, 561, 570	502	546	56	59	61	67
B36 Gastritis, duodenitis, enteritis and colitis, except diarrhoea of the newborn	543, 571, 572	484	495	54	54	59	60
B37 Cirrhosis of liver	581	400	441	44	48	49	54
B38 Nephritis and nephrosis	590-594	1,433	1,325	159	144	175	162
B39 Hyperplasia of prostate	610	625	581	69	63	76	71
B40 Complications of pregnancy, child birth and the puerperium	640-652, 670-689	139	133	15	14	17	16
B41 Congenital malformations	750-759	1,064	1,129	118	123	130	138
B42 Birth injuries, post-natal asphyxia and atelectasis	760-762	1,167	1,079	130	117	143	132
B43 Infections of the newborn	763-768	179	157	20	17	22	19
B44 Other diseases peculiar to early infancy, and immaturity unqualified	769-776	1,411	1,419	157	154	173	173
B45 Senility without mention of psychosis, ill-defined and unknown causes	780-795	1,340	1,201	149	131	164	146
B46 All other diseases	Residual	7,264	7,649	808	831	888	933
BE47 Motor vehicle accidents	E810-E835	2,094	2,168	233	236	256	264
BE48 All other accidents	E800-E802, E840-E962	2,842	2,915	316	317	348	355
BE49 Suicide and self-inflicted injury	E963, E970-E979	969	946	108	103	119	115
BE50 Homicide and operations of war	E964, E965, E980-E999	126	140	14	15	15	17
All Causes	..	81,805	82,036	9,100	8,915	10,000	10,000

(a) 030-039, 041, 042, 044, 049, 052-054, 059-074, 081-083, 086-096, 120-138.

11. **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 Sixth Revision of the International List. Certain important causes are treated in detail hereunder. The Abbreviated Classification number used in tables A to C (pp. 618-620) is 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 1955 was 729, consisting of 547 males and 182 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 Official Year Book No. 39, p. 626.

(b) *Age at Death.* The following table shows the age groups of males and females who were classified as dying from tuberculosis in 1955 together with figures for 1921, 1931, 1941 and 1951.

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

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951.	1955.	1921.	1931.	1941.	1951.	1955.
0-14	143	90	63	23	4	128	81	54	35	10
15-29	477	294	162	46	10	540	487	275	68	14
30-44	718	585	428	135	59	514	422	319	142	57
45-64	692	674	793	570	237	278	252	251	126	52
65 and over ..	138	193	279	306	237	56	89	110	86	49
Not stated ..	3	..	..	..	..	..	..	..	1	..
Total ..	2,171	1,836	1,725	1,080	547	1,516	1,331	1,009	458	182

(c) *Death Rates.* The reduction in mortality from tuberculosis is shown by the decline in the crude death rate (per 100,000 of mean population) from tubercular diseases, which fell from 68 in 1921 (males, 78; females, 56) to 18 in 1951 (males, 25; females, 11) and still further to 8 in 1955 (males 12; females, 4). The crude death rate does not reveal the even more striking fall in the number of deaths in the younger age groups, which can be seen from the table above.

(d) *Death Rates, Various Countries.* A comparison of the death rates from tuberculosis for Australia with those for various other countries, made on the latest figures available, shows that Australia, with a rate of 8 deaths per 100,000 of mean population, occupies a favourable position as regards this disease. Whereas the rate for Denmark is also only 8, rates range as high as 67 for Japan. For various other countries rates are as follows:—Netherlands, 9; Canada, 10; New Zealand, 12; United States of America, 12; United Kingdom, 18; Union of South Africa, 20; Italy, 24; France, 32; Finland, 45; and Portugal, 62.

(iii) *Malignant Neoplasms, including Neoplasms of Lymphatic and Haematopoietic Tissues (B18).* (a) *General.* It was shown in Official Year Book No. 39, p. 628, that deaths classified under this heading according to the Sixth Revision of the International List are not directly comparable in total with those on the Fifth Revision basis and comparability ratios were given to enable comparison to be made on an adjusted basis. This change must be kept in mind in considering the comparisons shown in the following pages.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease in conjunction with age and conjugal condition of the persons dying from malignant neoplasms in 1955 will be found in *Demography*, Bulletin No. 73. A summary regarding type and seat of disease for 1955 is given below. It may be pointed out that the significance of the number of deaths shown for the various types of neoplasms enumerated hereunder is doubtful, owing to the fact that, in the absence of a post-mortem, it is impracticable for the certifying doctor in the majority of cases to make an accurate diagnosis as to type in the detail required for the following classification.

DEATHS FROM MALIGNANT NEOPLASMS AND NEOPLASMS OF LYMPHATIC AND HAEMATOPOIETIC TISSUES: TYPE AND SEAT OF DISEASE, AUSTRALIA, 1955.

Type of Disease.	Males.	Females.	Persons.	Seat of Disease.	Males.	Females.	Persons.
Malignant Neoplasms—				Malignant Neoplasms—			
Cancer and carcinoma (other than skin) ..	5,168	4,720	9,888	Buccal cavity and pharynx	198	66	264
Skin cancer	55	41	96	Digestive organs and peritoneum—			
Sarcoma and myeloid sarcoma	99	117	216	Oesophagus	178	60	238
Myeloma .. ..	..	..	..	Stomach	1,125	704	1,829
Glioma	122	67	189	Small intestine	25	15	40
Endothelioma .. ..	..	..	..	Large intestine	583	814	1,397
Melanoma and melanotic sarcoma	95	94	189	Other	773	652	1,425
Hypernephroma	36	24	60	Respiratory system ..	1,128	206	1,334
Teratoma	13	3	16	Breast	5	1,102	1,107
Malignant disease and malignant tumor n.o.s.	192	166	358	Uterus .. ..	..	560	560
				Other female genital organs .. ..	..	330	330
<i>Total, Malignant Neoplasms</i> ..	<i>5,780</i>	<i>5,232</i>	<i>11,012</i>	Male genital organs ..	781	..	781
				Urinary organs	368	174	542
Neoplasms of Lymphatic and Haematopoietic Tissues—				Skin	171	134	305
Lymphosarcoma and reticulosarcoma ..	107	71	178	Other and unspecified organs	445	415	860
Hodgkin's disease ..	71	50	121	<i>Total, Malignant Neoplasms</i> ..	<i>5,780</i>	<i>5,232</i>	<i>11,012</i>
Other forms of lymphoma (reticulos) ..	14	21	35	<i>Neoplasms of Lymphatic and Haematopoietic Tissues</i> ..	<i>491</i>	<i>383</i>	<i>874</i>
Multiple myeloma (plasmocytoma) ..	38	40	78				
Leukaemia and aleukaemia	258	198	456				
Mycosis fungoides ..	3	3	6				
<i>Total, Neoplasms of Lymphatic, etc., Tissues</i> ..	<i>491</i>	<i>383</i>	<i>874</i>				
Grand Total ..	6,271	5,615	11,886	Grand Total	6,271	5,615	11,886

(c) *Age at Death.* The ages of males and females who died from malignant neoplasms in 1955 are given below, together with figures for 1921, 1931, 1941 and 1951. Inferences drawn from the great increase in the number of deaths from malignant neoplasms in 1955 compared with the number in 1921 need qualification in view of the altered age constitution of the population since the earlier year. While the total population increased by about 70 per cent. between 1921 and 1955, the number of people over 55 years of age, at which ages the risks of cancer are much greater, increased by about 150 per cent. It is only from age 75 onwards, however, that the rate of mortality, as distinct from the number of deaths, has increased. For groups up to age 75 there has been no increase in mortality rates since 1921; indeed in some age groups the rates have actually declined. It is also probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to better diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

MALIGNANT NEOPLASMS: NUMBER OF DEATHS IN AGE GROUPS, AUSTRALIA.

Age Group (Years).	Males.					Females.				
	1921.	1931.	1941.	1951.	1955.	1921.	1931.	1941.	1951.	1955.
Under 15	26	25	21	91	123	23	23	25	71	98
15-29	29	43	49	103	109	37	38	45	76	63
30-44	163	196	176	275	325	266	326	344	387	446
45-54	387	410	465	584	719	470	548	685	692	763
55-64	800	868	983	1,334	1,400	657	744	926	1,180	1,162
65 and over ..	1,032	1,942	2,561	3,128	3,595	875	1,426	2,198	2,698	3,083
Not stated ..	3	..	..	..	..	..	..	..	..	..
Total ..	2,440	3,484	4,255	5,515	6,271	2,328	3,105	4,223	5,104	5,615

(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 reflect the increasing age of the population rather than the true change in mortality from malignant neoplasms (*see* para. 11 (iii) (c), p. 622). In 1921, the rate for Australia was 87 (males, 88; females, 87); in 1931 it was 101 (males, 105; females, 97); in 1941 it was 119 (males, 119; females, 120) and in 1951 it had risen to 126 (males, 129; females, 122). Figures for 1955 show that a further rise has taken place, the rate being 129 (males, 135; females, 124).

(e) *Death Rates, Various Countries.* Death rates from malignant neoplasms per 100,000 of mean population for Australia and for various other countries are as follows:—Portugal, 75; Japan, 83; Spain, 115; Union of South Africa, 125; Australia, 129; Canada, 130; United States of America, 145; New Zealand, 145; France, 178; Switzerland, 190; and United Kingdom, 202. 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 1955 was 27,685 (16,382 males and 11,303 females). This class is the largest amongst causes of death, the rate having increased from 102 per 100,000 of mean population in 1911–15 to 301 in 1955. 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 1921 were as follows:—1921, 93 (males, 102; females, 83); 1931, 159 (males, 178; females, 142); 1941, 269 (males, 306; females, 231); 1951, 314 (males, 367; females, 259); and 1955, 301 (males, 352; females, 249). Deaths from heart diseases in 1955 represented 34 per cent. of the total deaths.

(v) *Puerperal Causes (B40).* It was shown in Official Year Book No. 39, p. 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 death rate from these causes (including criminal abortion) has fallen rapidly during recent years and in 1955 the rate was 0.6 per 1,000 live births, compared with a rate of 6 per 1,000 in 1936. The 133 deaths in 1955 correspond to a death rate of 2.9 per 100,000 females. The death rate may be expressed in other terms by stating that 1 of every 1,544 women giving birth to a live child in 1955 died from puerperal causes; the corresponding ratios for married women were 1 in every 1,614, and for single women 1 in every 768.

The death rate per 1,000 live births from puerperal causes in various countries for the latest available years is as follows:—New Zealand, 0.5; United States of America, 0.6; France, United Kingdom, Canada and Denmark, 0.7; Union of South Africa and Spain, 1.1; Switzerland, 1.2; Portugal, 1.4; and Japan, 1.8.

The total number of children left by the 122 married mothers who died from puerperal causes in 1955 was 341, an average of 2.8 children per mother.

Three of the mothers who died had been married less than one year, 14 between one and two years, and 9 between two and three years. The duration of marriage ranged up to 28 years. Tabulations distinguishing the ages at marriage and at death will be found in *Demography*, Bulletin No. 73, which also includes a table showing in combination the duration of marriage and previous issue.

(vi) *Congenital Malformations and Diseases of Early Infancy (B41 to B44).* This combined group embraces two complete classes of the International List of Causes of Death which relate more specifically to infant deaths and they have already been presented in detail in the section devoted to causes of infant death (*see* pp. 613 and 614).

(vii) *Accidents, Poisonings and Violence (BE 47 to BE 50).* (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 accident, 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 late 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 generally about three times as great for males as for females. It can be seen also that in 1955 the percentage of deaths caused by violence was 7.52, compared with 6.76 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)

Period.	Death Rate(a) from—												All Violence. Proportion per 10,000 Deaths.		
	Accident.(b)			Suicide.			Homicide.(c)			Total Violence.					
	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.	M.	F.	P.
1931-35..	71	22	47	19	5	12	2	1	2	92	28	61	929	353	676
1936-40..	86	28	58	17	5	11	2	1	1	105	34	70	979	399	724
1941-45..	67	26	46	11	4	8	1	1	1	79	31	55	730	348	558
1946-50..	76	27	51	14	5	10	1	1	1	91	33	62	844	383	640
1951-55..	82	31	57	15	5	10	2	1	1	99	37	68	964	453	740
1951 ..	86	31	59	14	5	10	2	1	1	102	37	70	948	429	721
1952 ..	83	32	57	16	5	11	2	1	2	101	38	70	967	454	742
1953 ..	79	30	56	16	6	11	2	1	1	97	37	68	969	463	746
1954 ..	79	30	55	16	5	11	2	1	1	97	36	67	965	448	737
1955 ..	79	31	56	15	5	10	2	1	1	96	37	67	969	472	752

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

(b) Includes "open verdict".

(b) *Accident (BE 47, BE 48)*. In 1955, the total number of deaths from accidental causes was 5,083 (3,685 males and 1,398 females). 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, 2,084 (41.00 per cent.); motor vehicle non-traffic accidents, 84 (1.65 per cent.); other road vehicle accidents, 132 (2.60 per cent.); railway accidents, 164 (3.22 per cent.); water transport accidents, 60 (1.18 per cent.); aircraft accidents, 41 (0.81 per cent.); a total of 2,565 (50.46 per cent.). Other important causes were accidental falls, 978 (19.24 per cent.); accidental drowning, 444 (8.73 per cent.); and accidents caused by fire and explosion of combustible material, 155 (3.05 per cent.).

(c) *Suicide (BE 49)*. (i) *Modes Adopted*. Deaths from suicide in 1955 numbered 946 (males, 701; females, 245). Firearms and explosives were used in 273 cases (28.86 per cent. of total deaths by suicide). Other important modes adopted, together with the numbers and relevant percentages, were as follows:—Hanging or strangulation, 184 (19.45 per cent.); poisoning by gases, 171 (18.07 per cent.); poisoning other than by gases, 157 (16.60 per cent.); submersion (drowning), 52 (5.50 per cent.); other modes, 109 (11.52 per cent.).

Of the 701 males who committed suicide, 254 (36.23 per cent.) used firearms and explosives. For females the most common mode was poisoning (other than by gases). This was used in 68 cases (27.75 per cent.).

(ii) *Age at Death*. From the following table which shows the age of persons who committed suicide in 1955 it will be seen that both young and extremely old people took their lives during this year.

AGE OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA, 1955.

Age Groups (Years).	Males.	Females.	Persons.	Age Group (Years).	Males.	Females.	Persons.
10-14 ..	1	..	1	60-64 ..	63	24	87
15-19 ..	19	3	22	65-69 ..	71	13	84
20-24 ..	42	4	46	70-74 ..	45	10	55
25-29 ..	48	15	63	75-79 ..	26	4	30
30-34 ..	59	26	85	80-84 ..	10	2	12
35-39 ..	61	27	88	85-89 ..	3	1	4
40-44 ..	58	25	83	90-94 ..	1	..	1
45-49 ..	67	28	95	Not stated ..	1	..	1
50-54 ..	61	37	98				
55-59 ..	65	26	91	Total Deaths ..	701	245	946

(d) *Homicide and Operations of War (BE 50)*. In 1955, there were 129 deaths from homicide and injury purposely inflicted by other persons (not in war), of which non-accidental poisoning caused 5 deaths, assault by firearms and explosives, 38; assault by cutting and piercing instruments, 25; and assault by other means, 61. Deaths from injury resulting from the operations of war numbered 11, but all were deaths from late effects of such injuries.

12. Age at Death of Deceased Married Males and Females, and Issue.—*Demography*, Bulletin No. 73, 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 1955. Deaths of married males in 1955 numbered 34,167, and of married females, 27,982. The tabulations which follow deal, however, with only 33,679 males and 27,734 females, the information regarding issue in the remaining 736 cases being incomplete. The total number of children in the families of the 33,679 males was 108,262 and of the 27,734 females, 96,136. 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.

Age at Death (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1955.	1921.	1931.	1941.	1951.	1955.
Under 20 ..	..	0.75	..	0.43	0.40	0.77	0.66	0.79	0.83	0.92
20-24..	0.84	0.81	0.73	0.96	0.67	1.22	1.13	0.95	0.86	1.12
25-29..	1.29	1.33	1.12	1.29	1.42	1.86	1.81	1.45	1.61	1.59
30-34..	2.06	1.79	1.76	1.79	1.90	2.45	2.34	1.91	1.98	1.92
35-39..	2.58	2.13	2.11	2.12	2.07	3.29	2.89	2.30	2.49	2.41
40-44..	3.23	2.77	2.49	2.30	2.30	3.66	3.29	2.77	2.39	2.48
45-49..	3.48	3.10	2.68	2.51	2.40	3.76	3.55	2.93	2.59	2.47
50-54..	3.76	3.46	2.96	2.56	2.42	4.23	3.60	3.29	2.76	2.58
55-59..	4.41	3.69	3.28	2.71	2.60	4.69	4.01	3.55	3.03	2.75
60-64..	4.98	4.02	3.55	3.07	2.85	5.39	4.21	3.79	3.29	3.01
65-69..	5.50	4.41	3.73	3.25	3.17	5.86	4.82	4.01	3.63	3.35
70-74..	6.06	5.06	4.17	3.58	3.34	6.30	5.41	4.29	3.64	3.46
75-79..	6.66	5.65	4.56	3.83	3.58	6.56	6.02	4.85	3.96	3.65
80-84..	6.89	6.17	4.93	4.30	4.00	6.76	6.26	5.39	4.19	3.92
85-89..	7.18	6.59	5.70	4.63	4.28	6.93	6.57	5.85	4.68	4.36
90-94..	7.21	6.94	6.57	5.06	4.69	6.53	6.73	6.11	5.08	4.68
95-99..	6.97	6.69	7.04	5.78	5.18	6.05	7.10	6.34	5.76	4.85
100 and over ..	9.20	7.00	8.69	5.71	5.46	5.11	8.20	6.73	7.72	5.17
Age not stated	5.36	5.00	..	8.00	2.00	5.80	5.00	..	5.50	6.50
All Ages ..	4.97	4.44	3.91	3.39	3.21	5.05	4.72	4.22	3.68	3.47

(a) Includes widowed or divorced.

The figures in the preceding table include the issue both living and dead. The proportion of living to deceased issue, taking males and females together, is six to one. The totals for 1955 are shown in the following table:—

ISSUE OF DECEASED MARRIED(a) MALES AND FEMALES : AUSTRALIA, 1955.

Issue of Married Males.				Issue of Married Females.			
Issue.	Males.	Females.	Total.	Issue.	Males.	Females.	Total.
Living ..	48,074	47,150	95,224	Living ..	40,345	40,110	80,455
Dead ..	7,732	5,306	13,038	Dead ..	9,303	6,378	15,681
Total ..	55,806	52,456	108,262	Total ..	49,648	46,488	96,136

(a) Includes widowed or divorced.

13. Age at Marriage of Deceased Males and Females, and Issue.—While the table giving the average issue of married males and females naturally shows an increase in the averages with advancing age at death, the following table, which gives the average issue of males and females according to the age at marriage of the deceased parent, shows a corresponding decrease in the averages as the age at marriage advances.

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

Age at Marriage (Years).	Average Issue.									
	Males.					Females.				
	1921.	1931.	1941.	1951.	1955.	1921.	1931.	1941.	1951.	1955.
Under 15 ..	..	..	..	..	..	7.60	6.36	7.80	4.88	6.60
15-19 ..	6.32	6.15	5.40	4.63	4.63	6.97	6.79	6.10	5.41	5.08
20-24 ..	6.05	5.56	4.89	4.23	3.98	5.50	5.23	4.80	4.28	4.04
25-29 ..	5.17	4.70	4.21	3.65	3.42	4.09	3.79	3.51	3.14	3.03
30-34 ..	4.45	3.96	3.41	3.00	2.89	2.66	2.42	2.35	2.23	2.21
35-39 ..	3.90	3.14	2.80	2.45	2.21	1.61	1.40	1.26	1.16	1.20
40-44 ..	2.67	2.36	2.01	1.69	1.61	0.62	0.39	0.35	0.36	0.38
45-49 ..	2.20	1.96	1.52	1.33	1.20	0.03	0.12	0.01	0.07	0.13
50-54 ..	1.70	1.60	1.05	0.80	0.83	..	..	..	..	..
55-59 ..	1.30	0.95	0.79	0.49	0.48	..	..	..	..	..
60-64 ..	0.33	0.63	0.29	0.24	0.35	..	..	..	..	..
65 and over ..	0.25	0.18	0.01	0.29	0.08	..	..	..	..	..
Age not stated	4.93	3.64	2.95	2.81	2.76	5.41	3.96	2.45	3.17	2.79
All Ages ..	4.97	4.44	3.91	3.39	3.21	5.05	4.72	4.22	3.68	3.47

§ 6. Vital Statistics of External Territories.

Because of the outbreak of hostilities in the Pacific during the 1939-45 War, civil administration in the external territories was suspended on 11th February, 1942, and registration of births, deaths and marriages was not resumed until 1946. The following table for the year 1955 shows the number of births, deaths and marriages registered in the external territories under the control of Australia, namely:—Norfolk Island; Papua; the Trust Territory of New Guinea; the Trust Territory of Nauru; and, as from 23rd November, 1955, the Territory of Cocos (Keeling) Islands. More detailed information will be found in a series of tables in *Demography*, Bulletin No. 73.

VITAL STATISTICS: EXTERNAL TERRITORIES, 1955.

(EXCLUDING INDIGENOUS POPULATION.)

Territory.	Marriages.	Births.			Deaths.		
		Males.	Females.	Persons.	Males.	Females.	Persons.
Norfolk Island	8	11	6	17	6	3	9
Papua	56	86	77	163	25	8	33
Trust Territory of New Guinea	100	162	165	327	43	20	63
Trust Territory of Nauru ..	1	5	6	11	1	..	1
Territory of Cocos (Keeling) Islands .. ..	..	..	1	1	..	..	..