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## CHAPTER XVII. VITAL STATISTICS.

[NOTE.—1. In the Vital Statistics chapter of Official Year Book No. 35 tables covering a single year related to 1941. In the last issue these tables covered 1944 and, where possible, 1942 and 1943. In the present issue these tables cover 1946 and, where possible, 1945. In some cases, however, space does not permit of the inclusion of figures for 1945. These figures will be found in *Demography Bulletin*, No. 63 unless otherwise specifically indicated.

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

### § 1. Marriages.

1. Number, 1946.—The number of marriages registered in Australia during the year ended 31st December, 1946, was 79,496, giving a rate of 10.64 per 1,000 of the mean population for the year. In 1942 both the number and the rate were the highest on record. A summary of the number of marriages registered in each State and Territory since 1861 is given in the following table :—

#### MARRIAGES.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.	
Annual Average—										
1861-1865	3,384	4,447	738	1,245	153	668	..	..	10,635	
1866-1870	3,654	4,580	930	1,287	164	629	..	..	11,244	
1871-1875	4,242	4,874	1,255	1,494	167	658	..	..	12,690	
1876-1880	5,181	5,083	1,493	2,137	196	817	..	..	14,907	
1881-1885	7,148	6,718	2,326	2,476	223	1,000	..	..	19,891	
1886-1890	7,730	8,567	3,054	2,067	299	959	..	..	22,676	
1891-1895	7,985	7,543	2,705	2,142	466	905	..	..	21,746	
1896-1900	9,094	7,852	3,102	2,190	1,572	1,098	..	..	24,908	
1901-1905	10,435	8,294	3,154	2,412	2,024	1,342	(a) 7	..	27,668	
1906-1910	12,742	9,502	4,203	3,159	2,098	1,446	10	..	33,160	
1911-1915	16,741	11,762	5,696	4,032	2,552	1,549	16	(b) 4	42,352	
1916-1920	15,744	11,321	5,397	3,756	2,145	1,443	27	5	39,838	
1921-1925	18,041	13,293	6,072	4,200	2,564	1,594	14	4	45,782	
1926-1930	19,253	12,955	6,279	4,036	3,167	1,506	23	30	47,249	
1931-1935	18,742	12,773	6,950	3,967	3,328	1,638	29	53	47,480	
1936-1940	25,295	17,784	8,982	5,726	4,399	2,187	83	85	64,541	
1941-1945	28,506	19,450	10,563	6,517	4,668	2,097	71	109	71,981	
Year—										
1942	..	34,533	23,636	11,722	8,129	5,441	2,431	53	115	86,060
1943	..	26,302	18,356	9,979	6,263	4,528	2,102	46	97	67,673
1944	..	26,426	17,857	11,325	6,019	4,506	1,935	31	102	68,201
1945	..	25,283	16,501	9,905	5,321	3,788	1,868	48	108	62,822
1946	..	31,684	21,405	11,666	6,700	5,171	2,650	63	157	79,496

(a) Included with South Australia prior to 1901.

(b) Part of New South Wales prior to 1911.

2. Crude Marriage-rates.—The crude marriage-rates for each State and Territory for a series of years are given hereunder :—

## CRUDE MARRIAGE-RATES(a).

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Annual Average—									
1861-1865	9.05	7.86	13.32	8.83	8.44	7.35	..	..	8.54
1866-1870	8.06	6.90	9.21	7.39	6.97	6.44	..	..	7.43
1871-1875	7.79	6.37	9.11	7.61	6.43	6.38	..	..	7.16
1876-1880	7.84	6.17	7.68	8.73	6.89	7.51	..	..	7.23
1881-1885	8.55	7.41	8.82	8.36	6.98	8.19	..	..	8.10
1886-1890	7.53	8.15	8.55	6.65	6.06	7.03	..	..	7.75
1891-1895	6.71	6.46	6.52	6.35	7.07	6.00	..	..	6.54
1896-1900	6.95	6.63	6.60	6.16	10.11	6.61	..	..	6.84
1901-1905	7.38	6.89	6.12	6.76	9.30	7.50	61.69	..	7.10
1906-1910	8.10	7.63	7.50	8.32	8.06	7.71	2.68	..	7.88
1911-1915	9.32	8.48	8.69	9.32	8.26	8.00	4.41	62.04	8.86
1916-1920	8.05	7.80	7.62	8.17	6.76	7.17	5.68	1.94	7.25
1921-1925	8.20	8.29	7.62	8.14	7.28	7.40	3.81	1.06	8.04
1926-1930	7.87	7.43	7.11	7.13	7.80	6.96	5.05	3.80	7.53
1931-1935 <sup>d</sup>	7.19	7.01	7.34	6.83	7.57	7.19	5.90	5.70	7.16
1936-1940 <sup>d</sup>	9.28	9.50	8.95	9.64	9.48	9.25	12.71	7.14	9.33
1941-1945 <sup>d</sup>	9.98	9.87	10.05	10.63	9.75	8.61	7.14	7.57	9.95
Year—									
1942 <sup>(d)</sup> ..	12.20	12.06	11.32	13.34	11.41	10.08	5.93	8.08	11.99
1943 <sup>(d)</sup> ..	9.20	9.30	9.53	10.21	9.50	8.65	4.81	7.11	9.35
1944 <sup>(d)</sup> ..	9.15	8.97	10.67	9.72	9.36	7.88	2.97	7.18	9.33
1945 <sup>(d)</sup> ..	8.67	8.22	9.20	8.48	7.77	7.51	4.57	7.19	8.50
1946 <sup>(d)</sup> ..	10.76	10.57	10.70	10.55	10.49	10.51	5.97	9.88	10.64

(a) Number of marriages (not persons married) per 1,000 of mean population. (b) Included with South Australia prior to 1901. (c) Part of New South Wales prior to 1911. (d) Revised in accordance with the preliminary results of the Census of 30th June, 1947.

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 last six census periods. 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 :—1880-82, 48.98 ; 1890-92, 45.74 ; 1900-02, 42.14 ; 1910-12, 50.44 ; 1920-22, 56.02 ; and 1932-34, 42.88. These rates refer, of course, to persons married, and not to marriages as is the case in the preceding table.

3. Crude Marriage-rates of Various Countries.—The following table gives the crude marriage-rate for Australia and each State thereof in comparison with the rates for various other countries.

## CRUDE MARRIAGE-RATES (a) : VARIOUS COUNTRIES.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1946.
United States of America .. ..	(e)	10.6	9.9	9.2	16.2
France .. ..	7.9	9.5	8.2	7.4	12.7
New Zealand (b) .. ..	8.5	8.0	7.7	7.3	12.4
Netherlands .. ..	7.5	8.2	7.7	7.2	11.4
Rumania .. ..	9.5	10.4	9.4	9.0	11.3
Germany .. ..	7.8	9.4	8.7	9.3	(g) 11.2
Canada .. ..	(e)	7.3	7.3	6.4	10.9
Union of South Africa (c) .. ..	(e)	8.0	9.3	9.4	(h) 10.8
Belgium .. ..	7.9	10.6	9.1	7.8	10.8
Hungary .. ..	(e)	10.0	9.2	8.5	10.7
Australia (d) .. ..	8.4	8.1	7.6	7.2	10.6
<i>New South Wales (d)</i> .. ..	8.8	8.2	8.0	7.2	10.8
<i>Queensland (d)</i> .. ..	8.2	7.5	6.9	7.3	10.7
<i>South Australia (d)</i> .. ..	9.1	8.1	7.0	6.8	10.6
<i>Victoria (d)</i> .. ..	8.0	8.3	7.4	7.0	10.6
<i>Tasmania (d)</i> .. ..	7.9	7.4	7.1	7.2	10.5
<i>Western Australia (d)</i> .. ..	8.1	7.3	8.0	7.6	10.5
Denmark .. ..	7.3	7.9	7.8	8.7	9.8
Czechoslovakia .. ..	7.7	10.0	9.3	8.2	9.8
Sweden .. ..	6.0	6.3	6.7	7.3	9.3
Italy .. ..	7.7	9.0	7.3	6.8	9.1
Great Britain and Northern Ireland .. ..	7.3	7.7	7.5	7.9	9.0
<i>England and Wales</i> .. ..	7.6	7.8	7.7	8.1	9.0
<i>Scotland</i> .. ..	6.7	7.1	6.7	7.1	8.9
<i>Northern Ireland</i> .. ..	5.2	6.2	5.9	6.2	7.4
Norway .. ..	6.2	6.3	6.1	6.5	(g) 8.9
Switzerland .. ..	7.3	7.7	7.5	7.7	8.7
Argentina .. ..	6.8	7.2	7.4	6.5	(i) 8.4
Poland .. ..	7.0	9.9	9.2	8.4	(f) 8.1
Finland .. ..	6.1	7.1	7.2	7.2	(i) 8.0
Yugoslavia .. ..	(e)	10.6	9.5	7.8	(g) 7.9
Chile .. ..	(e)	6.9	9.3	6.9	7.8
Portugal .. ..	6.9	7.9	6.9	6.6	7.6
Japan .. ..	9.3	8.8	8.0	7.6	(f) 7.5
Spain .. ..	7.0	7.3	7.3	6.5	7.4
Greece .. ..	(e)	7.5	7.1	6.8	(f) 6.5
Mexico .. ..	(e)	(e)	(e)	6.1	6.1
Eire .. ..	5.2	4.9	4.6	4.6	5.9

(a) Number of marriages per 1,000 of mean population. (b) Excludes Maoris. (c) White population only. (d) Excludes full-blood aboriginals. (e) Not available. (f) 1938 (g) 1939. (h) 1943. (i) 1944.

4. Age and Conjugal Condition at Marriage.—(i) *General.* Age at marriage in single ages and previous conjugal condition of bridegrooms and brides in 1945 and 1946 will be found in *Demography Bulletin*, Nos. 63 and 64. A summary in age-groups is given hereunder for these years. There were 5,090 males aged less than twenty-one years married during 1946 while the corresponding number of females was 20,896. At the other extreme there were 80 bachelors, and 29 spinsters in the age-group 65 years and over.

Information regarding the percentage distribution of bridegrooms and brides is shown for 1907-10, in five-year periods thereafter until 1945 and for each of the years 1944, 1945 and 1946.

## AGE AND CONJUGAL CONDITION OF PERSONS MARRIED: AUSTRALIA.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
1945.								
Under 20..	2,114	..	..	2,114	10,318	6	7	10,331
20-24 ..	23,841	26	71	23,938	28,459	208	350	29,017
25-29 ..	16,392	142	483	17,017	9,778	437	826	11,041
30-34 ..	7,123	249	778	8,150	3,842	401	904	5,147
35-39 ..	3,224	347	792	4,363	1,865	372	664	2,901
40-44 ..	1,602	359	566	2,527	899	365	410	1,674
45-49 ..	781	451	399	1,631	468	385	233	1,086
50-54 ..	357	497	248	1,102	226	335	138	699
55-59 ..	205	512	137	854	111	257	60	428
60-64 ..	84	404	48	536	56	199	16	271
65 and over	70	496	24	590	21	191	15	227
Total ..	55,793	3,483	3,546	62,822	56,043	3,156	3,623	62,822

1946.								
Under 20..	2,250	..	1	2,251	13,250	8	12	13,270
20-24 ..	31,216	30	98	31,344	37,260	245	459	37,964
25-29 ..	22,061	162	729	22,952	12,330	627	1,091	14,048
30-34 ..	8,861	330	1,006	10,197	4,551	637	1,085	6,273
35-39 ..	3,806	376	970	5,152	1,986	455	787	3,228
40-44 ..	1,686	391	683	2,760	977	421	444	1,842
45-49 ..	853	418	421	1,692	509	397	272	1,178
50-54 ..	385	494	231	1,110	265	330	125	720
55-59 ..	191	520	149	860	132	266	73	471
60-64 ..	102	400	59	561	69	172	21	262
65 and over	80	504	33	617	29	196	14	239
Not stated	..	..	..	..	..	1	..	1
Total ..	71,491	3,625	4,380	79,496	71,358	3,755	4,383	79,496

## PERCENTAGE OF TOTAL.

	%	%	%	%	%	%	%	%
1907-10 ..	93.11	6.41	0.48	100.00	94.17	5.22	0.61	100.00
1911-15 ..	93.92	5.51	0.57	100.00	94.62	4.62	0.76	100.00
1916-20 ..	92.82	6.33	0.85	100.00	93.44	5.59	0.97	100.00
1921-25 ..	92.18	6.38	1.44	100.00	92.99	5.49	1.52	100.00
1926-30 ..	92.31	5.93	1.76	100.00	93.46	4.55	1.99	100.00
1931-35 ..	92.63	5.39	1.98	100.00	94.37	3.53	2.10	100.00
1936-40 ..	92.59	4.82	2.59	100.00	93.94	3.38	2.68	100.00
1941-45 ..	91.44	4.77	3.79	100.00	92.11	3.93	3.96	100.00
1944 ..	90.79	4.94	4.27	100.00	91.45	4.14	4.41	100.00
1945 ..	88.81	5.54	5.65	100.00	89.21	5.02	5.77	100.00
1946 ..	89.93	4.56	5.51	100.00	89.76	4.73	5.51	100.00

(ii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1945 and 1946 are shown in single years in *Demography Bulletin*, Nos. 63 and 64. A summary in age-groups of five years is given below :—

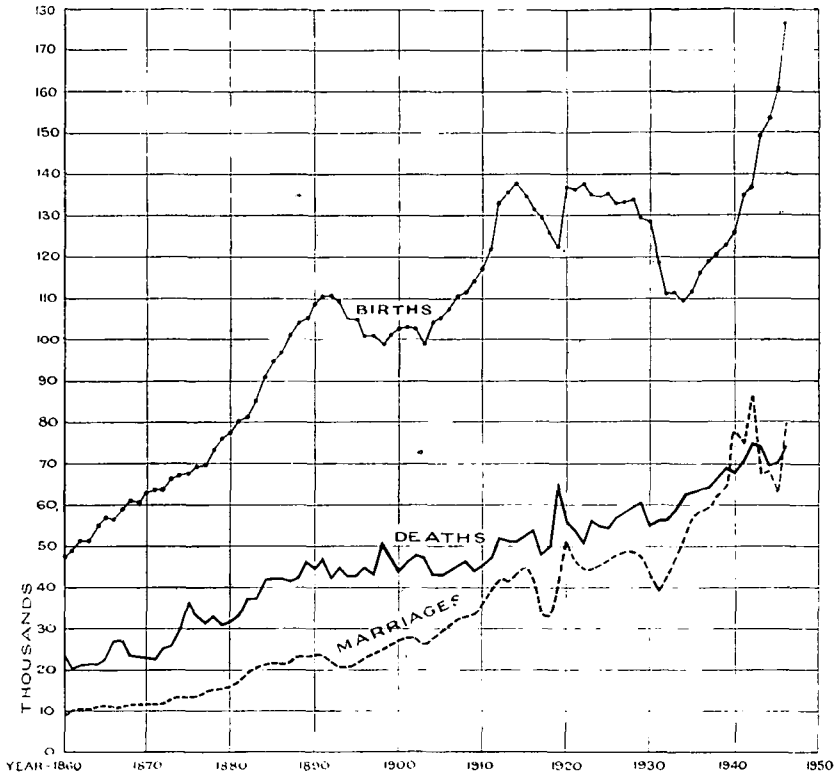
RELATIVE AGES OF BRIDEGROOMS AND BRIDES : AUSTRALIA.

Age of Bridegrooms (Years).	Total Bridegrooms.	Age of Brides (Years).							
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.
1945.									
Under 20..	2,114	7	1,457	606	39	4	..	..	1
20-24 ..	23,938	2	6,301	15,488	1,888	209	41	7	2
25-29 ..	17,017	..	1,947	9,240	4,577	1,025	186	29	13
30-34 ..	8,150	..	454	2,640	2,725	1,679	504	110	38
35-39 ..	4,363	..	119	759	1,161	1,158	819	247	100
40-44 ..	2,527	..	29	190	428	612	607	441	220
45-49 ..	1,631	..	9	65	143	273	372	349	420
50-54 ..	1,102	..	3	14	51	101	219	259	455
55-59 ..	854	..	3	13	15	55	100	142	526
60-64 ..	536	..	..	1	8	18	34	63	412
65 and over	590	..	..	1	6	13	19	27	524
Total Brides	62,822	9	10,322	29,017	11,041	5,147	2,901	1,674	2,711
1946.									
Under 20..	2,251	2	1,535	684	24	5	1	..	..
20-24 ..	31,344	8	8,335	20,125	2,550	278	39	9	..
25-29 ..	22,952	2	2,650	12,599	6,074	1,312	260	43	12
30-34 ..	10,197	1	559	3,403	3,333	2,125	606	131	39
35-39 ..	5,152	..	134	830	1,382	1,432	944	337	93
40-44 ..	2,760	1	25	213	452	683	679	456	251
45-49 ..	1,692	..	11	70	145	278	389	370	429
50-54 ..	1,110	..	6	24	43	92	179	254	512
55-59 ..	860	..	1	7	27	42	88	146	549
60-64 ..	(a) 560	..	..	6	13	19	31	57	434
65 and over	617	..	..	3	5	7	12	39	551
Total Brides	79,496	14	13,256	37,964	14,048	6,273	3,228	1,842	2,870

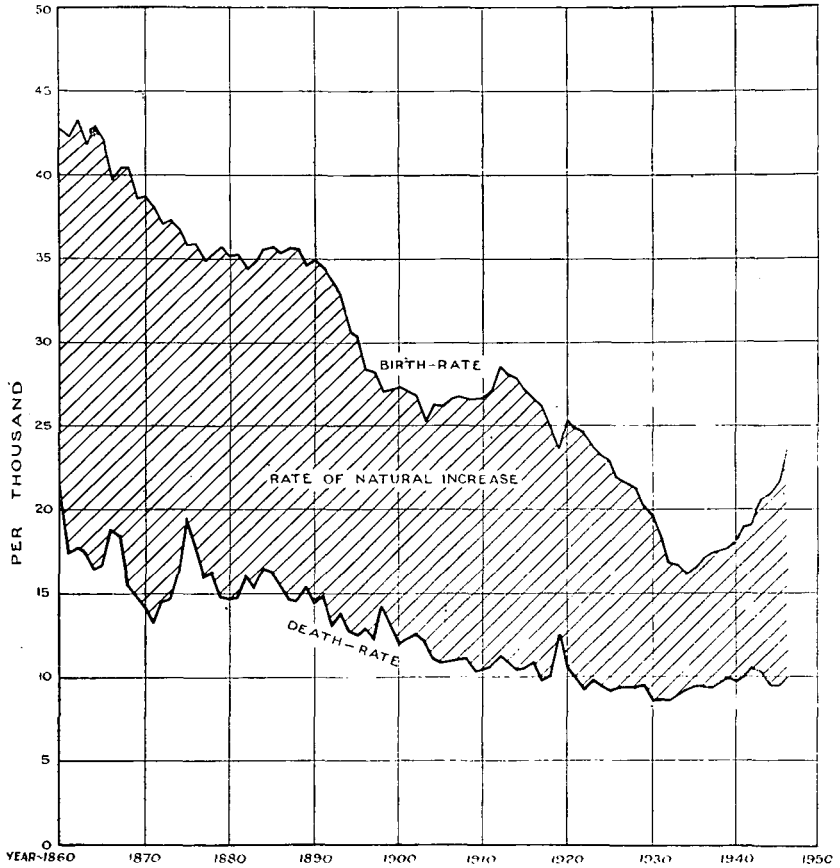
(a) Excludes one bridegroom the age of whose bride was not stated.

(iii) *Average Ages of Bridegrooms and Brides.* The age at marriage of brides declined slightly during recent years to an average of about 25½ years, although in the period 1937-39 this decline was temporarily arrested and the average rose to almost 26 years. The ages for the past six years were :—1941, 25.75 ; 1942, 25.55 ; 1943, 25.62 ; 1944, 25.57 ; 1945, 25.93 ; and 1946, 25.51. For the following five-yearly periods the average ages were :—1911-15, 25.76 years ; 1916-20, 26.05 years ; 1921-25, 25.76 years ; 1926-30, 25.57 years ; 1931-35, 25.50 years ; 1936-40, 25.72 years ; and 1941-45,

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1946.



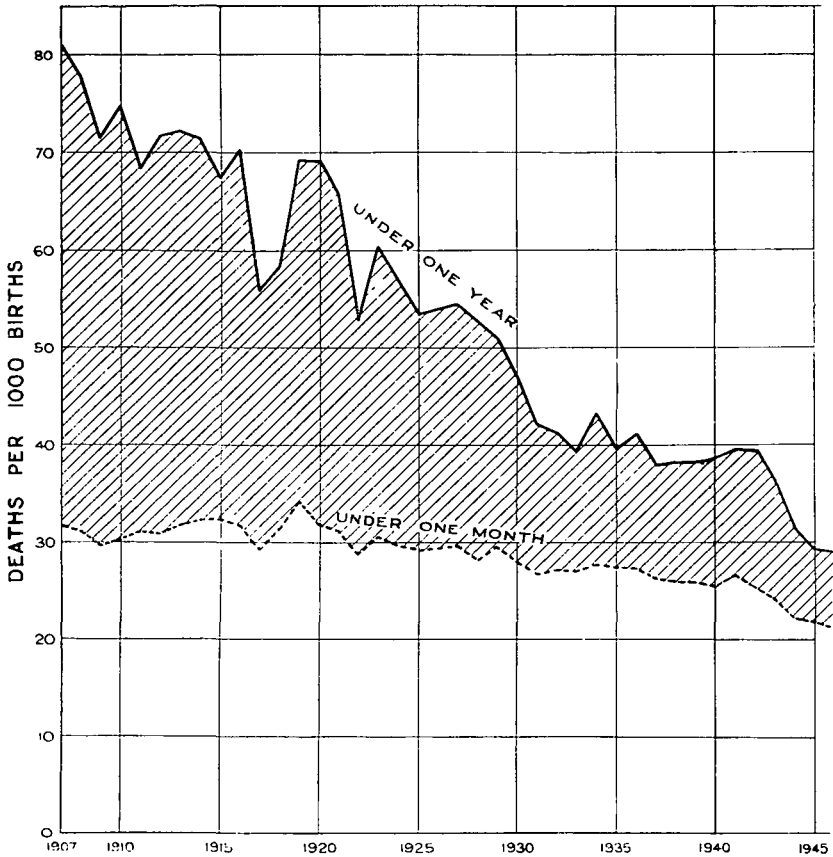
RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE—AUSTRALIA, 1860 TO 1949.



**EXPLANATION.**—The upper curve represents the number of births per 1,000 persons, while the lower curve represents the corresponding death-rate. The distance between the two curves is the rate of natural increase.

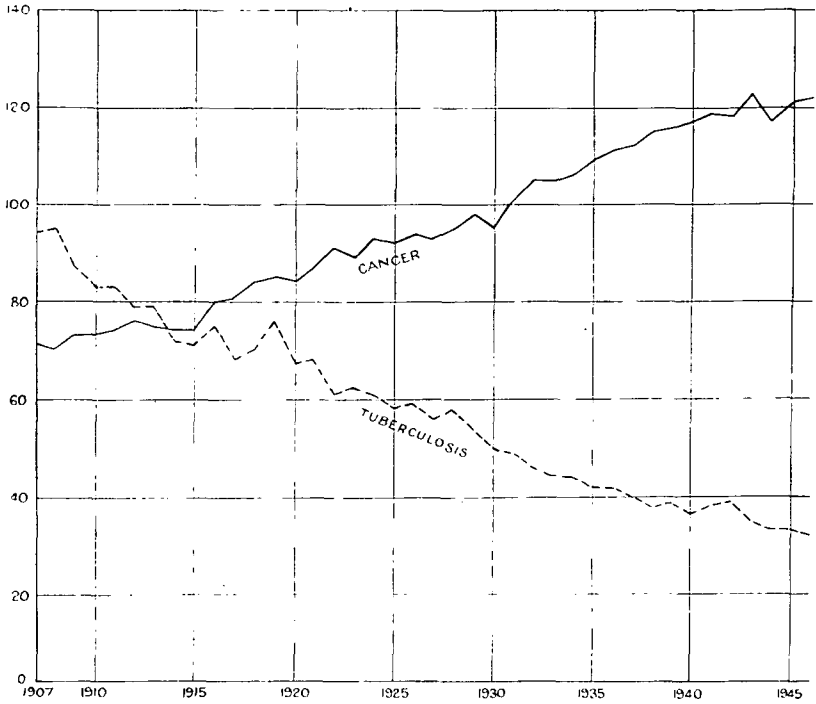


INFANTILE MORTALITY RATES—AUSTRALIA, 1907 TO 1946.



EXPLANATION.—This graph shows the marked improvement in infantile mortality rates over the past 40 years. The improvement has been confined mainly to children over one month, very little change having occurred in the first month of life (see page 773).

DEATH-RATES—CANCER AND TUBERCULOSIS—AUSTRALIA, 1907 TO 1946.



(See page 795).

EXPLANATION.—The vertical scale represents the number of deaths per 100,000 of the population.

25.68 years. The average age of bridegrooms was 29.04 in 1941, 28.80 in 1942, 28.99 in 1943, 28.85 in 1944, 29.29 in 1945, and 28.73 in 1946. It follows, therefore, that brides are, generally speaking, three and one-quarter years younger than bridegrooms. The average age of brides and bridegrooms for the years 1940-46 shows the effects of war-time conditions. The proportion of young persons marrying during those years increased, thereby causing decreases in the average ages of both brides and bridegrooms. The difference in age between brides and bridegrooms was 3.29 years in 1941, 3.25 in 1942, 3.37 in 1943, 3.28 in 1944, 3.36 in 1945, and 3.22 in 1946.

5. **Previous Conjugal Condition.**—The number of bachelors and spinsters, widowed and divorced persons, who were married during 1946 has already been given. The following table shows the conjugal condition of the contracting parties. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

**PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA, 1946.**

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors .. .. .	71,491	66,423	2,147	2,921
Widowers .. .. .	3,625	1,967	1,120	538
Divorced .. .. .	4,380	2,968	488	924
<b>Total Brides</b> .. .. .	<b>79,496</b>	<b>71,358</b>	<b>3,755</b>	<b>4,383</b>

6. **Birthplace of Persons Marrying.**—A table showing birthplace of persons marrying in 1911, 1921 and 1940 may be found on p. 326 of Official Year Book No. 34. In *Demography Bulletin*, Nos. 63 and 64, the relative birthplaces of bridegrooms and brides marrying in 1945 and 1946 will be found tabulated in detail. No such tabulations were made for the years 1941 to 1944.

7. **Occupation and Age of Bridegrooms.**—For 1938 the average ages at marriage of bridegrooms in the larger classes of occupations were as follows:—Professional, 30.8 years; Domestic, 30.5 years; Commercial, 29.6 years; Transport, 29.8 years; Industrial, 28.9 years; and Primary Producers, 30.9 years. Tabulation of this information was discontinued during the war years.

8. **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. Most of the marriages are celebrated by ministers of religion. The registered ministers in 1946 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been bracketed under the heading "Other Christian." The figures for 1946 are shown in the following table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

## MARRIAGES IN EACH DENOMINATION, 1946.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Per Cent.
Church of England	13,231	6,685	3,404	1,647	2,215	1,059	13	72	28,326	35.63
Roman Catholic ..	6,282	4,022	2,462	758	691	447	16	44	14,722	18.52
Methodist ..	3,512	3,200	2,109	2,267	785	425	21	8	12,327	15.51
Presbyterian ..	3,818	4,192	2,249	363	485	168	5	22	11,302	14.22
Baptist ..	479	658	234	223	56	105	..	1	1,756	2.21
Congregational ..	496	299	170	262	105	57	..	..	1,389	1.75
Church of Christ ..	143	415	93	222	54	26	..	..	953	1.20
Lutheran ..	43	94	231	316	4	..	..	..	688	0.86
Salvation Army ..	114	109	114	41	25	22	..	..	425	0.53
Seventh-Day Adventist ..	83	31	31	9	19	5	..	..	178	0.22
Greek Orthodox ..	75	22	19	10	17	..	..	..	143	0.18
Unitarian ..	6	24	..	6	..	..	..	..	36	0.05
Other Christian ..	131	75	140	10	17	20	..	..	393	0.49
Hebrew ..	120	173	9	1	14	..	..	..	317	0.40
<b>Total</b> ..	<b>28,533</b>	<b>19,999</b>	<b>11,265</b>	<b>6,135</b>	<b>4,487</b>	<b>2,334</b>	<b>55</b>	<b>147</b>	<b>72,955</b>	<b>91.77</b>
Civil Officers ..	3,151	1,406	401	565	684	316	8	10	6,541	8.23
<b>Grand Total</b> ..	<b>31,684</b>	<b>21,405</b>	<b>11,666</b>	<b>6,700</b>	<b>5,171</b>	<b>2,650</b>	<b>63</b>	<b>157</b>	<b>79,496</b>	<b>100.00</b>
Percentage of Total Marriages celebrated by—										
Ministers of Religion ..	% 90.05	% 93.43	% 96.56	% 91.57	% 86.77	% 88.08	% 87.30	% 93.63	% 91.77	
Civil Officers ..	9.95	6.57	3.44	8.43	13.23	11.92	12.70	6.37	8.23	

## § 2. Fertility and Reproduction.

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.**—(i) *Year, 1946.* 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 number of live births.

The number of live births registered in Australia during 1946 is shown in the table below. 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. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

LIVE BIRTHS, 1946.

Particulars.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Australia.
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MALE BIRTHS.

Single births	33,959	23,540	13,602	7,921	6,161	3,494	66	251	88,994
Twins ..	725	563	284	179	124	66	..	3	1,944
Triplets ..	6	16	2	6	..	..	..	..	30
<b>Total ..</b>	<b>34,690</b>	<b>24,119</b>	<b>13,888</b>	<b>8,106</b>	<b>6,285</b>	<b>3,560</b>	<b>66</b>	<b>254</b>	<b>90,968</b>

FEMALE BIRTHS.

Single births	31,750	22,016	12,861	7,560	5,674	3,212	66	259	83,398
Twins ..	800	533	272	147	141	75	..	5	1,973
Triplets ..	7	25	3	..	5	..	..	..	40
<b>Total ..</b>	<b>32,557</b>	<b>22,574</b>	<b>13,136</b>	<b>7,707</b>	<b>5,820</b>	<b>3,287</b>	<b>66</b>	<b>264</b>	<b>85,411</b>

TOTAL BIRTHS.

Single births	65,709	45,556	26,463	15,481	11,835	6,706	132	510	172,392
Twins ..	(a) 1,525	(b) 1,096	556	326	(c) 265	(d) 141	..	8	(e) 3,917
Triplets ..	(f) 13	(g) 41	(h) 5	6	(i) 5	..	..	..	(j) 70
<b>Total ..</b>	<b>67,247</b>	<b>46,693</b>	<b>27,024</b>	<b>15,813</b>	<b>12,105</b>	<b>6,847</b>	<b>132</b>	<b>518</b>	<b>176,379</b>

TOTAL CONFINEMENTS (LIVE BIRTHS).

Mothers of Nuptial Children ..	63,580	44,435	25,142	15,144	11,450	6,505	108	508	166,872
Mothers of Ex-nuptial Children ..	2,922	1,697	1,601	502	528	279	24	6	7,559
<b>Total Mothers</b>	<b>66,502</b>	<b>46,132</b>	<b>26,743</b>	<b>15,646</b>	<b>11,978</b>	<b>6,784</b>	<b>132</b>	<b>514</b>	<b>174,431</b>

(a) Excludes 51 still-born twins. (b) Excludes 28 still-born twins. (c) Excludes 17 still-born twins. (d) Excludes 15 still-born twins. (e) Excludes 111 still-born twins. (f) Excludes 2 still-born triplets. (g) Excludes 1 still-born triplet. (h) Excludes 5 still-born triplets.

NOTE.—For Queensland and South Australia the differentiation between single and multiple births cannot be regarded as completely accurate as the registration procedure there adopted differs from that in other States.

(ii) *Years 1861 to 1946.* The annual average number of live births in each State and Territory for each five-year period from 1861 to 1945 and the total number of live births in each State and Territory for each year 1942 to 1946 are given in the following table :—

## LIVE BIRTHS.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.	
Annual Average—										
1861-1865	15,992	24,670	2,352	6,095	653	3,090	..	..	52,852	
1866-1870	18,529	26,210	4,524	7,014	761	2,936	..	..	59,974	
1871-1875	21,308	27,272	5,856	7,279	807	3,064	..	..	65,586	
1876-1880	25,514	26,470	7,507	9,262	922	3,433	..	..	73,108	
1881-1885	31,793	28,051	9,796	11,324	1,093	4,286	..	..	86,343	
1886-1890	37,660	34,461	14,030	10,640	1,539	4,742	..	..	103,072	
1891-1895	39,513	36,171	14,573	10,619	2,048	4,959	..	..	107,883	
1896-1900	36,716	31,089	14,193	9,436	4,480	4,681	..	..	100,595	
1901-1905	37,968	30,182	13,770	8,883	6,682	5,128	(a) 31	..	102,644	
1906-1910	42,967	31,257	15,022	9,699	7,690	5,465	31	..	112,131	
1911-1915	51,631	35,205	19,100	12,092	8,844	5,807	47	(b) 43	132,769	
1916-1920	51,543	33,339	19,438	11,526	7,728	5,469	83	40	129,166	
1921-1925	54,439	35,904	20,058	11,744	8,055	5,566	68	33	135,927	
1926-1930	53,308	34,333	19,361	11,006	8,748	4,819	70	118	131,763	
1931-1935	44,964	28,380	17,480	8,646	8,061	4,547	79	145	112,302	
1936-1940	47,679	30,282	19,534	9,388	8,877	4,866	125	221	120,972	
1941-1945	56,583	38,002	23,431	12,546	10,409	5,418	113	384	146,886	
Year—										
1942	..	52,647	35,927	21,166	11,278	9,901	5,305	92	392	136,708
1943	..	57,265	39,117	23,234	13,145	10,481	5,597	80	376	149,295
1944	..	59,612	39,358	24,520	13,311	10,870	5,200	89	384	153,344
1945	..	61,662	41,200	26,713	14,033	10,672	5,785	90	405	160,560
1946	..	67,247	46,693	27,024	15,813	12,105	6,847	132	518	176,379

(a) Included with South Australia prior to 1901.

(b) Part of New South Wales prior to 1911.

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 1861 to 1945 and for each year from 1942 to 1946 for each State and Territory are set out below :—

CRUDE BIRTH-RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Annual Average—</b>									
1861-1865	42.75	43.53	43.37	43.30	35.68	33.99	..	..	42.44
1866-1870	40.85	39.50	44.42	40.21	32.35	30.08	..	..	39.60
1871-1875	39.13	35.68	42.69	37.17	31.08	29.69	..	..	37.04
1876-1880	38.61	32.12	38.55	37.85	32.49	31.49	..	..	35.46
1881-1885	37.99	30.99	37.39	38.20	34.23	35.10	..	..	35.17
1886-1890	36.63	32.79	39.24	34.23	35.72	34.73	..	..	35.22
1891-1895	33.20	30.96	35.13	31.47	31.49	32.89	..	..	32.42
1896-1900	28.12	26.24	30.27	26.58	28.54	28.29	..	..	27.68
1901-1905	26.83	25.05	26.73	24.87	30.55	28.64	(b)7.04	..	26.36
1906-1910	27.35	25.12	26.87	25.57	29.56	29.14	8.41	..	26.67
1911-1915	28.75	25.39	29.14	28.33	28.62	30.01	12.70	618.76	27.78
1916-1920	26.31	23.04	27.53	25.19	24.50	27.31	17.82	16.11	25.36
1921-1925	24.76	22.42	25.20	22.76	22.88	25.84	18.19	9.61	23.89
1926-1930	21.79	19.67	21.92	19.42	21.55	22.29	15.70	14.65	21.00
1931-1935 <sup>d</sup>	17.29	15.60	18.49	14.89	18.37	19.95	15.99	15.81	16.95
1936-1940 <sup>d</sup>	17.51	16.20	19.4 <sup>R</sup>	15.82	19.16	20.57	19.84	18.50	17.51
1941-1945 <sup>d</sup>	19.78	19.25	22.26	20.41	21.71	22.23	11.36	26.84	20.26
<b>Year—</b>									
1942( <sup>d</sup> ) ..	18.59	18.33	20.43	18.51	20.77	22.00	10.30	27.56	19.05
1943( <sup>d</sup> ) ..	20.04	19.82	22.19	21.43	21.98	23.04	8.37	27.57	20.63
1944( <sup>d</sup> ) ..	20.65	19.78	23.10	21.49	22.57	21.17	8.53	27.05	20.98
1945( <sup>d</sup> ) ..	21.13	20.53	24.81	22.37	21.88	23.27	8.57	26.98	21.73
1946( <sup>d</sup> ) ..	22.83	23.05	24.79	24.89	24.56	27.15	12.50	32.61	23.62

(a) Number of births per 1,000 of mean population. (b) Included with South Australia prior to 1901. (c) Part of New South Wales prior to 1911. (d) Revised rates based on mean populations adjusted in accordance with the preliminary results of the Census of 30th June, 1947.

NOTE.—The birth-rates in the table above are based on live births registered in the respective States and Territories. Some years ago 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, but with improved hospital facilities in the Territory the movement to outside hospitals rapidly diminished and has been reversed since 1939. 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.
1921-1925 .. .. .	17.07
1926-1930 .. .. .	22.45
1931-1935 .. .. .	19.53
1936-1940 .. .. .	19.29
1941-1945 .. .. .	23.06
1942 .. .. .	24.11
1943 .. .. .	22.95
1944 .. .. .	21.41
1945 .. .. .	22.58
1946 .. .. .	26.00

The variations similarly caused in the birth-rates for the States and 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 1946 :—New South Wales, 22.85; Victoria, 23.00; Queensland, 24.92; South Australia, 24.86; Western Australia, 24.57; Tasmania, 27.22; and Northern Territory, 13.16.

The preceding table shows a marked reduction in the crude birth-rate since 1861. The average annual rate, which for the five years ended 1865 was 42.44, fell to 27.68 for the five years ended 1900. In the earlier years of the present century the 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 but with subsequent improvement in economic conditions the rate rose. Since 1940 the rate has increased quite appreciably due both to a continued improvement in the economic welfare of the community and the war-time boom in marriages. The latter has 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.

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

**CRUDE BIRTH-RATES (a) : VARIOUS COUNTRIES.**

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1946.
Mexico .. .. .	(c)	(f) 31.9	36.7	43.1	42.5
Ceylon .. .. .	36.9	39.2	40.4	36.9	(i) 40.5
Egypt .. .. .	43.6	43.0	44.3	42.9	(i) 39.6
Chile .. .. .	(d) 39.9	39.4	41.6	33.6	32.4
Netherlands .. .. .	29.1	25.7	23.2	21.2	30.2
Finland .. .. .	29.5	24.7	22.5	19.5	27.7
Union of South Africa (h) .. .. .	(d) 31.9	27.1	25.9	24.1	26.9
Canada .. .. .	(c)	27.4	24.1	21.4	26.9
Yugoslavia .. .. .	(c)	35.0	34.2	31.8	(h) 25.9
Japan .. .. .	32.9	34.6	33.5	31.6	25.3
New Zealand (j) .. .. .	26.5	22.2	19.7	17.0	25.2
Portugal .. .. .	34.6	33.2	31.2	29.0	25.0
Poland .. .. .	37.4	34.7	32.2	27.8	(h) 24.6
Argentina .. .. .	37.1	32.4	30.1	26.4	(i) 24.4
Rumania .. .. .	43.1	37.9	35.2	32.9	23.8
<b>Australia (k)</b> .. .. .	<b>27.4</b>	<b>23.9</b>	<b>21.1</b>	<b>16.9</b>	<b>23.6</b>
<i>Tasmania (k)</i> .. .. .	29.6	26.0	22.7	20.0	27.1
<i>South Australia (k)</i> .. .. .	27.1	22.7	19.2	14.9	24.9
<i>Queensland (k)</i> .. .. .	28.2	25.0	21.3	18.5	24.8
<i>Western Australia (k)</i> .. .. .	28.9	23.0	22.0	18.4	24.6
<i>Victoria (k)</i> .. .. .	25.3	22.4	19.7	15.6	23.1
<i>New South Wales (k)</i> .. .. .	28.2	24.9	22.1	17.3	22.8
Greece .. .. .	(c)	23.0	30.2	29.5	(h) 23.5
Denmark .. .. .	27.1	22.3	19.4	17.7	23.4
United States of America .. .. .	(e) 25.1	22.5	19.7	(g) 16.9	23.3
Eire .. .. .	23.1	20.3	20.1	19.4	22.9
Italy .. .. .	32.4	29.8	26.8	23.8	22.5
Norway .. .. .	26.0	22.2	18.0	15.2	22.5
Czechoslovakia .. .. .	31.1	27.1	23.2	19.6	22.2
France .. .. .	19.5	19.3	18.2	16.5	20.6
Germany .. .. .	29.5	22.1	18.4	16.6	(h) 20.4
Switzerland .. .. .	24.7	19.5	17.6	16.4	20.0
Sweden .. .. .	24.4	19.1	15.9	14.1	19.6
Great Britain and Northern Ireland .. .. .	24.6	20.4	17.2	15.5	19.4
<i>Northern Ireland</i> .. .. .	23.1	23.1	21.2	20.0	22.6
<i>Scotland</i> .. .. .	26.2	23.0	20.0	18.2	20.3
<i>England and Wales</i> .. .. .	24.9	19.9	16.5	15.0	19.1
Hungary .. .. .	(d) 34.3	29.4	26.0	22.4	18.4
Belgium .. .. .	23.4	20.4	18.6	16.8	18.2
Spain .. .. .	32.1	29.8	28.5	27.1	(h) 16.5

(a) Number of births per 1,000 of mean population. (b) White population only. (c) Not available. (d) 1911-13. (e) 1915. (f) 1922-25. (g) 1933-35. (h) 1939. (i) 1943. (j) Excluding Maoris. (k) Excluding full-blood aborigines.



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 high percentage of married women of child-bearing age will have a much higher crude birth-rate than one with a low percentage, although the fertilities of the two populations may be identical.

In order to overcome this difficulty 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	49	42	41
1941-43 ..	19.5	84	141	55	49	44

(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 8 per cent. over the period 1932-34 to 1941-43 the crude birth-rate rose by 17 per cent. due principally to the greatly increased number of marriages during that period.

6. **Specific Fertility-rates.**—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 specific fertility-rates, that is, the number of births to women of specified ages per thousand women of those particular ages.

Specific fertility-rates are usually calculated on the basis of female births rather than total births and are frequently expressed in age-groups as well as in single ages. The following table sets out specific fertility-rates for Australia over the period 1921 to 1946 in five-yearly age-groups.

## SPECIFIC FERTILITY-RATES(a) : AUSTRALIA.

Age-group (Years).	1921.	1926.	1931.	1936.	1941.	1942.	1943.	1944.	1945.	1946.
15-19 ..	12.83	14.02	13.08	12.18	11.90	11.77	11.86	11.02	11.41	12.63
20-24 ..	65.45	60.23	53.08	50.33	59.42	59.01	65.01	62.49	64.46	73.52
25-29 ..	82.24	76.82	62.47	62.02	79.78	70.41	76.29	78.25	81.17	89.51
30-34 ..	68.50	61.90	51.25	46.33	49.72	50.67	56.46	59.43	61.47	65.03
35-39 ..	49.48	43.55	33.23	28.89	28.69	29.07	31.27	35.01	36.60	37.43
40-44 ..	21.66	17.03	13.61	10.19	9.52	9.55	9.72	10.69	11.42	11.87
45-49 ..	2.10	1.90	1.45	1.11	0.80	0.79	0.78	0.88	0.91	1.03

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

The table above indicates that the most fertile age-group is 25-29 years. The decline in fertility between 1921 and 1936 was general but was more pronounced in the older age-groups. During the period 1936 to 1946 a rise in fertility occurred in all but the oldest age-group.

7. **Gross and Net Reproduction Rates.**—A single measure of fertility known as the gross reproduction rate is obtained by adding together the specific fertility-rates for each single 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 fertility conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers of the population and is to be preferred to the crude birth-rate for measuring and making comparisons of fertility.

The gross reproduction rate measures fertility, but, because it does not take mortality into account, it does not measure the rate at which the population is replacing or reproducing itself. A 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 for a specified period indicates the average number of female children who would ultimately be born to newly-born girls of the period, if the fertility and mortality conditions remain unchanged. It represents the rate at which women replace themselves in the population, i.e., the rate at which the population will multiply itself each generation if the current conditions of fertility and mortality continue. A net reproduction rate of unity for a period indicates that the population will ultimately become stationary if the fertility and mortality of the period remain unchanged. If it is greater than unity, the population will ultimately increase, if less than unity, it will ultimately decrease.

The following table gives the gross and net reproduction rates for Australia from 1881 to 1946.

## GROSS AND NET REPRODUCTION RATES : AUSTRALIA.

Year.	Gross Repro- duction Rate.	Net Repro- duction Rate.	Year.	Gross Repro- duction Rate.	Net Repro- duction Rate.
1881 (a) ..	2.65	(b) 1.88	1937(g) ..	1.075	0.981
1891 (a) ..	2.30	(b) 1.73	1938(g) ..	1.069	0.976
1901 (a) ..	1.74	(c) 1.39	1939(g) ..	1.080	0.986
1911 ..	1.705	(d) 1.421	1940(g) ..	1.100	1.004
1921 ..	1.511	(e) 1.313	1941(g) ..	1.154	1.053
1932 ..	1.061	(f) 0.967	1942(g) ..	1.156	1.056
1933(g) ..	1.052	0.959	1943(g) ..	1.257	1.148
1934(g) ..	1.030	0.939	1944(g) ..	1.289	1.176
1935(g) ..	1.032	0.941	1945(g) ..	1.337	1.220
1936(g) ..	1.060	0.967	1946(g) ..	1.455	1.328

(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 for 1932 and subsequent years. In so far as mortality has decreased since then, the net reproduction rates tend to underestimate the true position. (g) The numbers of females of child-bearing age on which rates for these years are based have not been adjusted in accordance with the results of the Census of 30th June, 1947.

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, and if the low fertility of those years were to continue, ultimate population decline would be certain. However, the rate increased considerably over the war years owing principally to the war-time marriage boom, and increased further in the immediate post-war period, mainly as a result of demobilization. The main flaw in these rates is that fluctuations in the marriage-rate affect them quite substantially, but sufficient data are lacking to completely eliminate the effects of fluctuations in marriages. However, consideration is given below to the fertility of marriages.

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. It will be observed that Australia occupies a relatively low position in the scale.

**GROSS AND NET REPRODUCTION RATES : VARIOUS COUNTRIES.**

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Japan ..	1937	2.14	1.44	Austria ..	1939	(a)	1.00
Union of South Africa (b) ..	1939	1.50	1.35	Latvia ..	1939	1.18	0.99
Eire ..	1935-37	1.48	1.22	<b>Australia</b> ..	<b>1939</b>	<b>1.08</b>	<b>0.99</b>
Bulgaria ..	1933-36	1.67	1.19	Germany ..	1939	(a)	0.98
Portugal ..	1939	1.66	(a)	Scotland ..	1939	1.05	0.92
Canada ..	1939	1.32	(a)	Denmark ..	1939	1.04	0.92
Netherlands ..	1939	1.29	1.17	France ..	1939	(a)	0.90
Hungary ..	1939	1.22	(a)	Belgium ..	1939	1.03	0.86
Finland ..	1939	1.22	(a)	Norway ..	1939	0.93	0.86
Italy ..	1935-37	1.43	1.13	Sweden ..	1939	0.91	0.83
Poland ..	1934	1.50	1.11	England and Wales ..	1939	0.89	0.81
New Zealand(c) ..	1939	1.15	1.07	Czechoslovakia ..	1935	(a)	0.79
Spain ..	1937	1.44	1.03	Estonia ..	1938	0.98	0.79
United States of America (b) ..	1938	1.09	1.00	Switzerland ..	1939	0.88	0.79

(a) Not available. (b) White population only. (c) Excluding Maoris.

9. **Fertility of Marriages.**—In issues of the Official Year Book prior to No. 35 estimates of the fertility of marriages were published. These were calculated by relating the births of one five-yearly 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 marriage fertility for the years 1933 to 1946.

**FERTILITY OF MARRIAGES : AUSTRALIA.**

Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
1933 ..	2.36	1938 ..	2.22	1943 ..	2.21
1934 ..	2.30	1939 ..	2.20	1944 ..	2.28
1935 ..	2.27	1940 ..	2.18	1945 ..	2.36
1936 ..	2.28	1941 ..	2.19	1946 ..	2.55
1937 ..	2.27	1942 ..	2.12		

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. It will be noted that there was an almost continuous decline to 1942, but a pronounced increase from 1943 onwards. Comparing this index with the net reproduction rate it is evident that the rise in the latter since 1935 has been caused by an increasing number of marriages, due firstly to the postponed depression marriages, and secondly to war-time marriages, and only in the last four years to any increase in the fertility of marriages.

10. **Masculinity of Live Births.**—(i) *General.* 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 1946 the figures ranged from 96.21 in Australian Capital Territory to 108.31 in Tasmania. The averages for the last intercensal period 1933-47 were as follows:—New South Wales, 105.05; Victoria, 105.52; Queensland, 105.15; South Australia, 105.93; Western Australia, 104.16; Tasmania, 105.76; Australia, 105.21. The following table shows the figures for Australia for each ten-year period from 1901 to 1940 and for each year 1943 to 1946:—

**MASCULINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.**

Particulars.	1901-10.	1911-20.	1921-30.	1931-40.	1943.	1944.	1945.	1946.
Total Births	105.22	105.27	105.55	105.12	104.68	104.45	105.57	106.51
Ex-nuptial Births	104.08	105.25	105.16	105.36	107.30	106.86	107.77	110.42

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

(ii) *Masculinity of Nuptial and Ex-nuptial Births—Various Countries.* A table showing the masculinity of nuptial and ex-nuptial births for various countries appears on p. 942 of Official Year Book No. 22.

11. **Ex-nuptial Live Births.**—(i) *General.* The number of ex-nuptial live births reached a peak, 7,438, in 1913, but it fell considerably to 4,775 in 1940. Since 1940, however, the number has risen sharply to 7,613 in 1946. The average number of ex-nuptial live births in Australia during the five years 1911-15 was 7,209, and for the period 1941-45 it was only 6,201, a decline of 14.0 per cent., whereas the annual average total live births for the same period increased by 10.6 per cent., from 132,769 to 146,886; hence a comparison between the results for these two periods shows that the proportion of ex-nuptial births has fallen from 5.43 to 4.23 per cent. of all births.

The variations of the ex-nuptial birth-rates as between the individual States and Territories for 1946 are shown below. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

**EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES, 1946.**

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number	2,950	1,708	1,611	503	529	282	24	6	7,613
Percentage of Total Births	4.39	3.66	5.96	3.18	4.37	4.12	18.18	1.16	4.32

The numbers of births and the rates at intervals from 1901 to 1946 are as follows:—

**EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES : AUSTRALIA.**

Particulars.	Annual Averages—				1941.	1942.	1943.	1944.	1945.	1946.
	1901-10.	1911-20.	1921-30.	1931-40.						
Number of Ex-nuptial Births	6,498	6,836	6,238	5,133	5,167	5,282	6,505	6,905	7,195	7,613
Percentage of Total Births	6.05	5.22	4.66	4.40	3.84	3.86	4.36	4.50	4.48	4.32

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, and it is not unlikely that the majority of unregistered births are ex-nuptial.

(ii) *Rate of Ex-nuptiality.* A further comparison is obtained by calculating the number of ex-nuptial births per thousand of the single and widowed female population between the ages of 15 and 45 years. The number of ex-nuptial births per 1,000 unmarried women of ages 15 to 45 has been found to be as follows:—1880-82, 14.49; 1890-92, 15.93; 1900-02, 13.30; 1910-12, 12.53; and 1920-22, 10.50. The estimated number for the years 1930-32 was 7.87. The comparative results for various countries given on p. 944 of Official Year Book No. 22 were taken from the *Annuaire International de Statistique*, Vols. II. and V., and showed that ex-nuptial births varied from 38 per 1,000 unmarried women aged 15 to 49 years in Hungary (1906-15) to 4 in Ireland (1900-12) and Bulgaria (1910-11). The rate for Australia was 12 per thousand for the years 1906-15.

(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 Averages—				1943.	1944.	1945.	1946.
	1901-10.	1911-20.	1921-30.	1931-40.				
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.90	0.95	0.98	1.02
Nuptial ..	24.91	25.18	21.40	16.47	19.73	20.03	20.75	22.60
Total ..	26.51	26.57	22.44	17.23	20.63	20.98	21.73	23.62

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

12. *Legitimizations.*—In the several States Acts have been passed 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 1945 and 1946 the number of children legitimized in Australia was 942 and 943 respectively, compared with 883 in 1939.

13. *Multiple Births.*—Among the total number of 176,379 live births registered in Australia in 1946, there were 172,302 single births, 3,017 twins and 70 triplets. The number of cases of twins was 2,014 and of triplets 25, there being 111 still-born twins and 5 still-born triplets. The total number of mothers was, therefore, 174,431, the proportion of mothers of twins being one in every 86, of mothers of triplets one in every 6,977, and of mothers of all multiple births one in every 86 mothers. Multiple births occurred in 1.17 per cent. of confinements.

The proportion of multiple births to total births does not vary greatly from year to year and exhibits no tendency towards increase or decrease:—

**MULTIPLE BIRTHS : AUSTRALIA.**

Particulars.	Annual Averages—			1943.	1944.	1945.	1946.
	1911-20.	1921-30.	1931-40.				
Mothers of Multiple Births ..	1,387	1,420	1,220	1,627	1,796	1,803	2,039
Percentage on Total Mothers ..	1.06	1.07	1.06	1.10	1.18	1.14	1.17

14. *Ages of Parents.*—The relative ages of the parents of children registered in 1945 and 1946 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 single ages of parents are shown in *Demography Bulletin*, Nos. 63 and 64. In the

present work the exigencies of space allow only the insertion of a table for 1946 showing the relative ages of parents in respect of all confinements in groups of five years :—

**ALL CONFINEMENTS : RELATIVE AGES OF PARENTS, AUSTRALIA, 1946.**

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.	Not Stated
Under 20 { Single Twins	1,035 9	.. ..	721 6	295 2	17 1	2 ..	.. ..	.. ..	.. ..	.. ..
20-24 { Single Twins Triplets	21,806 195 5	I .. ..	3,435 20 ..	15,523 143 4	2,633 29 1	190 2 ..	24 1 ..	.. .. ..	.. .. ..	.. .. ..
25-29 { Single Twins Triplets	46,916 473 7	.. .. ..	1,291 7 1	19,696 186 1	22,105 228 3	3,445 48 2	353 4 ..	21 .. ..	5 .. ..	.. .. ..
30-34 { Single Twins Triplets	43,898 554 6	.. .. ..	383 1 ..	6,042 53 ..	18,774 227 2	16,211 227 3	2,334 43 1	151 3 ..	3 .. ..	.. .. ..
35-39 { Single Twins Triplets	29,175 426 4	.. .. ..	96 .. ..	1,579 17 ..	6,137 82 1	12,263 173 3	8,260 138 ..	827 16 ..	13 .. ..	.. .. ..
40-44 { Single Twins Triplets	14,270 171 2	I .. ..	23 .. ..	421 2 ..	1,617 14 ..	4,093 48 ..	5,780 72 1	2,272 35 1	63 .. ..	.. .. ..
45-49 { Single Twins	5,369 89	.. ..	6 ..	126 2	457 10	1,124 20	2,031 30	1,419 26	206 1	.. ..
50-54 { Single Twins	1,608 26	.. ..	5 ..	38 1	103 3	328 4	569 13	475 5	90 ..	.. ..
55-59 { Single Twins	558 9	.. ..	2 ..	11 1	46 1	108 1	191 4	155 1	45 1	.. ..
60-64 { Single Twins	167 3	.. ..	.. ..	5 ..	11 ..	32 ..	53 2	54 ..	12 1	.. ..
65 and over { Single Twins	88 1	.. ..	1 ..	1 ..	13 ..	23 1	22 ..	20 ..	8 ..	.. ..
Not Stated	Twins 2	..	..	2	..	..	..	..	..	..
Mothers of Nuptial Children { Single Twins Triplets Total	164,890 1,958 24 166,872	2 .. .. 2	5,963 34 1 5,998	43,737 409 5 44,151	51,913 595 7 52,515	37,819 524 8 38,351	19,617 307 2 19,926	5,394 86 1 5,481	445 3 .. 448	.. .. .. ..
Mothers of Ex-nuptial Children { Single Twins Triplets Total	7,502 56 1 7,559	22 .. .. 22	1,692 8 .. 1,700	2,751 11 .. 2,762	1,409 14 1 1,424	877 13 .. 890	542 8 .. 550	184 2 .. 186	24 .. .. 24	1 .. .. 1
Total Mothers { Single Twins Triplets	172,392 2,014 25	24 .. ..	7,655 42 1	46,488 420 5	53,322 609 8	38,696 537 8	20,159 315 2	5,578 88 1	469 3 ..	1 .. ..
Total	174,431	24	7,698	46,913	53,939	39,241	20,476	5,667	472	1

15. Birthplaces of Parents.—A table showing birthplaces of parents of children whose births were registered during 1946 appears in *Demography Bulletin*, No. 64.

16. Occupation of Fathers.—A table showing occupations of the fathers of all nuptial children registered in 1946 appears in *Demography Bulletin*, No. 64.

17. Age, Duration of Marriage and Issue of Mothers.—(1) *General.* The total number of nuptial confinements resulting in live births in 1946 was 166,872, comprising 164,890 single births, 1,958 cases of twins and 24 cases of triplets. The tables exclude the previous issue of former marriages and still-born children. On the other hand, they include children by the same father which were born to the mother prior to the marriage. Children born during the current year are included in the total issue shown.

The tables are shown in summarized form, more complete details being given in *Demography Bulletin*, No. 64.

(ii) *Duration of Marriage and Issue of Mothers.* The following table shows that the duration of marriage of mothers of nuptial children ranged from less than one year up to 31 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1946 was 2.35 compared with 2.40 in 1945, 2.41 in 1944, 2.34 in 1943, and 2.38 in 1942.

**NUPTIAL CONFINEMENTS : DURATION OF MARRIAGE AND ISSUE OF MOTHERS. AUSTRALIA, 1946.**

Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.
0-1 ..	21,155	21,395	1.01	18-19 ..	1,141	6,678	5.85
1-2 ..	18,613	21,068	1.13	19-20 ..	844	5,382	6.38
2-3 ..	17,345	25,967	1.50				
3-4 ..	17,571	31,122	1.77	20-21 ..	588	3,926	6.68
4-5 ..	17,186	34,843	2.03	21-22 ..	428	3,045	7.11
				22-23 ..	336	2,446	7.28
5-6 ..	14,230	33,062	2.32	23-24 ..	216	1,669	7.73
6-7 ..	12,027	31,172	2.59	24-25 ..	129	1,094	8.48
7-8 ..	8,841	25,683	2.90				
8-9 ..	7,528	24,006	3.19	25-26 ..	98	922	9.41
9-10 ..	6,201	21,193	3.42	26-27 ..	42	384	9.14
				27-28 ..	25	250	10.00
10-11 ..	5,218	18,970	3.64	28-29 ..	9	93	10.33
11-12 ..	4,246	16,555	3.90	29-30 ..	6	56	9.33
12-13 ..	3,398	14,373	4.23				
13-14 ..	2,769	12,448	4.50	30-31 ..	2	22	11.00
14-15 ..	2,045	9,774	4.78				
15-16 ..	1,741	8,867	5.09				
16-17 ..	1,554	8,265	5.32				
17-18 ..	1,340	7,549	5.63				
				<b>Total ..</b>	<b>166,872</b>	<b>392,279</b>	<b>2.35</b>

(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, but with the increase of the age of the mother the number of issue has fallen in comparison with past years. The average issue of mothers of all ages recorded for 1946 (namely 2.35) is 27.7 per cent. below the average of 3.25 for the years 1911-20.

**AGE AND AVERAGE ISSUE OF MOTHERS : AUSTRALIA.**

Period.	Age of Mothers (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
1937 ..	1.19	1.64	2.22	3.08	4.34	5.86	7.56	2.60
1938 ..	1.20	1.64	2.18	2.99	4.23	5.70	7.38	2.54
1939 ..	1.19	1.63	2.15	2.95	4.10	5.62	6.97	2.48
1940 ..	1.21	1.61	2.13	2.87	4.02	5.47	6.92	2.44
1941 ..	1.19	1.58	2.10	2.85	3.90	5.34	7.01	2.39
1942 ..	1.18	1.56	2.11	2.84	3.84	5.25	6.83	2.38
1943 ..	1.17	1.52	2.08	2.80	3.73	5.05	6.86	2.34
1944 ..	1.17	1.55	2.14	2.82	3.67	4.87	6.18	2.41
1945 ..	1.15	1.55	2.14	2.83	3.62	4.81	6.17	2.40
1946 ..	1.15	1.53	2.12	2.80	3.59	4.59	6.03	2.35

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers of various ages according to previous issue is given for 1946 in the following table. Corresponding figures for 1945 appear in *Demography Bulletin*, No. 63 :—

**NUPTIAL CONFINEMENTS : MOTHERS OF VARIOUS AGES ACCORDING TO PREVIOUS ISSUE, AUSTRALIA, 1946.**

Previous Issue.	Age of Mothers (Years.)							Total Married Mothers.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.	
0	5,190	27,131	18,980	8,170	3,003	639	32	63,145
1	728	12,247	18,500	11,585	4,172	768	40	48,040
2	80	3,568	8,872	8,864	4,460	948	46	26,847
3	1	921	3,615	4,701	3,170	819	62	13,289
4	1	237	1,547	2,303	1,844	631	49	6,612
5	..	40	652	1,330	1,153	455	43	3,673
6	..	6	260	667	781	337	33	2,084
7	..	1	67	401	508	276	39	1,292
8	..	..	15	181	341	209	27	773
9	..	..	4	90	219	163	20	496
10	..	..	3	38	157	100	20	318
11	..	..	..	15	64	64	14	157
12	..	..	..	4	25	30	11	70
13	..	..	..	1	12	18	4	35
14	..	..	..	1	7	15	4	27
15	..	..	..	..	1	6	1	8
16	..	..	..	..	..	2	3	5
17	..	..	..	..	..	1	..	1
Total Married Mothers	6,000	44,151	52,515	38,351	19,926	5,481	418	166,872

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of married mothers of twins in 1946 show that 630 mothers had no previous issue either living or deceased, 548 had one child previously, 359 had two previous issue, 177 three, 90 four, 65 five, 27 six, 20 seven, 12 eight, 10 nine, 12 ten, 3 eleven, 2 twelve, 2 thirteen and 1 fourteen previous issue.

Of the 24 cases of nuptial triplets registered during 1946, 6 mothers had no previous issue, 7 had one, 6 had two, 2 had three and 3 had four previous issue.



18. Interval Between Marriage and First Birth.—(i) Interval. The following table shows the interval between marriage and first birth for 1911-20, 1921-30, 1931-40, 1943, 1944, 1945 and 1946. Twins and triplets are included, the eldest only being enumerated.

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH : AUSTRALIA.

Interval.	Annual Averages.			1943.	1944.	1945.	1946.
	1911-20.	1921-30.	1931-40.				
<b>NUMBER OF FIRST BIRTHS.</b>							
Under 1 month ..	465	365	301	225	186	178	190
1 month ..	535	496	412	260	261	233	275
2 months ..	760	719	626	418	345	356	409
3 " ..	996	1,013	967	576	487	474	647
4 " ..	1,227	1,333	1,367	877	734	750	948
5 " ..	1,551	1,809	2,008	1,218	1,237	1,160	1,430
6 " ..	1,993	2,397	2,812	1,911	1,753	1,928	2,235
7 " ..	1,785	2,219	2,184	1,813	1,563	1,752	2,241
8 " ..	1,562	1,530	1,417	2,020	1,816	1,990	2,258
9 " ..	3,517	3,253	2,668	3,891	3,608	4,312	4,460
10 " ..	2,877	2,907	2,202	3,448	2,507	2,766	3,213
11 " ..	2,018	2,152	1,836	2,994	2,188	2,171	2,668
Total under 1 year ..	19,286	20,193	18,800	19,660	16,685	18,070	20,974
1-2 years ..	3,563	10,133	10,595	19,737	16,227	15,104	16,254
2-3 " ..	2,626	3,369	4,319	8,343	9,094	9,136	9,262
3-4 " ..	1,230	1,743	2,214	4,468	4,586	5,710	6,237
4-5 " ..	700	941	1,205	2,014	2,586	3,080	4,271
5-9 " ..	980	1,446	1,766	3,087	3,496	4,087	5,417
10-14 " ..	168	240	289	406	443	473	632
15-19 " ..	34	47	48	75	85	99	81
20 years and over ..	8	8	7	12	13	10	17
Total ..	33,595	38,120	39,243	57,802	53,215	55,769	63,145

(a) Excludes 1 birth, duration of marriage not stated.

PERCENTAGE OF TOTAL FIRST BIRTHS.

	%	%	%	%	%	%	%
Under 1 month ..	1.39	0.96	0.77	0.39	0.35	0.32	0.30
1 month ..	1.59	1.30	1.05	0.45	0.49	0.42	0.44
2 months ..	2.26	1.89	1.59	0.72	0.65	0.64	0.65
3 " ..	2.96	2.66	2.46	1.00	0.92	0.85	1.02
4 " ..	3.65	3.50	3.48	1.52	1.38	1.34	1.50
5 " ..	4.62	4.75	5.12	2.11	2.32	2.08	2.26
6 " ..	5.93	6.29	7.16	3.30	3.29	3.46	3.54
7 " ..	5.32	5.82	5.57	3.14	2.94	3.14	3.55
8 " ..	4.65	4.01	3.61	3.51	3.41	3.57	3.58
9 " ..	10.47	8.53	6.80	6.73	6.78	7.73	7.06
10 " ..	8.56	7.63	5.61	5.96	4.71	4.96	5.09
11 " ..	6.01	5.64	4.68	5.18	4.11	3.89	4.22
Total under 1 year ..	57.41	52.98	47.90	34.01	31.35	32.40	33.21
1-2 years ..	25.49	26.58	27.00	34.15	30.49	27.08	25.74
2-3 " ..	7.82	8.84	11.01	14.43	17.09	16.38	14.67
3-4 " ..	3.66	4.57	5.64	7.73	8.62	10.24	9.88
4-5 " ..	2.08	2.47	3.07	3.49	4.86	5.52	6.76
5-9 " ..	2.92	3.79	4.50	5.34	6.57	7.33	8.58
10-14 " ..	0.50	0.63	0.74	0.70	0.83	0.85	1.00
15-19 " ..	0.10	0.12	0.12	0.13	0.16	0.18	0.13
20 years and over ..	0.02	0.02	0.02	0.02	0.03	0.02	0.03
Total ..	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The masculinity of first births in 1946 was 106.46 compared with 106.51 for total births.

(ii) *Age of Mother and Interval.* Previous issue of mothers of ex-nuptial children is not recorded and for purposes of the following table all ex-nuptial births are regarded as first births. The table shows in condensed form for 1944, 1945 and 1946 the numbers of births of ex-nuptial children, of children born less than nine months after marriage and of all first-born children according to the age of mothers. Over the past few years about one-quarter of all first births were either ex-nuptial or occurred less than nine months after marriage. Of the first-born children of mothers under 20 years, however, over two-thirds came into this category. The percentage diminishes rapidly to about 15 per cent. for mothers aged 25 to 34 years and then rises perceptibly for mothers in older age-groups.

It must be remembered, of course, that a certain number of premature births is unavoidably included among the births which took place less than nine months after marriage, and they are not necessarily due to ante-nuptial conception. However, information in connexion therewith is not available and the figures in the table must be accepted with this reservation. Tabulations showing single ages of mothers of nuptial first-born children and interval after marriage are given for 1944, 1945 and 1946 in *Demography Bulletin*, Nos. 62 to 64, respectively.

**AGE OF MOTHER AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH :  
AUSTRALIA.**

Particulars.	Age of Mother at Birth of First Child (Years).							Total.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.	
<b>1944—</b>								
Ex-nuptial births (a) No.	1,670	2,492	1,281	777	462	145	15	(b) 6,842
Nuptial births occurring less than 9 months after marriage .. No.	2,582	4,066	1,106	418	162	43	5	8,382
Total .. No.	4,252	6,558	2,387	1,195	624	188	20	15,224
Total first births No.	6,171	24,854	17,332	7,994	2,960	699	48	60,058
<b>1945—</b>								
Ex-nuptial births (a) No.	1,673	2,648	1,336	808	469	167	20	(c) 7,121
Nuptial births occurring less than 9 months after marriage .. No.	2,689	4,259	1,184	456	187	45	1	8,821
Total .. No.	4,362	6,907	2,520	1,264	656	212	21	15,942
Total first births No.	6,396	26,385	17,930	8,197	3,179	755	48	62,890
<b>1946—</b>								
Ex-nuptial births (a) No.	1,722	2,762	1,424	890	550	186	24	(d) 7,558
Nuptial births occurring less than 9 months after marriage .. No.	3,070	5,202	1,520	553	229	53	6	10,633
Total .. No.	4,792	7,964	2,944	1,443	779	239	30	18,191
Total first births No.	6,912	29,893	20,404	9,060	3,553	825	56	70,703
Percentage of (i) ex-nuptial births plus (ii) nuptial births occurring less than 9 months after marriage on (iii) total first births—								
1911-20 .. %	81.22	49.37	28.37	25.50	30.89	37.01	49.49	43.70
1921-30 .. %	80.08	45.59	23.45	22.22	29.78	38.18	49.05	40.76
1931-40 .. %	80.06	44.75	20.49	19.41	27.78	38.43	55.57	39.32
1941 .. %	73.01	32.31	14.50	14.50	21.21	32.53	60.98	28.59
1942 .. %	69.80	29.80	13.85	15.69	21.02	30.50	46.34	27.22
1943 .. %	67.03	25.44	13.43	14.31	21.33	30.67	55.81	24.55
1944 .. %	68.90	26.39	13.77	14.95	21.09	26.90	41.67	25.35
1945 .. %	68.20	26.18	14.05	15.42	20.64	28.08	43.75	25.31
1946 .. %	69.33	26.64	14.43	15.93	21.93	28.97	53.57	25.73

(a) For purposes of this table all ex-nuptial births are regarded as first births. (b) Excludes 3 births, age of mother not stated. (c) Excludes 5 births, age of mother not stated. (d) Excludes 1 birth, age of mother not stated.

NOTE.—In cases of multiple first births, only one child is included.

19. **Interval between Birth and Registration of Birth.**—Detailed information for the years 1911 to 1921 regarding the period which elapsed between birth and registration of birth is contained in *Demography Bulletins* issued by this Bureau for those years. The average interval for 1921 was over 14 days for all children.

20. **Still-births.**—Reliable statistics of the number of children born dead in Australia, are not available as registration of these births is not compulsory in all States. In previous issues of the Year Book estimated numbers of still-births have been given. Pending the results of investigations being made into the records of such births which may affect the accuracy of these estimates, figures for 1945 and 1946 are not available.

### § 3. Mortality.

1. **Number of Deaths.**—(i) *Year, 1946.* The following table shows the number of deaths, male and female, registered in each State during the year :—

#### DEATHS, 1946.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	16,038	11,280	6,206	3,483	2,791	1,395	46	44	41,283
Females ..	12,541	10,254	4,442	2,978	1,962	1,154	9	38	33,378
Persons ..	28,579	21,534	10,648	6,461	4,753	2,549	55	82	74,661

(ii) *Years 1861 to 1946.* A summary of the total number of deaths in each State and Territory since 1861 is given in the following table :—

#### DEATHS.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Annual Average—</b>									
1861-1865	6,312	9,890	1,150	2,168	279	1,391	..	..	21,190
1866-1870	7,293	11,027	1,863	2,593	350	1,390	..	..	24,516
1871-1875	8,182	11,952	2,574	3,095	414	1,609	..	..	27,826
1876-1880	10,651	12,562	3,457	3,605	401	1,799	..	..	32,475
1881-1885	13,221	13,362	5,146	4,323	544	1,958	..	..	38,554
1886-1890	14,291	16,929	5,608	3,873	666	2,078	..	..	43,445
1891-1895	15,360	16,411	5,316	4,109	1,086	2,025	..	..	44,307
1896-1900	15,556	16,265	5,841	4,235	2,389	2,063	..	..	46,349
1901-1905	15,900	15,349	5,862	3,913	2,731	1,932	(a) 70	..	45,757
1906-1910	15,882	14,942	5,529	3,848	2,867	2,020	77	..	45,165
1911-1915	18,802	15,921	6,907	4,495	3,045	2,010	75	(b) 12	51,267
1916-1920	20,776	16,485	7,605	4,878	3,133	1,971	81	10	54,939
1921-1925	20,379	16,176	7,412	4,880	3,231	2,090	57	9	54,234
1926-1930	22,677	16,698	8,007	5,008	3,617	2,040	71	42	58,160
1931-1935	22,591	17,680	8,147	5,063	3,876	2,194	67	35	59,653
1936-1940	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941-1945	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
<b>Year—</b>									
1942(c)	29,219	21,973	9,622	6,712	5,076	2,430	83	76	75,194
1943(c)	28,870	21,327	10,576	6,482	4,587	2,527	49	68	74,486
1944(c)	26,652	20,502	9,385	5,984	4,478	2,494	31	70	69,596
1945(c)	26,994	20,496	9,459	6,049	4,712	2,413	35	73	70,231
1946(c)	28,579	21,534	10,648	6,461	4,753	2,549	55	82	74,661

(a) Northern Territory figures included with South Australia prior to 1901. (b) Part of New South Wales prior to 1911. (c) Excludes deaths of defence personnel and of internees and prisoners of war from overseas.

2. **Crude Death-rates.**—The commonest measure of mortality 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 1861 to 1946 are shown in the following table:—

CRUDE DEATH-RATES.(a)

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
<b>Annual Average—</b>									
1861-1865 ..	16.88	17.48	20.60	15.39	15.15	15.30	..	..	17.04
1866-1870 ..	16.18	16.68	18.51	14.90	14.90	14.24	..	..	16.26
1871-1875 ..	14.93	15.58	18.33	15.71	15.90	15.58	..	..	15.62
1876-1880 ..	16.18	15.26	17.84	14.78	14.12	16.54	..	..	15.80
1881-1885 ..	15.77	14.70	19.36	14.60	16.96	16.03	..	..	15.69
1886-1890 ..	13.91	16.10	15.72	12.46	15.63	15.22	..	..	14.85
1891-1895 ..	12.91	13.85	12.81	12.17	16.29	13.44	..	..	13.32
1896-1900 ..	11.91	13.73	12.45	11.93	15.59	12.46	..	..	12.75
1901-1905 ..	11.25	12.74	11.38	10.96	12.58	10.79	(b)15.69	..	11.76
1906-1910 ..	10.11	12.01	9.90	10.16	11.03	10.77	20.99	..	10.75
1911-1915 ..	10.47	11.49	10.55	10.37	9.87	10.39	20.38	(c) 5.21	10.73
1916-1920 ..	10.58	11.38	10.75	10.65	9.91	9.83	17.41	4.26	10.77
1921-1925 ..	9.26	10.08	9.31	9.45	9.19	9.70	15.00	2.61	9.53
1926-1930 ..	9.26	9.56	9.06	8.83	8.90	9.44	15.84	5.49	9.26
1931-1935(d) ..	8.68	9.72	8.61	8.72	8.82	9.62	13.45	3.81	9.00
1936-1940(d)(e) ..	9.45	10.36	9.08	9.33	9.21	9.91	11.74	4.50	9.62
1941-1945(d)(e) ..	9.73	10.63	9.21	10.27	9.86	10.21	6.52	4.98	9.96
<b>Year.—</b>									
1942(d)(e) ..	10.32	11.21	9.29	11.02	10.65	10.08	9.29	5.34	10.48
1943(d)(e) ..	10.10	10.81	10.10	10.57	9.62	10.40	5.12	4.99	10.30
1944(d)(e) ..	9.23	10.30	8.84	9.66	9.30	10.15	2.97	4.93	9.52
1945(d)(e) ..	9.25	10.21	8.79	9.64	9.66	9.71	3.33	4.86	9.50
1946(d)(e)—									
Males ..	10.90	11.28	11.09	11.06	11.02	11.00	6.36	5.15	11.03
Females ..	8.51	10.00	8.37	9.29	8.18	9.20	2.70	5.17	8.96
Persons ..	9.70	10.63	9.77	10.17	9.64	10.11	5.21	5.16	10.00

(a) Number of deaths per 1,000 of mean population. (b) Northern Territory figures included with South Australia prior to 1901. (c) Part of New South Wales prior to 1911. (d) Revised rates based on mean populations adjusted in accordance with the preliminary results of the Census of 30th June, 1947. (e) Excludes deaths of defence personnel and of internees and prisoners of war from overseas.

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 percentage 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 in each sex and age-group were as recorded, but the age and sex distribution 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.* The following table provides a comparison of death-rates in age-groups in each State for the latest Census year (1933) in which the ages of population in each State were accurately ascertained.

## DEATH-RATES(a) IN AGE-GROUPS, 1933.

Age-group (years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Under 1 ..	41.03	43.52	45.64	34.04	38.25	43.28	75.27	43.48	41.72
1-4 ..	3.70	3.78	4.29	2.72	3.46	3.99	2.73	1.23	3.72
5-14 ..	1.08	1.21	1.24	0.96	1.31	1.67	..	0.55	1.16
15-24 ..	1.74	1.82	2.01	1.72	1.69	2.41	4.34	0.68	1.82
25-34 ..	2.50	2.76	3.10	2.65	2.99	3.47	4.30	0.63	2.74
35-44 ..	4.27	4.02	5.06	3.76	4.76	4.98	7.94	4.49	4.32
45-54 ..	8.43	8.10	8.69	7.27	10.03	8.11	9.71	6.19	8.36
55-64 ..	18.07	18.88	18.09	15.99	19.34	15.80	30.15	11.19	18.15
65 and over	64.78	62.85	66.87	61.18	60.49	65.43	77.47	40.91	63.85
Crude Death rate (all ages) ..	8.58	9.59	8.84	8.44	8.64	9.60	12.55	4.19	8.92

(a) Number of deaths per 1,000 of mean population at ages shown.

It will be observed that in this particular year, while the crude death-rates for Victoria and Tasmania were substantially higher than in other States, the rates at individual ages were lower than for Queensland and not appreciably higher than in New South Wales or Western Australia.

(iii) *Comparison of Crude and Standardized Death-rates.* The relative incidence of mortality as between individual States and as between the years 1921 and 1933 is illustrated in the following statement of crude and "standardized" death-rates. These years have been chosen for comparisons because the Census data give essential information as to sexes and ages of the State population. 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.	Victoria.	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
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

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

(b) See explanation of standardized death-rates

The above comparisons relate to individual years which happened to be Census years and should not be used as the bases for general conclusions as to changes in incidence of mortality for other than those years.

(iv) *Standardized Death-rates, Australia, 1933 to 1941.* It is not possible to continue the index of mortality formerly published. As indicated in letterpress previously published the index of mortality was an unsatisfactory basis for comparison. The more reliable standardized death-rates for Australia for 1933 and later years were as follows:—1933, 8.62; 1934, 8.92; 1935, 8.83; 1936, 8.70; 1937, 8.58; 1938, 8.59; 1939, 8.73; 1940, 8.51; and 1941, 8.55. Rates for later years have not been calculated as it has been impossible to obtain a satisfactory estimate of the age distribution of the population. Rates will be calculated for 1947 when the final Census results are available.

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 an original batch 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.		True Death-rate.	
	Males.	Females.	Males.(a)	Females.(b)
	Years.	Years.		
1881-1890.. .. .	47.20	50.84	21.19	19.67
1891-1900.. .. .	51.08	54.76	19.58	18.26
1901-10 .. .. .	55.20	58.84	18.12	17.00
1920-22 .. .. .	59.15	63.31	16.91	15.80
1932-34 .. .. .	63.48	67.14	15.75	14.89

(a) Number of deaths per 1,000 males in life tables 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 the crude death-rate for Australia and each State thereof in comparison with the rates for various other countries. Figures for the years 1940 to 1945 inclusive are not shown as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time.

**CRUDE DEATH-RATES (a) : VARIOUS COUNTRIES.**

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1946.
Netherlands .. .. .	13.9	10.4	9.9	8.9	8.5
Union of South Africa (b) .. .. .	(c) 10.3	9.7	9.7	9.8	8.7
Norway .. .. .	13.6	11.5	11.0	10.4	9.2
Canada .. .. .	(d)	11.2	11.1	9.7	9.4
New Zealand (e) .. .. .	9.3	8.6	8.6	8.2	9.7
<b>Australia (f)</b> .. .. .	<b>10.7</b>	<b>9.5</b>	<b>9.3</b>	<b>9.0</b>	<b>10.0</b>
<i>Western Australia (f)</i> .. .. .	10.3	9.2	9.1	8.8	9.6
<i>New South Wales (f)</i> .. .. .	10.3	9.3	9.4	8.7	9.7
<i>Queensland (f)</i> .. .. .	10.3	9.2	8.6	8.6	9.8
<i>Tasmania (f)</i> .. .. .	10.7	9.8	9.6	9.6	10.1
<i>South Australia (f)</i> .. .. .	10.1	9.4	8.7	8.7	10.2
<i>Victoria (f)</i> .. .. .	11.7	10.1	9.6	9.7	10.6
United States of America .. .. .	(c) 14.1	11.8	11.8	(g) 10.9	10.0
Denmark .. .. .	13.2	11.3	11.1	10.9	10.2
Sweden .. .. .	14.0	12.1	12.1	11.6	10.5
Argentina .. .. .	17.5	14.4	13.3	12.1	(h) 10.8
Switzerland .. .. .	15.2	12.5	12.1	11.8	11.3
Great Britain and Northern Ireland .. .. .	14.5	12.4	12.3	12.2	11.6
<i>England and Wales</i> .. .. .	14.1	12.2	12.1	12.0	11.5
<i>Northern Ireland</i> .. .. .	16.9	15.6	14.8	14.3	12.5
<i>Scotland</i> .. .. .	15.5	13.9	13.6	13.2	13.1
Finland .. .. .	16.4	15.1	14.8	13.3	11.6
Italy .. .. .	20.4	17.4	16.0	14.1	11.9

(a) Number of deaths per 1,000 mean population. (b) White population only. (c) 1911-13.  
(d) Not available. (e) Excluding Maoris. (f) Excluding full-blood aboriginals. (g) 1933-35.  
(h) 1945.

## CRUDE DEATH-RATES (a) : VARIOUS COUNTRIES—continued.

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1946.
Germany .. .. .	16.5	13.3	11.8	11.2	(h) 12.4
Spain .. .. .	22.8	20.2	17.9	16.4	12.9
Greece .. .. .	(c)	16.5	16.6	16.5	(c)
France .. .. .	18.6	17.2	16.8	15.7	13.3
Belgium .. .. .	15.7	13.4	13.7	12.9	13.4
Czechoslovakia .. .. .	21.0	16.1	15.3	13.8	13.7
Poland .. .. .	21.0	18.5	16.8	14.7	(e) 13.9
Eire .. .. .	16.9	14.6	14.4	14.0	14.0
Hungary .. .. .	(b) 22.9	19.9	17.0	15.8	14.1
Portugal .. .. .	(b) 20.9	20.4	18.4	16.9	14.7
Yugoslavia .. .. .	(c)	20.2	20.0	17.9	(f) 15.0
Chile .. .. .	(b) 31.0	30.3	25.8	24.4	17.2
Japan .. .. .	20.5	21.8	19.3	17.9	17.6
Rumania .. .. .	24.7	23.0	21.2	20.6	18.0
Mexico .. .. .	(c)	(d) 25.5	25.6	24.8	18.7
Ceylon .. .. .	31.4	27.8	25.1	24.7	(h) 21.3
Egypt .. .. .	25.8	25.4	26.2	27.4	(g) 28.6

(a) Number of deaths per 1,000 mean population. (b) 1911-13. (c) Not available.  
 (d) 1922-25. (e) 1938. (f) 1939. (g) 1942. (h) 1943.

6. True Death-rates of Various Countries.—The following table gives the true death-rate for Australia in comparison with the 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 ..	1931-40	15.2	14.9	Belgium ..	1928-32	17.9	16.7
New Zealand(c)	1934-38	15.3	14.6	Scotland ..	1930-32	17.9	16.8
Sweden ..	1936-40	15.6	14.9	Northern Ire- land ..	1925-27	18.0	17.8
Denmark ..	1936-40	15.8	15.2	Austria ..	1930-33	18.4	17.1
<b>Australia (d) ..</b>	<b>1932-34</b>	<b>15.8</b>	<b>14.9</b>	Finland ..	1931-40	18.4	16.8
United States of America(e)	1939-41	15.9	14.9	France ..	1928-33	18.4	16.9
Norway ..	1930-31	16.4	15.7	Italy ..	1930-32	18.6	17.9
Switzerland ..	1933-37	16.5	15.5	Czechoslovakia	1929-32	19.3	18.1
England and Wales ..	1937	16.6	15.5	Greece ..	1928	20.4	19.7
Germany ..	1932-34	16.7	15.9	Hungary ..	1930-31	20.7	19.5
Eire ..	1940-42	17.0	16.4	Poland ..	1931-32	20.8	19.5
Canada ..	1930-32	17.0	16.5	Japan ..	1935-36	21.3	20.2
Union of South Africa (e) ..	1935-37	17.0	15.9	U.S.S.R. (Europe) ..	1926-27	23.9	21.4

(a) Number of deaths per 1,000 males in life table or stationary population (see explanation on page 769). (b) Number of deaths per 1,000 females in life table or stationary population (see explanation on page 769). (c) Excluding Maoris. (d) Excluding full-blood aboriginals. (e) White population only.

7. Australian Life Tables.—Official Year Book No. 20, pp. 962 and 969-73, contains a synopsis of the various Australian life tables and comparisons with other countries of the expectation of life at various ages. In connexion with the Census of 1933, life

tables have been constructed in respect of each sex for Australia as a whole, and these, together with monetary tables on single and joint lives based thereon, have been published as separate Census publications. A specially contributed article by F. W. Barford, M.A., A.I.A., on the results of the tables for single lives appears in Official Year Book, No. 29, p 928.

8. **Infantile Deaths and Death-rates.**—(i) *Australia, 1901 to 1946.* 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 398,347 male infants born from 1942 to 1946, 14,592 (36.41 per 1,000) died during the first year of life, while of 377,939 female infants only 10,950 (28.97 per 1,000) died during the first year. Still-births are not included in any of the tables relating to deaths.

### INFANTILE DEATHS AND DEATH-RATES : AUSTRALIA.

Period.	Number of deaths under one year.			Rate of Infantile Mortality.(a)		
	Males.	Females.	Total.	Males.	Females.	Total.
Annual Average—						
1901-05 ..	5,499	4,448	9,947	104.25	88.83	96.91
1906-10 ..	4,881	3,821	8,702	84.78	70.02	77.61
1911-15 ..	5,274	4,063	9,337	77.65	62.65	70.32
1916-20 ..	4,757	3,597	8,354	71.63	57.31	64.67
1921-25 ..	4,474	3,394	7,868	64.23	51.21	57.88
1926-30 ..	3,909	2,942	6,851	57.66	45.99	51.99
1931-35 ..	2,649	1,986	4,635	46.00	36.29	41.27
1936-40 ..	2,679	2,016	4,695	43.23	34.16	38.81
1941-45 ..	2,921	2,215	5,136	39.11	31.18	35.24
1942 ..	3,096	2,304	5,400	44.09	34.66	39.50
1943 ..	3,071	2,342	5,413	40.22	32.11	36.26
1944 ..	2,728	2,078	4,806	34.82	27.71	31.34
1945 ..	2,685	2,032	4,717	32.56	26.02	29.38
1946 ..	2,922	2,194	5,116	32.12	25.69	29.01

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

(ii) *States, 1901 to 1946.* For each State and Territory the rates of infantile mortality during the period 1901 to 1946 were as follows:—

### INFANTILE MORTALITY RATES (a) : UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05 ..	97.02	95.91	94.35	86.70	124.79	90.00	149.35	(b)	96.91
1906-10 ..	77.30	79.90	71.27	68.38	89.80	83.18	143.79	(b)	77.61
1911-15 ..	71.05	72.23	65.68	67.26	72.43	70.91	85.11	32.56	70.32
1916-20 ..	64.82	67.18	63.04	61.93	61.73	63.84	67.15	40.40	64.67
1921-25 ..	58.11	61.93	50.99	54.19	59.14	60.44	40.82	60.24	57.88
1926-30 ..	54.74	52.34	47.41	46.95	49.27	53.37	66.09	71.31	51.99
1931-35 ..	41.92	42.76	39.46	35.12	40.81	44.47	80.60	34.48	41.27
1936-40 ..	41.18	37.63	36.75	33.08	39.70	41.23	44.80	21.78	38.81
1941-45 ..	36.29	34.73	34.55	33.20	33.37	39.54	55.97	18.75	35.24
1942 ..	40.19	41.67	34.77	39.72	36.86	42.41	43.48	22.96	39.50
1943 ..	36.18	35.76	37.79	36.67	32.63	40.56	75.00	18.62	36.26
1944 ..	30.68	31.06	31.32	29.07	32.57	38.27	22.47	23.44	31.34
1945 ..	30.63	28.03	29.76	28.08	29.52	27.48	55.50	12.35	29.38
1946 ..	30.22	27.16	29.27	27.07	31.06	30.23	30.30	19.31	29.01

(a) Number of deaths under 1 year per 1,000 live births registered. (b) Part of New South Wales prior to 1911. (c) Based on deaths of infants born in the Australian Capital Territory. See footnote page 755.



## INFANTILE MORTALITY RATES (a) : UNDER ONE MONTH.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05 ..	33 11	34 49	32.13	30.73	37 09	33 54	(b)	(c)	33.46
1906-10 ..	31 47	32 45	30 87	26 83	30 74	29.17	(b)	(c)	31.10
1911-15 ..	31 75	33 07	30 73	29 07	30.87	32 68	38.30	23.26	31.69
1916-20 ..	32.12	33 57	29 62	29 43	29 43	31.48	40 77	35 35	31.70
1921-25 ..	29 97	32.19	27 44	27.83	27 56	31.73	11.66	18 07	29 91
1926-30 ..	29 63	29 75	27 66	26 84	25 10	33.12	14.37	28 86	28.96
1931-35 ..	27.62	27.78	27 91	22 99	25.11	30 09	35 26	d23.45	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
1942 ..	25 49	27 75	25 32	20 39	20.70	28.27	21.74	7.65	25.35
1943 ..	23 83	23 98	25 39	22 98	21 47	28 59	50.00	13.30	24 04
1944 ..	21.96	23 09	21.70	19 31	21.35	25 00	22.47	23.44	22.04
1945 ..	21.79	21.11	23 96	21.17	20 43	20 74	33 34	7.41	21.77
1946 ..	21 97	20.22	22 31	18.85	21.15	23 07	30 30	15.45	21.25

(a) Number of deaths of children aged under one month per 1,000 live births registered. (b) Not available. (c) Part of New South Wales prior to 1911. (d) Based on deaths of infants born in the Australian Capital Territory. See footnote, page 755.

## INFANTILE MORTALITY RATES (a) : ONE MONTH AND UNDER ONE YEAR.

Period.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
1901-05 ..	63.91	61.42	62.22	55.97	87.70	56.46	(b)	(c)	63.45
1906-10 ..	45.83	47.45	40.40	41.55	59.06	54.01	(b)	(c)	46.51
1911-15 ..	39 30	39.16	34 95	38.19	41.56	38.23	46.81	9 30	38.63
1916-20 ..	32.70	33 61	33 42	32 50	32.30	32 36	26.38	5 05	32 97
1921-25 ..	28.14	29 74	23 55	26 36	31.58	28.71	29.16	42.17	27 97
1926-30 ..	25.11	22 59	19 75	20.11	24.17	20.25	51.72	42.45	23.03
1931-35 ..	14 30	14 98	11.55	12.13	15.70	14.38	45.34	d11.03	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
1942 ..	14.70	13.92	9 45	19 33	16.16	14.14	21.74	15.31	14.15
1943 ..	12.35	11.78	12 40	13 69	11.16	11.97	25.00	5.32	12.22
1944 ..	8.72	8 87	9 62	9.76	11.22	13.27	..	..	9.30
1945 ..	8.84	6 92	5 80	6 91	9 09	6.74	2.22	4.94	7.61
1946 ..	8.25	6.94	6 96	8.22	9.91	7.16	..	3.86	7.76

(a) Number of deaths of children aged one month and under one year per 1,000 live births registered. (b) Not available. (c) Part of New South Wales prior to 1911. (d) Based on death of infants born in the Australian Capital Territory. See footnote, page 755.

These tables indicate the striking decrease in infantile mortality in Australia since the beginning of the century, the number of deaths of children aged under one year per thousand births for 1946 being less than one-third of the average rate for 1901-05. The two lower tables reveal the fact that this improvement was due almost entirely to the decrease in deaths from preventable causes, the mortality rate for children aged one month but under one year declining by 88 per cent. while that for children aged under one month declined by only 36 per cent.

A further indication of the considerable improvement in the infantile mortality rate may be obtained from the following figures. During the years 1944 to 1946, of 490,283 children born 479,660 survived the first month of life and 475,644 the first year of life. Had the high infantile mortality rate of 1901 to 1905 obtained during this period only 473,878 children would have survived the first month of life and only 442,770 the first year of life.

(iii) *Districts.* The total number of births and of deaths of children under one year of age for 1946 are shown in *Demography Bulletin*, No. 64, for each of the sixty-five districts for which vital statistics have been tabulated.

(iv) *Various Countries and Cities.* Compared with other countries Australia occupies a very favourable position in regard to infantile mortality. In 1946, only New Zealand recorded a lower rate than Australia.

A study of the respective rates shows that a high birth-rate is often, though not invariably, accompanied by a high infantile death-rate.

### INFANTILE MORTALITY RATES : VARIOUS COUNTRIES.

Country.	Infantile Mortality Rate.(a)						Crude Birth-rate (b) 1946.
	1906-15.	1921-25.	1926-30.	1931-35	1936-40.	1946.	
New Zealand (o)	61	43	37	32	32	25	25.2
<b>Australia (p)</b>	<b>74</b>	<b>58</b>	<b>52</b>	<b>41</b>	<b>39</b>	<b>29</b>	<b>23.6</b>
<i>South Australia (p)</i>	68	54	47	35	33	27	24.9
<i>Victoria (p)</i>	76	62	52	43	38	27	23.1
<i>Queensland (p)</i>	68	51	47	39	37	29	24.8
<i>Tasmania (p)</i>	77	60	53	44	41	30	27.2
<i>New South Wales (p)</i>	74	58	55	42	41	30	22.8
<i>Western Australia</i>	81	59	49	41	40	31	24.6
Sweden	74	60	58	50	42	(i) 30	19.6
United States of America..	(d)	74	68	59	51	(k) 36	23.3
Union of South Africa (c)..	(e) 91	73	67	63	53	36	27.7
Norway	(d)	52	49	45	(g) 40	(j) 37	22.5
Netherlands	115	64	56	45	37	39	30.2
Switzerland	108	65	54	48	45	(k) 41	20.0
Great Britain and Northern Ireland							
Ireland	(d)	78	70	65	59	43	19.4
<i>England and Wales</i>	113	76	68	62	56	43	19.1
<i>Scotland</i>	113	92	85	81	76	54	20.3
<i>Northern Ireland</i>	92	82	79	78	77	54	22.6
Denmark	103	82	82	71	60	(k) 48	23.4
Canada	(d)	98	93	75	64	(k) 51	26.5
Finland	(e) 112	96	88	72	72	(k) 62	27.0
Germany	168	122	94	74	63	(l) 66	(n) 16.0
Eire	92	69	70	68	69	(k) 69	22.9
Argentina	(d)	116	113	97	96	(i) 80	(k) 25.8
Italy	144	127	119	105	103	84	22.3
Belgium	139	100	95	82	77	(k) 92	18.1
Spain	156	143	124	113	121	(i) 93	(k) 22.9
Greece	(d)	(d)	(d)	122	(h) 112	(m) 99	(j) 23.5
France..	122	95	89	73	70	(k) 108	20.6
Mexico	(d)	(f) 223	173	134	127	110	42.5
Japan	151	159	137	120	(h) 112	(m) 114	25.3
Hungary	(e) 198	187	172	157	131	(n) 116	17.0
Czechoslovakia	(d)	155	147	130	(h) 122	(n) 121	21.9
Portugal	(d)	146	146	146	135	121	24.7
Ceylon	(e) 207	190	175	182	160	(n) 132	(n) 40.5
Poland..	(d)	(d)	147	137	(h) 139	(j) 140	(n) 24.6
Yugoslavia	(d)	(d)	151	153	(h) 141	(j) 144	(l) 25.9
Chile	(e) 301	265	229	248	234	160	32.4
Rumania	(e) 195	201	192	182	180	(n) 184	23.8
Egypt	(d)	144	152	165	163	(i) 202	(l) 42.2

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 mean population. (c) White population only. (d) Not available. (e) 1911-13. (f) 1922-25. (g) 1935-39. (h) 1935-38. (i) 1944. (j) 1939. (k) 1945. (l) 1942. (m) 1938. (n) 1943. (o) Excluding Maoris. (p) Excluding full-blood aborigines.

In 1939 the Australian cities Melbourne, Brisbane and Adelaide were among the ten cities having the lowest rates in the following list. The list is headed by Oslo (28), Auckland (29), and Amsterdam (29), the next seven cities being San Francisco, Stockholm, Melbourne, Chicago, Copenhagen, Brisbane and Adelaide. Of the cities named Madras had the highest rate, 238.

INFANTILE MORTALITY RATES (a) : VARIOUS CITIES.

City.	Infantile Mortality Rate.(a)		City.	Infantile Mortality Rate.(a)	
	1921.	1939.		1921.	1939.
Oslo ..	54	28	Cape Town(d) ..	82	49
Auckland(b) ..	54	29	Hamburg ..	95	50(f)
Amsterdam ..	54	29	Leipzig ..	136	50(f)
San Francisco ..	50	30	Antwerp ..	98	50
Stockholm ..	61	31	Johannesburg(d) ..	101	52
Melbourne(c) ..	74	32	Leeds ..	98	57
Chicago ..	84	32	Berlin ..	135	58(f)
Copenhagen ..	67	34	Breslau ..	170	58(f)
Brisbane(c) ..	62	34	Birmingham ..	82	59
Adelaide(c) ..	74	35	Paris ..	95	61
Sydney(c) ..	62	35	Manchester ..	94	61
Wellington(b) ..	61	36	Munich ..	126	64(f)
New York City ..	72	37	Cologne ..	140	66(f)
Perth(c) ..	81	38	Montreal ..	158	70
Detroit ..	83	40	Liverpool ..	105	71
Christchurch(b) ..	54	42	Rome ..	(e)	79(f)
Philadelphia ..	78	42	Edinburgh ..	96	81
Toronto ..	91	43	Belfast ..	115	85
Geneva ..	(e)	43	Glasgow ..	106	86
Los Angeles ..	68	45	Dublin ..	123	90
Hobart(c) ..	75	47	Aberdeen ..	108	95
Sheffield ..	99	47	Lisbon ..	(e)	133
London ..	80	47	Cairo ..	(e)	191
Dresden ..	115	48(f)	Bombay ..	402	213
Washington ..	83	48	Madras ..	281	238

(a) Number of deaths under 1 year per 1,000 births registered. (b) Excluding Maoris.  
(c) Excluding full-blood aboriginals. (d) White population only. (e) Not available. (f) For 1938.

(v) *Causes of Deaths of Children under one Year.* The following table shows for 1946 the ages of all children who died under one year of age from each of twenty-three causes. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63. The infantile mortality rates for all births are shown for 1911, 1921, 1931, 1941 and 1946 and for ex-nuptial births for 1925, 1931, 1941 and 1946. Full particulars of the causes of death of all children who died in 1946 under one year and also of those under one month are given for each State and Territory in *Demography Bulletin*, No. 64. This contains in addition detailed information for Australia as to the age at which children died from each cause of death.

In 1946, pre-natal influences, such as congenital malformations, congenital debility and premature birth, together with injuries at birth and other diseases of early infancy accounted for 3,753 or 73 per cent. of all deaths under one year; and of these 3,753 deaths, 3,020 or 80 per cent., occurred less than a week after birth. Among the survivors of the first week, broncho-pneumonia caused the greatest number of deaths attributable to a specific disease. This disease was responsible for 341 deaths, representing 7 per cent. of all deaths under one year, or 1.93 per 1,000 births. Diarrhoea and enteritis caused 177 deaths and other pneumonia 178.

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR: AUSTRALIA, 1946.

Cause of Death.	Age at Death.											Total under 1 year.					
	Under 1 week.	1 week.	2 weeks.	3 weeks.	1 month.	2 months.	3 months.	4 months.	5 months.	6 months.	7 months.		8 months.	9 months.	10 months.	11 months.	
Cerebro-spinal Meningococcal Meningitis		1			1	1	3	1	3	3	1	4	2		3	1	24
Whooping Cough				2	5	9	5	5	2	5	6	6	3		2	2	50
Diphtheria					2	1				1		2	6	3	2	2	17
Erysipelas					1												1
Respiratory Tuberculosis									2	1	1					2	6
Tuberculosis of Meninges	1				1	2					1	1	2			1	6
Tuberculosis, Other Forms					1	1		1			1	1				5	11
Syphilis	1				2	1			1								5
Measles					1	1		1			1	1	2	4	4	4	19
Meningitis (Non-meningococcal)	3	1	2	3	5	3	2	3	1	3	1	1	1	2	2	2	33
Convulsions	4	1					2	2	2	2	3		2	2	1		18
Acute Bronchitis	1					1				1				3			7
Broncho-pneumonia	56	23	17	11	42	28	27	21	17	23	15	21	18	10	12	12	341
Pneumonia, Other	18	9	4	10	19	15	14	19	9	14	12	14	10	3	8	8	178
Other Diseases of the Stomach																	
Diarrhoea and Enteritis	8	6	11	10	29	12	15	11	16	13	20	7	7	6	6	6	177
Hernia and Intestinal Obstruction	5	2				2	2	10	5	5	2	4	7				50
Congenital Malformations	34	61	38	27	56	33	27	29	15	21	17	10	14	7	12	12	708
Congenital Debility	69	5	2	5	16		5	2	1	1	1		1	1			109
Premature Birth	1,586	90	31	19	20	5	2	2									1,755
Injury at Birth	58	23	11	3	5	5	1	1	1	1	1						610
Other Diseases of Early Infancy	466	50	18	11	11	2	2	1	3	2	3	1	1				571
Other Causes	72	21	17	11	32	41	43	20	23	33	27	18	21	11	30	420	
Total	3,189	293	151	115	248	165	149	131	102	131	113	91	98	51	89	5,116	

Cause of Death.	All Children.					Ex-nuptial Children.(a)				No. of Deaths 1946.
	No. of Deaths per 1,000 Total Births.					No. of Deaths per 1,000 Ex-nuptial Births.				
	1911.	1921.	1931.	1941.	1946.	1925.	1931.	1941.	1946.	
Cerebro-spinal Meningococcal Meningitis		0.03	0.08	0.16	0.14	0.48	0.17	0.39	0.26	2
Whooping Cough	1.57	1.97	1.58	1.27	0.28	2.06	1.71	1.94	0.40	3
Diphtheria	0.25	0.59	0.25	0.13	0.10	0.32	0.34		0.13	1
Erysipelas	0.16	0.24	0.11	0.04	0.01	0.16		0.19		
Respiratory Tuberculosis	0.08	0.07	0.03	0.04	0.03				0.26	2
Tuberculosis of Meninges	0.31	0.18	0.22	0.10	0.03	0.32	0.34	0.19		
Tuberculosis, Other Forms	0.22	0.08	0.04	0.05	0.06	1.27	0.51	0.77	0.26	2
Syphilis	0.85	0.56	0.26	0.09	0.03	0.16	0.51		0.39	3
Measles	1.83	1.10	0.10	0.01	0.11	0.32		0.19	0.40	3
Meningitis (Non-meningococcal)	2.55	1.45	0.39	0.17	0.10	2.38	0.51	0.39		
Convulsions	2.34	1.50	0.32	0.11	0.04	0.48	0.86		0.13	1
Acute Bronchitis	2.86	3.08	2.82	2.96	1.93	8.09	5.31	4.65	4.34	33
Broncho-pneumonia	1.90	2.08	1.62	1.42	1.01	2.38	3.43	2.32	1.18	9
Pneumonia, Other	0.97	0.71	0.13	0.05		1.11	0.34	0.19		
Other Diseases of the Stomach	16.99	15.01	3.26	2.07	1.01	19.18	8.39	4.26	2.50	19
Diarrhoea and Enteritis	0.72	0.57	0.41	0.19	0.28	0.47	0.17	0.39	0.26	2
Hernia and Intestinal Obstruction	2.99	3.74	4.23	4.63	4.02	3.64	4.28	4.06	2.89	22
Congenital Malformations	22.41	7.64	2.60	1.98	0.61	9.51	7.19	3.48	1.05	8
Congenital Debility (b)		15.29	14.04	12.41	9.95	20.93	21.92	18.00	13.92	106
Premature Birth										
Injury at Birth	4.07	5.53	2.81	4.27	3.46	1.90	3.08	5.23	3.81	29
Other Diseases of Early Infancy			3.29	4.14	3.24	2.69	3.77	4.45	2.37	18
Other Causes	5.58	4.16	3.29	3.13	2.38	6.98	5.82	7.55	5.12	35
Total	68.49	65.73	42.14	39.72	29.01	84.83	68.65	58.83	39.67	302

(a) Included in figures for all children. (b) Includes Icterus and Sclerema prior to 1931.

(vi) Deaths of Ex-nuptial Children under one Year. The deaths of ex-nuptial children were tabulated by this Bureau for the first time in 1925. The causes of death of these children in 1946 and the rates in respect of 1925, 1931, 1941 and 1946 are shown in the preceding table. Corresponding figures for 1945 may be obtained from *Demography*.

*Bulletin*, No. 63. Full particulars of the causes of death of ex-nuptial children who died in 1946 aged under one year and also of those under one month are given for each State and Territory in *Demography Bulletin*, No. 64. This contains in addition detailed information for Australia as to the age at which ex-nuptial children died from each cause of death.

Pre-natal influences, such as congenital malformations, congenital debility and premature birth, together with injuries at birth and other diseases of early infancy accounted for 183 or 61 per cent., broncho-pneumonia for 33 or 11 per cent., and diarrhœa and enteritis for 19, or 6 per cent. of the total deaths of ex-nuptial children under 1 year.

9. Deaths in Age-groups.—A distribution into age-groups has been made of the 364,165 deaths which occurred in Australia during the five years ended 1946, and the results are shown in the following table :—

**AGGREGATE DEATHS IN AGE-GROUPS : AUSTRALIA, 1942 TO 1946.**

Age-group (Years).	Number of Deaths.			Percentage of Total.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 1 .. ..	14,502	10,950	25,452	7.26	6.66	6.99
1-4 .. ..	3,731	3,083	6,814	1.87	1.87	1.87
5-19 .. ..	5,447	3,600	9,047	2.73	2.19	2.48
20-39 .. ..	10,578	11,480	22,058	5.30	6.98	6.06
40-59 .. ..	41,212	28,981	70,193	20.64	17.62	19.28
60-64 .. ..	20,338	13,014	33,352	10.18	7.91	9.16
65 and over ..	103,830	93,373	197,203	52.00	56.77	54.15
Age unspecified ..	41	5	46	0.02	..	0.01
<b>Total .. ..</b>	<b>199,679</b>	<b>164,486</b>	<b>364,165</b>	<b>100.00</b>	<b>100.00</b>	<b>100.00</b>

A table showing the corresponding percentages for earlier periods from the year 1901 has been added to show the movement over a longer term. The most striking change is the substantial decrease in the group "under 1 year". At the other end of the table, the group "65 years and over" has increased considerably. The percentages in all age-groups under 40 have fallen and those in all age-groups from 40 onwards have risen. These changes are due partly to improvement in the efficiency of medical science and partly to changes in the age distribution of the population. The latter changes are themselves in part due to increased length of life made possible by medical science, and in part to changes in the volume of migration and the falling birth-rate :—

**DEATHS IN AGE-GROUPS : PERCENTAGES, AUSTRALIA.**

Period.	Age-group (Years).								Total.
	Under 1.	1-4.	5-19.	20-39.	40-59.	60-64.	65 and Over.	Unspeci-fied.	
<b>MALES.</b>									
1901-10 %	19.80	5.84	5.84	13.85	19.70	5.71	29.08	0.18	100.00
1911-20 %	16.44	5.65	5.18	13.44	22.16	6.83	30.11	0.19	100.00
1921-30 %	13.18	4.35	4.86	11.00	21.76	9.01	35.71	0.13	100.00
1931-40 %	7.53	2.49	4.02	8.79	21.67	8.95	46.50	0.05	100.00
<b>FEMALES.</b>									
1901-10 %	21.47	7.28	7.08	16.54	15.67	4.77	27.15	0.04	100.00
1911-20 %	16.95	6.69	5.92	15.79	17.85	5.31	31.44	0.05	100.00
1921-30 %	12.98	4.72	4.85	13.59	18.96	7.27	37.61	0.02	100.00
1931-40 %	7.22	2.66	3.58	10.10	19.11	7.60	49.72	0.01	100.00
<b>PERSONS.</b>									
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

10. Deaths at Single Ages and in Age-Groups.—(i) *General.* The deaths registered in Australia in 1945 and 1946 will be found tabulated in groups of five years for each State and Territory and in single ages for Australia in *Demography Bulletin*, Nos. 63-64, respectively. The deaths during the first fifteen years of life have been tabulated there in single ages and for the first year of life in shorter periods. A summary for Australia for 1946 is given in the following table :—

## DEATHS AT SINGLE AGES AND IN AGE-GROUPS : AUSTRALIA, 1946.

Age at Death.	Males.	Fe- males.	Persons.	Age at Death.	Males.	Fe- males.	Persons.
Under 1 week ..	1,841	1,348	3,189	Total 5-9 years ..	254	209	463
1 week and under 2 ..	151	142	293	" 10-14 ..	217	149	366
2 weeks and under 3 ..	80	71	151	" 15-19 ..	456	250	706
3 weeks and under 1 ..	..	..	..	" 20-24 ..	486	383	869
month ..	69	46	115	" 25-29 ..	482	485	967
Total under 1 month	2,141	1,607	3,748	" 30-34 ..	623	559	1,182
1 month and under 3 ..	240	173	413	" 35-39 ..	767	662	1,429
3 months and under 6 ..	204	178	382	" 40-44 ..	1,018	763	1,781
6 months and under 12 ..	337	236	573	" 45-49 ..	1,622	1,189	2,811
Total under 1 year ..	2,922	2,194	5,116	" 50-54 ..	2,324	1,712	4,036
1 year ..	264	247	511	" 55-59 ..	3,477	2,111	5,588
2 years ..	155	122	277	" 60-64 ..	4,205	2,689	6,894
3 ..	115	89	204	" 65-69 ..	4,880	3,251	8,131
4 ..	85	79	164	" 70-74 ..	4,907	4,058	8,965
Total under 5 years	3,541	2,731	6,272	" 75-79 ..	5,138	4,590	9,728
				" 80-84 ..	3,984	4,061	8,045
				" 85-89 ..	2,158	2,547	4,705
				" 90-94 ..	636	803	1,439
				" 95-99 ..	89	160	249
				" 100 and over ..	9	15	24
				Age unspecified ..	10	1	11
				Total all ages ..	41,283	33,378	74,661

(ii) *Rates.* The following table gives the average annual death-rates in age-groups per 1,000 living for the period 1932 to 1934, i.e., the Census year 1933 and the years immediately preceding and following. Deaths in the Northern Territory and the Australian Capital Territory are included in the total for Australia but not in any of the States. Similar details for the years 1920 to 1922 are given in Official Year Book No. 22, p. 975.

## AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1932-34.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MALES.							
0-4 ..	12.51	12.65	12.21	9.91	12.81	12.77	12.33
5-9 ..	1.41	1.72	1.56	1.21	1.56	2.08	1.53
10-14 ..	1.23	1.38	1.08	1.04	1.40	1.27	1.24
15-19 ..	1.69	1.76	1.93	1.71	1.76	2.05	1.76
20-24 ..	2.28	2.31	2.81	2.31	2.52	2.73	2.41
25-29 ..	2.21	2.58	2.93	2.50	2.85	2.98	2.52
30-34 ..	2.81	2.82	3.50	2.53	3.10	3.78	2.96
35-39 ..	3.76	3.85	4.61	3.26	4.01	4.71	3.92
40-44 ..	5.34	4.93	6.04	4.71	5.69	4.85	5.28
45-49 ..	7.91	7.61	7.98	6.80	8.81	6.90	7.76
50-54 ..	11.62	11.25	11.82	9.81	13.48	9.96	11.45
55-59 ..	17.70	18.68	17.58	15.15	21.43	14.47	17.89
60-64 ..	25.74	26.66	26.92	25.08	28.26	23.92	26.27
65-69 ..	39.99	41.17	39.94	36.14	42.40	35.11	40.03
70-74 ..	62.28	63.96	58.90	57.29	63.40	59.22	61.85
75-79 ..	95.52	98.12	94.59	92.66	105.14	94.23	96.26
80-84 ..	156.44	157.81	168.61	146.83	176.82	160.80	158.70
85-89 ..	231.04	233.33	218.42	239.45	264.96	204.45	230.75
90 and over ..	313.38	348.76	314.86	303.07	380.77	401.97	327.55

## AVERAGE ANNUAL DEATH-RATES: AGE-GROUPS, 1932-34—continued.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
FEMALES.							
0-4 ..	10.05	7.04	10.72	8.30	8.64	10.42	10.00
5-9 ..	1.17	1.30	1.03	1.03	1.27	1.54	1.19
10-14 ..	0.83	0.97	0.93	0.90	0.99	0.91	0.90
15-19 ..	1.36	1.39	1.50	1.23	1.26	2.22	1.39
20-24 ..	2.03	2.00	2.77	2.35	1.94	2.58	2.11
25-29 ..	2.44	2.50	2.81	2.74	2.75	3.74	2.60
30-34 ..	2.88	2.87	3.44	2.64	3.13	3.63	2.97
35-39 ..	3.75	3.37	4.05	3.88	4.24	4.43	3.74
40-44 ..	4.24	4.32	4.89	4.10	5.79	4.88	4.37
45-49 ..	6.02	6.11	6.14	5.78	6.35	5.44	6.03
50-54 ..	8.27	8.81	8.61	8.07	9.08	10.08	8.56
55-59 ..	11.62	12.49	12.02	11.26	16.69	11.62	15.54
60-64 ..	17.27	18.73	17.19	17.78	17.32	16.87	17.77
65-69 ..	29.55	29.91	27.01	27.13	29.81	30.46	29.21
70-74 ..	45.95	48.18	49.03	42.31	44.10	48.31	46.70
75-79 ..	74.78	81.13	76.29	75.65	74.42	83.58	77.47
80-84 ..	125.55	127.91	126.63	120.74	120.99	125.15	125.68
85-89 ..	119.40	204.57	208.19	207.40	192.39	195.28	199.94
90 and over	292.10	327.19	370.23	233.58	397.20	363.63	306.24
PERSONS.							
0-4 ..	11.31	11.37	11.48	9.12	11.35	11.62	11.19
5-9 ..	1.29	1.51	1.30	1.12	1.41	1.81	1.36
10-14 ..	1.03	1.18	1.01	0.97	1.20	1.09	1.07
15-19 ..	1.52	1.57	1.72	1.47	1.51	2.14	1.58
20-24 ..	2.16	2.16	2.60	2.35	2.24	2.66	2.26
25-29 ..	2.32	2.54	2.87	2.61	2.80	3.35	2.56
30-34 ..	2.85	2.85	3.47	2.59	3.12	3.71	2.96
35-39 ..	3.76	3.61	4.34	3.57	4.12	4.56	3.83
40-44 ..	4.79	4.62	5.50	4.40	5.15	4.86	4.83
45-49 ..	6.99	6.84	7.14	6.29	7.67	6.19	6.92
50-54 ..	10.00	10.00	10.37	8.93	11.47	10.02	10.04
55-59 ..	14.70	15.46	14.86	13.19	16.63	13.09	14.88
60-64 ..	21.56	22.46	22.41	21.35	23.44	20.52	22.04
65-69 ..	34.90	35.29	34.06	31.39	37.01	32.87	34.69
70-74 ..	54.31	55.68	54.55	49.43	55.28	53.89	54.38
75-79 ..	85.18	89.06	86.33	83.92	91.08	88.97	86.82
80-84 ..	140.43	140.48	148.56	132.56	149.72	142.64	141.13
85-89 ..	209.89	215.56	213.10	220.66	222.90	199.07	214.17
90 and over	301.13	334.60	341.25	253.61	389.21	376.36	314.41

11. Deaths of Centenarians.—In previous years, up to and including Official Year Book No. 33, particulars are given concerning persons aged 100 years and upwards who died each year. However, while the Registrars-General of the various States verify the ages as far as possible, absolute reliance cannot be placed on the accuracy of the information owing to the well-known tendency of very old people to overstate their ages, and it is considered advisable to discontinue publication of this table. In connexion with this question it may be noted that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically from 1874 only, the Act of 1836 having left many loopholes for those unwilling to register the births of their children.

12. Length of Residence in Australia of Persons who Died.—The length of residence in Australia of all persons whose deaths were registered in 1940 is shown in the following table. Tabulations for subsequent years were discontinued but will be revived for 1947

## LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED IN 1940.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in Australia ..	28,139	23,178	51,317	Resident 25 to 29 years ..	1,090	712	1,802
Resident under 1 year..	54	25	79	.. 30 to 34 ..	796	371	1,167
.. 1 year ..	31	28	59	.. 35 to 39 ..	320	159	479
.. 2 years ..	26	16	42	.. 40 to 44 ..	538	232	770
.. 3 ..	21	20	41	.. 45 to 49 ..	393	213	606
.. 4 ..	13	12	25	.. 50 to 54 ..	1,321	793	2,114
.. 5 ..	16	14	30	.. 55 to 59 ..	1,100	761	1,861
.. 6 ..	25	5	30	.. 60 to 64 ..	871	644	1,515
.. 7 ..	11	9	20	.. 65 yrs. and over	1,112	1,275	2,387
.. 8 ..	18	9	27	Length of residence not stated ..	1,491	472	1,963
.. 9 ..	11	5	16	Total ..	38,608	29,776	68,384
.. 10 to 14 years ..	386	247	633				
.. 15 to 19 ..	530	301	831				
.. 20 to 24 ..	295	275	570				

13. **Birthplace of Persons who Died.**—A table giving a summary of birthplaces of persons whose deaths were registered in 1911 and 1940 will be found in Official Year Book No. 34, p. 337. More detailed information will be found in *Demography Bulletin*, No. 58. Tabulations were discontinued for the years 1941 to 1945 inclusive but were revived for 1946, details of which appear in *Demography Bulletin*, No. 64.

14. **Occupation of Males who Died.**—A table showing occupations of males who died during 1946 appears in *Demography Bulletin*, No. 64.

15. **Causes of Deaths.**—(i) *General.* The classification adopted by this Bureau is that of the International Institute of Statistics, as amended by the Committees of Revision which met in Paris in 1909, 1920, 1929 and 1938.

(ii) *Mortality Statistics for 1907 and Subsequent Years.* The statistics relating to causes of death in Australia from 1907 onward have been tabulated in this Bureau in accordance with the above-mentioned classification, and the system is employed also in the State statistical offices. Particulars from 1940 onward have been tabulated on the 1938 revision of the International List.

(iii) *Classification of Causes of Death, according to the Intermediate and the Abridged International Classifications.* An abridged classification, which enumerates forty-three diseases and groups of diseases according to the revised classification, has been in use in many European countries and American States until recently, and a table has been given in past issues of the Official Year Book showing the causes of death according to the abridged classification, so that the results may be compared with those of other countries which used the abridged index.

As the result of an international treaty signed in London in 1934, the intermediate classification of causes of death, or the "minimum nomenclature" covering 87 main causes or groups of causes, has now been adopted in most countries for the purpose of making international comparisons. This classification appears in the pages following and shows the number of deaths during 1946 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1946 have been compiled in the abridged form and are shown on p. 787 in conjunction with those for the previous four years, and averages over five-yearly periods to 1941-45 are shown in the same form on p. 788.

The compilations for the years 1942 to 1946 will be found in full detail in *Demography Bulletins*, Nos. 60 to 64. In the following tables in which the intermediate classification has been employed, tables A, B and C show deaths of males, females and persons, respectively, for 1946. Table D shows in the abridged form, on the basis of the 1938 revision of the International List, the number of persons who died in each of the years 1942 to 1946 and gives the rate per million of population for the last-named year.

Since death-rates are subject to continual fluctuation, it is unsafe to base deductions on the figures relating to a single year. In order, therefore, to furnish a valid basis for comparison, three five-yearly periods have been shown in table E giving the number of deaths and the rates per million persons. While the absolute number of deaths has increased, the death-rate has shown a very satisfactory decrease, which is reflected in the great majority of the causes specified in the table.



A.—CAUSES OF DEATH : MALES, 1946.

INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Anst.
1. Typhoid and Paratyphoid Fevers (1) .. .. .	1, 2	2	1	1	..	3	..	..	..	7
2. Plague (2) .. .. .	3	..	..	..	..	..	..	..	..	6
3. Scarlet Fever (3) .. .. .	8	4	2	..	..	..	..	..	..	6
4. Whooping Cough (4) .. .. .	9	11	5	5	1	1	..	..	..	23
5. Diphtheria (5) .. .. .	10	33	8	14	2	4	3	..	..	64
6. Tuberculosis of the Respiratory System (6) .. .. .	13	549	404	215	109	116	57	1	1	1,452
7a. Tubercular Meningitis (7a) .. .. .	14 (a)	9	10	4	..	..	3	..	1	27
7b. Other forms of Tuberculosis (7b) .. .. .	14 (b)—22	21	22	9	7	6	6	..	..	71
8. Septicæmia, Purulent Infection (Non-puerperal) (14) .. .. .	24	7	6	1	7	1	2	..	..	24
9. Dysentery (14) .. .. .	27	4	4	4	3	2	..	..	..	17
10. Malaria (8) .. .. .	28	5	2	..	..	..	..	1	..	8
11. Syphilis (9) .. .. .	30	103	74	40	22	23	7	..	..	269
12a. Influenza—Pneumonic (10a) .. .. .	33 (a)	20	19	20	2	2	2	..	..	65
12b. Influenza—Other (10b) .. .. .	33 (b)	23	11	14	2	3	4	..	..	57
13. Small-pox (11) .. .. .	34	..	..	..	..	..	..	..	..	..
14. Measles (12) .. .. .	35	13	3	6	9	18	1	..	..	50
15. Typhus Fever (13) .. .. .	39	2	3	3	1	1	..	..	..	7
16. Diseases caused by Helminths (14) .. .. .	40-42	5	15	1	2	3	1	..	..	27
17. Other Infectious and Parasitic Diseases (14) .. .. .	*	113	67	38	18	15	12	..	..	263
18. Cancer of the Buccal Cavity and Pharynx (15) .. .. .	45	114	69	42	20	26	7	..	..	278
19. Cancer of the Digestive Organs and Peritoneum (15) .. .. .	46	958	757	354	230	169	88	1	3	2,560
20. Cancer of the Respiratory System (15) .. .. .	47	164	141	62	41	38	17	1	..	464
22. Cancer of the Breast (15) .. .. .	50	1	2	..	3	..	1	..	..	7
23. Cancer of Other or Unspecified Organs (15) .. .. .	49, 51-55	482	372	188	123	64	41	..	1	1,271
24. Non-malignant Tumours or Tumours of Unspecified Nature (16) .. .. .	56, 57	97	49	29	19	15	4	..	..	213
25. Acute Rheumatic Fever (20) .. .. .	58	25	4	13	5	8	5	..	..	60
26. Chronic Rheumatism and Gout (17) .. .. .	59, 60	13	20	6	10	2	7	1	..	59
27. Diabetes Mellitus (18) .. .. .	61	194	142	55	56	25	16	..	..	488
28. Diseases of the Thyroid and Parathyroid Glands (20) .. .. .	63	14	8	2	3	1	..	..	..	28
29. Other General Diseases (20) .. .. .	62, 64-66	14	10	11	10	7	1	..	1	54
30. Avitaminoses (20) .. .. .	67-71	..	..	..	..	1	1	..	..	2
31. Anæmias (20) .. .. .	73	37	23	12	8	5	4	..	..	89
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20) .. .. .	72, 74-76	63	35	31	29	12	6	..	..	176
33. Alcoholism (acute or chronic) (19) .. .. .	77	48	13	25	5	..	..	..	..	91
34. Other Chronic Poisonings (20) .. .. .	78, 79	3	5	2	..	..	..	..	..	10
35. Meningitis (Non-meningococcal) (21) .. .. .	81	32	7	16	6	11	5	..	..	77
36. Diseases of the Spinal Cord (21) .. .. .	82	43	27	16	14	7	3	..	..	110
37. Intra-cranial Lesions of Vascular Origin (22) .. .. .	83	1,314	842	430	307	192	111	3	3	3,202
38. Mental Diseases and Deficiency (23) .. .. .	84	30	11	16	2	3	3	..	..	65
39. Epilepsy (23) .. .. .	85	59	16	15	5	6	6	..	..	107
40. Other Diseases of the Nervous System (23) .. .. .	86, 86, 87	97	60	42	29	11	7	..	..	246
41. Diseases of the Eye, Ear and their Annexa (23) .. .. .	88, 89	11	9	6	9	1	..	..	..	36
42. Pericarditis (24) .. .. .	90	7	9	6	..	5	..	..	..	27
43. Chronic Affections of the Valves and Endocardium (24) .. .. .	92	270	196	125	65	45	26	..	..	727
44. Diseases of the Myocardium (24) .. .. .	93	3,034	2,076	1,040	546	484	181	2	8	7,371
45. Diseases of the Coronary Arteries and Angina Pectoris (24) .. .. .	94	1,949	1,278	712	411	266	135	1	9	4,761
46. Other Diseases of the Heart (24) .. .. .	91, 95	295	209	74	75	33	28	2	..	716

\* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

A.—CAUSES OF DEATH: MALES, 1946—*continued.*

## INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
47. Arteriosclerosis and Gangrene (25)	97, 98	333	254	68	78	104	29	..	1	867
48. Other Diseases of the Circulatory System (25)	96, 99-103	90	60	50	19	20	12	2	..	253
49a. Acute Bronchitis (26a)	106 (a)(c)	27	23	20	5	3	2	..	1	81
49b. Chronic Bronchitis (26b)	106 (b)(d)	109	75	48	24	23	11	..	..	290
50. Pneumonia and Broncho-pneumonia (27)	107-109	690	632	314	160	182	99	2	2	2,081
51. Pleurisy (28)	110	19	22	4	9	9	4	..	..	67
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	150	136	83	41	56	21	..	..	487
53. Ulcer of the Stomach and Duodenum (32b)	117	148	134	40	40	24	18	1	..	405
54. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	34	43	27	14	5	1	..	..	124
55. Diarrhoea and Enteritis (2 years and over) (29b)	120	49	18	16	12	7	3	..	..	105
56. Appendicitis (30)	121	85	50	39	14	13	5	..	..	206
57. Hernia, Intestinal Obstruction (32a)	122	133	78	69	27	28	11	..	1	347
58. Cirrhosis of the Liver (31a)	124	62	62	37	19	13	4	2	..	199
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	46	55	27	9	8	5	..	..	150
60. Other Diseases of the Digestive System (32b)	*	64	52	34	26	21	8	..	..	205
61. Nephritis (33)	130-132	693	648	287	122	95	69	..	..	1,914
62. Other Diseases of the Kidneys and Ureters (34)	133	37	29	35	8	12	8	..	1	130
63. Calculi of the Urinary Passages (34)	134	16	20	17	3	5	..	..	1	62
64. Diseases of the Urinary Bladder (34)	135	7	10	7	5	6	4	..	..	39
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	8	6	4	2	1	..	..	..	21
66. Diseases of the Prostate (34)	137	191	194	88	46	47	28	1	1	596
67. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	1	..	..	..	..	..	..	..	1
73. Diseases of the Skin and Cellular Tissue (37)	151-153	25	5	6	5	..	1	..	..	42
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	19	8	4	2	2	3	..	..	38
75. Congenital Malformations (Stillbirths not included) (38)	157	190	106	61	35	30	14	1	1	436
76. Congenital Debility (38)	158	24	11	10	6	3	2	..	..	56
77. Premature Birth (38)	159	393	208	130	82	73	46	2	3	987
78. Injury at Birth (38)	160	157	92	54	25	24	18	..	..	370
79. Other Diseases Peculiar to the First Year of Life (38)	161	142	82	51	26	20	18	..	1	340
80. Senility (39)	162	518	314	187	113	51	18	2	..	1,203
81. Suicide (40)	163, 164	190	128	96	39	46	12	2	..	513
82. Homicide (41)	165-168	24	8	10	5	4	1	1	..	53
83. Automobile Accidents (42)	170	343	278	137	75	93	45	3	1	975
84. Other Violent or Accidental Deaths (43)	169, 171-195	674	367	363	135	128	73	11	3	1,754
85. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43)	198	..	..	..	1	..	1	..	..	2
87. Ill-defined or Unspecified (44)	199, 200	55	29	28	35	..	..	3	..	150
<b>Total Males</b>		<b>16,038</b>	<b>11,280</b>	<b>6,206</b>	<b>3,483</b>	<b>2,791</b>	<b>1,395</b>	<b>46</b>	<b>44</b>	<b>41,283</b>

\* No. 60:—115, 116, 118, 123, 128, 129.

## B.—CAUSES OF DEATH : FEMALES, 1946.

## INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid Fevers (1) ..	1, 2	1	1	..	..	..	..	..	..	2
2. Plague (2) ..	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3) ..	8	..	1	..	..	..	..	..	..	1
4. Whooping Cough (4) ..	9	33	6	10	2	..	..	..	..	51
5. Diphtheria (5) ..	10	24	9	6	6	7	3	..	..	55
6. Tuberculosis of the Respiratory System (6) ..	13	269	246	88	57	47	40	..	I	748
7a. Tubercular Meningitis (7a) ..	14 (a)	19	8	1	1	..	4	..	..	33
7b. Other Forms of Tuberculosis (7b) ..	14(b)-22	21	21	2	8	2	8	..	..	62
8. Septicæmia, Purulent Infection (Non-puerperal) (14) ..	24	8	9	1	..	3	1	..	..	22
9. Dysentery (14) ..	27	4	6	4	3	..	..	..	..	17
10. Malaria (8) ..	28	..	..	1	..	..	..	..	..	1
11. Syphilis (9) ..	30	22	29	10	4	9	1	..	..	75
12a. Influenza—Pneumonic (8a) ..	33 (a)	17	15	16	1	4	1	..	I	55
12b. Influenza—Other (8b) ..	33 (b)	8	7	8	3	6	2	..	..	34
13. Small-pox (11) ..	34	..	..	..	..	..	..	..	..	..
14. Measles (12) ..	35	24	10	6	6	12	1	..	..	59
15. Typhus Fever (13) ..	39	..	..	1	..	..	..	..	..	1
16. Diseases caused by Helminths (14) ..	40-42	4	8	2	2	..	4	..	..	20
17. Other Infectious and Parasitic Diseases (14) ..	..	63	40	25	9	17	8	..	..	162
18. Cancer of the Buccal Cavity and Pharynx (15) ..	45	23	14	5	5	3	2	..	..	52
19. Cancer of the Digestive Organs and Peritoneum (15) ..	46	741	668	233	156	96	60	..	2	1,956
20. Cancer of the Respiratory System (15) ..	47	55	47	10	10	11	5	..	..	138
21. Cancer of the Uterus (15) ..	48	244	179	87	58	37	24	..	I	630
22. Cancer of the Breast (15) ..	50	316	326	115	97	50	26	..	..	930
23. Cancer of Other or Unspecified Organs (15) ..	49, 51-55	314	263	95	77	55	26	I	I	832
24. Non-malignant Tumours or Tumours of Unspecified Nature (16) ..	56, 57	85	67	48	18	22	4	..	..	244
25. Acute Rheumatic Fever (20) ..	58	35	4	8	7	3	6	..	I	64
26. Chronic Rheumatism and Gout (17) ..	59, 60	29	50	17	14	8	5	..	..	123
27. Diabetes Mellitus (18) ..	61	335	290	117	94	50	21	I	..	908
28. Diseases of the Thyroid and Parathyroid Glands (20) ..	63	56	45	21	13	10	11	..	..	156
29. Other General Diseases (20) ..	62, 64-66	15	18	6	8	4	5	..	..	56
30. Avitaminoses (20) ..	67-71	..	..	..	..	..	..	..	..	..
31. Anæmias (20) ..	73	62	51	19	14	8	11	..	I	166
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20) ..	72, 74-76	67	42	28	14	11	4	..	..	166
33. Alcoholism (acute or chronic) (19) ..	77	4	3	6	3	2	..	..	..	18
34. Other Chronic Poisonings (20) ..	78, 79	..	1	2	..	..	..	..	..	3
35. Meningitis (Non-meningococcal) (21) ..	81	14	14	11	4	7	1	..	..	51
36. Diseases of the Spinal Cord (21) ..	82	32	18	9	11	4	1	..	..	75
37. Intra-cranial Lesions of Vascular Origin (22) ..	83	1,634	1,296	496	444	205	134	2	6	4,217
38. Mental Diseases and Deficiency (23) ..	84	17	8	8	4	3	1	..	..	41
39. Epilepsy (23) ..	85	43	16	11	5	1	2	..	..	78
40. Other Diseases of the Nervous System (23) ..	80, 86, 87	84	54	24	21	6	7	..	I	197
41. Diseases of the Eye, Ear and their Annexa (23) ..	88, 89	9	5	3	6	1	..	..	..	24
42. Pericarditis (24) ..	90	1	6	2	..	..	1	..	..	10
43. Chronic Affections of the Valves and Endocardium (24) ..	92	243	207	82	72	28	27	..	I	660
44. Diseases of the Myocardium (24) ..	93	2,426	1,855	829	495	307	133	..	6	6,051
45. Diseases of the Coronary Arteries and Angina Pectoris (24) ..	94	865	686	250	217	111	76	..	..	2,214
46. Other Diseases of the Heart (24) ..	91, 95	172	167	58	44	21	22	..	I	485
47. Arteriosclerosis and Gangrene (25) ..	97, 98	224	266	54	65	71	38	..	..	718
48. Other Diseases of the Circulatory System (25) ..	96, 99-103	81	62	46	15	35	18	..	..	257

\* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

B.—CAUSES OF DEATH: FEMALES, 1946—*continued.*

## INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
49a. Acute Bronchitis (26a)	106 (a) (c)	35	8	12	2	3	1	..	..	61
49b. Chronic Bronchitis (26b)	106 (b) (d)	53	65	31	20	6	10	..	..	185
50. Pneumonia and Broncho-Pneumonia (27)	107-109	564	614	206	128	139	67	..	1	1,719
51. Pleurisy (28)	110	18	8	8	2	3	..	..	..	39
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	124	96	66	61	23	21	1	..	392
53. Ulcer of the Stomach and Duodenum (32b)	117	48	33	17	6	10	2	..	..	116
54. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	32	29	18	6	4	1	..	..	90
55. Diarrhoea and Enteritis (2 years and over) (29b)	120	31	28	16	10	12	7	..	..	104
56. Appendicitis (30)	121	53	36	23	9	10	1	..	..	132
57. Hernia, Intestinal Obstruction (32a)	122	133	101	33	27	20	14	..	..	328
58. Cirrhosis of the Liver (31a)	124	32	32	8	6	6	5	..	..	89
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b)	125-127	99	97	43	17	22	12	..	..	290
60. Other Diseases of the Digestive Systems (32b)	o	50	47	29	14	11	14	..	..	165
61. Nephritis (33)	130-132	542	653	228	86	75	63	..	2	1,649
62. Other Diseases of the Kidneys and Ureters (34)	133	32	31	23	6	10	5	..	2	109
63. Calculi of the Urinary Passages (34)	134	10	7	11	..	2	..	..	..	30
64. Diseases of the Urinary Bladder (34)	135	1	7	6	..	1	1	..	1	17
65. Diseases of the Urethra, Urinary Abscess, &c. (34)	136	..	..	..	..	..	..	..	..	..
66. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, &c. (34)	138, 139	33	21	7	14	5	3	..	..	83
67. Diseases and Accidents of Pregnancy (36)	142-145	28	17	24	6	9	6	..	..	90
68. Abortion, without mention of Infection (36)	141	5	5	..	2	2	1	..	..	15
69. Abortion, with mention of Infection (35a)	140	11	13	7	4	3	3	..	..	41
70. Other Accidents and Diseases of Child-birth and the Puerperium (35b)	147	19	18	9	6	3	1	..	..	56
71. Other Accidents and Diseases of Child-birth and the Puerperium (36)	146, 148-150	48	19	21	19	9	7	..	2	125
72. Diseases of the Skin and Cellular Tissue (37)	151-153	23	3	2	7	2	5	..	..	42
73. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	16	5	4	3	1	2	..	..	31
74. Congenital Malformations (Stillbirths not included) (38)	157	163	99	62	25	38	11	..	..	398
75. Congenital Debility (38)	158	19	16	5	6	6	1	..	..	53
76. Premature Birth (38)	159	286	183	133	68	61	35	..	2	768
77. Injury at Birth (38)	160	88	69	39	19	12	11	1	1	240
78. Other Diseases peculiar to the First Year of Life (38)	161	80	73	37	25	9	7	..	..	231
79. Senility (39)	162	539	392	164	148	71	38	..	3	1,355
80. Suicide (40)	163, 164	89	57	31	19	12	11	..	..	219
81. Homicide (41)	165-168	13	4	13	3	4	..	..	..	37
82. Automobile Accidents (42)	170	99	69	33	9	13	8	..	..	231
83. Other Violent or Accidental Deaths (43)	169, 171-195	357	170	160	90	68	35	3	..	852
84. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
85. Legal Executions (43)	198	..	..	..	..	..	..	..	..	..
86. Ill-defined or Unspecified (44)	199, 200	25	16	23	12	..	1	..	1	78
Total Females	..	12,541	10,254	4,442	2,978	1,962	1,154	9	38	33,378

\* No. 60:—115, 116, 118, 123, 128, 129.

## C.—CAUSES OF DEATH : PERSONS, 1946.

## INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
1. Typhoid and Paratyphoid Fevers (1)	1, 2	3	2	1	..	3	..	..	..	9
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	4	3	..	..	..	..	..	..	..	7
4. Whooping Cough (4)	8	4	3	..	..	..	..	..	..	..
5. Diphtheria (5)	9	44	11	15	3	1	..	..	..	74
6. Tuberculosis of the Respiratory System (6)	10	57	17	20	8	11	6	..	..	119
7a. Tubercular Meningitis (7a)	13	818	650	303	166	163	97	1	2	2,200
7b. Other Forms of Tuberculosis (7b)	14 (a)	28	18	5	1	..	7	..	1	60
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	14(b)-22	42	43	11	15	8	14	..	..	133
9. Dysentery (14)	24	15	15	2	7	4	3	..	..	46
10. Malaria (8)	27	8	10	8	6	..	..	..	..	34
11. Syphilis (9)	28	2	2	1	2	..	..	1	..	9
12a. Influenza (Pneumonic) (8a)	30	125	103	50	26	32	8	..	..	344
12b. Influenza (Other) (8b)	33 (a)	37	34	36	3	6	3	..	1	120
13. Small-pox (11)	33 (b)	31	18	22	5	9	6	..	..	91
14. Measles (12)	34	..	..	..	..	..	..	..	..	..
15. Typhus Fever (13)	35	37	13	12	15	30	2	..	..	100
16. Diseases caused by Helminths (14)	39	2	..	4	1	1	..	..	..	8
17. Other Infectious and Parasitic Diseases (14)	40-42	9	23	3	4	3	5	..	..	47
18. Cancer of the Buccal Cavity and Pharynx (15)	..	176	107	63	27	32	20	..	..	425
19. Cancer of the Digestive Organs and Peritoneum (15)	45	137	83	47	25	29	9	..	..	330
20. Cancer of the Respiratory System (15)	46	1,699	1,425	587	386	265	148	1	5	4,516
21. Cancer of the Uterus (15)	47	219	188	72	51	49	22	1	..	602
22. Cancer of the Breast (15)	48	244	179	87	58	37	24	..	1	630
23. Cancer of other or unspecified Organs (15)	50	317	328	115	100	50	27	..	..	937
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	49, 51-55	796	635	283	200	119	67	1	2	2,103
25. Acute Rheumatic Fever (20)	56, 57	182	116	77	37	37	8	..	..	457
26. Chronic Rheumatism and Gout (17)	58	60	8	21	12	11	11	..	1	124
27. Diabetes Mellitus (18)	59, 60	42	70	23	24	10	12	1	..	182
28. Diseases of the Thyroid and Parathyroid Glands (20)	61	529	432	172	150	75	37	1	..	1,396
29. Other General Diseases (20)	62, 64-66	63	70	53	23	16	11	..	..	184
30. Avitaminoses (20)	67-71	29	28	17	18	11	6	..	1	110
31. Anæmias (20)	73	99	74	31	22	13	15	..	1	255
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	130	77	59	43	23	10	..	..	342
33. Alcoholism (acute or chronic) (19)	77	52	16	31	8	2	..	..	..	109
34. Other Chronic Poisonings (20)	78, 79	3	6	4	..	..	..	..	..	13
35. Meningitis (Non-meningococcal) (21)	81	46	21	27	10	18	6	..	..	128
36. Diseases of the Spinal Cord (21)	82	75	45	25	25	11	4	..	..	185
37. Intra-cranial Lesions of Vascular Origin (22)	83	2,948	2,138	926	751	397	245	5	9	7,419
38. Mental Diseases and Deficiency (23)	84	47	19	24	6	6	4	..	..	106
39. Epilepsy (23)	85	102	32	26	10	7	8	..	..	185
40. Other Diseases of the Nervous System (23)	80, 86, 87	181	114	66	50	17	14	..	1	443
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	20	14	9	15	2	..	..	..	60
42. Pericarditis (24)	90	8	15	8	..	5	1	..	..	37
43. Chronic Affections of the Valves and Endocardium (24)	92	513	403	207	137	73	53	..	1	1,367
44. Diseases of the Myocardium (24)	93	5,460	3,931	1,869	1,041	791	314	2	14	13,422
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	2,814	1,964	971	628	377	211	1	9	6,975
46. Other Diseases of the Heart (24)	91, 95	467	376	132	119	54	50	2	1	1,201
47. Arteriosclerosis and Gangrene (25)	97, 98	557	520	122	143	175	67	..	1	1,585
48. Other Diseases of the Circulatory System (25)	96, 99-103	171	122	96	34	55	30	2	..	510
49a. Acute Bronchitis (26a)	106 (a)(c)	62	31	32	7	6	3	..	1	142

\* No. 17:—4-7, 11, 12, 23, 25, 26, 29, 31, 32, 36-38, 43, 44.

## C.—CAUSES OF DEATH: PERSONS, 1946—continued.

## INTERMEDIATE CLASSIFICATION.

(Figures in parenthesis indicate the abridged classification number in each instance.)

Intermediate Classification.	General Classification Numbers	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aus.	Tas.	N.T.	A. C. T.	Aust.
49b. (Chronic Bronchitis (26b) ..	106 (b) (d)	162	140	79	44	29	21	..	..	475
50. Pneumonia and Broncho-Pneumonia (27) ..	107-109	1,254	1,246	520	288	321	166	2	3	3,800
51. Pleurisy (28) ..	110	37	30	12	11	17	4	..	..	106
52. Other Diseases of the Respiratory System (except Tuberculosis) (28) ..	104, 105, 111-114	274	232	149	102	79	42	1	..	879
53. Ulcer of the Stomach and Duodenum (32b) ..	117	196	167	57	46	34	20	1	..	521
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	66	72	45	20	9	2	..	..	214
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	80	46	32	22	10	10	..	..	209
56. Appendicitis (30) ..	121	138	86	62	23	23	6	..	..	338
57. Hernia, Intestinal Obstruction (32a) ..	122	266	179	102	54	48	25	..	1	675
58. Cirrhosis of the Liver (31a) ..	124	94	94	45	25	19	9	2	..	288
59. Other Diseases of the Liver and Biliary Passages including Biliary Calculi (31b) ..	125-127	145	152	70	26	30	17	..	..	440
60. Other Diseases of the Digestive System (32b) ..	*	114	99	63	40	32	22	..	..	370
61. Nephritis (33) ..	130-132	1,235	1,301	515	208	170	132	..	2	3,563
62. Other Diseases of the Kidneys and Ureters (34) ..	133	69	60	58	14	22	13	..	3	239
63. Calculi of the Urinary Passages (34) ..	134	26	27	28	3	7	..	..	1	92
64. Diseases of the Urinary Bladder (34) ..	135	8	17	13	5	7	5	..	1	56
65. Diseases of the Urethra, Urinary Abscess, etc. (34) ..	136	8	6	4	2	1	..	..	..	21
66. Diseases of the Prostate (34) ..	137	191	194	88	46	47	28	1	1	596
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, etc. (34) ..	138, 139	34	21	7	14	5	3	..	..	84
68. Diseases and Accidents of Pregnancy (36) ..	142-145	28	17	24	6	9	6	..	..	90
69. Abortion, without mention of Infection (36) ..	141	5	5	..	2	2	1	..	..	15
70. Abortion, with mention of Infection (35a) ..	140	11	13	7	4	3	3	..	..	41
71. Infection during Child-birth and the Puerperium (35) ..	147	19	18	9	6	3	1	..	..	56
72. Other Accidents and Diseases of Child-birth and the Puerperium (36) ..	146, 148-150	48	19	21	19	9	7	..	2	125
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	48	8	8	12	2	6	..	..	84
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37) ..	154-156	35	13	8	5	3	5	..	..	69
75. Congenital Malformations (Stillbirths not included) (38) ..	157	353	205	123	60	68	25	1	1	836
76. Congenital Debility (38) ..	158	43	27	15	12	9	3	..	..	109
77. Premature Birth (38) ..	159	679	391	313	150	134	81	2	5	1,755
78. Injury at Birth (38) ..	160	245	161	93	44	36	29	1	1	610
79. Other Diseases peculiar to the First Year of Life (38) ..	161	222	155	88	51	29	25	..	1	571
80. Senility (39) ..	162	1,057	706	351	261	122	56	2	3	2,558
81. Suicide (40) ..	163, 164	279	185	127	58	58	23	2	..	732
82. Homicide (41) ..	165-168	37	12	23	8	8	1	1	..	90
83. Automobile Accidents (42) ..	170	442	347	170	84	106	53	3	1	1,206
84. Other Violent or Accidental Deaths (43) ..	169, 171-195	1,031	506	523	225	196	108	14	3	2,606
85. Deaths due to Operations of War (43) ..	196-197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43) ..	198	..	..	..	1	..	1	..	..	2
87. Ill-defined or Unspecified (44) ..	199, 200	80	45	51	47	..	1	1	1	228
Total ..	..	28,579	21,534	10,648	6,461	4,753	2,549	55	82	74,661

\* No. 60:—115, 116, 118, 123, 128, 129.

## D.—CAUSES OF DEATH : PERSONS, AUSTRALIA.

## ABRIDGED CLASSIFICATION.

Abridged Classification.	General Classification Numbers.	1942.	1943.	1944.	1945.	1946.	1946— Rate per 1,000,000 Population.
1. Typhoid and Paratyphoid Fevers .. .. .	1, 2	26	46	18	11	9	1
2. Plague .. .. .	3	..	..	..	..	..	..
3. Scarlet Fever .. .. .	8	22	52	27	11	7	1
4. Whooping Cough .. .. .	9	187	203	61	84	74	10
5. Diphtheria .. .. .	10	240	277	181	183	119	16
6. Tuberculosis of the Respiratory System .. .. .	13	2,564	2,272	2,165	2,186	2,200	293
7a. Tubercular Meningitis .. .. .	14 (a)	76	82	64	65	60	8
7b. Other Tuberculous Diseases .. .. .	14b-22	178	186	158	162	133	18
8. Malaria .. .. .	28	14	21	8	10	9	1
9. Syphilis .. .. .	30	400	444	398	334	344	46
10a. Influenza—Pneumonic .. .. .	33 (a)	355	249	72	93	120	16
10b. Influenza—Other .. .. .	33 (b)	201	192	103	69	91	12
11. Small-pox .. .. .	34	..	..	..	..	..	..
12. Measles .. .. .	35	245	107	11	25	109	15
13. Typhus Fever .. .. .	39	6	12	11	14	8	1
14. Other Infective and Parasitic Diseases .. .. .	39	892	742	544	484	552	74
15. Cancer and other Malignant Tumours .. .. .	45-55	8,491	8,870	8,571	8,937	9,118	1,221
16. Non-malignant Tumours or Tumours of Undetermined Nature .. .. .	56, 57	397	456	461	421	457	61
17. Chronic Rheumatism and Gout .. .. .	59, 60	188	163	143	162	182	24
18. Diabetes Mellitus .. .. .	61	1,444	1,504	1,294	1,306	1,306	187
19. Chronic or Acute Alcoholism .. .. .	77	88	67	75	65	109	15
20. Other General Diseases .. .. .	*	1,054	1,065	1,047	1,035	1,030	138
21. Non-meningococcal Meningitis and diseases of the Spinal Cord .. .. .	81, 82	438	421	375	335	313	42
22. Intra-cranial Lesions of Vascular Origin .. .. .	83	6,750	6,721	6,755	7,071	7,419	993
23. Other Diseases of the Nervous System and Sense Organs .. .. .	80, 84-89	862	914	807	813	794	106
24. Diseases of the Heart .. .. .	90-95	21,002	21,237	20,411	21,441	23,022	3,082
25. Other Diseases of the Circulatory System .. .. .	96-103	2,022	1,974	1,958	1,907	2,095	281
26a. Acute Bronchitis .. .. .	106 (a)(c)	216	178	150	147	142	19
26b. Chronic Bronchitis .. .. .	106 (b)(d)	556	545	464	474	475	64
27. Pneumonia and Broncho-pneumonia .. .. .	107-109	4,473	4,270	3,596	3,381	3,800	509
28. Other Diseases of the Respiratory System .. .. .	*	1,069	950	966	951	985	132
29a. Diarrhoea and Enteritis (under two years of age) .. .. .	119	441	395	292	234	214	29
29b. Diarrhoea and Enteritis (two years and over) .. .. .	120	359	370	251	266	209	28
30. Appendicitis .. .. .	121	448	384	380	315	318	45
31a. Cirrhosis of the Liver .. .. .	124	298	297	256	233	288	39
31b. Other Diseases of the Liver and Biliary Calculi .. .. .	125-127	447	483	433	462	440	59
32a. Hernia, Intestinal Obstruction .. .. .	122	645	641	706	648	675	90
32b. Other Diseases of the Digestive System .. .. .	1,035	1,019	959	865	801	819	119
33. Nephritis .. .. .	130-132	3,893	3,913	3,495	3,450	3,563	477
34. Other Diseases of the Genito-urinary System .. .. .	133-139	1,351	1,269	1,143	1,059	1,088	146
35a. Post-abortive Sepsis .. .. .	140	99	114	81	52	41	6
35b. Puerperal Infection .. .. .	147	90	94	68	50	56	7
36. Other Diseases of Pregnancy, Child-birth and the Puerperium .. .. .	141-146, 148-150	302	289	288	244	230	31
37. Diseases of the Skin, Bones, etc. .. .. .	151-156	241	247	229	154	153	20
38. Congenital Debility, Malformations, Premature Birth, etc. .. .. .	157-161	3,604	3,732	3,564	3,587	3,881	520
39. Senility .. .. .	162	2,899	2,888	2,493	2,546	2,538	342
40. Suicide .. .. .	163, 164	594	516	540	567	732	98
41. Homicide .. .. .	165-168	95	75	106	77	90	12
42. Automobile Accidents .. .. .	170	961	763	751	754	1,206	161
43. Other Accidental or Violent Deaths .. .. .	169, 171-198	2,651	2,522	2,438	2,296	2,608	349
44. Unstated or Ill-defined Causes .. .. .	199, 200	282	255	224	195	228	31
Total .. .. .	..	75,191	74,486	69,596	70,231	74,661	9,997

\* No. 14:—4-7, 11, 12, 23-27, 29, 31, 32, 36-38, 40-44; No. 20:—58, 62-76, 78, 79; No. 28:—104, 105, 110-114; No. 32b:—115-118, 123, 128, 129.

NOTE.—All causes of death have been classified in accordance with the 1938 revision of the International List.

## E.—CAUSES OF DEATH: PERSONS, AUSTRALIA, NUMBER AND RATES.

## ABRIDGED CLASSIFICATION.

Abridged Classification.	General Classification Numbers.	Number of Deaths.			Average Rate per 1,000,000 of Population.		
		1931-35.	1936-40.	1941-45.	1931-35.	1936-40.	1941-45.
1. Typhoid and Paratyphoid Fevers ..	1, 2	379	231	116	12	7	3
2. Plague ..	3						
3. Scarlet Fever ..	8	331	180	137	10	5	4
4. Whooping Cough ..	9	1,186	927	766	36	27	21
5. Diphtheria ..	10	2,083	1,605	1,186	63	47	33
6. Tuberculosis of the Respiratory System ..	13	13,221	12,194	11,677	400	354	323
7a. Tubercular Meningitis ..	14 (a)	618	453	351	19	13	10
7b. Other Tuberculous Diseases ..	14 (b)-22	1,016	883	864	31	26	24
8. Malaria ..	28	97	58	58	3	2	2
9. Syphilis ..	30	1,600	1,828	2,006	48	53	55
10a. Influenza—Pneumonic ..	33 (a)	2,859	1,913	967	86	55	27
10b. Influenza—Other ..	33 (b)	1,326	819	717	40	24	20
11. Small-pox ..	34	1	1				
12. Measles ..	35	391	390	407	12	11	11
13. Typhus Fever ..	39	15	30	50	1	1	1
14. Other Infective and Parasitic Diseases ..	*	2,649	2,577	3,387	80	75	94
15. Cancer and other Malignant Tumours ..	45-55	34,825	39,477	43,347	1,053	1,145	1,198
16. Non-malignant Tumours or Tumours of Undetermined Nature ..	56, 57	1,817	2,188	2,152	55	63	59
17. Chronic Rheumatism and Gout ..	59, 60	847	835	814	26	24	23
18. Diabetes Mellitus ..	61	5,095	5,053	6,934	154	173	192
19. Chronic or Acute Alcoholism ..	77	235	331	390	7	10	11
20. Other General Diseases ..	*	5,437	5,792	5,313	164	168	147
21. Non-meningococcal Meningitis and Diseases of the Spinal Cord ..	81, 82	1,371	1,773	1,958	42	51	54
22. Intra-cranial Lesions of Vascular Origin ..	83	22,395	26,138	33,574	676	758	928
23. Other Diseases of the Nervous System and Sense Organs ..	80, 84-89	4,600	4,127	4,195	139	120	116
24. Diseases of the Heart ..	90-95	60,227	78,670	103,176	1,817	2,282	2,832
25. Other Diseases of the Circulatory System ..	96-103	7,380	10,182	9,643	223	295	267
26a. Acute Bronchitis ..	106 (a) (c)	1,078	921	892	33	27	25
26b. Chronic Bronchitis ..	106 (b) (d)	2,966	2,662	2,589	90	77	71
27. Pneumonia and Broncho-pneumonia ..	107-109	20,157	21,125	19,868	608	613	549
28. Other Diseases of the Respiratory System ..	*	5,045	5,021	5,004	152	146	138
29a. Diarrhoea and Enteritis (under two years of age) ..	119	2,043	1,855	1,752	62	54	48
29b. Diarrhoea and Enteritis (two years and over) ..	120	1,922	1,598	1,537	58	46	42
30. Appendicitis ..	121	2,680	2,041	1,974	81	77	55
31a. Cirrhosis of the Liver ..	124	1,321	1,501	1,415	40	44	39
31b. Other Diseases of the Liver and Biliary Calculi ..	125-127	2,326	2,388	2,275	70	69	63
32a. Hernia, Intestinal Obstruction ..	122	2,792	2,911	3,241	84	84	90
32b. Other Diseases of the Digestive System ..	*	4,404	4,896	4,955	133	142	137
33. Nephritis ..	130-132	17,754	19,206	18,634	536	557	515
34. Other Diseases of the Genito-urinary System ..	133-139	5,388	6,056	6,055	163	176	167
35a. Post-abortive Sepsis ..	140	761	753	452	23	22	12
35b. Puerperal Infection ..	147	466	393	393	14	11	11
36. Other Diseases of Pregnancy, Child-birth and the Puerperium ..	141-146, 148-150	1,833	1,671	1,416	56	48	39
37. Diseases of the Skin, Bones, etc. ..	151-156	1,696	1,669	1,144	51	48	32
38. Congenital Debility, Malformation, Premature Birth, etc. ..	157-161	15,909	16,498	18,290	481	478	505
39. Senility ..	162	14,021	13,757	13,312	424	399	368
40. Suicide ..	163, 164	3,983	3,780	2,841	121	110	79
41. Homicide ..	165-168	530	459	413	16	13	11
42. Automobile Accidents ..	170	4,372	6,862	4,384	132	199	121
43. Other Accidental or Violent Deaths ..	169, 171-198	11,267	12,998	12,475	340	377	345
44. Unstated or Ill-defined Causes ..	199, 200	1,542	1,224	1,184	46	35	33
<b>Total</b> ..		<b>298,262</b>	<b>332,410</b>	<b>360,680</b>	<b>9,011</b>	<b>9,641</b>	<b>9,970</b>

\* No. 14:—4-7, 11, 12, 23-27, 29, 31, 32, 36-38, 40-44; No. 20:—58, 62-76, 78, 79; No. 28:—104, 105, 110-114. No. 32b:—115-118, 123, 128, 129.

NOTE.—All causes of death have been classified in accordance with the 1938 revision of the International List.



16. Deaths from Principal Specific Causes.—(i) *General*. In the preceding tables particulars have been given for each of the causes of death comprising the Intermediate and the Abridged Classifications. The more important of these causes are treated in detail hereunder. The Intermediate Classification number is indicated in parenthesis for each cause or group of causes.

(ii) *All Forms of Tuberculosis* (6, 7).—(a) *General*. The total number of deaths in 1946 was 2,393, consisting of 1,550 males and 843 females.

(b) *Age at Death*. The following table shows the age-groups of males, females and persons who died from this disease in 1946, together with comparable figures for 1921, 1931 and 1941.

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

Age-group (Years).	1921.			1931.			1941.			1946.		
	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.
Under 5 ..	90	76	166	57	47	104	42	28	70	32	37	69
5-9 ..	30	28	58	14	14	28	12	10	22	8	6	14
10-14 ..	23	24	47	19	20	39	9	16	25	8	5	13
15-19 ..	72	100	172	45	105	150	30	52	82	22	39	61
20-24 ..	173	194	367	113	183	296	69	91	160	46	81	127
25-29 ..	232	246	478	136	199	335	63	132	195	44	116	160
30-34 ..	237	195	432	191	164	355	125	132	254	93	110	203
35-39 ..	247	178	425	187	156	343	144	111	255	103	90	193
40-44 ..	234	141	375	207	102	309	159	79	238	128	67	195
45-49 ..	223	102	325	197	83	280	180	76	256	155	64	219
50-54 ..	179	69	248	185	62	247	216	64	280	187	59	246
55-59 ..	172	65	237	164	57	221	210	52	262	199	37	236
60-64 ..	118	42	160	128	50	178	187	59	246	198	41	239
65-69 ..	79	32	111	110	38	148	137	39	176	151	42	193
70-74 ..	35	10	45	52	31	83	74	41	115	93	20	113
75-79 ..	18	7	25	27	16	43	48	18	66	54	14	68
80 and over ..	6	7	13	4	4	8	20	12	32	29	15	44
Unspecified ..	3	..	3	..	..	..	..	..	..	..	..	..
Total ..	2,171	1,516	3,687	1,836	1,331	3,167	1,725	1,009	2,734	1,550	843	2,393

(c) *Occupation at Death, Males*. A summary of the main groups of occupations of males who died from tuberculosis during 1946 is given in *Demography Bulletin*, No. 64.

(d) *Length of Residence in Australia*. The length of residence in Australia of persons who died from tuberculosis in 1946 is given in the next table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

**LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULOSIS (ALL FORMS), 1946.**

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,216	760	1,976	Resident 10-14 years ..	6	3	9
Resident under 1 year ..	1	..	1	.. 15-19 ..	17	15	32
.. 1 year ..	..	..	..	.. 20 years & over ..	242	50	282
.. 2 years ..	1	..	1	Length of residence not stated	70	13	83
.. 3 ..	1	..	1				
.. 4 ..	2	..	2				
.. 5-9 years ..	4	2	6	Total Deaths ..	1,550	843	2,393

(e) *Death-rates.* In order to show the relative incidence of tuberculosis in each State and Territory and the improvement which has taken place in recent years the death-rates from tubercular diseases for 1931, 1941 and 1946 are given in the following table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

**TUBERCULOSIS (ALL FORMS) : DEATH-RATES (a)**

State or Territory.	1931.			1941.			1946.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	53	37	45	47	24	36	40	21	31
Victoria ..	59	51	55	54	37	45	44	27	35
Queensland ..	45	28	37	40	20	30	41	17	30
South Australia ..	58	56	57	40	34	37	37	21	29
Western Australia	74	40	58	60	25	44	48	21	35
Tasmania ..	61	51	56	48	44	46	53	42	48
Northern Territory	69	..	44	27	35	29	25	..	19
Australian Capital Territory ..	21	25	23	..	15	7	28	13	21
Australia ..	55	42	49	48	29	38	42	23	33

(a) Number of deaths from tuberculosis per 100,000 of mean population.

(f) *Proportion of Total Deaths.* The following table shows the number of deaths from tuberculosis per 10,000 deaths from all causes in each State and Territory during 1911-20, 1921-30, 1931-40 and 1946. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

**TUBERCULOSIS (ALL FORMS) : PROPORTION PER 10,000 TOTAL DEATHS.**

State or Territory.	1911-20.			1921-30.			1931-40.			1946.		
	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.
N.S. Wales ..	670	625	651	599	536	572	476	378	434	361	246	311
Victoria ..	718	754	735	695	663	680	485	448	468	387	268	330
Queensland ..	559	480	529	516	406	472	413	323	377	367	205	300
South Australia	757	889	816	713	758	733	498	482	491	333	222	282
Western Aus-tralia ..	805	728	835	869	643	786	508	401	523	438	250	360
Tasmania ..	646	757	697	640	749	691	537	548	542	473	451	463
Northern Terr-itory	1,441	745	1,357	1,170	685	1,115	272	541	314	217	..	182
Australian Cap-ital Territory	323	417	364	116	349	194	217	419	293	455	263	366
Australia ..	691	684	688	644	594	622	482	410	450	375	253	320

(g) *Death-rates, Various Countries.* The following table shows the death-rates from tuberculosis for Australia and each State in comparison with the rates for various other countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time. The table indicates that Australia occupies a very favourable position as regards the death-rate from this disease.

## TUBERCULOSIS : DEATH-RATES (a), VARIOUS COUNTRIES.

Country.	Year.	Respiratory System.	All Forms	Country.	Year.	Respiratory System.	All Forms.
Union of South Africa (Europeans)	1939	27	33	Belgium ..	1936	56	72
<b>Australia (b)</b>	<b>1939</b>	<b>35</b>	<b>39</b>	Germany ..	1935	62	73
<i>Queensland (b)</i> ..	1939	29	30	Italy ..	1938	59	80
<i>New South Wales (b)</i>	1939	34	37	Switzerland ..	1939	73	95
<i>South Australia (b)</i>	1939	35	38	Norway ..	1937 <sup>c</sup>	78	98
<i>Western Australia (b)</i>	1939	39	41	Sweden ..	1939	85	103
<i>Victoria (b)</i> ..	1939	40	45	Spain ..	1935	(d)	107
<i>Tasmania (b)</i> ..	1939	43	53	Eire ..	1939	89	113
New Zealand (c) ..	1939	34	40	France ..	1934	109	126
U.S. of America ..	1939	43	47	Greece ..	1936	104	128
Denmark ..	1936	37	47	Czechoslovakia ..	1936	114	129
Netherlands ..	1936	36	50	Japan ..	1936	105	142
Canada ..	1939	44	53	Portugal ..	1939	119	144
Egypt ..	1936	45	56	Hungary ..	1939	127	152
Ceylon ..	1937	55	(d)	Poland (e) ..	1937	135	153
Great Britain and Northern Ireland	1939	53	63	Finland ..	1937	179	210
<i>England and Wales</i> ..	1939	52	62				
<i>Scotland</i> ..	1939	54	70				
<i>Northern Ireland</i>	1939	66	84				

(a) Number of deaths per 100,000 of mean population. (b) Excluding full-blood aborigines.  
 (c) Excluding Maoris. (d) Not available. (e) In towns with over 100,000 inhabitants.

(iii) *Cancer and other Malignant Tumours (18 to 23).*—(a) *General.* The number of deaths from cancer increased continuously to 6,256 in 1929, declined slightly to 6,120 in 1930, but rose again progressively to 9,118 in 1946.

(b) *Type and Seat of Disease.* Tables showing the type and seat of disease, in conjunction with age and with conjugal condition of the persons dying from cancer in 1945 and 1946, will be found in *Demography Bulletin*, Nos. 63 to 64. A summary regarding type and seat of disease for 1946 is given below. It may be pointed out that the significance of the number of deaths shown for the various types of cancer 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.



## CANCER : DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group (Years).	1921.			1931.			1941.			1946.		
	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.	Males.	Fe- males.	Per- sons.
Under 15 ..	26	23	49	25	23	48	21	25	46	25	19	44
15-19 ..	8	11	19	12	11	23	10	10	20	12	10	22
20-24 ..	6	7	13	12	14	26	15	13	28	13	17	30
25-29 ..	15	19	34	19	13	32	24	22	46	25	23	48
30-34 ..	26	45	71	26	55	81	28	45	73	30	57	87
35-39 ..	56	81	137	59	98	157	56	106	162	55	113	168
40-44 ..	81	140	221	111	173	284	92	193	285	92	150	242
45-49 ..	147	207	354	149	261	410	149	282	431	200	273	473
50-54 ..	240	263	503	261	287	548	316	403	719	310	430	740
55-59 ..	358	308	666	349	344	693	425	435	860	491	526	1,017
60-64 ..	442	349	791	519	400	919	558	491	1,049	628	584	1,212
65-69 ..	380	285	665	662	478	1,140	670	558	1,228	726	599	1,325
70-74 ..	312	234	546	609	410	1,019	753	623	1,376	738	614	1,352
75-79 ..	212	215	427	397	294	691	676	512	1,188	667	557	1,224
80-84 ..	83	89	172	187	152	339	331	330	661	371	356	727
85 and over ..	45	52	97	87	92	179	131	175	306	197	210	407
Unspecified ..	3	..	3	..	..	..	..	..	..	..	..	..
Total ..	2,440	2,328	4,768	3,484	3,105	6,589	4,255	4,223	8,478	4,580	4,538	9,118

(d) *Occupation at Death, Males.* A table showing main groups of occupations of males who died from cancer during 1946 appears in *Demography Bulletin*, No. 64.

(e) *Death-rates.* The following table shows the death-rates per 100,000 of mean population from cancer in each State for 1931, 1941 and 1946. The substantial increase in the death-rate since 1931 is reflected in both sexes and in all States. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

## CANCER : DEATH-RATES. (a)

State or Territory.	1931.			1941.			1946.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	99	95	97	116	107	112	119	117	118
Victoria ..	111	106	109	132	145	138	135	147	141
Queensland ..	105	77	92	100	97	99	116	104	110
South Australia ..	112	124	118	112	140	126	134	127	130
Western Australia	110	81	97	135	110	123	117	107	112
Tasmania ..	100	100	100	125	127	126	124	116	120
Northern Territory	69	119	87	54	35	49	50	85	58
Australian Capital Territory ..	21	51	35	25	61	41	56	54	55
Australia ..	105	97	101	119	120	119	124	123	124

(a) Number of deaths from cancer per 100,000 of mean population.

(f) *Proportion of Total Deaths.* While the death-rate from all causes has diminished substantially in recent years, the rate from cancer has risen almost continuously, the result being that out of 10,000 deaths from all causes, 1,221 were due to cancer in 1946 compared with 735 per 10,000 total deaths during the period 1911-20. The following table shows the proportions recorded in each State and Territory for 1911-20, 1921-30, 1931-40 and 1946. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

## CANCER : PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1911-20.			1921-30.			1931-40.			1946.		
	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.	Males.	Fe-males.	Per-sons.
N.S. Wales ..	674	806	729	900	1,070	973	1,060	1,271	1,152	1,072	1,350	1,194
Victoria ..	681	870	767	943	1,145	1,037	1,115	1,353	1,226	1,189	1,460	1,318
Queensland ..	611	741	661	866	1,009	922	1,066	1,138	1,095	1,041	1,227	1,118
South Australia ..	736	876	800	1,021	1,137	1,074	1,207	1,441	1,315	1,197	1,353	1,269
Western Australia ..	612	802	680	873	1,112	961	1,098	1,241	1,152	1,064	1,285	1,155
Tasmania ..	664	836	743	842	1,014	922	1,040	1,252	1,136	1,104	1,239	1,165
Northern Territory ..	335	426	346	621	137	565	645	811	671	435	1,111	545
Australian Capital Territory ..	806	625	727	233	349	271	544	898	677	909	1,053	975
Australia ..	667	826	735	912	1,091	990	1,089	1,292	1,178	1,109	1,359	1,221

(g) *Death-rates, Various Countries.* The following table shows the death-rates from cancer for Australia and each State in comparison with the rates for various other countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time.

## CANCER : DEATH-RATES (a), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon ..	1937	10	<b>Australia—continued.</b>		
Egypt ..	1936	26	<i>Tasmania(c)</i> ..	1939	114
Portugal ..	1939	47	<i>South Australia(c)</i> ..	1939	118
Japan ..	1936	48	<i>Victoria(c)</i> ..	1939	133
Greece ..	1936	50	<i>New Zealand(d)</i> ..	1939	118
Spain ..	1935	68	U.S. of America ..	1939	122
Italy ..	1938	86	Czechoslovakia ..	1936	126
France ..	1934	96	Eire ..	1939	127
Hungary ..	1939	96	Norway ..	1937	131
Finland ..	1936	100	Netherlands ..	1936	131
Poland (b) ..	1936	104	Sweden ..	1937	133
Union of South Africa (Europeans) ..	1939	105	Denmark ..	1939	143
Belgium ..	1936	110	Germany ..	1935	145
Canada ..	1939	110	Switzerland ..	1939	157
<b>Australia(c)</b> ..	<b>1939</b>	<b>116</b>	Great Britain and Northern Ireland ..	1939	161
<i>Queensland(c)</i> ..	1939	100	<i>Northern Ireland</i> ..	1939	133
<i>Western Australia(c)</i> ..	1939	105	<i>Scotland</i> ..	1939	161
<i>New South Wales(c)</i> ..	1939	113	<i>England and Wales</i> ..	1939	162

(a) Number of deaths per 100,000 of mean population. (b) In towns with over 100,000 inhabitants. (c) Excluding full-blood aboriginals. (d) Excluding Maoris.

(h) *Comparison with Tuberculosis.* In recent years the death-rate from tuberculosis has shown a tendency to decrease, while that from cancer has displayed an almost continuous increase. The table hereunder shows that for each of the periods under review the decline in the death-rate from tuberculosis has been accompanied by an almost equal increase in the rate for cancer. Thus in the forty-five years comprised in the five-yearly averages shown below the death-rate for tuberculosis declined by 57 while the rate of cancer increased by 57 per 100,000 persons. This equal but opposite tendency may be demonstrated by stating that the death-rate from tuberculosis and cancer combined remained almost constant in each period, the figures being:—1901-05, 152 deaths per 100,000 persons; 1906-10, 145; 1911-15, 152; 1916-20, 154; 1921-25, 153; 1926-30, 152; 1931-35, 150; 1936-40, 154; 1941-45, 152; and 1946, 157.

## TUBERCULOSIS AND CANCER : DEATH-RATES(a), AUSTRALIA.

Period.	Death-rate from Tuberculosis.			Death-rate from Cancer.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
1901-05 ..	100	77	89	64	61	63
1906-10 ..	81	69	75	71	70	70
1911-15 ..	84	69	77	75	74	75
1916-20 ..	84	59	71	86	80	83
1921-25 ..	71	52	62	93	88	91
1926-30 ..	64	49	57	97	94	95
1931-35 ..	52	37	45	108	102	105
1936-40 ..	47	31	39	116	113	115
1941-45 ..	45	26	36	118	131	120
1946.. ..	42	23	33	124	123	124

(a) Number of deaths per 100,000 of mean population.

(iv) *Diseases of the Heart* (42 to 46). The number of deaths in 1946 was 23,022, namely, 13,602 males and 9,420 females. Details for each individual disease of the heart may be obtained from *Demography Bulletin*, No. 64. The sex and territorial distribution of the deaths will be found in the table below. This class is the largest among causes of death, the death-rate having grown from 1,019 per million in 1911-15 to 2,705 in 1939-43 and 3,083 in 1946. The increase in the number of deaths recorded from heart diseases has been particularly pronounced during the past sixteen 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. Many deaths of elderly people, formerly attributed to senility or other indefinite causes, are believed to be now more frequently certified as associated with some form of heart disease, usually myocardial degeneration. The improvement in diagnosis has been particularly evident in the case of diseases of the coronary arteries. As a result of a change of classification adopted in 1931, all forms of this disease have been included since that year among heart diseases. Although deaths recorded from diseases of the coronary arteries were not numerically important in 1931, this type of disease has since become prominent in medical science, and in 1946 the number of deaths assigned to this cause was 6,609, an increase of 6,045, or over 970 per cent., since 1931. The number of deaths, death-rates and proportions per 10,000 deaths in 1946 are given in the following table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

## DISEASES OF THE HEART : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS, 1946.

State or Territory.	Number of Deaths.			Death-rates (a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	5,555	3,707	9,262	384	256	320	3,464	2,956	3,241
Victoria ..	3,768	2,921	6,689	380	286	333	3,340	2,819	3,106
Queensland ..	1,957	1,230	3,187	353	235	296	3,153	2,769	2,993
South Australia ..	1,097	828	1,925	353	261	306	3,150	2,780	2,979
Western Australia	833	467	1,300	328	198	265	2,984	2,380	2,735
Tasmania ..	370	259	629	297	210	254	2,652	2,244	2,468
Northern Territory	5	..	5	124	..	96	1,087	..	969
Australian Capital Territory ..	17	8	25	237	107	171	3,864	2,105	3,049
Australia ..	13,602	9,420	23,022	368	256	312	3,295	2,822	3,083

(a) Number of deaths from diseases of the heart per 100,000 of mean population.

(v) *Diarrhœa and Enteritis (Children under two years of age)* (54). The number of deaths due to these causes was 214 in 1946, which is a substantial decrease on the average of 350 for the previous five years. During 1946, 5,627 children died before reaching their second birthday, and of these 3.8 per cent., died from diarrhœa and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 776.

The number of deaths under 2 years of age due to diarrhœa and enteritis, the death-rates, and proportions per 10,000 deaths for 1911-15, 1921-25, 1931-35, 1936-40, 1941-45 and 1946 are given in the following table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63. Reference to the last five lines of the table will reveal the very satisfactory decrease in the number of deaths due to these diseases. In view of changed birth-rates, however, the death-rates per 100,000 of mean population are not true measures of changes in the force of mortality. A better measure would be the estimated number of children in every 1,000 born who died from these diseases before reaching their second birthday. The numbers are estimated to be as follows:—

Period—	1911-15	Males, 24.6	Females, 20.9	Total, 22.8
„	1921-25	„ 16.5	„ 13.3	„ 14.9
„	1931-35	„ 3.7	„ 2.8	„ 3.3
„	1936-40	„ 3.4	„ 2.7	„ 3.0
„	1941-45	„ 2.7	„ 2.1	„ 2.4

**DIARRHŒA AND ENTERITIS (UNDER 2 YEARS OF AGE) : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.**

State or Territory.	Number of Deaths.			Death-rates.(a)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	34	32	66	2	2	2	21	26	23
Victoria ..	43	29	72	4	3	4	38	28	33
Queensland ..	27	18	45	5	3	4	43	40	42
South Australia ..	14	6	20	5	2	3	40	20	31
Western Australia	5	4	9	2	2	2	18	20	19
Tasmania ..	1	1	2	1	1	1	7	9	8
Northern Territory	..	..	..	..	..	..	..	..	..
Australian Capital Territory	..	..	..	..	..	..	..	..	..
Australia 1946 ..	124	90	214	3	3	3	30	27	29
Annual Average—									
1911-15 ..	1,687	1,354	3,041	68	59	64	569	627	593
1921-25 ..	1,114	859	1,973	38	31	35	362	366	364
1931-35 ..	234	175	409	7	5	6	70	68	69
1936-40 ..	212	159	371	6	5	5	57	54	56
1941-45 ..	200	150	350	5	4	5	51	46	49

(a) Number of deaths from these diseases per 100,000 of mean population.



(vi) *Puerperal Causes* (68 to 72). The 327 deaths in 1946 from puerperal causes correspond to a death-rate of 9.0 per 100,000 females. The rate is also equivalent to 1.85 deaths per 1,000 live births. The death-rate may be expressed in other terms by stating that 1 of every 533 women giving birth to a live child in 1946 died from puerperal causes; the corresponding ratios for married women were 1 of every 551, and for single women 1 in every 315. More detailed information will be found in a series of tables in *Demography Bulletin*, No. 64.

The following table shows the death-rate per 1,000 live births from puerperal causes in various countries. Care is needed in comparing the Australian rates with the figures for other countries. In the rates for the States and Australia deaths from criminal abortion have been excluded from puerperal infection but included with deaths from other puerperal causes and in the total. Definite information is not available as to the practice in other countries but it is very probable that the rates for many of the countries given hereunder totally exclude deaths from criminal abortion.

## CHILD-BIRTH : DEATHS PER 1,000 LIVE BIRTHS, VARIOUS COUNTRIES.

Country.	Year.	Rates per 1,000 Live Births from—		
		Puerperal Infection.	Other Puerperal Causes.	All Puerperal Causes.
Sweden .. .. .	1944	0.36	1.20	1.56
<b>Australia (a)</b> .. .. .	<b>1946</b>	<b>0.41</b>	<b>1.44</b>	<b>1.85</b>
<i>Victoria (a)</i> .. .. .	1946	0.47	1.07	1.54
<i>New South Wales (a)</i> .. .. .	1946	0.31	1.34	1.65
<i>Western Australia (a)</i> .. .. .	1946	0.25	1.90	2.15
<i>Queensland (a)</i> .. .. .	1946	0.59	1.67	2.26
<i>South Australia (a)</i> .. .. .	1946	0.51	1.83	2.34
<i>Tasmania (a)</i> .. .. .	1946	0.44	2.19	2.63
Great Britain and Northern Ireland .. .. .	1945	0.55	1.44	1.99
<i>England and Wales</i> .. .. .	1945	0.50	1.35	1.85
<i>Northern Ireland</i> .. .. .	1945	0.66	2.03	2.69
<i>Scotland</i> .. .. .	1945	0.92	1.94	2.86
Denmark .. .. .	1945	0.51	1.56	2.07
New Zealand (b) .. .. .	1943	1.05	1.16	2.21
Switzerland .. .. .	1945	0.46	1.81	2.27
United States of America .. .. .	1944	0.81	1.47	2.28
Canada .. .. .	1945	0.80	1.49	2.29
Japan .. .. .	1936	0.64	1.67	2.31
Italy .. .. .	1938	0.83	1.60	2.43
Union of South Africa (Europeans) .. .. .	1941	0.84	1.65	2.49
France .. .. .	1934	1.00	1.50	2.50
Norway .. .. .	1937	1.18	1.65	2.83
Belgium .. .. .	1946	1.60	3.00	2.89
Netherlands .. .. .	1936	0.99	2.04	3.03
Spain .. .. .	1935	2.00	1.40	3.40
Egypt (c) .. .. .	1943	0.59	2.89	3.48
Hungary .. .. .	1939	2.11	1.72	3.83
Eire .. .. .	1938	0.81	3.30	4.11
Greece .. .. .	1936	2.20	2.00	4.20
Portugal .. .. .	1939	1.95	2.33	4.28
Germany .. .. .	1935	1.99	2.86	4.85
Czechoslovakia .. .. .	1936	2.88	2.03	4.91

(a) Excluding full-blood aboriginals.  
Bureaux.

(b) Excluding Maoria.

(c) Localities having Health

A tabulation of puerperal causes for Australia according to age at death for married and single women separately will also be found in *Demography Bulletin*, No. 64.

The total number of children left by the 303 married mothers who died from puerperal causes in 1946 was 658, an average of 2.2 children per mother.

Thirteen of the mothers who died had been married less than one year, 38 between one and two years, and 28 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. 64, which also includes a table showing in combination the duration of marriage and previous issue.

(vii) *Congenital Malformation, Debility, Premature Birth, etc.* (75 to 79). The deaths under this heading in 1946 numbered 3,881 of which 3,753 were of children under one year of age. Of all deaths of children under one year of age 73 per cent. were due to these causes. The number of deaths for 1946 is given in the following table. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

#### DEATHS FROM CONGENITAL MALFORMATION, DEBILITY, ETC., 1946.

State or Territory.	Congenital Malformation.			Premature Birth and Injury at Birth.			Congenital Debility and other Diseases peculiar to the First Year of Life.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	190	163	353	550	374	924	166	99	265
Victoria ..	106	99	205	300	252	552	93	89	182
Queensland ..	61	62	123	234	172	406	61	42	103
South Australia ..	35	25	60	107	87	194	32	31	63
Western Australia	30	38	68	97	73	170	23	15	38
Tasmania ..	14	11	25	64	46	110	20	8	28
Northern Territory	1	..	1	2	1	3	..	..	..
Australian Capital Territory ..	1	..	1	3	3	6	1	..	1
Australia ..	438	398	836	1,357	1,008	2,365	396	284	680
Number of deaths under one year	379	329	708	1,357	1,008	2,365	396	284	680
Number of deaths under one year per 1,000 births	4.21	3.87	4.02	15.08	11.87	13.41	4.40	3.33	3.85

(viii) *Suicide* (81).—(a) *General*. Deaths from suicide in 1946 numbered 732, compared with an annual average of 624 during 1911-15, 621 during 1921-25, 798 during 1931-35 and 568 during 1941-45.

(b) *Modes Adopted.* The modes adopted by persons who committed suicide in 1945 and 1946 were as follows:—

**SUICIDE : MODES ADOPTED, AUSTRALIA.**

Mode of Death.	Males.		Females.		Persons.	
	1945	1946.	1945.	1946.	1945.	1946.
Poisoning .. .. .	69	90	60	70	129	160
Poisonous gas .. .. .	37	42	23	42	60	84
Hanging or strangulation .. .. .	71	86	20	28	91	114
Drowning .. .. .	23	47	35	36	58	83
Firearms and explosives .. .. .	112	160	12	14	124	174
Cutting or piercing instruments .. .. .	52	59	9	11	61	70
Jumping from high places .. .. .	14	11	5	8	19	19
Crushing .. .. .	2	1	1	..	3	1
Other modes .. .. .	14	17	8	10	22	27
Total .. .. .	394	513	173	219	567	732

(c) *Death-rates.* The death-rates from suicide and the proportion per 10,000 of total deaths are given in the following table for each year 1942 to 1946, corresponding rates for the periods 1911-15, 1921-25, 1931-35 and 1941-45, being shown at the foot of the table:—

**SUICIDE : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS.**

State or Territory.	Number of Deaths.			Death-rates.(a)			b. Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	190	89	279	13	6	10	119	71	98
Victoria .. .. .	128	57	185	13	6	9	113	55	86
Queensland .. .. .	96	31	127	17	6	12	155	70	119
South Australia .. .. .	39	19	58	13	6	9	112	64	90
Western Australia	46	12	58	18	5	12	165	61	122
Tasmania .. .. .	12	11	23	10	9	9	86	95	90
Northern Territory	2	..	2	50	..	38	435	..	364
Australian Capital Territory .. .. .	..	..	..	..	..	..	..	..	..
Australia 1946 .. .. .	513	219	732	14	6	10	124	66	98
„ 1945 .. .. .	394	173	567	11	5	8	103	54	81
„ 1944 .. .. .	362	178	540	10	5	7	96	56	78
„ 1943 .. .. .	376	140	516	10	4	7	92	42	69
„ 1942 .. .. .	432	162	594	12	5	8	104	48	79
Annual Average—									
1941-45 .. .. .	405	163	568	11	5	8	102	50	79
1931-35 .. .. .	635	163	798	19	5	12	190	62	134
1921-25 .. .. .	509	112	621	18	4	11	166	48	114
1911-15 .. .. .	509	115	624	21	5	13	172	53	122

(a) Number of deaths from suicide per 100,000 of mean population.

(d) *Age at Death.* From the following table which shows the age of persons who committed suicide in 1945 and 1946 it will be seen that both young and extremely old people took their lives during these years.

## AGE OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA.

Group-age (Years).	1945.			1946.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
10-14 .. ..	2	..	2	3	..	3
15-19 .. ..	10	5	15	12	1	13
20-24 .. ..	23	5	28	19	8	27
25-29 .. ..	15	12	27	29	9	38
30-34 .. ..	26	19	45	43	18	61
35-39 .. ..	24	15	39	32	15	47
40-44 .. ..	34	11	45	42	26	68
45-49 .. ..	52	23	75	44	27	71
50-54 .. ..	37	22	59	56	23	79
55-59 .. ..	43	21	64	67	29	96
60-64 .. ..	39	22	61	50	20	70
65-69 .. ..	29	10	39	46	13	59
70-74 .. ..	25	3	28	32	10	42
75-79 .. ..	19	3	22	26	10	36
80-84 .. ..	14	1	15	9	5	14
85-89 .. ..	2	1	3	2	4	6
90 and over .. ..	..	..	..	1	1	2
Total Deaths ..	394	173	567	513	219	732

(e) *Occupation at Death, Males.* A table showing main groups of occupations of males who committed suicide during 1946 appears in *Demography Bulletin*, No. 64.

(f) *Death-rates, Various Countries.* The following table shows the death-rate from suicide for Australia and each State in comparison with the rates for various other countries. Figures for years later than 1939 are not given as they are based on population estimates whose comparability is open to doubt because of the abnormal distribution of population during war-time. The table indicates that Australia occupies a fairly favourable position as regards the death-rate from suicide.

## SUICIDE : DEATH-RATES (a), VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Egypt .. ..	1936	2.0	New Zealand (d) ..	1939	11.7
Eire .. ..	1939	2.7	Portugal .. ..	1939	12.9
Spain .. ..	1935	3.9	U.S. of America ..	1939	14.2
Greece .. ..	1936	5.7	Japan .. ..	1936	15.1
Norway .. ..	1937	6.9	Sweden .. ..	1937	15.6
Italy .. ..	1938	7.2	Finland .. ..	1936	16.2
Netherlands ..	1936	8.1	Belgium .. ..	1935	16.8
Canada .. ..	1939	8.7	Denmark .. ..	1935	19.4
<b>Australia (b) ..</b>	<b>1939</b>	<b>11.2</b>	France .. ..	1934	21.4
Victoria (b) ..	1939	7.7	Poland (e) .. ..	1936	22.0
Tasmania (b) ..	1939	8.4	Switzerland .. ..	1939	23.8
South Australia (b) ..	1939	10.9	Hungary .. ..	1939	26.0
New South Wales (b) ..	1939	12.0	Germany .. ..	1935	27.5
Queensland (b) ..	1939	14.4	Czechoslovakia ..	1936	27.8
Western Australia (b) ..	1939	15.3			
Union of South Africa (c) ..	1939	11.3			
Great Britain and Northern Ireland ..	1939	11.6			
Northern Ireland ..	1939	5.2			
Scotland .. ..	1939	9.0			
England and Wales ..	1939	12.2			

(a) Number of deaths per 100,000 of mean population. (b) Excluding full-blood aboriginals.  
(c) European population only. (d) Excluding Maoris. (e) In towns with over 100,000 inhabitants.

(ix) *Homicide (82).* Deaths from homicide in 1946 numbered 90, which was 23 more than the previous year and 7 more than the average for the five years 1941 to 1945, namely, 83. See par. (xvii).

(x) *Accidental or Violent Deaths (including Suicide and Homicide)*. The following table shows the various kinds of violent deaths, including suicides and homicides, recorded in Australia for 1946. Corresponding figures for 1945 may be obtained from *Demography Bulletin*, No. 63.

## DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1946.

Cause of Death.	Males.	Females.	Persons
Suicide (see par. (viii)) .. .. .	513	219	732
Infanticide (murder of infants under 1 year) ..	2	5	7
Homicide by firearms .. .. .	18	10	28
Homicide by cutting or piercing instruments ..	11	9	20
Homicide by other or unspecified means .. ..	22	13	35
<b>Total Homicide .. .. .</b>	<b>53</b>	<b>37</b>	<b>90</b>
Accidents on railways .. .. .	164	20	184
Automobile accidents—			
Collisions with trains .. .. .	13	1	14
Collisions with trams .. .. .	12	5	17
Other automobile accidents .. .. .	836	207	1,043
Motor cycle accidents (a) .. .. .	114	18	132
Other road transport accidents—			
Tramway accidents (on roads) .. .. .	52	14	66
Other road transport accidents .. .. .	60	10	70
Water transport accidents .. .. .	11	..	11
Air transport accidents .. .. .	19	13	32
Accidents in mines and quarries .. .. .	43	..	43
Agricultural and forestry accidents—			
Accidents from farm machinery and vehicles ..	35	..	35
Injury by animals .. .. .	16	1	17
Other agricultural and forestry accidents ..	39	..	39
Accidents caused by machinery (n.e.i.) .. ..	35	1	36
Food poisoning .. .. .	3	2	5
Accidental absorption of poisonous gases .. ..	17	5	22
Other acute accidental poisoning (not by gas) ..	24	21	45
Conflagration .. .. .	15	5	20
Accidental burns (conflagration excepted) ..	70	73	143
Accidental mechanical suffocation .. .. .	44	22	66
Accidental drowning .. .. .	291	73	364
Accidental injury by firearms .. .. .	66	7	73
Accidental injury by cutting or piercing instruments	11	1	12
Accidental injury by fall, crushing, landslide, etc.—			
Fall, not otherwise specified .. .. .	437	485	922
Other crushings .. .. .	22	2	24
Injuries by animals (n.e.i.) .. .. .	7	2	9
Hunger or thirst .. .. .	2	..	2
Excessive cold .. .. .	2	..	2
Excessive heat .. .. .	30	22	52
Lightning .. .. .	1	..	1
Electricity (lightning excepted) .. .. .	41	4	45
Attack by venomous animals—			
Snakebite .. .. .	4	1	5
Other .. .. .	1	..	1
Other accidents—			
Vaccinia and other sequelæ of vaccination ..	..	1	1
Other accidents due to medical or surgical inter-			
vention .. .. .	14	15	29
Lack of care of the new-born .. .. .	6	3	9
Other and unspecified accidents .. .. .	172	49	221
Legal executions .. .. .	2	..	2
<b>External Violence, excluding Suicide and Homicide</b>	<b>2,731</b>	<b>1,083</b>	<b>3,814</b>
<b>Total Deaths from External Violence .. ..</b>	<b>3,297</b>	<b>1,339</b>	<b>4,636</b>

(a) Other than collisions with trains, trams or motor-cars.

The following table of death-rates per million of mean population reveals a decrease in 1921-25 for External Violence, excluding Suicide and Homicide, but an increase in the rates for 1926-30 to which the growth of automobile accidents contributed very largely. A decreased death-rate was recorded during 1931-35, but the rate rose again during 1936-40. The sharp decline during 1941-45 may be attributed to the decrease in number of automobile accidents which resulted from the war-time restrictions of travel.

## DEATH-RATES, ETC., EXTERNAL VIOLENCE : AUSTRALIA.

Period.	Death-rates(a) from Homicide.			Death-rates(a) from External Violence, excluding Suicide and Homicide.			Death-rates(a) from all External Violence.			All External Violence Pro-portion per 10,000 Deaths.
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	
1911-15 ..	21	16	19	948	268	621	1,170	330	770	718
1921-25 ..	17	13	15	753	211	487	950	260	610	643
1926-30 ..	19	15	17	843	240	549	1,070	300	690	746
1931-35 ..	21	11	16	714	223	472	923	284	609	676
1936-40 ..	18	9	13	862	283	576	1,069	342	699	725
1941-45 ..	14	9	11	670	261	466	795	315	557	558
1941 ..	8	9	8	782	262	525	919	317	621	619
1942 ..	17	10	13	735	269	504	872	324	600	572
1943 ..	14	7	10	647	260	454	764	306	536	520
1944 ..	17	12	15	613	258	436	729	319	525	551
1945 ..	14	7	11	571	255	413	692	309	501	526
1946 ..	14	10	12	728	289	510	881	359	621	621

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

(xi) "Other Diseases". The intermediate and the abridged classifications of causes of death used in Tables A to E in the preceding pages differ from those used in issues of the Official Year Book previous to No. 25 in that no residue of "other diseases" is shown at the foot. The items are ranged in classes or groups of classes and each class or group of classes is made complete by the addition of an "other diseases" item for that class or group of classes. These "other diseases" items of the intermediate classification are expanded into their constituent causes in the following table :-

## F.—DEATHS FROM "OTHER DISEASES" : AUSTRALIA, 1946.

Causes.	General Classification Number.	Males.	Females.	Persons.
<b>17. OTHER INFECTIVE AND PARASITIC DISEASES.</b>				
Cerebro-spinal meningococcal meningitis .. ..	6	42	32	74
Malignant pustule and anthrax .. ..	7	1	..	1
Erysipelas .. ..	11	3	3	6
Tetanus .. ..	12	55	16	71
Leprosy .. ..	23	2	2	4
Gonococcal infections .. ..	25	2	..	2
Relapsing fever .. ..	31	1	..	1
Other diseases due to spirochaetes .. ..	32	12	10	22
Acute poliomyelitis and polioencephalitis .. ..	36	62	37	99
Acute lethargic encephalitis .. ..	37a	1	..	1
Sequelæ of encephalitis lethargica .. ..	37b	5	4	9
Unspecified encephalitis lethargica .. ..	37c	6	7	13
Herpes zoster .. ..	38c	1	4	5
German measles .. ..	38d	3	..	3
Chicken pox .. ..	38e	3	1	4
Other diseases due to viruses .. ..	38f	..	..	..
Mycoses .. ..	43	7	2	9
Veneral diseases other than syphilis and gonorrhœa .. ..	44a	1	1	2
Pernicious lymphogranulomatosis .. ..	44b	52	32	84
Mumps .. ..	44c	4	11	15
Other infective and parasitic diseases .. ..	44d	..	..	..
<b>Total .. ..</b>	..	<b>263</b>	<b>162</b>	<b>425</b>

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1946—*continued.*

Causes.	General Classification Number.	Males.	Females	Persons.
<b>29. OTHER GENERAL DISEASES.</b>				
Diseases of the pituitary gland .. .. .	62	8	8	16
Diseases of the thymus (including status lymphaticus) ..	64	10	11	21
Diseases of the adrenal glands .. .. .	65	15	19	34
Osteomalacia .. .. .	66 <i>a</i>	..	2	2
"Pink" disease .. .. .	66 <i>b</i>	11	4	15
Other general diseases .. .. .	66 <i>c</i>	10	12	22
Total .. .. .	..	54	56	110
<b>34. OTHER CHRONIC POISONING.</b>				
Lead poisoning—				
(a) Specified as occupational .. .. .	78 <i>a</i>	2	..	2
(b) Not specified as occupational .. .. .	78 <i>b</i>	3	2	5
Chronic poisoning by other substances—				
(a) Occupational poisoning .. .. .	79 <i>a</i>	..	..	..
(b) Other poisoning .. .. .	79 <i>b</i>	5	1	6
Total .. .. .	..	10	3	13
<b>40. OTHER DISEASES OF THE NERVOUS SYSTEM.</b>				
Encephalitis (non-epidemic)—				
Intra-cranial abscess .. .. .	80 <i>a</i>	12	13	25
Other forms .. .. .	80 <i>b</i>	26	31	57
Convulsions in children under five years of age .. .. .	86	15	10	25
Other diseases of the nervous system—				
Chorea .. .. .	87 <i>a</i>	2	2	4
Neuritis .. .. .	87 <i>b</i>	5	..	5
Paralysis agitans .. .. .	87 <i>c</i>	105	82	187
Disseminate sclerosis .. .. .	87 <i>d</i>	49	33	82
Others .. .. .	87 <i>e</i>	32	26	58
Total .. .. .	..	246	197	443
<b>48. OTHER DISEASES OF THE CIRCULATORY SYSTEM.</b>				
Aneurysm (other than heart and aorta) .. .. .	96	54	49	103
Other diseases of the arteries .. .. .	99	51	38	89
Varices .. .. .	100 <i>a</i>	1	6	7
Other diseases of the veins .. .. .	100 <i>b</i>	9	15	24
Diseases of the lymphatic system (lymphangitis, etc.) ..	101	3	4	7
High blood pressure (idiopathic) .. .. .	102	129	143	272
Other diseases of the circulatory system .. .. .	103	6	2	8
Total .. .. .	..	253	257	510

F.—DEATHS FROM "OTHER DISEASES": AUSTRALIA, 1946—*continued.*

Causes.	General Classification Number.	Males.	Females.	Persons.
<b>52. OTHER DISEASES OF THE RESPIRATORY SYSTEM (EXCEPT TUBERCULOSIS).</b>				
Diseases of the nasal fossæ and annexa .. .. .	104	8	8	16
Diseases of the larynx .. .. .	105	18	15	33
Congestion, œdema, embolism, hæmorrhagic infarction and thrombosis of the lungs .. .. .	111	216	272	488
Asthma .. .. .	112	80	69	149
Pulmonary emphysema .. .. .	113	19	2	21
Other diseases of the respiratory system (except tuberculosis)—				
Silicosis and other occupational respiratory diseases	114a	69	1	70
Gangrene of the lung .. .. .	114b	8	2	10
Abscess of the lung .. .. .	114c	20	6	26
Chronic interstitial pneumonia other than occupational .. .. .	114d	20	3	23
Other diseases of the respiratory system not specified as occupational .. .. .	114e	29	14	43
<b>Total .. .. .</b>	<b>..</b>	<b>487</b>	<b>392</b>	<b>879</b>
<b>60. OTHER DISEASES OF THE DIGESTIVE SYSTEM.</b>				
Diseases of the buccal cavity and annexa, etc.—				
Diseases of pharynx and tonsils .. .. .	115a	34	22	56
Other diseases .. .. .	115b	9	4	13
Diseases of the œsophagus .. .. .	116	9	10	19
Other diseases of the stomach (cancer excepted) .. .. .	118	32	21	53
Other diseases of the intestines .. .. .	123	50	48	98
Diseases of the pancreas .. .. .	128	37	35	72
Peritonitis without stated cause .. .. .	129	34	25	59
<b>Total .. .. .</b>	<b>..</b>	<b>205</b>	<b>165</b>	<b>370</b>
<b>72. OTHER ACCIDENTS AND DISEASES OF CHILD-BIRTH AND THE PUERPERIUM.</b>				
Hæmorrhage of child-birth and the puerperium .. .. .	146	..	41	41
Puerperal toxæmias—				
Puerperal eclampsia .. .. .	148a	..	22	22
Puerperal albuminuria and nephritis .. .. .	148b	..	9	9
Acute yellow atrophy of the liver (post-partum) .. .. .	148c	..	3	3
Other puerperal toxæmias .. .. .	148d	..	11	11
Laceration, rupture or other trauma of pelvic organs and tissue .. .. .	149a	..	5	5
Other accidents of child-birth .. .. .	149b	..	24	24
Other or unspecified diseases of child-birth and the puerperium—				
Puerperal diseases of the breast .. .. .	150a	..	..	..
Other diseases .. .. .	150b	..	10	10
<b>Total .. .. .</b>	<b>..</b>	<b>..</b>	<b>125</b>	<b>125</b>

17. Causes of Deaths in Classes.—The figures in the preceding sub-sections relate to specific causes of death, and are of greater value in medical statistics than a mere grouping under general headings. The classification under eighteen general headings adopted by the compilers of the International Nomenclature is, however, shown in the



following table for 1946, together with the death-rates and proportions of total deaths pertaining to those classes. A further table furnishes the death-rates for the five-year periods 1921-25, 1931-35 and 1941-45. Figures for 1945 corresponding to the first table may be obtained from *Demography Bulletin*, No. 63.

## DEATHS, DEATH-RATES, ETC., IN CLASSES : AUSTRALIA, 1946.

Class.	Total Deaths.			Death-rates.(a)			Proportion per 10,000 Deaths.		
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.
1. Infective and Parasitic Diseases	2,437	1,398	3,835	65	37	51	590	419	514
2. Cancer and Other Tumours	4,793	4,782	9,575	128	128	128	1,101	1,433	1,282
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases	691	1,307	1,998	19	35	27	167	392	268
4. Diseases of the Blood and Blood-forming Organs	265	332	597	7	9	8	64	99	80
5. Chronic Poisoning and Intoxication	101	21	122	3	1	2	25	6	16
6. Diseases of the Nervous System and Sense Organs	3,843	4,683	8,526	103	126	114	931	1,403	1,142
7. Diseases of the Circulatory System	14,722	10,395	25,117	393	279	337	3,566	3,114	3,364
8. Diseases of the Respiratory System	3,066	2,396	5,462	80	64	72	728	718	723
9. Diseases of the Digestive System	1,741	1,314	3,055	46	35	41	422	394	409
10. Diseases of the Genito-urinary System	2,763	1,888	4,651	74	51	62	609	566	623
11. Diseases of Pregnancy, Child-birth and Puerperal State	..	327	327	..	9	5	..	98	44
12. Diseases of the Skin and Cellular Tissue	42	42	84	1	1	1	10	13	11
13. Diseases of the Bones and Organs of Movement	38	31	69	1	1	1	9	9	9
14. Congenital Malformations	438	398	836	12	11	11	106	119	112
15. Diseases Peculiar to the First Year of Life	1,753	1,292	3,045	47	35	41	425	387	408
16. Senility, Old-age	1,203	1,355	2,558	32	36	34	292	406	343
17. Violent or Accidental Deaths	3,297	1,339	4,636	88	36	62	799	401	621
18. Ill-defined Causes of Death	150	78	228	4	2	3	36	23	31
<b>Total</b>	<b>41,283</b>	<b>33,378</b>	<b>74,661</b>	<b>1,103</b>	<b>896</b>	<b>1,000</b>	<b>10,000</b>	<b>10,000</b>	<b>10,000</b>

(a) Number of deaths per 100,000 of mean population.

## DEATH-RATES(a) IN CLASSES : AUSTRALIA.

Class.	1921-25.			1931-35.			1941-45.					
	M.	F.	Total.	M.	F.	Total.	M.	F.	Total.			
1. Infective and Parasitic Diseases	} 248	} 222	} 236	92	70	81	77	48	63			
2. Cancer and Other Tumours				113	108	110	123	128	126			
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases				18	33	25	19	37	28			
4. Diseases of the Blood and Blood-forming Organs				9	9	9	7	8	8			
5. Chronic Poisoning and Intoxication				2	..	1	2	1	1			
6. Diseases of the Nervous System and Sense Organs				93	83	88	66	67	67	98	122	110
7. Diseases of the Circulatory System				150	118	134	249	200	225	354	260	312
8. Diseases of the Respiratory System				121	88	105	101	75	88	89	68	78
9. Diseases of the Digestive System				97	81	89	60	46	53	55	40	47
10. Diseases of the Genito-urinary System				72	49	60	81	59	70	81	55	68
11. Diseases of Pregnancy, Child-birth and Puerperal State				..	25	12	..	19	9	..	13	6
12. Diseases of the Skin and Cellular Tissue				6	4	5	3	3	3	2	2	2
13. Diseases of the Bones and Organs of Movement				3	2	2	3	1	2	2	1	1
14. Congenital Malformations				12	10	11	11	8	10	11	10	11
15. Diseases Peculiar to the First Year of Life				73	56	65	44	34	39	46	34	40
16. Senility, Old-age				76	68	72	42	42	42	38	36	37
17. Violent or Accidental Deaths				95	26	61	92	28	61	79	31	56
18. Ill-defined Causes of Death				15	9	12	7	2	5	5	2	3
<b>Total</b>	<b>1,061</b>	<b>841</b>	<b>952</b>	<b>993</b>	<b>804</b>	<b>900</b>	<b>1,088</b>	<b>905</b>	<b>997</b>			

(a) Number of deaths per 100,000 of mean population.

18. Age at Death of Married Males and Females, and Issue.—*Demography Bulletin*, No. 64, contains a number of tables showing, in combination with the issue, the age at marriage, age at death and occupation of married persons who died in Australia in 1946. Deaths of married males in 1946 numbered 28,937, and of married females, 25,193. The tabulations which follow deal, however, with only 28,530 males and 24,989 females, the information regarding issue in the remaining 615 cases being incomplete. The total number of children in the families of the 28,530 males was 104,566, and of the 24,989 females, 98,911. The average number of children is shown for various age-groups in the following table:—

**AGE AT DEATH, AND AVERAGE ISSUE OF MARRIED MALES AND FEMALES : AUSTRALIA.**

Age-group (Years).	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1946.	1911.	1921.	1931.	1941.	1946.
Under 20 ..	0.33	..	0.75	..	1.00	0.94	0.77	0.66	0.79	0.44
20-24 ..	0.77	0.84	0.81	0.73	0.68	1.27	1.22	1.13	0.95	0.83
25-29 ..	1.25	1.29	1.33	1.12	1.23	1.82	1.86	1.81	1.45	1.43
30-34 ..	2.05	2.06	1.79	1.76	1.76	2.74	2.45	2.34	1.91	1.91
35-39 ..	2.80	2.58	2.13	2.11	2.08	3.64	3.29	2.89	2.30	2.13
40-44 ..	3.47	3.23	2.77	2.49	2.39	4.09	3.66	3.29	2.77	2.57
45-49 ..	4.09	3.48	3.10	2.68	2.49	4.54	3.76	3.55	2.93	2.77
50-54 ..	4.75	3.76	3.46	2.96	2.70	5.35	4.23	3.60	3.29	3.04
55-59 ..	5.44	4.41	3.69	3.28	3.10	5.86	4.69	4.01	3.55	3.30
60-64 ..	5.95	4.98	4.02	3.55	3.24	5.99	5.39	4.21	3.79	3.64
65-69 ..	6.23	5.50	4.41	3.73	3.55	6.50	5.86	4.82	4.01	3.75
70-74 ..	6.41	6.06	5.06	4.17	3.85	6.38	6.30	5.41	4.29	4.00
75-79 ..	6.75	6.66	5.65	4.56	4.17	6.72	6.56	6.02	4.85	4.34
80-84 ..	6.68	6.89	6.17	4.93	4.61	6.22	6.76	6.26	5.39	4.76
85-89 ..	6.67	7.18	6.59	5.70	5.17	5.97	6.93	6.57	5.85	5.48
90-94 ..	6.03	7.21	6.94	6.57	5.77	5.69	6.53	6.73	6.11	5.70
95-99 ..	7.30	6.97	6.69	7.04	5.92	5.05	6.05	7.10	6.34	5.94
100 and over	9.33	9.20	7.00	8.69	5.33	5.17	5.11	8.20	6.73	5.21
Age not stated	4.33	5.36	5.00	..	..	4.60	5.80	5.00	..	..
All Ages ..	5.42	4.97	4.44	3.91	3.67	5.35	5.05	4.72	4.22	3.96

The figures in the preceding table include the issue both living and dead, the proportion between them, taking the issue of deceased males and females together, being about 1,000 to 216. The totals are shown in the following table:—

**ISSUE OF DECEASED MARRIED MALES AND FEMALES : AUSTRALIA, 1946.**

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	44,429	44,031	88,460	Living ..	39,353	39,970	79,323
Dead ..	9,406	6,700	16,106	Dead ..	11,280	8,808	19,588
Total ..	53,835	50,731	104,566	Total ..	50,633	48,278	98,911

19. 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-group (Years).	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1946.	1911.	1921.	1931.	1941.	1946.
Under 15 ..	..	..	..	..	..	9.71	7.60	6.36	7.80	5.50
15-19 ..	6.97	6.32	6.15	5.40	5.20	7.10	6.97	6.79	6.10	5.88
20-24 ..	6.34	6.05	5.56	4.89	4.65	5.77	5.50	5.23	4.80	4.53
25-29 ..	5.70	5.17	4.70	4.21	3.87	4.27	4.09	3.79	3.51	3.30
30-34 ..	4.92	4.45	3.96	3.41	3.22	3.04	2.66	2.42	2.35	2.25
35-39 ..	4.05	3.90	3.14	2.80	2.66	1.68	1.61	1.40	1.26	1.22
40-44 ..	3.43	2.67	2.36	2.01	1.96	0.72	0.62	0.39	0.35	0.49
45-49 ..	2.59	2.20	1.96	1.52	1.50	0.26	0.03	0.12	0.01	0.17
50-54 ..	2.45	1.70	1.60	1.05	1.16	..	..	..	..	..
55-59 ..	1.66	1.30	0.95	0.79	0.75	..	..	..	..	..
60-64 ..	2.00	0.33	0.63	0.29	0.66	..	..	..	..	..
65 and over ..	1.00	0.25	0.18	0.01	0.90	..	..	..	..	..
Age unspecified	5.40	4.93	3.64	2.95	2.76	5.23	5.41	3.96	2.45	2.59
All Ages ..	5.42	4.97	4.44	3.91	3.67	5.35	5.05	4.72	4.22	3.96

20. *Birthplace of Deceased Married Males and Females, and Issue.*—A table showing the birthplaces of married males and females who died in 1911 and 1940, together with the average issue, may be found in the Official Year Book, No. 34, p. 366.

21. *Occupation of Deceased Married Males and Issue.*—A summary of the main groups of occupations of married males who died during 1946 appears in *Demography Bulletin*, No. 64.

**§ 4. Registration of Births, Deaths and Marriages in the Australian Capital Territory.**

To the end of 1929 the provisions of the Registration of Births, Deaths and Marriages Act of 1899 and the Marriage Act of 1899 of New South Wales applied to the Australian Capital Territory. Births, deaths and marriages occurring within the Territory were registered by the District Registrars at Queanbeyan and Nowra, and were incorporated in the New South Wales records.

In 1929, however, the Registration of Births, Deaths and Marriages Ordinances were enacted, providing for the assumption by the Commonwealth Government of the function of registration within the Territory as from 1st January, 1930. All registrations are made at the Registrar's Office, Civic Centre, Canberra.

Marriages within the Territory are celebrated according to the conditions prescribed by the Marriage Ordinance 1929-1938. This Ordinance, which closely follows the provisions of the Marriage Act of New South Wales, which it supersedes as regards the Australian Capital Territory, came into operation on 1st January, 1930.