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CHAPTER XIV.

VITAL STATISTICS.

NOTE.—1. In the Vital Statistics chapter of Official Year Book No. 36, tables covered 1944 and, where possible, 1942 and 1943. In the last issue these tables covered 1946 and, where possible, 1945. In the present issue these tables cover 1948 and, where possible, 1947. In some cases, however, space does not permit of the inclusion of figures for 1947. These figures will be found in *Demography Bulletin* No. 65 unless otherwise specifically indicated.

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

§ 1. Marriages.

1. Number, 1948.—The number of marriages registered in Australia during the year ended 31st December, 1948, was 74,902, giving a rate of 9.71 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—									
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
1947	.. 30,172	20,437	10,999	6,668	5,282	2,584	124	191	76,457
1948	.. 30,164	20,035	10,125	6,704	5,186	2,428	110	150	74,902

(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	6.96	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 ^d	7.19	7.01	7.34	6.83	7.57	7.19	5.90	5.70	7.16
1936-1940 ^d	9.28	9.50	8.95	9.64	9.49	9.25	12.72	7.14	9.33
1941-1945 ^d	9.99	9.87	10.05	10.63	9.75	8.61	7.13	7.57	9.95
Year—									
1944(^d) ..	9.16	8.97	10.67	9.72	9.36	7.88	2.97	7.18	9.33
1945(^d) ..	8.67	8.22	9.20	8.49	7.77	7.51	4.57	7.19	8.50
1946(^d) ..	10.76	10.57	10.70	10.55	10.49	10.51	5.96	9.88	10.65
1947(^d) ..	10.11	9.95	9.95	10.32	10.50	10.02	11.39	11.30	10.09
1948 ..	9.96	9.59	9.01	10.18	10.07	9.18	9.03	8.25	9.71

(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 final 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 seven 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, 56.22 ; 1932-34, 42.88 ; and 1946-48, 71.33. These rates refer, of course, to persons married, and not, as in the case in the preceding table, to marriages.

3. **Crude Marriage-rates of Various Countries.**—The following table gives the crude marriage-rates 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.	1948.
United States of America	(b)	10.6	9.9	9.2	12.5
Germany	7.8	9.4	8.7	9.3	(c) 11.2
Union of South Africa (d)	(b)	8.0	9.3	9.4	(.) 10.8
Czechoslovakia	7.7	10.0	9.3	8.2	10.6
Hungary	(b)	10.0	9.2	8.5	10.4
New Zealand (f)	8.5	8.0	7.7	7.3	9.9
Australia (g)	8.4	8.1	7.6	7.2	9.7
<i>South Australia (g)</i>	9.1	8.1	7.0	6.8	10.2
<i>Western Australia (g)</i>	8.1	7.3	8.0	7.6	10.1
<i>New South Wales (g)</i>	8.8	8.2	8.0	7.2	10.0
<i>Victoria (g)</i>	8.0	8.3	7.4	7.0	9.6
<i>Tasmania (g)</i>	7.9	7.4	7.1	7.2	9.2
<i>Queensland (g)</i>	8.2	7.5	6.9	7.3	9.0
Canada	(b)	7.3	7.3	6.4	9.6
Rumania	9.5	10.4	9.4	9.0	9.4
Denmark	7.3	7.9	7.8	8.7	9.4
Belgium	7.9	10.6	9.1	7.8	9.2
Norway	6.2	6.3	6.1	6.5	9.2
Netherlands	7.5	8.2	7.7	7.2	9.0
France	7.9	9.5	8.2	7.4	8.9
Great Britain and Northern Ireland ..	7.3	7.7	7.5	7.9	8.9
<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	8.5
<i>Northern Ireland</i>	5.2	6.2	5.9	6.2	(h) 7.1
Switzerland	7.3	7.7	7.5	7.7	8.5
Argentina	6.8	7.2	7.4	6.5	(i) 8.4
Italy	7.7	9.0	7.3	6.8	8.3
Chile	(b)	6.9	9.3	6.9	8.3
Sweden	6.0	6.3	6.7	7.3	8.2
Poland	7.0	9.9	9.2	8.4	(j) 8.1
Finland	6.1	7.1	7.2	7.2	(i) 8.0
Yugoslavia	(b)	10.6	9.5	7.8	(f) 7.9
Portugal	6.9	7.9	6.9	6.6	7.7
Spain	7.0	7.3	7.3	6.5	7.7
Japan	9.3	8.8	8.0	7.6	(j) 7.5
Greece	(b)	7.5	7.1	6.8	(j) 6.5
Mexico	(b)	(b)	(b)	6.1	5.9
Eire	5.2	4.9	4.6	4.6	5.4

(a) Number of marriages per 1,000 of mean population. (b) Not available. (c) 1939.
 (d) White population only. (e) 1943. (f) Excludes Maoris. (g) Excludes full-blood
 aboriginals. (h) 1947. (i) 1944. (j) 1938.

4. Age and Conjugal Condition at Marriage.—(i) *General.* Age at marriage in single ages and previous conjugal condition of bridegrooms and brides in 1947 and 1948 will be found in *Demography Bulletins* Nos. 65 and 66. A summary in age-groups is given hereunder for these years. There were 4,722 males aged less than twenty-one years married during 1948 while the corresponding number of females was 20,544. At the other extreme there were 95 bachelors and 33 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 1946, 1947 and 1948.

AGE AND CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA.

Age at Marriage (Years).	Bridegrooms.				Brides.			
	Bachelors.	Widowers.	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
1947.								
Under 20..	1,920	..	..	1,920	13,406	6	13	13,425
20-24 ..	30,425	26	102	30,553	35,251	170	508	35,929
25-29 ..	20,581	149	791	21,521	11,277	534	1,367	13,178
30-34 ..	7,983	274	1,290	9,547	3,922	580	1,257	5,759
35-39 ..	3,475	335	1,092	4,902	1,872	486	880	3,238
40-44 ..	1,651	399	833	2,883	936	408	554	1,898
45-49 ..	849	444	520	1,813	531	429	288	1,248
50-54 ..	396	470	283	1,149	252	353	132	737
55-59 ..	192	567	152	911	141	270	64	475
60-64 ..	109	409	70	588	69	211	26	306
65 and over	84	541	45	670	44	207	13	264
Total ..	67,665	3,614	5,178	76,457	67,701	3,654	5,102	76,457

1948.								
Under 20..	2,039	..	..	2,039	13,190	5	5	13,200
20-24 ..	29,879	26	97	30,002	34,850	129	449	35,428
25-29 ..	20,527	157	781	21,465	11,133	385	1,309	12,827
30-34 ..	7,484	264	1,168	8,916	3,697	505	1,229	5,431
35-39 ..	3,271	318	1,104	4,693	1,720	475	943	3,138
40-44 ..	1,554	369	755	2,678	896	411	536	1,843
45-49 ..	823	444	481	1,748	464	423	309	1,196
50-54 ..	407	448	292	1,147	264	374	155	793
55-59 ..	215	530	188	933	135	276	74	485
60-64 ..	110	417	59	586	70	216	22	308
65 and over	95	553	47	695	33	208	12	253
Total ..	66,404	3,526	4,972	74,902	66,452	3,407	5,043	74,902

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
1946 ..	89.93	4.56	5.51	100.00	89.76	4.73	5.51	100.00
1947 ..	88.50	4.73	6.77	100.00	88.55	4.78	6.67	100.00
1948 ..	88.65	4.71	6.64	100.00	88.72	4.55	6.73	100.00

(ii) *Relative Ages of Bridegrooms and Brides.* The relative ages of bridegrooms and brides in 1947 and 1948 are shown in single years in *Demography Bulletins* Nos. 65 and 66. A summary in age-groups of five years is given below :—

RELATIVE AGES OF BRIDEGROOMS AND BRIDES : AUSTRALIA.

Age of Bridegroom (Years).	Total Bride- grooms.	Age of Bride (Years).							
		Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.
1947.									
Under 20..	1,920	1	1,352	540	25	2	..	..	..
20-24 ..	30,553	8	8,542	19,301	2,410	253	28	4	7
25-29 ..	21,521	2	2,802	11,691	5,610	1,161	211	29	15
30-34 ..	9,547	1	539	3,215	3,188	1,819	616	125	44
35-39 ..	4,902	..	130	881	1,296	1,315	892	283	105
40-44 ..	2,883	..	36	211	457	703	726	492	258
45-49 ..	1,813	..	7	68	123	310	435	422	448
50-54 ..	1,149	..	4	15	42	118	180	279	511
55-59 ..	911	..	1	3	18	48	100	163	578
60-64 ..	588	..	..	3	6	19	35	61	464
65 and over	670	..	..	1	3	11	15	40	600
Total Brides	76,457	12	13,413	35,929	13,178	5,759	3,238	1,898	3,030
1948.									
Under 20..	2,039	3	1,475	524	36	1	..	..	..
20-24 ..	30,002	5	8,365	19,060	2,295	225	42	8	2
25-29 ..	21,465	2	2,737	11,833	5,533	1,103	213	36	8
30-34 ..	8,916	..	467	2,928	2,996	1,760	604	126	35
35-39 ..	4,693	..	99	758	1,338	1,251	851	315	81
40-44 ..	2,678	1	28	224	388	668	713	453	203
45-49 ..	1,748	..	11	75	161	279	403	382	437
50-54 ..	1,147	..	5	16	55	91	167	258	555
55-59 ..	933	1	..	5	19	37	98	167	606
60-64 ..	586	..	1	5	4	9	30	64	473
65 and over	695	..	..	..	2	7	17	34	635
Total Brides	74,902	12	13,188	35,428	12,827	5,431	3,138	1,843	3,035

(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 in years for the past six years were :—1943, 25.62 ; 1944, 25.57 ; 1945, 25.93 ; 1946, 25.51 ; 1947, 25.60 ; and 1948, 25.57. For the following five-yearly periods the average ages in years were :—1911-15, 25.76 ; 1916-20, 26.05 ; 1921-25, 25.76 ; 1926-30, 25.57 ; 1931-35, 25.50 ; 1936-40, 25.72 ; and 1941-45, 25.68. The average age in years of bridegrooms was 28.99 in 1943, 28.85 in 1944, 29.29 in 1945, 28.73 in 1946,

28.93 in 1947 and 28.88 in 1948. It follows, therefore, that brides are, generally speaking, three and one-third years younger than bridegrooms. The average age of brides and bridegrooms for the years 1940-46 showed 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 3.37 in 1943, 3.28 in 1944, 3.36 in 1945, 3.22 in 1946, 3.33 in 1947, and 3.31 in 1948.

5. **Previous Conjugal Condition.**—The number of bachelors and spinsters, widowed and divorced persons, who were married during 1948 has already been given. The following table shows the conjugal condition of the contracting parties. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

PREVIOUS CONJUGAL CONDITION OF PERSONS MARRIED : AUSTRALIA, 1948.

Conjugal Condition of Bridegrooms.	Total Bridegrooms.	Conjugal Condition of Brides.		
		Spinsters.	Widows.	Divorced.
Bachelors	66,404	61,464	1,689	3,251
Widowers	3,526	1,735	1,179	612
Divorced	4,972	3,253	539	1,180
Total Brides	74,902	66,452	3,407	5,043

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 Bulletins* Nos. 65 and 66, the relative birthplaces of bridegrooms and brides marrying in 1947 and 1948 will be found tabulated in detail.

7. **Occupation of Bridegrooms.**—The distribution of the 74,902 bridegrooms for 1948 amongst classes of occupations was as follows:—Craftsmen, 18,573; Operatives, 14,249; Commercial and Clerical, 13,529; Rural, 9,490; Labourers, 6,878; Domestic and Protective Services, 3,851; Administrative, 2,714; Professional and Semi-professional 2,697; and Not Gainfully Occupied and Not Stated, 2,921.

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 1948 belonged to more than forty different denominations, some of which, however, have only very few adherents. A number of these have been bracketed under the heading "Other Christian". The figures for 1948 are shown in the following table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

MARRIAGES IN EACH DENOMINATION, 1948.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	A.C.T.	Australia.	
									No.	Per Cent.
Church of England	11,998	6,249	2,827	1,563	1,922	919	33	61	25,572	34.14
Roman Catholic ..	6,000	3,869	2,196	735	793	378	27	43	14,041	18.74
Methodist ..	3,385	2,897	1,830	2,255	755	415	31	5	11,573	15.45
Presbyterian ..	3,785	3,966	1,886	378	498	165	15	11	10,704	14.29
Baptist ..	406	404	203	220	45	95	1	1	1,375	1.84
Congregational ..	394	285	116	310	122	68	..	1	1,296	1.73
Church of Christ ..	111	364	89	230	58	22	..	..	874	1.17
Lutheran ..	119	95	220	302	7	..	..	..	743	0.99
Salvation Army ..	113	98	93	47	19	20	3	1	394	0.53
Greek Orthodox ..	144	49	38	29	32	..	..	2	294	0.39
Seventh-Day Ad- ventist..	89	27	31	12	20	14	..	..	193	0.26
Unitarian ..	1	44	..	2	..	..	..	..	47	0.06
Other Christian ..	167	70	145	25	33	13	..	..	453	0.61
Hebrew ..	123	206	6	3	19	1	..	..	358	0.48
Total ..	26,835	18,623	9,680	6,111	4,323	2,110	110	125	67,917	90.68
Civil Officers ..	3,329	1,412	445	593	863	318	..	25	6,985	9.32
Grand Total ..	30,164	20,035	10,125	6,704	5,186	2,428	110	150	74,902	100.00
Percentage of Total Marriages celebrated by—										
Ministers of	%	%	%	%	%	%	%	%	%	%
Religion ..	88.96	92.95	95.61	91.15	83.36	86.90	100.0	83.33	90.68	
Civil Officers ..	11.04	7.05	4.39	8.85	16.64	13.10	..	16.67	9.32	

§ 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.**—(1) *Year, 1948.* There are various methods of measuring the fertility of the population by relating the number of births to the numbers in the population. In each the basic data are, of course, the numbers of live births.

The number of live births registered in Australia during 1948 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 1947 may be obtained from *Demography Bulletin* No. 65.

LIVE BIRTHS, 1948.

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	33,735	23,003	14,076	8,028	6,531	3,463	131	366	89,333
Twins ..	794	516	302	150	132	64	2	3	1,963
Triplets ..	9	1	4	..	1	..	..	..	15
Total ..	34,538	23,520	14,382	8,178	6,664	3,527	133	369	91,311

FEMALE BIRTHS.

Single births	32,069	22,048	13,197	7,505	6,145	3,370	147	353	84,834
Twins ..	616	526	274	184	120	79	..	3	1,802
Triplets ..	11	5	5	3	2	3	..	..	29
Total ..	32,696	22,579	13,476	7,692	6,267	3,452	147	356	86,665

TOTAL BIRTHS.

Single births	65,804	45,051	27,273	15,533	12,676	6,833	278	719	174,167
Twins ..	(a) 1,410	(b) 1,042	576	334	(c) 252	(d) 143	2	6	(e) 3,765
Triplets ..	(f) 20	6	9	3	3	3	..	..	(f) 44
Total ..	67,234	46,099	27,858	15,870	12,931	6,979	280	725	177,976

TOTAL CONFINEMENTS (LIVE BIRTHS).

Mothers of Nuptial Children ..	63,758	44,067	26,060	15,205	12,320	6,630	237	705	168,982
Mothers of Ex-nuptial Children ..	2,777	1,521	1,504	496	487	279	42	17	7,123
Total Mothers	66,535	45,588	27,564	15,701	12,807	6,909	279	722	176,105

(a) Excludes 38 still-born twins. (b) Excludes 28 still-born twins. (c) Excludes 8 still-born twins.
 (d) Excludes 7 still-born twins. (e) Excludes 81 still-born twins. (f) Excludes 1 still-born triplet.

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

(ii) *Years 1861 to 1948.* 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 1944 to 1948 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	35,964	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—										
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
1947	..	69,398	47,366	28,358	16,317	12,874	7,140	276	655	182,384
1948	..	67,234	46,099	27,858	15,870	12,931	6,979	280	725	177,976

(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 1944 to 1948 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.
Annual Average—									
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	18.76	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 ^d	17.29	15.60	18.49	14.89	18.37	19.96	15.99	15.81	16.95
1936-1940 ^d	17.51	16.20	19.47	15.82	19.16	20.57	19.86	18.50	17.51
1941-1945 ^d	19.78	19.25	22.26	20.41	21.71	22.23	11.35	26.83	20.26
Year—									
1944(^d) ..	20.65	19.78	23.10	21.49	22.58	21.17	8.52	27.04	20.98
1945(^d) ..	21.13	20.53	24.81	22.38	21.89	23.27	8.56	26.98	21.73
1946(^d) ..	22.83	23.05	24.79	24.90	24.57	27.15	12.49	32.61	23.62
1947(^d) ..	23.25	23.06	25.65	25.25	25.60	27.70	25.34	38.75	24.06
1948 ..	22.19	22.06	24.80	24.11	25.12	26.38	22.97	39.90	23.08

(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) Rates based on mean population adjusted in accordance with the final 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	..	17.67	1944	..	21.41
1926-1930	..	22.45	1945	..	22.58
1931-1935	..	19.53	1946	..	26.00
1936-1940	..	19.29	1947	..	25.85
1941-1945	..	23.06	1948	..	27.46

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 1948 :—New South Wales, 22.25; Victoria, 22.01; Queensland, 24.92; South Australia, 24.11; Western Australia, 25.14; Tasmania, 26.47; and Northern Territory, 23.38.

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, and 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.	1948.
Egypt	43.6	43.0	44.3	42.9	(b) 57.5
Mexico'	(c)	(d) 31.9	36.7	43.1	43.1
Ceylon	36.9	39.2	40.4	36.9	40.5
Japan	32.9	34.6	33.5	31.6	34.0
Chile	(e) 39.9	39.4	41.6	33.6	33.6
Greece	(c)	23.0	30.2	29.5	(b) 29.1
Union of South Africa (f)	(e) 31.9	27.1	25.9	24.1	27.0
Finland	29.5	24.7	22.5	19.5	26.9
Canada	(c)	27.4	24.1	21.4	26.9
Portugal	34.6	33.2	31.2	29.0	26.3
Yugoslavia	(c)	35.0	34.2	31.8	(g) 25.9
New Zealand (h)	26.5	22.2	19.7	17.0	25.5
Netherlands	29.1	25.7	23.2	21.2	25.3
Poland	37.4	34.7	32.2	27.8	(g) 24.6
United States of America	(i) 25.1	22.5	19.7	(j) 16.9	24.4
Argentina	37.1	32.4	30.1	26.4	(k) 24.3
Czechoslovakia	31.1	27.1	23.2	19.6	23.4
Australia (l)	27.4	23.9	21.1	16.9	23.1
Tasmania (l)	29.6	26.0	22.7	20.0	26.4
Western Australia (l)	28.9	23.0	22.0	18.4	25.1
Queensland (l)	28.2	25.0	21.3	18.5	24.8
South Australia (l)	27.1	22.7	19.2	14.9	24.1
New South Wales (l)	28.2	24.9	22.1	17.3	22.2
Victoria (l)	25.3	22.4	19.7	15.6	22.1
Spain	32.1	29.8	28.5	27.1	23.0
Rumania	43.1	37.9	35.2	32.9	(b) 22.4
Eire	23.1	20.3	20.1	19.4	21.9
Italy	32.4	29.8	26.8	23.8	21.6
France	19.5	19.3	18.2	16.5	20.8
Norway	26.0	22.2	18.0	15.2	20.6
Denmark	27.1	22.3	19.4	17.7	20.3
Hungary	(e) 34.3	29.4	26.0	22.4	19.1
Switzerland	24.7	19.5	17.6	16.4	19.0
Sweden	24.4	19.1	15.9	14.1	18.4
Great Britain and Northern Ireland	24.6	20.4	17.2	15.5	18.1
Northern Ireland	23.1	23.1	21.2	20.0	21.7
Scotland	26.2	23.0	20.0	18.2	19.4
England and Wales	24.9	19.9	16.5	15.0	17.9
Belgium	23.4	20.4	18.6	16.8	17.3
Germany	29.5	22.1	18.4	16.6	(m) 16.0

(a) Number of births per 1,000 of mean population. (b) 1947. (c) Not available.
 (d) 1922-25. (e) 1911-13. (f) White population only. (g) 1939. (h) Excludes
 Maoris. (i) 1915. (j) 1933-35. (k) 1946. (l) Excluding full-blood aboriginals. (m) 1943.

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

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

CRUDE BIRTH-RATES AND FERTILITY-RATES : AUSTRALIA.

Period.	Average Annual Rates.			Index Nos. (Base : 1880-82 = 100).		
	Crude Birth-rate. (a).	Fertility-rates.		Crude Birth-rate. (a).	Fertility-rates.	
		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.		Births per 1,000 Women aged 15-44 Years.	Nuptial Births per 1,000 Married Women aged 15-44 Years.
1880-82 ..	35.3	170	321	100	100	100
1890-92 ..	34.5	159	332	98	94	103
1900-02 ..	27.2	117	235	77	69	73
1910-12 ..	27.2	117	236	77	69	74
1920-22 ..	25.0	107	197	71	63	61
1932-34 ..	16.7	71	131	47	42	41
1946-48 ..	23.6	104	167	67	61	52

(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 27 per cent. over the period 1932-34 to 1946-48 the crude birth-rate rose by 43 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 1948 in five-yearly age-groups.

SPECIFIC FERTILITY-RATES(a) : AUSTRALIA.

Age-group (Years).	1921.	1926.	1931.	1936.	1941.	1944.	1945.	1946.	1947.	1948.
15-19 ..	12.83	14.02	13.08	12.18	11.90	11.02	11.41	12.63	15.36	16.49
20-24 ..	65.45	60.23	53.08	50.33	59.42	62.49	64.46	73.52	80.68	79.14
25-29 ..	82.24	76.82	62.47	62.02	70.78	78.25	81.17	89.51	90.08	87.50
30-34 ..	68.50	61.90	51.25	46.33	49.72	59.48	61.47	65.03	63.76	61.26
35-39 ..	49.48	43.55	33.23	28.89	28.69	35.01	36.60	37.43	36.48	34.11
40-44 ..	21.66	17.63	13.61	10.19	9.52	10.69	11.42	11.87	11.44	10.92
45-49 ..	2.10	1.90	1.45	1.11	0.80	0.88	0.91	1.03	0.80	0.76

(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 1948 a rise in fertility occurred in all but the oldest age-group.

7. Gross and Net Reproduction Rates.—A single measure of reproduction 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 conditions on which the rate is based continue. The rate is unaffected by the age composition of the potential mothers, and consequently it shows more clearly than the crude birth rate the reproductive propensity of the population. It is, however, an imperfect measure of reproduction because it does not take into account the females who fail to live from birth to the end of the reproductive period. A more accurate measure of this nature is obtained by multiplying the specific fertility-rates by the number of females in the corresponding age-group of the stationary or life table population and summing the products. Allowance is thus made for the effect of mortality and the result is known as the net reproduction rate. The net reproduction rate indicates the average number of female children who would be born to women during their lifetime if they were subject at each age to the fertility and mortality rates on which the calculation is based. A constant net reproduction rate of unity indicates that the population will ultimately become stationary. If it continues greater than unity, the population will ultimately increase, if less than unity, it will ultimately decrease. The following table should be read in the light of the comment which follows it and of the index of fertility in paragraph 9 hereof.

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	1940 (g) ..	1.100	1.004
1891 (a) ..	2.30	(b) 1.73	1941 (g) ..	1.154	1.053
1901 (a) ..	1.74	(c) 1.39	1942 (g) ..	1.156	1.056
1911 ..	1.705	(d) 1.421	1943 (g) ..	1.257	1.148
1921 ..	1.511	(e) 1.313	1944 (g) ..	1.289	1.176
1931 ..	1.141	(f) 1.039	1945 (g) ..	1.337	1.220
1936 (g) ..	1.060	0.967	1946 (g) ..	1.455	1.328
1937 (g) ..	1.075	0.981	1947 (g) ..	1.493	1.364
1938 (g) ..	1.069	0.976	1948 ..	1.451	1.326
1939 (g) ..	1.080	0.986			

(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 1931 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 level of those years were to continue, ultimate population decline would be certain. The progressive rise in both gross and net reproduction rates from 1939 to 1947 has been due largely to abnormally high marriage rates. Fluctuations in marriage rates affect both gross and net reproduction rates substantially. When fluctuations in marriage rates are transient, reproduction rates calculated as above are not valid as indicators of relative fertility nor of the extent to which population will replace itself. The fertility of marriages is measured in paragraph 9 below.

8. Gross and Net Reproduction Rates of Various Countries.—In the following table a comparison is given of the gross and net reproduction rates recorded for various countries.

GROSS AND NET REPRODUCTION RATES : VARIOUS COUNTRIES.

Country.	Period.	Reproduction Rate.		Country.	Period.	Reproduction Rate.	
		Gross.	Net.			Gross.	Net.
Netherlands ..	1946	1.92	1.76	Sweden ..	1945	1.26	1.15
Canada ..	1946	1.64	(a)	Portugal ..	1946	1.54	1.12
New Zealand(b)	1946	1.59	1.47	England and Wales ..	1946	1.21	1.11
United States of America(c) ..	1946	1.44	1.36	Spain ..	1943	1.43	1.10
Union of South Africa (c) ..	1939	1.50	1.35	Norway ..	1945	1.18	1.08
Australia ..	1948	1.45	1.33	Belgium ..	1947	1.20	1.00
Denmark ..	1947	1.40	1.27	Austria ..	1939	(a)	1.00
Finland ..	1945	1.48	1.24	Latvia ..	1939	1.18	0.99
Eire ..	1940-42	1.42	1.19	Germany ..	1939	(a)	0.98
Scotland ..	1946	1.34	1.19	Hungary ..	1941	(a)	0.96
Switzerland ..	1946	1.29	1.16	France ..	1944	1.09	0.94

(a) Not available.

(b) Excludes Maoris.

(c) White population only.

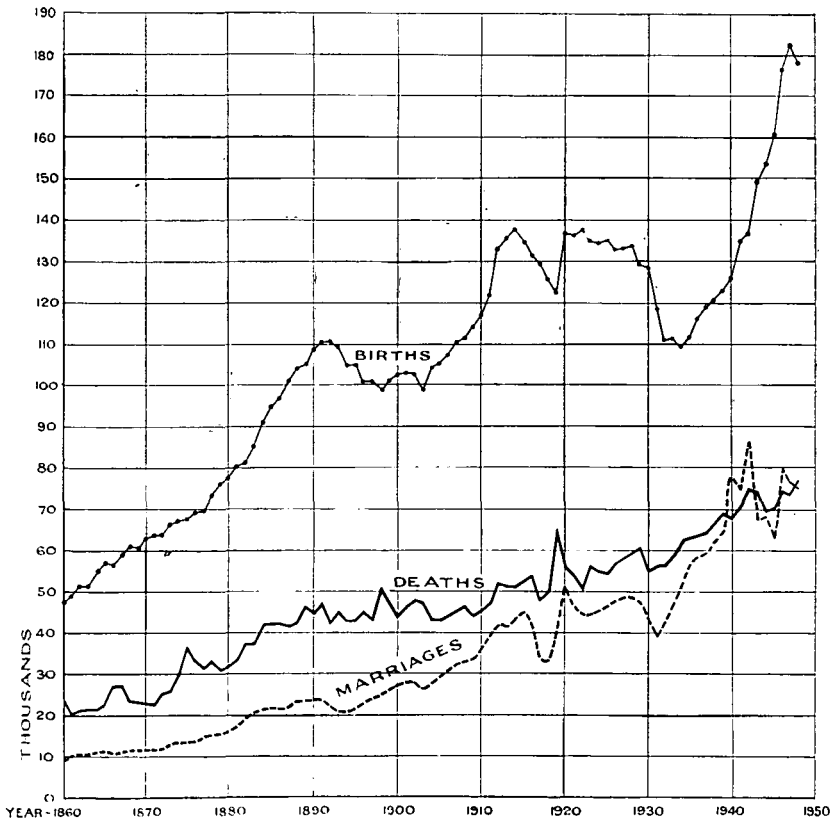
NOTE.—Most of the above rates are affected by variations in the incidence of marriage.

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 fertility per marriage in respect of confinements in the individual years shown.

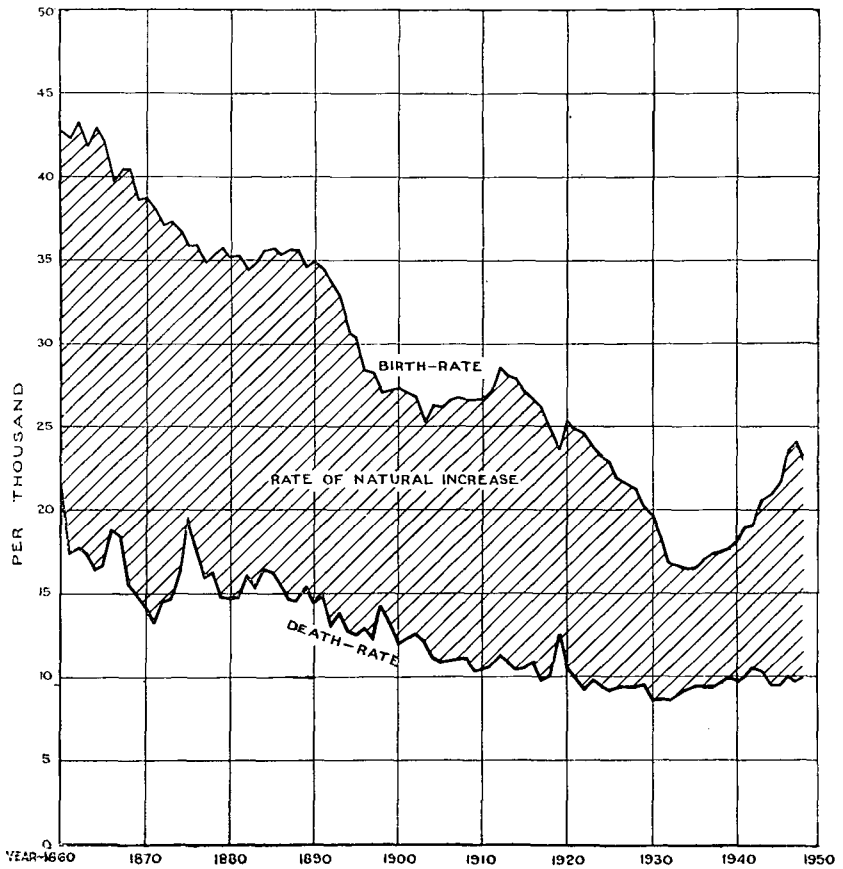
FERTILITY OF MARRIAGES : AUSTRALIA.

Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.	Year.	Nuptial Confinements per Marriage.
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	1947 ..	2.55
1938.. ..	2.22	1943 ..	2.21	1948 ..	2.44

BIRTHS, DEATHS, AND MARRIAGES—AUSTRALIA, 1860 TO 1948.

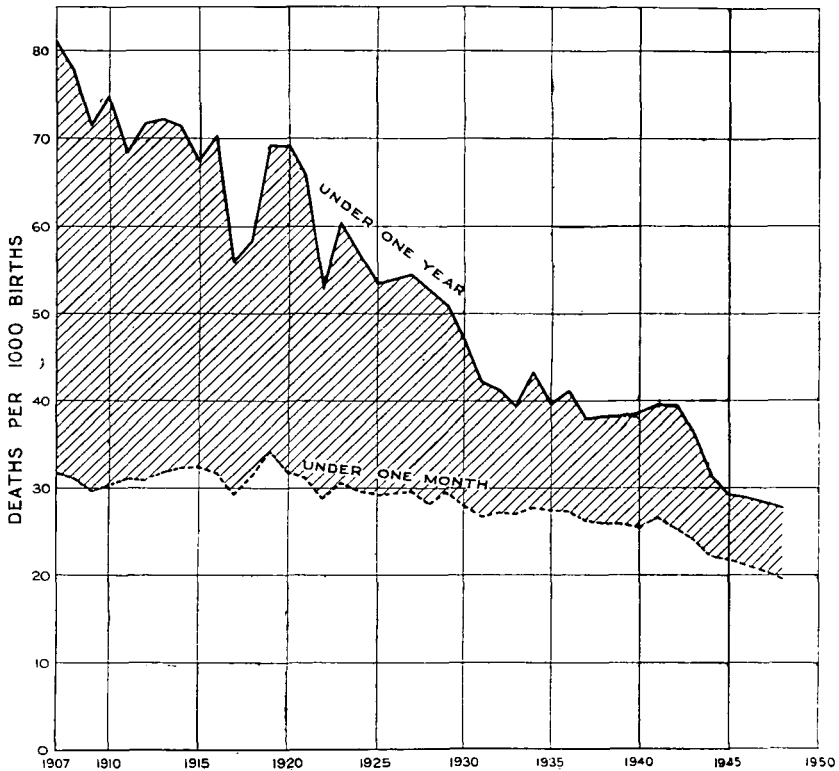


RATES OF BIRTHS, DEATHS, AND NATURAL INCREASE—AUSTRALIA, 1860 TO 1948.



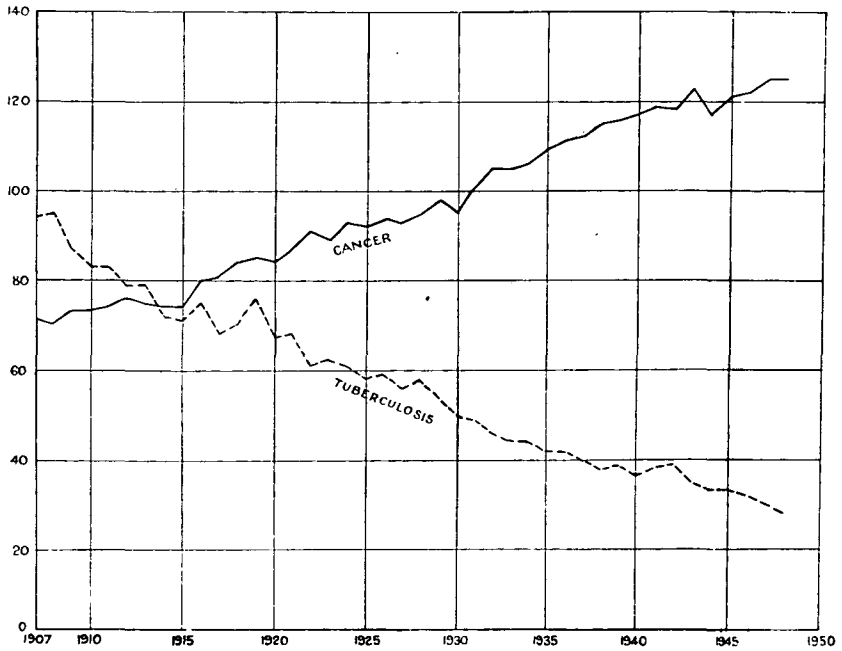
EXPLANATION.—The upper curve represents the number of births per 1,000 persons, while the lower curve represents the corresponding death-rate. The distance between the two curves is the rate of natural increase.

INFANTILE MORTALITY RATES—AUSTRALIA, 1907 TO 1948.



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, considerably less having occurred in the first month of life (see page 618).

DEATH-RATES—CANCER AND TUBERCULOSIS: AUSTRALIA, 1907 TO 1948.



(See page 640.)

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

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 to 1946. Comparing this index with the net reproduction rate it is evident that the rise in the latter since 1935 has been caused by a rise in the marriage rate, due firstly to the postponed depression marriages, and secondly to war-time marriages, and only in the last six 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 1948 the figures ranged from 90.48 in the Northern Territory to 106.72 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 1945 to 1948:—

MASCULINITY(a) OF LIVE BIRTHS REGISTERED : AUSTRALIA.

Particulars.	1901-10.	1911-20.	1921-30.	1931-40.	1945.	1946.	1947.	1948.
Total Births ..	105.22	105.27	105.55	105.12	105.57	106.51	105.93	105.36
Ex-nuptial Births ..	104.08	105.25	105.16	105.36	107.77	110.42	101.75	103.55

(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 7,438 in 1913, but it fell considerably to 4,775 in 1940. After 1940, however, the number rose sharply to 7,613 in 1946, falling again slightly to 7,173 in 1948. 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 1948 are shown below. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

EX-NUPTIAL LIVE BIRTHS AND BIRTH-RATES, 1948.

Particulars.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Number ..	2,800	1,533	1,514	497	490	280	42	17	7,173
Percentage of Total Births	4.16	3.33	5.43	3.13	3.79	4.01	15.00	2.34	4.03

The numbers of births and the rates at intervals from 1901 to 1948 are as follows:—

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

Particulars.	Annual Averages—				1943.	1944.	1945.	1946.	1947.	1948.
	1901-10.	1911-20.	1921-30.	1931-40.						
Number of Ex-nuptial Births ..	6,498	6,836	6,238	5,133	6,505	6,905	7,195	7,613	7,263	7,173
Percentage of Total Births	6.05	5.22	4.66	4.40	4.36	4.50	4.48	4.32	3.98	4.03

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 almost certain 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 (1909-12) 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—				1945.	1946.	1947.	1948.
	1901-10.	1911-20.	1921-30.	1931-40.				
Ex-nuptial ..	1.60	1.39	1.04	0.76	0.98	1.02	0.96	0.93
Nuptial ..	24.91	25.18	21.40	16.47	20.75	22.60	23.10	22.15
Total ..	26.51	26.57	22.44	17.23	21.73	23.62	24.06	23.08

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

12. *Legitimations.*—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 1947 and 1948 the numbers of children legitimized in Australia were 978 and 874 respectively, compared with 883 in 1939.

13. *Multiple Births.*—Among the total number of 177,976 live births registered in Australia in 1948, there were 174,167 single births, 3,765 twins and 44 triplets. The number of cases of twins was 1,923 and of triplets 15, there being 81 still-born twins and 1 still-born triplet. The total number of mothers was, therefore, 176,105, the proportion of mothers of twins being one in every 92, of mothers of triplets one in every 11,740, and of mothers of all multiple births one in every 91 mothers. Multiple births occurred in 1.10 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—			1945.	1946.	1947.	1948.
	1911-20.	1921-30.	1931-40.				
Mothers of Multiple Births ..	1,387	1,420	1,220	1,803	2,039	2,030	1,938
Percentage on Total Mothers ..	1.06	1.07	1.06	1.14	1.17	1.12	1.10

14. *Ages of Parents.*—The relative ages of the parents of children registered in 1947 and 1948 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. 65 and 66. In the

present work the exigencies of space allow only the insertion of a table for 1948 showing, in respect of all confinements, the relative ages of parents in groups of five years :—

ALL CONFINEMENTS : RELATIVE AGES OF PARENTS, AUSTRALIA, 1948.

Age of Father (Years), and Type of Birth.		Total.	Age of Mother (Years).								Not Stated
			Under 15.	15-19.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and over.	
Under 20	Single	977	2	702	262	11	..	..	..	..	..
	Twins	5	..	4	1	..	..	..	..	..	..
20-24	Single	25,332	2	4,698	17,505	2,892	203	29	2	1	..
	Twins	194	..	33	126	33	2	..	..	..	..
	Triplets	3	..	..	3	..	..	..	..	..	..
25-29	Single	49,810	..	1,894	21,026	23,127	3,398	333	31	1	..
	Twins	480	..	9	187	237	40	7	..	..	..
	Triplets	4	..	..	3	1	..	..	..	..	..
30-34	Single	42,395	..	400	6,034	18,349	15,086	2,365	160	1	..
	Twins	498	..	1	43	227	202	24	1	..	..
	Triplets	3	..	..	..	1	2	..	..	..	..
35-39	Single	27,610	..	88	1,516	5,955	11,415	7,843	781	12	..
	Twins	386	..	1	13	63	173	124	12	..	..
	Triplets	1	..	..	..	..	..	1	..	..	..
40-44	Single	13,699	..	42	389	1,547	3,999	5,460	2,197	65	..
	Twins	197	..	..	5	24	59	79	29	1	..
	Triplets	2	..	..	..	..	1	1	..	..	..
45-49	Single	5,053	..	6	127	418	1,114	1,889	1,342	157	..
	Twins	81	..	..	3	7	18	37	15	1	..
	Triplets	1	..	..	..	..	..	..	1	..	..
50-54	Single	1,463	..	2	27	111	312	519	422	70	..
	Twins	15	..	..	1	1	2	9	2	..	..
	Triplets	1	..	..	..	..	..	..	1	..	..
55-59	Single	521	..	..	12	35	101	196	147	30	..
	Twins	7	..	..	..	1	..	1	3	2	..
60-64	Single	162	..	..	5	9	30	60	49	9	..
	Twins	4	..	..	..	..	..	1	3	..	..
65 and over	Single	74	..	..	1	11	18	27	15	2	..
	Twins	2	..	..	..	..	2	..	..	..	..
Not Stated	Single	2	..	..	..	..	1	..	1	..	..
Mothers of Nuptial Children	Single	167,098	4	7,832	46,904	52,465	35,677	18,721	5,147	348	..
	Twins	1,869	..	48	379	593	498	282	65	4	..
	Triplets	15	..	..	6	2	3	2	2	..	..
	Total	168,982	4	7,880	47,289	53,060	36,178	19,005	5,214	352	..
Mothers of Extra-nuptial Children	Single	7,069	16	1,597	2,339	1,420	921	557	198	19	2
	Twins	54	..	4	12	16	9	11	2	..	..
	Total	7,123	16	1,601	2,351	1,436	930	568	200	19	2
Total Mothers	Single	174,167	20	9,429	49,243	53,885	36,598	19,278	5,345	367	2
	Twins	1,923	..	52	391	609	507	293	67	4	..
	Triplets	15	..	..	6	2	3	2	2	..	..
Total	..	176,105	20	9,481	49,640	54,496	37,108	19,573	5,414	371	2

15. Birthplaces of Parents.—A table showing birthplaces of parents of children whose births were registered during 1948 appears in *Demography Bulletin* No. 66.

16. Occupation of Fathers.—A table showing occupations of the fathers of all nuptial children registered in 1948 appears in *Demography Bulletin* No. 66.

17. Age, Duration of Marriage and Issue of Mothers.—(i) *General.* The total number of nuptial confinements resulting in live births in 1948 was 168,982, comprising 167,098 single births, 1,869 cases of twins and 15 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. 66.

(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 32 years, and that the average family increased fairly regularly with the duration of marriage. The average issue of married mothers who bore children in 1948 was 2.35 compared with 2.31 in 1947, 2.36 in 1946, 2.42 in 1945 and 2.42 in 1944.

NUPTIAL CONFINEMENTS : DURATION OF MARRIAGE AND ISSUE OF MOTHERS, AUSTRALIA, 1948.

Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.	Duration of Marriage. (Years.)	Total Married Mothers.	Total Issue.	Average Issue.
0-1 ..	25,086	25,497	1.02	18-19 ..	879	5,228	5.95
1-2 ..	23,720	28,475	1.20	19-20 ..	743	4,679	6.30
2-3 ..	18,115	30,405	1.68				
3-4 ..	14,684	28,858	1.97	20-21 ..	584	3,966	6.79
4-5 ..	13,226	28,871	2.18	21-22 ..	418	3,098	7.41
				22-23 ..	253	1,813	7.17
5-6 ..	13,291	31,938	2.40	23-24 ..	183	1,435	7.84
6-7 ..	12,374	32,188	2.60	24-25 ..	126	1,076	8.54
7-8 ..	9,816	28,696	2.92				
8-9 ..	8,041	25,771	3.20	25-26 ..	74	645	8.72
9-10 ..	5,899	20,625	3.50	26-27 ..	50	418	8.36
				27-28 ..	15	117	7.80
10-11 ..	4,955	18,458	3.73	28-29 ..	16	170	10.63
11-12 ..	4,087	16,492	4.04	29-30 ..	6	51	8.50
12-13 ..	3,446	14,616	4.24				
13-14 ..	2,691	12,098	4.50	30-31 ..	2	11	5.50
14-15 ..	2,081	9,978	4.79	31-32 ..	1	10	10.00
15-16 ..	1,681	8,561	5.09				
16-17 ..	1,332	7,188	5.40				
17-18 ..	1,107	6,307	5.70	Total ..	168,982	397,739	2.35

(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 1948 (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 Mother (Years).							All Ages.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.	
1911-20 ..	1.21	1.75	2.61	3.74	5.11	6.69	8.16	3.25
1921-30 ..	1.20	1.71	2.46	3.48	4.80	6.27	7.74	3.04
1931-40 ..	1.20	1.68	2.30	3.19	4.41	5.89	7.40	2.71
1939 ..	1.20	1.64	2.16	2.96	4.11	5.64	6.98	2.49
1940 ..	1.21	1.62	2.14	2.88	4.03	5.48	6.92	2.45
1941 ..	1.20	1.59	2.11	2.86	3.91	5.35	7.01	2.40
1942 ..	1.18	1.57	2.12	2.86	3.85	5.26	6.82	2.39
1943 ..	1.18	1.53	2.09	2.81	3.75	5.07	6.86	2.35
1944 ..	1.17	1.56	2.15	2.84	3.69	4.89	6.18	2.42
1945 ..	1.16	1.55	2.15	2.84	3.63	4.82	6.18	2.42
1946 ..	1.15	1.54	2.13	2.81	3.60	4.60	6.04	2.36
1947 ..	1.14	1.50	2.11	2.81	3.61	4.62	6.03	2.31
1948 ..	1.17	1.56	2.20	2.87	3.61	4.56	5.49	2.35

(iv) *Previous Issue of Mothers, Various Ages.* A classification of mothers of various ages according to previous issue is given for 1948 in the following table. Corresponding figures for 1947 appear in *Demography Bulletin* No. 65 :—

**NUPTIAL CONFINEMENTS : MOTHERS OF VARIOUS AGES ACCORDING TO
PREVIOUS ISSUE, AUSTRALIA, 1948.**

Previous Issue.	Age of Mother (Years.)							Total Married Mothers.
	Under 20.	20-24.	25-29.	30-34.	35-39.	40-44.	45 and Over.	
0	6,727	27,702	16,982	6,929	2,776	646	37	61,799
1	1,058	14,456	19,653	10,858	4,037	740	41	50,843
2	93	3,926	9,889	8,727	4,175	826	48	27,684
3	6	951	3,989	4,827	3,127	813	41	13,754
4	..	204	1,568	2,313	1,773	601	34	6,493
5	..	35	635	1,245	1,112	490	30	3,547
6	..	14	230	677	793	324	24	2,062
7	..	..	86	316	474	252	23	1,151
8	..	1	24	164	297	148	19	653
9	..	..	4	75	209	143	23	454
10	..	..	..	29	101	85	12	227
11	..	..	..	14	78	60	6	158
12	..	..	..	2	31	47	8	88
13	..	..	..	2	10	20	2	34
14	..	..	..	..	8	10	3	21
15	..	..	..	..	3	7	..	10
16	..	..	..	..	..	1	1	2
17	..	..	..	..	1	..	..	1
18	..	..	..	..	..	1	..	1
Total Married Mothers	7,884	47,289	53,060	36,178	19,005	5,214	352	168,982

(v) *Previous Issue of Mothers of Twins and Triplets.* Figures regarding the previous issue of married mothers of twins in 1948 show that 532 mothers had no previous issue either living or deceased, 580 had one child previously, 354 had two previous issue, 190 three, 99 four, 52 five, 30 six, 14 seven, 8 eight, 7 nine, 1 ten, 1 eleven and 1 twelve.

Of the 15 cases of nuptial triplets registered during 1948, 5 mothers had no previous issue, 3 had one, 2 had two, 2 had three, 1 had four, 1 had six and 1 had eight 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, 1945, 1946, 1947 and 1948. In cases of twins and triplets, the eldest only is enumerated.

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH : AUSTRALIA.

Interval.	Annual Averages.			1945.	1946.	1947.	1948.
	1911-20.	1921-30.	1931-40.				
NUMBER OF FIRST BIRTHS.							
Under 1 month ..	465	365	301	178	190	232	241
1 month ..	535	496	412	233	275	306	312
2 months ..	760	719	626	356	409	442	400
3 " ..	996	1,013	967	474	647	762	757
4 " ..	1,227	1,333	1,367	750	948	1,109	1,116
5 " ..	1,551	1,809	2,008	1,160	1,430	1,803	1,977
6 " ..	1,993	2,397	2,812	1,928	2,235	3,191	2,989
7 " ..	1,785	2,219	2,184	1,752	2,241	3,033	2,632
8 " ..	1,562	1,530	1,417	1,990	2,258	2,682	2,366
9 " ..	3,517	3,253	2,668	4,312	4,460	5,442	4,779
10 " ..	2,877	2,907	2,202	2,766	3,213	4,526	4,020
11 " ..	2,018	2,152	1,836	2,171	2,668	3,732	3,311
Total under 1 year ..	19,286	20,193	18,800	18,070	20,974	27,260	24,900
1-2 years ..	8,563	10,133	10,595	15,104	16,254	19,325	19,277
2-3 " ..	2,626	3,369	4,319	9,136	9,262	7,887	6,792
3-4 " ..	1,230	1,743	2,214	5,710	6,237	4,802	3,311
4-5 " ..	700	941	1,205	3,080	4,271	3,514	2,224
5-10 " ..	980	1,446	1,766	4,087	5,417	5,663	4,638
10-15 " ..	168	240	289	473	632	576	564
15-20 " ..	34	47	48	99	81	78	81
20 years and over ..	8	8	7	10	17	7	12
Total	33,595	38,120	39,243	55,769	63,145	69,112	61,799

PERCENTAGE OF TOTAL FIRST BIRTHS.

Under 1 month ..	1.39	0.96	0.77	0.32	0.30	0.34	0.39
1 month ..	1.59	1.30	1.05	0.42	0.44	0.44	0.50
2 months ..	2.26	1.89	1.59	0.64	0.65	0.64	0.65
3 " ..	2.96	2.66	2.46	0.85	1.02	1.10	1.22
4 " ..	3.65	3.50	3.48	1.34	1.50	1.60	1.81
5 " ..	4.62	4.75	5.12	2.08	2.26	2.61	3.20
6 " ..	5.93	6.29	7.16	3.46	3.54	4.62	4.84
7 " ..	5.32	5.82	5.57	3.14	3.55	4.39	4.26
8 " ..	4.65	4.01	3.61	3.57	3.58	3.88	3.83
9 " ..	10.47	8.53	6.80	7.73	7.06	7.87	7.73
10 " ..	8.56	7.63	5.61	4.96	5.09	6.55	6.50
11 " ..	6.01	5.64	4.68	3.89	4.22	5.40	5.36
Total under 1 year ..	57.41	52.98	47.90	32.40	33.21	39.44	40.29
1-2 years ..	25.49	26.58	27.00	27.08	25.74	27.96	31.19
2-3 " ..	7.82	8.84	11.01	16.38	14.67	11.41	10.99
3-4 " ..	3.66	4.57	5.64	10.24	9.88	6.95	5.36
4-5 " ..	2.08	2.47	3.07	5.52	6.76	5.09	3.60
5-10 " ..	2.92	3.79	4.50	7.33	8.58	8.20	7.51
10-15 " ..	0.50	0.63	0.74	0.85	1.00	0.83	0.91
15-20 " ..	0.10	0.12	0.12	0.18	0.13	0.11	0.13
20 years and over ..	0.02	0.02	0.02	0.02	0.03	0.01	0.02
Total	100.00	100.00	100.00	100.00	100.00	100.00	100.00

The masculinity of nuptial first births in 1948 was 105.72 compared with 105.36 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 1946, 1947 and 1948 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 slightly more than 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 17 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 1946, 1947 and 1948 in *Demography Bulletins* Nos. 64 to 66.

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.	
1946—								
Ex-nuptial births (a) No.	1,722	2,762	1,424	890	550	186	24	(b) 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
1947—								
Ex-nuptial births (a) No.	1,674	2,498	1,445	867	547	166	7	(c) 7,204
Nuptial births occurring less than 9 months after marriage .. No.	3,993	6,709	1,894	688	227	46	3	13,560
Total .. No.	5,667	9,207	3,339	1,555	774	212	10	20,764
Total first births No.	8,259	33,456	21,248	9,027	3,466	821	39	76,316
1948—								
Ex-nuptial births (a) No.	1,617	2,351	1,436	930	568	200	19	(d) 7,121
Nuptial births occurring less than 9 months after marriage .. No.	4,105	6,057	1,691	618	248	68	3	12,790
Total .. No.	5,722	8,408	3,127	1,548	816	268	22	19,911
Total first births No.	8,344	30,033	18,418	7,859	3,344	846	56	68,920
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 .. %	80.68	45.59	23.45	22.22	29.78	38.18	49.65	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
1947 .. %	68.62	27.52	15.71	17.23	22.33	25.82	25.64	27.29
1948 .. %	68.58	27.98	16.98	19.70	24.40	31.68	39.29	28.81

(a) For purposes of this table all ex-nuptial births are regarded as first births. (b) Excludes 1 birth, age of mother not stated. (c) Excludes 5 births, age of mother not stated. (d) Excludes 2 births, 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 1947 and 1948 are not available.

§ 3. Mortality.

1. **Number of Deaths.**—(i) *Year, 1948.* The following table shows the number of deaths, male and female, registered in each State during the year:—

DEATHS, 1948.

Sex.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Males ..	17,085	11,503	6,127	3,619	2,797	1,398	56	70	42,655
Females ..	13,318	10,322	4,335	3,129	1,888	1,130	17	45	34,184
Persons ..	30,403	21,825	10,462	6,748	4,685	2,528	73	115	76,839

(ii) *Years 1861 to 1948.* 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.
Annual Average—									
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
1936–1940c	25,735	19,361	9,107	5,540	4,270	2,342	73	54	66,482
1941–1945c	27,807	20,964	9,715	6,303	4,724	2,488	64	71	72,136
Year—									
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
1947 ..	28,449	21,442	10,116	6,215	4,723	2,363	65	95	73,468
1948 ..	30,403	21,825	10,462	6,748	4,685	2,528	73	115	76,839

(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 method of measuring 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 1948 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.
Annual Average—									
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	..	..	15.86
1881-1885 ..	15.77	14.76	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	..	10.73
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	9.24	10.27	9.86	10.21	6.52	4.98	9.96
Year—									
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	9.65	9.67	9.71	3.33	4.86	9.50
1946(d)(e) ..	9.70	10.63	9.77	10.17	9.65	10.11	5.20	5.16	10.00
1947 ..	9.53	10.44	9.15	9.62	9.39	9.17	5.97	5.62	9.69
1948—									
Males ..	11.27	11.16	10.65	11.06	10.58	10.40	7.00	6.97	11.03
Females ..	8.80	9.75	7.91	9.45	7.54	8.68	4.06	5.54	8.89
Persons ..	10.04	10.44	9.31	10.25	9.10	9.55	5.99	6.33	9.96

(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 final 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 (1947) in which the ages of population in each State were accurately ascertained.

DEATH-RATES(a) IN AGE-GROUPS, 1947.

Age-group (years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	A.C.T.	Aust.
Under 1 ..	29.77	25.83	31.59	23.68	30.66	27.31	47.62	30.30	28.45
1-4 ..	1.99	1.52	2.26	1.33	2.05	1.75	1.32	0.80	1.84
5-14 ..	0.67	0.73	0.86	0.68	0.62	0.81	..	0.77	0.71
15-24 ..	1.11	1.29	1.35	1.08	1.30	1.72	2.90	0.29	1.23
25-34 ..	1.63	1.64	2.14	1.74	1.89	2.13	0.90	1.92	1.75
35-44 ..	3.07	2.88	3.60	2.88	3.22	3.11	4.29	3.82	3.10
45-54 ..	7.86	7.37	7.72	6.65	7.56	6.84	6.65	4.87	7.54
55-64 ..	17.90	17.59	16.54	16.45	16.07	15.50	14.29	15.31	17.31
65 and over	65.49	69.02	64.52	62.89	64.30	66.90	53.46	67.96	66.14
Crude Death rate (all ages) ..	9.53	10.44	9.15	9.62	9.39	9.17	5.97	5.62	9.69

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

It will be observed that in this particular year, while the crude death-rate for South Australia was only exceeded by that for Victoria, the rates at most individual ages were lower than for all other States.

(iii) *Comparison of Crude and Standardized Death-rates.* The relative incidence of mortality as between individual States and as between the years 1921, 1933, and 1947 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
1947	9.53	10.44	9.15	9.62	9.39	9.17	9.69
Standardized Death-rate(b)—							
1921	10.35	10.79	10.24	10.38	11.88	10.83	10.58
1933	8.52	8.74	9.10	7.66	8.74	8.86	8.62
1947	7.44	7.31	7.47	6.77	7.28	7.21	7.34

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

(b) See explanation of standardized death-rates

The comparisons above 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 were not calculated as it has been impossible to obtain a satisfactory estimate of the age distribution of the population. The rate calculated for 1947 based on final Census results is 7.34.

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. (Years.)		True Death-rate.	
	Males.	Females.	Males.(a)	Females.(b)
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
1946-48	66.07	70.63	15.14	14.16

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

(b) Number of

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.

CRUDE DEATH-RATES (a) : VARIOUS COUNTRIES.

Country.	1903-13.	1921-25.	1926-30.	1931-35.	1948.
Netherlands	13.9	10.4	9.9	8.9	7.4
Denmark	13.2	11.3	11.1	10.9	8.6
Norway	13.6	11.5	11.0	10.4	8.8
Union of South Africa (b)	(c) 10.3	9.7	9.7	9.8	8.9
New Zealand (d)	9.3	8.6	8.6	8.2	9.1
Canada	(e)	11.2	11.1	9.7	9.3
Argentina	17.5	14.4	13.3	12.1	(f) 9.4
Sweden	14.0	12.1	12.1	11.6	9.8
United States of America	(c) 14.1	11.8	11.8	(g) 10.9	9.9
Australia (h)	10.7	9.5	9.3	9.0	10.0
Western Australia (h)	10.3	9.2	9.1	8.8	9.1
Queensland (h)	10.3	9.2	8.6	8.6	9.3
Tasmania (h)	10.7	9.8	9.6	9.6	9.6
New South Wales (h)	10.3	9.3	9.4	8.7	10.0
South Australia (h)	10.1	9.4	8.7	8.7	10.3
Victoria (h)	11.7	10.1	9.6	9.7	10.4
Italy	20.4	17.4	16.0	14.1	10.5
Switzerland	15.2	12.5	12.1	11.8	10.8
Great Britain and Northern Ireland	14.5	12.4	12.3	12.2	10.9
England and Wales	14.1	12.2	12.1	12.0	10.8
Northern Ireland	16.9	15.6	14.8	14.3	11.2
Scotland	15.5	13.9	13.6	13.2	11.8
Spain	22.8	20.2	17.9	16.4	10.9

(a) Number of deaths per 1,000 mean population.
(d) Excluding Maoris.
full-blood aboriginals.

(e) Not available.

(b) White population only.

(f) 1946.

(g) 1933-35.

(c) 1911-13.

(h) Excluding

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

Country.	1908-13.	1921-25.	1926-30.	1931-35.	1948.
Finland	16.4	15.1	14.8	13.3	11.1
Hungary	(b) 22.9	19.9	17.0	15.8	11.2
Czechoslovakia	21.0	16.1	15.3	13.8	11.5
Japan	20.5	21.8	19.3	17.9	12.0
Germany	16.5	13.3	11.8	11.2	(c) 12.1
Eire	16.9	14.6	14.4	14.0	12.2
France	18.6	17.2	16.8	15.7	12.2
Belgium	15.7	13.4	13.7	12.9	12.4
Portugal	(b) 20.9	20.4	18.4	16.9	12.8
Poland	21.0	18.5	16.8	14.7	(d) 13.9
Greece	(e)	16.5	16.6	16.5	(f) 14.6
Yugoslavia	(e)	20.2	20.0	17.9	(g) 15.0
Ceylon	31.4	27.8	25.1	24.7	15.2
Mexico	(e)	(h) 25.5	25.6	24.8	16.3
Chile	(b) 31.0	30.3	25.8	24.4	17.4
Rumania	24.7	23.0	21.2	20.6	(f) 21.1
Egypt	25.8	25.4	26.2	27.4	25.8

(a) Number of deaths per 1,000 mean population. (b) 1911-13. (c) 1943. (d) 1938.
 (e) Not available. (f) 1947. (g) 1939. (h) 1922-25.

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)
Australia (c) ..	1946-48	15.1	14.2	Union of South			
Netherlands ..	1931-40	15.2	14.9	Africa (e) ..	1935-37	17.0	15.9
Denmark ..	1941-45	15.2	14.8	Northern Ire-			
New Zealand (d)	1934-38	15.3	14.6	land ..	1936-38	17.3	16.9
Sweden ..	1936-40	15.6	14.9	Belgium ..	1928-32	17.9	16.7
Canada ..	1940-42	15.9	15.1	Scotland ..	1930-32	17.9	16.8
United States				France ..	1933-38	17.9	16.2
of America (e)	1939-41	15.9	14.9	Hungary ..	1941	18.2	17.2
Switzerland ..	1939-44	16.0	14.9	Finland ..	1941-45	18.3	16.4
Norway ..	1930-31	16.4	15.7	Austria ..	1930-33	18.4	17.1
England and				Italy ..	1930-32	18.6	17.9
Wales ..	1937	16.6	15.5	Czechoslovakia	1929-32	19.3	18.1
Germany ..	1932-34	16.7	15.9	Greece ..	1926-30	20.4	19.7
Eire ..	1940-42	17.0	16.4	Poland ..	1931-32	20.8	19.5
				Japan ..	1935-36	21.3	20.2

(a) Number of deaths per 1,000 males in life table or stationary population (*see* explanation on pages 614-5). (b) Number of deaths per 1,000 females in life table or stationary population (*see* explanation on pages 614-5). (c) Excludes full-blood aboriginals. (d) Excludes Maoris. (e) White population only.

7. Australian Life Tables.—In connexion with the Census of 1947, life tables, which have been constructed by the Commonwealth Actuary in respect of each sex for Australia as a whole, have been published as a separate Census publication and are also dealt with in the Appendix hereinafter. Monetary tables on single and joint lives based thereon

are to be published by the Commonwealth Actuary. References to earlier Australian life tables appear in Official Year Book No. 20, pp. 962 and 969-73 and Official Year Book No. 29, p. 928.

8. **Infantile Deaths and Death-rates.**—(i) *Australia, 1901 to 1948.* 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 436,896 male infants born from 1944 to 1948, 14,168 (32.43 per 1,000) died during the first year of life, while of 413,747 female infants only 10,615 (25.66 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
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
1947 ..	2,977	2,225	5,202	31.73	25.12	28.52
1948 ..	2,856	2,086	4,942	31.28	24.07	27.77

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

(ii) *States, 1901 to 1948.* For each State and Territory the rates of infantile mortality during the period 1901 to 1948 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	634.48	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
1944 ..	30.68	31.96	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	55.56	12.35	29.38
1946 ..	30.22	27.16	29.27	27.07	31.06	30.23	30.30	19.31	29.01
1947 ..	29.81	26.28	30.82	24.27	30.92	27.31	43.48	19.85	28.52
1948 ..	30.30	23.93	27.96	29.74	25.60	27.65	35.71	23.45	27.77

(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 596.

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
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	21.23
1947 ..	21.45	19.59	21.44	17.90	19.97	20.73	25.36	16.80	20.51
1948 ..	21.33	17.14	20.21	19.28	19.10	20.06	10.71	17.93	19.64

(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 596.

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
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
1947 ..	8.36	6.69	9.38	6.37	10.95	6.58	18.12	3.05	8.01
1948 ..	8.97	6.79	7.75	10.46	6.50	7.59	25.00	5.52	8.13

(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 deaths of infants born in the Australian Capital Territory. See footnote, page 596.

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 1948 being less than one-third of the average rate for 1901-05. The two tables above 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 87 per cent. while that for children aged under one month declined by only 41 per cent.

A further indication of the considerable improvement in the infantile mortality rate may be obtained from the following figures. During the years 1946 to 1948, of 536,739 children born, 525,755 survived the first month of life and 521,479 the first year of life. Had the high infantile mortality rate of 1901 to 1905 obtained during this period only 518,780 children would have survived the first month of life and only 484,723 the first year of life.

(iii) *Districts.* The total numbers of births and of deaths of children under one year of age for 1948 are shown in *Demography Bulletin* No. 66 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 1948 only New Zealand and Sweden 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) 1948.
	1906-15.	1921-25.	1926-30.	1931-35.	1936-40.	1948.	
New Zealand (c) ..	61	43	37	32	32	22	25.5
Sweden ..	74	60	58	50	42	23	18.4
Australia (d) ..	74	58	52	41	39	28	23.1
<i>Victoria (d) ..</i>	76	62	52	43	38	24	22.1
<i>Western Australia (d) ..</i>	81	59	49	41	40	26	25.1
<i>Tasmania (d) ..</i>	77	60	53	44	41	28	26.4
<i>Queensland (d) ..</i>	68	51	47	39	37	28	24.8
<i>South Australia (d) ..</i>	68	54	47	35	33	30	24.1
<i>New South Wales (d) ..</i>	74	58	55	42	41	30	22.2
Netherlands ..	115	64	56	45	37	29	25.3
United States of America..	(e)	74	68	59	51	32	24.4
Norway ..	(e)	52	49	45	(f) 40	(g) 35	20.6
Denmark ..	103	82	82	71	60	35	20.3
Switzerland ..	108	65	54	48	45	36	19.0
Great Britain and Northern Ireland ..	(e)	78	70	65	59	36	18.1
<i>England and Wales ..</i>	113	76	68	62	56	34	17.9
<i>Northern Ireland ..</i>	92	82	79	78	77	44	21.7
<i>Scotland ..</i>	113	92	85	81	76	45	19.3
Union of South Africa (h) ..	(i) 91	73	67	63	53	37	27.0
Canada ..	(e)	98	93	75	64	42	26.9
Eire ..	92	69	70	68	69	49	21.9
France ..	122	95	89	73	70	51	20.8
Finland ..	(i) 112	96	88	72	72	52	26.9
Belgium ..	139	100	95	82	77	65	17.3
Germany ..	168	122	94	74	63	(j) 66	(k) 16.0
Spain ..	156	143	124	113	121	69	23.0
Italy ..	144	127	119	105	103	70	21.6
Japan ..	151	159	137	120	(l) 112	(m) 76	34.0
Argentina ..	(e)	116	113	97	96	(g) 79	(g) 24.3
Czechoslovakia ..	(e)	155	147	130	(l) 122	83	23.3
Ceylon ..	(i) 207	190	175	182	160	92	40.5
Portugal ..	(e)	146	146	146	135	100	26.3
Greece ..	(e)	(e)	(e)	122	(l) 112	(n) 101	(m) 29.1
Mexico ..	(e)	(o) 223	173	134	127	103	43.1
Hungary ..	(i) 198	187	172	157	131	(m) 111	19.1
Poland ..	(e)	(e)	147	137	(l) 139	(p) 140	(k) 24.6
Yugoslavia ..	(e)	(e)	151	153	(l) 141	(g) 144	(q) 25.9
Egypt ..	(e)	144	152	165	163	(r) 153	(r) 42.6
Chile ..	(i) 301	265	229	248	234	160	33.6
Rumania ..	(i) 195	201	192	182	180	(m) 199	(m) 22.4

(a) Number of deaths under 1 year per 1,000 births registered. (b) Number of births per 1,000 mean population. (c) Excluding Maoris. (d) Excluding full-blood aborigines. (e) Not available. (f) 1935-39. (g) 1946. (h) White population only. (i) 1911-13. (j) 1942. (k) 1943. (l) 1935-38. (m) 1947. (n) 1940. (o) 1922-25. (p) 1938. (q) 1939. (r) 1945.

In 1948 the Australian cities, Hobart, Perth, Melbourne, Sydney and Adelaide were among the ten cities having the lowest rates in the following list. The list is headed by Stockholm (19), Oslo (22) and Hobart (22), the next seven cities being Perth, Melbourne, Amsterdam, New York, Sydney, Chicago and Adelaide. Of the cities named, Madras had the highest rate, 238. This rate, however, was for the year 1939.

INFANTILE MORTALITY RATES (a) : VARIOUS CITIES.

City.	Infantile Mortality Rate.(a)		City.	Infantile Mortality Rate.(a)	
	1921.	1948.		1921.	1948.
Stockholm	61	19	Sheffield	99	(h) 41
Oslo	54	22	Philadelphia ..	78	(c) 42
Hobart (b)	75	22	Montreal	158	45
Perth (b)	81	23	Los Angeles ..	68	(c) 45
Melbourne (b) ..	74	24	Dublin	123	46
Amsterdam	54	26	Dresden	115	(i) 48
New York City ..	72	26	Washington ..	83	(c) 48
Sydney (b)	62	27	Hamburg	95	(i) 50
Chicago	84	28	Leipzig	136	(i) 50
Adelaide (b) ..	74	29	Antwerp	98	(c) 50
Toronto	91	29	Leeds	98	(h) 50
Brisbane (b) ..	62	30	Paris	95	51
San Francisco ..	50	(c) 30	Rome	(g)	56
Detroit	83	31	Glasgow	106	56
London	80	31	Breslau	170	(i) 58
Copenhagen ..	67	33	Manchester ..	94	(h) 60
Wellington (d) ..	61	(c) 33	Belfast	115	(h) 60
Christchurch (d) ..	54	(e) 33	Cologne	140	(i) 66
Cape Town (f) ..	82	33	Liverpool	105	(h) 69
Johannesburg (f) ..	101	33	Munich	126	80
Aberdeen	108	33	Lisbon	(g)	(h) 98
Edinburgh	96	34	Berlin	135	h 121
Auckland (d) ..	54	(e) 35	Cairo	(g)	h 174
Geneva	(g)	37	Bombay	402	(c) 213
Birmingham ..	82	(h) 40	Madras	281	(c) 238

(a) Number of deaths under 1 year per 1,000 births registered. (b) Excluding full-blood aboriginals.
 (c) 1939. (d) Excluding Macris. (e) 1944. (f) White population only. (g) Not available. (h) 1947. (i) 1938.

(v) *Causes of Deaths of Children under one Year.* The following table shows for 1948 the ages of all children who died under one year of age from each of twenty-three causes. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65. The infantile mortality rates for all births are shown for 1911, 1921, 1931, 1941 and 1948 and for ex-nuptial births for 1925, 1931, 1941 and 1948. Full particulars of the causes of death of all children who died in 1948 under one year and also of those under one month are given for each State and Territory in *Demography Bulletin* No. 66. This contains, in addition, detailed information for Australia as to the age at which children died from each cause of death.

In 1948, 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 3,477 or 70 per cent. of all deaths under one year; and of these 3,477 deaths, 2,832 or 81 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 365 deaths, representing 7 per cent. of all deaths under one year, or 2.05 per 1,000 births. Diarrhoea and enteritis caused 296 deaths and other pneumonia 158.

CAUSES OF DEATH OF CHILDREN UNDER ONE YEAR : AUSTRALIA, 1948.

Cause of Death.	Age at Death.															
	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.	Total under 1 year.
Cerebro-spinal Meningococcal Meningitis .. .. .	..	..	..	1	2	..	..	2	1	5	3	3	2	2	2	23
Whooping Cough .. .. .	..	1	..	1	10	7	9	5	5	3	4	2	..	4	..	51
Diphtheria .. .. .	..	..	..	..	..	1	..	..	..	..	..	5	1	..	5	12
Erysipelas .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Respiratory Tuberculosis .. .. .	..	..	..	..	..	..	1	..	..	..	..	2	1	..	1	3
Tuberculosis of Meninges .. .. .	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
Tuberculosis, Other Forms .. .. .	..	..	..	..	..	1	..	1	1	1	1	1	..	..	..	5
Syphilis	1	1	..	1	..	3	1	..	1	..	..	..	..	..	..	8
Measles .. .. .	..	..	..	1	..	1	..	..	2	2	3	2	1	5	18	18
Meningitis (Non-meningococcal)	4	3	..	..	10	1	4	1	1	4	4	3	1	1	1	37
Convulsions	3	1	..	..	2	1	..	..	1	1	1	1	1	1	1	13
Acute Bronchitis .. .. .	..	..	1	..	1	..	1	1	..	..	..	..	..	..	..	5
Broncho-pneumonia	54	28	22	16	44	33	21	23	18	26	17	15	18	15	15	365
Pneumonia, Other	38	12	8	8	14	8	14	7	5	9	9	7	7	6	6	158
Other Diseases of the Stomach	1	..	..	..	1	1	..	..	..	..	..	1	..	..	1	5
Diarrhoea and Enteritis	2	6	16	10	38	23	35	37	24	26	20	16	15	15	13	296
Hernia and Intestinal Obstruction	18	4	1	2	7	4	3	3	3	3	3	3	3	3	1	61
Congenital Malformations	305	60	32	15	54	46	36	23	20	20	11	11	4	18	9	664
Congenital Debility	59	3	4	3	7	6	4	3	1	1	1	..	..	2	2	96
Premature Birth	1,516	62	32	12	8	2	2	..	1	..	..	..	..	..	..	1,635
Injury at Birth	541	32	15	6	10	2	..	..	..	2	..	..	..	..	..	608
Other Diseases of Early Infancy	411	29	6	2	9	2	3	2	2	2	3	2	1	..	..	474
Other Causes	46	12	13	15	39	41	29	26	26	32	22	33	19	26	24	403
Total	2,999	254	150	93	256	183	163	133	111	134	103	104	77	95	87	4,942

	All Children.					Ex-nuptial Children.(a)					No. of Deaths 1948.
	No. of Deaths per 1,000 Total Births.					No. of Deaths per 1,000 Ex-nuptial Births.					
	1911.	1921.	1931.	1941.	1948.	1925.	1931.	1941.	1948.		
Cerebro-spinal Meningococcal Men- ingitis .. .. .	..	0.03	0.08	0.16	0.13	0.48	0.17	0.39	0.42	3
Whooping Cough	1.57	1.97	1.58	1.27	0.29	2.06	1.71	1.94	0.42	3	
Diphtheria	0.25	0.59	0.25	0.13	0.07	0.32	0.34	..	0.14	1	
Erysipelas	0.16	0.24	0.11	0.04	..	0.16	..	0.19	..	..
Respiratory Tuberculosis	0.08	0.07	0.03	0.04	0.02	..	..	..	..	..
Tuberculosis of Meninges	0.31	0.18	0.22	0.10	0.01	0.32	0.34	0.19	..	..
Tuberculosis, Other Forms	0.22	0.08	0.04	0.05	0.03	..	..	0.19	0.14	1
Syphilis	0.85	0.56	0.20	0.09	0.04	1.27	0.51	0.77	0.28	2	
Measles	0.34	0.15	0.10	0.01	0.10	0.16	0.51	..	0.28	2	
Meningitis (Non-meningococcal)	1.83	1.10	0.32	0.30	0.21	0.32	..	0.19	0.56	4	
Convulsions	2.55	1.45	0.39	0.17	0.07	2.38	0.51	0.39	0.14	1	
Acute Bronchitis	2.34	1.50	0.32	0.11	0.03	0.48	0.86	..	..	..
Broncho-pneumonia	2.86	3.08	2.82	2.96	2.05	8.09	5.31	4.65	2.37	17	
Pneumonia, Other	1.90	2.08	1.62	1.42	0.89	2.38	3.43	2.32	1.81	13	
Other Diseases of the Stomach	0.47	0.71	0.13	0.05	0.03	1.11	0.34	0.19	..	..
Diarrhoea and Enteritis	16.99	15.01	3.26	2.07	1.66	19.18	8.39	4.26	4.88	35	
Hernia and Intestinal Obstruction	0.72	0.57	0.41	0.19	0.34	0.47	0.17	0.39	0.14	1	
Congenital Malformations	2.99	3.74	4.23	4.63	3.73	3.64	4.28	4.06	2.79	20	
Congenital Debility (b)	22.41	7.64	2.60	1.98	0.54	9.51	7.19	3.48	0.97	7	
Premature Birth											
Injury at Birth	4.07	5.53	2.81	4.27	3.42	1.90	3.08	5.23	4.04	29	
Other Diseases of Early Infancy	5.58	4.16	3.29	4.14	2.66	2.69	3.77	4.45	2.09	15	
Other Causes											
Total	68.49	65.73	42.14	39.72	27.77	84.83	68.65	58.83	37.36	268	

(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 numbers of deaths of these children in 1948 and the rates in respect of 1925, 1931, 1941 and 1948 are shown in the preceding table. Corresponding figures for 1947 may be obtained from *Demography*

Bulletin No. 65. Full particulars of the causes of death of ex-nuptial children who died in 1948 aged under one year and also of those under one month are given for each State and Territory in *Demography Bulletin* No. 66. 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 156 or 58 per cent., diarrhoea and enteritis for 35 or 13 per cent., and broncho-pneumonia for 17 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 364,795 deaths which occurred in Australia during the five years ended 1948, and the results are shown in the following table:—

AGGREGATE DEATHS IN AGE-GROUPS : AUSTRALIA, 1944 TO 1948.

Age-group (Years).	Number of Deaths.			Percentage of Total		
	Males.	Females.	Persons.	Males.	Females.	Persons.
Under 1	14,168	10,615	24,783	7.06	6.47	6.79
1-4	3,249	2,542	5,791	1.62	1.55	1.59
5-19	4,786	2,893	7,679	2.38	1.76	2.11
20-39	10,918	10,325	21,243	5.44	6.29	5.82
40-59	41,330	28,291	69,621	20.59	17.25	19.08
60-64	21,038	13,323	34,361	10.48	8.12	9.42
65 and over ..	105,197	96,056	201,253	52.41	58.55	55.17
Age unspecified ..	52	12	64	0.02	0.01	0.02
Total	200,738	164,057	364,795	100.00	100.00	100.00

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).								
	Under 1.	1-4.	5-19.	20-39.	40-59.	60-64.	65 and over.	Unspecified.	Total.
MALES.									
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
FEMALES.									
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
PERSONS.									
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 1947 and 1948 will be found tabulated in groups of five years for each State and Territory and in single ages for Australia in *Demography Bulletins* Nos. 65-66, 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 1948 is given in the following table :—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS : AUSTRALIA, 1948.

Age at Death.	Males.	Fe- males.	Persons.	Age at Death.	Males.	Fe- males.	Persons.
Under 1 week ..	1,760	1,239	2,999	Total 5- 9 years ..	279	193	472
1 week and under 2 ..	142	112	254	" 10-14 " ..	213	127	340
2 weeks and under 3 ..	90	60	150	" 15-19 " ..	395	147	542
3 weeks and under 1				" 20-24 " ..	581	277	858
month ..	54	39	93	" 25-29 " ..	530	412	942
Total under 1 month	2,046	1,450	3,496	" 30-34 " ..	586	508	1,094
				" 35-39 " ..	755	638	1,393
1 month and under 3 ..	246	193	439	" 40-44 " ..	1,098	814	1,912
3 months and under 6 ..	214	193	407	" 45-49 " ..	1,628	1,086	2,714
6 months and under 12 ..	350	250	600	" 50-54 " ..	2,334	1,642	3,976
Total under 1 year ..	2,856	2,086	4,942	" 55-59 " ..	3,671	2,216	5,887
				" 60-64 " ..	4,575	2,796	7,371
1 year ..	296	237	533	" 65-69 " ..	5,103	3,451	8,554
2 years ..	162	106	268	" 70-74 " ..	5,065	4,210	9,275
3 " ..	103	68	171	" 75-79 " ..	5,132	4,794	9,926
4 " ..	80	52	132	" 80-84 " ..	4,066	4,332	8,398
Total under 5 years	3,497	2,549	6,046	" 85-89 " ..	2,342	2,829	5,171
				" 90-94 " ..	656	982	1,638
				" 95-99 " ..	117	160	277
				" 100 and over ..	12	14	26
				Age unspecified ..	20	7	27
				Total all ages ..	42,655	34,184	76,839

(ii) *Rates.* The following table gives the average annual death-rates in age-groups per 1,000 living for the period 1946 to 1948, i.e., the Census year 1947 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 1932 to 1934 are given in Official Year Book No. 37, p. 778.

AVERAGE ANNUAL DEATH-RATES : AGE-GROUPS, 1946-48.

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
MALES.							
0- 4 ..	9.80	8.18	9.39	8.08	9.32	9.13	9.11
5- 9 ..	0.93	0.85	0.90	1.00	0.89	1.15	0.92
10-14 ..	0.78	0.70	0.99	0.66	0.61	0.67	0.77
15-19 ..	1.43	1.25	1.53	1.46	1.45	1.62	1.41
20-24 ..	1.61	1.64	2.97	1.42	2.18	2.10	1.72
25-29 ..	1.54	1.58	2.16	1.59	1.96	2.12	1.70
30-34 ..	1.94	1.86	2.43	1.88	2.29	2.27	2.02
35-39 ..	2.68	2.43	3.05	2.41	2.46	3.10	2.65
40-44 ..	4.24	3.88	4.55	3.65	4.15	3.93	4.12
45-49 ..	7.25	6.32	7.35	6.11	6.25	5.88	6.79
50-54 ..	12.01	10.93	11.56	10.76	11.45	9.52	11.42
55-59 ..	18.57	16.98	17.83	16.25	17.21	16.98	17.68
60-64 ..	28.82	27.08	27.20	26.04	26.26	23.87	27.54
65-69 ..	44.08	42.18	41.15	40.14	40.25	41.82	42.45
70-74 ..	64.76	64.27	64.46	60.98	60.96	58.43	63.72
75-79 ..	100.79	100.40	96.25	97.77	98.74	103.22	99.68
80-84 ..	150.89	147.72	149.92	145.27	149.45	156.64	149.29
85-89 ..	230.47	228.78	233.66	224.18	222.41	256.56	230.19
90 and over	352.09	340.39	353.90	353.49	376.24	434.21	353.03

AVERAGE ANNUAL DEATH-RATES: AGE-GROUPS, 1946-48—*continued.*

Age-group (Years).	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tasmania.	Australia.
FEMALES.							
0-4 ..	7.32	6.40	7.55	7.12	7.92	7.24	7.14
5-9 ..	0.65	0.61	0.84	0.55	0.50	0.69	0.64
10-14 ..	0.55	0.48	0.54	0.40	0.63	0.39	0.52
15-19 ..	0.61	0.66	0.79	0.73	0.65	1.46	0.70
20-24 ..	0.93	1.10	1.31	1.05	1.15	1.79	1.08
25-29 ..	1.49	1.37	1.62	1.65	1.54	1.74	1.50
30-34 ..	1.70	1.65	2.26	1.90	1.55	1.90	1.78
35-39 ..	2.40	2.16	2.84	2.02	2.58	2.59	2.38
40-44 ..	3.30	3.05	3.73	3.46	3.11	3.51	3.29
45-49 ..	4.83	4.81	5.17	4.60	5.09	4.66	4.86
50-54 ..	7.75	7.86	7.55	7.12	6.81	7.84	7.64
55-59 ..	10.58	11.00	10.97	10.34	10.08	10.03	10.69
60-64 ..	16.91	16.92	15.70	14.97	16.13	17.30	16.52
65-69 ..	26.69	27.10	24.91	25.25	24.56	27.35	26.34
70-74 ..	45.61	45.83	42.82	42.17	40.75	49.47	44.85
75-79 ..	75.11	77.96	73.20	71.95	74.21	77.00	75.57
80-84 ..	127.63	127.91	128.69	121.57	117.55	123.49	126.50
85-89 ..	197.30	201.38	205.74	192.69	187.50	198.35	198.78
90 and over	320.38	306.09	342.18	292.43	273.81	317.76	312.54

PERSONS.							
0-4 ..	8.59	7.31	8.49	7.61	8.64	8.21	8.15
5-9 ..	0.79	0.73	0.87	0.78	0.70	0.92	0.78
10-14 ..	0.67	0.59	0.77	0.53	0.62	0.53	0.65
15-19 ..	1.03	0.96	1.17	1.10	1.05	1.54	1.06
20-24 ..	1.27	1.37	1.70	1.23	1.67	1.94	1.40
25-29 ..	1.52	1.47	1.90	1.62	1.74	1.93	1.60
30-34 ..	1.82	1.75	2.35	1.89	1.92	2.09	1.90
35-39 ..	2.54	2.29	2.95	2.21	2.51	2.85	2.52
40-44 ..	3.78	3.47	4.17	3.56	3.69	3.73	3.72
45-49 ..	6.04	5.56	6.31	5.36	5.73	5.28	5.84
50-54 ..	9.81	9.33	9.59	8.84	9.22	8.65	9.48
55-59 ..	14.59	13.90	14.59	13.24	13.80	13.44	14.19
60-64 ..	22.78	21.71	21.71	20.32	21.35	20.53	21.94
65-69 ..	35.02	34.00	33.14	32.22	32.58	34.56	34.05
70-74 ..	54.40	53.87	53.44	50.71	50.78	53.80	53.52
75-79 ..	86.75	87.62	84.56	83.24	86.62	89.78	86.53
80-84 ..	138.08	136.24	139.18	131.40	133.24	138.41	136.64
85-89 ..	211.40	212.11	219.04	205.12	204.10	222.49	211.97
90 and over	332.35	318.37	347.45	314.38	312.27	366.12	327.92

11. *Deaths of Centenarians.*—In previous issues of the Official Year Book, up to and including No. 33, particulars were 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 has been 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.—Since 1940 the tabulation respecting the length of residence in Australia of all persons whose deaths were registered during the year has been discontinued. Details for the year 1940 appear in *Official Year Book No. 37*, pp. 779–80.

13. Birthplaces 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 for 1948 appear in *Demography Bulletin No. 66*.

14. Occupation of Males who Died.—A table showing occupations of males who died during 1948 appears in *Demography Bulletin No. 66*.

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, was formerly in use in many European countries and American States, 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 1948 in Australia for each cause enumerated. To preserve continuity with former statistics, particulars for 1948 have been compiled in the abridged form and are shown on p. 632 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. 633.

The compilations for the years 1944 to 1948 will be found in full detail in *Demography Bulletins Nos. 62 to 66*. 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 1948. 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 1944 to 1948 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.

A.—CAUSES OF DEATH : MALES, 1948.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses 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	3	2	..	..	1	..	..	7
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	2	1	..	..	..	..	..	..	3
5. Whooping Cough (4)	9	11	8	1	5	..	4	..	..	29
5. Diphtheria (5)	10	24	5	3	1	7	1	..	..	41
6. Tuberculosis of the Respiratory System (6)	13	539	367	180	98	120	47	3	3	1,357
7a. Tubercular Meningitis (7a)	14 (a)	9	7	1	3	3	1	..	..	24
7b. Other forms of Tuberculosis (7b)	14 (b)-22	19	29	8	6	3	3	..	..	68
<i>Total, Tuberculosis</i> .. .. .	..	567	403	189	107	126	51	3	3	1,449
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	14	6	..	4	..	2	..	..	26
9. Dysentery (14)	27	3	3	1	..	..	..	..	..	7
10. Malaria (5)	28	3	1	3	..	..	..	..	..	7
11. Syphilis (9)	30	112	90	39	19	19	9	..	1	286
12a. Influenza—Pneumonic (10a)	33 (a)	52	13	34	4	7	1	..	2	111
12a. Influenza—Other (10b)	33 (b)	37	15	13	5	2	1	..	..	75
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	21	2	3	4	..	2	..	1	33
15. Typhus Fever (13)	39	..	3	..	2	2	..	..	..	5
16. Diseases caused by Helminths (12)	40-42	12	8	..	2	..	2	..	..	24
17. Other Infectious and Parasitic Diseases (14) .. .. .	..	85	44	38	25	29	11	..	..	232
18. Cancer of the Buccal Cavity and Pharynx (15)	45	81	69	27	27	27	8	..	..	239
19. Cancer of the Digestive Organs and Peritoneum (15)	46	1,012	754	370	239	188	84	..	2	2,649
20. Cancer of the Respiratory System (15)	47	205	134	76	59	45	15	..	..	534
22. Cancer of the Breast (15)	50	2	4	1	..	..	..	..	..	7
23. Cancer of Other or Unspecified Organs (15)	49, 51-55	582	420	194	135	94	43	1	..	1,469
<i>Total, Cancer</i> .. .. .	..	1,832	1,331	663	460	354	150	1	2	4,898
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	104	27	32	17	9	..	..	..	189
25. Acute Rheumatic Fever (20)	58	26	3	15	5	4	1	..	..	54
26. Chronic Rheumatism and Gout (17)	59, 60	14	23	5	8	2	3	..	..	55
27. Diabetes Mellitus (18)	61	188	146	69	50	28	13	..	..	494
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	7	6	2	..	1	2	..	..	18
29. Other General Diseases (20)	62, 64-66	26	14	9	9	2	2	..	..	62
30. Avitaminoses (20)	67-71	1	1	3	1	..	..	..	..	6
31. Anæmias (20)	73	41	20	19	3	7	6	..	..	96
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	95	60	37	28	11	7	..	..	238
33. Alcoholism (acute or chronic) (19)	77	55	12	37	8	2	2	1	..	117
34. Other Chronic Poisonings (20)	78, 79	3	..	4	..	..	..	..	..	7
35. Meningitis (Non-meningococcal) (21)	81	31	14	12	6	5	3	..	..	71
36. Diseases of the Spinal Cord (21)	82	30	19	22	5	5	1	..	..	82
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,501	981	465	361	182	110	1	5	3,606
38. Mental Diseases and Deficiency (23)	84	10	8	6	11	2	2	..	..	39
39. Epilepsy (23)	85	46	18	5	11	1	4	..	..	85
40. Other Diseases of the Nervous System (23)	80, 86, 87	108	62	39	25	16	6	1	..	257
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	10	12	4	6	6	1	..	1	40
42. Pericarditis (24)	90	7	9	4	2	1	..	1	..	24
43. Chronic Affections of the Valves and Endocardium (24)	92	235	163	108	71	48	28	1	1	655
44. Diseases of the Myocardium (24)	93	3,095	1,972	976	584	499	208	1	2	7,337
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	2,180	1,595	726	483	334	163	5	11	5,497
46. Other Diseases of the Heart (24)	91, 95	344	182	50	53	22	31	2	2	686
<i>Total, Heart Diseases</i> .. .. .	..	5,861	3,921	1,864	1,193	904	430	10	16	14,199

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

A.—CAUSES OF DEATH: MALES, 1948—*continued*.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses 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	274	210	75	63	92	45	..	1	760
48. Other Diseases of the Circulatory System (25)	96, 99-103	108	74	47	15	17	11	..	1	273
49a. Acute Bronchitis (26a)	106 (a) (e)	37	9	18	6	2	5	..	..	77
49b. Chronic Bronchitis (26b)	106 (b) (d)	120	65	67	24	25	7	1	..	309
50. Pneumonia and Bronchopneumonia (27)	107-109	830	621	335	154	175	92	5	3	2,215
51. Pleurisy (28)	110	15	13	13	6	4	1	..	..	52
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	201	164	112	64	34	24	4	2	605
53. Ulcer of the Stomach and Duodenum (32b)	117	204	125	49	40	23	16	..	2	459
54. Diarrhoea and Enteritis (under 2 years of age) (29a)	119	78	34	38	35	8	4	..	..	197
55. Diarrhoea and Enteritis (2 years and over) (29b)	120	35	24	5	8	5	3	..	1	81
56. Appendicitis (30)	121	55	47	24	10	6	6	..	..	148
57. Hernia, Intestinal Obstruction (32a)	122	134	97	47	27	11	12	..	..	328
58. Cirrhosis of the Liver (31a)	124	95	80	30	17	19	9	2	1	253
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b)	125-127	61	57	27	15	13	5	..	..	178
60. Other Diseases of the Digestive System (32b)	..	74	61	25	24	13	3	..	..	200
61. Nephritis (33)	130-132	665	605	312	108	97	64	..	1	1,852
62. Other Diseases of the Kidneys and Ureters (34)	133	42	35	28	14	5	4	..	..	128
63. Calculi of the Urinary Passages (34)	134	20	24	11	6	5	2	..	1	69
64. Diseases of the Urinary Bladder (34)	135	7	12	2	3	1	1	..	..	26
65. Diseases of the Urethra, Urinary Abscess, etc. (34)	136	6	4	1	2	..	2	..	..	15
66. Diseases of the Prostate (34)	137	161	184	82	37	36	28	..	..	528
67. Diseases of the Genital Organs, not specified as Venereal (34)	138, 139	1	..	1	1	..	..	..	..	3
73. Diseases of the Skin and Cellular Tissue (37)	151-153	13	7	4	4	4	1	..	..	33
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	13	6	4	..	4	1	..	..	28
75. Congenital Malformations (Stillbirths not included) (38)	157	189	100	62	37	44	14	..	2	448
76. Congenital Debility (38)	158	33	11	11	4	1	..	..	..	60
77. Premature Birth (38)	159	376	202	105	73	72	52	..	6	946
78. Injury at Birth (38)	160	162	90	57	24	22	11	1	3	370
79. Other Diseases Peculiar to the First Year of Life (38)	161	123	70	42	23	20	5	..	..	283
80. Senility (39)	162	506	252	209	102	39	20	3	3	1,134
81. Suicide (40)	163, 164	246	127	93	37	48	19	3	5	578
82. Homicide (41)	165-168	29	12	2	4	3	1	..	1	52
83. Automobile Accidents (42)	170	417	321	125	105	95	27	3	4	1,097
84. Other Violent or Accidental Deaths (43)	169, 171-195	715	410	339	130	119	75	11	2	1,801
Total, Accidents	..	1,132	731	464	235	214	102	14	6	2,898
85. Deaths due to Operations of War (43)	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43)	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44)	199, 200	57	20	21	14	2	..	6	..	120
Total Males	..	17,085	11,503	6,127	3,619	2,797	1,398	56	70	42,655

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

B.—CAUSES OF DEATH : FEMALES, 1948.

INTERMEDIATE CLASSIFICATION.

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

Intermediate Classification.	General Classifi- cation 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	2	..	..	1	..	..	..	4
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	2	..	..	1	..	..	..	..	3
4. Whooping Cough (4)	9	16	12	4	3	..	1	..	..	36
5. Diphtheria (5)	10	27	5	2	4	..	..	1	..	39
6. Tuberculosis of the Respiratory System (6)	13	232	214	68	71	37	27	1	1	651
7a. Tubercular Meningitis (7a)	14 (a)	6	4	..	1	2	2	..	..	15
7b. Other Forms of Tuberculosis (7b)	14 (b)-22	10	20	9	8	1	6	..	..	54
Total, Tuberculosis .. .. .	..	248	238	77	80	40	35	1	1	720
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	4	1	1	3	1	1	..	..	11
9. Dysentery (14)	27	1	3	3	3	1	..	..	..	11
10. Malaria (8)	28	1	..	1	..	..	..	..	..	2
11. Syphilis (9)	30	30	30	11	10	10	3	..	..	94
12a. Influenza—Pneumonic (8a)	33 (a)	49	20	34	2	9	4	1	..	119
12b. Influenza—Other (8b)	33 (b)	37	17	16	..	5	1	..	..	76
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	28	7	1	4	1	5	..	1	47
15. Typhus Fever (13)	39	1	..	..	..	2	..	..	..	3
16. Diseases caused by Helminths (14)	40-42	3	6	4	4	2	1	..	..	20
17. Other Infectious and Parasitic Diseases (14)	*	46	39	22	24	15	5	1	..	152
18. Cancer of the Buccal Cavity and Pharynx (15)	45	19	18	6	3	2	1	..	..	49
19. Cancer of the Digestive Organs and Peritoneum (15)	46	796	632	251	197	114	67	..	2	2,059
20. Cancer of the Respiratory System (15)	47	62	51	21	7	10	4	..	1	156
21. Cancer of the Uterus (15)	48	216	174	69	74	31	21	..	..	585
22. Cancer of the Breast (15)	50	372	324	121	108	50	27	..	2	1,004
23. Cancer of Other or Unspecified Organs (15)	49, 51-55	327	315	103	92	59	23	..	1	920
Total, Cancer .. .. .	..	1,792	1,514	571	481	266	143	..	6	4,773
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	92	36	36	28	13	3	..	1	209
25. Acute Rheumatic Fever (20)	58	23	2	11	4	7	1	..	..	48
26. Chronic Rheumatism and Gout (17)	59, 60	39	47	9	15	6	1	1	..	118
27. Diabetes Mellitus (18)	61	339	307	144	91	40	31	..	..	952
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	46	26	16	6	6	9	..	..	109
29. Other General Diseases (20)	62, 64-66	23	10	10	10	5	4	..	..	62
30. Avitaminoses (20)	67-71	3	1	..	1	..	..	..	..	5
31. Anæmias (20)	73	57	23	22	12	4	5	..	1	124
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74-76	79	57	19	18	8	6	1	1	189
33. Alcoholism (acute or chronic) (19)	77	20	4	7	2	2	..	..	..	35
34. Other Chronic Poisonings (20)	78, 79	1	..	2	..	..	..	..	..	3
35. Meningitis (Non-meningococcal) (21)	81	15	11	17	8	2	1	..	..	54
36. Diseases of the Spinal Cord (21)	82	22	19	10	13	6	2	..	..	72
37. Intra-cranial Lesions of Vascular Origin (22)	83	1,845	1,462	550	464	241	130	1	11	4,704
38. Mental Diseases and Deficiency (23)	84	25	5	7	..	2	2	..	..	41
39. Epilepsy (23)	85	34	17	8	4	5	5	..	..	73
40. Other Diseases of the Nervous System (23)	80, 86, 87	96	63	31	21	10	7	..	..	228
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	5	6	1	5	2	..	..	..	19
42. Pericarditis (24)	90	5	8	..	..	1	1	..	..	15
43. Chronic Affections of the Valves and Endocardium (24)	92	195	182	62	72	30	32	..	4	577
44. Diseases of the Myocardium (24)	93	2,615	1,994	696	509	344	185	..	4	6,347
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	1,091	813	305	236	127	83	..	1	2,656
46. Other Diseases of the Heart (24)	91, 95	183	178	37	30	17	22	1	..	468
Total, Heart Diseases .. .. .	..	4,089	3,175	1,100	847	519	323	1	9	10,063
47. Arteriosclerosis and Gangrene (25)	97, 98	256	280	58	73	67	33	..	..	767
48. Other Diseases of the Circulatory System (25)	96, 99-103	101	70	42	19	20	8	..	..	260

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

B.—CAUSES OF DEATH: FEMALES, 1948—continued.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses 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)	33	17	12	6	2	5	..	1	76
49b. Chronic Bronchitis (26b) ..	106 (b) (d)	58	44	33	21	5	10	..	..	171
50. Pneumonia and Broncho-pneumonia (27) ..	107-109	672	621	210	107	115	87	1	2	1,815
51. Pleurisy (28) ..	110	11	6	7	2	..	2	1	..	29
52. Other Diseases of the Respiratory System (except Tuberculosis) (28) ..	104, 105, 111-114	153	113	70	53	28	21	..	1	439
53. Ulcer of the Stomach and Duodenum (32b) ..	117	56	32	16	5	9	2	..	..	120
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	44	25	29	33	5	2	..	..	138
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	40	28	9	5	5	3	..	..	90
56. Appendicitis (30) ..	121	22	27	22	8	4	5	..	..	88
57. Hernia, Intestinal Obstruction (32a) ..	122	122	63	38	24	20	7	..	..	274
58. Cirrhosis of the Liver (31a) ..	124	46	59	9	11	12	5	..	..	142
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b) ..	125-127	106	72	39	32	14	10	..	..	273
60. Other Diseases of the Digestive System (32b) ..	..	75	57	27	22	13	9	..	..	203
61. Nephritis (33) ..	130-132	534	538	238	84	73	34	1	1	1,503
62. Other Diseases of the Kidneys and Ureters (34) ..	133	47	30	22	8	9	2	..	..	118
63. Calculi of the Urinary Passages (34) ..	134	10	6	6	1	1	2	..	..	26
64. Diseases of the Urinary Bladder (34) ..	135	5	3	1	1	2	2	..	..	14
65. Diseases of the Urethra, Urinary Abscess, &c. (34) ..	136	..	..	2	2	1	..	..	..	5
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, &c. (34) ..	138, 139	21	21	15	11	1	2	..	..	71
68. Diseases and Accidents of Pregnancy (36) ..	142-145	23	14	9	5	3	4	..	..	58
69. Abortion, without mention of Infection (36) ..	141	8	6	5	1	..	1	1	..	22
70. Abortion, with mention of Infection (35a) ..	140	8	7	3	2	1	2	..	..	23
71. Infection during Child-birth and the Puerperium (35b) ..	147	14	9	6	3	6	..	..	..	38
72. Other Accidents and Diseases of Child-birth and the Puerperium (36) ..	146, 148-150	39	27	18	11	10	4	..	..	109
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	14	8	3	2	..	4	1	..	32
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37) ..	154-156	19	7	2	..	1	..	..	..	29
75. Congenital Malformations (Stillbirths not included) (38) ..	157	150	82	47	36	35	12	..	1	363
76. Congenital Debility (38) ..	158	21	6	7	1	1	..	..	..	36
77. Premature Birth (38) ..	159	256	150	129	66	55	30	1	2	680
78. Injury at Birth (38) ..	160	99	61	28	31	9	7	1	2	238
79. Other Diseases peculiar to the First Year of Life (38) ..	161	71	47	31	20	16	6	..	..	191
80. Senility (39) ..	162	521	333	155	142	38	26	..	..	1,215
81. Suicide (40) ..	163, 164	74	40	24	6	10	4	..	1	159
82. Homicide (41) ..	165-168	21	7	2	3	2	..	1	..	36
83. Automobile Accidents (42) ..	170	72	71	45	13	21	9	..	..	231
84. Other Violent or Accidental Deaths (43) ..	169, 171-195	328	159	153	85	43	40	..	2	810
Total, Accidents ..	..	400	230	198	98	64	49	..	2	1,041
85. Deaths due to Operations of War (43) ..	196, 197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43) ..	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	199, 200	29	11	16	6	..	1	1	1	65
Total Females ..	..	13,318	10,322	4,335	3,129	1,888	1,130	17	45	34,184

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

C.—CAUSES OF DEATH : PERSONS, 1948.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses 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	2	5	2	..	1	1	..	..	11
2. Plague (2)	3	..	..	..	..	..	..	..	..	..
3. Scarlet Fever (3)	8	4	1	..	1	..	..	..	..	6
4. Whooping Cough (4)	9	27	20	5	8	..	5	..	..	65
5. Diphtheria (5)	10	51	10	5	5	7	1	1	..	80
6. Tuberculosis of the Respiratory System (6)	13	771	581	248	169	157	74	4	4	2,008
7a. Tubercular Meningitis (7a)	14 (a)	15	11	1	4	5	3	..	..	39
7b. Other Forms of Tuberculosis (7b)	14 (b)—22	20	49	17	14	4	9	..	..	122
Total, Tuberculosis .. ..	..	815	641	266	187	166	86	4	4	2,169
8. Septicæmia, Purulent Infection (Non-puerperal) (14)	24	18	7	1	7	1	3	..	..	37
9. Dysentery (14)	27	4	6	4	3	1	..	..	..	18
10. Malaria (8)	28	4	1	4	..	..	..	..	..	9
11. Syphilis (9)	30	142	120	50	29	29	12	..	1	383
12a. Influenza (Pneumonic) (8a)	33 (a)	101	33	66	6	16	5	1	2	230
12b. Influenza (Other) (8b)	33 (b)	74	32	29	5	7	2	..	..	149
13. Small-pox (11)	34	..	..	..	..	..	..	..	..	..
14. Measles (12)	35	49	9	4	8	1	7	..	2	80
15. Typhus Fever (13)	39	1	..	3	..	4	..	..	..	8
16. Diseases caused by Helminths (14)	40—42	15	14	4	6	2	3	..	..	44
17. Other Infectious and Parasitic Diseases (14) .. ..	..	131	83	60	49	44	16	1	..	384
18. Cancer of the Buccal Cavity and Pharynx (15)	45	100	87	33	30	29	9	..	..	288
19. Cancer of the Digestive Organs and Peritoneum (15)	46	1,808	1,386	621	436	302	151	..	4	4,708
20. Cancer of the Respiratory System (15)	47	267	185	97	66	55	19	..	1	690
21. Cancer of the Uterus (15)	48	216	174	69	74	31	21	..	..	585
22. Cancer of the Breast (15)	50	374	328	122	108	50	27	..	2	1,011
23. Cancer of other or unspecified Organs (15)	49, 51—55	909	735	297	227	153	66	1	1	2,389
Total, Cancer .. ..	..	3,674	2,895	1,239	941	620	293	1	8	9,671
24. Non-malignant Tumours or Tumours of Unspecified Nature (16)	56, 57	196	63	68	45	22	3	..	1	398
25. Acute Rheumatic Fever (20)	58	49	5	26	9	11	2	..	..	102
26. Chronic Rheumatism and Gout (17)	59, 60	53	70	14	23	8	4	1	..	173
27. Diabetes Mellitus (18)	61	527	453	213	141	68	44	..	..	1,446
28. Diseases of the Thyroid and Parathyroid Glands (20)	63	53	32	18	6	7	11	..	..	127
29. Other General Diseases (20)	62, 64—66	49	24	19	19	7	6	..	..	124
30. Avitaminoses (20)	67—71	4	2	3	2	..	..	..	..	11
31. Anæmias (20)	73	98	43	41	15	11	11	..	1	220
32. Leucæmias, Pseudoleucæmias, and other Diseases of the Blood and Blood-making Organs (20)	72, 74—76	174	117	56	46	19	13	1	1	427
33. Alcoholism (acute or chronic) (19)	77	75	16	44	10	4	2	1	..	152
34. Other Chronic Poisonings (20)	78, 79	4	..	6	..	..	..	..	..	10
35. Meningitis (Non-meningococcal) (21)	81	46	25	29	14	7	4	..	..	125
36. Diseases of the Spinal Cord (21)	82	52	38	32	18	11	3	..	..	154
37. Intra-cranial Lesions of Vascular Origin (22)	83	3,346	2,443	1,015	825	423	240	2	16	8,310
38. Mental Diseases and Deficiency (23)	84	35	13	13	11	4	4	..	..	80
39. Epilepsy (23)	85	80	35	13	15	6	9	..	..	158
40. Other Diseases of the Nervous System (23)	80, 86, 87	204	125	70	46	26	13	1	..	485
41. Diseases of the Eye, Ear and their Annexa (23)	88, 89	15	18	5	11	8	1	..	1	59
42. Pericarditis (24)	90	12	17	4	2	2	1	1	..	39
43. Chronic Affections of the Valves and Endocardium (24)	92	430	345	170	143	78	60	1	5	1,232
44. Diseases of the Myocardium (24)	93	5,710	3,966	1,672	1,093	843	393	1	6	13,684
45. Diseases of the Coronary Arteries and Angina Pectoris (24)	94	3,271	2,408	1,031	719	461	246	5	12	8,153
46. Other Diseases of the Heart (24)	91, 95	527	360	87	83	39	53	3	2	1,154
Total, Heart Diseases .. ..	..	9,950	7,096	2,964	2,040	1,423	753	11	25	24,202
47. Arteriosclerosis and Gangrene (25)	97, 98	530	490	133	136	159	78	..	1	1,527
48. Other Diseases of the Circulatory System (25)	96, 99—103	209	144	89	34	37	19	..	1	533
49a. Acute Bronchitis (26a)	106 (a) (c)	70	26	30	12	4	10	..	1	153

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

C.—CAUSES OF DEATH: PERSONS, 1948—continued.

INTERMEDIATE CLASSIFICATION.

(Figures in parentheses 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)	178	109	100	45	30	17	1	..	480
50. Pneumonia and Broncho-pneumonia (27) ..	107-109	1,502	1,242	545	261	290	179	6	5	4,030
51. Pleurisy (28) ..	110	26	19	20	8	4	3	1	..	81
52. Other Diseases of the Respiratory System (except Tuberculosis) (28)	104, 105, 111-114	354	277	182	117	62	45	4	3	1,044
53. Ulcer of the Stomach and Duodenum (32b) ..	117	260	157	65	45	32	18	..	2	579
54. Diarrhoea and Enteritis (under 2 years of age) (29a) ..	119	122	59	67	68	13	6	..	..	335
55. Diarrhoea and Enteritis (2 years and over) (29b) ..	120	75	52	14	13	10	6	..	1	171
56. Appendicitis (30) ..	121	77	74	46	18	10	11	..	..	236
57. Hernia, Intestinal Obstruction (32a) ..	122	256	160	85	51	31	19	..	..	602
58. Cirrhosis of the Liver (31a) ..	124	141	139	39	28	31	14	2	1	395
59. Other Diseases of the Liver and Biliary Passages, including Biliary Calculi (31b) ..	125-127	167	129	66	47	27	15	..	..	451
60. Other Diseases of the Digestive System (32b) ..	..	149	118	52	46	26	12	..	..	403
61. Nephritis (33) ..	130-132	1,199	1,143	550	192	170	98	1	2	3,355
62. Other Diseases of the Kidneys and Ureters (34) ..	133	89	65	50	22	14	6	..	..	246
63. Calculi of the Urinary Passages (34) ..	134	30	30	17	7	6	4	..	1	95
64. Diseases of the Urinary Bladder (34) ..	135	12	15	3	4	3	3	..	..	40
65. Diseases of the Urethra, Urinary Abscess, etc. (34) ..	136	6	4	3	4	1	2	..	..	20
66. Diseases of the Prostate (34) ..	137	161	184	82	37	36	28	..	..	528
67. Diseases of the Genital Organs not specified as Venereal or connected with Pregnancy, etc. (34)	138, 139	22	21	16	12	1	2	..	..	74
68. Diseases and Accidents of Pregnancy (36) ..	142-145	23	14	9	5	3	4	..	..	58
69. Abortion, without mention of Infection (36) ..	141	8	6	5	1	..	1	1	..	22
70. Abortion, with mention of Infection (35a) ..	140	8	7	3	2	1	2	..	..	23
71. Infection during Child-birth and the Puerperium (35) ..	147	14	9	6	3	6	..	..	..	38
a. Other Accidents and Diseases of Child-birth and the Puerperium (36) ..	146, 148-150	39	27	18	11	10	4	..	..	109
73. Diseases of the Skin and Cellular Tissue (37) ..	151-153	27	15	7	6	4	5	1	..	65
74. Diseases of the Bones and Organs of Locomotion (except Tuberculosis and Rheumatism) (37)	154-156	32	13	6	..	5	1	..	..	57
75. Congenital Malformations (Stillbirths not included) (38) ..	157	339	182	109	73	79	26	..	3	811
76. Congenital Debility (38) ..	158	54	17	18	5	2	..	..	..	96
77. Premature Birth (38) ..	159	632	352	294	139	127	82	1	8	1,635
78. Injury at Birth (38) ..	160	261	151	85	55	31	18	2	5	608
79. Other Diseases peculiar to the First Year of Life (38) ..	161	194	117	73	43	36	11	..	..	474
80. Senility (39) ..	162	1,027	585	364	244	77	46	3	3	2,349
81. Suicide (40) ..	163, 164	320	167	117	43	58	23	3	6	737
82. Homicide (41) ..	165-168	50	19	4	7	5	1	1	1	88
83. Automobile Accidents (42) ..	170	489	392	170	118	116	36	3	4	1,328
84. Other Violent or Accidental Deaths (43) ..	169, 171-195	1,043	569	492	215	162	115	11	4	2,611
Total, Accidents ..	..	1,532	961	662	333	278	151	14	8	3,939
85. Deaths due to Operations of War (43) ..	196-197	..	..	..	..	..	..	..	..	..
86. Legal Executions (43) ..	198	..	..	..	..	..	..	..	..	..
87. Ill-defined or Unspecified (44) ..	199, 200	86	31	37	20	2	1	7	1	185
Total ..	..	30,403	21,825	10,462	6,748	4,685	2,528	73	115	76,839

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

D.—CAUSES OF DEATH : PERSONS, AUSTRALIA.

ABRIDGED CLASSIFICATION.

Abridged Classification.	General Classification Numbers.	1944.	1945.	1946.	1947.	1948.	1948—Rate per 1,000,000 Mean Population.
1. Typhoid and Paratyphoid Fevers ..	1, 2	18	11	9	11	11	1
2. Plague ..	3	..	..	..	..	..	..
3. Scarlet Fever ..	8	27	11	7	9	6	1
4. Whooping Cough ..	9	61	84	74	75	65	8
5. Diphtheria ..	10	181	183	119	88	80	10
6. Tuberculosis of the Respiratory System ..	13	2,165	2,186	2,200	2,081	2,008	260
7a. Tubercular Meningitis ..	14 (a)	64	65	60	45	39	5
7b. Other Tuberculous Diseases ..	14b-22	158	162	133	135	122	16
8. Malaria ..	28	8	10	9	9	9	1
9. Syphilis ..	30	398	334	344	393	383	50
10a. Influenza—Pneumonic ..	33 (a)	72	93	120	77	230	30
10b. Influenza—Other ..	33 (b)	108	69	91	74	149	19
11. Smallpox ..	34	..	..	..	..	..	..
12. Measles ..	35	11	25	109	36	80	10
13. Typhus Fever ..	39	11	14	8	7	8	1
14. Other Infective and Parasitic Diseases ..	..	544	484	552	430	483	63
15. Cancer and other Malignant Tumours ..	45-55	8,571	8,937	9,118	9,404	9,671	1,254
16. Non-malignant Tumours or Tumours of Undetermined Nature ..	56, 57	461	421	457	429	398	52
17. Chronic Rheumatism and Gout ..	59, 60	143	162	182	159	173	23
18. Diabetes Mellitus ..	61	1,294	1,306	1,396	1,330	1,446	188
19. Chronic or Acute Alcoholism ..	77	75	65	109	116	152	20
20. Other General Diseases ..	..	1,047	1,035	1,030	1,005	1,021	132
21. Non-meningococcal Meningitis and Diseases of the Spinal Cord ..	81, 82	375	335	313	309	279	36
22. Intra-cranial Lesions of Vascular Origin ..	83	6,755	7,071	7,419	7,515	8,310	1,078
23. Other Diseases of the Nervous System and Sense Organs ..	80, 84-89	807	813	794	780	782	101
24. Diseases of the Heart ..	90-95	20,411	21,441	23,022	22,884	24,262	3,146
25. Other Diseases of the Circulatory System ..	96-103	1,958	1,907	2,095	2,004	2,060	267
26a. Acute Bronchitis ..	106 (a)(c)	150	147	142	137	153	20
26b. Chronic Bronchitis ..	106 (b)(d)	464	474	475	466	480	62
27. Pneumonia and Broncho-pneumonia ..	107-109	3,596	3,381	3,800	3,442	4,030	523
28. Other Diseases of the Respiratory System ..	..	966	951	985	1,064	1,125	146
29a. Diarrhoea and Enteritis (under two years of age) ..	119	292	234	214	285	335	43
29b. Diarrhoea and Enteritis (two years and over) ..	120	251	266	209	157	171	22
30. Appendicitis ..	121	380	315	338	303	236	31
31a. Cirrhosis of the Liver ..	124	256	233	288	340	395	51
31b. Other Diseases of the Liver and Biliary Calculi ..	125-127	433	462	440	451	451	59
32a. Hernia, Intestinal Obstruction ..	122	706	648	675	589	602	78
32b. Other Diseases of the Digestive System ..	..	959	865	891	927	982	127
33. Nephritis ..	130-132	3,495	3,450	3,563	3,301	3,355	435
34. Other Diseases of the Genito-urinary System ..	133-139	1,143	1,059	1,088	1,017	1,003	130
35a. Post-abortion Sepsis ..	140	81	52	41	56	23	3
35b. Puerperal Infection ..	147	68	50	56	41	38	5
36. Other Diseases of Pregnancy, Child-birth and the Puerperium ..	141-146, 148-150	288	244	230	244	189	25
37. Diseases of the Skin, Bones, etc. ..	151-156	229	154	153	138	122	16
38. Congenital Debility, Malformations, Premature Birth, etc. ..	157-161	3,564	3,587	3,881	3,905	3,624	470
39. Senility ..	162	2,493	2,546	2,558	2,208	2,349	305
40. Bulicide ..	163, 164	540	567	732	746	737	96
41. Homicide ..	165-168	106	77	90	91	88	11
42. Automobile Accidents ..	170	751	754	1,206	1,269	1,328	172
43. Other Accidental or Violent Deaths ..	169, 171-198	2,438	2,296	2,608	2,645	2,611	339
44. Unstated or Ill-defined Causes ..	199, 200	224	195	228	181	185	24
Total ..	..	69,596	70,231	74,661	73,468	76,839	9,965

* 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, 110-11 4
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 Mean 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. Smallpox ..	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	5,953	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	2,852
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	2,641	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 ..	124	4,404	4,896	4,955	133	142	137
33. Nephritis ..	130-132	17,754	19,206	18,634	536	557	525
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	763	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	3,988	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
Total ..	..	298,262	332,410	360,680	9,011	9,641	9,970

* 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 parentheses for each cause or group of causes.

(ii) *All Forms of Tuberculosis* (6, 7). (a) *General*. The total number of deaths in 1948 was 2,169, consisting of 1,449 males and 720 females.

(b) *Age at Death*. The following table shows the age-groups of males, females and persons who died from this disease in 1948, together with comparable figures for 1921, 1931 and 1941.

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

Age-group (Years).	1921.			1931.			1941.			1948.		
	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	20	14	34
5-9 ..	30	28	58	14	14	28	12	10	22	4	12	16
10-14 ..	23	24	47	19	20	39	9	16	25	4	6	10
15-19 ..	72	100	172	45	105	150	30	52	82	10	18	28
20-24 ..	173	194	367	113	183	296	69	91	160	26	60	86
25-29 ..	232	246	478	136	199	335	63	132	195	53	81	134
30-34 ..	237	195	432	191	164	355	125	129	254	58	100	158
35-39 ..	247	178	425	187	156	343	144	111	255	77	70	147
40-44 ..	234	141	375	207	102	309	159	79	238	120	52	172
45-49 ..	223	102	325	197	83	280	180	76	256	151	64	215
50-54 ..	179	69	248	185	62	247	216	64	280	149	54	203
55-59 ..	172	65	237	164	57	221	210	52	262	198	40	238
60-64 ..	118	42	160	128	50	178	187	59	246	205	39	244
65-69 ..	79	32	111	110	38	148	137	39	176	163	38	201
70-74 ..	35	10	45	52	31	83	74	41	115	121	39	160
75-79 ..	18	7	25	27	16	43	48	18	66	58	23	81
80 and over ..	6	7	13	4	4	8	20	12	32	31	9	40
Unspecified ..	3		3	..	..	..	..	..	..	1	1	2
Total ..	2,171	1,516	3,687	1,836	1,331	3,167	1,725	1,009	2,734	1,449	720	2,169

(c) *Occupation at Death, Males*. A summary of the main groups of occupations of males who died from tuberculosis during 1948 is given in *Demography Bulletin* No. 66.

(d) *Length of Residence in Australia*. The length of residence in Australia of persons who died from tuberculosis in 1948 is given in the next table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

LENGTH OF RESIDENCE IN AUSTRALIA OF PERSONS WHO DIED FROM TUBERCULOSIS (ALL FORMS), 1948.

Length of Residence in Australia.	Male.	Fem.	Total.	Length of Residence in Australia.	Male.	Fem.	Total.
Born in Australia ..	1,140	641	1,781	Resident 10-14 years ..	4	5	9
Resident under 1 year ..	3	..	3	" 15-19 " ..	5	1	6
" 1 year ..	1	..	1	" 20 years & over ..	234	66	300
" 2 years ..	..	1	1	Length of residence not stated ..	56	5	61
" 3 " ..	..	1	1				
" 4 " ..	..	..	..	
" 5-9 years ..	5	1	6	Total Deaths ..	1,449	720	2,169

(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 1948 are given in the following table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

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

State or Territory.	1931.			1941.			1948.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	53	37	45	47	24	36	37	16	27
Victoria ..	59	51	55	54	37	45	39	23	31
Queensland ..	45	28	37	40	20	30	33	14	24
South Australia ..	58	56	57	40	34	37	33	24	29
Western Australia	74	40	58	60	25	44	48	16	32
Tasmania ..	61	51	56	48	44	46	38	27	33
Northern Territory	69	..	44	27	35	29	38	24	33
Australian Capital Territory ..	21	25	23	..	15	7	30	12	22
Australia ..	55	42	49	48	29	38	38	19	28

(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 1948. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

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

State or Territory.	1911-20.			1921-30.			1931-40.			1948.		
	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	332	186	268
Victoria ..	718	754	735	695	663	680	485	448	468	350	231	351
Queensland ..	559	480	529	516	406	472	413	323	377	308	178	254
South Australia	757	889	816	713	758	733	498	482	491	296	256	277
Western Australia	895	728	835	869	643	786	598	401	523	450	212	354
Tasmania ..	646	757	697	640	749	691	537	548	542	365	310	340
Northern Territory	1,441	745	1,357	1,170	685	1,115	272	541	314	536	588	548
Australian Capital Territory	323	417	364	116	349	194	217	419	293	429	222	348
Australia ..	691	684	688	644	594	622	482	410	450	340	211	282

(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 are for the latest available year in each case. 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.
Denmark.. ..	1948	21	25	<i>Northern Ireland</i>	1947	57	72
Australia (b) ..	1948	23	23	<i>Scotland</i> ..	1948	66	76
<i>Queensland (b)</i> ..	1948	22	24	Ceylon	1948	54	58
<i>New South Wales(b)</i>	1948	25	27	Germany.. ..	1942	(e)	62
<i>South Australia (b)</i>	1948	26	28	Belgium	1947	(e)	64
<i>Victoria (b)</i> ..	1948	28	31	Egypt	1947	(e)	65
<i>Western Australia(b)</i>	1948	30	32	Norway	1944	63	74
<i>Tasmania (b)</i> ..	1948	28	33	France	1947	(e)	79
Union of South				Italy	1946	64	84
Africa (c) ..	1944	26	32	Hungary	1947	(e)	106
U.S. of America ..	1947	31	34	Spain	1946	68	119
Canada	1948	31	37	Eire	1947	95	124
New Zealand (d) ..	1944	31	38	Greece	1936	104	128
Sweden	1946	36	45	Czechoslovakia ..	1936	114	129
Netherlands ..	1946	32	46	Japan	1936	105	142
Switzerland ..	1948	41	52	Portugal	1948	125	148
Great Britain and				Poland (f) ..	1937	135	153
<i>Northern Ireland</i>	1947	50	58	Finland	1946	153	178
<i>England and</i>							
<i>Wales</i> ..	1947	47	55				

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

(b) Excludes full-blood aboriginals.
 (d) Excludes Maoris. (e) Not available. (f) 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 9,671 in 1948.

(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 1947 and 1948 will be found in *Demography Bulletins* Nos. 65 and 66. A summary regarding type and seat of disease for 1948 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.

DEATHS FROM CANCER: TYPE AND SEAT OF DISEASE, AUSTRALIA, 1948.

Type of Disease.	Males.	Females.	Persons.	Seat of Disease.	Males.	Females.	Persons.
Cancer	203	257	460	Buccal Cavity and Pharynx ..	239	49	288
Carcinoma—				Digestive Organs and Peritoneum—			
Carcinoma Simplex	4,076	3,983	8,059	Stomach and Duodenum ..	1,180	718	1,898
Epithelioma ..	108	46	154	Rectum and Anus ..	272	190	462
Scirrhus ..	1	24	25	Colon ..	353	461	814
Rodent Ulcer ..	24	13	37	Other ..	844	690	1,534
Adeno-Carcinoma	25	48	73	Respiratory System	534	156	690
Colloid Carcinoma	..	..	..	Uterus ..	..	585	585
Sarcoma—				Other Female Genital Organs ..	..	288	288
Sarcoma ..	171	145	316	Breast ..	7	1,004	1,011
Myeloid Sarcoma	1	..	1	Male Genital Organs	612	..	612
Myeloma ..	9	6	15	Urinary Organs ..	253	146	399
Glioma ..	32	11	43	Skin ..	170	107	277
Adeno-Sarcoma ..	..	1	1	Brain and Nervous System ..	76	36	112
Chloroma ..	..	..	..	Other or Unspecified Organs ..	358	343	701
Endothelioma ..	8	6	14				
Melanoma—							
Melanoma ..	33	31	64				
Melanotic Sarcoma	7	14	21				
Melano-Carcinoma	2	1	3				
Embryonic Tumours—							
Hypernephroma	24	19	43				
Teratoma ..	5	..	5				
Malignant Disease..	88	99	187				
Malignant Tumour	81	69	150				
Total Deaths	4,898	4,773	9,671	Total Deaths	4,898	4,773	9,671

(c) *Age at Death.* The ages of persons who died from cancer in 1921, 1931, 1941 and 1948 are given below. Inferences drawn from the great increase in the number of deaths from cancer in 1948 compared with 1921 need qualification in view of the altered age constitution of the population since the earlier year. The number of people reaching the older ages at which cancer risks are greatest more than doubled during this period and it is only in the extreme old age-groups from 75 onwards that the rate of mortality has definitely increased. For groups up to age 75 there has been no increase in mortality rates since 1921. In the higher age-groups the increase in the rate for females has been relatively greater than that in the rate for males. It is also probable that a proportion of the increased number of deaths from cancer recorded in recent years has been due to more correct diagnosis and certification on the part of medical practitioners rather than to any actual increase in the disease itself.

CANCER : DEATHS IN AGE-GROUPS, AUSTRALIA.

Age-group (Years).	1921.			1931.			1941.			1948.		
	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	42	27	69
15-19 ..	8	11	19	12	11	23	10	10	20	15	9	24
20-24 ..	6	7	13	12	14	26	15	13	28	20	11	31
25-29 ..	15	19	34	19	13	32	24	22	46	17	27	44
30-34 ..	26	45	71	26	55	81	28	45	73	36	50	92
35-39 ..	56	81	137	59	98	157	56	106	162	52	106	158
40-44 ..	81	140	221	111	173	284	92	193	285	126	190	316
45-49 ..	147	207	354	149	261	410	149	282	431	182	252	434
50-54 ..	240	263	503	261	287	548	316	403	719	298	433	731
55-59 ..	358	308	666	349	344	693	425	435	860	511	543	1,054
60-64 ..	442	349	791	512	400	919	558	491	1,049	702	616	1,318
65-69 ..	380	285	665	662	478	1,140	670	558	1,228	776	626	1,402
70-74 ..	312	234	546	609	410	1,019	753	623	1,376	782	654	1,436
75-79 ..	212	215	427	397	294	691	676	512	1,188	680	600	1,280
80-84 ..	83	89	172	187	152	339	331	330	661	436	378	814
85 and over ..	45	52	97	87	92	179	131	175	306	223	245	468
Unspecified ..	3	..	3	..	..	..	..	..	..	..	..	..
Total ..	2,440	2,328	4,768	3,484	3,105	6,589	4,255	4,223	8,478	4,898	4,773	9,671

(d) *Occupation at Death, Males.* A table showing main groups of occupations of males who died from cancer during 1948 appears in *Demography Bulletin* No. 66.

(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 1948. The substantial increase in the death-rate since 1931 is reflected in both sexes and in all States. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

CANCER : DEATH-RATES. (a)

State or Territory.	1931.			1941.			1948.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales ..	99	95	97	116	107	112	124	118	121
Victoria ..	111	106	109	132	145	138	134	143	139
Queensland ..	105	77	92	100	97	99	116	104	110
South Australia ..	112	124	118	112	140	126	141	145	143
Western Australia ..	110	81	97	135	110	123	134	106	120
Tasmania ..	100	100	100	125	127	126	112	110	111
Northern Territory ..	69	119	87	54	35	49	13	..	8
Australian Capital Territory ..	21	51	35	25	61	41	20	74	44
Australia ..	105	97	101	119	120	119	127	124	125

(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, 1,259 were due to cancer in 1948 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 1948. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

CANCER : PROPORTION PER 10,000 TOTAL DEATHS.

State or Territory.	1911-20.			1921-30.			1931-40.			1948.		
	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	1,102	1,346	1,208
Victoria ..	681	870	757	943	1,145	1,037	1,115	1,353	1,226	1,201	1,467	1,326
Queensland ..	611	741	661	866	1,009	922	1,066	1,138	1,095	1,090	1,317	1,184
South Australia	736	876	800	1,021	1,137	1,074	1,207	1,441	1,315	1,271	1,537	1,394
Western Aus- tralia ..	612	802	680	873	1,112	961	1,098	1,241	1,152	1,266	1,409	1,323
Tasmania ..	664	836	743	842	1,014	922	1,040	1,252	1,136	1,073	1,265	1,159
Northern Terr- itory ..	335	426	346	621	137	565	645	811	671	179	..	137
Australian Cap- ital Territory	806	625	727	233	349	271	544	898	677	286	1,333	696
Australia ..	667	826	735	912	1,091	990	1,089	1,292	1,178	1,148	1,396	1,259

(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.

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

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon ..	1948	14	Victoria (d) ..	1948	139
Egypt ..	1936	26	South Australia (d) ..	1948	143
Japan ..	1936	48	Canada ..	1948	126
Portugal ..	1948	49	Czechoslovakia ..	1936	126
Greece ..	1936	50	Netherlands ..	1946	127
Spain ..	1946	82	U.S. of America ..	1947	132
Italy ..	1946	93	Eire ..	1947	133
France ..	1934	96	Norway ..	1945	133
Hungary ..	1939	96	Sweden ..	1946	139
Poland (b) ..	1936	104	New Zealand (e) ..	1944	140
Finland ..	1946	107	Germany ..	1939	149
Belgium ..	1936	110	Denmark ..	1948	154
Union of South Africa(c)	1944	112	Switzerland ..	1948	163
Australia (d) ..	1948	125	Great Britain and		
Queensland (d) ..	1948	110	Northern Ireland ..	1947	184
Tasmania (d) ..	1948	111	Northern Ireland	1947	147
Western Australia(d)	1948	120	Scotland ..	1948	181
New South Wales(d)	1948	121	England and Wales	1947	186

(a) Number of deaths per 100,000 of mean population. (b) In towns with over 100,000 inhabitants. (c) European population only. (d) Excludes full-blood aborigines. (e) Excludes 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, 156; and 1948, 153.

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
1948.. ..	38	19	28	127	124	125

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

(iv) *Diseases of the Heart* (42 to 46). The number of deaths in 1948 was 24,262, namely, 14,199 males and 10,063 females. Details for each individual disease of the heart may be obtained from *Demography Bulletin* No. 66. 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 3,146 in 1948. 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 1948 the number of deaths assigned to this cause was 7,800, an increase of 7,236, or over 1,380 per cent., since 1931. The number of deaths, death-rates and proportions per 10,000 deaths in 1948 are given in the following table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

DISEASES OF THE HEART : DEATHS, DEATH-RATES AND PROPORTION PER 10,000 TOTAL DEATHS, 1948.

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	5,861	4,089	9,950	387	270	328	3,430	3,070	3,273
Victoria ..	3,921	3,175	7,096	380	300	340	3,409	3,076	3,251
Queensland ..	1,864	1,100	2,964	324	201	264	3,042	2,537	2,833
South Australia ..	1,193	847	2,040	365	256	310	3,296	2,707	3,023
Western Australia	904	519	1,423	342	207	276	3,232	2,749	3,037
Tasmania ..	430	323	753	320	248	285	3,076	2,858	2,979
Northern Territory	10	1	11	125	24	90	1,785	588	1,506
Australian Capital Territory ..	16	9	25	159	111	138	2,285	2,000	2,174
Australia ..	14,199	10,063	24,262	367	262	315	3,329	2,944	3,158

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

(v) *Diarrhoea and Enteritis (Children under two years of age)* (54). The number of deaths due to these causes was 335 in 1948 compared with an average of 284 for the previous five years. During 1948, 5,475 children died before reaching their second birthday, and of these 6.1 per cent. died from diarrhoea and enteritis. The ages of children dying from these diseases during the first year of life will be found on page 621.

The number of deaths under 2 years of age due to diarrhoea and enteritis, the death-rates, and proportions per 10,000 deaths for 1911-15, 1921-25, 1931-35, 1936-40, 1941-45 and 1948 are given in the following table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65. Reference to the last five lines of the table reveals a general decrease in the number of deaths due to these diseases. Although there were increases in 1947 and 1948 they were still below the averages for the five-yearly periods shown below. 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

DIARRHOEA 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	78	44	122	5	3	4	46	33	40
Victoria ..	34	25	59	3	2	3	30	24	27
Queensland ..	38	29	67	7	5	6	62	67	64
South Australia..	35	33	68	11	10	10	97	105	101
Western Australia	8	5	13	3	2	3	29	26	28
Tasmania ..	4	2	6	3	2	2	29	18	24
Northern Territory	..	..	..	..	..	..	..	..	..
Australian Capital Territory ..	..	..	..	..	..	..	..	..	..
Australia, 1948 ..	197	138	335	5	4	4	46	40	44
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 250 deaths in 1948 from puerperal causes correspond to a death-rate of 9.6 per 100,000 females. The rate is also equivalent to 1.40 deaths per 1,000 live births. The death-rate may be expressed in other terms by stating that 1 of every 704 women giving birth to a live child in 1948 died from puerperal causes; the corresponding ratios for married women were 1 of every 751, and for single women 1 in every 285. More detailed information will be found in a series of tables in *Demography Bulletin* No. 66.

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.
Denmark	1948	0.08	0.83	0.91
Sweden	1946	0.11	0.85	0.96
Great Britain and Northern Ireland ..	1947	0.19	1.12	1.31
<i>England and Wales</i>	1947	0.16	1.03	1.19
<i>Scotland</i>	1948	0.30	1.29	1.59
<i>Northern Ireland</i>	1947	0.29	1.56	1.85
Netherlands	1946	0.45	0.87	1.32
United States of America	1947	0.27	1.07	1.34
Australia (a)	1948	0.23	1.17	1.40
<i>Victoria (a)</i>	1948	0.20	1.17	1.37
<i>New South Wales (a)</i>	1948	0.21	1.16	1.37
<i>South Australia (a)</i>	1948	0.19	1.20	1.39
<i>Queensland (a)</i>	1948	0.21	1.26	1.47
<i>Western Australia (a)</i>	1948	0.47	1.08	1.55
<i>Tasmania (a)</i>	1948	..	1.58	1.58
Canada	1948	0.26	1.21	1.47
Italy	1946	0.46	1.20	1.66
Switzerland	1948	0.05	1.70	1.75
Eire	1947	0.45	1.44	1.89
Belgium	1948	0.50	1.60	2.10
Union of South Africa (b)	1944	0.69	1.51	2.20
Portugal	1948	0.93	1.31	2.24
Japan	1936	0.64	1.67	2.31
France	1934	1.00	1.50	2.50
Norway	1944	1.29	1.23	2.52
New Zealand (c)	1944	0.57	2.14	2.71
Spain	1935	2.00	1.40	3.40
Egypt (d)	1943	0.59	2.89	3.48
Hungary	1939	2.11	1.72	3.83
Greece	1936	2.20	2.00	4.20
Germany	1935	1.99	2.86	4.85
Czechoslovakia	1936	2.88	2.03	4.91
Ceylon	1948	1.76	6.50	8.26

(a) Excludes full-blood aboriginals.
(d) Localities having Health Bureaux.

(b) European population only.

(c) Excludes Maoris.

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. 66.

The total number of children left by the 225 married mothers who died from puerperal causes in 1948 was 519, an average of 2.3 children per mother.

Nine of the mothers who died had been married less than one year, 27 between one and two years, and 27 between two and three years. The duration of marriage ranged up to 24 years. Tabulations distinguishing the ages at marriage and at death will be found in *Demography Bulletin* No. 66, 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 1948 numbered 3,624 of which 3,477 were of children under one year of age. Of all deaths of children under one year of age 70 per cent. were due to these causes. The number of deaths for 1948 is given in the following table. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

DEATHS FROM CONGENITAL MALFORMATION, DEBILITY, ETC., 1948.

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	189	150	339	538	355	893	156	92	248
Victoria ..	100	82	182	292	211	503	81	53	134
Queensland ..	62	47	109	222	157	379	53	38	91
South Australia ..	37	36	73	97	97	194	27	21	48
Western Australia	44	35	79	94	64	158	21	17	38
Tasmania ..	14	12	26	63	37	100	5	6	11
Northern Territory	..	..	..	1	2	3	..	..	..
Australian Capital Territory ..	2	1	3	9	4	13	..	..	..
Australia ...	448	363	811	1,316	927	2,243	343	227	570
Number of deaths under one year	375	289	664	1,316	927	2,243	343	227	570
Number of deaths under one year per 1,000 births	4.11	3.33	3.73	14.41	10.70	12.60	3.75	2.62	3.20

(viii) *Suicide* (81). (a) *General*. Deaths from suicide in 1948 numbered 737, 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 1947 and 1948 were as follows :—

SUICIDE : MODES ADOPTED, AUSTRALIA.

Mode of Death.	Males.		Females.		Persons.	
	1947.	1948.	1947.	1948.	1947.	1948.
Poisoning	72	99	70	61	142	160
Poisonous gas	35	62	34	29	69	91
Hanging or strangulation	111	131	27	19	138	150
Drowning	35	30	36	27	71	57
Firearms and explosives	177	165	12	9	189	174
Cutting or piercing instruments	75	65	9	6	84	71
Jumping from high places	15	10	9	5	24	15
Crushing	1	..	..	..	1	..
Other modes	25	16	3	3	28	19
Total	546	578	200	159	746	737

(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 1944 to 1948, 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)			Proportion per 10,000 Total Deaths.		
	Males.	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.
New South Wales	246	74	320	16	5	11	144	56	105
Victoria ..	127	40	167	12	4	8	110	39	77
Queensland ..	93	24	117	16	4	10	152	55	112
South Australia ..	37	6	43	11	2	7	102	19	64
Western Australia	48	10	58	18	4	11	172	53	124
Tasmania ..	19	4	23	14	3	9	136	35	91
Northern Territory	3	..	3	38	..	25	536	..	410
Australian Capital Territory ..	5	1	6	50	12	33	714	222	522
Australia 1948 ..	578	159	737	15	4	10	136	47	96
" 1947 ..	546	200	746	15	5	10	134	61	102
" 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
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 1947 and 1948 it will be seen that both young and extremely old people took their lives during these years.

AGE OF PERSONS WHO COMMITTED SUICIDE : AUSTRALIA.

Age-group (Years).	1947.			1948.		
	Males.	Females.	Persons.	Males.	Females.	Persons.
10-14	1	..	1	4	..	4
15-19	12	4	16	22	2	24
20-24	19	11	30	34	5	39
25-29	28	19	47	36	14	50
30-34	34	16	50	37	16	53
35-39	44	22	66	33	20	53
40-44	55	16	71	57	6	63
45-49	61	19	80	64	15	79
50-54	53	21	74	58	28	86
55-59	67	18	85	66	14	80
60-64	56	24	80	56	13	69
65-69	43	15	58	36	12	48
70-74	27	9	36	28	5	33
75-79	28	5	33	22	4	26
80-84	14	..	14	15	2	17
85-89	4	1	5	8	3	11
90 and over .. ..	..	..	..	1	..	1
Unspecified.. ..	..	..	..	1	..	1
Total Deaths ..	546	200	746	578	159	737

(e) *Occupation at Death, Males.* A table showing main groups of occupations of males who committed suicide during 1948 appears in *Demography Bulletin* No. 66.

(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. 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	Great Britain and		
Eire	1947	2.4	Northern Ireland ..	1947	9.8
Italy	1946	5.3	Northern Ireland ..	1947	3.4
Greece	1936	5.7	Scotland	1948	6.6
Ceylon	1948	6.4	England and Wales	1947	10.5
Union of South Africa(b)	1944	7.1	New Zealand (d) ..	1944	10.0
Spain	1946	7.2	U.S. of America ..	1947	11.5
Netherlands ..	1946	7.7	Finland	1946	15.0
Canada	1948	7.8	Japan	1936	15.1
Norway	1945	9.3	Sweden	1946	15.5
Portugal	1948	9.5	Belgium	1935	16.8
Australia (c) ..	1948	9.6	France	1934	21.4
South Australia (c)	1948	6.5	Poland (e)	1936	22.0
Victoria (c) ..	1948	8.0	Switzerland ..	1948	22.5
Tasmania (c) ..	1948	8.7	Denmark	1948	25.1
Queensland (c) ..	1948	10.4	Hungary	1939	26.0
New South Wales (c)	1948	10.6	Czechoslovakia ..	1936	27.8
Western Australia(c)	1948	11.3	Germany	1939	28.0

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

(b) European population only.

(c) Excludes full-blood aboriginals.

(d) Excludes Maoris.

(e) In towns with over 100,000 inhabitants.

(ix) *Homicide* (82). Deaths from homicide in 1948 numbered 88, which was 3 less than in the previous year and 5 more than the average for the five years 1941 to 1945, namely, 83. See par. (x).

(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 1948. Corresponding figures for 1947 may be obtained from *Demography Bulletin* No. 65.

DEATHS FROM EXTERNAL VIOLENCE : AUSTRALIA, 1948.

Cause of Death.	Males.	Females.	Persons.
Suicide (<i>see</i> par. (viii))	578	159	737
Homicide	52	36	88
Accidents on railways	160	18	178
Automobile accidents	1,097	231	1,328
Other road transport accidents	104	19	123
Water transport accidents	21	..	21
Air transport accidents	46	6	52
Accidents in mines and quarries	44	..	44
Agricultural and forestry accidents	83	..	83
Accidents caused by machinery (n.e.i.)	36	1	37
Accidental poisoning	57	39	96
Accidental burns (including conflagration)	136	67	203
Accidental mechanical suffocation	41	26	67
Accidental drowning	311	61	372
Accidental injury by firearms	62	4	66
Accidental injury by cutting or piercing instruments	1	..	1
Accidental injury by fall, crushing, landslide, etc... .. .	434	487	921
Injuries by animals (n.e.i.)	17	2	19
Hunger or thirst	2	..	2
Excessive cold	3	..	3
Excessive heat	10	6	16
Electricity (including lightning)	51	4	55
Attack by venomous animals	6	3	9
Other accidents	176	67	243
Legal executions .. .. .	..	..	..
External Violence, excluding Suicide and Homicide	2,898	1,041	3,939
Total Deaths from External Violence	3,528	1,236	4,764

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 Proportion per 10,000 Deaths.
	Males	Females.	Persons.	Males.	Females.	Persons.	Males.	Females.	Persons.	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
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
1947 ..	13	11	12	743	289	517	900	353	627	647
1948 ..	13	9	11	750	271	511	912	321	618	620

(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 preceding pages differ from those used in issues of the Official Year Book prior 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. Details of these "other diseases" items of the intermediate classification expanded into their constituent causes may be found in *Demography Bulletin* No. 66.

The following table shows the number of deaths during each of the five years 1944 to 1948 from the four most important "other" infective and parasitic diseases.

DEATHS FROM OTHER DISEASES : AUSTRALIA.

Causes.	1944.	1945.	1946.	1947.	1948.
MALES.					
Cerebro-spinal meningococcal meningitis ..	73	39	42	36	38
Tetanus ..	36	40	55	48	54
Acute poliomyelitis and polioencephalitis ..	7	44	62	11	34
Hodgkin's disease ..	49	42	52	61	64
FEMALES.					
Cerebro-spinal meningococcal meningitis ..	47	31	32	21	30
Tetanus ..	25	20	16	23	23
Acute poliomyelitis and polioencephalitis ..	15	32	37	11	21
Hodgkin's disease ..	43	36	32	23	37
PERSONS.					
Cerebro-spinal meningococcal meningitis ..	120	70	74	57	68
Tetanus ..	61	60	71	71	77
Acute poliomyelitis and polioencephalitis ..	22	76	99	22	55
Hodgkin's disease ..	92	78	84	84	101

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 1948, 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 1947 corresponding to the first table may be obtained from *Demography Bulletin* No. 65.

DEATHS, DEATH-RATES, ETC., IN CLASSES : AUSTRALIA, 1948.

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	2,336	1,337	3,673	60	33	48	548	391	478
2. Cancer and Other Tumours	5,087	4,982	10,069	131	130	131	1,193	1,457	1,310
3. Rheumatism, Diseases of Nutrition and of the Endocrine Glands, Other General Diseases and Vitamin-deficiency Diseases	689	1,294	1,983	18	34	26	162	379	258
4. Diseases of the Blood and Blood-forming Organs	334	313	647	9	8	8	78	92	84
5. Chronic Poisoning and Intoxication	124	38	162	3	1	2	29	11	21
6. Diseases of the Nervous System and Sense Organs	4,180	5,191	9,371	108	135	122	980	1,519	1,220
7. Diseases of the Circulatory System	15,232	11,000	26,322	394	288	341	3,571	3,244	3,426
8. Diseases of the Respiratory System	3,258	2,530	5,788	84	66	75	764	740	753
9. Diseases of the Digestive System	1,844	1,328	3,172	48	34	41	432	388	413
10. Diseases of the Genito-urinary System	2,621	1,737	4,358	68	45	56	614	508	567
11. Diseases of Pregnancy, Child-birth and Puerperal State	..	250	250	..	6	3	..	73	33
12. Diseases of the Skin and Cellular Tissue	33	32	65	1	1	1	8	9	8
13. Diseases of the Bones and Organs of Movement	28	29	57	1	1	1	6	8	7
14. Congenital Malformations	448	363	811	12	9	10	105	106	106
15. Diseases Peculiar to the First Year of Life	1,659	1,154	2,813	43	30	37	389	338	366
16. Senility, Old-age	1,134	1,215	2,349	29	32	31	266	356	306
17. Violent or Accidental Deaths	3,528	1,236	4,764	91	32	62	827	362	620
18. Ill-defined Causes of Death	120	65	185	3	2	2	28	19	24
Total	42,655	34,184	76,839	1,103	889	997	10,000	10,000	10,000

(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	..	..	..	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	248	222	236	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	269	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
Total	1,061	841	952	993	804	900	1,088	905	997

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

18. Age at Death of Married Males and Females, and Issue.—*Demography Bulletin* No. 66 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 1948. Deaths of married males in 1948 numbered 30,234, and of married females, 26,238. The tabulations which follow deal, however, with only 29,711 males and 25,958 females, the information regarding issue in the remaining 803 cases being incomplete. The total number of children in the families of the 29,711 males was 104,942, and of the 25,958 females, 99,680. 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 FEMALE : AUSTRALIA.

Age-group (Years).	Average Issue.									
	Males.					Females.				
	1911.	1921.	1931.	1941.	1948.	1911.	1921.	1931.	1941.	1948.
Under 20 ..	0.33	..	0.75	..	..	0.94	0.77	0.66	0.79	0.40
20-24 ..	0.77	0.84	0.81	0.73	..	1.27	1.22	1.13	0.95	0.86
25-29 ..	1.25	1.29	1.33	1.12	1.23	1.82	1.86	1.81	1.45	1.32
30-34 ..	2.05	2.06	1.79	1.76	1.63	2.74	2.45	2.34	1.91	1.86
35-39 ..	2.80	2.58	2.13	2.11	2.19	3.64	3.29	2.89	2.30	2.14
40-44 ..	3.47	3.23	2.77	2.49	2.29	4.09	3.66	3.29	2.77	2.61
45-49 ..	4.09	3.48	3.10	2.68	2.46	4.54	3.76	3.55	2.93	2.69
50-54 ..	4.75	3.76	3.46	2.96	2.69	5.35	4.23	3.60	3.29	2.79
55-59 ..	5.44	4.41	3.69	3.28	2.97	5.86	4.69	4.01	3.55	3.23
60-64 ..	5.95	4.98	4.02	3.55	3.17	5.99	5.39	4.21	3.79	3.40
65-69 ..	6.23	5.50	4.41	3.73	3.36	6.50	5.86	4.82	4.01	3.64
70-74 ..	6.41	6.06	5.06	4.17	3.72	6.38	6.30	5.41	4.29	3.92
75-79 ..	6.75	6.66	5.65	4.56	4.03	6.72	6.56	6.02	4.85	4.19
80-84 ..	6.68	6.89	6.17	4.93	4.49	6.22	6.76	6.26	5.39	4.53
85-89 ..	6.67	7.18	6.59	5.70	4.75	5.97	6.93	6.57	5.85	5.02
90-94 ..	6.03	7.21	6.94	6.57	5.41	5.69	6.53	6.73	6.11	5.66
95-99 ..	7.30	6.97	6.69	7.04	5.85	5.05	6.05	7.10	6.34	6.23
100 and over ..	9.33	9.20	7.00	8.69	7.00	5.17	5.11	8.20	6.73	6.25
Age not stated ..	4.33	5.36	5.00	..	1.33	4.60	5.80	5.00	..	2.00
All Ages ..	5.42	4.97	4.44	3.91	3.53	5.35	5.05	4.72	4.22	3.84

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 five to one. The totals are shown in the following table:—

ISSUE OF DECEASED MARRIED MALES AND FEMALES : AUSTRALIA, 1948.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ..	44,792	44,409	89,201	Living ..	40,007	40,461	80,468
Dead ..	9,257	6,484	15,741	Dead ..	11,162	8,050	19,212
Total ..	54,049	50,893	104,942	Total ..	51,169	48,511	99,680

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.	1948.	1911.	1921.	1931.	1941.	1948.
Under 15 ..	..	..	..	..	..	9.71	7.60	6.36	7.80	4.78
15-19 ..	6.97	6.32	6.15	5.40	5.39	7.10	6.97	6.79	6.10	5.65
20-24 ..	6.34	6.05	5.56	4.89	4.39	5.77	5.50	5.23	4.80	4.43
25-29 ..	5.70	5.17	4.70	4.21	3.73	4.27	4.09	3.79	3.51	3.23
30-34 ..	4.92	4.45	3.96	3.41	3.19	3.04	2.66	2.42	2.35	2.21
35-39 ..	4.05	3.90	3.14	2.80	2.57	1.68	1.61	1.40	1.26	1.25
40-44 ..	3.43	2.67	2.36	2.01	1.83	0.72	0.62	0.39	0.35	0.48
45-49 ..	2.59	2.20	1.96	1.52	1.47	0.26	0.03	0.12	0.01	0.35
50-54 ..	2.45	1.70	1.60	1.05	0.89	..	..	..	..	..
55-59 ..	1.66	1.30	0.95	0.79	0.95	..	..	..	..	..
60-64 ..	2.00	0.33	0.63	0.29	0.62	..	..	..	..	..
65 and over ..	1.00	0.25	0.18	0.01	0.74	..	..	..	..	..
Age unspecified	5.40	4.93	3.64	2.95	3.23	5.23	5.41	3.96	2.45	2.79
All Ages ..	5.42	4.97	4.44	3.91	3.53	5.35	5.05	4.72	4.22	3.84

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 1948, together with issue, appears in *Demography Bulletin* No. 66.

§ 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.