

SECTION V.

VITAL STATISTICS.

NOTE.—The rates quoted throughout this Section for the years 1905 to 1915 have been calculated in accordance with the corrected populations as determined by the results of the Census of 1911.

§ 1. Births.

1. Male and Female Births, 1905 to 1915.—The total number of male and female births registered in the Commonwealth during the years 1905 to 1915 is as shewn in the two tables hereunder:—

TOTAL MALE BIRTHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Federal Territory.	C'wealth.
1905 ...	20,206	15,523	6,978	4,491	3,862	2,812	23	...	53,895
1906 ...	21,066	15,716	7,280	4,605	4,043	2,792	12	...	55,514
1907 ...	21,604	15,986	7,451	4,675	3,962	2,797	14	...	56,489
1908 ...	21,605	16,071	7,677	4,924	3,993	2,818	25	...	57,113
1909 ...	22,464	16,096	7,954	5,224	3,884	2,849	11	...	58,482
1910 ...	23,368	16,412	8,260	5,395	3,855	2,888	28	...	60,206
1911 ...	24,383	16,934	8,703	5,615	4,124	2,716	16	(a) 17	62,508
1912 ...	26,524	18,226	9,576	6,168	4,469	3,016	23	20	68,022
1913 ...	26,624	18,434	10,041	6,505	4,710	3,071	27	22	69,434
1914 ...	27,452	18,545	10,120	6,668	4,663	3,094	31	31	70,604
1915 ...	27,085	17,820	10,444	6,076	4,578	2,991	33	22	69,049

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

TOTAL FEMALE BIRTHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Federal Territory.	C'wealth.
1905 ...	19,295	14,584	6,648	4,341	3,720	2,445	13	...	51,046
1906 ...	19,882	15,128	6,739	4,316	3,757	2,541	13	...	52,376
1907 ...	20,597	15,379	7,089	4,536	3,750	2,494	13	...	53,858
1908 ...	20,853	15,026	7,153	4,832	3,762	2,797	9	...	54,432
1909 ...	21,318	15,448	7,598	4,840	3,718	2,651	16	...	55,589
1910 ...	22,076	15,025	7,909	5,145	3,730	2,698	12	...	56,595
1911 ...	23,154	16,092	8,281	5,442	3,967	2,721	15	(a) 13	59,685
1912 ...	25,337	17,570	9,162	5,911	4,220	2,837	10	19	65,066
1913 ...	25,562	17,536	9,690	6,122	4,508	2,815	25	22	66,280
1914 ...	26,189	17,677	9,762	6,236	4,541	2,923	27	24	67,379
1915 ...	25,846	17,189	9,719	5,722	4,439	2,854	28	25	65,822

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

2. Total Births, 1905 to 1915.—The total number of births for the Commonwealth was higher in 1914 than in any of the preceding years, but the 1915 figures shew a falling off for the Commonwealth as compared with those for 1913 and 1914, the only State in which births were more numerous in 1915 than in 1914 being Queensland.

TOTAL BIRTHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North-Terr.	Fed'l Terr.	C'wealth.
1905 ...	39,501	30,107	13,626	8,832	7,582	5,257	36	...	104,941
1906 ...	40,948	30,844	14,019	8,921	7,800	5,333	25	...	107,890
1907 ...	42,201	31,365	14,540	9,211	7,712	5,291	27	...	110,347
1908 ...	42,458	31,097	14,830	9,756	7,755	5,615	34	...	111,545
1909 ...	43,782	31,544	15,552	10,064	7,602	5,500	27	...	114,071
1910 ...	45,444	31,437	16,169	10,540	7,585	5,586	40	...	116,801
1911 ...	47,537	33,026	16,984	11,057	8,091	5,437	31	(a) 30	122,193
1912 ...	51,861	35,796	18,738	12,079	8,689	5,853	33	39	133,088
1913 ...	52,186	35,970	19,731	12,627	9,218	5,886	52	44	135,714
1914 ...	53,641	36,232	19,832	12,904	9,204	6,017	58	55	137,983
1915 ...	52,931	35,009	20,163	11,798	9,017	5,845	61	47	134,871

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

3. Birth Rates, 1905 to 1915.—(i.) *Crude Birth Rate.* The laws relating to Maternity Allowances which came into force on 10th October, 1912, had the effect of materially diminishing the period between the dates of birth and the date of registration, so that probably 6000 births were registered during the last three months of the year which, under ordinary circumstances, would not have been registered before the beginning of 1913. The increase shewn by the 1912 birth rate over the rate for 1911 is, therefore, to some extent fictitious, and the true birth rate for the whole Commonwealth in 1912 was more probably about 27.42 per thousand than 28.65 as shewn in the subjoined table. If due allowance be made for this fact, it may be stated that the birth rate for the Commonwealth was not only higher in 1913 than in any of the preceding nine years, but that the increase which began with the year 1909, was maintained to the end of 1913, while the years 1914 and 1915 shew decreases in the rate, that for 1915 having practically receded to the 1911 level. The very high masculinity of the population accounts for the low birth rate experienced in the Northern Territory:—

CRUDE BIRTH RATE (a), COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	North-Terr.	Federal Territory.	Cwltth.
1905 ...	26.85	24.96	25.76	24.54	30.74	28.50	8.72	...	26.23
1906 ...	27.21	25.41	26.15	24.57	30.66	28.94	6.29	...	26.57
1907 ...	27.34	25.59	26.79	25.05	30.18	28.63	7.06	...	26.76
1908 ...	26.99	25.07	26.79	25.81	30.08	29.95	9.30	...	26.59
1909 ...	27.40	25.01	27.29	25.91	28.87	28.91	7.63	...	26.69
1910 ...	27.83	24.51	27.33	26.50	27.99	29.25	11.75	...	26.73
1911 ...	28.60	25.01	27.65	26.89	28.21	28.57	9.34	(c) 16.85	27.21
1912 ...	29.86	26.39	29.67	28.65	28.83	30.53	9.82	19.15	28.65
1913 ...	28.86	25.82	30.24	29.12	29.36	30.03	14.21	17.97	28.25
1914 ...	28.96	25.45	29.46	29.33	28.45	30.33	15.46	20.79	28.05
1915 ...	28.33	24.55	29.35	26.81	27.97	29.32	13.85	19.05	27.25
Density (b)* (No. per square mile) ...	6.04	16.13	1.01	1.16	0.33	7.67	0.009	2.01	1.66

(a) Number of births per 1,000 of the mean annual population. (b) On 31st December, 1915. (c) Part of New South Wales prior to 1911.

The population density of each State and of the Commonwealth has been given for the purpose of considering the influence, if any, of concentration of population on birth rate, in connection with the disparities of the rate in different parts of Australia.

(ii.) *Objections to Crude Birth Rate.* The figures just given represent the "crude birth rate," i.e., the number of births per thousand of mean annual population. The number of births per thousand of the female population of child-bearing ages, i.e., from 15 to 45, furnishes a more significant rate. This calculation has been made for the four last Census periods, and covers in each case the Census year together with the year immediately preceding and the year immediately following. The following results have

been obtained for the four Census periods:—Total births per 1000 women (married and unmarried) of ages 15 to 45:—Years 1880-82, 169.69; years 1890-92, 158.81; years 1900-02, 117.26; years 1910-12, 117.22. Nuptial births per 1000 married women of ages 15 to 45:—Years 1880-82, 320.96; years 1890-92, 332.03; years 1900-02, 235.84; years 1910-12, 236.06.

4. **Birth Rates of Various Countries.**—A comparison with other countries shews that the Australian States occupy a very low position, which is, however, fortunately counterbalanced by a still lower position in regard to their death rates, as will be seen from the table hereinafter in the section dealing with "Deaths."

CRUDE BIRTH RATE (a) OF VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Russia, European ...	1909	44.0	Commonwealth ...	1915	27.3
Rumania ...	1914	42.5	Finland ...	1914	26.9
Bulgaria ...	1911	40.2	South Australia ...	1915	26.8
Serbia ...	1912	38.0	Netherlands... ..	1915	26.2
Ceylon ...	1915	37.0	New Zealand ...	1915	25.4
Chile ...	1914	37.0	Victoria ...	1915	24.6
Hungary ...	1912	36.3	Denmark ...	1915	24.2
Jamaica ...	1915	34.6	Ontario (Canada) ...	1915	24.2
Japan ...	1913	33.3	Scotland ...	1915	23.9
Austria ...	1912	31.3	Norway ...	1915	23.8
Italy ...	1914	31.1	Belgium ...	1912	22.6
Spain ...	1914	29.8	United Kingdom ...	1915	22.2
Queensland ...	1915	29.4	England and Wales ...	1915	22.0
Tasmania ...	1915	29.3	Ireland ...	1915	22.0
New South Wales ...	1915	28.3	Sweden ...	1915	21.6
Prussia ...	1913	28.2	Switzerland... ..	1915	19.5
Western Australia ...	1915	28.0	France ...	1913	19.0
German Empire ...	1913	27.5			

(a) Number of births per 1000 of the mean population.

5. **Masculinity at Birth.**—The masculinity of births, *i.e.*, the number of males per 100 females, registered during the last eleven years in the several States of the Commonwealth has, apart from the Northern Territory and the Federal Territory, the figures for which are useless for comparative purposes on account of the smallness of the returns on which they are based, varied from 99.82 in Tasmania in 1911 to 115.01 in Tasmania in 1905. The following table, which gives the values for the States and Commonwealth for 1905 to 1915, shews the remarkable fact that for the Commonwealth there was a steady increase of masculinity from 1904 to 1906, with a sharp decrease in 1907, a further increase in 1908, 1909, 1910, a rapid decrease in 1911 and 1912, and slight increases in 1913, 1914, and 1915:—

MASCULINITY (a) OF BIRTHS REGISTERED, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vict.	Q'land.	S. Aust.	W. Aust.	Tas.	Northern Territory.	Federal Territory.	C'wealth.
1905 ...	104.72	106.44	104.96	103.46	103.82	115.01	176.92	...	105.58
1906 ...	105.96	103.89	108.03	106.70	107.61	109.88	92.31	...	105.99
1907 ...	104.89	103.95	105.11	103.06	105.65	112.15	107.69	...	104.89
1908 ...	103.61	106.95	107.33	101.90	106.14	100.75	277.78	...	104.93
1909 ...	105.38	104.19	104.69	107.93	104.46	107.47	68.75	...	105.20
1910 ...	105.85	109.23	104.44	104.86	103.35	107.04	233.33	...	106.38
1911 ...	105.31	105.23	105.10	103.18	103.96	99.82	106.67	(b) 130.77	104.73
1912 ...	104.68	103.73	104.52	104.35	105.90	106.31	230.00	105.26	104.54
1913 ...	104.15	105.12	103.62	106.26	104.48	109.09	108.00	100.00	104.76
1914 ...	104.82	104.91	103.67	106.93	102.69	105.85	114.81	129.17	104.79
1915 ...	104.79	103.67	107.46	106.18	103.13	104.80	117.86	88.00	104.90

(a) Number of males to each 100 females.

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

There is ordinarily a very small difference between the masculinity of nuptial and ex-nuptial births. Thus, according to Bodio, whose figures are quoted in the following table, for the period about 1887-1891, the masculinity ranged from 108.3 to 103.6, and from 107.9 to 101.6 for total and ex-nuptial births respectively.

MASCULINITY OF BIRTHS IN VARIOUS COUNTRIES.

Country.	Masculinity of Births. (a)		Country.	Masculinity of Births. (a)	
	All Live Births.	Ex-nuptial Live Births.		All Live Births.	Ex-nuptial Live Births.
Spain ...	108.3	107.9	German Empire ...	105.2	104.7
Rumania ...	107.7	103.4	Finland ...	105.0	105.2
Portugal ...	107.5	106.4	Hungary ...	105.0	102.9
Austria ...	105.8	105.5	Sweden ...	105.0	104.3
Italy ...	105.8	104.4	Denmark ...	104.8	105.0
Norway ...	105.8	105.9	Serbia ...	104.7	103.5
Ireland ...	105.5	104.8	France ...	104.6	102.9
Netherlands ...	105.5	104.7	Belgium ...	104.5	102.2
Scotland ...	105.5	105.9	Switzerland ...	104.5	101.6
Russia, European ...	105.4	104.5	England ...	103.6	104.4

(a) Number of males to each 100 females.

The masculinity of ex-nuptial births in the Commonwealth was as follows:—

**MASCULINITY (a) OF EX-NUPTIAL BIRTHS REGISTERED, COMMONWEALTH,
1905 TO 1915.**

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North Territ'y.	Federal Territ'y.	C'wth.
1905 ...	102.50	102.52	105.63	96.94	98.75	102.80	...	...	102.44
1906 ...	103.10	102.23	104.17	116.97	118.13	124.82	100.00	...	105.44
1907 ...	104.91	105.59	100.90	113.56	115.94	100.00	...	...	105.11
1908 ...	103.60	105.38	96.83	96.82	89.33	108.51	150.00	...	104.00
1909 ...	105.46	102.16	103.90	105.37	129.14	129.01	66.67	...	106.25
1910 ...	104.96	103.59	100.39	101.33	89.70	106.94	200.00	...	103.05
1911 ...	101.73	106.61	97.94	106.19	108.05	105.67	28.57	(b)	103.10
1912 ...	109.83	95.98	97.80	120.85	124.40	82.69	200.00	...	104.05
1913 ...	101.52	105.79	106.39	110.36	110.36	145.97	133.33	100.00	106.21
1914 ...	109.30	103.16	104.63	110.97	107.49	101.70	133.33	...	107.75
1915 ...	98.42	103.21	99.26	101.71	100.52	100.64	70.00	...	100.00

(a) Number of males to each 100 females. (b) Part of New South Wales prior to 1911.

It is curious to note that while, so far as the total births are concerned, there has always been an excess of male births over female births (excepting Tasmania in 1911), this has not been the case in regard to ex-nuptial births, where in Tasmania in 1912 the masculinity was only 82.69, while on the other hand it rose as high as 145.97 in the following year. Little weight, however, can be attached to those results on account of the small totals on which they are based, and for the same reason the figures for the Northern Territory are not taken into consideration.

6. Ex-nuptiality of Births.—The total ex-nuptial births rose rapidly from 1905 to 1908 and remained almost stationary till 1909, when the number again decreased, so that the year 1910 shewed the lowest number recorded since 1906. During the three years 1911-13 the numbers shew a considerable increase, with further decreases in 1914 and 1915. (See the table on the following page).

It is, of course, possible that the number of ex-nuptial births is somewhat understated, owing to diffidence in proclaiming the fact of ex-nuptiality, and it is not unlikely that the majority of unregistered births are ex-nuptial.

TOTAL EX-NUPTIAL BIRTHS REGISTERED IN THE COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Fed'l Terr.	C'wealth.
1905 ...	2,912	1,689	950	385	318	290	1	...	6,545
1906 ...	2,882	1,721	1,076	356	373	308	2	...	6,718
1907 ...	2,920	1,764	1,117	378	298	306	...	...	6,783
1908 ...	2,887	1,793	1,118	433	337	294	5	...	6,867
1909 ...	2,821	1,870	1,097	421	346	300	5	...	6,860
1910 ...	2,853	1,759	1,034	455	313	298	9	...	6,721
1911 ...	2,921	1,969	1,057	466	362	290	9	(a)...	7,074
1912 ...	2,904	2,046	1,170	572	377	285	3	1	7,358
1913 ...	2,793	2,169	1,228	528	406	305	7	2	7,438
1914 ...	2,836	2,015	1,148	500	388	355	21	...	7,263
1915 ...	2,633	2,012	1,082	472	383	311	17	...	6,910

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

(i.) *Rate of Ex-nuptiality, 1905 to 1915.* The rate of ex-nuptiality, i.e., the percentage of ex-nuptial to total births, has been gradually decreasing during the last ten years, as the subjoined table shews:—

PERCENTAGE OF EX-NUPTIAL ON TOTAL BIRTHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Fed'l Terr.	C'wealth.
	%	%	%	%	%	%	%	%	%
1905 ...	7.37	5.61	6.97	4.36	4.19	5.52	2.78	...	6.24
1906 ...	7.04	5.58	7.68	3.99	4.78	5.78	8.00	...	6.23
1907 ...	6.92	5.62	7.68	4.10	3.86	5.78	...	...	6.15
1908 ...	6.80	5.77	7.54	4.44	4.35	5.24	14.71	...	6.16
1909 ...	6.44	5.94	7.05	4.18	3.95	5.45	18.52	...	6.01
1910 ...	6.28	5.60	6.39	4.32	4.13	5.33	22.50	...	5.75
1911 ...	6.14	5.96	6.22	4.21	4.47	5.33	29.03	(a)...	5.79
1912 ...	5.60	5.72	6.24	4.74	4.34	4.87	9.09	2.56	5.53
1913 ...	5.35	6.03	6.22	4.18	4.40	5.18	13.46	4.55	5.48
1914 ...	5.29	5.56	5.77	3.87	4.22	5.90	36.21	...	5.26
1915 ...	4.97	5.74	5.36	4.00	4.24	5.32	27.87	...	5.12

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

A comparison of greater significance 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. The calculation has been made for the last four Census periods, and covers in each case the Census year, together with the year immediately preceding and the year immediately following. The number of ex-nuptial births per 1000 unmarried women of ages 15 to 45 has been found to be as follows:—Years 1880-82, 14.49; years 1890-92, 15.93; years 1900-02, 13.30; years 1910-12, 12.53.

(ii.) *Comparison of Rates.* Since the rate of ex-nuptiality might appear to increase by the mere decrease in the general birth rate, the following table has been prepared:—

CRUDE EX-NUPTIAL, NUPTIAL, AND TOTAL BIRTH RATES (a), COMMONWEALTH, 1905 TO 1915.

Rates.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Ex-nuptial	1.64	1.65	1.64	1.64	1.60	1.54	1.57	1.58	1.55	1.48	1.40
Nuptial ...	24.59	24.92	25.12	24.95	25.09	25.19	25.64	27.07	26.70	26.57	25.85
Total ...	26.23	26.57	26.76	26.59	26.69	26.73	27.21	28.65	28.25	28.05	27.25

(a) Number of births per 1000 of mean population.

(iii.) *Ex-nuptiality—Rates of Various Countries.* The rate for the Commonwealth is higher than that for England and Wales, slightly lower than that for Scotland, and considerably below the rates for many of the countries for which returns are available, as the table hereunder shews. The rates shewn below refer to three triennial periods, 1880-2, 1890-2, and 1900-2, and are given per thousand of the unmarried and widowed female population:—

**EX-NUPTIAL BIRTHS PER THOUSAND OF UNMARRIED AND WIDOWED FEMALE
POPULATION IN VARIOUS COUNTRIES.**

Country.	Rate.			Country.	Rate.		
	1880-2.	1890-2.	1900-2.		1880-2.	1890-2.	1900-2.
	%	%	%		%	%	%
Ireland ...	4.4	3.9	3.8	Belgium ...	20.0	20.6	17.8
Netherlands ...	9.7	9.0	6.8	France ...	17.6	17.7	19.1
England and Wales ...	14.1	10.5	8.5	Italy ...	25.4	...	19.4
New Zealand ...	13.4	9.0	8.9	Russia ...	25.8	25.1	23.7
Switzerland ...	10.8	10.0	9.8	Denmark ...	26.9	24.5	24.2
Commonwealth ...	14.5	15.9	13.3	Sweden ...	22.6	22.9	24.3
Scotland ...	21.4	17.1	13.4	German Empire ...	29.6	28.7	27.4
Spain ...	16.0	17.5	15.5	Austria ...	43.4	42.7	40.1
Norway ...	19.7	16.9	17.2				

It may be added that the general circumstances in Australia with regard to opportunity for marriage are probably relatively easy as compared with those in older established countries.

7. Multiple Births.—Among the total number of 134,871 births registered in the Commonwealth in 1915 there were 132,027 single births, 2814 twins, and 30 triplets. The number of cases of twins was 1407, and the number of cases of triplets 10. The total number of mothers was, therefore, 133,444, the proportion of mothers of twins being one in every 95, and of mothers of triplets one in every 13,444 of total mothers. The proportion of multiple births is a fairly constant one. In 1907 they numbered 1043 out of a total of 109,306, or one in 105; in 1908, 1065, or one in 104; in 1909, 1142, or one in 99; in 1910, 1189, or one in 99; in 1911, 1236, or one in 98; in 1912, 1350, or one in 98; in 1913, 1369, or one in 99; in 1914, 1401, or one in 97; and in 1915, 1417, or one in 94. The number of cases of triplets is so small that a slight alteration in the total will completely change the proportion. Thus, there were 14 cases in 1907, or one in 7872 of total mothers, as compared with one in 18,415 in 1908; one in 8066 in 1909, one in 8893 in 1910, one in 8639 in 1911, one in 8233 in 1912, one in 16,793 in 1913, one in 12,415 in 1914, and one in 13,444 in 1915.

8. Ages of Parents.—The relative ages of the parents of children registered in 1915 have been tabulated separately for male and female births, twins and triplets being distinguished from single births, and are shewn for single ages and for every State in "Bulletin of Population and Vital Statistics, No. 33; Commonwealth Demography, 1915 and previous years." In the present work the exigencies of space allow only the insertion of corresponding tables shewing the relative ages of parents in groups of five years. It will be seen from the tables that the largest number of both single and twin births occurred where the ages of both father and mother were between 25 and 29. The largest number of mothers was found at ages 25 to 29.

(a) AGES OF PARENTS IN CASES OF SINGLE BIRTHS, COMMONWEALTH, 1915.

Ages of Fathers.		Total Children.	Ages of Mothers.								45 and Upwards.	Not Stated.
			Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.			
Under 20	Males	235	2	153	76	4	...	...	...	...	...
	Females	202	...	133	65	4	...	...	...	...	...
	Total	437	2	286	141	8	...	...	...	...	...
20 to 24	Males	6,936	1	1,273	4,519	1,015	112	14	2	1	...	
	Females	6,673	...	1,201	4,413	943	105	8	2	...	...
	Total	13,609	1	2,473	8,932	1,958	217	23	4	1	1	
25 to 29	Males	17,124	...	655	6,734	7,974	1,531	206	22	...	2	
	Females	16,173	...	642	6,343	7,533	1,476	162	16	...	...
	Total	33,297	1	1,297	13,077	15,507	3,007	368	38	...	2	
30 to 34	Males	16,102	...	156	2,619	6,574	5,728	941	76	4	4	
	Females	14,995	...	167	2,426	6,271	5,159	897	68	1	6	
	Total	31,097	...	323	5,045	12,845	10,887	1,838	144	5	10	
35 to 39	Males	11,518	...	58	739	2,760	4,349	3,273	327	10	2	
	Females	11,094	...	53	761	2,584	4,254	3,097	332	10	3	
	Total	22,612	...	111	1,500	5,344	8,603	6,370	659	20	5	
40 to 44	Males	6,808	...	14	219	819	1,958	2,586	1,191	41	...	
	Females	6,614	...	21	213	809	1,800	2,515	1,222	33	1	
	Total	13,422	...	35	432	1,628	3,758	5,081	2,413	74	1	
45 to 49	Males	3,707	...	7	71	334	710	1,362	1,084	134	5	
	Females	3,395	...	2	83	308	647	1,241	969	144	1	
	Total	7,102	...	9	154	642	1,357	2,603	2,053	278	6	
50 to 54	Males	1,264	...	...	24	94	225	410	421	89	1
	Females	1,331	...	4	20	97	231	490	464	83	2	
	Total	2,595	...	4	44	191	456	840	885	172	3	
55 to 59	Males	392	...	2	9	25	72	131	119	34	...	
	Females	374	...	...	9	36	54	115	120	40	...
	Total	766	...	2	18	61	126	246	239	74	...	
60 to 64	Males	84	...	...	2	5	22	30	21	4	...
	Females	100	...	...	2	12	17	28	31	10	...
	Total	184	...	...	4	17	39	58	52	14	...
65 and upwards	Males	58	...	...	3	7	12	18	14	4	...
	Females	37	...	...	1	4	6	11	8	7	...
	Total	95	...	...	4	11	18	29	22	11	...
Not stated	Males	10	...	...	1	2	5	1	1	...	1
	Females	3	...	...	...	1	...	...	1	...	...
	Total	13	...	...	1	3	5	1	2	...	1
Nuptial children.	Males	64,338	3	2,317	15,016	19,613	14,724	8,952	3,278	321	14	
	Females	60,991	1	2,223	14,336	18,602	13,749	8,504	3,233	328	15	
	Total	125,229	4	4,540	29,352	38,215	28,473	17,456	6,511	649	29	
Ex-nuptial children	Males	3,406	8	854	1,363	600	324	192	57	9	9	
	Females	3,392	13	937	1,326	589	267	175	69	8	8	
	Total	6,798	21	1,791	2,689	1,189	591	357	126	17	17	
Total children	Males	67,644	11	3,171	16,379	20,213	15,048	9,134	3,335	330	23	
	Females	64,383	14	3,160	15,662	19,191	14,016	8,679	3,302	336	23	
	Total	132,027	25	6,331	32,041	39,404	29,064	17,813	6,637	666	46	

(b) AGES OF PARENTS OF TWINS, COMMONWEALTH, 1915.

Ages of Fathers.		Total Children.	Ages of Mothers.						45 & upwards.
			Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	
Under 20	Males	1	...	1	...	...	...	...
	Females	3	...	1	...	...	...	...
	Total	4	...	2	...	...	...	...
20 to 24	Males	118	24	59	22	3	...	...
	Females	104	14	69	18	1	2	...	
	Total	222	38	138	40	4	2	...	
25 to 29	Males	281	...	89	134	50	8	...	
	Females	285	...	6	89	152	34	4	
	Total	566	...	95	178	286	84	12	
30 to 34	Males	336	...	2	25	130	145	28	
	Females	350	...	...	29	140	153	24
	Total	686	...	2	54	270	298	52	
35 to 39	Males	273	...	...	8	65	96	103
	Females	299	...	...	16	55	92	127
	Total	572	...	...	24	110	188	230
40 to 44	Males	194	...	...	7	21	55	86
	Females	186	...	...	3	15	51	88
	Total	380	...	...	10	36	106	174

(b) AGES OF PARENTS OF TWINS, COMMONWEALTH, 1915—Continued.

Ages of Fathers.		Total Children.	Ages of Mothers.						
			Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 & upwards.
45 to 49	Males	103	...	2	14	17	46	24	...
	Females	91	...	2	16	13	40	18	...
	Total	194	...	4	30	30	86	42	3
50 to 54	Males	27	...	...	3	7	7	7	3
	Females	35	...	...	5	11	9	9	1
	Total	62	...	...	8	18	16	16	4
55 to 59	Males	10	...	...	2	...	2	4	2
	Females	...	...	...	...	...	...	...	...
	Total	10	...	...	2	...	2	4	2
60 to 64	Males	1	...	...	...	1	...	...	...
	Females	5	...	...	...	3	...	2	...
	Total	6	...	...	...	4	...	2	...
Nuptial children	Males	1,344	26	201	381	374	280	75	7
	Females	1,358	22	209	401	358	294	71	3
	Total	2,702	48	410	782	732	574	146	10
Ex-nuptial children	Males	49	3	15	13	12	6	...	...
	Females	63	9	23	5	12	12	2	...
	Total	112	12	38	18	24	18	3	...
Total children	Males	1,393	29	216	394	386	286	75	7
	Females	1,421	31	232	406	370	306	73	3
	Total	2,814	60	448	800	756	592	148	10

(c) AGES OF PARENTS OF TRIPLETS, COMMONWEALTH, 1915.

Ages of Fathers.		Total Children.	Ages of Mothers.			
			20 to 24.	25 to 29.	30 to 34.	35 to 39.
20 to 24	Males	...	...	...	...	...
	Females	...	3	3	...	...
	Total	...	3	3	...	...
25 to 29	Males	...	...	3	...	...
	Females	...	3	3	...	...
	Total	...	3	3	...	...
30 to 34	Males	...	...	4	...	...
	Females	...	5	5	...	...
	Total	...	9	9	...	...
35 to 39	Males	...	...	1	...	...
	Females	...	2	2	...	...
	Total	...	3	3	...	...
40 to 44	Males	...	...	...	...	3
	Females	...	...	...	...	...
	Total	...	3	...	...	3
45 to 49	Males	...	...	...	...	1
	Females	...	5	...	...	5
	Total	...	6	...	...	6
50 to 54	Males	...	...	...	...	3
	Females	...	...	...	...	...
	Total	...	3	...	...	3
Nuptial children	Males	12	...	5	...	7
	Females	18	3	10	...	5
	Total	30	3	15	...	12
Ex-nuptial children	Males	...	...	...	...	...
	Females	...	...	...	...	...
	Total	...	...	...	...	...
Total children	Males	12	...	5	...	7
	Females	18	3	10	...	5
	Total	30	3	15	...	12

No conclusions can, of course, be drawn from one year's figures as to variations in the masculinity of the births at different ages of the parents, but so far as the figures go they indicate a few particulars which may be mentioned, viz.: In cases where the father is older than the mother the masculinity has a tendency to be above the average,

while in cases where both parents belong to the same age group or where the father is younger than the mother the masculinity is rather below the average. It is also below the average in cases where the father, or both father and mother, are under 25; and it is above the average where the mother alone is under 25.

9. **Birthplaces of Parents.**—The relative birthplaces of the parents of children whose births were registered during the year 1915 will be found tabulated in the Bulletin before-mentioned. A summary of the results of the tabulation is here given:—

BIRTHPLACES OF PARENTS OF CHILDREN, COMMONWEALTH, 1915.

Birthplaces.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
AUSTRALASIA—									
Commonwealth of									
Australia—									
N. South Wales	38,547	405	3	42,064	432	4	2,359	15	...
Victoria ...	32,603	369	1	32,604	359	1	1,887	24	...
Queensland ...	11,557	116	1	14,134	144	1	956	5	...
South Australia	11,919	119	1	12,213	124	1	473	2	...
Western Australia	1,560	17	...	2,061	22	...	161	1	...
Tasmania ...	5,543	50	1	5,762	57	1	372	3	...
North. Territory	13	...	...	26	...	...	17	...	...
New Zealand ...	1,348	14	...	1,083	12	...	58	...	...
EUROPE—									
England... ..	13,145	155	2	9,510	123	2	316	3	...
Wales	346	6	...	227	4	...	1	...	...
Scotland... ..	3,136	36	1	2,399	31	...	80	2	...
Ireland	1,835	29	...	1,224	19	...	44	1	...
Isle of Man	18	...	...	16	...	...	...	...	...
Other European Bri-									
tish Possessions...	67	1	...	41	...	...	...	...	...
Austria-Hungary ...	107	...	...	70	...	...	1	...	...
Belgium... ..	12	1	...	2	2	...	...	...	...
Denmark	189	2	...	57	2	...	2	...	...
France	64	...	...	33	2	...	2	...	...
Germany	867	6	...	371	5	...	18	...	...
Greece	101	...	...	53	...	...	...	...	...
Italy	363	8	...	247	4	...	4	...	...
Netherlands	58	2	...	27	1	...	...	...	...
Norway	85	2	...	31	...	...	...	...	...
Portugal... ..	1	...	...	3	...	...	...	...	...
Russia	312	3	...	225	2	...	2	...	...
Spain	31	1	...	26	1	...	...	...	...
Sweden	168	1	...	27	...	...	1	...	...
Switzerland	47	...	...	23	...	...	...	...	...
Other European									
Countries	37	...	...	21	...	...	2	...	...
ASIA—									
British India	155	2	...	82	...	...	1	...	...
Ceylon	19	...	...	6	...	...	1	...	...
Hong Kong ... ..	...	...	...	1	...	...	...	...	...
Straits Settlements	7	...	...	...	...	...	1	...	...
Other Asiatic British									
Possessions	2	...	...	4	...	...	...	...	...
Afghanistan	3	...	...	...	...	...	...	...	...
Arabia	3	...	...	...	...	...	...	...	...
China	155	...	...	50	...	...	...	...	...
Japan	25	...	...	14	...	...	...	...	...
Java	5	...	...	...	...	...	...	...	...
Philippine Islands	4	...	...	...	...	...	...	...	...
Syria	77	...	...	57	...	...	...	...	...
Other Asiatic Coun-									
tries	6	...	...	7	...	...	...	...	...

BIRTHPLACES OF PARENTS OF CHILDREN—Continued.

Birthplace.	Fathers.			Mothers of Nuptial Children.			Mothers of Ex-nuptial Children.		
	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.	Single Births.	Twins.	Trip-lets.
AFRICA—									
Mauritius ...	19	...	...	5	...	...	...	...	...
S. Africa, Union of	95	1	...	99	...	...	4	...	...
Other African British Possessions ...	2	...	...	...	...	...	...	...	...
Egypt ...	5	...	...	8	...	...	...	...	...
Other African Countries ...	3	...	...	2	...	...	...	...	...
AMERICA—									
Canada ...	85	1	...	32	1	...	...	...	...
Jamaica ...	2	...	...	...	...	...	...	...	...
Newfoundland ...	1	...	...	1	...	...	...	...	...
Other American British Pos. ...	6	...	...	1	...	...	...	...	...
Argentine Republic	4	...	...	3	...	...	...	...	...
Brazil ...	2	...	...	1	...	...	...	...	...
Chile ...	1	...	...	1	...	...	...	...	...
Mexico ...	3	...	...	...	...	...	...	...	...
United States of America ...	238	2	...	113	1	...	5	...	...
Other American Countries ...	37	...	...	16	...	...	...	...	...
POLYNESIA—									
Fiji ...	28	...	...	23	...	...	1	...	...
Friendly Islands ...	2	...	...	...	...	...	...	...	...
Papua ...	1	...	...	2	...	...	...	...	...
Other Polynesian British Pos. ...	2	...	...	2	...	...	...	...	...
New Caledonia ...	13	...	...	10	...	...	...	...	...
New Hebrides ...	2	...	...	...	...	...	...	...	...
Samoa ...	4	...	...	3	...	...	...	...	...
Other Polynesian Islands ...	2	...	...	...	...	...	1	...	...
South Sea Islands (so described) ...	20	1	...	3	...	...	...	...	...
At Sea ...	97	1	...	68	1	...	4	...	...
Unspecified ...	15	...	...	35	1	...	24	...	...
Total ...	125,229	1,351	10	125,229	1,351	10	6,798	56	...

10. Occupations of Fathers.—A summary of the occupations of the fathers of all nuptial children, whose births were registered in 1915, will be found in the following table. The figures include all the States and Territories of the Commonwealth:—

OCCUPATIONS OF FATHERS OF ALL NUPTIAL CHILDREN, COMMONWEALTH, 1915.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
CLASS I.—PROFESSIONAL.		Wool and Tallow	97
General Government	640	Hay, Corn, etc.	195
Local Government	146	Other Vegetable Matter, n.e.i. ...	36
Defence	1,241	Wood and Coal	186
Law and Order	1,194	Stone, Clay, and Glass	23
Religion	401	Gold, Silver, and Precious Stones	4
Charities	2	Ironmongery	189
Health	920	Merchants, Importers	499
Literature	159	Shopkeepers and Assistants ...	1,206
Science	101	Dealers and Hawkers	361
Civil Engineering, Architecture, and Surveying	404	Agents and Brokers	573
Education	795	Clerks, Bookkeepers, etc. ...	3,812
Fine Arts	146	Commercial Travellers, Salesmen	1,553
Music	166	Others engaged in Commercial	
Amusements	511	Pursuits	1,237
		Speculators on Chance Events ...	43
		Storage	9
Total Professional	6,826	Total Commercial	17,163
CLASS II.—DOMESTIC.		CLASS IV.—TRANSPORT AND COMMUNICATION.	
Hotelkeepers and Assistants ...	909	Railway Traffic	4,886
Others engaged in providing board and lodging	308	Tramway Traffic	1,115
House Servants	248	Road Traffic	5,661
Coachmen and Grooms... ..	308	Sea and River Traffic	1,757
Hairdressers	660	Postal Service	559
Laundrymen	59	Telegraph and Telephone Service	641
Others engaged in domestic occu- pations	259	Messengers, etc.	7
Total Domestic	2,751	Total Transport & Communication	14,626
CLASS III.—COMMERCIAL.		CLASS V.—INDUSTRIAL.	
Banking and Finance	434	Books and Publications	916
Insurance and Valuation	506	Musical Instruments	47
Landed and House Property ...	156	Prints, Pictures and Art Materials	66
Property Rights not elsewhere clsd.	2	Ornaments and Small Wares ...	103
Books, Publications, Advertising	156	Equipment for Sports and Games	5
Musical Instruments	13	Medals, Type, and Dies	28
Prints, Pictures and Art Materials	6	Watches, Clocks, and Scientific	
Ornaments and Small Wares ...	4	Instruments	144
Watches, Clocks, Jewellery ...	26	Surgical Instruments	11
Surgical Instruments	2	Arms and Ammunition	20
Arms and Ammunition	7	Engines, Machines, Tools, and	
Machinery	53	Implements	1,527
Carriages and Vehicles	26	Carriages and Vehicles	1,014
Harness, Saddlery & Leatherware	3	Harness, Saddlery & Leatherware	414
Building Materials	113	Ships, Boats, etc.	132
Furniture	46	Furniture	688
Chemicals and By-products ...	10	Building Materials	590
Paper and Stationery	45	Chemicals and By-Products ...	59
Textile Fabrics	564	Textile Fabrics	130
Dress	139	Dress	2,072
Fibrous Materials	12	Fibrous Materials	73
Animal Food	2,556	Animal Food... ..	420
Vegetable Food	748	Vegetable Food	1,604
Groceries, Drinks, Narcotics, and Stimulants... ..	1,362	Groceries, Drinks, Narcotics, and Stimulants	390
Living Animals	131	Animal Matter, not elsewhere clsd.	284
Manures and Waste Products ...	1	Workers in wood, not elsewhere clsd	196
Leather, Raw Materials	19	Vegetable Produce for Fodder ...	3

OCCUPATIONS OF FATHERS OF ALL NUPTIAL CHILDREN—Continued.

Occupations.	Number of Fathers.	Occupations.	Number of Fathers.
Paper	25	CLASS VI.—AGRICULTURAL, PASTORAL, MINING, ETC.	Agricultural 19,671 Pastoral 3,621 Dairy Farming 934 Bees, Fisheries, and Wild Animals 356 Forestry 789 Water Conservation and Supply 114 Mines and Quarries 5,912 Total Primary Producers ... 31,997
Stone, Clay, Glass, etc. ...	591		
Jewellery and Precious Stones ...	228		
Metals, other than Gold & Silver ...	3,421		
Gas, Electric Lighting, etc. ...	865		
Building—			
Builders	600		
Stonemasons	291		
Bricklayers	755		
Carpenters	3,574		
Slaters	45	CLASS VII.—INDEFINITE.	Independent Means, having no specific occupation 76 Occupation not stated 38 Total Indefinite 114
Plasterers	393		
Painters	1,419		
Plumbers	948		
Signwriters	59		
Others	44		
Roads, Railways, Earthworks ...	225		
Disposal of the Dead	43		
Disposal of Refuse	116		
Other Industrial Workers—			
Manufacturers, etc.	507	CLASS VIII.—DEPENDENTS.	Dependent Relatives 2 Dependent on State 1 Total Dependents 3 Total all Occupations ... 126,590
Engineers, Firemen	3,673		
Contractors	1,129		
Labourers, undefined	23,264		
Others	559		
Total Industrial	53,710		

11. Mothers' Age, Duration of Marriage, and Issue.—A tabulation has been made shewing, in age-groups, the duration of marriage and issue of mothers. The total number of nuptial confinements in 1915 was 126,590, viz., 125,229 single births, 1351 cases of twins, and 10 cases of triplets. From this number 254 mothers must be deducted, in whose case the necessary particulars either as to date of marriage or as to previous issue were not stated. The tables refer, therefore, to a total of 126,366 mothers. They exclude children by former marriages and still-born children, but include ex-nuptial children, previous issue by the same father. The tables cannot be given *in extenso*, but the following are their most salient features. The complete tabulations are shewn in "Commonwealth Bulletin of Population and Vital Statistics, No. 33; Commonwealth Demography, 1915, and previous years."

DURATION OF MARRIAGE AND ISSUE OF MOTHERS OF ALL AGES,
COMMONWEALTH, 1915.

Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.	Duration of Marriage.	Total Mothers.	Total Issue.	Average Number of Children.
Years.				Years.			
0-1 ...	20,877	21,224	1.01	18-19 ...	1,434	10,802	7.53
1-2 ...	10,260	11,751	1.15	19-20 ...	1,184	9,376	7.92
2-3 ...	10,957	19,730	1.80	20-21 ...	899	7,459	8.30
3-4 ...	11,735	24,716	2.10	21-22 ...	724	6,291	8.69
4-5 ...	9,947	24,972	2.51	22-23 ...	547	4,922	9.00
5-6 ...	8,859	25,635	2.88	23-24 ...	434	3,983	9.18
6-7 ...	7,092	23,371	3.29	24-25 ...	338	3,345	9.89
7-8 ...	6,499	23,666	3.64	25-26 ...	230	2,336	10.16
8-9 ...	5,772	23,262	4.03	26-27 ...	150	1,489	9.93
9-10 ...	5,083	22,199	4.37	27-28 ...	92	1,019	11.08
10-11 ...	4,364	20,759	4.76	28-29 ...	39	430	11.03
11-12 ...	3,748	19,039	5.08	29-30 ...	26	296	11.38
12-13 ...	3,202	17,225	5.38	30-31 ...	8	87	10.88
13-14 ...	3,099	17,669	5.70	31-32 ...	4	49	12.25
14-15 ...	2,670	16,286	6.10	32-33 ...	5	72	14.40
15-16 ...	2,516	16,164	6.42	34-35 ...	1	8	8.00
16-17 ...	1,963	13,433	6.84				
17-18 ...	1,588	11,364	7.16	Total	126,336	404,429	3.20

AGES AND ISSUE OF MOTHERS, COMMONWEALTH, 1915.

Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.	Ages of Mothers.	Total Mothers.	Total Issue.	Average Number of Children.
Under 20 years	4,559	5,580	1.22	40-44 years ...	6,568	43,862	6.68
20-24 years ...	29,514	51,890	1.67	45 yrs. and over	654	5,413	8.28
25-29 " ...	38,548	99,938	2.59				
30-34 " ...	28,787	106,968	3.72				
35-39 " ...	17,706	90,778	5.13	All ages ...	126,336	404,429	3.20

PREVIOUS ISSUE OF MOTHERS OF VARIOUS AGES, COMMONWEALTH, 1915.

Previous Issue.	Mothers' Ages.							Total.
	Under 20 Years.	20-24 Years.	25-29 Years.	30-34 Years.	35-39 Years.	40-44 Years.	45 Years and Over.	
0	3,660	14,853	10,860	4,313	1,541	320	31	35,578
1	810	9,101	10,451	5,239	1,691	368	14	27,674
2	81	4,031	7,755	5,307	2,234	475	30	19,913
3	7	1,174	5,131	4,571	2,406	605	27	13,921
4	1	303	2,743	3,699	2,334	689	34	9,803
5	...	41	1,149	2,686	2,226	733	58	6,893
6	...	10	336	1,596	1,821	768	59	4,590
7	...	1	91	853	1,449	709	30	3,183
8	...	...	26	334	974	636	75	2,045
9	...	...	5	124	572	500	75	1,276
10	...	...	...	39	249	326	52	666
11	...	...	...	19	119	211	46	395
12	...	...	1	5	58	119	32	215
13	...	...	...	...	21	63	21	105
14	...	...	...	1	8	23	10	42
15	...	...	...	1	3	13	4	21
16	...	...	...	...	...	7	3	10
17	...	...	...	...	...	3	2	5
19	...	...	...	...	...	...	1	1
Total Mothers	4,559	29,514	38,548	28,787	17,706	6,568	654	126,336

The tables show a fairly regular increase in the number of children up to the period where the marriage has lasted twenty years, and it appears that the average interval between successive confinements up to that period was rather more than two years and eight months. The average number of children of all marriages was 3.20, the corresponding figure for 1914 having been 3.22, for 1913, 3.21, for 1912, 3.29, for 1911, 3.34, and for 1910, 3.41.

A similar table has been prepared showing the previous issue of mothers of twins and triplets, from which it appears that 334 mothers had twins at their first confinement; 279 at their second; 200 at their third; 154 at their fourth; 131 at their fifth; 85 at their sixth; 61 at their seventh; 38 at their eighth; 24 at their ninth; 24 at their tenth; 11 at their eleventh; 5 at their twelfth; 3 at their thirteenth; 1 at her fourteenth; and 1 at her seventeenth.

Of the ten cases of triplets, 1 occurred at the first confinement; 3 at the second; 3 at the third; 1 at the fourth; 1 at the fifth; and 1 at the sixth.

12. **Interval between Marriage and First Birth.**—The following table shows the interval between marriage and first birth. Twins and triplets are included, the eldest born only being enumerated:—

INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, COMMONWEALTH, 1915.

Interval.	Number of First Children.	Interval.	Number of First Children.	Interval.	Number of First Children.
Under 1 month	594	1 year	8,953	13 years	38
1 month	582	2 years	2,788	14 "	21
2 months	847	3 "	1,242	15 "	9
3 "	1,110	4 "	645	16 "	5
4 "	1,371	5 "	379	17 "	6
5 "	1,668	6 "	208	18 "	4
6 "	2,172	7 "	173	19 "	3
7 "	1,993	8 "	96	20 "	5
8 "	1,663	9 "	82	21 "	1
9 "	3,605	10 "	57	22 "	1
10 "	3,012	11 "	37	23 "	1
11 "	2,178	12 "	28	24 "	1
				Total	35,578

Of these 35,578 children 18,356 were males and 17,222 were females; the masculinity of first births was therefore 106.58 as compared with 104.90 for total births.

The previous issue of mothers of ex-nuptial children is not recorded, but for the purposes of the following table all ex-nuptial births have been assumed to be first births. The table shows the ages of mothers of ex-nuptial births, of nuptial births occurring less than nine months after marriage, and of nuptial births occurring nine months or more after marriage. A comparison of the combined total of the first two columns with the total of nuptial children born nine months or more after marriage, reveals the fact that for all ages the ratio of the two was as 4 is to 5. At all ages up to and including 21, however, there was a great preponderance of ex-nuptial births and of births following on ante-nuptial conception. It must, of course, be understood that a certain number of premature births are necessarily included among the births which occurred less than nine months after marriage, but there is no means of arriving at the proportion of those births.

**AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST BIRTH, etc.
COMMONWEALTH, 1915.**

Age of Mother at Birth of Child.	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial Births nine months after Marriage and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
Years.						
13 ...	6	...	6	..	...	6
14 ...	15	3	18	1	4	19
15 ...	70	20	90	7	27	97
16 ...	184	139	323	12	151	335
17 ...	355	440	795	89	529	884
18 ...	556	879	1,435	265	1,144	1,700
19 ...	632	1,229	1,861	576	1,805	2,437
20 ...	649	1,295	1,944	974	2,269	2,918
21 ...	658	1,556	2,214	1,397	2,953	3,611
22 ...	566	1,257	1,823	1,832	3,139	3,705
23 ...	468	1,133	1,601	2,191	3,324	3,792
24 ...	367	909	1,276	2,259	3,168	3,535
25 ...	326	657	983	2,167	2,824	3,150
26 ...	247	570	817	1,954	2,524	2,771
27 ...	253	431	684	1,731	2,162	2,415
28 ...	191	347	538	1,529	1,876	2,067

AGES OF MOTHERS AND INTERVAL BETWEEN MARRIAGE AND FIRST
BIRTH—Continued.

Age of Mother at Birth of Child.	Ex-nuptial Births.	Nuptial Births less than nine months after Marriage.	Total of two preceding columns.	Nuptial Births nine months after Marriage and later.	Total Nuptial First Births.	Nuptial First Births and Ex-nuptial Births.
Years.						
29 ...	181	236	417	1,238	1,474	1,655
30 ...	149	210	359	1,132	1,342	1,491
31 ...	121	141	262	806	947	1,068
32 ...	126	133	259	734	867	993
33 ...	105	80	185	538	618	723
34 ...	102	71	173	468	539	641
35 ...	72	56	128	412	468	540
36 ...	84	50	134	295	345	429
37 ...	69	42	111	250	292	361
38 ...	84	47	131	204	251	335
39 ...	57	23	80	162	185	242
40 ...	38	16	54	119	135	173
41 ...	30	10	40	54	64	94
42 ...	26	6	32	58	64	90
43 ...	16	7	23	30	37	53
44 ...	17	2	19	18	20	37
45 ...	6	2	8	13	15	21
46 ...	5	2	7	6	8	13
47 ...	3	1	4	3	4	7
48 ...	...	...	...	3	3	3
49 ...	2	...	2	...	...	2
50 ...	...	...	...	1	1	1
53 ...	1	...	1	...	...	1
Not stated	17	...	17	...	...	17
Total ...	6,854	12,000	18,854	23,578	35,578	42,432

These results have sometimes been wrongly interpreted. In order to make their true significance more clear, it may be pointed out that during the seven years 1908 to 1914 inclusive there were, in an average female population between the ages 12 to 54 inclusive of about 1,377,108, an annual average of 114,832 nuptial and 6935 ex-nuptial confinements. Of the former, about 31,431 were first births, of which 10,952 occurred within 9 months of marriage (and 19,105 within 12 months), leaving 90,336 which were either not first confinements, or were ex-nuptial confinements. The female population between 12 and 54 inclusive was characterised as follows:—

"Never married"	690,845	"Married"	639,570
"Widowed"	... 44,764	"Divorced"	1,929

Thus the female population between the age limits mentioned, not living in the state of marriage, were 737,538 or 53.56 per cent., the married being 46.44 per cent. In the course of the period mentioned, the proportion of married women giving birth during the interval of 0 to 9 months from marriage was 0.34843 of the total nuptial first confinements, or 0.09537 of the total nuptial confinements. During the same period 269,452 marriages were consummated, the brides aged 12 to 54 inclusive being 267,852 in number. Thus the relative numbers can be set out as follow, the basis being 1,000,000 females of the ages of 12 to 54 inclusive.

CHARACTERISTICS OF FERTILITY IN AUSTRALIA, 1908-1914.

1,000,000 Females ages 12 to 54 inclusive.					Confinements, average for 1 Year.						Marriages, ages 12-54 inclusive.	
Married.	Never Married.	Widowed	Divorced	Total.	First Confinements.			All Confinements.			Marri-ages.	First Confinements.
					After 9 Months.	Within 9 Months.	Total.	Nuptial.	Ex-Nuptial.	Total.		
464,430	501,663	32,506	1,401	1,000,000	14,871	7,953	22,824	83,387	5,035	88,422	194,503	159,769
464,430	535,570			1,000,000	(6,516)	(3,484)	(10,000)	(94,306)	(5,694)	(100,000)	(100,000)	(82,142)
100,000	1,000,000							17,955	9,401			

If we add the total ex-nuptial cases in the 7 years (48,546), to the total nuptial cases born within 9 months of marriage (76,662), the grand total is 125,208, which is equivalent for 7 years to 90,921 for the 1,000,000 females of ages 12 to 54 inclusive. The ratio of the sum of the ex-nuptial children and those born within 9 months of marriage in one year to the total unmarried (i.e., never married, widowed, and divorced), is consequently 0.02425, or about one-fortieth, while the ratio of the births within 9 months of marriage to the total unmarried females is 0.01485, or about one-seventieth. The matter may be put another way. In a female population of 1,000,000 of ages 12 to 54, there are on the average per diem 62.48 first births; the ex-nuptial births are 13.79 per diem; and the nuptial births, occurring within 9 months of marriage, are 21.77 per diem, the total births being 242.06 per diem, of which 228.27 are nuptial.

13. **Interval between Birth and Registration of Birth.**—Information was obtained during 1915 as to the period elapsing between birth and registration. It has already been mentioned at the beginning of this section that one of the effects of the law relating to maternity allowances has been to accelerate the registration of births, as the certificate of registration must be produced when a claim under the Act is lodged. In 1912, during the last quarter of which year the Act was in force, about 6 per cent. of all births were registered within seven days; in 1913 this percentage had risen to 34; in 1914 to 40; and in 1915 to 45.

INTERVAL BETWEEN BIRTH AND REGISTRATION, COMMONWEALTH, 1915.

Interval.	Nuptial Births.	Ex-Nuptial Births.	Total Births.	Interval.	Nuptial Births.	Ex-Nuptial Births.	Total Births.
Under 1 day ...	1,778	116	1,894	16 days ...	2,851	165	3,016
1 day ...	6,948	489	7,437	17 " ...	2,476	130	2,606
2 days ...	8,618	692	9,310	18 " ...	2,269	126	2,395
3 " ...	9,044	507	9,551	19 " ...	2,066	109	2,175
4 " ...	8,632	410	9,042	20 " ...	1,861	92	1,953
5 " ...	8,036	367	8,403	21 " ...	1,689	81	1,770
6 " ...	7,298	284	7,582	22 " ...	1,571	70	1,641
7 " ...	6,737	279	7,016	23 " ...	1,461	65	1,526
8 " ...	5,887	225	6,112	24 " ...	1,244	43	1,287
9 " ...	5,333	232	5,565	25 " ...	1,202	57	1,259
10 " ...	4,822	270	5,092	26 " ...	1,188	54	1,242
11 " ...	4,619	270	4,889	27 " ...	1,039	50	1,089
12 " ...	4,632	274	4,906	28 " ...	966	49	1,015
13 " ...	4,323	290	4,613	29 " ...	935	35	970
14 " ...	3,885	274	4,159	30 " ...	848	27	875
15 " ...	3,300	173	3,473	31 " ...	824	36	860

INTERVAL BETWEEN BIRTH AND REGISTRATION, COMMONWEALTH,
1915—Continued.

Interval.	Nuptial Births.	Ex-Nuptial Births.	Total Births.	Interval.	Nuptial Births.	Ex-Nuptial Births.	Total Births.
32 days ...	759	36	795	55 days ...	125	13	138
33 " ...	616	22	638	56 " ...	153	12	165
34 " ...	610	32	642	57 " ...	151	8	159
35 " ...	547	23	570	58 " ...	166	12	178
36 " ...	517	24	541	59 " ...	141	17	158
37 " ...	485	14	499	60 " ...	113	9	122
38 " ...	481	14	495	61 to 69 days	192	31	223
39 " ...	476	19	495	70 " 79 "	108	8	116
40 " ...	423	25	448	80 " 89 "	45	11	56
41 " ...	433	22	455	90 " 99 "	37	8	45
42 " ...	388	17	405	100 " 109 "	20	3	23
43 " ...	322	13	335	110 " 119 "	13	2	15
44 " ...	282	15	297	120 " 129 "	12	1	13
45 " ...	277	17	294	130 " 139 "	16	3	19
46 " ...	234	17	251	140 " 149 "	11	2	13
47 " ...	197	12	209	150 " 159 "	3	1	4
48 " ...	203	10	213	160 " 169 "	6	1	7
49 " ...	188	8	196	170 " 179 "	6	1	7
50 " ...	191	8	199	180 " 365 "	27	10	37
51 " ...	147	7	154	1 to 2 years ...	5	2	7
52 " ...	138	15	153	2 years and over	6	15	21
53 " ...	151	15	166				
54 " ...	158	14	172	Total Births	127,961	6,910	134,871

The weighted average interval between the dates of birth and registration has been found to be as follows:—

INTERVAL BETWEEN BIRTH AND REGISTRATION, COMMONWEALTH, 1911 to 1915.

Year.	For Nuptial Children.	For Ex-nuptial Children.
1911	37.4 days	26.7 days
1912	*	*
1913	15.6 "	15.2 "
1914	13.4 "	14.3 "
1915	12.3 "	12.4 "
1916	12.6 "	14.9 "

* Introduction of maternity allowance.

Similar information for years prior to 1911 is not available, but it may be assumed that the averages did not vary much from year to year. The figures for 1912 have been omitted; they would shew an average similar to that for 1911 for the first three quarters of the year, and one similar to that for 1913 for the last quarter.

§ 2. Marriages.

1. **Marriages, 1905 to 1915.**—The number of marriages registered in the Commonwealth in 1915 was 45,224, the highest number ever recorded. There has been a steady increase in the annual number of marriages in each State since 1905, and the crude marriage-rate increased similarly in all the States until 1907, with the exception of Western Australia. In 1908 all the States, with the exception of New South Wales and Tasmania, had a lower marriage rate than in 1907, but the rate recovered in 1909 and the three following years, and was considerably higher in 1912 than in 1907 in all the States. In 1913, although the actual number of marriages was greater in Queensland, South Australia, Western Australia, and Tasmania than it had been in 1912, the marriage rate shewed a decrease in every State with the exception of Tasmania. In 1914 the number of marriages and the marriage rate increased in all the States with the exception of South Australia and Tasmania, and in 1915 there were further increases both in the actual number of marriages and in the marriage rate in all States, with the exception of South Australia and Western Australia. The number of marriages in each State since 1905 is shewn below. The rate for 1915 was the highest ever experienced in the Commonwealth.

TOTAL MARRIAGES, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tas.	North Terr.	Federal Terr.	C'wealth.
1905 ...	10,970	8,774	3,173	2,594	2,123	1,365	5	...	29,004
1906 ...	11,551	8,980	3,588	2,679	2,261	1,399	2	...	30,410
1907 ...	12,187	9,575	4,105	3,070	2,114	1,410	9	...	32,470
1908 ...	12,641	9,335	4,009	3,112	2,012	1,432	10	...	32,551
1909 ...	13,025	9,431	4,543	3,275	1,997	1,494	10	...	33,775
1910 ...	14,307	10,239	4,768	3,661	2,107	1,493	17	...	36,592
1911 ...	15,278	11,088	5,167	4,036	2,421	1,477	10	(a) 5	39,432
1912 ...	16,666	11,738	5,627	4,056	2,524	1,506	24	6	42,147
1913 ...	16,307	11,324	5,655	4,094	2,572	1,620	16	6	41,594
1914 ...	17,357	11,829	5,894	4,010	2,660	1,543	17	1	43,311
1915 ...	18,095	12,832	6,135	3,965	2,581	1,600	12	4	45,224

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

2. **Marriage Rates, 1905 to 1915.**—The number of marriages registered per thousand of mean population is shewn in the following table for the same period :—

CRUDE MARRIAGE RATE (a), COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Qld.	S. Aust.	W. Aust.	Tas.	North Terr.	Federal Territory.	C'wealth.
1905 ...	7.46	7.28	6.00	7.21	8.61	7.40	1.21	...	7.25
1906 ...	7.68	7.36	6.69	7.38	8.89	7.59	0.50	...	7.49
1907 ...	7.89	7.81	7.56	8.35	8.27	7.63	2.35	...	7.87
1908 ...	8.03	7.53	7.24	8.23	7.80	7.64	2.74	...	7.76
1909 ...	8.15	7.48	7.97	8.43	7.59	7.85	2.83	...	7.90
1910 ...	8.76	7.98	8.06	9.21	7.77	7.82	5.00	...	8.37
1911 ...	9.19	8.40	8.41	9.81	8.44	7.76	3.01	(b) 2.81	8.79
1912 ...	9.60	8.65	8.91	9.62	8.37	7.86	7.14	2.95	9.07
1913 ...	9.02	8.13	8.67	9.44	8.19	8.27	4.37	2.45	8.66
1914 ...	9.37	8.31	8.73	9.11	8.22	7.78	4.53	0.38	8.80
1915 ...	9.68	9.00	8.93	9.01	8.01	8.03	2.73	1.62	9.14

(a) Number of marriages (not persons married) per 1000 of mean annual population. (b) Part of New South Wales prior to

As in some international tabulations the marriage rates are calculated per 1000 of the unmarried population of 15 years and over, the corresponding rates have been worked out for the Commonwealth for the four last Census periods. The figures comprise in each case the Census year with the year immediately preceding and the year immediately following, and are as follows:—Years 1880-82, 48.98; years 1890-92, 45.74; years 1900-02, 42.14; years 1910-12, 50.10. These rates refer, of course, to persons married and not to marriages, as do the rates in the preceding table.

3. **Marriage Rates in Various Countries.**—A comparison of the Australian marriage rate with that of European countries shows that during the last few years it has once or twice been surpassed by the rate for Ontario, and equalled by the rate of some of the countries of the East of Europe, and that it has been higher than the rate of the countries of Central and Western Europe, and especially than the rate of countries of the North of Europe:—

CRUDE MARRIAGE RATES.—VARIOUS COUNTRIES.

Country.	Year.	Crude Marriage Rate.	Country.	Year.	Crude Marriage Rate.
Serbia ...	1911	10.3	Russia (European) ...	1909	7.9
England and Wales ...	1915	9.8	German Empire ...	1913	7.7
New South Wales ...	1915	9.7	Scotland ...	1915	7.6
Bulgaria ...	1911	9.4	France ...	1913	7.5
New Zealand ...	1915	9.2	Austria ...	1912	7.4
United Kingdom ...	1915	9.2	Ceylon ...	1915	7.2
Commonwealth ...	1915	9.1	Italy ...	1914	7.1
Victoria ...	1915	9.0	Denmark ...	1915	6.9
South Australia ...	1915	9.0	Netherlands ...	1915	6.6
Queensland ...	1915	8.9	Norway ...	1915	6.5
Hungary ...	1912	8.6	Spain ...	1914	6.5
Ontario (Canada) ...	1915	8.5	Sweden ...	1915	5.8
Rumania ...	1914	8.5	Finland ...	1914	5.7
Japan ...	1913	8.1	Ireland ...	1915	5.6
Western Australia ...	1915	8.0	Chile ...	1914	5.2
Tasmania ...	1915	8.0	Switzerland ...	1915	5.0
Belgium ...	1912	8.0	Jamaica ...	1915	3.0
Prussia ...	1912	8.0			

4. **Age at Marriage.**—(a) The age at marriage of bridegrooms and brides will be found in the following table, the previous conjugal condition of the contracting parties being distinguished. It will be seen that no less than 1591 males who were less than twenty-one years of age, one of whom was a widower, were married during 1915. The corresponding number of females was 8604, of whom nine were widows, and two were divorced. At the other extreme there were twenty-seven men of sixty-five years and upwards, who described themselves as bachelors, and one spinster of corresponding age.

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED, 1915.
COMMONWEALTH.

Age at Marriage.	Bridegrooms.				Brides.			
	Bachelors	Widowers	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
13 years	...	...	...	...	1	...	...	1
14 "	...	...	...	...	10	...	...	10
15 "	...	...	...	...	72	...	...	72
16 "	7	...	...	7	348	...	...	348
17 "	49	...	...	49	994	...	...	994
18 "	165	...	...	165	1,774	2	1	1,777
19 "	464	...	...	464	2,455	3	1	2,459
20 "	905	1	...	906	2,939	4	...	2,943
21 "	2,516	...	1	2,517	4,768	7	4	4,779
22 "	3,134	2	...	3,136	4,283	9	7	4,299
23 "	3,739	4	...	3,743	4,173	17	1	4,191
24 "	4,013	11	3	4,027	3,787	24	12	3,823
25 "	4,002	21	2	4,025	3,105	33	11	3,149
26 "	3,732	22	2	3,756	2,685	39	10	2,734
27 "	3,286	24	4	3,314	2,194	50	26	2,270
28 "	2,788	39	9	2,836	1,826	50	21	1,897
29 "	2,355	45	12	2,412	1,395	68	20	1,483
30 "	1,892	45	8	1,945	1,162	81	22	1,265
31 "	1,490	61	11	1,562	775	66	15	856
32 "	1,315	77	15	1,407	706	66	20	792
33 "	980	74	12	1,066	587	58	18	663
34 "	919	70	10	999	469	85	20	574
35 "	803	73	11	887	436	81	9	526
36 "	598	65	18	681	326	75	16	417
37 "	488	71	15	574	271	77	13	361
38 "	480	68	8	556	253	73	16	342
39 "	430	67	14	511	192	72	12	276
40 "	298	83	9	390	141	72	16	229
41 "	200	62	5	267	97	59	3	159
42 "	242	80	10	332	130	77	13	220
43 "	206	55	5	266	85	63	4	152
44 "	163	63	8	234	77	63	9	149
45 "	192	89	10	291	72	69	6	147
46 "	131	74	8	213	54	63	10	127
47 "	104	75	8	187	41	61	3	105
48 "	112	73	5	190	51	50	3	104
49 "	82	66	6	154	23	44	4	71
50 "	62	54	6	122	31	38	1	70
51 "	60	54	3	117	18	21	1	40
52 "	56	45	2	103	17	28	1	46
53 "	28	47	4	79	10	28	1	39
54 "	42	63	4	109	14	26	5	45
55 "	26	35	2	63	8	17	2	27
56 "	15	35	3	53	6	19	1	26
57 "	17	40	1	58	10	15	...	25
58 "	14	37	...	51	5	11	1	17
59 "	18	26	...	44	3	14	...	17
60 "	21	37	3	61	8	14	...	22
61 "	10	27	...	37	...	7	...	7
62 "	4	25	...	29	2	4	...	6
63 "	5	20	...	25	...	8	...	8
64 "	6	10	...	16	1	4	...	5
65 "	3	29	...	32	...	17	...	17
66 "	3	13	...	16	...	7	...	7
67 "	1	18	...	19	1	2	...	3
68 "	4	12	...	16	...	2	...	2
69 "	2	14	...	16	...	7	...	7
70 "	2	12	...	14	...	5	...	5

AGES AND CONJUGAL CONDITION OF PERSONS MARRIED, 1915—Continued.
COMMONWEALTH.

Age at Marriage.	Bridegrooms.				Brides.			
	Bachelors	Widowers	Divorced.	Total.	Spinsters.	Widows.	Divorced.	Total.
71 years ...	1	7	...	8	...	1	...	1
72 " ...	3	13	...	16	...	2	...	2
73 " ...	1	6	...	7	...	...	...	...
74 " ...	2	6	...	8	...	3	...	3
75 " ...	3	3	1	7	...	3	...	3
76 " ...	...	3	...	3	...	...	...	...
77 " ...	2	5	...	7	...	...	...	...
78 " ...	...	4	...	4	...	...	...	...
79 " ...	...	3	...	3	...	...	...	...
80 " ...	...	2	...	2	...	...	...	...
82 " ...	...	1	...	1	...	...	...	...
86 " ...	...	1	...	1	...	...	...	...
Not stated ...	6	2	...	8	9	1	...	10
Total ...	42,697	2,269	258	45,224	42,900	1,965	359	45,224

(b) The relative ages of bridegrooms and brides are shewn for single years in "Bulletin of Population and Vital Statistics, No. 33"; a condensation into age-groups of five years is here given:—

RELATIVE AGES OF PERSONS MARRIED, COMMONWEALTH, 1915.

Ages.	Total Bridegrooms.	Ages of Brides.								
		Under 15.	15 to 19.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 and Upwds.	Not Stated.
Ages of Bridegrooms. Under 20 ...	685	1	459	214	10	...	1	...	...	...
20 to 24 ...	14,329	5	3,270	8,675	1,893	224	47	10	4	1
25 to 29 ...	16,343	3	1,425	7,866	5,627	1,152	234	38	16	2
30 to 34 ...	6,979	...	328	2,160	2,550	1,407	403	91	40	...
35 to 39 ...	3,209	1	108	629	931	761	552	154	73	...
40 to 44 ...	1,459	...	37	191	316	334	274	228	109	...
45 to 49 ...	1,035	1	14	64	144	182	237	178	216	...
50 to 54 ...	530	1	5	16	45	70	90	117	186	...
55 to 59 ...	269	...	4	7	8	26	41	49	134	...
60 to 64 ...	168	...	...	9	5	9	23	23	99	...
65 and upwards ...	180	...	...	4	3	5	20	21	127	...
Not stated ...	8	...	...	...	1	...	...	...	...	7
Total Brides ...	45,224	11	5,650	20,035	11,533	4,150	1,922	909	1,004	10

5. Previous Conjugal Condition.—In a previous table the total number of bachelors and spinsters, widowed and divorced persons, who were married during the year 1915, was shewn. In the following table the relative conjugal condition of the contracting parties is given:—

RELATIVE CONJUGAL CONDITION OF PERSONS MARRIED, COMMONWEALTH, 1915.

Conjugal Condition.	Total Bridegrooms.	Brides.		
		Spinsters.	Widows.	Divorced.
Bridegrooms { Bachelors ...	42,697	41,064	1,353	280
{ Widowers ...	2,269	1,618	587	64
{ Divorced ...	258	218	25	15
Total Brides ...	45,224	42,900	1,965	359

6. Birthplaces of Persons Married.—Information as to the birthplaces of persons who were married in 1915 was not obtained in the State of Western Australia; the following figures refer, therefore, only to New South Wales, Victoria, Queensland, South Australia, Tasmania, the Northern Territory and Federal Territory. As might be expected, there were more brides than bridegrooms who were natives of the Commonwealth. In "Bulletin No. 33, Commonwealth Demography," the relative birthplaces of bridegrooms and brides will be found tabulated.

BIRTHPLACES OF PERSONS MARRIED, 1915.

COMMONWEALTH (a)

Birthplaces.	Bridegrooms.	Brides.	Birthplaces.	Bridegrooms.	Brides.
AUSTRALASIA—			ASIA—cont.—		
New South Wales ...	13,450	15,328	Java ...	3	1
Victoria ...	11,893	12,334	Philippine Islands ...	1	...
Queensland ...	4,206	5,097	Syria ...	14	9
South Australia ...	3,652	3,778	Other Asiatic Countries	7	2
Western Australia ...	69	52	AFRICA—		
Tasmania ...	1,699	1,818	Union of South Africa	38	19
Northern Territory ...	3	6	Mauritius ...	5	1
New Zealand ...	514	286	Other African British Possessions ...	1	1
EUROPE—			Egypt ...	4	1
England ...	4,493	2,563	Other African Countries ...	3	3
Wales ...	83	51	AMERICA—		
Scotland ...	1,023	630	Canada ...	49	7
Ireland ...	556	362	Jamaica ...	1	...
Isle of Man ...	7	2	Newfoundland ...	2	...
Other European British Possessions ...	21	12	Other American British Possessions ...	4	1
Austria-Hungary ...	16	2	Argentine Republic ...	2	2
Belgium ...	9	2	Chile ...	1	...
Denmark ...	50	16	Mexico ...	1	...
France ...	23	20	United States ...	98	30
Germany ...	181	46	Other American Countries ...	10	3
Greece ...	19	2	POLYNESIA—		
Italy ...	55	24	Fiji ...	6	8
Netherlands ...	29	9	Friendly Islands ...	3	2
Norway ...	25	6	Other Polynesian British Possessions ...	2	...
Portugal ...	1	1	New Caledonia ...	7	5
Russia ...	81	26	New Hebrides ...	2	...
Spain ...	7	4	Other Polynesian Islands ...	1	1
Sweden ...	47	7	South Sea Islands (so described) ...	9	1
Switzerland ...	13	3	At sea ...	20	9
Other European Countries ...	7	...	Not stated ...	14	20
ASIA—			Total ...		
British India ...	54	20		42,643	42,643
Ceylon ...	8	1			
Straits Settlements ...	2	1			
Other Asiatic British Possessions ...	1	...			
China ...	32	7			
Japan ...	6	1			

(a) Exclusive of Western Australia.

7. Occupations and Ages of Bridegrooms.—A tabulation has been made of the occupations and ages of all males married in the Commonwealth in the years 1907 to 1915. In "Bulletin No. 33" the 1915 tabulation is shown for orders of occupations: here it is repeated for classes only, with a subdivision of the Industrial class and of the class of Primary Producers. The average ages of the persons

falling under those twelve subdivisions were determined, and it appears that, apart from the Indefinite class, which consists chiefly of persons who have retired from business and who are living on their own means, and where a high average age may naturally be expected, the average age ranges from 27.93 in the Manufacturing class to 31.95 years in the Pastoral class. The averages for the five years 1907-1911 and the figures for 1912, 1913 and 1914 have been added for the purposes of comparison. The results obtained are shewn in the following table:—

OCCUPATIONS AND AGES OF BRIDEGROOMS, COMMONWEALTH, 1915.

Ages at Marriage.	Professionals.	Domestic.	Mercantile.	Transport and Communication.	Industrial.			Primary Producers.				Indefinite.	
					Manufacturing.	Building and Construction.	Indefinite Industrial Workers.	Agricultural.	Pastoral.	Mines and Quarries.	Other Primary Producers.		
16 years ...	...	...	2	...	1	...	4	...	...	...	...	...	...
17 " ...	3	...	6	7	11	2	14	...	...	...	1	1	...
18 " ...	10	1	33	19	27	6	49	...	...	3	5	2	2
19 " ...	31	6	68	58	71	35	126	...	...	5	22	5	2
20 " ...	67	21	108	118	139	63	250	...	...	17	38	6	1
21 " ...	260	66	322	314	446	148	642	163	43	88	21	4	6
22 " ...	322	72	450	367	437	236	720	276	63	117	20	6	4
23 " ...	414	70	548	442	613	251	833	342	73	129	24	4	6
24 " ...	391	78	676	515	593	273	868	399	78	120	30	6	4
25 " ...	449	89	736	469	583	275	756	431	91	107	36	3	3
26 " ...	444	74	676	445	499	224	752	416	88	97	39	2	2
27 " ...	358	60	629	365	404	203	663	421	98	88	20	5	5
28 " ...	330	64	497	307	340	174	555	345	104	92	27	1	1
29 " ...	275	41	412	253	296	133	527	323	67	66	17	2	2
30 " ...	203	42	342	198	232	132	385	255	80	58	13	5	5
31 " ...	178	38	257	186	185	97	284	227	72	38	8	2	2
32 " ...	152	20	273	162	144	84	273	201	50	39	7	2	2
33 " ...	116	18	190	123	108	59	222	153	45	26	4	2	2
34 " ...	91	19	164	100	109	50	199	181	62	25	8	1	1
35 to 39 years	352	73	529	295	339	155	653	486	167	122	26	12	12
40 " 44 "	166	54	235	112	144	70	319	226	83	62	10	8	8
45 " 49 "	98	38	167	76	104	66	205	169	63	33	9	7	7
50 years and upwards	83	42	149	100	112	84	214	195	68	46	12	42	42
Not stated	1	...	...	...	...	...	1	1	...	...	...	5	5
Total	4,794	986	7,469	5,031	5,987	2,810	9,514	5,332	1,413	1,419	345	124	124
Average age—years (1915)	28.87	30.14	29.03	28.22	27.93	28.67	28.64	30.54	31.95	29.24	29.14	40.63	40.63
" " (1914)	30.03	30.07	29.31	27.94	27.94	28.56	28.73	30.35	32.16	28.55	29.92	40.28	40.28
" " (1913)	30.54	29.82	29.33	28.07	27.95	28.81	28.45	30.79	32.24	29.08	30.02	42.38	42.38
" " (1912)	30.75	30.29	29.45	28.70	27.58	30.33	28.57	30.85	32.09	28.94	29.54	41.90	41.90
" " (1907-1911)	31.12	30.32	29.73	28.65	28.27	29.11	28.83	30.99	32.50	29.14	29.43	41.60	41.60

The average age at marriage of brides has slowly risen from 25.56 years in 1907 to 25.78 years in 1913 and 1914 and 25.75 years in 1915. The figures for the nine years are:—1907, 25.56 years; 1908, 25.67 years; 1909, 25.74 years; 1910, 25.77 years; 1911, 25.74 years; 1912, 25.74 years; 1913, 25.78 years; 1914, 25.78 years; and 1915, 25.75 years. For the five years 1907-11 the average age was 25.70 years, compared with 25.74 years in 1912, and 25.78 years in 1913 and 1914. As the average age of all bridegrooms during 1915 was 29.00 years, it follows that brides are on an average about three years and a quarter younger than bridegrooms.

8. Fertility of Marriages.—The quotient obtained by division of the nuptial births registered, say during the five years 1911 to 1915, by the number of marriages registered during the five years 1906 to 1910, i.e., the period antecedent by five years to the period of the births, has been called the "fertility of marriages." This works out at 3.79, or in other words, the number of children to be expected from every marriage in the Commonwealth is under four. This method, while not professing any claim to accuracy, generally furnishes results which agree fairly well with those found by more elaborate and careful investigation, but in this instance it is, owing chiefly to the fictitious increase in the number of births shewn in 1912, rather higher than for a number of years prior to 1912. For the period 1907-11 the result was 3.43, for the year 1912, 3.87, for the year 1913, 3.85, and for the year 1914, 3.86.

9. **Registration of Marriages.**—In all the States of the Commonwealth marriages may be celebrated either by ministers of religion, whose names are registered for that purpose with the Registrar-General, or by certain civil officers, in most cases district registrars. The percentage of marriages celebrated by ministers of religion has fluctuated during the last eleven years between 96.10 per cent. in 1915 and 97.55 per cent. in 1909. The figures for the individual States in 1915 were: New South Wales, 97.26 per cent.; Victoria, 96.64 per cent.; Queensland, 96.30 per cent.; South Australia, 95.69 per cent.; Western Australia, 84.31 per cent.; and Tasmania, 97.94 per cent., the percentage for the Commonwealth being 96.10. The registered ministers in 1915 belonged to more than forty different denominations, some of which, however, can hardly be regarded as having any valid existence. A number of these have been omitted from the tabulation, and are bracketed under the heading "Other Christians." The figures for 1915 are shewn in the following table:—

MARRIAGES IN EACH DENOMINATION, COMMONWEALTH, 1915.

Denomination.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	N. Ter.	Fed. Ter.	Com-wealth
Church of England ...	7,782	3,551	1,675	996	980	564	...	4	15,552
Roman Catholic Church ...	3,398	2,186	1,207	427	396	204	7	...	7,825
Presbyterian Church of Aust. ...	2,473	2,432	873	217	197	196	2	...	6,390
Methodist Church ...	2,458	1,945	1,014	1,137	381	254	2	...	7,191
Congregational Church ...	622	1,157	183	235	96	124	...	...	2,417
Baptist Church ...	327	550	344	307	60	86	...	...	1,674
Church of Christ ...	265	312	29	190	24	24	...	...	844
Lutheran Church ...	36	55	177	175	7	...	...	...	450
Greek Orthodox Church ...	9	3	...	...	3	...	...	...	15
Unitarian Church ...	22	5	...	6	...	...	...	...	33
Salvation Army ...	88	51	42	76	12	9	...	...	278
Seventh-Day Adventists ...	19	15	7	9	4	5	...	...	59
Other Christians ...	45	101	346	16	1	100	...	...	609
Hebrew ...	47	38	8	3	15	1	...	...	112
Registrar's Office ...	495	431	227	171	405	33	1	...	1,763
Unspecified ...	9	...	3	...	...	...	...	...	12
Total ...	18,095	12,832	6,135	3,965	2,581	1,600	12	4	45,224

10. **Mark Signatures.**—The marriage registers afford some clue, even if an imperfect one, to the illiteracy of the adult population, since a small and constantly diminishing percentage of bridegrooms and brides sign the registers with marks.

(i.) *Males and Females, 1905 to 1915.* For a number of years, with the exception of 1905, 1908, 1910, 1912, and 1913 mark signatures by males have been slightly more numerous than those by females, the percentages for the Commonwealth during the past eleven years having been as follows:—

PERCENTAGE OF MARK SIGNATURES AT MARRIAGE, COMMONWEALTH, 1905 to 1915.

Year ...	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Male ...	0.91	0.92	0.81	0.71	0.65	0.56	0.56	0.43	0.36	0.41	0.27
Female ...	0.93	0.86	0.70	0.73	0.62	0.59	0.54	0.45	0.38	0.38	0.27

(ii.) *Mark Signatures in Commonwealth States, 1905 to 1915.* The following table shews that while the Tasmanian percentage has been the highest, and the Victorian the lowest, in each of the eleven years under review, there has been a marked decrease in every State:—

PERCENTAGE OF MARK SIGNATURES AT MARRIAGE, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	North. Terr.	Fed. Terr.	C'wealth.
1905 ...	1.12	0.44	1.39	0.83	0.57	2.12	...	...	0.92
1906 ...	0.94	0.43	1.67	0.65	0.66	2.18	25.00	...	0.89
1907 ...	0.87	0.36	1.14	0.55	0.64	2.02	...	...	0.76
1908 ...	0.79	0.33	1.20	0.56	0.82	1.57	...	...	0.72
1909 ...	0.60	0.22	1.16	0.55	0.68	2.07	30.00	...	0.64
1910 ...	0.61	0.29	0.92	0.44	0.52	1.17	29.41	...	0.58
1911 ...	0.54	0.22	0.84	0.46	0.78	1.96	15.00	(a)...	0.55
1912 ...	0.33	0.27	0.60	0.54	0.61	1.29	25.00	...	0.44
1913 ...	0.33	0.17	0.45	0.34	0.78	1.20	8.33	...	0.37
1914 ...	0.36	0.19	0.59	0.45	0.53	1.00	1.47	...	0.39
1915 ...	0.25	0.11	0.26	0.32	0.43	1.47	...	...	0.27

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

A complete disappearance of mark signatures is hardly to be expected, for the available information tends to shew that two-thirds of those who sign with marks are natives of their respective States, who apparently have not made use of the advantages offered to them by the State schools.

§ 3. Deaths.

1. Male and Female Deaths, 1905 to 1915.—The total number of deaths registered in the Commonwealth from 1905 to 1915 inclusive, gives an annual average of 27,559 males and 20,230 females, the details being as follow:—

MALE DEATHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Fed. Terr.	C'wealth.
1905 ...	8,709	8,273	3,499	2,003	1,728	1,061	38	...	25,311
1906 ...	8,715	8,342	3,212	2,053	1,878	1,118	56	...	25,374
1907 ...	9,444	7,977	3,482	1,998	1,866	1,083	89	...	25,939
1908 ...	9,293	8,816	3,500	2,029	1,800	1,112	77	...	26,632
1909 ...	9,184	8,070	3,419	2,080	1,671	1,030	60	...	25,514
1910 ...	9,339	8,128	3,594	2,163	1,760	1,098	72	...	26,154
1911 ...	9,973	8,355	4,060	2,179	1,923	1,037	59	(a) 5	27,591
1912 ...	11,094	9,072	4,305	2,409	2,210	1,130	61	4	30,285
1913 ...	11,508	8,495	4,195	2,563	1,852	1,189	53	4	29,859
1914 ...	10,984	9,017	4,132	2,621	1,942	1,063	69	7	29,835
1915 ...	11,439	8,860	4,695	2,587	1,887	1,083	89	14	30,654
Rate, (b) 1915	11.89	12.57	12.73	11.93	10.68	10.61	24.58	9.48	12.08

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

(b) Number of deaths per 1000 of mean population.

FEMALE DEATHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aus.	Tas.	North. Terr.	Fed. Terr.	C'wealth
1905 ...	6,269	6,403	2,004	1,758	981	783	5	...	18,203
1906 ...	6,260	6,895	1,883	1,819	1,206	893	3	...	18,959
1907 ...	6,967	6,562	2,116	1,738	1,065	915	3	...	19,366
1908 ...	6,757	6,950	2,180	1,805	1,079	1,017	6	...	19,794
1909 ...	6,626	6,366	2,111	1,702	1,033	812	8	...	18,658
1910 ...	6,819	6,604	2,150	1,851	980	1,022	10	...	19,436
1911 ...	7,173	6,861	2,484	1,859	1,000	890	6	(a) 5	20,278
1912 ...	7,768	7,517	2,616	1,927	1,125	927	6	6	21,892
1913 ...	8,191	6,979	2,588	2,130	1,082	942	11	7	21,930
1914 ...	7,736	7,486	2,599	2,092	1,101	855	12	4	21,885
1915 ...	8,146	6,963	2,864	2,107	1,105	932	8	3	22,128
Rate, (b) 1915	8.98	9.65	9.00	9.44	7.58	9.58	10.22	3.03	9.16

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

(b) Number of deaths per 1000 of mean population.

2. **Male and Female Death Rates, 1915.**—The crude male and female death rates for 1915 only are given in the last line of the preceding tables. Victoria has the highest rate both for males and for females, while Tasmania has the lowest male, and Western Australia the lowest female death rate. The rates for the two Territories are based on very small numbers, and comparisons with the States are misleading.

Owing to differences in the age constitution of the six States, the crude rates are not, however, strictly comparable, but for the purposes of calculating the "Index of Mortality" (see page 195) a distribution into five age-groups has been made, and the death rates are shown for males and females in each State in five-year age groups for the three years 1910-1912, that is, for the census year and for the year immediately preceding and following, on page 190.

3. **Death Rates of Various Countries.**—A comparison with foreign States is, for the same reason, apt to shew the Commonwealth in too favourable a light, but even if an allowance for the different age constitution were made, it would still be found occupying a very enviable position. The following table gives particulars of the death rates of various countries for the latest available years:—

DEATH RATES (a) OF VARIOUS COUNTRIES.

Country.	Year.	Crude Death Rate.	Country.	Year.	Crude Death Rate.
New Zealand ...	1915	9.1	United Kingdom ...	1915	15.6
Western Australia ...	1915	9.3	England and Wales ...	1915	15.7
Tasmania ...	1915	10.1	Scotland ...	1915	17.1
New South Wales ...	1915	10.5	Ireland ...	1915	17.6
Commonwealth ...	1915	10.7	France ...	1913	17.7
South Australia ...	1915	10.7	Italy ...	1914	17.9
Queensland ...	1915	11.0	Japan ...	1913	19.5
Victoria ...	1915	11.1	Austria ...	1912	20.5
Ontario (Canada) ...	1915	12.0	Serbia ...	1912	21.1
Netherlands ...	1915	12.4	Bulgaria ...	1911	21.5
Denmark ...	1915	12.8	Jamaica ...	1915	21.6
Norway ...	1915	13.3	Spain ...	1914	22.1
Switzerland ...	1915	13.3	Hungary ...	1912	23.3
Sweden ...	1915	14.6	Rumania ...	1914	23.8
Belgium ...	1912	14.8	Ceylon ...	1915	25.2
Prussia ...	1913	14.9	Chile ...	1914	27.8
German Empire ...	1913	15.0	Russia, European ...	1909	28.9
Finland ...	1914	15.6			

(a) Number of deaths per 1000 of mean population.

4. **Total Deaths, 1905 to 1915.**—The total number of deaths in each of the Commonwealth States during the eleven years 1905 to 1915, is shown below:—

TOTAL DEATHS, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aus.	Tas.	North Terr.	Federal Terr.	C'wealth.
1905 ...	14,978	14,676	5,503	3,761	2,709	1,844	43	...	43,514
1906 ...	14,975	15,237	5,095	3,872	3,084	2,011	59	...	44,333
1907 ...	16,411	14,539	5,598	3,736	2,931	1,998	92	...	45,305
1908 ...	16,055	15,766	5,680	3,834	2,879	2,129	83	...	46,426
1909 ...	16,810	14,436	5,530	3,782	2,704	1,842	68	...	44,172
1910 ...	16,158	14,732	5,744	4,014	2,740	2,120	82	...	45,590
1911 ...	17,146	15,216	6,544	4,038	2,923	1,927	65	(a) 10	47,869
1912 ...	18,862	16,589	6,921	4,336	3,335	2,057	67	10	52,177
1913 ...	19,699	15,474	6,783	4,693	2,934	2,131	64	11	51,789
1914 ...	18,720	16,503	6,731	4,713	3,043	1,918	81	11	51,720
1915 ...	19,585	15,823	7,559	4,694	2,992	2,015	97	17	52,782

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

5. Crude Death Rates, 1905 to 1915.—The death rate for 1915 shewed an increase on that for 1914 in New South Wales, Queensland, Tasmania, and the Commonwealth as a whole, and a decrease in Victoria, South Australia, and Western Australia. The rates for Victoria and Western Australia were the lowest on record. The Commonwealth rate for 1915 was equal to that for 1911, and lower than in any of the other years of the period under review excepting the years 1909, 1910, and 1913.

CRUDE DEATH RATE (a), COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	North Terr.	Federal Terr.	C'wealth.
1905 ...	10.18	12.17	10.40	10.45	10.98	10.00	10.42	...	10.88
1906 ...	9.95	12.55	9.50	10.66	12.12	10.91	14.84	...	10.92
1907 ...	10.63	11.86	10.31	10.16	11.47	10.81	24.07	...	10.99
1908 ...	10.20	12.71	10.26	10.14	11.17	11.36	22.71	...	11.07
1909 ...	9.89	11.45	9.70	9.74	10.27	9.68	19.22	...	10.33
1910 ...	9.89	11.49	9.71	10.09	10.11	11.10	24.10	...	10.43
1911 ...	10.32	11.52	10.65	9.82	10.19	10.13	19.58	(b)5.62	10.66
1912 ...	10.86	12.23	10.96	10.28	11.06	10.73	19.95	4.91	11.23
1913 ...	10.89	11.11	10.39	10.82	9.34	10.87	17.49	4.49	10.78
1914 ...	10.11	11.59	9.97	10.71	9.41	9.67	21.59	4.16	10.51
1915 ...	10.48	11.10	11.00	10.67	9.28	10.11	22.08	6.89	10.66

(a) Number of deaths per thousand of mean population for year. (b) Part of New South Wales prior to 1911.

6. Male and Female Death Rates, 1905 to 1915.—The rise in the Commonwealth rate from 1905 to 1907 was due to an increase in the female death rate, while the increase in 1908 was practically limited to the male death rate, as the subjoined table shews. The decrease from 1908 to 1909 was fairly equal for the male and female rates, and the increase in 1910 was due to a rise in the female rate. From 1910 to 1911, and again from 1911 to 1912 the increase in the male rate was about one and a half times as marked as that in the female rate, while the decrease from 1912 to 1913 was more than twice as great for the male rate than for the female rate. The decrease from 1913 to 1914 was fairly equal for the male and female rates, while in 1915 there was a fairly sharp increase in the male rate, with a further slight decrease in the female rate, making the latter the lowest but one on record.

MALE AND FEMALE DEATH RATES (a), COMMONWEALTH, 1905 to 1915.

Year.	1905.	1906.	1907.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
Male rate	12.14	12.01	12.11	12.24	11.51	11.54	11.82	12.51	11.93	11.67	12.08
F ^o male ,,	9.50	9.73	9.77	9.81	9.06	9.24	9.40	9.84	9.53	9.27	9.16
Crude total rate	10.88	10.92	10.99	11.07	10.33	10.43	10.66	11.23	10.78	10.51	10.66

(a) Number of deaths per thousand of mean population.

7. Infantile Death Rate.—(i.) *Deaths and Death Rates of Male and Female Infants, 1905 to 1915.* Improvement continues to take place in the infantile death rate since 1905, in which year it stood at 81.76 per thousand births registered, while in 1915 it had fallen to 67.52 per thousand, a rate lower than that experienced in any previous year. In the following table, which shews both the total number of deaths of children under one year and the rate per thousand births since 1905, males and females are distinguished. The universal experience that during the first few years of life the excess of male births tends to disappear, as a consequence of the higher death rate of male infants is shewn by the fact that out of 681,316 male infants born from 1905 to 1915, 55,656 died during their first year of life, while of 648,128 female infants the number who died was only 43,114:—

**NUMBER OF INFANTILE DEATHS AND RATES OF INFANTILE MORTALITY,
COMMONWEALTH, 1905 to 1915.**

Year.	Registered Deaths under one year.			Rate of Infantile Mortality (a).		
	Males.	Females.	Total.	Males.	Females.	Total.
1905 ...	4,884	3,696	8,580	90.62	72.41	81.76
1906 ...	5,002	3,981	8,983	90.10	76.01	83.26
1907 ...	4,993	3,952	8,945	88.39	73.38	81.06
1908 ...	4,885	3,791	8,676	85.53	69.65	77.78
1909 ...	4,604	3,559	8,163	78.73	64.02	71.56
1910 ...	4,916	3,822	8,738	81.65	67.53	74.81
1911 ...	4,745	3,624	8,369	75.91	60.72	68.49
1912 ...	5,446	4,102	9,548	80.06	63.04	71.74
1913 ...	5,472	4,328	9,800	78.81	65.30	72.21
1914 ...	5,582	4,279	9,861	79.06	63.51	71.47
1915 ...	5,127	3,980	9,107	74.25	60.47	67.52

(a) Number of deaths under 1 year per 1000 births registered.

(ii.) *Infantile Mortality, 1905 to 1915.* Divided among the States and Territories, the rates of infantile mortality during the last eleven years was as follows:—

RATES (a) OF INFANTILE MORTALITY, COMMONWEALTH, 1905 to 1915.

Year.	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	Nor. Terr.	Federal Territory.	Com'-wealth.
1905 ...	80.55	83.30	75.52	72.80	104.19	80.65	111.11	...	81.76
1906 ...	74.53	92.92	74.68	75.66	110.00	90.19	160.00	...	83.26
1907 ...	88.46	72.60	77.65	66.23	97.51	82.97	185.19	...	81.06
1908 ...	75.20	86.05	70.67	69.50	84.72	75.16	58.82	...	77.78
1909 ...	73.87	71.36	71.50	60.91	78.01	64.91	111.11	...	71.56
1910 ...	74.71	76.88	62.90	70.21	78.18	101.68	200.00	...	74.81
1911 ...	69.46	68.70	65.36	60.60	76.01	73.39	96.77	...	68.49
1912 ...	71.00	74.48	71.73	61.68	82.06	66.80	121.21	(b) 33.34	71.74
1913 ...	77.78	70.53	63.35	69.83	70.30	70.68	115.38	...	72.21
1914 ...	69.29	78.27	63.93	75.79	68.12	71.46	51.72	22.73	71.47
1915 ...	67.67	68.78	64.33	67.04	66.54	72.37	65.57	42.55	67.52

(a) Number of deaths under 1 year per 1000 births registered. (b) Part of New South Wales prior to 1911.

The movement has been a fairly regular one, shewing slight increases in the rates during 1906, 1910, and 1913. The minimum rates in the six States occurred at different periods, viz., Tasmania, in 1909; Queensland, in 1910; Victoria and South Australia, in 1911; New South Wales and Western Australia, in 1915. The regrettable increase in the Victorian rate for 1907 was wholly due to the large mortality caused by the phenomenal heat of January, 1908. With the exception of Queensland, where the 1908 rate was exceptionally low, the 1909 rate was the lowest ever experienced up to that date in any of the States. A rise occurred in every State in 1910, with the exception of Queensland, which was counterbalanced by a considerable decrease during 1911 in every State but Queensland. In 1912 the rates shewed a rise in every State except Tasmania, and this was followed by a decrease in 1913 in Victoria, Queensland, and Western Australia, and by a further rise in New South Wales, South Australia, and Tasmania. In 1914 the rates increased in every State except New South Wales and Western Australia, the increases in Victoria and South Australia being particularly noticeable. In 1915 the rate decreased in New South Wales, Victoria, South Australia, and Western Australia, and increased slightly in Queensland and Tasmania. The Commonwealth rate for 1915 was the lowest on record.

(iii) *Infantile Mortality in Various Countries and Cities.* Compared with European countries, the cities and States of the Commonwealth occupy a very enviable position, and it may be pointed out that experience has shewn that a high birth rate is often, though not invariably, accompanied by a high infantile death rate. The figures in the subjoined tables relate to the latest years for which returns are available:—

RATE (a) OF INFANTILE MORTALITY IN VARIOUS COUNTRIES.

Country.	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)	Country.	Year.	Rate of Infantile Mortality. (a)	Crude Birth Rate. (b)
New Zealand ...	1915	50	25.4	United Kingdom...	1915	110	22.2
Queensland ...	1915	64	29.4	Belgium	1912	120	22.6
South Australia ...	1915	67	26.8	Scotland	1915	126	23.9
Western Australia ...	1915	67	28.0	Italy	1913	137	31.7
Commonwealth ...	1915	68	27.3	Prussia	1912	146	28.9
New South Wales ...	1915.	68	28.3	Serbia	1911	146	36.2
Norway	1914	68	25.2	Japan	1913	150	33.3
Victoria	1915	69	24.6	German Empire ...	1913	151	27.5
Sweden	1913	70	23.2	Bulgaria	1911	156	40.2
Tasmania	1915	72	29.3	Spain	1907	158	33.6
France	1912	78	19.0	Ceylon	1915	171	37.0
Netherlands ...	1915	87	26.2	Jamaica	1915	175	34.6
Switzerland ...	1914	91	22.5	Austria	1912	180	31.3
Ireland	1915	92	22.0	Hungary	1912	186	36.3
Denmark	1915	95	24.2	Rumania	1914	187	42.5
Ontario (Canada) ...	1915	102	24.2	Russia, European	1909	248	44.0
Finland	1915	104	26.9	Chile	1914	286	37.0
England and Wales	1915	110	22.0				

(a) Number of deaths under 1 year per 1000 births registered. (b) Number of births per 1000 of mean population.

RATE (a) OF INFANTILE MORTALITY IN VARIOUS CITIES.

City.	Year.	Rate of Infantile Mortality. (a)	City.	Year.	Rate of Infantile Mortality. (a)
Rome	1915	56	Florence	1915	131
Amsterdam	1915	63	Edinburgh	1915	132
Zurich	1915	68	Milan	1915	132
Rotterdam	1915	69	Leipzig	1912	133
Brisbane	1915	70	Liverpool	1915	133
Sydney	1915	71	Munich	1912	134
Adelaide	1915	75	Lyons	1915	136
Stockholm	1915	77	Antwerp	1912	140
Perth	1915	78	Budapest	1912	141
Melbourne	1915	80	Berlin	1912	142
Geneva	1915	83	Glasgow	1915	143
Hobart	1915	86	Marseilles	1911	144
Copenhagen	1915	92	Vienna	1912	149
Buenos Aires	1912	96	Genoa	1915	151
Chicago	1915	98	Brussels	1912	166
New York	1915	102	Dublin	1915	167
Christiania	1912	108	Aberdeen	1915	173
London	1915	110	Rio de Janeiro	1912	174
Washington	1915	110	Madrid	1915	177
Toronto	1911	114	Monte Video	1915	179
Birmingham	1915	118	Bucharest	1912	185
Paris	1915	125	Montreal	1911	242
Belfast	1912	129	Petrograd	1912	249
Manchester	1915	129	Moscow	1915	317
Hamburg	1912	130	Bombay	1915	329

(a) Number of deaths under 1 year per 1000 births registered.

(iv.) *The Effect of Infantile Mortality on Birth Rate.* It has been contended by certain investigators that the birth-rate question is intimately related to that of infantile mortality, and that in many cases a declining birth rate may be to a large extent accounted for by a decline in the infantile death rate, since, in the case in which an infant has survived, the period elapsing before the birth of the next child is likely to be longer than in the case in which the infant has died. It may indeed be readily admitted that in any community the birth rate may be affected in a definite way by variations of infantile mortality, but careful investigation of the question serves to shew that, whether considered from the theoretical aspect with a view to determining the *maximum* and the *probable* effects which a given change in the rate of infantile mortality would produce in the birth rate, or from the practical point of view by observing the fluctuations in the birth rates of various countries which have been collateral with changes in their rates of infantile mortality, there is little ground for the contention that the rate of infantile mortality is an important factor in determining the variations in the birth rate. One calculation which has been made on the basis of normal Australian conditions indicates that the *maximum* effect of increasing the rate of infantile mortality 100 per cent. would, in the absence of other disturbing causes, be to increase the birth rate by only $3\frac{1}{4}$ per cent., whilst the *probable* effect would be considerably less than this. In other words, the *maximum* effect of an increase in the rate of infantile mortality from 100 to 200 per 1000 births would be to increase the birth rate from say 30 to 31 per 1000 of population. It may be noted too, that although in some countries an increase in birth-rate accompanies an increase in the rate of infantile mortality, in others the birth rate would appear to be quite unaffected by such an increase, while in the case of England and Wales, Scotland, and Ireland, the tendency apparently exhibited is for an increase in the rate of infantile mortality to be associated with a decrease in the birth rate. The conclusion which these results appear to warrant is that although infantile mortality undoubtedly tends on the whole to increase the birth rate, the practical effect produced is so slight that the existence of such a relation may in any instance be quite masked by more important causes of variation.

8. *Deaths in Age-Groups, 1905 to 1915.*—A distribution into age-groups has been made of the 525,677 deaths which occurred in the Commonwealth from 1905 to 1915, and the results are tabulated for each State. It is, however, sufficient here to shew the results for the Commonwealth as a whole, which are as follows:—

DEATHS IN AGE-GROUPS, COMMONWEALTH, 1905 to 1915.

Ages.	Males.	Females.	Total.	Percentage of Total Males.	Percentage of Total Females.	Percentage of Total.
Under 1 year ...	55,656	43,114	98,770	18.36	19.38	18.79
1 year and under 5 ...	16,892	14,966	31,858	5.57	6.73	6.06
5 years and under 20 ...	16,326	14,282	30,608	5.38	6.42	5.82
20 years and under 40 ...	39,742	35,002	74,744	13.11	15.73	14.22
40 years and under 60 ...	64,078	37,235	101,313	21.14	16.73	19.27
60 years and under 65 ...	17,790	10,601	28,391	5.87	4.76	5.40
65 years and over ...	92,058	67,211	159,269	30.37	30.20	30.30
Age not stated ...	606	118	724	0.20	0.05	0.14
Total ...	303,148	222,529	525,677	100.00	100.00	100.00

9. *Deaths at Single Ages and in Age-Groups, 1915.*—The 52,782 deaths which were registered in the Commonwealth in the year 1915 will be found tabulated under single years, and in groups of five years for each State and Territory, in "Bulletin No.

33, Commonwealth Demography, 1915." It has been thought advisable to tabulate the deaths during the first two years of life in greater detail. The first month has, therefore, been shewn in weeks, and the twenty-three months up to the end of the second year in months. This tabulation shews a great number of children dying during the first week, the number gradually diminishing towards the end of the second year. The particulars relating to the Commonwealth are given in the following table:—

DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1915.

COMMONWEALTH.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
Under 1 week ...	1,804	1,423	3,227	10 years ...	72	71	143
1 week and under 2 ...	297	227	524	11 " ...	79	55	134
2 weeks " " 3 ...	191	139	330	12 " ...	72	62	134
3 " " " 4 ...	175	109	284	13 " ...	71	66	137
				14 " ...	88	83	171
Total under one month ...	2,467	1,898	4,365	Total 10 years and under 15	382	337	719
1 month and under 2 ...	442	309	751	15 years ...	105	68	173
2 months " " 3 ...	323	237	560	16 " ...	100	80	180
3 " " " 4 ...	278	232	510	17 " ...	123	101	224
4 " " " 5 ...	254	206	460	18 " ...	151	96	247
5 " " " 6 ...	230	177	397	19 " ...	170	127	297
6 " " " 7 ...	243	173	416	Total 15 years and under 20	649	472	1,121
7 " " " 8 ...	234	157	391	20 years ...	187	114	301
8 " " " 9 ...	188	148	336	21 " ...	207	139	346
9 " " " 10 ...	163	171	334	22 " ...	210	161	371
10 " " " 11 ...	159	145	304	23 " ...	194	176	370
11 " " " 12 ...	156	137	293	24 " ...	201	156	357
Total under 1 year ...	5,127	3,980	9,107	Total 20 years and under 25	999	746	1,745
12 months and under 13 ...	276	231	507	25 years ...	207	159	366
13 " " " 14 ...	104	84	188	26 " ...	199	173	372
14 " " " 15 ...	91	78	169	27 " ...	205	168	373
15 " " " 16 ...	89	68	157	28 " ...	196	222	418
16 " " " 17 ...	83	55	138	29 " ...	201	166	367
17 " " " 18 ...	75	47	122	Total 25 years and under 30	1,008	888	1,896
18 " " " 19 ...	60	65	125	30 years ...	213	176	389
19 " " " 20 ...	41	43	84	31 " ...	171	141	312
20 " " " 21 ...	51	39	90	32 " ...	217	179	396
21 " " " 22 ...	60	35	95	33 " ...	191	138	329
22 " " " 23 ...	45	36	81	34 " ...	213	181	394
23 " " " 24 ...	30	29	59	Total 30 years and under 35	1,005	815	1,820
Total under 2 years ...	6,132	4,790	10,922	35 years ...	236	147	383
2 years ...	434	334	768	36 " ...	214	175	389
3 " ...	233	232	465	37 " ...	240	157	397
4 " ...	190	167	357	38 " ...	259	184	443
Total under 5 years ...	6,989	5,523	12,512	39 " ...	201	181	382
5 years ...	152	143	295	Total 35 years and under 40	1,150	844	1,994
6 " ...	137	111	248				
7 " ...	94	117	211				
8 " ...	109	102	211				
9 " ...	97	76	173				
Total 5 years and under 10	589	549	1,138				

DEATHS AT SINGLE AGES AND IN AGE-GROUPS, 1915—Continued.

Ages.	Males.	Females.	Total.	Ages.	Males.	Females.	Total.
40 years	242	173	415	75 years	529	380	909
41 " "	194	118	312	76 " "	428	337	765
42 " "	241	213	454	77 " "	357	300	657
43 " "	267	154	421	78 " "	438	364	802
44 " "	238	160	398	79 " "	345	284	629
Total 40 years and under 45	1,182	818	2,000	Total 75 years and under 80	2,097	1,655	3,762
45 years	362	213	575	80 years	430	326	756
46 " "	291	157	449	81 " "	305	238	543
47 " "	270	177	447	82 " "	373	305	678
48 " "	312	183	495	83 " "	306	206	512
49 " "	301	204	505	84 " "	288	260	548
Total 45 years and under 50	1,536	984	2,470	Total 80 years and under 85	1,702	1,335	3,037
50 years	430	215	645	85 years	281	202	483
51 " "	291	158	449	86 " "	239	186	425
52 " "	367	228	595	87 " "	153	154	307
53 " "	358	207	565	88 " "	119	138	257
54 " "	410	239	649	89 " "	109	97	206
Total 50 years and under 55	1,856	1,047	2,903	Total 85 years and under 90	901	777	1,678
55 years	408	207	615	90 years	81	92	173
56 " "	367	237	604	91 " "	48	54	102
57 " "	400	211	611	92 " "	45	47	92
58 " "	432	222	654	93 " "	36	35	71
59 " "	392	204	596	94 " "	23	32	55
Total 55 years and under 60	1,999	1,081	3,080	Total 90 years and under 95	233	260	493
60 years	494	230	724	95 years	25	24	49
61 " "	351	167	518	96 " "	22	16	44
62 " "	359	221	580	97 " "	6	9	15
63 " "	376	235	611	98 " "	4	11	15
64 " "	421	214	635	99 " "	4	5	9
Total 60 years and under 65	2,001	1,067	3,068	Total 95 yrs. and under 100	67	65	132
65 years	507	259	766	100 years	5	5	10
66 " "	369	223	592	101 " "	2	4	6
67 " "	416	240	656	102 " "	3	1	4
68 " "	406	261	667	107 " "	1	...	1
69 " "	379	254	633	117 " "	1	...	1
Total 65 years and under 70	2,077	1,237	3,314	Total 100 years and over...	12	10	22
70 years	489	344	833	Age not stated	70	7	77
71 " "	376	281	657	Total all ages	30,654	22,128	52,782
72 " "	410	348	758				
73 " "	441	320	761				
74 " "	434	358	792				
Total 70 years and under 75	2,150	1,651	3,801				

The following tables shew the death rate per 1000 living at each age for the three years 1910, 1911 and 1912, viz., the Census year 1911, and the years immediately preceding and following. The Northern Territory is included with South Australia, and the Federal Territory with New South Wales:—

**AVERAGE ANNUAL DEATH RATES PER 1000 LIVING IN VARIOUS
AGE-GROUPS, 1910 to 1912.**

MALES.

Age Group.	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
0 to 4 years	25.40	24.71	23.30	21.30	28.44	24.65	24.71
5 " 9 "	2.11	2.39	2.39	1.85	2.61	2.53	2.26
10 " 14 "	1.75	1.69	1.74	1.40	2.16	1.70	1.72
15 " 19 "	2.42	2.41	2.92	2.43	2.86	2.59	2.52
20 " 24 "	3.37	3.27	4.83	3.00	5.17	3.57	3.65
25 " 29 "	3.91	4.13	5.57	3.57	5.86	4.49	4.35
30 " 34 "	4.90	4.83	5.96	5.40	6.75	3.77	5.20
35 " 39 "	6.03	6.31	7.54	7.15	8.41	6.28	6.68
40 " 44 "	8.25	8.26	9.65	8.31	10.37	6.17	8.58
45 " 49 "	10.91	11.05	13.83	10.27	14.96	9.25	11.58
50 " 54 "	14.78	15.33	17.77	13.02	17.66	14.08	15.36
55 " 59 "	21.93	21.41	23.01	19.99	24.65	16.24	21.67
60 " 64 "	30.99	31.52	31.25	31.94	35.06	28.39	31.38
65 " 69 "	45.80	50.53	51.53	45.94	45.96	38.29	47.69
70 " 74 "	71.49	74.28	70.94	58.38	78.74	58.79	70.88
75 " 79 "	117.05	115.68	112.40	99.49	110.54	108.60	114.04
80 " 84 "	181.34	174.56	190.89	165.68	185.23	148.67	176.32
85 " 89 "	252.58	270.76	202.56	225.42	328.21	313.87	257.73
90 and over	375.35	365.88	272.73	279.57	321.43	465.61	357.11

FEMALES.

0 to 4 years	20.96	19.79	20.07	16.96	21.76	21.27	20.22
5 " 9 "	1.78	2.27	2.29	1.71	2.58	1.88	2.04
10 " 14 "	1.41	1.81	1.45	1.25	1.77	2.51	1.59
15 " 19 "	1.96	2.42	2.20	2.19	2.01	3.47	2.22
20 " 24 "	3.22	3.74	3.76	3.44	3.82	4.09	3.53
25 " 29 "	4.02	4.31	4.68	4.79	4.42	4.66	4.31
30 " 34 "	4.51	4.98	4.46	4.92	4.88	4.93	4.93
35 " 39 "	5.84	6.02	5.79	5.71	6.15	7.68	5.97
40 " 44 "	6.24	6.63	7.11	5.80	6.73	5.67	6.44
45 " 49 "	7.63	8.05	9.07	7.91	8.40	7.02	7.98
50 " 54 "	11.22	11.30	11.73	9.72	11.82	8.76	11.07
55 " 59 "	14.38	15.55	14.13	12.63	14.18	15.80	14.60
60 " 64 "	21.69	22.27	21.64	20.54	20.44	19.50	21.60
65 " 69 "	37.81	36.48	34.69	35.01	34.59	35.09	36.47
70 " 74 "	55.75	58.36	57.82	48.28	54.52	55.11	56.13
75 " 79 "	97.62	98.27	86.11	91.32	92.45	93.30	95.91
80 " 84 "	154.31	157.19	138.33	137.37	144.14	150.77	151.89
85 " 89 "	184.60	225.65	200.82	202.17	186.67	254.45	208.59
90 and over	307.43	361.44	351.52	328.17	358.97	317.88	334.87

PERSONS.

0 to 4 years	23.21	22.29	21.72	19.16	25.15	23.00	22.50
5 " 9 "	1.95	2.33	2.34	1.78	2.60	2.21	2.15
10 " 14 "	1.58	1.75	1.60	1.33	1.97	2.10	1.66
15 " 19 "	2.19	2.42	2.57	2.31	2.45	3.03	2.37
20 " 24 "	3.30	3.51	4.33	3.22	4.60	3.84	3.59
25 " 29 "	3.96	4.22	5.17	4.17	5.29	4.58	4.33
30 " 34 "	4.71	4.92	5.29	5.16	6.00	4.34	4.97
35 " 39 "	5.97	6.16	6.78	6.44	7.51	6.94	6.34
40 " 44 "	7.31	7.44	8.58	7.09	9.06	5.94	7.59
45 " 49 "	9.45	9.59	11.95	9.14	12.73	8.20	9.96
50 " 54 "	13.25	13.40	15.48	11.49	15.64	11.63	13.48
55 " 59 "	18.63	18.52	19.59	16.67	20.87	16.04	18.52
60 " 64 "	26.79	26.86	27.44	26.48	29.25	24.08	26.87
65 " 69 "	42.18	43.26	44.44	40.58	41.22	36.66	42.37
70 " 74 "	64.41	65.98	65.87	53.36	68.67	56.91	63.91
75 " 79 "	108.56	107.11	101.89	95.17	103.30	100.66	105.58
80 " 84 "	169.10	171.29	166.15	150.82	170.12	149.75	164.97
85 " 89 "	217.51	248.40	201.72	211.72	266.67	284.83	232.64
90 and over	337.70	363.94	308.54	307.81	333.33	404.98	345.44

The tables shew a high death rate for children under five years of age, which rapidly diminishes until, at ages 10 to 14, a rate of 1.66 per 1000 is shewn, which is the lowest at any age. The rate then gradually rises with increasing age until, at the ages 90 and over, more than one-third die every year.

10. **Deaths of Centenarians, 1915.**—Particulars as to the twenty-two persons who died in 1915, aged 100 years and upwards, are given in the following table. It must, of course, be understood that while the Registrars-General of the various States take the greatest care to have statements as to abnormally high ages verified as far as possible, no absolute reliance can be placed on the accuracy of the ages shewn, owing to the well-known tendency of very old people to overstate their ages. The fact must not be lost sight of in connection with this question, that while parish registers in the United Kingdom often date very far back, compulsory registration of births dates practically only from 1874, the Act passed in 1836 having left many loop-holes open for those unwilling to register the births of their children:—

DEATHS OF CENTENARIANS, 1915.—COMMONWEALTH.

MALES.

Age	Locality where Death occurred.	State.	Cause of Death.	Occupation.	Birth-place.	Length of Residence in Commonwealth.
Yrs						
117	Coonamble	N.S.W.	Senility	Labourer...	China	87 years
107	Cootamundra	"	"	Unspecified	Scotland	Unspecified
102	Windsor	"	"	Blacksmith	N.S.W.	Native
102	Liverpool	"	"	Labourer...	Ireland	45 years
102	Liverpool	"	Cancer	Labourer...	England	64
101	Dungog	"	Senility	Farmer	England	63
101	Barraba	"	"	Grazier	England	86
100	Balmain South	"	"	Carpenter	Scotland	70
100	Mudgee	"	"	Labourer...	England	80
100	Brisbane	Queensland	General Paralysis	Scalper	N.S.W.	Native
100	Rockhampton	"	Senility	Labourer...	China	Unspecified
100	Hobart	Tasmania	"	Bootmaker	Unspecified	Unspecified

FEMALES.

102	Adelaide	S. Australia	Senility	...	Ireland	73 years
101	Auburn	N.S.W.	"	...	Ireland	80
101	Castlemaine	Victoria	"	...	Scotland	75
101	Clare	S. Australia	"	...	England	70
101	New Town	Tasmania	"	...	U. States	66
100	Kempsey	N.S.W.	"	...	Ireland	75
100	Mudgee	"	"	...	Ireland	72
100	Cootamundra	"	"	...	England	62
100	Hawthorn	Victoria	"	...	Ireland	66
100	Essendon	"	"	...	Scotland	67

11. **Length of Residence in the Commonwealth of Persons who Died in 1915.**—The length of residence in the Commonwealth of all persons whose deaths were registered in the year 1915 has been tabulated for all the States, and a summary of the results is shewn below:—

LENGTH OF RESIDENCE IN COMMONWEALTH OF PERSONS WHO DIED IN 1915.

Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.	Length of Residence.	Male Deaths.	Female Deaths.	Total Deaths.
Born in the C'wealth...	17,563	14,107	31,670	Resident 25 to 29 years	716	421	1,137
Resident under 1 year	138	44	182	" 30 to 34 "	1,284	621	1,905
" 1 year	110	73	183	" 35 to 39 "	812	442	1,254
" 2 years	157	89	246	" 40 to 44 "	802	456	1,258
" 3 "	201	114	315	" 45 to 49 "	634	418	1,052
" 4 "	141	81	222	" 50 to 54 "	1,446	1,010	2,466
" 5 "	96	46	142	" 55 to 59 "	1,031	890	1,921
" 6 "	83	25	108	" 60 to 64 "	1,559	1,403	2,932
" 7 "	65	26	91	" 65 yrs. & over	779	856	1,635
" 8 "	42	20	62	Length of residence not stated...	2,139	615	2,754
" 9 "	25	15	40				
" 10 to 14 years...	175	50	255				
" 15 to 19 "	243	97	340				
" 20 to 24 "	413	179	592	Total ...	30,654	22,123	52,782

12. Birthplaces of Persons who Died in 1915.—In the following table are shewn the birthplaces of persons whose deaths were registered in 1915:—

BIRTHPLACES OF PERSONS WHO DIED IN 1915.

COMMONWEALTH.

Birthplace.	Males.	Females.	Total.	Birthplace.	Males.	Females.	Total.
AUSTRALASIA—				ASIA— <i>continued.</i>			
Commonwealth of				Java	4	...	4
Australia—				Philippine Islands	11	...	11
New South Wales ...	6,809	5,588	12,397	Syria	6	7	13
Victoria	5,342	4,094	9,436	Other Asiatic			
Queensland	1,954	1,549	3,503	Countries	17	...	17
South Australia ...	1,801	1,445	3,246	AFRICA—			
Western Australia...	610	522	1,132	Union of Sth Africa	18	11	29
Tasmania	1,043	900	1,943	Mauritius	5	1	6
Northern Territory	4	9	13	Other African Brit.			
New Zealand	155	99	254	Possessions	2	1	3
EUROPE—				Other African			
England	5,563	3,505	9,068	Countries	7	...	7
Wales	146	88	234	AMERICA—			
Scotland	1,609	1,039	2,648	Barbados	2	...	2
Ireland	2,666	2,479	5,145	Canada	38	20	58
Isle of Man	4	3	7	Jamaica... ..	5	1	6
Other European				Newfoundland ...	8	2	10
Brit'h Possessions	20	20	40	Other American			
Austria-Hungary ...	37	5	42	Brit. Possessions	7	3	10
Belgium	5	4	9	Argentine Republic	6	1	7
Denmark	107	19	126	Brazil	2	...	2
France	56	24	80	Chile	3	...	3
Germany	601	313	914	Mexico	1	...	1
Greece	25	...	25	United States of			
Italy	80	14	94	America	85	21	106
Netherlands	14	2	16	Other American			
Norway	62	8	70	Countries	29	10	39
Portugal... ..	16	1	17	POLYNESIA—			
Russia	97	23	120	Fiji	2	2	4
Spain	13	8	21	Papua	1	1	2
Sweden	127	9	136	Other Polynesian			
Switzerland	46	6	52	Brit. Possessions	3	1	4
Other European				New Caledonia ...	3	3	6
Countries	10	1	11	New Hebrides ...	2	...	2
ASIA—				Samoa	1	...	1
British India	95	26	121	Other Polynesian			
Ceylon	11	1	12	Islands	2	...	2
Hong Kong	1	...	1	South Sea Islands			
Straits Settlements	9	1	10	(so described) ...	32	7	39
Other Asiatic British				At Sea	55	31	86
Possessions	6	...	6	Not stated... ..	735	198	933
Afghanistan	3	...	3	Total Deaths ...	30,654	22,128	52,782
China	363	1	364				
Japan	52	1	53				

13. Occupations of Male Persons who Died in 1915.—Information as to the occupations of the 30,654 males who died in the Commonwealth in 1915, is contained in the following statement:—

OCCUPATIONS OF MALES WHO DIED IN 1915.

COMMONWEALTH.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
CLASS I.—PROFESSIONAL.			
General Government	146	Vegetable food	95
Local Government	25	Groceries and stimulants	119
Defence	341	Living animals... ..	32
Law and order	171	Leather, raw material	3
Religion	126	Wool and tallow	13
Charity	1	Hay, corn, etc.	35
Health	173	Other vegetable matter	6
Literature	34	Wood and coal... ..	25
Science	17	Stone, clay, glass	4
Civil and mechanical engineering, architecture and surveying	85	Gold, silver, and precious stones	3
Education	131	Ironmongery	26
Fine arts	32	Merchants	117
Music	32	Shopkeepers and assistants	213
Amusements	95	Dealers and hawkers	121
		Agents and brokers	125
		Clerks, bookkeepers, etc.	598
		Commercial travellers and salesmen	187
		Others engaged in commercial pur- suits	107
Total Professional	1,409	Speculators on chance events	11
		Storage	4
CLASS II.—DOMESTIC.			
Hotelkeepers and assistants	276	Total Commercial	2,538
Others engaged in providing board and lodging... ..	80	CLASS IV.—TRANSPORT AND COMMUNICATION.	
House servants	140	Railway traffic	406
Coachmen and grooms	73	Tramway traffic	60
Hairdressers	74	Road traffic	608
Laundrymen	11	Sea and river traffic	530
Others engaged in domestic occu- pations	141	Postal service	84
Total Domestic	795	Telegraph and telephone service	41
		Messengers, etc.	5
CLASS III.—COMMERCIAL.			
Banking and finance	99	Total Transport & Communication	1,734
Insurance and valuation	50	CLASS V.—INDUSTRIAL.	
Land and household property	39	Books and publications	129
Property rights, n.e.i.	1	Musical instruments	7
Books, publications and advertising	50	Prints, pictures, and art materials	7
Musical instruments	3	Ornaments and small wares	26
Prints, pictures and art materials... ..	2	Sports and games	1
Ornaments, small wares	1	Designs, medals, type	4
Sports and games	1	Watches and clocks	39
Surgical instruments	2	Surgical Instruments	1
Machines, tools, and implements	2	Arms and ammunition	4
Carriages and vehicles	3	Engines, machines, tools, etc.	148
Ships and Boats... ..	5	Carriages and vehicles	112
Building materials	7	Harness, saddlery, and leatherware	111
Furniture	6	Ships, boats, and equipment	50
Chemicals	1	Furniture	109
Paper and stationery	10	Building material	46
Textile fabrics	134	Chemicals and by-products	6
Dress	17		
Animal food	261		

OCCUPATIONS OF MALES WHO DIED IN 1915—Continued.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths
INDUSTRIAL—Continued.		CLASS VI.—AGRICULTURAL, PASTORAL, MINING PURSUITS, ETC.	
Textile fabrics	26	Agricultural	3,195
Dress	405	Pastoral	782
Fibrous materials	13	Dairy farming	35
Animal food	23	Bees, fisheries and wild animals ...	97
Vegetable food	186	Forestry	80
Groceries and stimulants	72	Water conservation and supply ...	21
Animal matter	37	Mines and quarries	1,605
Workers in wood not elsewhere classed	24		
Paper	4	Total Primary Producers	5,815
Stone, clay, glass	76		
Jewellery and precious stones	29	CLASS VII.—INDEFINITE.	
Metals, other than gold and silver ...	402	Independent means, having no specific occupation	551
Gas, electric lighting, etc.	50	Occupation unspecified	938
		Total Indefinite	1,489
Buildings—		CLASS VIII.—DEPENDENTS.	
Builders	99	Dependent relatives (including persons under 20 years of age with no specified occupation) ...	8,144
Stonemasons... ..	97	Supported by voluntary and State contributions	172
Bricklayers	83	Total Dependents	8,316
Slaters	8		
Carpenters	515		
Plasterers	55		
Painters and glaziers	219		
Plumbers	96		
Signwriters	4		
Others	3		
Roads, railways, and earthworks... ..	51		
Disposal of the dead	11		
Disposal of refuse	14		
Other industrial workers—			
Manufacturers	46		
Engineers, firemen	467		
Contractors	188		
Labourers, undefined	4,419		
Others	36		
Total Industrial	8,558	Total Male Deaths	30,654

14. **Index of Mortality.**—The death rates, those for age-groups on pages 187 and 190 excepted, so far shewn are crude rates, *i. e.*, they simply shew the number of deaths per thousand of mean population, without taking the age constitution of that population into consideration. It is, however, a well-known fact that the death rate and age constitution of a people are intimately related, thus, other conditions being equal, the death rate of a country will be lower if it contain a large percentage of young people (not infants). In order to have a comparison of the mortality of various countries on a uniform basis, so far as age constitution is concerned, the International Statistical Institute in its 1895 session recommended the universal adoption of the population of Sweden in five age-groups, as ascertained at the Census of 1890, as the standard population by which this "Index of Mortality," as distinguished from the crude death rate, should be ascertained. The calculation for 1915 is shewn below for each of the States and Territories and for the Commonwealth, the distribution of the mean population of 1915 into age-groups being in accordance with the distribution as found at the Census of 1911:—

INDEX OF MORTALITY, 1915.—(STATES AND COMMONWEALTH).

Age-Group.	Mean Population, 1915, distributed according to Results of Census of 1911.	Number of Deaths, 1915.	No. of Deaths per 1000 of Mean Population, 1915, in each Age-Group.	Age Distribution per 1000 of Standard Population.	Index of Mortality.
NEW SOUTH WALES.					
Under 1 year	51,380	3,590	69.87	25.5	1.78
1 year and under 20	735,797	2,684	3.65	398.0	1.45
20 years " 40	626,017	2,688	4.29	269.6	1.16
40 " " 60	337,990	3,723	11.01	192.3	2.11
60 " " and upwards	117,323	6,900	58.81	114.6	6.74
Total	1,968,507	19,585	10.48	1,000.0	13.24
VICTORIA.					
Under 1 year	33,739	2,408	71.37	25.5	1.82
1 year and under 20	548,928	1,617	2.95	398.0	1.17
20 years " 40	451,414	2,027	4.49	269.6	1.21
40 " " 60	237,408	3,199	11.13	192.3	2.14
60 " " and upwards	104,597	6,572	62.83	114.6	7.20
Total	1,426,086	15,823	11.10	1,000.0	13.54
QUEENSLAND.					
Under 1 year	18,577	1,301	70.03	25.5	1.79
1 year and under 20	281,439	1,012	3.60	398.0	1.43
20 years " 40	225,091	1,219	5.42	269.6	1.46
40 " " 60	122,043	1,509	12.36	192.3	2.38
60 " " and upwards	39,860	2,518	63.17	114.6	7.24
Total	687,010	7,559	11.00	1,000.0	14.30
SOUTH AUSTRALIA.					
Under 1 year	11,333	791	69.80	25.5	1.78
1 year and under 20	172,324	502	2.91	398.0	1.16
20 years " 40	144,999	734	5.06	269.6	1.36
40 " " 60	80,450	828	10.29	192.3	1.98
60 " " and upwards	30,960	1,839	59.40	114.6	6.81
Total	440,066	4,694	10.67	1,000.0	13.09
WESTERN AUSTRALIA.					
Under 1 year	8,618	603	69.97	25.5	1.78
1 year and under 20	118,060	340	2.88	398.0	1.15
20 years " 40	118,368	534	4.51	269.6	1.22
40 " " 60	64,380	814	12.64	192.3	2.43
60 " " and upwards	12,931	701	54.21	114.6	6.21
Total	322,357	2,992	9.28	1,000.0	12.79
TASMANIA.					
Under 1 year	5,603	423	75.50	25.5	1.93
1 year and under 20	84,374	232	2.73	398.0	1.09
20 years " 40	60,970	248	4.07	269.6	1.10
40 " " 60	35,432	347	9.79	192.3	1.88
60 " " and upwards	12,458	765	61.41	114.6	7.04
Total	199,337	2,015	10.11	1,000.0	13.04
NORTHERN TERRITORY.					
Under 1 year	39	4	102.56	25.5	2.61
1 year and under 20	810	10	12.35	398.0	4.91
20 years " 40	1,175	17	14.47	269.6	3.90
40 " " 60	1,979	46	23.24	192.3	4.47
60 " " and upwards	400	20	50.00	114.6	5.73
Total	4,403	97	22.03	1,000.0	21.62
FEDERAL TERRITORY.					
Under 1 year	57	2	35.09	25.5	0.89
1 year and under 20	1,011	3	2.97	398.0	1.18
20 years " 40	758	6	7.92	269.6	2.14
40 " " 60	459	4	8.72	192.3	1.68
60 " " and upwards	182	2	10.99	114.6	1.26
Total	2,467	17	6.89	1,000.0	7.15

INDEX OF MORTALITY, 1915.—(STATES AND COMMONWEALTH)—Continued.

Age-Group.	Mean Population, 1915, distributed according to Results of Census of 1911.	Number of Deaths, 1915.	No. of Deaths per 1000 of Mean Population, 1915, in each Age-Group.	Age Distribution per 1000 of Standard Population.	Index of Mortality
COMMONWEALTH.					
Under 1 year	129,346	9,122	70.52	25.5	1.80
1 year and under 20	1,943,243	6,400	3.29	398.0	1.31
20 years " 40	1,628,792	7,473	4.59	269.6	1.24
40 " " 60	930,141	10,470	11.26	192.3	2.17
60 " and upwards	318,711	19,317	60.61	114.6	6.95
Total	4,950,233	52,782	10.66	1,000.0	13.47

NOTE.—The small number of persons whose ages were not ascertained at the 1911 Census have been proportionately distributed among the various age-groups, and the same plan has been followed in regard to the 77 persons who died in 1915, and whose ages were not stated in the certificates of death.

It will be seen that among the States in 1915, Queensland had the highest index and the second highest crude rate, while Western Australia had the lowest index and crude rate. Victoria experienced the highest crude death rate and the second highest index. The range of the indexes was below that of the crude rates, the latter varying from 9.28 per thousand in Western Australia to 11.10 per thousand in Victoria, a range of 1.82 per thousand, while the index varied from 12.79 per thousand in Western Australia to 14.30 per thousand in Queensland, a range of 1.51 per thousand.

For purposes of comparison with previous years the index of mortality is shown in the following table for each of the eleven years 1905-1915 :—

INDEX OF MORTALITY 1905-1915 (STATES AND TERRITORIES).

Year.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Northern Territory.	Federal Territory.	Com'wealth.
1905	13.23	14.80	13.72	13.49	14.17	12.95	...	...	13.94
1906	12.91	15.26	12.44	13.78	15.84	14.10	...	...	13.94
1907	13.66	14.55	13.52	13.12	14.94	14.10	...	...	13.97
1908	13.13	15.58	13.37	12.89	14.81	14.46	...	...	14.10
1909	12.61	14.11	12.57	12.27	13.91	12.32	...	...	13.15
1910	12.48	14.15	12.60	12.50	13.48	13.62	...	...	13.17
1911	13.23	14.23	13.57	12.18	13.47	12.97	(a) 17.91	(b) 6.53	13.55
1912	13.63	14.94	13.91	12.76	14.55	13.69	17.23	6.36	14.08
1913	13.61	13.50	13.25	13.25	12.58	13.54	20.17	6.13	13.47
1914	12.72	14.11	12.70	13.03	12.56	12.11	20.35	5.17	13.18
1915	13.24	13.54	14.30	13.09	12.79	13.04	21.62	7.15	13.47

(a) Included in South Australia prior to 1911. (b) Part of New South Wales prior to 1911.

A comparison of the above figures with the crude death rates given on a previous page shows that while the crude rate was highest in Victoria every year, the index was highest in Victoria seven times, in Western Australia twice, and in New South Wales and Queensland once each in the same period. South Australia had the lowest index five times, Western Australia and Tasmania twice, and New South Wales and Queensland, once each, while the crude rate was lowest four times in South Australia, three times in Western Australia, twice in Queensland, and twice in Tasmania. The high index in Victoria is due to the large proportion of persons over 60 years of age, and in Western Australia to the heavy mortality in the early period of life.

15. Monthly Variations in Death Rates.—(i.) *General Death Rates.* The annual death rates, corresponding to the number of deaths registered in each equalised month, have been calculated for the six years 1907-1912, and a series of diagrams shewing the results for each State and the Commonwealth as a whole appears on page 216 of this issue, distinguishing the rates for males, females, and persons. The curves shewing the male and female rate exhibit in each State a fairly parallel course,

irregularities being, however, more strongly marked in the case of the male curve. The minimum rates in New South Wales and Queensland fall within the autumn months, from March to May, while in Victoria, South Australia, Western Australia, and Tasmania they fall in the spring months, October and November. In no case is there, however, a very great difference between the rates in spring and in autumn, the figures for the Commonwealth being 10.19 per thousand in March, and 10.34 per thousand in October. The maximum rates in New South Wales, Victoria, and Tasmania are experienced in August, and in Queensland in September, with the rates for December and January as secondary maxima. In South Australia the maximum rate of 11.33 per thousand falls in January, the rate for August standing next with 10.80 per thousand. In Western Australia the maximum rate is found in May.

(ii.) *Infantile Death Rates.* A similar series of diagrams, shewing the monthly variations in the infantile death rates, appears on page 217. With the exception of Western Australia, where the maximum occurs in May, the maxima are found in the summer months in every State. The rates gradually decrease from January to March, shewing in several States a slight increase in April, with a further diminution until July. In July and August the rates rise to some extent, to fall again until October or November. From that time a rapid rise takes place, until the maximum is reached in December or January. Tasmania, where the seasons are rather later than in the continental States, shews two distinct minima in May and November, with a summer maximum in February, and a fairly high rate in September. In Western Australia the rates are moderately high in December and January, and drop until March, to rise rapidly in April and May when the maximum is reached. From May to September there is a gradual decrease, with a quick rise from the latter month until December.

16. **Causes of Death.**—(i.) Information regarding the changes in the classification of causes of death will be found in previous editions of this Year Book (*e.g.*, Year Book No. 5, pages 222 and 223). The statement will suffice, therefore, that the classification adopted by the Commonwealth Bureau of Census and Statistics is that of the International Institute of Statistics, as amended by the Committee of Revision which met in 1909. The detailed classification groups causes of death under 189 different headings in fourteen categories, as follows:—

- | | |
|---|---|
| i. General Diseases. | viii. Diseases of the Skin and Cellular Tissue. |
| ii. Diseases of the Nervous System and Organs of Special Sense. | ix. Diseases of the Organs of Locomotion. |
| iii. Diseases of the Circulatory System. | x. Malformations. |
| iv. Diseases of the Respiratory System. | xi. Infancy. |
| v. Diseases of the Digestive System. | xii. Old Age. |
| vi. Diseases of the Genito-urinary System and Adnexa. | xiii. Violence. |
| vii. Puerperal Condition. | xiv. Ill-defined Diseases. |

(ii.) *Compilation of Vital Statistics for 1907 and Subsequent Years in Commonwealth Bureau.* The vital statistics of the Commonwealth from the year 1907 onward have been tabulated according to this classification in the Commonwealth Bureau, and the system is being employed in all the State offices in the preparation of their monthly and quarterly bulletins of vital statistics.

(iii.) *Classification of Causes of Death, 1907 to 1915, according to Abridged International Classification.* An abridged classification, which enumerates thirty-eight diseases and groups of diseases according to the revised classification, is in use in many European and American States, while the Commonwealth Statistics have been compiled on the detailed classification of 189 headings. A table has been compiled shewing the causes of death according to the abridged classification, so that the results may be compared with those of countries which use the abridged index.

The compilations for the years 1907 to 1915 will be found in full in "Bulletins Nos. 8, 14, 20, 25, 29, 30, 31, 32, and 33 of Population and Vital Statistics"; here it will suffice to give the abridged classification under thirty-eight headings for the year 1915:—

CAUSES OF DEATH—COMMONWEALTH, 1915.

(a) MALES.

Cause.	N.S.W.	Vic.	Q'land.	S.Aust.	W.Aus.	Tas.	Nor. Ter.	Fed. Ter.	C'wlth.
1 Typhoid Fever ...	140	52	111	34	32	10	...	...	379
2 Typhus ...	...	...	...	...	...	...	...	...	...
3 Malaria ...	5	1	8	...	2	...	7	...	23
4 Small-pox ...	...	...	...	...	1	...	...	...	1
5 Measles ...	166	23	39	21	11	1	...	...	261
6 Scarlet Fever ...	38	5	...	1	...	2	...	...	46
7 Whooping Cough ...	26	45	5	2	4	11	1	...	94
8 Diphtheria and Croup ...	157	112	40	29	17	11	...	1	367
9 Influenza ...	50	41	60	5	16	11	...	2	185
10 Asiatic Cholera ...	...	...	...	...	...	...	...	...	...
11 Cholera Nostras ...	1	...	...	...	...	...	...	...	1
12 Other Epidemic Diseases ...	55	17	34	12	7	2	3	...	190
13 Tuberculosis of the Lungs	645	499	226	172	159	52	6	1	1,760
14 Tuberculosis of the Men- inges ...	40	38	4	19	6	8	...	...	115
15 Other forms of Tubercu- losis ...	39	53	19	18	9	4	...	...	142
16 Cancer and other Malignant Tumours ...	687	566	258	201	130	68	3	...	1,913
17 Simple Meningitis ...	195	342	87	82	28	28	1	...	763
18 Congestion, Hæmorrhage and Softening of Brain	468	317	130	111	51	42	1	...	1,120
19 Organic Diseases of the Heart ...	969	709	384	198	118	134	4	2	2,518
20 Acute Bronchitis ...	120	71	46	25	6	12	...	...	280
21 Chronic Bronchitis ...	190	187	86	42	12	16	1	...	534
22 Pneumonia ...	537	432	167	82	63	47	2	...	1,380
23 Other Diseases of the Res- piratory System (Tuber- culosis excepted) ...	496	518	180	69	69	42	...	...	1,374
24 Diseases of the Stomach (Cancer excepted) ...	59	52	30	14	17	6	...	...	178
25 Diarrhœa & Enteritis (chil- dren under 2 years only)	637	352	266	162	108	38	1	1	1,565
26 Appendicitis and Typhlitis	82	62	34	16	15	9	1	...	219
27 Hernia, Intestinal Ob- structions ...	86	86	53	18	15	10	...	...	268
28 Cirrhosis of the Liver ...	103	67	39	20	16	7	1	...	253
29 Nephritis and Bright's Disease ...	549	418	220	130	50	44	1	1	1,413
30 Non-cancerous Tumours and other Diseases of Female Genital Organs	...	...	...	...	...	...	...	...	...
31 Puerperal Septicæmia (Puerperal Fever, Puer- peral Peritonitis, Puer- peral Phlebitis)	...	...	...	...	...	...	...	...	...
32 Other Puerperal Accidents of Pregnancy and Con- finement ...	...	...	...	...	...	...	...	...	...
33 Congenital Debility and Malformations ...	846	651	278	190	141	119	...	1	2,226
34 Senile Debility ...	857	982	323	217	118	84	13	...	2,594
35 Violence ...	788	535	450	184	220	62	10	2	2,251
36 Suicide ...	206	115	108	39	51	14	2	1	536
37 Other Diseases ...	1,950	1,409	969	405	346	163	15	2	5,259
38 Unspecified or Ill-defined Diseases ...	202	103	41	69	49	26	16	...	506
Total—Males ...	11,439	8,860	4,695	2,587	1,887	1,083	89	14	30,654

CAUSES OF DEATH—COMMONWEALTH, 1915.

(b) FEMALES.

Cause.	N.S.W.	Vic.	Q'land.	S. A.	W.A.	Tas.	Nor. Ter.	Fed. Ter.	C'wlth.
1 Typhoid Fever ...	78	27	43	16	13	5	...	...	182
2 Typhus ...	...	...	...	...	...	...	...	...	...
3 Malaria ...	1	...	6	...	...	...	...	...	7
4 Small-pox ...	...	...	...	...	...	...	...	...	...
5 Measles ...	111	14	26	15	10	2	...	...	178
6 Scarlet Fever ...	47	7	1	...	...	3	...	...	58
7 Whooping Cough...	24	44	6	...	3	14	...	...	91
8 Diphtheria and Croup ...	142	92	34	32	18	18	...	...	336
9 Influenza ...	43	46	70	18	14	13	...	...	204
10 Asiatic Cholera ...	...	...	...	...	...	...	...	...	1
11 Cholera Nostras ...	...	...	...	...	1	2	...	...	7
12 Other Epidemic Diseases ...	18	15	21	16	3	...	...	...	15
13 Tuberculosis of the Lungs...	458	424	120	170	78	52	2	...	1,304
14 Tuberculosis of the Meninges	30	38	4	15	4	7	...	...	98
15 Other forms of Tuberculosis	48	47	8	16	14	3	...	...	136
16 Cancer and other Malignant Tumours ...	648	606	180	194	90	71	...	...	1,789
17 Simple Meningitis ...	135	171	55	42	25	18	...	...	446
18 Congestion, Hæmorrhage, & Softening of the Brain ...	346	360	101	95	56	40	...	...	998
19 Organic Diseases of the Heart	683	535	240	229	76	89	...	...	1,852
20 Acute Bronchitis ...	84	57	30	16	8	14	...	...	209
21 Chronic Bronchitis ...	146	118	61	25	15	14	...	...	379
22 Pneumonia ...	331	287	95	57	40	33	1	1	845
23 Other Diseases of the Respiratory System (Tuberculosis excepted) ...	321	322	81	51	32	31	...	...	838
24 Diseases of the Stomach (Cancer excepted) ...	60	60	17	11	13	12	...	...	173
25 Diarrhœa and Enteritis (children under 2 yrs only)	517	256	227	122	98	30	...	...	1,250
26 Appendicitis and Typhlitis...	51	37	29	9	5	6	...	...	137
27 Hernia, Intestinal Obstructions...	80	66	19	35	14	5	1	...	220
28 Cirrhosis of the Liver ...	46	39	12	8	15	3	...	...	123
29 Nephritis & Bright's Disease	264	361	126	59	27	24	...	...	861
30 Non-cancerous Tumours and other Diseases of the Female Genital Organs	59	30	22	20	5	3	...	...	139
31 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis) ...	81	39	30	18	7	7	...	...	182
32 Other Puerperal Accidents of Pregnancy & Confinement	160	91	64	36	24	19	...	...	394
33 Congenital Debility and Malformations ...	719	460	241	156	106	84	1	...	1,767
34 Senile Debility ...	673	838	188	224	67	101	...	1	2,092
35 Violence...	224	197	84	38	32	25	...	...	600
36 Suicide ...	49	39	22	5	6	1	...	...	122
37 Other Diseases ...	1,389	1,173	590	338	170	167	3	1	3,831
38 Unspecified or Ill-defined Diseases ...	80	67	11	21	16	16	...	...	211
Total—Females ...	8,146	6,963	2,864	2,107	1,105	932	8	3	22,128

CAUSES OF DEATH—COMMONWEALTH, 1915.

(c) TOTAL, MALES AND FEMALES.

Cause.	N.S.W.	Vic.	Qld.	S.A.	W.A.	Tas.	Nor. Ter.	Fed. Ter.	Commonwealth
1 Typhoid Fever	218	79	154	50	45	15	...	...	561
2 Typhus ... ..	...	...	...	...	...	...	...	...	...
3 Malaria	6	1	14	...	2	...	7	...	30
4 Small-pox ... ..	...	...	...	...	1	...	...	...	1
5 Measles	277	37	65	36	21	3	...	...	439
6 Scarlet Fever	85	12	1	1	...	5	...	...	104
7 Whooping Cough	50	89	11	2	7	25	1	...	185
8 Diphtheria and Croup	299	204	74	61	35	29	...	1	703
9 Influenza	93	87	130	23	30	24	...	2	369
10 Asiatic Cholera ... ..	...	...	...	...	...	...	...	...	...
11 Cholera Nostras	1	...	...	...	1	...	...	...	2
12 Other Epidemic Diseases	73	32	55	28	10	4	3	...	205
13 Tuberculosis of the Lungs .	1,103	923	346	342	237	104	8	1	3,064
14 Tuberculosis of the Meninges	70	76	8	34	10	15	...	...	213
15 Other forms of Tuberculosis	87	100	27	34	23	7	...	...	278
16 Cancer and other Malignant Tumours	1,335	1,172	438	395	220	139	3	...	3,702
17 Simple Meningitis	330	513	142	124	53	46	1	...	1,209
18 Congestion, Hæmorrhage, & Softening of the Brain	814	677	231	206	107	82	1	...	2,118
19 Organic Diseases of Heart	1,652	1,244	624	427	194	223	4	2	4,370
20 Acute Bronchitis	204	128	76	41	14	26	...	...	489
21 Chronic Bronchitis	336	305	147	67	27	30	1	...	913
22 Pneumonia	918	719	262	139	103	80	3	1	2,225
23 Other Diseases of the Respiratory System (Phthisis excepted)	817	840	261	120	101	73	...	...	2,212
24 Diseases of the Stomach (Cancer excepted)	119	112	47	25	30	18	...	...	351
25 Diarrhœa and Enteritis (children under 2 yrs. only)	1,154	608	493	284	206	68	1	1	2,815
26 Appendicitis and Typhlitis .	133	99	63	25	20	15	1	...	356
27 Hernia, Intestinal Obstructions	166	152	72	53	29	15	1	...	488
28 Cirrhosis of the Liver	149	106	51	28	31	10	1	...	376
29 Nephritis & Bright's Disease	813	779	346	189	77	68	1	1	2,274
30 Non-cancerous Tumours & other Diseases of the Female Genital Organs	59	30	22	20	5	3	...	...	139
31 Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis)	81	39	30	18	7	7	...	...	182
32 Other Puerperal Accidents of Pregnancy and Confinement	160	91	64	36	24	19	...	...	394
33 Congenital Debility and Malformations	1,565	1,111	519	346	247	203	1	1	3,993
34 Senile Debility	1,530	1,820	511	441	185	185	13	1	4,686
35 Violence	1,012	732	534	222	252	87	10	2	2,851
36 Suicide	255	154	130	44	57	15	2	1	658
37 Other Diseases	3,339	2,582	1,559	743	516	330	18	3	9,090
38 Unspecified or Ill-defined Diseases	282	170	52	90	65	42	16	...	717
Total—Males and Females	19,585	15,823	7,559	4,694	2,992	2,015	97	17	52,782

(d) The classification for the years 1908 to 1914 is shewn for the Commonwealth in the following table, and for purposes of comparison the figures for the year 1915 have

been repeated from the preceding table. Male and female deaths for 1905, 1906, and 1907 are shown separately on page 237 of the second issue, those for 1908 on pages 211 and 212 of the third issue, for 1909 on pages 200 and 201 of the fourth issue, for 1910 on pages 202 and 203 of the fifth issue, for 1911 on pages 224 and 225 of the sixth issue, for 1912 on pages 182 and 183 of the seventh issue, for 1913 on pages 182 and 183 of the eighth issue of this Year Book; and for 1914 on pages 188 and 189 of the ninth issue, while the figures for 1915 are given on pages 198 and 199 of this issue.

The figures for 1908 and 1909, which were compiled under thirty-five headings, have here been distributed among the corresponding headings of the revised classification.

CAUSES OF DEATH—COMMONWEALTH, 1908 to 1915.

MALES AND FEMALES.

Cause.	1908.	1909.	1910.	1911.	1912.	1913.	1914.	1915.
1 Typhoid Fever ...	736	661	648	488	619	576	604	561
2 Typhus ...	...	...	...	...	...	...	...	...
3 Malaria ...	52	59	55	19	17	24	22	30
4 Small-pox ...	...	1	4	1	...	1	3	1
5 Measles ...	125	31	124	206	519	186	155	439
6 Scarlet Fever ...	63	74	58	24	41	39	29	104
7 Whooping Cough...	249	257	476	291	301	560	320	185
8 Diphtheria and Croup ...	421	435	555	696	754	808	716	703
9 Influenza ...	588	326	324	447	386	341	331	389
10 Asiatic Cholera ...	...	...	...	...	...	...	...	...
11 Cholera Nostras ...	4	1	1	6	5	3	2	2
12 Other Epidemic Diseases ...	268	221	184	295	224	185	176	205
13 Tuberculosis of the Lungs...	3,409	3,169	3,059	3,164	3,146	3,252	3,111	3,064
14 Tuberculosis of the Meninges	205	220	215	269	215	252	207	213
15 Other forms of Tuberculosis	352	332	343	303	327	296	256	278
16 Cancer & other Mal. Tumours	2,921	3,112	3,205	3,321	3,537	3,603	3,675	3,702
17 Simple Meningitis ...	676	616	567	636	749	753	812	1,209
18 Congestion, Hæmorrhage, and Softening of the Brain	1,867	1,665	1,704	2,178	2,176	2,281	2,204	2,118
19 Organic Diseases of the Heart	4,066	3,940	4,378	4,896	5,267	4,989	4,836	4,370
20 Acute Bronchitis...	412	422	420	515	460	397	389	489
21 Chronic Bronchitis ...	818	897	859	1,046	1,053	991	959	913
22 Pneumonia ...	1,871	1,752	1,612	1,869	2,107	1,966	1,992	2,225
23 Other Diseases of the Respir. System (Tuberculosis ex.)	1,569	1,565	1,544	1,872	1,863	1,812	1,866	2,212
24 Diseases of the Stomach (Cancer excepted) ...	308	272	297	370	457	447	368	351
25 Diarrhœa & Enteritis (Child- ren under two years only)	3,236	2,803	3,145	2,462	3,248	3,176	3,506	2,815
26 Appendicitis and Typhlitis	293	344	315	320	347	364	374	356
27 Hernia, Intest. Obstructions	389	396	398	439	463	486	460	488
28 Cirrhosis of the Liver ...	362	331	368	385	426	365	380	376
29 Nephritis & Bright's Disease	1,864	1,799	1,771	1,951	2,188	2,211	2,127	2,274
30 Non-cancerous Tumours and other Diseases of the Female Genital Organs ...	159	130	149	120	145	153	138	139
31 Puerperal Septicæmia (Puer. Fever, Periton'ts, Phleb'ts)	202	201	218	209	231	235	215	182
32 Other Puerperal Accidents of Pregnancy & Confinement	404	376	373	406	413	428	419	394
33 Congenital Debility, etc. ...	2,973	2,905	3,221	3,142	3,611	3,323	3,860	3,993
34 Senile Debility ...	3,466	3,194	3,353	3,849	4,124	4,116	4,130	4,686
35 Violence ...	2,922	2,664	2,738	3,018	3,237	3,168	3,121	2,851
36 Suicide ...	497	495	516	544	631	647	643	658
37-Other Diseases ...	7,417	7,419	7,795	7,652	8,300	8,241	8,670	9,090
38 Unspec. or Ill-defined Dis's.	1,262	1,087	598	460	590	614	644	717
Total ...	46,426	44,172	45,590	47,869	52,177	51,789	51,720	52,782

17. **Certification of Deaths.**—Information was obtained in 1915 as to the persons by whom the 52,782 deaths which occurred in the Commonwealth were certified. The result of the enquiry shews that approximately 89.3 per cent. (in 1910, 88.1 per cent., in 1911, 88.2 per cent., in 1912, 88.1 per cent. in 1913, 88.7 per cent., and in 1914, 88.8 per cent.) were certified by medical practitioners, and 10.2 per cent. (in 1910, 11.1 per cent., in 1911, 10.9 per cent., in 1912, 10.9 per cent., in 1913, 10.8 per cent., and in 1914, 10.7 per cent.) by coroners after inquests, or magisterial enquiries, while in 0.5 per cent. (in 1910, 0.8 per cent., in 1911, 0.9 per cent., in 1912, 1.0 per cent., in 1913, 0.5 per cent., and in 1914, 0.5 per cent.) of the cases there was either no certificate given or particulars were not forthcoming. The results are shewn in detail in Bulletin No. 33; a short summary will therefore suffice here:—

CERTIFICATION OF DEATHS, COMMONWEALTH, 1915.

Death Certified by—	N.S.W.	Victoria.	Q'land.	S. Aust.	W. Aust.	Tas.	N.T.	Fed. Ter.	C'wlth.
Medical practitioner	17,436	13,795	7,106	4,268	2,645	1,830	49	13	47,142
Coroner ...	2,130	2,025	251	419	316	169	48	4	5,362
Not certified or not stated ...	19	3	202	7	31	16	...	...	278
Total Deaths ...	19,585	15,823	7,559	4,694	2,992	2,015	97	17	52,782

Of the cases certified by coroners, violent deaths numbered 2578, ill-defined causes 366, organic heart disease 415, senile decay 410, congenital debility 140, cerebral hæmorrhage and apoplexy 118, pneumonia 129, tuberculosis of lungs 84, Bright's disease 112, infantile diarrhoea and enteritis 54, infantile convulsions 52, diseases of arteries, aneurisms, etc. 34, acute and chronic alcoholism 54, other diseases peculiar to early infancy 48, diarrhoea and enteritis of adults and children over 2, 39, epilepsy 33, broncho-pneumonia, 78, hernia and intestinal obstruction, 22; a total of 4766 out of 5,362.

Of uncertified causes of death, violent deaths numbered 46, senile debility 51, ill-defined causes 29, infantile convulsions 18, congenital debility 42; a total of 186 out of 278.

18. **Deaths from Special Causes.**—The table on p. 201 furnishes comparisons for the last eight years only, and comparisons will, therefore, be restricted to that period.

(i.) *Typhoid Fever.* Deaths from typhoid fever were more numerous in 1908 than in any succeeding year, numbering 736. A continuous decline continued until 1911, when 488 deaths were recorded. Since 1911 the number of deaths from typhoid has risen and fallen twice. Of the 561 deaths recorded in 1915, 218 occurred in New South Wales, 79 in Victoria, 154 in Queensland, 50 in South Australia, 45 in Western Australia, and 15 in Tasmania.

(ii.) *Typhus.* No deaths from typhus have been registered from 1903 to 1915.

(iii.) *Malaria.* Deaths from malarial diseases are practically confined to the tropical districts of Northern Queensland and Western Australia, and to the Northern Territory, 14 out of 30 deaths registered in 1915 having occurred in Queensland, 2 in Western Australia, and 7 in the Northern Territory.

(iv.) *Small-pox.* The number of deaths from small-pox in Australia is very small, eleven deaths only resulting in the eight years under review. An epidemic occurred in 1913, but only caused one death. There were three deaths in 1914, and one in 1915 in Western Australia.

(v.) *Measles.* No serious epidemic of measles has occurred for several years; the deaths in 1908 numbered 125. In 1909 the deaths numbered 31, while 124 were registered in 1910, and 206 in 1911. In 1912 New South Wales experienced a slight epidemic, and was responsible for 352 deaths out of 519 registered. In 1913 the number of deaths fell to 186, and in 1914 to 155. A large increase in the number of deaths occurred in 1915 in every State with the exception of Victoria.

(vi.) *Scarlet Fever.* 29 deaths were registered in 1914, but 104 occurred in 1915, of which 85 took place in New South Wales.

(vii.) *Whooping Cough*. A rather severe epidemic of whooping cough visited New South Wales in the early part of 1907, causing 592 deaths out of a total of 1070 registered in the Commonwealth. The deaths in 1908 fell to 249, with a slight increase to 257 in 1909, and a much greater increase to 476 in 1910. During 1911, however, only 291 deaths, and in 1912, 301 deaths were registered. In 1913 the number of deaths was 560, falling to 185 in 1915, of which 50 occurred in New South Wales and 89 in Victoria.

(viii.) *Diphtheria and Croup*. Deaths from this cause increased each year from 421 in 1908 to a maximum of 808 in 1913. Since 1913 the numbers have declined to 716 in 1914 and 703 in 1915, of which 299 were registered in New South Wales, 204 in Victoria, 74 in Queensland and 61 in South Australia.

(ix.) *Influenza*. This disease was rather more prevalent in 1908 than in any succeeding year, the deaths numbering 588; in 1909, 326; 324 in 1910; in 1911, 447; in 1912, 386; in 1913, 341, in 1914, 331; and in 1915, 389, of which 93 occurred in New South Wales, 87 in Victoria, 130 in Queensland, 23 in South Australia, 30 in Western Australia, 24 in Tasmania and 2 in the Federal Territory.

(x.) *Asiatic Cholera*. No cases of Asiatic Cholera have ever occurred in the Commonwealth.

(xi.) *Cholera Nostras*. Isolated cases only of choleric form diarrhoea occurred in each of the seven years. Two deaths from this cause occurred during 1915.

(xii.) *Other Epidemic Diseases*. The number of deaths registered under this heading was 268 in 1908, 221 in 1909, 184 in 1910, 295 in 1911, 224 in 1912, 185 in 1913, 176 in 1914, and 205 in 1915. The list in 1915 includes the following diseases:—Dysentery 115, erysipelas 64, leprosy 11, of which 7 occurred in Queensland, yellow fever 1, other epidemic diseases 14. Prior to 1910 beri-beri was included in other epidemic diseases, but is now included in No. 27 of the revised classification. Of the 81 deaths from leprosy in the years 1908 to 1915, 67 occurred in Queensland. There have been no deaths from plague in the Commonwealth since 1912. In 1908, 14 deaths were registered; in 1909, 13 deaths, and in 1912, 1 death.

(xiii.) *Tuberculosis of the Lungs and Acute Miliary Tuberculosis*. The deaths in 1915 numbered 3064; viz., 1760 males and 1304 females. The figures for the years 1908 to 1914 were 3409, 3169, 3059, 3164, 3146, 3252 and 3111 respectively. Of the deaths in 1915, 1103 occurred in New South Wales, 923 in Victoria, 341 in Queensland, 342 in South Australia, 237 in Western Australia, 104 in Tasmania, 8 in the Northern Territory and 1 in the Federal Territory. In accordance with the revised classification, deaths from tuberculosis of the larynx are now included with tuberculosis of the lungs, instead of in class 15 as in years prior to 1910. In the table on page 201 deaths from tuberculosis of the larynx have been included with tuberculosis of the lungs, so that figures allow of correct comparison.

(xiii.a.) *Tuberculosis of the Respiratory System*. Of the various forms of tuberculosis prevalent in the Commonwealth, that which has probably attracted the most attention and has been the subject of the widest comment is phthisis, or tuberculosis of the lungs. The intimate relation, however, between tuberculosis of the lungs and that of other parts of the respiratory system renders it desirable that all forms of tuberculosis of the respiratory system should be brought under one head for various investigations concerning the age incidence and duration of this disease.

In the matter of the age incidence of death from tuberculosis of the respiratory system, diagrams were given in Year Books 2, 3, and 4, pp. 239, 217, and 206 respectively, shewing the frequency of deaths at successive ages in England and Wales during 1906 (Fig. 1), and in the Commonwealth during 1907 (Fig. 2). These were superseded by a fuller reference based on later results in Year Book No. 5, pp. 230, etc. The results given depended upon intercensal estimates of population, and these having now been adjusted to agree with the Census of 3rd April, 1911, some slight amendments of the figures in previous issues were made in Year Book No. 5. The figures are not now repeated.

(xiv.) *Tuberculosis of the Meninges*. The number of deaths ascribed to this cause has varied very slightly during the last eight years. The greatest number of deaths, viz., 269, occurred in 1911, and the least number, viz., 205, in 1908; 213 deaths were registered in 1915.

(xv.) *Other Forms of Tuberculosis.* The deaths in 1915 include the following forms of tuberculosis:—Abdominal tuberculosis, 103; Pott's disease, 55; white swellings, 18; tuberculosis of other organs, 55; and disseminated tuberculosis, 47. Tuberculosis of the larynx (see paragraph xiii.)

(xva.) *All Forms of Tuberculosis.* A complete tabulation of all the different tubercular diseases from which deaths occurred in 1915, will be found in Bulletin No. 33 of Population and Vital Statistics. Here it will suffice to show a few of the features of the tabulation mentioned. The total number of deaths due to tubercular diseases was 3555, viz., 2107 males and 1538 females. The following table shews the ages of these 3555 persons:—

AGES OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1915.
COMMONWEALTH.

Ages.	Male.	Female	Total.	Ages.	Male.	Female	Total.
Under 5 years ...	89	103	192	55 years and under 60	156	46	202
5 years and under 10	36	24	60	60 " " 65	91	28	119
10 " " 15	15	14	33	65 " " 70	71	26	97
15 " " 20	79	114	193	70 " " 75	32	21	53
20 " " 25	176	218	394	75 " " 80	13	8	21
25 " " 30	217	253	470	80 " " over ...	6	6	12
30 " " 35	204	217	421	Unspecified ...	4	...	4
35 " " 40	235	142	377				
40 " " 45	45	196	318				
45 " " 50	207	104	311				
50 " " 55	191	73	264				
				Total Deaths ...	2,017	1,538	3,555

A tabulation has been made of the occupations of males dying from tubercular diseases during 1915. A summary is here given:—

OCCUPATIONS OF MALES WHO DIED FROM TUBERCULAR DISEASES, 1915.
COMMONWEALTH.

Occupation.	No. of Deaths	Occupation.	No. of Deaths
Professional class ...	84	Agricultural class ...	132
Domestic class ...	85	Pastoral class ...	40
Mercantile class ...	278	Working in mines and quarries ...	193
Engaged in transport and communication ...	155	Other primary producers ...	11
Manufacturing class ...	242	Independent means ...	13
Engaged in building and construction ...	110	Dependents ...	192
Other industrial workers ...	423	Occupation not stated ...	59
		Total male deaths ...	2,017

The length of residence in the Commonwealth of persons who died from tubercular diseases has been tabulated for the year 1915 for all the Commonwealth States, with the following results:—

LENGTH OF RESIDENCE IN COMMONWEALTH
OF PERSONS WHO DIED FROM TUBERCULAR DISEASES, 1915.

Length of Residence in Commonwealth.	Male.	Fem.	Total.	Length of Residence in Commonwealth.	Male.	Fem.	Total.
Born in Commonwealth ...	1,280	1,253	2,533	Resident 10 yrs. & under 15	27	7	34
Resident under 1 year ...	25	4	29	" 15 " " 20	33	15	48
" 1 year ...	25	10	35	" 20 " " over ...	353	138	491
" 2 years ...	24	21	45	Length of residence not stated	114	32	146
" 3 " ...	39	21	60				
" 4 " ...	32	18	50				
" 5 " & under 10	65	19	84				
				Total Deaths ...	2,017	1,538	3,555

From the above table and the table on page 191, it will be seen that, among persons who had lived less than 5 years in Australia, 1148 deaths occurred, and of these 219, or 19 per cent., were due to tubercular diseases.

In order to shew the prevalence of tuberculosis in the several States, the death rates from tubercular diseases are shewn in the following table, together with the percentage which deaths from tuberculosis bear on the total number of deaths registered:—

DEATH RATES (a) FROM TUBERCULOSIS AND PERCENTAGE ON TOTAL DEATHS.
COMMONWEALTH, 1915.

State.	Death Rates (a) from Tuberculosis.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.75	0.59	0.67	6.33	6.58	6.43
Victoria ...	0.84	0.71	0.77	6.66	7.31	6.94
Queensland ...	0.68	0.41	0.55	5.31	4.61	5.04
South Australia ...	0.96	0.90	0.93	8.08	9.54	8.74
Western Australia	0.99	0.66	0.84	9.22	8.69	9.03
Tasmania ...	0.63	0.64	0.63	5.91	6.65	6.26
North. Territory	1.66	2.55	1.82	6.74	25.00	8.25
Federal Territory	0.68	...	0.40	7.14	...	5.88
Commonwealth	0.80	0.64	0.72	6.58	6.95	6.74

(a) Number of deaths from tuberculosis per 1000 of mean population.

The following table, which gives for a number of countries the death-rates from pulmonary and military tuberculosis per 1000 persons living, shews that the Commonwealth occupies a very enviable position when compared with most European countries.

PULMONARY AND MILIARY TUBERCULOSIS—DEATHS PER 1000 PERSONS LIVING.

Country.	Year.	Death Rate.	Country.	Year.	Death Rate.
Rumania ...	1914	0.40	United States (Registra- tion Area) ...	1915	1.28
Denmark ...	1914	0.44	Prussia ...	1913	1.37
New Zealand ...	1915	0.63	Switzerland ...	1914	1.38
Commonwealth ...	1915	0.63	Jamaica ...	1915	1.47
Ceylon ...	1915	0.89	Japan ...	1913	1.50
Belgium ...	1912	0.93	Sweden ...	1912	1.60
Ontario (Canada) ...	1915	0.99	Ireland ...	1915	1.74
Italy ...	1914	1.05	Norway ...	1914	1.76
Netherlands ...	1915	1.10	France ...	1911	1.80
Scotland ...	1915	1.11	Chile ...	1914	2.55
England and Wales ...	1915	1.18	Finland ...	1914	2.57
United Kingdom ...	1915	1.18	Austria ...	1912	2.83
Spain ...	1914	1.23	Serbia ...	1911	3.24
German Empire ...	1913	1.24	Hungary ...	1912	3.49

(xvi.) *Cancer and other Malignant Tumours.* The number of deaths from cancer has increased continuously from 2921 in 1908 to 3702 deaths in 1915. Of the deaths registered in 1915, 1913 were those of males, viz., 687 in New South Wales, 566 in Victoria, 258 in Queensland, 201 in South Australia, 130 in Western Australia, 68 in Tasmania, and 3 in the Northern Territory; while 1789 were those of females, viz., 648 in New South Wales, 606 in Victoria, 180 in Queensland, 194 in South Australia, 90 in Western Australia, and 71 in Tasmania. Bulletin No. 33 contains a complete tabulation of the various types of cancer and of the seat of the disease, of which the following is a summary:—

DEATHS FROM CANCER, COMMONWEALTH, 1915.

Seat of Disease.	Male.	Female	Total.
Cancer, etc., of the buccal cavity	225	18	243
" " the stomach and liver	818	569	1,387
" " the peritoneum, the intestines, and the rectum	257	251	508
" " the female genital organs ... ..	...	342	342
" " the breast ... ..	...	261	261
" " the skin	86	31	117
" " other organs	527	317	844
Total Deaths	1,913	1,789	3,702

Of these deaths, 1004 were described as cancer, 1724 as carcinoma, 145 as epithelioma, 464 as "malignant disease," 88 as "malignant tumour," 5 as neoplasm, 38 as "rodent ulcer," 222 as sarcoma, and 12 as scirrhus.

The ages of the 3702 persons who died from cancer in 1915, are shown in the following table, from which it will be seen that while the ages below 35 are not by any means immune from the disease, the great majority of deaths occurred at ages from 35 upwards, the maximum being found in the age group 60 to 65.

AGES OF PERSONS WHO DIED FROM CANCER, 1915.

COMMONWEALTH.

Ages.	Male.	Female	Total.	Ages.	Male.	Female	Total.
Under 15 years ...	18	12	30	55 years and under 60	252	223	475
15 years and under 20	5	7	12	60 " " 65	304	216	520
20 " " 25	7	7	14	65 " " 70	291	209	500
25 " " 30	27	26	53	70 " " 75	235	200	435
30 " " 35	23	36	59	75 " " 80	162	150	312
35 " " 40	47	83	130	80 " " 85	88	74	162
40 " " 45	64	112	176	85 years and over ...	45	35	80
45 " " 50	132	177	309	Unspecified ...	3	1	4
50 " " 55	210	221	431	Total Deaths ...	1,913	1,789	3,702

A tabulation, of which the following is a summary, has been made of the occupations of the males who died from cancer:—

OCCUPATIONS OF PERSONS WHO DIED FROM CANCER, 1915.

COMMONWEALTH.

Occupation.	No. of Deaths.	Occupation.	No. of Deaths.
Professional class	102	Pastoral class	87
Domestic class	49	Working in mines and quarries ...	101
Mercantile class	220	Other primary producers	7
Engaged in transport and communication	131	Independent means	49
Manufacturing class	190	Dependents	34
Engaged in building and construction	106	Occupation not stated	67
Other industrial workers	439	Total Male Deaths	1,913
Agricultural class	331		

As the following tables shew, the total death rates from cancer are below those for tubercular diseases in South Australia and Western Australia only. The male death rates from cancer were, in 1915, in excess of those from tuberculosis in Queensland and Tasmania, while the female death rates were in excess in all the States with the exception of South Australia and Western Australia. While the death rates from tuberculosis have a general tendency to decrease, the death rates from cancer have, on the contrary, shewn an increase in nearly every recent year. Thus for the whole Commonwealth in 1908 the death rate from tuberculosis was 0.25 per thousand greater than that from cancer. In 1909 this decreased to 0.14; in 1910 to 0.10; in 1911 to 0.09; and in 1912 to 0.03 per thousand, while 1913 shews a slight increase in the excess to 0.04 per thousand. In 1914, while the death rate from tuberculosis decreased from 0.79 to 0.73 per thousand, the rate for cancer remained stationary, the result being that the rate for cancer exceeded that for tuberculosis by 0.02 per thousand. In 1915 the death rate from cancer was 0.03 in excess of that of tuberculosis.

DEATH RATES (a) FROM CANCER AND PERCENTAGE ON TOTAL DEATHS, 1915.
COMMONWEALTH.

State.	Death Rates (a) from Cancer.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.71	0.71	0.71	6.01	7.95	6.82
Victoria ...	0.80	0.84	0.82	6.39	8.70	7.40
Queensland ...	0.70	0.57	0.64	5.50	6.29	5.80
South Australia ...	0.93	0.87	0.90	7.78	9.21	8.42
Western Australia	0.73	0.62	0.68	6.89	8.10	7.35
Tasmania ...	0.67	0.73	0.70	6.28	7.62	6.90
Northern Territ'y	0.83	...	0.68	3.37	...	3.09
Federal Territory	...	...	...	...	...	...
Commonwealth	0.75	0.74	0.75	6.24	8.09	7.01

(a) Number of deaths from Cancer per 1000 of mean population.

The following table shows the death rate of the Commonwealth in comparison with other countries:—

CANCER—DEATH RATE IN VARIOUS COUNTRIES.

Country.	Year.	Rate.	Country.	Year.	Rate.
Ceylon ...	1915	0.09	Austria ...	1912	0.81
Rumania ...	1914	0.13	New Zealand ...	1915	0.82
Serbia ...	1911	0.14	Prussia ...	1913	0.83
Jamaica ...	1915	0.17	Ireland ...	1915	0.88
Chile ...	1914	0.36	German Empire ...	1913	0.91
Hungary ...	1912	0.47	United States (Registra- tion Area) ...	1915	0.91
Spain ...	1914	0.57	Norway ...	1914	1.02
Denmark ...	1914	0.58	United Kingdom ...	1915	1.06
Japan ...	1913	0.66	Netherlands ...	1915	1.09
Italy ...	1914	0.67	Sweden ...	1912	1.10
Belgium ...	1912	0.71	Scotland ...	1915	1.11
Ontario (Canada) ...	1915	0.72	England and Wales ...	1915	1.13
Commonwealth ...	1915	0.75	Switzerland ...	1914	1.28
France ..	1911	0.80			

The fifth issue of this Year Book contains, on pages 230, etc.; a paper dealing, *inter alia*, with the incidence of cancer in the Commonwealth. The paper is not reprinted in the present issue.

(xvii.) *Simple Meningitis.* Deaths from this cause decreased from 676 deaths in 1908 to 567 in 1910. Since that year the number has increased each year until during 1914 812 deaths were registered. Sporadic cases of cerebro-spinal meningitis, which occurred to the end of 1914, are included in these figures, but in 1915 they were tabulated separately, the deaths during the year from cerebro-spinal meningitis being 529, and those from all other forms of meningitis, 680. Of the former, 76 occurred in New South Wales, 339 in Victoria, 37 in Queensland, 59 in South Australia, 4 in Western Australia, and 14 in Tasmania.

(xviii.) *Apoplexy, Hemorrhage, and Softening of the Brain.* The deaths registered under this heading, in 1908, were 1867, viz., 991 males and 876 females; in 1909, 1665, viz., 869 males and 796 females; in 1910, 1704, viz., 864 males and 840 females; in 1911, 2178, viz., 1122 males and 1056 females; in 1912, 2176, viz., 1146 males and 1030 females; in 1913, 2281, viz., 1188 males and 1093 females, in 1914, 2204, viz., 1143 males and 1061 females, and in 1915, 2118, viz., 1120 males and 998 females. The 1915 figures are made up of hemorrhage of the brain and apoplexy—1079 males, 998 females, total 2047; and softening of the brain—41 males, 30 females, total 71.

(xix.) *Organic Diseases of the Heart.* The number of deaths registered in 1915 was 4370, viz., 2518 males and 1852 females. Of these deaths, New South Wales was responsible for 969 males and 683 females; Victoria for 709 males and 535 females; Queensland for 384 males and 240 females; South Australia for 198 males and 229 females; Western Australia for 118 males and 76 females; Tasmania for 134 males and 89 females; the Northern Territory for 4 males; and the Federal Territory for 2 males. To the figures for 1915 correspond the following death rates and percentages to total deaths:—

DEATH RATES (a) FROM ORGANIC HEART DISEASE AND PERCENTAGE ON TOTAL DEATHS, COMMONWEALTH, 1915.

State.	Death Rates (a) from Organic Heart Disease.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	1.01	0.75	0.88	8.47	8.38	8.44
Victoria ...	1.01	0.74	0.87	8.00	7.68	7.86
Queensland ...	1.04	0.75	0.91	8.18	8.38	8.24
South Australia ...	0.91	1.03	0.97	7.66	10.87	9.10
Western Australia	0.67	0.52	0.60	6.25	6.88	6.49
Tasmania ...	1.31	0.91	1.12	12.20	9.55	11.08
Northern Territory	1.10	...	0.91	4.50	...	4.13
Federal Territory	1.35	...	0.81	14.29	...	11.77
Commonwealth ...	0.99	0.77	0.88	8.21	8.37	8.28

(a) Number of deaths from Organic Heart Disease per 1000 of mean population.

(xx.) *Acute Bronchitis.* The classification of causes of deaths requires deaths of persons under five years of age, which are merely ascribed to "bronchitis," to be classified under "acute bronchitis," and similarly certified deaths of older persons under "chronic

bronchitis." This rule has been followed throughout in compiling the tables for 1908-1915, with the result that acute bronchitis is credited with 412 deaths in 1908, 422 deaths in 1909, 420 deaths in 1910, 515 deaths in 1911, 460 deaths in 1912, 397 deaths in 1913, 389 in 1914, and 489 deaths in 1915, viz., 280 males and 209 females.

(xxi.) *Chronic Bronchitis.* The adjustment mentioned in the preceding paragraph gives a total of 913 deaths in 1915.

(xxii.) *Pneumonia.* The 1915 figures were 1380 males and 845 females, a total of 2225 deaths.

(xxiii.) *Other Diseases of the Respiratory System.* This head was established in 1910, the figures previously being included in "Other Diseases" (paragraph xxxvii.). Deaths in 1908, 1569; in 1909, 1565; in 1910, 1544; in 1911, 1872; in 1912, 1863; in 1913, 1812; in 1914, 1866, and in 1915, 2212. The total for 1915 is made up as follows, viz.:—Diseases of the nasal fossæ, 2 deaths; diseases of the larynx, 75 deaths; diseases of the thyroid body, 15 deaths; broncho-pneumonia, 1184 deaths; pleurisy, 185 deaths; pulmonary congestion and apoplexy, 248 deaths; gangrene of the lung, 28 deaths; asthma, 197 deaths; pulmonary emphysema, 20 deaths; fibroid phthisis, miners' complaint, 168 deaths; other diseases of the respiratory system (tuberculosis excepted), 90 deaths.

(xxiv.) *Diseases of the Stomach (Cancer excepted).* In 1915 this heading includes: Ulcer of the stomach, 57 males, 47 females; and other diseases of the stomach (cancer excepted), 121 males, 126 females; a total of 351 deaths.

(xxv.) *Diarrhœa and Enteritis (Children under two years only).* The number of deaths due to these causes is always a large one, varying from 2462 deaths in 1911 to a maximum of 3506 deaths in 1914. The total for 1915 was 2815, distributed amongst the six States as follows:—New South Wales, 637 males, 517 females, total 1154; Victoria, 352 males, 256 females, total 608; Queensland, 266 males, 277 females, total 493; South Australia, 162 males, 122 females, total 284; Western Australia, 108 males, 98 females, total 206; and Tasmania, 38 males, 30 females, total 68.

The following are the death rates and percentages on total deaths due to infantile diarrhœa and enteritis in the States and Territories for the year 1915:—

DEATH RATES (a) FROM INFANTILE DIARRHŒA AND ENTERITIS, AND PERCENTAGE ON TOTAL DEATHS, COMMONWEALTH, 1915.

State.	Death Rates (a) from Infantile Diarrhœa and Enteritis.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.66	0.57	0.62	5.57	6.35	5.90
Victoria ...	0.50	0.36	0.43	3.97	3.68	3.84
Queensland ...	0.72	0.71	0.72	5.67	7.93	6.53
South Australia ...	0.75	0.55	0.65	6.26	5.79	6.05
Western Australia	0.61	0.67	0.64	5.73	8.87	6.89
Tasmania ...	0.37	0.31	0.34	3.51	3.22	3.38
Northern Territory	0.28	...	0.23	1.12	...	1.03
Federal Territory	0.68	...	0.40	7.14	...	5.88
Commonwealth	0.62	0.52	0.57	5.11	5.65	5.33

(a) Number of deaths from these diseases per 1000 of mean population.

As a large number of these deaths is directly due to improper feeding, it would be interesting to know the percentage of infants who were bottle-fed, but, unfortunately, no provision exists for the registration of this information. The number of deaths was larger than usual in 1908, particularly in Victoria, and to a lesser degree in South Australia and in Tasmania, owing to the phenomenal heat experienced in the early part of that year. The death rates for the three States named were 0.83, 0.61, and 0.71 per 1000 respectively in 1908, compared with 0.55, 0.45 and 0.48 in 1907, and with 0.50, 0.36 and 0.51 in 1911. The rate in 1912 was higher in every State, Tasmania excepted, than that for 1911, the increase being particularly noticeable in New South Wales, Queensland, and Western Australia. In 1913 all the States, with the exception of New South Wales and South Australia, experienced lower rates than in 1912, and in 1914 the rate fell in New South Wales and Western Australia, while it rose in Victoria, South Australia and Tasmania, and remained stationary in Queensland. The rates for 1915 were considerably lower than those for 1914 in every State with the exception of Queensland and South Australia.

(xxvi.) *Appendicitis and Typhlitis.* Prior to 1910, deaths from these causes were included in *Other Diseases*, paragraph xxxvii. Deaths numbered 293 in 1908, 344 in 1909, 315 in 1910, 320 in 1911, 347 in 1912, 364 in 1913, 374 in 1914, and in 1915, 356, viz., 219 males and 137 females.

(xxvii.) *Hernia, Intestinal Obstructions.* The number of deaths has not varied much from year to year, the number registered in 1908 being 389; and in 1915, 488, viz., 268 males and 220 females.

(xxviii.) *Cirrhosis of the Liver.* There is little variation in the number of deaths from 1908 to 1915. 362 deaths were registered in 1908 and 376 in 1915, viz., 253 males and 123 females.

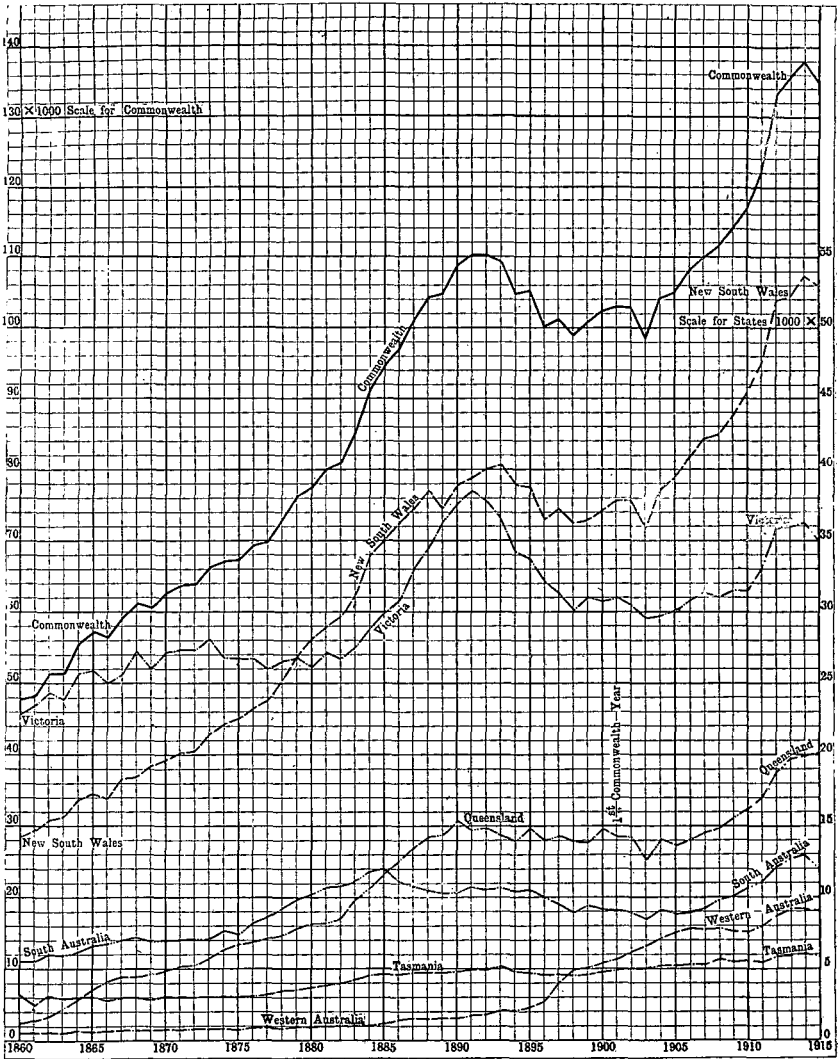
(xxix.) *Nephritis and Bright's Disease.* The number of deaths attributable to these diseases from year to year is a very large one. In 1908 there were registered the deaths of 1140 males and 724 females; in 1909, those of 1076 males and 723 females; in 1910, 1771, 1077 males and 694 females; in 1911, 1951, 1197 males and 754 females; in 1912, 2188, 1352 males and 836 females; in 1913, 2211, 1363 males and 848 females; in 1914, 2127, 1281 males and 846 females; and in 1915, 2274, 1413 males and 861 females. Of the deaths registered in 1915, those of 89 males and 86 females were ascribed to acute nephritis, and those of 1324 males and 775 females to Bright's Disease. New South Wales was responsible for 813 deaths; Victoria for 779; Queensland for 346; South Australia for 189; Western Australia for 77; Tasmania for 68; Northern Territory 1 and Federal Territory 1; making a total of 2274.

(xxx.) *Non-cancerous Tumours and other Diseases of the Female Genital Organs.* Deaths in 1908 numbered 159; in 1909, 130; in 1910, 149; in 1911, 120; in 1912, 145; in 1913, 153; in 1914, 138; and in 1915, 139. Included in the 139 deaths registered in 1915 were the following:—Non-puerperal uterine hæmorrhage, 5; non-cancerous uterine tumours, 35; other diseases of the uterus, 25; cysts and ovarian tumours, 37; salpingitis and other diseases of the female genital organs, 37.

(xxxi.) *Puerperal Septicæmia (Puerperal Fever, Puerperal Peritonitis, Puerperal Phlebitis).* The number of deaths is fairly constant, varying from a maximum of 235 in 1913 to a minimum of 182 in 1915.

(xxxii.) *Other Puerperal Accidents of Pregnancy and Confinement.* The deaths in 1908 numbered 404; in 1909, 376; in 1910, 373; in 1911, 406; in 1912, 413; in 1913, 428; 1914, 419; and in 1915, 394. Included in the 394 deaths registered in 1915 were the following:—Accidents of pregnancy, 129; puerperal hæmorrhage, 64; other accidents of

GRAPHS SHEWING TOTAL ANNUAL BIRTHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1915.



(See Table page 159.)

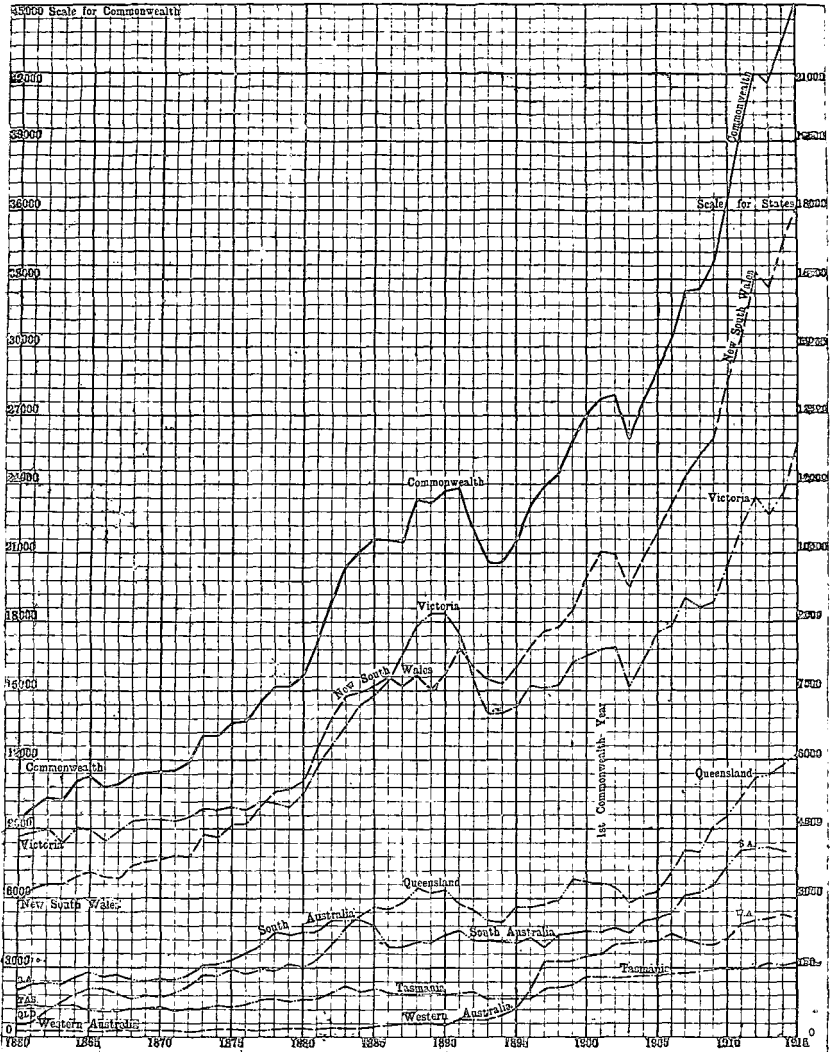
EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons for the Commonwealth, and 1000 for the States.

The scale on the left relates to the Commonwealth, and that on the right to the States.

The distances upwards from the common zero lines of the States and Commonwealth, marked 0, denote the total annual number of births in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the graphs refer are written thereon, and the characters of the lines used are as follows:— Commonwealth, ———— ; New South Wales, ; Victoria, - - - - ; Queensland, - · - · - ; South Australia, - - - - - ; Western Australia, - - - - ; Tasmania, - · - · - ·

GRAPHS SHEWING TOTAL ANNUAL MARRIAGES IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1915.



(See Table page 175.)

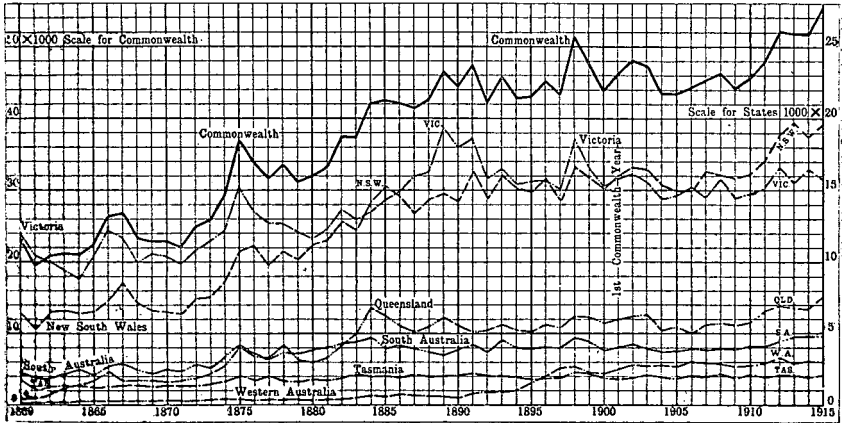
EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 630 marriages for the Commonwealth and 300 for the States.

The scale on the left relates to the Commonwealth, and that on the right relates to the States.

The distances upwards from the zero line, marked 0, denote the total annual number of marriages in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the graphs refer are written thereon, and the lines used are similar to those for births on page 211.

GRAPHS SHEWING TOTAL ANNUAL DEATHS IN THE COMMONWEALTH AND STATES OF AUSTRALIA, 1860-1915.



(See Table page 183.)

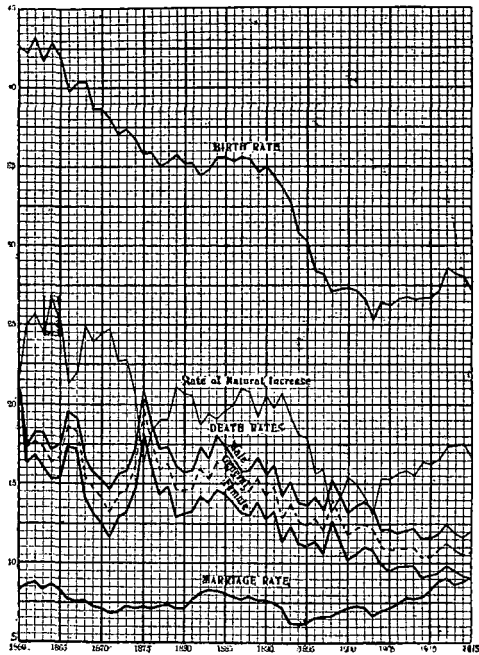
EXPLANATION OF GRAPHS.—The base of each small square represents an interval of one year for both Commonwealth and States, and the vertical height represents 2000 persons for the Commonwealth and 1000 for the States.

The scale on the left relates to the Commonwealth, and that on the right relates to the States.

The distances upwards from the common zero line for States and Commonwealth, marked 0, denote the total annual number of deaths in the States and Commonwealth, the scale of the latter being reduced one-half.

The names of the States to which the curves refer are written thereon, and the lines used are similar to those for births on page 211.

GRAPHS SHEWING GENERAL BIRTH, NATURAL INCREASE, DEATH (MALE, GENERAL, AND FEMALE), AND MARRIAGE RATES IN THE COMMONWEALTH OF AUSTRALIA, 1860-1915.



(See pages 159, 175, 184 and 232.)

EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height, according to the character of the curve, one half per thousand of the population—the basic line being five per thousand of the population.

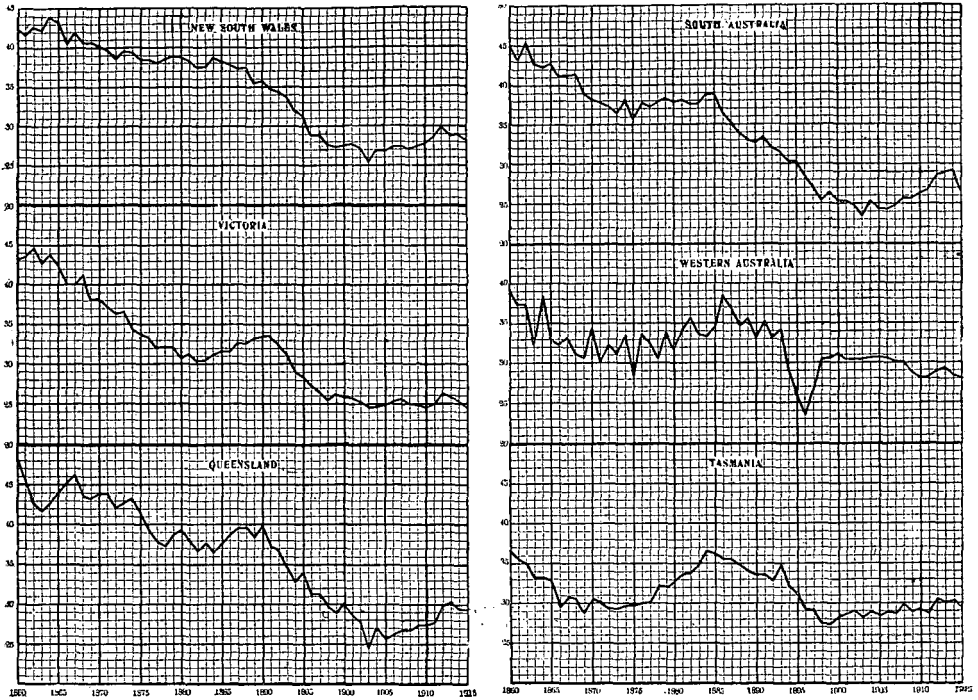
BIRTH RATE GRAPHS. (See next page.)

EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height one birth per thousand of the population—the basic line for each State being twenty per thousand of the population.

DEATH RATE GRAPHS. (See next page.)

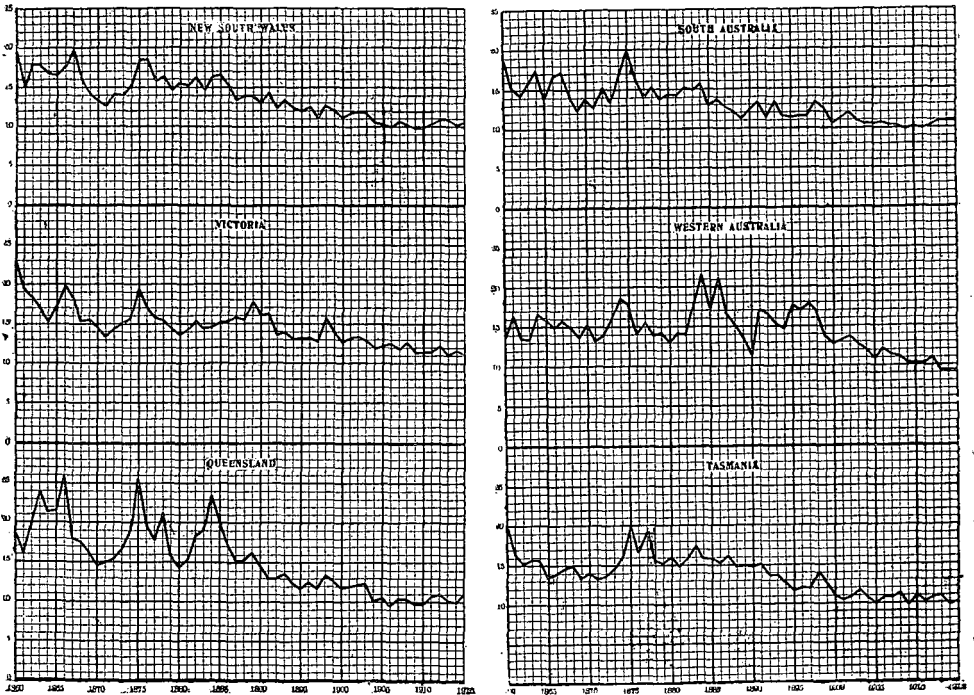
EXPLANATION OF GRAPHS.—The base of each small square represents one year's interval, and the vertical height one death per thousand of the population. The zero for each State is shewn by a thickened line.

GRAPHS SHEWING BIRTH RATES IN THE STATES OF NEW SOUTH WALES, VICTORIA, QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860-1915.



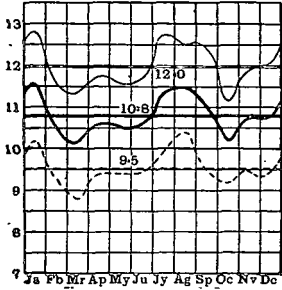
(See Table page 159.)

GRAPHS SHEWING DEATH RATES IN THE STATES OF NEW SOUTH WALES, VICTORIA, QUEENSLAND, SOUTH AUSTRALIA, WESTERN AUSTRALIA, AND TASMANIA, 1860-1915.

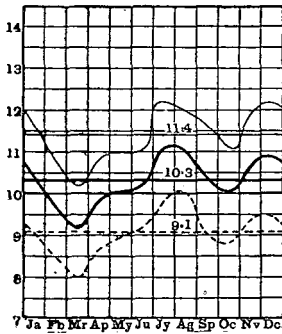


(See Table page 184.) For explanation of above graphs see page 214.

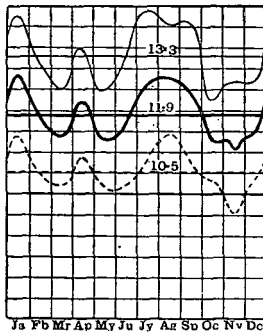
GRAPHS SHEWING GENERAL MONTHLY DEATH RATES, 1907-1912.



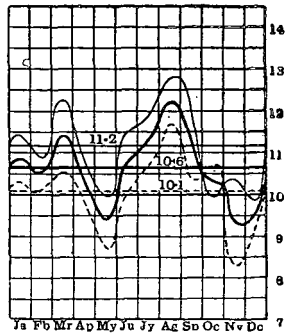
COMMONWEALTH.



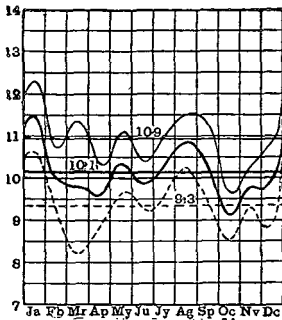
NEW SOUTH WALES.



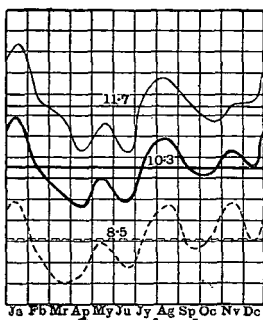
VICTORIA.



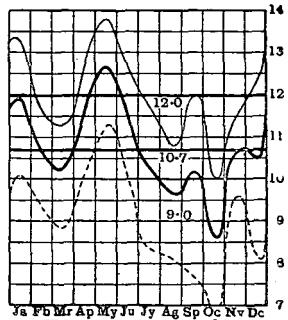
TASMANIA.



SOUTH AUSTRALIA.



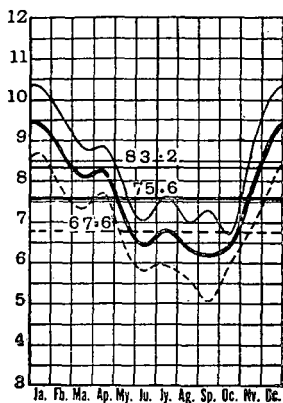
QUEENSLAND.



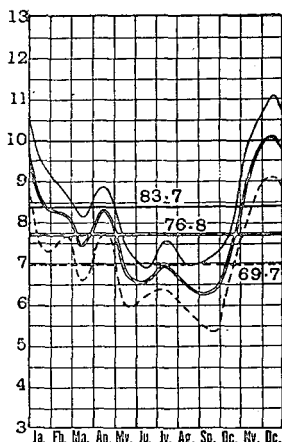
WESTERN AUSTRALIA

Male Death Rates shewn: ————
 Female " " - - - - -
 General " " ————

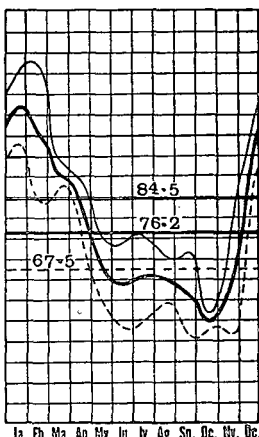
GRAPHS SHEWING INFANTILE MONTHLY DEATH RATES, 1907-1913.



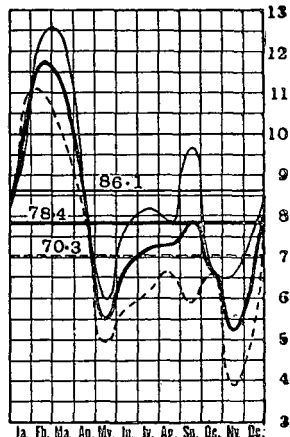
COMMONWEALTH.



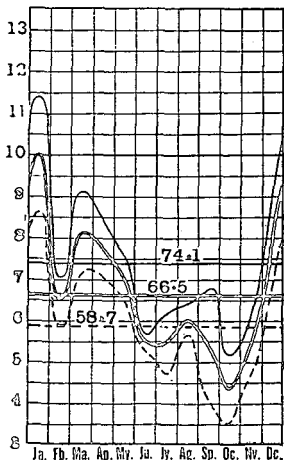
NEW SOUTH WALES.



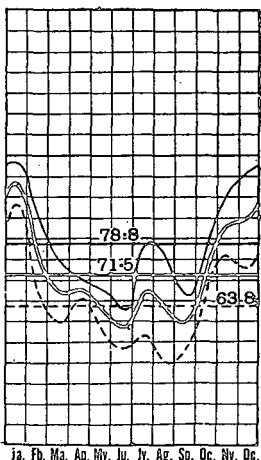
VICTORIA.



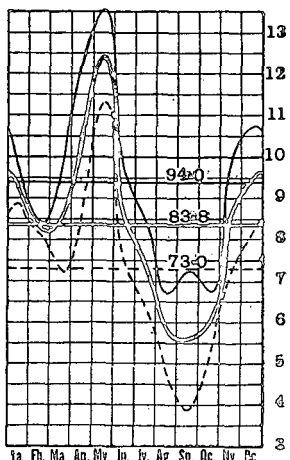
TASMANIA.



SOUTH AUSTRALIA.



QUEENSLAND.



WESTERN AUSTRALIA.

Male Death Rates shown: —————
 Female " " - - - - -
 General " " - . - . - .

childbirth, 82; puerperal albuminuria and convulsions, 94; puerperal phlegmasia alba dolens, embolus, sudden death, 20; death following childbirth, 5.

(xxxiii.) *All Puerperal Causes.* The 576 deaths registered in 1915 under the two preceding headings will be found tabulated in "Bulletin No. 33; Commonwealth Demography" under various aspects. It will suffice to repeat here the following facts:—

Of the 576 mothers who died from puerperal causes during the year 1915, 506 were married and 70 were single. As the total number of nuptial confinements was 126,590, and of ex-nuptial confinements 6854, it follows that one in 250 of married mothers, and one in 70 of single mothers, died from puerperal causes, the general proportion being one in 229, as against one in 215 in 1914, and one in 181 in 1908, a gradual improvement having occurred in every year since 1908.

The ages of the mothers who died varied from 16 to 48 years, and are shewn in the following table:—

AGES OF MOTHERS WHO DIED FROM PUERPERAL CAUSES, COMMONWEALTH, 1915.

Age at Death.	Married Women.	Single Women.	Total.	Age at Death.	Married Women.	Single Women.	Total.
16 years ...	1	3	4	34 years ...	20	2	22
17 " ...	2	4	6	35 " ...	21	2	23
18 " ...	4	2	6	36 " ...	23	1	24
19 " ...	7	10	17	37 " ...	19	...	19
20 " ...	9	6	15	38 " ...	27	1	28
21 " ...	20	3	23	39 " ...	20	...	20
22 " ...	15	2	17	40 " ...	14	...	14
23 " ...	21	5	26	41 " ...	10	...	10
24 " ...	21	4	25	42 " ...	7	1	8
25 " ...	25	3	28	43 " ...	10	...	10
26 " ...	24	2	26	44 " ...	6	...	6
27 " ...	26	1	27	45 " ...	4	...	4
28 " ...	30	2	32	46 " ...	1	...	1
29 " ...	24	10	34	47 " ...	2	...	2
30 " ...	31	2	33	48 " ...	1	...	1
31 " ...	19	2	21	Unspecified	2	...	2
32 " ...	24	1	25				
33 " ...	16	1	17				
				Total deaths	506	70	576

Of the 506 married women shewn in the above table, 77 died after their first confinement, 106 at their second, 71 at their third, 67 at their fourth, 54 at their fifth, 31 at their sixth, 31 at their seventh, 27 at their eighth, 21 at their ninth, 7 at their tenth, 5 at their eleventh, 1 at her twelfth, 2 at their thirteenth, 1 at her fifteenth, and 1 at her seventeenth. In four cases no particulars are available. The total number of children of the 506 mothers was 1541.

Forty-three of the mothers who died had been married less than one year, 61 between one and two years, 44 between two and three years, the duration of marriage ranging up to 29 years, apart from 20 cases in which the date of marriage cannot be stated. This tabulation will be found in detail, distinguishing the ages at marriage, in "Bulletin No. 33; Commonwealth Demography," as will a further tabulation shewing in combination

the duration of marriage and previous issue. These tables shew, for instance, that one mother, who had been married at the age of 14 years, died at the age of 43, in the 29th year of her marriage, after her sixteenth confinement.

(xxxiii.) *Congenital Debility and Malformations.* The total deaths registered under these heads in 1915 were 3993, of whom 3911 were children under 1 year of age, inclusive of 3538 under three months. The figures include:—Malformations, 341 males, 244 females, total 585; and congenital debility, icterus, and sclerema of children under one year of age, 1885 males and 1523 females, total 3408; or a grand total of 3993. Of these deaths, 1565 were registered in New South Wales, viz., 846 males and 719 females; 1111 in Victoria, viz., 651 males and 460 females; 519 in Queensland, viz., 278 males and 241 females; 346 in South Australia, viz., 190 males and 156 females; 247 in Western Australia, viz., 141 males and 106 females; 203 in Tasmania, viz., 119 males and 84 females; 1 female in the Northern Territory, and 1 male in Federal Territory.

(xxxiv.) *Senile Debility.* The deaths ascribed to "old age" form a large group, and are slightly in excess of those due to infantile debility. In 1915, 4685 deaths were attributed to this cause, and were distributed among the States as follows: 1530 occurred in New South Wales, viz., 857 males and 673 females; 1820 in Victoria, viz., 982 males and 838 females; 511 in Queensland, viz., 323 males and 188 females; 441 in South Australia, viz., 217 males and 224 females; 184 in Western Australia, viz., 117 males and 67 females; 185 in Tasmania, viz., 84 males and 101 females; 13 males in the Northern Territory, and 1 female in the Federal Territory.

Of the males whose death was described as due to senility, 3 were aged between 50 and 54; 10 between 55 and 59; 56 between 60 and 64; 135 between 65 and 69; 409 between 70 and 74; 621 between 75 and 79; 707 between 80 and 84; 444 between 85 and 89; 151 between 90 and 94; 44 between 95 and 99; while 10 were 100 years old and upwards; and of three the age was not stated.

Of the females, 4 were between 50 and 54; 6 were between 55 and 59; 15 were between 60 and 64; 85 between 65 and 69; 304 between 70 and 74; 456 between 75 and 79; 558 between 80 and 84; 447 between 85 and 89; 162 between 90 and 94; 45 between 95 and 99; while 10 were 100 years old and upwards.

(xxxv.) *Violence.* A very large number of deaths is due every year to external violence, and, as might be expected from the fact that their occupations expose them much more to accidents, males largely predominate. The figures quoted are exclusive of suicides, which have been treated as a separate group. Deaths ascribed to violence numbered, in 1908, 2922, viz., 2187 males and 735 females; in 1909, 2664, viz., 2050 males and 614 females; in 1910, 2738, viz., 2128 males and 610 females; in 1911, 3018, viz., 2323 males and 695 females; in 1912, 3237, viz., 2559 males and 678 females; in 1913, 3168, viz., 2503 males and 665 females; in 1914, 3121, viz., 2458 males and 663 females; and in 1915, 2851, viz., 2251 males and 600 females. Of the deaths registered in 1915, those of 788 males and 224 females occurred in New South Wales; those of 535 males and 197 females in Victoria; those of 450 males and 84 females in Queensland; those of 184 males and 38 females in South Australia; those of 220 males and 32 females in Western Australia; those of 62 males and 25 females in Tasmania; those of 10 males in the Northern Territory, and 2 males in Federal Territory.

The following table shews the various kinds of accidental deaths which occurred in 1915, distinguishing males and females:—

DEATHS FROM VIOLENCE, COMMONWEALTH.

Cause of Death.	Males.	Females.	Total.
Poisoning by food	18	16	34
Venomous bites and stings	6	...	6
Other acute poisonings	38	24	62
Conflagration	16	14	30
Burns (conflagration excepted)	117	143	260
Absorption of deleterious gases (conflagration excepted)	33	32	65
Accidental drowning	412	65	477
Traumatism by firearms	99	12	111
Traumatism by cutting or piercing instruments	5	2	7
Traumatism by fall	248	42	290
Traumatism in mines or quarries	115	...	115
Traumatism by machines	23	1	24
Traumatism by other crushing (vehicles, rail- ways, etc.)	527	82	609
Injuries by animals	45	7	52
Starvation, thirst, fatigue	31	2	33
Excessive cold	4	1	5
Effects of heat	76	28	104
Lightning	8	1	9
Electricity (lightning excepted)	7	...	7
Homicide by firearms	15	11	26
Homicide by cutting or piercing instruments...	4	6	10
Homicide by other means	34	21	55
Fractures (cause not specified)	116	51	167
Other external violence	253	39	292
Total Deaths	2,250	600	2,850

In every kind of violent death there was, therefore, an excess of males, with the exception of burning accidents, in which female deaths largely predominated, and homicide by cutting or piercing instruments.

(xxxvi.) *Suicide*. It may be said that suicides have shewn a slight tendency to increase during recent years, the number in 1908 having been 497, viz., 413 males and 84 females; in 1909, 495, viz., 398 males and 97 females; in 1910, 516, viz., 432 males and 84 females; in 1911, 544, viz., 446 males and 98 females; in 1912, 631, viz., 514 males and 117 females; in 1913, 647, viz., 516 males and 131 females; in 1914, 643, viz., 534 males and 109 females, and in 1915, 658, viz., 536 males and 122 females. Of the suicides in 1915, those of 206 males and 49 females occurred in New South Wales; those of 115 males and 39 females in Victoria; those of 108 males and 22 females in Queensland; those of 39 males and 5 females in South Australia; those of 51 males and 6 females in Western Australia; those of 14 males in Tasmania; those of 2 males in the Northern Territory, and 1 in Federal Territory.

The modes adopted by persons who committed suicide in the years 1908 to 1915 were as follows:—

MALE AND FEMALE SUICIDES, COMMONWEALTH (MODES ADOPTED), 1908 to 1915.

Mode of Death.	Males.		Females.		Total.	
	Total of 7 years 1908-14.	1915.	Total of 7 years 1908-14.	1915.	Total of 7 years 1908-14.	1915.
Poisoning	706	104	382	64	1,088	168
Asphyxia	13	...	2	1	15	1
Hanging or Strangulation	506	84	93	18	599	102
Drowning	229	38	107	21	336	59
Firearms	1,083	196	51	5	1,134	201
Cutting instruments	512	89	48	6	560	95
Precipitation from a height	26	4	10	3	36	7
Crushing... ..	45	8	7	2	52	10
Other modes	133	13	20	2	153	15
Total	3,253	536	720	122	3,973	658

The death rates from suicides and the percentage on total deaths borne by suicides are shewn in the following table:—

DEATH RATES (a) FROM SUICIDE AND PERCENTAGE ON TOTAL DEATHS, 1915.
COMMONWEALTH.

State.	Death Rates (a) from Suicide.			Percentage on Total Deaths.		
	Males.	Females.	Total.	Males.	Females.	Total.
New South Wales	0.21	0.05	0.14	1.80	0.75	1.30
Victoria	0.16	0.05	0.11	1.30	0.56	0.97
Queensland	0.30	0.07	0.20	2.32	0.77	1.74
South Australia	0.18	0.02	0.10	1.57	0.24	0.94
Western Australia	0.29	0.04	0.18	2.73	0.54	1.95
Tasmania	0.14	0.01	0.08	1.29	0.11	0.75
Northern Territory	0.55	...	0.45	2.25	...	2.06
Federal Territory	0.68	...	0.40	7.14	...	5.88
Commonwealth	0.21	0.05	0.13	1.75	0.56	1.25

(a) Number of deaths from suicide per 1000 of mean population.

From the following table, which shews the ages of the persons who committed suicide in 1915, it will be seen that both extreme youth and extreme old age are represented:—

AGES OF PERSONS WHO COMMITTED SUICIDE, COMMONWEALTH, 1915.

Ages.	M.	F.	Total.	Ages.	M.	F.	Total.		
15 years and under	20	9	10	19	60 years and under	65	27	5	42
20	25	27	10	37	65	70	32	1	33
25	30	51	14	65	70	75	18	1	19
30	35	49	18	67	75	80	11	...	11
35	40	67	9	76	80	85	2	...	2
40	45	66	15	81	85	90	2	...	2
45	50	52	17	69	Age not stated	...	3	...	3
50	55	57	6	63					
55	60	53	16	69					
					Total Deaths	...	536	122	658

The following table shews the occupations of the 536 males who committed suicide:—

OCCUPATIONS OF MALE PERSONS WHO COMMITTED SUICIDE, 1915.
COMMONWEALTH.

Occupation.	Deaths.	Occupation.	Deaths.
Professional class	31	Pastoral class	24
Domestic class	19	Working in mines and quarries ...	33
Mercantile class	77	Other primary producers	6
Engaged in transport and communication	38	Independent means	8
Manufacturing class	53	Dependents	4
Engaged in building and construction	23	Occupation not stated	21
Indefinite industrial workers ...	125	Total Deaths	536
Agricultural class	74		

It has been said that suicide has become more frequent during recent years, but an examination of the figures from the year 1871 onwards shews that the assertion needs qualification. The absolute figures have certainly increased, but proportionately to the population the figures for 1906-10 were practically the same as those for 1886-90 and 1891-95. The figures for the four years 1911-15, which have been added to the table, shew, however, a regrettable increase, not only absolutely, but also in proportion to the population. No particulars are available for Western Australia prior to 1886, and from 1886 to 1895 the sexes are not distinguished. The figures for the first five periods are, therefore, exclusive of Western Australia:—

SUICIDES, COMMONWEALTH, 1871-75 TO 1911-15.

Period.	Number of Suicides.			Suicides per One Million.			Suicides of Females to 100 Suicides of Males. Based on	
	Males.	Females.	Total.	Males.	Females.	Total.	Absolute Figures.	Rates.
1871-75	715	150	865	150.94	37.56	99.07	20.98	24.88
1876-80	878	145	1,023	159.69	31.06	100.62	16.51	19.45
1881-85	999	183	1,182	152.58	32.90	97.61	18.32	21.56
1886-90	1,394	292	a1,686	179.20	43.97	c116.92	20.95	24.54
1891-95	1,574	337	b1,911	181.34	44.09	d117.07	21.41	24.31
1896-1900	1,838	410	2,248	191.11	47.88	123.65	22.31	25.05
1901-05	2,054	380	2,434	201.78	40.88	124.98	18.50	20.26
1906-10	2,031	437	2,468	186.11	43.22	117.39	21.51	23.22
1911-15	2,546	577	3,123	206.15	50.36	131.17	22.66	24.43

a. 1705 inclusive of Western Australian figures. b. 1934 inclusive of Western Australian figures. c. 116.49 inclusive of Western Australian figures. d. 119.11 inclusive of Western Australian figures.

In the fifth issue of this Year-Book (pp. 240, etc.), the result of a series of investigations into the periodicity of suicide was published. The paper was partly reprinted in the sixth issue (pp. 241, etc.), but is not repeated in the present issue.

(xxxvii.) *Other Diseases.* The number of causes included under this heading is a very large one, amounting to no less than 79 of the items shewn in the detailed classification, and deaths were recorded under every one of these with the exception of the following four:—Glanders, rabies, pellagra, and non-puerperal diseases of the breast. The total number of deaths under "other diseases" in 1908 was 7417, viz., 4351 males and

3066 females; in 1909, 7419, viz., 4344 males and 3075 females; in 1910, 7794, viz., 4590 males and 3204 females; in 1911, 7652, viz., 4508 males, 3144 females; in 1912, 8300, viz., 4777 males and 3523 females; in 1913, 8241, viz., 4794 males and 3447 females; in 1914, 8670, viz., 5081 males and 3589 females, and in 1915, 9090, viz., 5259 males and 3831 females. In accordance with the revised edition of the classification, the following changes were made in this heading during 1910: beri-beri is now included under this heading instead of under xii., "Other Epidemic Diseases." Other diseases of the respiratory system (2212 deaths) are now shewn under a new head (xxiii.), and appendicitis and typhlitis (356 deaths) under head xxvi. Some of the diseases included here account for very considerable numbers of deaths. Thus there were 931 deaths ascribed to diarrhœa and enteritis of children over two years of age and of adults; 618 to diseases of the arteries, atheroma, and aneurysm; 567 to "other diseases peculiar to early infancy"; 519 to diabetes; 391 to convulsions of children under five years of age; 396 to paralysis without indicated cause; 339 to embolism and thrombosis; 261 to "other diseases of the spinal cord"; 276 to anæmia and chlorosis; 349 to acute endocarditis; 261 to "other diseases of the nervous system"; and 214 to simple peritonitis. Particulars of the deaths included in 1915 are shewn in the following table:—

CAUSES OF DEATH INCLUDED UNDER "OTHER DISEASES," COMMONWEALTH, 1915.

Causes.	M.	F.	T'tal.	Causes.	M.	F.	T'tal.
Purulent Infection and Septicæmia	106	99	205	Diseases of the Lymphatic System	11	12	23
Anthrax	1	...	1	Hæmorrhages, Other Diseases of Circulatory System ...	49	24	73
Tetanus	64	23	87	Diseases of the Mouth and its Associated Organs	9	9	18
Mycoses	1	3	4	Diseases of the Pharynx	29	27	56
Beri-beri	24	1	25	Diseases of the Oesophagus ...	13	3	16
Rickets	10	3	13	Diarrhœa and Enteritis of Children over two years of age and Adults	458	473	931
Syphilis	98	53	151	Ankylostomiasis	3	1	4
Gonococcus Infection	2	1	3	Intestinal Parasites	1	...	1
Other Tumours (Tumours of the female genital organs excepted)	17	27	44	Other Diseases of the Intestine's Acute Yellow Atrophy of the Liver	49	39	88
Acute Articular Rheumatism ...	118	135	253	Hydatid Tumours of the Liver ...	4	10	14
Chronic Rheumatism & Gout ...	62	70	132	Biliary Calculi	27	21	48
Scurvy	4	2	6	Other Diseases of the Liver ...	97	113	210
Diabetes	250	269	519	Diseases of the Spleen	7	3	10
Exophthalmic Goitre	10	39	49	Simple Peritonitis (non-puerperal)	107	107	214
Addison's Disease	12	15	27	Other Diseases of the Digestive System	16	13	29
Leucæmia	45	28	73	Chyluria	1	...	1
Anæmia, Chlorosis	130	146	276	Other Diseases of the Kidneys and their Adnexa	107	50	157
Other General Diseases	46	46	92	Calculi of Urinary Passages ...	27	11	38
Acute and Chronic Alcoholism ...	195	47	242	Diseases of the Bladder	135	21	156
Chronic Lead Poisoning	11	...	11	Other Diseases of the Urethra, Urinary Abscess, etc.	28	2	30
Other Chronic Poisonings due to occupations	1	...	1	Diseases of the Prostate	228	...	228
Other Chronic Poisonings	4	...	4	Non-venereal Diseases of the Male Genital Organs	2	...	2
Encephalitis	45	26	71	Gangrene	61	45	106
Progressive Locomotor Ataxia ...	59	10	69	Furuncle	11	4	15
Other Diseases of the Spinal Cord	144	117	261	Acute Abscess	49	28	77
Paralysis without indicated cause	228	168	396	Other Diseases of the Skin and Adnexa	22	25	47
General Paralysis of the Insane ...	138	14	152	Non-tuberculous Diseases of the Bones	42	14	56
Other Forms of Mental Alienation	39	66	105	Other Diseases of the Joints (Tuberculosis & Rheumatism excepted)	9	3	12
Epilepsy	115	116	231	Amputations	1	...	1
Convulsions (non-puerperal) ...	4	20	24	Other Diseases of the Organs of Locomotion	4	1	5
Convulsions of Children under five years of age	223	168	391	Other Diseases peculiar to Infancy	327	240	567
Chorea	5	5	10	Want of Care (Infants)	4	4	8
Neuralgia and Neuritis	18	18	36				
Other Diseases of the Nervous System	149	112	261				
Diseases of the Eye ... ..	...	1	1				
Diseases of the Ear	16	6	22				
Pericarditis	41	22	63				
Acute Endocarditis	196	153	349				
Angina Pectoris	78	29	107				
Diseases of the Arteries, Atheroma, Aneurysm	431	187	618				
Embolism and Thrombosis	147	192	339				
Diseases of the Veins (Varices, Varicose Ulcers, Hæmorrhoids)	9	13	22				
				Total Deaths	5,259	3,831	9,090

(xxxviii.) *Unspecified or Ill-defined Diseases.* The number of cases which has to be included here is a considerable one from year to year, comprising 1262 in 1908, 1087 in 1909, 598 in 1910, 460 in 1911, 590 in 1912, 614 in 1913, 644 in 1914, and 717, viz., 506 males and 211 females, in 1915. The detailed classification distinguishes these ill-defined diseases under three headings:—Ill-defined organic diseases, including such definitions as dropsy, anasarca, ascites, general œdema, etc.; sudden death, including syncope; and unspecified or ill-defined causes, of which the following are specimens:—Asthenia, coma, dentition, exhaustion, heart failure, etc. In 1915 the number of cases of death which would have to be classed under the first of these categories was 42; those belonging to the second, 42; and those belonging to the third, 634. It is, of course, true that there must always occur some cases where the disease is not well characterised, or where sufficient information is not procurable to allow of a clear definition being given in the certificate of death, but in the majority of cases included under this heading a more complete diagnosis and consequently a more satisfactory certificate would no doubt have been possible.

In the fifth issue of this Year Book, pp. 234, etc., some observations were published, dealing with the incidence of scarlet fever, measles, whooping cough, diphtheria and croup, typhoid, diarrhœa, enteritis, and dysentery.

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19. *Causes of Death in Classes.*—The figures presented in the preceding paragraphs relate to certain definite causes of death. It is almost generally acknowledged that figures of this kind are of greater value in medical statistics than is a classification under general headings. The classification under fourteen general headings adopted by the compilers of The International Nomenclature is, however, shewn in the following table, together with the death rates and percentages on total deaths pertaining to those classes:

DEATHS, DEATH RATES (a), AND PERCENTAGES ON TOTAL DEATHS IN CLASSES, 1915.—COMMONWEALTH.

Class.	Total Deaths.			Death Rate. (a)			Percentage on Total Deaths.		
	M.	F.	Total.	M.	F.	Total	M.	F.	Total.
1. General diseases	6,228	5,466	12,094	2.61	2.26	2.44	21.62	24.69	22.91
2. Diseases of the Nervous System & of the Organs of Special Sense...	3,066	2,291	5,357	1.21	0.94	1.08	10.00	10.36	10.15
3. Diseases of the Circulatory System	3,480	2,484	5,964	1.37	1.03	1.20	11.35	11.22	11.30
4. Diseases of the Respiratory System	3,568	2,271	5,839	1.41	0.94	1.18	11.64	10.27	11.06
5. Diseases of the Digestive Organs...	3,328	2,800	6,128	1.31	1.16	1.24	10.86	12.64	11.61
6. Diseases of the Genito-Urinary System and Adnexa	1,941	1,084	3,025	0.77	0.45	0.61	6.33	4.90	5.73
7. Puerperal Condition ... ..	...	576	576	...	0.24	0.12	...	2.63	1.09
8. Diseases of the Skin and of the Cellular Tissue	143	102	245	0.06	0.04	0.05	0.47	0.46	0.46
9. Diseases of the Organs of Locomotion	56	18	74	0.02	0.01	0.01	0.18	0.08	0.14
10. Malformations	341	244	585	0.13	0.10	0.12	1.11	1.10	1.11
11. Infancy	2,216	1,767	3,983	0.87	0.73	0.80	7.24	7.98	7.55
12. Old Age	2,593	2,092	4,685	1.02	0.87	0.95	8.46	9.46	8.88
13. Violence	2,787	732	3,509	1.10	0.30	0.71	9.09	3.26	6.65
14. Ill-defined Diseases	507	211	718	0.20	0.09	0.15	1.65	0.95	1.36
Total	30,654	22,128	52,782	12.08	9.16	10.65	100.00	100.00	100.00

(a) Number of deaths per 1000 of mean population.

20. *Deaths of Children under 1 Year.*—"Bulletin No. 33; Commonwealth Demography" contains tables shewing for nineteen causes the age at death of children dying during the first year of life. In the Bulletin mentioned, the particulars are published for males and females separately for the States, Territories and Commonwealth, but the totals for the Commonwealth only are here shewn for both sexes combined:—

DEATHS OF CHILDREN UNDER 1 YEAR, COMMONWEALTH, 1915.

Age at Death.		Whooping Cough.	Pulmonary Tuberculosis.	Acute Miliary Tuberculosis.	Tubercular Meningitis.	Abdominal Tuberculosis.	Tuberculosis of Other Organs.	Disseminated Tuberculosis.	Syphilis.	Meningitis.	Convulsions.	Acute Bronchitis.
Under 1 week	...	...	...	...	...	...	...	...	4	6	95	10
1 week and under 2	...	...	...	...	1	1	...	...	4	4	35	15
2 weeks	3	2	...	...	...	...	...	...	8	5	10	8
3 "	" 1 month	4	...	...	...	...	...	...	5	3	11	14
1 month	" 2	21	1	...	...	...	...	...	14	17	16	44
2 months	" 3	17	...	...	2	2	...	...	12	14	19	21
3 "	" 4	16	...	...	4	...	...	1	8	24	8	12
4 "	" 5	7	1	...	1	1	...	...	6	23	10	17
5 "	" 6	9	3	2	5	3	...	...	3	15	11	7
6 "	" 7	6	1	1	3	2	...	...	3	10	14	10
7 "	" 8	7	1	1	1	1	...	...	2	29	9	9
8 "	" 9	7	1	...	3	1	1	...	...	22	11	8
9 "	" 10	8	1	...	2	1	1	...	...	28	17	9
10 "	" 11	7	...	1	7	2	...	...	1	18	10	5
11 "	" 12	6	...	1	6	1	...	...	2	24	9	9
Total under 1 year	...	117	9	6	35	14	2	1	70	242	285	198

Age at Death.	Broncho-Pneumonia.	Pneumonia.	Diarrhea and Enteritis.	Hernia and Intestinal Obstruction.	Malformations.	Congenital Debility, Icterus and Sclerema.	Other Diseases peculiar to Early Infancy.	Lack of Care.	Other Causes.	Total.	
Under 1 week	6	11	30	9	249	2,217	471	12	97	3,227	
1 week & under 2	6	10	33	3	45	268	40	...	59	524	
2 weeks	5	10	23	3	22	176	18	...	40	330	
3 "	" 1 month	13	9	43	3	17	124	8	30	284	
1 month	" 2	39	39	203	4	46	218	9	80	751	
2 months	" 3	36	11	217	3	21	125	8	1	41	550
3 "	" 4	26	21	244	4	18	85	3	...	36	510
4 "	" 5	22	23	234	6	15	44	...	...	51	460
5 "	" 6	21	21	209	7	6	37	...	1	37	397
6 "	" 7	36	21	224	12	11	31	3	...	28	416
7 "	" 8	22	30	202	9	14	28	...	...	28	391
8 "	" 9	24	16	169	7	8	18	...	...	40	336
9 "	" 10	31	24	155	4	5	15	1	...	32	334
10 "	" 11	33	17	142	2	8	12	...	...	39	304
11 "	" 12	36	12	122	1	8	10	...	...	46	293
Total under 1 year	...	356	275	2,250	77	503	3,408	561	14	684	9,107

It will be seen that the maximum number of deaths from convulsions, pneumonia, acute bronchitis, malformations, congenital debility, icterus and sclerema, other diseases peculiar to early infancy, and lack of care, occurred during the first month of life, while broncho-pneumonia was most fatal during the second

month. Diarrhoea and enteritis carried off more children in the third and fourth months than in any other, the numbers gradually decreasing toward the end of the year. Whooping cough reached its maximum during the second month of life.

21. **Ages at Death of Married Males and Females, and Issue.**—"Bulletin No. 33; Commonwealth Demography" contains a number of tables, for the Commonwealth, shewing the age at marriage, age at death, duration of life after marriage, birthplaces, and occupations, in combination with the issue, of married persons who died in 1915. A short summary of the tables mentioned is given hereunder. Deaths of married males in 1915 numbered 13,845, and of married females, 12,495. The ages at death of the males ranged from 19 to 101 years, and those of the females, from 16 to 102 years. The total number of children in the families of the 13,845 males was 72,553, the maximum in one family being 21; and of the 12,495 females, 65,302, with a maximum of 21. The average number of children is shewn for various age-groups in the following table:—

AGES AT DEATH OF MARRIED MALES AND FEMALES, AND AVERAGE ISSUE.

COMMONWEALTH, 1915.

Age at Death.	Average Family of Males.	Average Family of Females.	Age at Death.	Average Family of Males.	Average Family of Females.
Under 20 years ...	1.00	0.79	70 to 74 years ...	6.26	6.31
20 to 24 years ...	1.04	1.25	75 " 79 " ...	6.72	6.57
25 " 29 " ...	1.43	1.86	80 " 84 " ...	6.69	6.59
30 " 34 " ...	1.98	2.78	85 " 89 " ...	6.83	6.29
35 " 39 " ...	2.88	3.41	90 " 94 " ...	6.90	5.59
40 " 44 " ...	3.45	3.72	95 " 99 " ...	6.27	5.48
45 " 49 " ...	3.83	4.24	100 years and upwards	5.50	4.70
50 " 54 " ...	4.38	4.73	Age not stated ...	5.09	6.00
55 " 59 " ...	4.90	5.34			
60 " 64 " ...	5.39	6.19	All ages ...	5.24	5.23
65 " 69 " ...	6.03	6.27			

The figures shewn in the preceding table include the issue both living and dead; and the proportion between them, taking the issue of deceased males and females together, was about as 1000 to 297, or, roughly speaking, as ten to three. The totals are shewn in the following table:—

ISSUE OF MARRIED MALES AND FEMALES.

COMMONWEALTH, 1915.

Issue of Married Males.	Males.	Females.	Total.	Issue of Married Females.	Males.	Females.	Total.
Living ...	29,089	28,276	57,365	Living ...	24,480	24,425	48,905
Dead ...	8,159	7,029	15,188	Dead ...	8,896	7,501	16,397
Total ...	37,248	35,305	72,553	Total ...	33,376	31,926	65,302

These figures show a masculinity in the births of 105.04, which agrees fairly well with the experience of the birth statistics, the masculinity of the births in the Commonwealth from 1905 to 1915 having averaged 105.12.

22. Ages at Marriage of Males and Females, and Issue.—While the table giving the average families of married males and females naturally shows an increase in the averages with advancing ages at death, the following table, which gives the average families of males and females according to the age at marriage of the deceased parents, shows a corresponding decrease in the averages as the age at marriage advances:—

AGES AT MARRIAGE OF MALES AND FEMALES, AND AVERAGE ISSUE.
COMMONWEALTH, 1917.

Age at Marriage.	Average Family of Males.	Average Family of Females.	Age at Marriage.	Average Family of Males.	Average Family of Females.
Under 20 years ...	6.72	7.10	55 to 59 years ...	1.22	...
20 to 24 years ...	6.18	5.59	60 „ 64 „ ...	0.80	...
25 „ 29 „ ...	5.59	4.23	65 years and upwards ...	1.32	...
30 „ 34 „ ...	4.81	3.05	Age not stated ...	4.27	4.76
35 „ 39 „ ...	4.23	1.52			
40 „ 44 „ ...	3.14	0.77			
45 „ 49 „ ...	2.13	0.42			
50 „ 54 „ ...	1.76	...	All ages ...	5.24	5.23

It will be seen that of women who were married at ages from 40 to 44 years, three in every four gave birth to a child, while in the case of women who were married at ages from 45 to 49 years, the proportion fell to about two in every five.

23. Duration of Life after Marriage of Males and Females.—The duration of life after marriage has been tabulated for males and females both in combination with the age at marriage, and with the total and average issue. The tables shewing the result do not, however, lend themselves to condensation, and are, therefore, omitted here. They will be found in "Bulletin No. 33 of Commonwealth Demography," pages 198 to 203.

24. Birthplaces of Married Males and Females, and Issue.—The following table shows the birthplaces of married males and females whose deaths were registered in 1915, together with their average issue. No generalisations can, of course, be made in those cases where the number of deaths is small, and where the average family had to be worked out on small figures. But where the figures are comparatively large, as in the case of natives of the Commonwealth, differences occur between the averages of the individual States which appear inexplicable on any other ground than that of inefficient registration in some of the States. It will be noted that the differences occur both in the male and female averages. Although the figures apply to the Commonwealth as a whole, it must be borne in mind that the vast majority of deaths of natives of any one State are registered in that particular State. The average family of all deceased males who were natives of the Commonwealth was 4.68, and that of deceased females who were natives of the Commonwealth, 4.58.

**BIRTHPLACES AT MARRIAGE OF MALES AND FEMALES, AND AVERAGE ISSUE.
COMMONWEALTH, 1915.**

Birthplace.	Married Males.		Married Females.		Birthplace.	Married Males.		Married Females.	
	Deaths.	Average Family.	Deaths.	Average Family.		Deaths.	Average Family.	Deaths.	Average Family.
New South Wales ...	2,138	5.15	2,263	5.05	Japan ...	2	0.50	...	...
Victoria ...	1,770	4.01	1,683	3.91	Java ...	1	6.00	...	...
Queensland ...	317	3.61	397	3.72	Philippine Islands ...	3	1.66	...	...
South Australia ...	697	5.07	693	4.56	Syria ...	4	4.50	5	4.00
Western Australia ...	65	5.28	91	5.06	Cape of Good Hope ...	2	3.00	1	5.00
Tasmania ...	452	5.17	453	5.44	Natal ...	1	12.00	1	3.00
Northern Territory ...	1	1.00	2	5.50	Mauritius ...	4	7.25	...	...
New Zealand... ..	82	3.12	64	3.53	South Africa (so descd.)	5	4.00	8	5.00
England ...	4,128	5.69	3,103	5.68	Other African British Possessions ...	2	3.50	...	...
Wales ...	109	4.89	80	6.37	Other African C'ntries	2	3.50	2	3.50
Scotland ...	1,135	5.52	943	5.92	Barbados ...	1	7.00	...	...
Ireland ...	1,741	5.91	2,143	5.82	Canada ...	25	4.00	14	4.43
Isle of Man ...	2	0.50	3	4.33	Jamaica ...	4	6.50	1	9.00
Other European Brit'h Possessions ...	18	5.61	16	7.18	Newfoundland ...	3	9.66	2	9.00
Austria-Hungary ...	22	4.51	4	4.50	Other American British Possessions ...	7	4.57	2	4.00
Belgium ...	2	3.50	4	4.25	Argentine Republic ...	1	1.00	...	...
Denmark ...	73	5.63	19	4.37	Brazil ...	1	3.00	...	...
France ...	35	4.37	18	4.50	Chile ...	1	1.00	...	...
Germany ...	445	6.60	290	6.66	Mexico ...	1	0.00	...	...
Greece ...	8	4.50	...	...	United States ...	53	4.49	16	3.44
Italy ...	46	3.68	12	4.58	Other American Countries ...	15	3.53	7	5.43
Netherlands ...	11	4.18	1	8.00	Fiji ...	1	7.00	2	2.00
Norway ...	26	3.50	7	2.28	Other Polynesian British Possessions... ..	3	2.33	...	...
Portugal ...	12	4.92	1	2.00	New Caledonia ...	1	0.00	1	1.00
Russia ...	50	5.10	20	5.00	Samoa ...	1	4.00	...	...
Spain ...	6	3.83	7	7.28	S. Sea Islands (so descd.)	3	1.33	2	4.00
Sweden ...	61	4.23	9	5.11	At Sea... ..	45	5.51	28	5.89
Switzerland ...	23	4.96	6	4.83	Not stated ...	41	3.68	45	3.69
Other Europ. Countries	4	4.25	1	...					
British India ...	47	5.45	24	5.45					
Ceylon ...	2	3.00	...	...			
Straits Settlements ...	3	3.00	1	4.00					
Afghanistan ...	2	1.50	...	...			
China ...	79	2.61	...	...			
					Total ...	13,845	5.24	12,495	5.23

25. **Occupations of Married Males, and Issue.**—A final tabulation shows the average issue in combination with the occupation of deceased males. When these figures are available for a number of years they will afford some clue to the much debated question as to the decrease in the birth rate among various classes of the population.

OCCUPATIONS OF MARRIED MALES, AND AVERAGE ISSUE.

COMMONWEALTH, 1915.

Occupation.	Deaths of Married Males.	Average Family.
Professional class ...	827	4.54
Domestic class ...	486	4.03
Mercantile class... ..	1,746	4.45
Engaged in transport and communication	1,091	4.59
Manufacturing class ...	1,524	5.06
Engaged in building and construction ...	894	5.13
Indefinite industrial workers	2,410	4.97
Agricultural class ...	2,405	6.73
Pastoral class ...	527	5.83
Working in mines and quarries	976	5.47
Other primary producers ...	84	4.69
Independent means ...	372	5.49
Dependents ...	43	3.51
Occupation not stated ...	460	5.65
Total ...	13,845	5.24

In the fifth issue of this Year Book (pp. 227 to 229), a series of observations was published dealing with the Commonwealth Rates of Infantile Mortality. These observations are not reprinted in the present issue.

§ 4. Graphical Representation of Vital Statistics.

1. **General.**—The progressive fluctuations of the numbers representing the total births and marriages are important indexes of the economic conditions and social ideals of a community. For this reason graphs have been prepared (see pages 211 and 212), shewing these fluctuations from 1860 to 1915, both for the States and the Commonwealth. The facts are very significant from the national point of view and call for serious consideration. To properly appreciate the situation it should be remembered that, normally, the increase of births and also of marriages will be similar to the increase of population. Although the marriage curve shews a falling off in marriages after 1891 (see page 212), it shows a recovery in 1894, and, with the exception of a small fall for 1903, it has continually advanced. The same characteristic is not seen in the curve of births, which discloses a recovering tendency only in 1904.

The table printed below shews the number of births, marriages and deaths which would have been experienced had the rate for 1890 continued, and reveals the significance of the facts disclosed by the curves. It may be remarked that the death rate has greatly improved, and among other countries Australia stands in a very favourable position in this respect. At the same time the decline in the marriage rate, overtaken once more in 1907, and the still more serious decline in the birth rate, in a country but sparsely populated, have an obvious and most important bearing on the national future, and on the extent to which it is desirable to promote immigration.

ACTUAL BIRTHS, DEATHS, AND MARRIAGES

EXPERIENCED IN THE COMMONWEALTH DURING THE YEARS 1890 TO 1915, COMPARED WITH THE NUMBER THAT WOULD HAVE OCCURRED IF THE RATES OF 1890 HAD REMAINED IN OPERATION.

Year.	BIRTHS.		DEATHS.		MARRIAGES.	
	Actual.	Number of Births that would have been experienced if the 1890 birth rate had been in operation.	Actual.	Number of Deaths that would have been experienced if the 1890 death rate had been in operation.	Actual.	Number of Marriages that would have been experienced if the 1890 marriage rate had been in operation.
1890	108,683		44,449		23,725	
1891	110,187	111,802	47,430	45,737	23,862	24,419
1892	110,158	114,502	42,268	46,842	22,049	25,009
1893	109,322	116,617	45,801	47,707	20,631	25,470
1894	104,660	118,734	42,958	48,573	20,625	25,938
1895	105,084	111,002	43,080	49,501	21,564	26,428
1896	100,134	123,212	45,202	50,405	23,068	26,911
1897	101,137	125,419	43,447	51,308	23,939	27,393
1898	98,845	127,371	51,406	52,106	24,472	27,819
1899	100,638	129,088	47,629	52,809	25,958	28,194
1900	102,221	130,848	44,060	53,529	27,101	28,579
1901	102,945	132,599	46,330	54,245	27,753	28,961
1902	102,776	134,603	48,078	55,065	27,926	29,399
1903	98,443	136,189	47,293	55,714	25,977	29,745
1904	104,113	137,917	43,572	56,420	27,682	30,122
1905	104,941	139,959	43,514	57,256	29,004	30,569
1906	107,890	142,080	44,333	58,103	30,410	31,021
1907	110,347	144,248	45,305	59,011	32,470	31,505
1908	111,545	146,720	46,426	60,022	32,551	32,045
1909	114,071	149,526	44,172	61,170	33,775	32,658
1910	116,801	152,869	45,590	62,537	36,592	33,388
1911	122,193	157,072	47,869	64,257	39,482	34,306
1912	133,088	162,477	52,177	66,468	42,147	35,487
1913	135,714	168,032	51,789	68,740	41,594	36,700
1914	137,983	172,073	51,720	70,394	43,311	37,583
1915	134,871	173,159	52,782	70,838	45,224	37,820

2. **Graphs of Annual Births, Commonwealth and States** (page 211).—A striking feature of the graphs of births is the practically continuous increase in the number of births exhibited in the graph for the Commonwealth from 1860 to 1891, and the marked variations of subsequent years. As the curve clearly shews, a turning point in the number of births occurred in 1891, whilst, as regards the separate States, New South Wales and Tasmania date their decline in number from 1893, Victoria from 1891, and Queensland from 1890. In South Australia the corresponding decline took place as early as 1885, while in Western Australia the increase in number of births has been practically continuous throughout.

It is of special interest to note the decline in births associated with the commercial crisis of 1891-3, and also the decline occurring in 1903, an accompaniment of the severe drought of that period.

In the case of New South Wales the graph crosses that of Victoria in 1879, *i.e.*, the births for that year were sensibly identical in the two States. A fairly continuous increase was experienced in the former State from 1860 to 1893, the only marked fluctuation being a sudden decline in 1889 and an equally rapid recovery in 1890. From 1893 to 1898 a somewhat rapid decline again took place, succeeded by a rise, the continuity of which was broken only by a sharp decline in 1903 and recovery in 1904.

In the case of Victoria the graph shews the increase between 1860 and 1880 to have been comparatively slight, the curve being a gradual rise, with fluctuations more or less marked to 1873, with a subsequent decline. From 1880 to 1891 the increase in the number of births is seen to be very rapid and practically continuous, while from 1891 to 1898 an equally sharp and continuous decline was experienced. A further rise and fall took place between 1898 and 1903; succeeded by a continuous rise from the last-mentioned year to 1907, and a slight fall in 1908, followed by a recovery in 1909.

Starting in 1860 with a lower number of births than any State except Western Australia, the Queensland graph shews that the births increased somewhat rapidly until 1867. The equality in the number of births in Queensland and Tasmania in 1864 is shewn by the Queensland curve crossing the Tasmanian curve at the line for that year. From 1867 to 1882 a continuous though somewhat less rapid increase was experienced, followed by a very rapid rise to 1890, in which year Queensland's maximum number of births prior to 1909 and subsequent years was recorded. The South Australian graph is crossed by that of Queensland at the year 1885. From 1890 onwards the number of births has fluctuated somewhat, but has, on the whole, retained a practically stationary position at a height rather less than that of 1890. The most serious variation was a sudden fall in 1903, the drought year, and rapid recovery in 1904, with a further fall in 1905 and a continuous rise since 1906.

The South Australian graph, a slow but practically continuous rise from 1860 to 1885, exhibits the steady increase in the total number of births. This rise is followed by a slow but fluctuating decline to 1903, and a slight recovery to 1914.

The Tasmanian curve may be regarded as made up of five portions, of which the first, from 1860 to 1877, represents a period of very slight variation, with, on the whole, an increase; the second, from 1877 to 1884, a period of continuous and moderately rapid increase; the third, from 1884 to 1893, a period of rapid increase; the fourth, from 1893 to 1898, a period of continuous but slow decrease; and the fifth, from 1898 onwards, a period of steady recovery.

The Western Australian curve indicates that an increase, which was practically continuous but very slow, took place from 1860 to 1884, and that a somewhat quicker rate of increase, experienced from 1884 to 1896, was succeeded by a still more rapid and very satisfactory rate of increase from 1896 onwards.

It will be seen that the years in which the highest points were reached by the several curves are as follows :—

State ...	N.S.W.	Vic.	Q'land.	S. Aust.	W. Aust.	Tas.	C'wealth.
Year ...	1914	1891	1915	1914	1913	1914	1914

3. **Graphs of Annual Marriages, Commonwealth and States** (page 212).—The Commonwealth marriage graph from 1860 to 1885 reveals a moderate but somewhat fluctuating increase in the annual number of marriages between 1860 and 1871, a more rapid increase between 1871 and 1879, a still more rapid increase between 1879 and 1885. From 1885 to 1891 the numbers continued to increase, but with marked fluctuations in rate. The financial crisis associated with the period subsequent to the latter year was accompanied by a strongly-marked decline in the number of marriages, which reached its lowest point in 1894. From that year onwards a fairly rapid recovery was effected, the record for 1891 being exceeded by that of 1897. This progress was maintained until 1902, when the severe drought of that and the succeeding year were collateral with a rapid fall in the number of marriages. An equally rapid recovery, however, has since taken place, and the number of marriages in the Commonwealth during 1915 was greater than in any preceding year.

4. **Graphs of Annual Deaths, Commonwealth and States** (page 213).—The curves shewing the progression of the annual number of deaths indicate clearly that the periods for which exceptionally large numbers of deaths occurred were:—(a) 1866-7, (b) 1875-6, (c) 1884-5, (d) 1889-1891, (e) 1893, (f) 1898, and (g) 1902-3. It is remarkable that in each of the periods specified the phenomenon of a relatively high number of deaths was experienced in the majority of the States. Thus, as regards 1866-7, all the States except Western Australia and Tasmania were so affected; in 1875-6 all except Western Australia; in 1884-5 all were affected; in 1889 all except Western Australia and South Australia; in 1891 all except Queensland; whilst in 1893 and 1898, and 1902-3 all were affected. The fact that the periods of high death rates have been practically identical in the several States furnishes an indication that the excessive mortality has been due to a considerable extent to some common cause operating throughout the Commonwealth.

It may be noted as curious that periods of heavy mortality have occurred at intervals of approximately nine years, viz.:—1866-7, 1875-6, 1884-5, 1893, and 1902-3. There are, however, two marked increases between the third and fourth dates, and one between the fourth and fifth. Thus there is no real indication of the periodicity of the death rate.

Periods in which the number of deaths was exceptionally low are far less clearly defined than those in which the number was high, and the agreement amongst the States is also less complete. The principal periods of low mortality may be said to be 1861, 1869-71, 1879, 1892, 1897, 1900, 1904-5, 1909, 1914.

5. **Graphs of Annual Birth, Death, and Marriage Rates and of Rate of Natural Increase—Commonwealth** (page 214).—(i.) *General*. These graphs represent the number of births, deaths, and marriages, and the excess of births over deaths (natural increase) per 1000 of the population of the Commonwealth, for each of the years 1860 to 1915.

(ii.) *Births*. In the case of births, the graph indicates a well marked decline in rate during the period, and represents a fall from 42.56 per 1000 of population in 1860 to 27.25 per 1000 in 1915. This enormous reduction has been subject to small fluctuations during the period under review, but may, on the whole, be said to have been in evidence throughout. There are, however, two periods of arrested decline noticeable, one from 1877 to 1890, and the other from 1898 to the present time. The course of the graph thus indicates a rapid fall from 42.56 in 1860 to 34.99 in 1877, succeeded by a fluctuating but, on the whole, fairly stationary period to 34.98 in 1890, then a fall even more rapid to 27.15 in 1898, and a further comparatively stationary period to 27.25 in 1915. The lowest point reached, viz., 25.29, was attained in 1903, the year in which the Commonwealth suffered severely from the worst drought it has ever experienced.

Since then a small but well defined advance in the birth rate has been in evidence. A declining birth rate is usually due to complex causes, amongst which the variations in the age constitution of the population, and the adoption of preventive measures, are generally considered the most potent.

(iii.) *Deaths.* The three graphs relating to deaths furnish particulars concerning the rates experienced during the period amongst males and females separately, and in the population as a whole, the latter occupying naturally a position between the other two. Throughout the period the rate for males has largely exceeded that for females, but the fluctuations in the two rates have synchronised remarkably, indicating that the conditions which have been responsible for the marked variations which have occurred from time to time have affected males and females alike. On the whole, the graphs furnish clear evidence of a satisfactory decline in the death rate of the Commonwealth, a fall having taken place from 20.86 in 1860 to 10.66 in 1915. The graphical representation of the death rates brings into prominence five years in which the rates were exceptionally high when compared with those of adjacent years. These years are 1860, 1866, 1875, 1884, and 1898. The principal cause of the excessive rate of 1860 was the prevalence in that year of measles, scarlatina, and diphtheria, while the high rates of 1866, 1875, and 1898 were also largely due to epidemics of measles. Prior to 1892, when a rate of 12.91 was experienced, the lowest general death rate for the Commonwealth was that of 1871, viz., 13.24. The highest male death rate for the period was 20.97 in 1860, and the lowest 11.51 in 1909. For females the highest was 20.71 in 1860, and the lowest 9.06 in 1909. The difference between the male and female rate has, since 1869, been fairly constant, and has ranged between 1.97 and 3.44, with a mean value of about 2.7.

(iv.) *Marriages.* In the case of the graph representing marriage rates, the fluctuations are less abrupt than in the case of the birth rate and death rate graphs, and the rate for 1915, the final year of the period, viz., 9.14, does not differ very considerably from that of 1860, which was 8.42. The lowest marriage rate for the period was that of 1894, viz., 6.08, marking the culmination of the commercial and financial depression indicated by the declining rates from 1888 onwards. From 1894 to the present time a satisfactory increase has been in evidence, disturbed only by the sharp decline which, in 1903, accompanied the severe drought experienced in the Commonwealth in that year. The rate for 1915 was the highest ever recorded.

(v.) *Natural Increase.* This graph, which represents the excess of births over deaths per 1000 of population, exhibits marked fluctuations arising from the combined fluctuations in birth and death rates. Thus, corresponding to the high death rates of 1860, 1866, 1875, and 1898, there are exceptionally low rates of natural increase, accentuated in the last-mentioned year by a comparatively low birth rate. A combination of low birth rate and comparatively high death rate was also responsible for a very low rate of natural increase in 1903. The highest rate of natural increase for the period was 26.58 in 1864, and the lowest 13.03 in 1898.

6. Graphs of Annual Birth Rates—States (page 215).—These graphs furnish for the several States information similar to that supplied in the graph on page 214 for the Commonwealth as a whole. It will be seen that in every case the total effect has been an extensive decline in rate, subject to very marked fluctuations. In all the States the period from 1875 to 1885 was one of arrested decline, if not of actual advance, in the birth rate. With the exception of the very low rate accompanying the drought in 1903, the variations in any of the States since 1901 have not been very marked, and in most cases a slight tendency to increase is in evidence.

The highest birth rates during the period were as follows:—New South Wales (1864), 44.00; Victoria, 1862), 44.71; Queensland (1860), 47.93; South Australia (1862),

45.44; Western Australia (1860), 38.96; and Tasmania (1884), 36.63. The following were the lowest rates for the period:—New South Wales (1903), 25.44; Victoria (1910), 24.51; Queensland (1903), 24.53; South Australia (1903), 23.84; Western Australia (1896), 23.44; Tasmania (1899), 27.43.

7. **Graphs of Annual Death Rates—States** (page 215).—These graphs furnish for the several States similar information to that given for the Commonwealth as a whole in the diagram on page 214, and indicate in each case a satisfactory decline in death rate. It may be noted that an exceptionally high death rate was experienced in all the States in 1875, and that a similar uniformity, though on a smaller scale, is observable for the year 1898, the principal cause in each case having been an epidemic of measles. The highest death rates experienced during the period were as follows:—New South Wales (1867), 19.79; Victoria (1860), 22.77; Queensland (1866), 25.96; South Australia (1875) 19.97; Western Australia (1884), 21.54; and Tasmania (1875), 19.99. The following were the lowest death rates for the period:—New South Wales (1909 and 1910), 9.89; Victoria (1915), 11.10; Queensland (1906), 9.50; South Australia (1909), 9.74; Western Australia (1915), 9.28; and Tasmania (1914), 9.67.

8. **Graphs shewing Variations in Annual Death Rates from Month to Month.**—The graphs on pages 216 and 217 shew for the Commonwealth as a whole and for each of the six States the annual death rates for males, females, and persons calculated for equalised months, and the infantile death rate, calculated in the same way, and also distinguishing males, females, and persons. Further particulars in regard to these graphs will be found on pages 196 and 197.