VITAL STATISTICS.

Registration of Births, Deaths, and Marriages.

The present official system of compulsory registration of births, deaths, and marriages in Victoria has been in force since 1853, and the registers—framed on the best models—are replete with all necessary information bearing on the family history of the people. The statutory duties under the Registration Acts are performed by the Government Statist, who has control over the local registrars of births and deaths, and the registrars of marriages, and (so far as regards their registration duties) over the clergymen who celebrate marriages. Copies of entries certified by him or by the Assistant Government Statist are *primâ facie* evidence in the Courts of Australia of the facts to which they relate At the head office in Melbourne there is kept for reference a complete collection of all registrations effected since 1st July, 1853, as well as originals or certified copies of all existing church records relating to earlier periods, as far back as 1837.

Applicants for searches or certificates of births, deaths, or marriages should, in applying to the Government Statist, furnish particulars of the date and place of the event; also the names of the parties in the case of a marriage, and the name, age (if a death), and parentage in the case of a birth or death. The fee for a search in the Official Records, or an extract of an entry, is 2s. 6d., and for a certificate, including the cost of search, 7s. 6d. (except where the case appears in the records of the current quarter, when 5s. only is charged). For a search in the early church records, prior to 1st July, 1853, the fee is only 1s., a further sum of 1s. being payable if a certificate is required.

The *Year-Book* for 1916–17 contains on pages 301 to 303 a statement of the law relating to marriages and the registration of births and deaths in Victoria.

MARRIAGES.

Marriages.

Marriages in Victoria in 1923 numbered 13,126. This was the third highest number for one year in the history of the State, being 1,772 less than the greatest number previously

recorded—that for 1920. The figures for each of the last twenty years are as follows :—

MARRIAGES IN EACH YEAR, 1904 TO 1923.

Year.	No. of Marriages.	Year.	No. of Marriages.
1904 ..	8,210	1914 ..	11,830
1905 ..	8,774	1915 ..	12,832
1906 ..	8,930	1916 ..	11,341
1907 ..	9,575	1917 ..	9,506
1908 ..	9,334	1918 ..	9,156
1909 ..	9,431	1919 ..	11,706
1910 ..	10,240	1920 ..	14,898
1911 ..	11,088	1921 ..	13,676
1912 ..	11,738	1922 ..	12,996
1913 ..	11,324	1923 ..	13,126

The marriages in Australia for 1923 numbered 44,541, as against 44,731 in the previous year, 46,869 in 1921, 51,552 in 1920, 40,540 in 1919, and 33,141 in 1918. Of the total for 1923, 13,126 took place in Victoria, 17,523 in New South Wales, 5,814 in Queensland, 4,099 in South Australia, 2,376 in Western Australia, 1,592 in Tasmania, 7 in the Northern Territory, and 4 in the Federal Capital Territory.

Marriage rates.

The ordinary marriage rate—per 1,000 of the total population—like birth and death rates similarly estimated, is somewhat unreliable in comparatively newly settled countries like Australia, especially in earlier periods, but, as it affords a ready and approximate comparison between years not widely separated, the figures relating to Victoria are shown in the following table for the last ten years .—

MARRIAGE RATES, 1914 TO 1923.

Year.	Marriage Rate.	Year.	Marriage Rate.
1914 ..	8·29	1919 ..	7·95
1915 ..	8·96	1920 ..	9·85
1916 ..	8·02	1921 ..	8·90
1917 ..	6·73	1922 ..	8·27
1918 ..	6·43	1923 ..	8·16

The rates in the other States, New Zealand, and England and Wales in 1923 were as follows:—New South Wales, 8·00; Queensland, 7·24; South Australia, 7·92; Western Australia, 6·82; Tasmania, 7·39; New Zealand, 7·90; and England and Wales, 7·60.

The marriage rate for 1920 was the highest recorded in the history of the State. This was mainly due to the marriages of a large number of returned soldiers who had settled down to ordinary civilian life. The rates for 1922 and 1923 were considerably lower than the rates for the two preceding years and did not differ much from the rates for the years 1913 and 1914.

Marriages to marriageable men and women.

The marriages in proportion to the population, to the unmarried men and widowers aged 21 to 55, and to the unmarried women and widows aged 18 to 50 in each census year, 1857 to 1921, are given in the following table:—

MARRIAGES PER 1,000 OF POPULATION AND OF SINGLE MEN AND WOMEN, 1857 TO 1921.

Year of Census.	Exclusive of Chinese and Aborigines.						
	Enumerated Population.	Number of Unmarried and Widowed.		Marriages.	Proportion of Marriages per 1,000 of the—		
		Men (aged 21 to 55).	Women (aged 18 to 50).		Population.	Unmarried and Widowed Men (aged 21 to 55).	Unmarried and Widowed Women (aged 18 to 50).
1857 ..	383,668	88,456	18,128	4,465	11·64	50·48	246·30
1861 ..	513,896	98,665	24,009	4,528	8·81	45·89	188·60
1871 ..	712,263	77,078	40,836	4,715	6·62	61·17	115·46
1881 ..	849,438	77,250	75,098	5,732	6·75	74·20	76·33
1891 ..	1,130,463	133,576	113,276	9,007	7·97	67·43	79·51
1901 ..	1,193,340	123,691	137,267	8,468	7·10	68·46	61·69
1911 ..	1,309,950	132,642	158,556	10,984	8·39	82·81	69·28
1921 ..	1,531,280	136,569	163,488	14,009	9·15	102·57	85·69

NOTE.—The figures in this table relate to the twelve months of which the date of census is the central point.

Factors in marriage rates.

An examination of the figures for the eight census periods shows how the crude marriage rate is affected by the proportion of marriageable persons in the community. The maximum marriage rate (per 1,000 of population), which occurred in 1857, was co-incident with the highest proportion of marriageable

persons, while the minimum rate—in 1871—was associated with the lowest proportion of such persons. A further examination of the figures shows that the ordinary marriage rate is more directly affected by the proportion of eligible men than by that of eligible women in the population. Thus, the percentage of single women aged 18 to 50 rose from 4·7 in 1857 to 10·7 in 1921, whilst that of single men aged 21 to 55 fell from 23 to 8·9 in the same period. After allowing for the more uniform distribution of males and females of marriageable ages in the later years, the decrease in the percentage of marriageable men coincides fairly closely with the decline in the ordinary marriage rate. The female marriage rates show that, of females aged 18 to 50, the proportion entering wedlock each year fell from about 1 in 4 in 1857, and nearly 1 in 5 in 1861, to 1 in 16 in 1901, 1 in 15 in 1911, and nearly 1 in 12 in 1921.

The large number of discharged soldiers settling down to civilian life is responsible to a great extent for the high crude marriage rate recorded in 1921. This factor, however, only partially accounts for the very high proportion of marriageable men and women entering wedlock in that year in comparison with the years 1901 and 1911, as, quite apart from the effect produced by the marriages of discharged soldiers, the improvement in the rate shown in 1911 has become more prominent.

Marriages to marriageable males in Australasia.

The following statement shows for the period 1900–2 and for the years 1911 and 1921 the number of marriages per 1,000 marriageable males in Victoria, the other States of Australia, and New Zealand. It has been assumed that marriageable males are unmarried men and widowers aged 21 to 55 :—

MARRIAGES PER 1,000 MARRIAGEABLE MALES IN AUSTRALASIA.

—	1900–2.	1911.	1921.	Increase per cent. in 20 Years.
Victoria	56·0	67·3	81·7	45·9
New South Wales	58·3	68·0	73·9	26·8
Queensland	41·6	54·9	62·1	49·3
South Australia	56·8	81·3	88·7	56·2
Western Australia	41·9	45·8	62·5	49·2
Tasmania	65·7	69·3	81·9	24·7
Australia	55·7	64·7	77·2	38·6
New Zealand	55·1	58·8	78·9	43·2

In each State the proportion of marriageable men who married during the year 1921 was greater than that for the period 1900–2 or for 1911, the excess over the proportion for the earlier period, expressed as a percentage, being 56 in South Australia, 49 in Western Australia, 49 in Queensland, 46 in Victoria, nearly 27 in New South Wales, and nearly 25 in Tasmania. The comparatively low marriage rates for men in Western Australia and Queensland were due to the unequal distribution of marriageable men and women. At the 1921 census, to every 1,000 unmarried and widowed women aged 18 to 50 the numbers of bachelors and widowers between 21 and 55 years of age in each State and Australia were as follows :—Victoria, 837 ; New South Wales, 1,015 ; Queensland, 1,230 ; South Australia, 892 ; Western Australia, 1,330 ; Tasmania, 889 ; and Australia, 984.

Marriageable persons in Metropolis and Country.

An examination of the sex distribution of persons residing in Greater Melbourne and the rest of the State discloses the fact that, whether the comparison be made for all ages or for marriageable ages only, there is a great preponderance of women over men in the metropolis, whilst in the remainder of the State the men are in excess. In Greater Melbourne in 1921 there were 63,337 marriageable men aged 21 to 55, as compared with 95,024 marriageable women aged 18 to 50. In the rest of the State the eligible men and women at those ages numbered 73,232 and 68,464 respectively. It is thus seen that, while there was a surplus of 31,687 marriageable females in the metropolis as compared with males, there was a deficiency of 4,768 in the country.

The number of such males to 1,000 marriageable females in the metropolis was 667, while in the rest of the State the corresponding number was 1,070.

The following statement shows the proportions of marriageable men and women per 1,000 of the respective populations in Greater Melbourne and the rest of the State :—

MARRIAGEABLE MEN AND WOMEN PER 1,000 OF POPULATION IN GREATER MELBOURNE AND THE REST OF THE STATE, 1921.

District.	Males.	Females.
Greater Melbourne ..	82·6	124·0
Rest of the State	95·8	89·5

Marriage rate in age groups.

The marriage rates of marriageable men and women at different periods of life have been computed for various age groups at each of four census periods, and are shown in the following table :—

MARRIAGES PER 1,000 MARRIAGEABLE MEN AND WOMEN IN AGE GROUPS.

Age Group.	Men.				Women.			
	1891.	1901.	1911.	1921.	1891.	1901.	1911.	1921.
15–21 ..	..	..	..	..	23·6	18·8	23·3	25·7
21–25* ..	44·3	44·6	55·2	64·9	106·0	87·2	105·6	129·8
25–30 ..	85·9	90·5	118·6	148·2	100·5	84·7	112·1	135·3
30–35 ..	75·2	82·1	101·1	126·0	66·4	57·9	66·0	79·6
35–40 ..	51·1	62·6	72·9	91·1	46·4	37·2	43·0	43·3
40–45 ..	33·4	39·9	44·7	50·5	27·7	22·3	20·7	22·2
45–50 ..	25·9	29·8	34·9	35·0	17·8	14·3	5·5	13·5
50 and upwards	9·1	9·1	12·1	12·8	4·2	2·4	2·6	3·1

* In the case of men, 20–25.

Marriage rates of bachelors, widowers, spinsters, and widows.

The probabilities of bachelors and spinsters marrying and of widowers and widows re-marrying have been obtained by comparing their marriages at specified ages with the respective numbers in the community at those ages at the census of 1921. The marriages per 1,000 of the above-mentioned persons are given in the following table for the year mentioned :—

MARRIAGES PER 1,000 BACHELORS, WIDOWERS, SPINSTERS, AND WIDOWS, 1921.

Age Group.	Marriages to every 1,000—			
	Bachelors.	Widowers.	Spinsters.	Widows.
15–21	..	..	25·7	..
21–25*	64·8	114·3	129·5	179·4
25–30	147·4	165·2	134·1	132·2
30–35	123·3	170·4	77·5	84·4
35–40	85·4	129·4	37·5	64·8
40–45	40·8	105·6	18·9	31·3
45–50	25·7	71·5	10·6	18·9
50 and upwards	6·7	20·2	3·3	2·9

* In the case of men, 20–25.

The figures show that the probability of a widower marrying within a year is greater than that of a bachelor of similar age, and further, that the difference in favour of the former is much greater at ages

over 30 than at earlier ages. Comparing the marriage rate for widows with that for spinsters it is seen that at every age under 50, except the age group 25–30, the chance of a widow marrying is considerably greater than that of a spinster of the same age. As 78 per cent. of both widowers and widows are over 50 years—a period of life when the chance of re-marrying is small—and the great majority of the bachelors and spinsters are under that age—a period when the probability of marrying is much greater—it was to be expected that the rate for each of the two former sections would be much lower than that for each of the latter. In proportion to their respective numbers, the marriages of widowers were only slightly more than half as numerous as those of bachelors, and the marriages of widows were less than one-fourth of those of spinsters.

Ages of bridegrooms and brides.

The ages of bridegrooms and brides who were married in 1923 are shown in combination for various groups in the table which follows :—

AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION IN VICTORIA, 1923.

Ages of Bridegrooms.	Ages of Brides.																		Total Bridegrooms.
	14.	15.	16.	17.	18.	19.	20.	21 to 25.	25 to 30.	30 to 35.	35 to 40.	40 to 45.	45 to 50.	50 to 55.	55 to 60.	60 to 65.	65 to 70.	70 and over.	Not stated.	
16	...	...	1	...	...	1	...	...	...	...	...	...	...	..	...	...	...	...	..	2
17	...	..	2	4	4	2	...	...	...	...	...	...	...	...	...	...	...	...	...	12
18	...	1	7	11	18	4	3	5	2	...	...	...	...	...	...	...	...	..	..	51
19	...	1	13	31	35	30	23	24	1	...	...	...	...	...	...	...	...	..	..	158
20	..	1	10	24	39	48	57	51	11	1	...	...	...	...	...	...	...	..	..	242
21 to 25	1	5	28	105	218	303	320	1,864	438	58	15	5	1	...	...	1	...	...	...	3,362
25 to 30	2	1	17	27	81	146	190	1,861	1,774	364	63	6	1	1	..	...	...	...	...	4,534
30 to 35	...	1	2	7	23	37	54	582	909	553	130	30	3	...	...	...	...	...	...	2,331
35 to 40	..	...	1	4	5	14	13	139	330	337	180	49	17	1	1	...	...	...	...	1,091
40 to 45	...	...	...	..	2	3	6	34	86	156	141	83	21	9	1	1	1	..	...	544
45 to 50	...	...	...	...	2	1	...	12	36	62	70	53	50	11	...	...	1	..	...	298
50 to 55	...	...	...	2	...	...	...	10	14	28	35	32	36	30	12	.	...	...	...	199
55 to 60	...	...	...	...	...	...	...	1	7	13	18	21	23	26	18	4	2	...	...	133
60 to 65	...	...	...		...	...	...	...	...	5	11	19	9	23	9	7	3	...	.	86
65 to 70	...	...	...	...	...	...	...	...	4	2	2	3	11	5	8	12	4	2	1	54
70 to 75	...	...	...	...	...	...	...	...	...	...	4	1	2	1	3	5	...	...	...	16
75 and over	...	...	...	...	...	...	...	1	1	...	...	...	1	6	1	1	1	1	...	13
Total Brides	3	10	81	215	427	589	666	4,584	3,613	1,579	669	302	175	113	53	31	12	3	1	13,126

Although age inequalities among contracting parties were relatively few, they were striking in degree. Thus five men between 45 and 55 married women under 21, while twenty-two women between 35 and 65

were married to men who were under 25 years. The great majority of the parties were, however, of suitable ages. Of every 1,000 men married during the year, 707 were older and 194 younger than their brides, and 99 were of the same age as their partners.

Proportion of marriages at various ages.

The proportions of both sexes marrying in the various age groups are shown in the succeeding table for the periods 1881–90 and 1911–20, and the year 1923:—

PROPORTIONS OF MALES AND FEMALES MARRYING AT DIFFERENT AGES, 1881–90, 1911–20, AND 1923.

Age Group.	Proportion per 1,000 of total.					
	Bridegrooms.			Brides.		
	1881–90.	1911–20.	1923.	1881–90.	1911–20.	1923.
Under 15	...	...		·15	·07	·23
15 to 16	...	...	...	1·17	·75	·76
16 to 17	·03	·16	·15	6·53	3·79	6·17
17 to 18	·29	·62	·91	20·32	12·65	16·38
18 to 19	1·46	3·81	3·89	42·94	29·53	32·53
19 to 20	5·62	9·53	12·04	65·03	44·34	44·87
20 to 21	15·19	16·82	18·44	73·84	54·41	50·74
21 to 25	321·02	255·25	256·13	432·34	360·34	349·23
25 to 30	365·48	356·68	345·42	223·83	286·34	275·25
30 to 35	134·57	166·37	177·59	62·07	105·01	120·30
35 to 40	58·29	84·52	83·12	29·53	50·44	50·97
40 to 45	32·54	42·03	41·44	17·10	24·21	23·01
45 to 50	24·77	28·21	22·70	12·23	15·13	13·33
50 to 55	18·40	16·55	15·16	6·74	6·60	8·61
55 to 60	11·49	9·65	10·13	3·40	3·29	4·04
60 and over	10·85	9·80	12·88	2·78	3·10	3·50
Not stated	...	...	...	...	...	·08
Total	1,000·00	1,000·00	1,000·00	1,000·00	1,000·00	1,000·00

Of every 1,000 women who were married during 1923, 501 were under 25 years, and 275 were aged 25–30, as against 506 and 286 at corresponding ages in the years 1911 to 1920.

Age at marriage.

A high proportion of re-marriages has the effect of increasing the average marrying age of bridegrooms and brides. This is readily seen by comparing for 1923 the mean

age at marriage of bachelors, 28·64, with that of divorced men, and of widowers—38·77 and 46·33 respectively. The average age of spinsters marrying was 25·86, as against 34·35 for divorced women and 40·86 for widows. The average age of men marrying women under 45 and of their brides for certain periods since 1870 is shown in the following table :—

MEAN AGES AT MARRIAGE.

Period.	Average Age of—	
	Brides under 45.	Bridegrooms of Brides under 45.
	Years.	Years.
1870–4	24·13	29·93
1880–4	23·83	28·61
1890–4	24·66	28·66
1900–4	25·44	29·70
1905–9	25·88	29·80
1910	25·88	29·58
1911	25·81	29·46
1912	25·75	29·17
1913	25·66	29·01
1914	25·71	29·01
1915	25·68	28·75
1916	26·07	29·48
1917	26·03	29·69
1918	25·95	29·66
1919	26·14	29·64
1920	26·00	29·21
1921	25·92	29·26
1922	26·05	29·31
1923	25·91	29·20

The mean age of women under 45 who married in 1923 differed very slightly from the average of the previous five years. In Victoria in 1923 the mean marrying age of all brides was 26·69, and of all bridegrooms, 29·96.

Marrying age according to occupation. In the *Year-Book* for 1915–16 a table is given showing the average age at marriage of persons engaged in various occupations. This was based on 42,764 marriages in the period 1907–11, in connexion with which the records gave definite occupations.

Birthplaces of persons marrying. Marriage records show that, of the persons married in Victoria during 1923, 89·7 per cent. were born in Australia, 8·2 per cent. in the United Kingdom, and 1·0 per cent. in other British Possessions, and that only small proportions, about 1·6 per cent. of the bridegrooms and ·6 per cent. of the brides, were natives of foreign countries. The numbers born in Aus-

tralia and other countries are shown in the subjoined table for the years 1913 and 1923 :—

BIRTHPLACES OF PERSONS MARRIED, 1913 AND 1923.

Where Born.	Bridegrooms.		Brides.	
	1913.	1923.	1913.	1923.
Australia	9,628	11,519	10,274	12,035
New Zealand	155	101	82	77
England and Wales ...	972	953	644	668
Scotland	213	208	141	169
Ireland	126	90	83	53
Other British Possessions ...	40	44	24	39
Germany	46	24	19	8
Russia	17	14	3	7
Italy	15	29	12	12
United States	30	24	14	3
Other Foreign Countries ...	82	120	28	55
Total	11,324	13,126	11,324	13,126

Marriages in quarters. Victorian experience shows that, prior to 1919, the Autumn quarter was the most frequently selected season for marrying. During the years 1919 to 1923, however, the greatest proportion of marriages took place in the Spring, except in the year 1920. The numbers celebrated in the different seasons in 1923 were—3,523 in the Spring, 3,440 in the Autumn, 3,222 in the Summer, and 2,941 in the Winter.

Conjugal condition of persons marrying. The following statement shows the percentages of persons in each conjugal condition who have married in different periods since 1870 :—

CONJUGAL CONDITION OF PERSONS MARRYING, 1871-1923.

Conjugal Condition.	Percentage of total Marriages.					
	1871-80.	1881-90.	1891-1900.	1901-10.	1911-20.	1923.
Bachelors and Spinsters..	80·59	85·84	87·22	88·46	90·31	90·46
Bachelors and Widows ..	7·10	4·72	4·23	3·66	3·15	3·02
Widowers and Spinsters..	7·75	6·17	6·07	5·70	4·81	4·84
Widowers and Widows ..	4·56	3·27	2·48	2·18	1·73	1·68

Of every 1,000 persons of each sex married in Victoria during 1923, 65 were widowers and 47 were widows, as against 71 and 55 respectively in 1922, 64 and 54 in 1921, 61 and 55 in 1920, 68 and 58 in 1919, and 77 and 57 in 1918.

Divorced persons re-marrying.

The number of divorced persons re-married during 1923 was 401, which was 11·11 per cent. above the number for the preceding year. Of the 132,804 persons married during the last five years, divorced persons numbered 1,691, or 1 in every 79 persons, as compared with 1 in every 109 in the preceding five-year period. The following are the numbers of divorced persons who have re-married since 1918 :—

DIVORCED PERSONS RE-MARRYING, 1919 TO 1923.

Year.	Males.	Females.	Total.
1919	121	151	272
1920	158	146	304
1921	188	165	353
1922	182	179	361
1923	209	192	401

The divorced persons in the State at the census of 1921 numbered 2,313, of whom 1,092 were men and 1,221 women. A comparison of the re-marriages of divorced males and females during 1921 with these numbers shows that, according to the experience of that year, 17·2 per cent. of the males and 13·5 per cent. of the females re-marry each year. As these proportions greatly exceed the rates for other sections of the community, it is evident that many divorces are obtained with a view to early re-marriage.

Marriages of minors.

The proportions of bridegrooms and brides under 21 years of age are given in the subjoined table for the years 1919 to 1923 :—

Year.	Percentage under 21 years of age.	
	Bridegrooms.	Brides.
1919	3·14	13·09
1920	2·66	13·46
1921	2·83	14·09
1922	3·29	13·63
1923	3·51	15·14

Marriages in religious denominations.

The numbers and proportions of marriages solemnized according to the rites of the principal religious denominations and of those performed by registrars of marriages, for the years 1922 and 1923, are shown in the following table:—

MARRIAGES IN VARIOUS DENOMINATIONS.

Denomination.	1922.		1923.	
	Number.	Percentage of Total Marriages.	Number.	Percentage of Total Marriages.
Church of England	3,771	29·02	3,756	28·61
Roman Catholic Church ..	2,288	17·60	2,399	18·28
Presbyterian Church	2,548	19·61	2,528	19·26
Methodist Church	1,835	14·12	1,852	14·11
Congregational Church ..	889	6·84	850	6·48
Baptist Church ..	569	4·38	641	4·88
Lutheran Church	59	·45	47	·36
Church of Christ	284	2·19	272	2·07
Salvation Army	48	·37	57	·43
Hebrew	42	·32	46	·35
Free Christians	143	1·10	76	·58
Other Sects	84	·65	94	·72
Registrars of Marriages ..	436	3·35	508	3·87
Total	12,996	100·00	13,126	100·00

Marriages by Anglican clergymen represented 28·61 per cent. of the total in 1923, as compared with 29·02 per cent. in the previous year, 29·10 per cent. in 1921, 29·56 per cent. in 1920, 25·44 per cent. in 1911 and 21·18 per cent. in the period 1904–8. Excepting the ratios for the Roman Catholic, Presbyterian and Methodist churches, there were great disparities between the proportion of marriages celebrated according to the rites of each of the principal denominations and the proportionate number of adherents possessed by it in the community.

Civil marriages.

In 1923, 3·87 per cent., in 1922, 3·35 per cent., in 1921, 2·85 per cent., and, in 1914 and 1913, 2·6 per cent. of the total marriages in Victoria were celebrated by lay registrars, as against 1 per cent. in 1909, and about 7 per cent. in the decade ended 1890. The decrease which occurred between the earlier period and 1909 was due to the competition of matrimonial agencies which sprang up about 1894, and the increase since 1909 has probably been due to the *Marriage Act*

1909 (now incorporated in the *Marriage Act* 1915—No. 2691) permitting the removal from the list of registered clergymen of the names of those who make a business of celebrating marriages. The proportion of civil marriages in Victoria is only about one-seventh of the proportion in England and Wales, and is approximately one-fifth of the proportion in New Zealand.

Registered clergymen.

The ministers qualified by registration to celebrate marriages in Victoria numbered 1,612 on 31st December, 1923. The numbers of ministers in each denomination (excepting Jews and Quakers) and lay registrars of marriages were as follows :—

REGISTERED MINISTERS OF EACH DENOMINATION.

Denomination.	Number of Registered Ministers.	Denomination.	Number of Registered Ministers.
Church of England ..	397	Ballarat Town Mission ..	1
Roman Catholic ..	339	New Church	1
Presbyterian	304	Greek Orthodox Church	1
Methodist	275	Unitarian	1
Congregational	70	International Bible Students' Association	1
Baptist	89	Latter Day Saints (Mormons)	1
Church of Christ ..	64		
Lutheran	25		
Salvation Army ..	28		
Latter Day Saints (Reorganized)	4	Total Clergymen ..	1,612
Seventh Day Adventist ..	6	Lay Registrars of Marriages	25
Catholic Apostolic ..	2		
Free Christian	2		
Australian Church ..	1	Grand Total ..	1,637

Marriages of Jews and Quakers are exempted from the law relating to marriages in Victoria, and are deemed legal and valid if celebrated according to their respective usages.

BIRTHS.

Number of births.

The number of births registered in Victoria during the year 1923 was 35,876, of which 18,567 were of males and 17,309 of females. This was 412 below the number recorded for the preceding year. Still-births, which are excluded from

both births and deaths, numbered 1,056, and corresponded to a ratio of 2·9 per 100 infants born alive in 1923. There were 1,073 male to every 1,000 female births in 1923, as compared with 1,068 in 1922, 1,057 in 1921, and 1,062 in 1920. The figures for each year since 1903 are as follows:—

BIRTHS IN VICTORIA, 1904 TO 1923.

Year.	Males.	Females.	Total.	Year.	Males.	Females.	Total.
1904 ..	15,313	14,450	29,763	1914 ..	18,549	17,676	36,225
1905 ..	15,523	14,584	30,107	1915 ..	17,821	17,189	35,010
1906 ..	15,716	15,128	30,844	1916 ..	17,625	16,614	34,239
1907 ..	15,989	15,380	31,369	1917 ..	17,222	15,813	33,035
1908 ..	16,073	15,028	31,101	1918 ..	16,176	15,425	31,601
1909 ..	16,092	15,457	31,549	1919 ..	16,227	15,394	31,621
1910 ..	16,411	15,026	31,437	1920 ..	18,648	17,566	36,214
1911 ..	16,944	16,100	33,044	1921 ..	18,289	17,304	35,593
1912 ..	18,244	17,573	35,817	1922 ..	18,740	17,548	36,288
1913 ..	18,436	17,542	35,978	1923 ..	18,567	17,309	35,876

The births in Australia were fewer by 2,762 in 1923 than in 1914. The number in 1923 was 135,221, as compared with 137,496 in 1922, 136,200 in 1921, 136,407 in 1920, 122,290 in 1919, 125,739 in 1918, 129,965 in 1917, 131,426 in 1916, 134,871 in 1915, and 137,983 in 1914. Of the total recorded for 1923, 35,876 occurred in Victoria, 54,069 in New South Wales, 19,982 in Queensland, 11,692 in South Australia, 7,854 in Western Australia, 5,657 in Tasmania, 72 in the Northern Territory, and 19 in the Federal Capital Territory.

Birth rates. In young communities, birth rates calculated per 1,000 of the population are to some extent unreliable and misleading. In the earlier periods, when, owing to immigration, the population consists for the most part of men and women at the reproductive period of life, the rates are obviously high. As time proceeds, however, notwithstanding that immigration of reproductive adults may be maintained, the proportion of such adults to the total population must diminish, and with it, of necessity, the birth rate. The

following table shows the birth rates in Victoria from 1870 to 1923 :—

BIRTH RATES IN VICTORIA PER 1,000 OF POPULATION, 1870 TO 1923.

Year.	Birth Rate.	Year.	Birth Rate.	Year.	Birth Rate.
1870 ..	38·07	1899 ..	26·14	1912 ..	26·38
1875 ..	33·94	1900 ..	25·79	1913 ..	25·77
1880 ..	30·75	1901 ..	25·72	1914 ..	25·37
1885 ..	31·33	1902 ..	25·05	1915 ..	24·45
1890 ..	33·60	1903 ..	24·28	1916 ..	24·20
1891 ..	33·57	1904 ..	24·42	1917 ..	23·40
1892 ..	32·51	1905 ..	24·57	1918 ..	22·19
1893 ..	31·18	1906 ..	24·91	1919 ..	21·46
1894 ..	29·05	1907 ..	25·03	1920 ..	23·95
1895 ..	28·46	1908 ..	24·56	1921 ..	23·15
1896 ..	27·19	1909 ..	24·62	1922 ..	23·10
1897 ..	26·49	1910 ..	24·20	1923 ..	22·31
1898 ..	25·51	1911 ..	25·03		

The births per 1,000 of the population in the other States, New Zealand, and England and Wales in 1923 were as follows :—New South Wales, 24·68 ; Queensland, 24·89 ; South Australia, 22·60 ; Western Australia, 22·55 ; Tasmania, 26·27 ; New Zealand, 21·94 ; and England and Wales, 19·7.

The birth rate of a community is almost wholly dependent upon the proportion of wives at the reproductive period of life and their internal age distribution. As these elements, especially the former, differ widely in certain Australian States, the crude rates of the different States are scarcely comparable. The figures for the census of 1921 showed that in every 1,000 of the population of each State and of the Commonwealth the married women aged 15 to 45 numbered 116·1 in Victoria, 127·5 in New South Wales, 119·3 in Queensland, 125·3 in South Australia, 118·0 in Western Australia, 117·3 in Tasmania, and 121·9 in Australia. In the case of Victoria, the deficiency in the proportion of wives at the ages mentioned was accentuated by their comparatively unfavorable internal age distribution, the proportion at the younger and more fertile ages being smaller than that of any other State. A computation shows that, owing to these differences, the legitimate births in Victoria to every 1,000 of the population in 1921 were fewer by 2·8 than in New South Wales, by 3·4 than in Queensland, by ·9 than in South Australia, by ·3 than in Western Australia, and by 3·8 than in Tasmania, also that they were 1·8 less than in the whole of Australia.

Births to wives in Australasia and England.

The next table shows the legitimate births per 1,000 married women under 45 (not allowing for their differing age distribution) in each State, New Zealand, and England and Wales in the four census years 1891, 1901, 1911, and 1921 :—

LEGITIMATE BIRTHS PER 1,000 MARRIED WOMEN UNDER 45 YEARS OF AGE.

Country.	Legitimate Births per 1,000 Married Women aged 15 to 45.				Decrease per cent. in 20 years.
	1891.	1901.	1911.	1921.	
Victoria	297·0	229·0	223·0	190·5	16·8
New South Wales ..	298·9	235·6	235·4	194·2	17·6
Queensland	315·0	251·0	244·8	213.6	14·9
South Australia ..	311·1	235·0	235·9	186.9	20·5
Western Australia ..	352·8	244·0	221·8	190·9	21·8
Tasmania	315·9	254·6	244·8	216·9	14·8
New Zealand ..	279·1	246·1	211·7	181·0	26·9
England and Wales ..	268·8	234·2	196·2	*	*

* Not available.

Birthplaces of parents of legitimate children.

The birth records of children born in wedlock show that, in 1923, 82 out of every 100 children were born to Australian parents, and 95 out of every 100 to one or both parents born in Australia. Of the total fathers, the percentages born in the States or countries mentioned hereafter were as follows :—80·4 in Victoria ; 88·3 in Australia ; ·7 in New Zealand ; 7·1 in England and Wales ; 1·4 in Scotland ; ·9 in Ireland ; ·2 in other British Possessions ; and 1·4 in foreign countries. The corresponding percentages for mothers were : Victoria, 81·8 ; Australia, 89·5 ; New Zealand, ·7 ; England and Wales, 7·0 ; Scotland, 1·3 ; Ireland, ·7 ; other British Possessions, ·1 ; and foreign countries, ·7.

Corrected birth rates per 1,000 wives in Victoria.

An accurate view of the alteration in the fertility of wives is obtained by comparing the ratio of legitimate births to wives at reproductive ages, and allowing for the difference in their age distribution at each period. The following

table shows for Victoria the distribution of married women in six five-year groups in the last six census years :—

PROPORTION OF MARRIED WOMEN IN AGE GROUPS TO TOTAL BETWEEN 15 AND 45 IN THE LAST SIX CENSUS YEARS.

Census Year.	Proportion in each Age Group to Every 1,000 Married Women between 15 and 45.					
	15–20.	20–25.	25–30.	30–35.	35–40.	40–45.
1871	20·3	130·4	211·4	230·7	233·2	174·0
1881	17·3	159·5	204·6	206·0	209·7	202·9
1891	13·5	156·9	275·2	244·1	172·1	138·2
1901	8·1	99·0	198·3	249·6	249·2	195·8
1911	12·4	113·8	206·9	226·6	221·2	219·1
1921	9·2	105·3	222·5	247·9	221·1	194·0

To estimate the effect which the alteration in age distribution has on the birth rate, the proportion in each of the above groups was multiplied by the average natality rate for the group according to a standard table—the standard used for this purpose being the Swedish table of 1891. The sum of the products for each census year represented the number of births which would have occurred in that year per 1,000 married women between 15 and 45 had the fertility of these women remained unaltered, i.e., the potential births. The year 1871 was used as a basis with which to compare the five subsequent census years, and corrections were applied to the actual births (per 1,000) occurring in those years, so as to make them conform to the age constitution in the first-mentioned year. The correction factors were obtained by taking the number of births per 1,000 married women aged 15–45 which would have occurred in 1871 had the standard natality rates prevailed, and dividing this number by the corresponding numbers of potential births for 1881, 1891, 1901, 1911, and 1921. The above method was applied to find what proportion of the alteration in the ratio of births to married women under 45 was due to causes other than varying age constitution. The last mentioned factor has been taken into account in the computation of the birth rates appearing in column (5) of the subjoined table :—

CORRECTED LEGITIMATE BIRTH RATES.

(1) Census Year.	(2) Married Women between 15 and 45 years of age.	(3) Legitimate Births.	(4) Legitimate Births per 1,000 Married Women 15–45.	(5) Corrected Legitimate Births per 1,000 Married Women 15–45.	(6) Factor for Correction of Rate in Column 4.
1871 ..	88,561	26,805	302·67	..	..
1881 ..	84,831	25,675	302·66	303·14	1·0016
1891 ..	120,700	35,853	297·04	281·98	0·9493
1901 ..	127,858	29,279	229·00	238·75	1·0426
1911 ..	139,398	31,080	222·96	231·50	1·0383
1921 ..	177,803	33,879	190·50	195·47	1·0261

An inspection of the rates in column (5) shows that there was a fall of 7 per cent. in 1891 as compared with 1881, a further serious decline of over 15 per cent. in 1901 as compared with 1891, a decrease of 3 per cent. in 1911 as compared with 1901, and a further decline of nearly 16 per cent. in 1921 as compared with 1911, which were not due to variations in the age distribution of the married women between 15 and 45 in the community. A further examination of the corrected legitimate birth rates appearing in this column shows that the births in 1921 to every 1,000 married women of reproductive ages were 108 fewer than in 1881, 87 fewer than in 1891, 43 fewer than in 1901, and 36 fewer than in 1911.

Corrected legitimate birth rate for Victoria.

Legitimate birth rates (per 1,000 of the total population) for widely separated periods do not give a correct indication of the relative fertilities of those periods, unless the number of married women at reproductive ages in proportion to the population and the age constitution of such women have remained unchanged. In order to allow for the disturbance which may have been introduced through variations in these elements it is necessary that corrections be made in the crude rates. The factor to correct the result of changes in the proportion of married women between 15 and 45 is obtained by comparing the number of such women in the community at the period of observation with the number in a standard population. The method of obtaining the correcting factor for the disturbance due to the second element was explained in a previous paragraph.

The following table shows the crude legitimate birth rates in six census years, the corrections to be applied thereto for the reasons mentioned above, the amended birth rates, and the difference between these and the crude rates. The standard used in the computation of the correction factors was the Victorian population of 1871. Corrected birth rates per 1,000 of the population in the years 1881, 1891, 1901, 1911, and 1921 are as follows :—

CORRECTED LEGITIMATE BIRTH RATES PER 1,000 OF POPULATION.

Year.	Enumerated Population.	Legitimate Births.	Legitimate Births per 1,000 of Population (crude Rates).	Wives aged 15–45 per 1,000 of Population.	Correction Factor for variations in—		Corrected Birth Rate.	Difference between crude and corrected Rates.
					Proportion of Wives aged 15–45.	Age Distribution of Wives aged 15–45.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)
1871	731,528	26,805	36.64	121.1	..	..	..	..
1881	862,346	25,675	29.77	98.4	1.2307	1.0016	36.69	6.92
1891	1,140,405	35,853	31.44	105.8	1.1446	0.9493	34.39	2.95
1901	1,201,341	29,279	24.37	106.4	1.1382	1.0426	28.77	4.40
1911	1,315,551	31,080	23.63	106.0	1.1425	1.0383	27.89	4.26
1921	1,531,280	33,879	22.12	116.1	1.0431	1.0261	23.68	1.56

An inspection of the crude rates in the fourth column of the above table shows that legitimate births per 1,000 of population apparently declined by 6·87 in 1881, 5·20 in 1891, 12·27 in 1901, 13·01 in 1911, and 14·52 in 1921, as compared with the first census date. After making allowance for the disturbing elements known to exist, the apparent decline of 6·87 in 1881 is altered to an increase of ·05 per 1,000, while the decline of 1891 is reduced from 5·20 to 2·25, that of 1901 from 12·27 to 7·87, that of 1911 from 13·01 to 8·75, and that of 1921 from 14·52 to 12·96 per 1,000 as compared with 1871. Between 1901 and 1921 there was a reduction of nearly 18 per cent. in the rate due to other than normal causes.

Chinese and half-caste Chinese births. During the past ten years the births to Chinese parents numbered 43, or 1 in every 7,619 legitimate births, and there were 257 Chinese half-caste births (fathers only Chinese), or 1 in every 1,275 legitimate births registered in the same period.

Ages of parents of legitimate children. The average ages of fathers and mothers of legitimate children whose births were recorded in 1923 were 33·55 and 29·80 years respectively, which were 4·35 and 3·89 years above the average ages of bridegrooms marrying brides under 45 years of age, and of such brides for the same period. The proportions of both parents in various age groups are shown in the following table for the year mentioned :—

PERCENTAGE OF PARENTS IN AGE GROUPS, 1923.

Father.		Mother.	
Age Group.	Proportion per 100 Births.	Age Group.	Proportion per 100 Births.
Under 20	·40	Under 20	2·87
20 to 25	9·93	20 to 25	20·75
25 to 30	25·38	25 to 30	30·88
30 to 35	27·15	30 to 35	25·00
35 to 40	19·15	35 to 40	14·79
40 to 45	10·34	40 to 45	5·18
45 to 50	4·86	45 and over ...	·53
50 and over	2·79		
Total ...	100·00	Total ...	100·00

It will be seen that, on the experience of 1923, 51·6 per cent. of the mothers were between ages 20 and 30, and 39·8 per cent. between ages 30 and 40. The proportions of fathers at these ages were 35·3 and 46·3 per cent. respectively. Of every 1,000 legitimate births, about 29 were due to mothers under 20 years, and 5 to mothers aged 45 years and upwards. The *Year-Book* for 1916–17 contains on page 326 information relating to the ages of mothers of first-born children.

Birth rates in town and country.

In previous editions of this work birth rates for the various municipalities and divisions of the State were based on the births occurring therein in relation to their respective populations.

This method made no allowance for prospective mothers travelling from rural districts to towns where better lying-in facilities and attention were available, or to the metropolis or for metropolitan residents, *enceinte*, travelling from one municipality to another. By reason of this the rates for the metropolis and urban districts were unduly inflated at the expense of the rural districts, and the recorded variations in the rates of the various municipalities were incorrect. Also, no provision was made for births which had occurred in the Women's and other public hospitals being credited to the districts in which the mothers resided. As about one-seventh of the metropolitan births occur in these institutions the rates for certain municipalities—particularly the poorer and more congested ones—were necessarily considerably understated.

In 1923, therefore, it was decided to allot all births registered in Victoria to the place of usual residence of the mother. Upon this being done for the year under review it was found that the total for the metropolis, i.e., the births registered therein, had decreased by approximately 1,200. This gives a fair indication of the extent by which the rates in districts outside the metropolitan area suffered under the discarded system of compilation.

The following table, computed on the above mentioned basis, shows the number of births per 1,000 of the population in the metropolitan, other urban, and rural districts for the year 1923 :—

BIRTH RATES IN METROPOLITAN, OTHER URBAN, AND RURAL DISTRICTS, 1923.

Division.	Births per 1,000 of Population.
Metropolitan District	21·10
Country Towns	22·08
Rest of State	24·03
Total State	22·31

Birth rates in country towns.

The appended statement shows, for the year 1923, the populations of, and the number of births, and the births per 1,000 of the population in the eleven principal country towns :—

BIRTH RATES IN THE ELEVEN PRINCIPAL COUNTRY TOWNS, 1923.

Town.	Population at end of year.	Number of Births.	Births per 1,000 of Population.	Town.	Population at end of year.	Number of Births.	Births per 1,000 of Population.
Ballarat and Suburbs ..	39,960	785	19·64	Hamilton ..	5,110	139	27·20
Bendigo and Suburbs ..	33,490	653	19·50	Mildura ..	5,550	200	36·04
Geelong and Suburbs ..	37,100	829	22·35	Mordialloc ..	6,900	120	17·39
Carrum ..	6,000	133	22·17	Stawell ..	4,600	130	28·26
Castlemaine and Suburbs	7,170	147	20·50	Warrnambool	7,950	196	24·65
				Wonthaggi	5,600	188	33·57

Birth rates in metropolitan municipalities.

Similar information relating to metropolitan municipalities is given in the table which follows :—

METROPOLITAN BIRTH RATES, 1923.

District.	Mean Population for Year.	Number of Births.	Births per 1,000 of Population.
Melbourne City	101,930	2,011	19·73
Fitzroy City	34,820	805	23·12
Collingwood City	34,270	687	20·05
Richmond City	43,500	898	20·64
Brunswick City	46,580	1,130	24·26
Northcote City	32,950	823	24·98
Prahran City	50,930	954	18·73
South Melbourne City... ...	46,990	951	20·24
Port Melbourne City	13,140	305	23·21
St Kilda City	40,200	648	16·12
Brighton City	23,500	482	20·51
Essendon City	37,480	833	22·23
Hawthorn City	30,300	562	18·55
Kew City	18,660	378	20·26
Footscray City	38,240	1,022	26·73
Williamstown City	20,270	499	24·62
Oakleigh Borough	6,840	235	34·36
Caulfield City	49,180	1,050	21·35
Malvern City	39,320	625	15·89
Camberwell City	27,520	632	22·97
Preston Town	11,660	380	32·59
Coburg City	22,570	553	24·50
Sandringham City	14,000	221	15·79
Remainder of Metropolis ..	39,040	927	23·74
Hospitals and Shipping ...	10,930	...	...
Total	834,820	17,611	21·10

Twin and triplet births. The numbers of cases of twin and triplet births in Victoria in the past five years were as follows :—

CASES OF TWINS AND TRIPLETS.

Year.	Cases of Twins.	Cases of Triplets.
1919	382	5
1920	410	5
1921	408	3
1922	394	8
1923	412	4

On the average of the five years 1 mother in every 86 gave birth to twins, and 1 in every 6,941 was delivered of triplets. The proportions for the decennium ended 1917 were 1 in every 94 and 1 in every 9,538 respectively.

Children legitimized. In December, 1912, an Act was passed which provides that children born out of wedlock may be legitimized at any time after the marriage of the parents, on the application of the father, provided there was no lawful impediment to the marriage of the parents at the time of the birth. An amending Act passed in 1916 allowed legitimation to be effected on the application of the mother if the father were absent on war service or had died not more than two years previously. Up to the end of 1923 advantage was taken of these Acts, and of an Act (now repealed) passed in 1903, to legitimate 2,225 children, of whom 14 were registered in 1903, 19 in 1904, 34 in 1905, 43 in 1906, 58 in 1907, 60 in 1908, 51 in 1909, 71 in 1910, 126 in 1911, 106 in 1912, 157 in 1913, 149 in 1914, 141 in 1915, 140 in 1916, 136 in 1917, 162 in 1918, 159 in 1919, 165 in 1920, 168 in 1921, 133 in 1922, and 133 in 1923.

Legitimation Acts are in force in all the States and New Zealand, but there are marked differences in the numbers of legitimations resulting therefrom. In proportion to every 100 children born out of wedlock in 1923, the numbers of legitimations in the various States and New Zealand during that year were as follows :—Western Australia, 18·2 ; New South Wales, 14·7 ; South Australia, 11·4 ; New Zealand, 24·6 ; Queensland, 17·3 ; Victoria, 8·4 ; and Tasmania, 13·7.

Illegitimate births in Victoria. The number of illegitimate births in Victoria during the year 1923 was 1,578, which represents a proportion of 4·37 to every 100 births registered, as against 4·41 in the previous year, 4·82 in 1921, 5·24 in 1920, 5·77 in 1919, 5·84 in 1918, 5·51 in 1917, 5·15 in 1916, 5·75 in 1915, and 5·77 in the period 1910–14.

Illegitimate births to unmarried women in Victoria.

The percentage of illegitimate to total births in Victoria varied from 5·36 in 1891 to 5·94 in 1911, and 4·82 in 1921. The proportion of infants born out of wedlock to the unmarried and widowed women between 15 and 45 years of age in Victoria is shown in the subjoined table for the census years 1891, 1901, 1911, and 1921, when the conjugal condition of the population was known :—

ILLEGITIMATE BIRTHS PER 1,000 SINGLE WOMEN.

Year.	Single Women aged 15 to 45.	Illegitimate Births.	Illegitimate Births per 1,000 Single Women.
1891	142,443	2,064	14·5
1901	167,760	1,729	10·3
1911	187,488	1,964	10·5
1921	189,737	1,714	9·0

The number of infants born out of wedlock per 1,000 unmarried and widowed women in Victoria was 9·0 in 1921. This was considerably lower than the latest available figures for most European countries. The proportions ranged from 23 in Germany, 26 in Sweden, 24 in Denmark, 14 in Italy, and 16 in France, to 12 in Belgium, 13 in Scotland, 7 in England and Wales, 5 in Holland, and 4 in Ireland.

Illegitimacy in town and country.

A larger proportion of illegitimacy prevails in Melbourne and suburbs than in the other urban and the rural districts of Victoria, the proportion in the country districts being the smallest of all. During the year 1923, in the metropolitan area 1 birth in every 18, in other urban districts 1 in 23, and in the rural districts only 1 in 34 were registered as illegitimate. One striking result attending the introduction of the system of allotting all births to the mother's place of usual residence has been the altered ratios of illegitimacy in town and country—both the metropolitan and the other urban areas having lower ratios than on the basis previously adopted. For 1922 the proportions of illegitimate to total births, based on the births which actually occurred in the various municipalities, were 1 in 15, 1 in 38, and 1 in 58 respectively.

DEATHS.

Deaths.

The following return shows the number of deaths—male and female—also the quarters in which they were registered and the proportion per 1,000 of the population since 1899 :—

DEATHS IN EACH QUARTER, 1900 TO 1923.

Period.	Annual Deaths.	Sex.		Quarter of Registration.				Death Rate per 1,000 of the Population.
		Males.	Females.	March.	June.	September.	December.	
1900-4 ..	15,457	8,686	6,771	3,921	3,750	3,992	3,794	12·84
1905-9 ..	14,932	8,296	6,636	3,805	3,539	3,917	3,671	11·93
1910 ..	14,736	8,132	6,604	3,820	3,693	3,661	3,562	11·34
1911 ..	15,217	8,356	6,861	3,519	3,774	4,132	3,792	11·52
1912 ..	16,595	9,077	7,518	4,000	4,199	4,498	3,898	12·22
1913 ..	15,475	8,496	6,979	4,075	3,678	4,137	3,585	11·09
1914 ..	16,503	9,017	7,486	3,953	4,030	4,257	4,263	11·56
1915 ..	15,823	8,860	6,963	3,524	3,788	4,380	4,131	11·05
1916 ..	16,489	8,901	7,588	4,111	4,140	4,509	3,729	11·66
1917 ..	14,555	7,952	6,603	3,430	3,585	3,831	3,709	10·31
1918 ..	15,177	8,079	7,098	3,537	3,563	4,144	3,933	10·66
1919 ..	19,370	10,508	8,862	4,303	5,784	5,469	3,814	13·15
1920 ..	16,832	9,060	7,772	3,998	4,351	4,433	4,050	11·13
1921 ..	16,165	8,662	7,503	4,017	4,031	4,412	3,705	10·51
1922 ..	15,156	8,187	6,969	3,610	3,867	4,084	3,595	9·65
1923 ..	17,219	9,135	8,084	3,766	4,593	4,760	4,100	10·71
Average 1919-23	16,948	9,110	7,838	3,939	4,525	4,631	3,853	11·03

The number of deaths in 1923 was 17,219, which was 679 above the average of the preceding five years. In one of those years—1919—the death rate was abnormally high owing to the existence of an epidemic of influenza.

Death rates in Australian States and New Zealand.

The deaths in Australia in 1923 numbered 56,236, as against 51,312 in the preceding year, 54,076 in 1921, 56,289 in 1920, 65,930 in 1919, 50,249 in 1918, 48,029 in 1917, 54,197 in 1916, 52,782 in 1915, and 51,720 in 1914. Of the total deaths in the year under review 17,219 occurred in Victoria, 21,048 in New South Wales, 7,893 in Queensland, 4,961 in South Australia, 2,930 in Western Australia, 2,137 in Tasmania, 38 in the Northern Territory, and 10 in the Federal Capital Territory. The death rates per 1,000 of the population for each of the Australian States and New Zealand are shown in the following statement for

the periods 1902–6 and 1907–11, and for each of the last twelve years :—

DEATH RATES IN THE AUSTRALIAN STATES AND NEW ZEALAND.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.	New Zealand.
1902–6	12·55	10·84	10·92	10·67	12·17	11·04	11·44	9·81
1907–11	11·64	10·20	10·12	9·89	10·47	10·83	10·64	9·77
1912 ..	12·22	10·86	10·96	10·28	11·06	10·73	11·23	8·87
1913 ..	11·09	10·89	10·39	10·82	9·34	10·87	10·78	9·47
1914 ..	11·56	10·11	9·97	10·71	9·41	9·67	10·51	9·31
1915 ..	11·05	10·48	11·00	10·68	9·28	10·11	10·66	9·06
1916 ..	11·66	10·63	11·09	11·73	9·80	10·38	11·04	9·64
1917 ..	10·31	9·56	9·73	10·10	8·97	8·89	9·80	9·58
1918 ..	10·66	9·84	10·39	9·97	9·11	8·84	10·09	14·84
1919 ..	13·15	13·40	12·42	12·01	11·10	10.37	12·82	9·51
1920 ..	11·13	10·32	10·82	10·76	10·14	9.35	10·62	10·27
1921 ..	10·51	9·51	9·34	10·02	10·44	10.30	9·91	8·73
1922 ..	9·65	8·92	9·14	9·10	9·33	9.29	9.21	8.77
1923 ..	10·71	9·61	9·83	9·59	8·41	9·92	9·89	9·03

The rate in Victoria, taking the average of the last five years, was higher than in any other State, but this result was chiefly due to its containing a larger proportion of elderly persons, amongst whom the mortality rate is very high. The comparatively high rate in Australia in 1919 and the abnormal rate in New Zealand in the previous year were due to a heavy mortality from influenza.

Age distribution and crude death rates.

Comparisons of the crude death rates of a country for different periods, or of different countries for the same period, are frequently misleading, as they do not allow for variations in the age distributions of the population. In European countries, the proportion of elderly people, among whom the death rate is heavy, is higher than in the Commonwealth or any of the Australian States, and it is greater in South Australia, and lower in Western Australia, than in any of the other States. The proportions living in various age groups at the census of 1921 in each division of the Commonwealth and New Zealand, and those in 1890 in Sweden—a

country which fairly represents European conditions—are shown in the following table :—

PROPORTIONS LIVING IN FIVE AGE GROUPS IN AUSTRALIAN STATES, NEW ZEALAND, AND SWEDEN.

Country.	Proportion per 10,000 of Population living in the Age Group—					Total.
	Under 1 Year.	1 to 20.	20 to 40.	40 to 60.	60 and over.	
Victoria	227	3,603	3,198	2,133	839	10,000
New South Wales ..	253	3,812	3,276	1,927	732	10,000
Queensland	268	3,926	3,270	1,846	690	10,000
South Australia ..	236	3,748	3,247	1,922	847	10,000
Western Australia ..	232	3,887	2,949	2,310	622	10,000
Tasmania	263	4,101	2,988	1,840	808	10,000
Australia	246	3,779	3,219	1,993	763	10,000
New Zealand	224	3,795	3,146	2,084	751	10,000
Sweden	255	3,980	2,696	1,923	1,146	10,000

The figures show that the characteristic features of Australian populations, as compared with those of European countries, are a large preponderance of persons in the age group 20–40, and a relatively small number aged 60 and over. Among the Australian States, South Australia and Western Australia have, as mentioned previously, the highest and lowest proportions respectively of persons aged 60 years and upwards—a point which should be kept in view when comparing their crude death rates.

Index of mortality.

The differences shown in the preceding table in the age constitutions of the populations of the six States have been taken into account in computing their respective indexes of mortality. The results for each are based upon an age distribution corresponding to that of Sweden in 1890, which has been adopted by statisticians as a standard for this purpose. Mortality indexes for each State for the undermentioned years, as compiled by the Commonwealth Statistician, are as follows :—

INDEX OF MORTALITY FOR THE AUSTRALIAN STATES.

Year.	Index of Mortality.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Commonwealth.
1919	15·51	16·48	15·97	14·59	15·50	13·29	15·75
1920	13·72	13·32	14·36	13·49	15·63	12·28	13·65
1921	12·85	12·27	12·30	12·47	15·60	13·16	12·66
1922	11·20	10·91	11·38	10·62	11·80	10·88	11·10
1923	12·44	11·79	12·35	11·24	10·74	11·80	11·95

In four of the last five years the crude death rate was higher in Victoria than in any other Australian State, but the figures in the

above table show that, in each of the years under review, with the exception of 1923, two States had a higher index of mortality than Victoria.

Death rates at various ages.

A reliable estimate of the improvement in the health of the community is obtained by comparing the death rates for groups of ages at different periods. Such rates for Victoria are given in the subjoined table for the decennial periods 1891-1900, 1902-11, and 1912-21 :—

DEATH RATES IN CERTAIN AGE GROUPS IN VICTORIA.

Age Group.	Deaths per 1,000 at each Age.		
	1891–1900.	1902–11.	1912–21.
Males.			
Under 5	39·29	26·73	23·85
5 to 10	3·36	2·16	2·42
10 to 15	2·20	1·87	1·75
15 to 20	3·28	2·72	2·37
20 to 25	4·79	3·51	3·57
25 to 35	6·60	4·75	4·71
35 to 45	9·03	7·81	7·14
45 to 55	15·32	13·48	13·10
55 to 65	32·90	25·38	25·05
65 to 75	62·99	59·04	53·18
75 and upwards	145·05	157·26	157·97
All ages	15·47	13·30	12·57
Females.			
Under 5	34·09	22·35	19·26
5 to 10	3·12	2·03	2·24
10 to 15	2·06	1·78	1·56
15 to 20	3·43	2·80	2·27
20 to 25	4·81	3·59	3·56
25 to 35	6·89	5·01	4·58
35 to 45	8·68	7·16	6·01
45 to 55	12·12	9·96	9·44
55 to 65	23·64	18·80	17·46
65 to 75	45·87	46·71	42·01
75 and upwards	124·33	131·77	136·61
All ages	12·36	10·66	10·35

The figures show that at all ages, excepting between 5 and 10, and 20 and 25, and 75 and over for males, and between 5 and 10, and 75 and over for females, much lower death rates were experienced during the decennium 1912–21 than in the preceding one. Compared with 1902-11, the mortality rate for the period 1912-21 for the two sexes combined was lower by 10 per cent. for the age group 0-10, by 9 per cent. at ages 10-15, by 16 per cent. at 15-20, by 5 per cent. at 25-35, by 12 per cent at 35-45, and by 4 per cent. at 45-55 and 55-65. The rates, up to age 65 and probably to age 75, are comparable, and the marked decrease at successive periods shows that there had been a general improvement in hygienic conditions.

Death rates of Metropolitan residents.

In years prior to 1923 it was the custom, when computing local death rates, to treat the deaths in two main divisions—those occurring in public institutions and those occurring elsewhere. The latter were credited to the district in which they were registered. Of the institutional deaths those occurring in hospitals were allotted to the usual residence; the remainder, together with any deaths of persons unknown or whose residence was not stated, were allotted to the various divisions of the State according to the population of each.

For purposes of greater accuracy, and following the lead of England and other countries, the allotment to usual residence has, for 1923, been extended to cover all deaths, only those institutional deaths where the usual residence is unknown being allotted to the various divisions of the State as before mentioned.

The deaths in Victoria of residents of metropolitan municipalities and their proportions to the populations of these municipalities are shown in the following table for the year 1923 :—

DEATH RATES IN METROPOLITAN MUNICIPALITIES, 1923.

Municipality.	Mean Population for Year.	Number of Deaths.	Deaths per 1,000 of Population.
Melbourne City	101,930	1,418	13·91
Fitzroy City	34,820	539	15·48
Collingwood City	34,270	457	13·34
Richmond City	43,500	561	12·90
Brunswick City	46,580	534	11·46
Northcote City	32,950	309	9·38
Prahran City	50,930	620	12·17
South Melbourne City	46,990	585	12·45
Port Melbourne City	13,140	158	12·02
St. Kilda City	40,200	446	11·09
Brighton City	23,500	249	10·60
Essendon City	37,480	401	10·70
Hawthorn City	30,300	359	11·85
Kew City	18,660	159	8·52
Footscray City	38,240	385	10·07
Williamstown City	20,270	240	11·84
Oakleigh Borough	6,840	87	12·72
Caulfield City	49,180	402	8·17
Malvern City	39,320	358	9·10
Camberwell City	27,520	264	9·59
Preston Town	11,660	137	11·75
Coburg City	22,570	227	10·06
Sandringham City	14,000	111	7·93
Remainder of Metropolis	39,040	408	10·45
Hospitals and Shipping	10,930	..	..
Whole Metropolis	834,820	9,414	11·28
Remainder of State ..	772,953	7,805	10·10

The outstanding features of the above figures are the high death rates prevailing in some of the old centres of population, of which Melbourne City, Fitzroy, Collingwood, Richmond, Prahran, South Melbourne, and Port Melbourne are examples, and the low rates in comparatively recently settled areas, such as Sandringham, Coburg, Northcote, Malvern, Caulfield, Camberwell, and Kew. The deaths for 1923 were 13·32 per 1,000 in the former as against 8·96 in the latter group. Slight differences in the age distribution of the populations of these two divisions may exist, but they can account for only a small portion of the great disparity in their mortality rates. It would appear that the standard of health, as indicated by death rates, is much better in the outlying and less densely populated suburbs than in the central and more congested areas of the metropolis.

Metropolitan and country death rates compared.

The ages of the people, as disclosed at the census of 1921, enable a comparison to be made between the death rates prevailing at that time in Greater Melbourne and in the remainder of the State. On the average of the years 1920–22, the deaths of metropolitan residents were in the ratio of 11·50 per 1,000 of population, as against a ratio of 9·42 for residents of the rest of the State. The apparent difference in favour of the country is 2·08, but a computation shows that, when allowances are made for the unequal age and sex distribution of the people in these areas, the actual difference is greater—the deaths per 1,000 of population being fewer by 2·70 among country than among metropolitan residents.

Decrease in Metropolitan death rate.

In Greater Melbourne, in the decade 1914-23, there were 12·21 deaths per 1,000 of the population, as compared with 15·76 in the decennium 1892-1901. The reduction in the rate represents a saving of 26,342 lives in the past ten years. Many factors have contributed to this result, but it is probable that the introduction of the sewerage system, the notification of contagious diseases, the improvement in the conditions of labour, the increasing supervision of the manufacture and sale of articles of consumption, the greater proportion of females in the community, and the advance of medical science, have been the main causes of the decline. That the sanitary conditions of the metropolis have greatly improved is evidenced by a comparison of the death rates from tubercular and

certain other diseases for the period 1914-23 with those for the decennium 1892-1901. The following are the rates :—

Cause of Death.	Deaths per 1,000 of Population.		
	1892-1901.	1914-23.	Decrease in 1914-23.
Pulmonary Tuberculosis ...	1·654	0·788	0·866
Other Tubercular Diseases ...	0·446	0·176	0·270
Typhoid Fever	0·293	0·027	0·266
Scarlet Fever	0·033	0·020	0·013
Measles	0·215	0·047	0·168
Diphtheria	0·196	0·144	0·052
Total	2·837	1·202	1·635

The figures show that the lower death rates from the six above-mentioned diseases in 1914-23 accounted for 46 per cent. of the total decline. It is impossible to state which municipalities have contributed most to this result, as their mortality rates from the diseases referred to are not available for the earlier period. A comparison, however, of the general death rates in each, for the periods under review, shows that all divisions of the metropolis have, in varying degrees, shared in the improvement.

Death rates in country towns.

The following table contains a statement of the death rates in the chief country towns of Victoria. The method employed in computing these—of which particulars are given on page 144—has been to allot the deaths to the usual place of residence. The urban districts of the State have been re-cast, and now embrace only the eleven principal country towns. The population, number of deaths, and deaths per 1,000 of population for each of these towns in the year 1923 were as follows :—

DEATHS PER 1,000 RESIDENTS IN COUNTRY TOWNS, 1923.

Town.	Population at end of Year.	Number of Deaths.	Deaths per 1,000 of Population.
Ballarat and Suburbs	39,960	552	13·81
Bendigo and Suburbs	33,490	474	14·15
Geelong and Suburbs	37,100	394	10·62
Carrum	6,000	71	11·83
Castlemaine and Suburbs	7,170	69	9·62
Hamilton	5,110	73	14·29
Mildura	5,550	70	12·61
Mordialloc	6,900	68	9·86
Stawell	4,600	61	13·26
Warrnambool	7,950	96	12·08
Wonthaggi	5,600	58	10·36

Residents of different areas dying in hospitals.

An examination of the particulars of residence of persons who have died in the public hospitals of Victoria during recent years reveals interesting and definite information regarding the assistance rendered by these institutions to people in different divisions of the State. For the metropolitan municipalities, the eleven principal country towns, and the remainder of the State, the percentages of the total deaths of residents thereof which occurred in public hospitals during the year 1923 were as follows :—

PROPORTION OF DEATHS OF RESIDENTS OF CERTAIN AREAS OCCURRING IN HOSPITALS, 1923.

Area.	Percentage of Deaths of Residents occurring in Hospitals, 1923.	Area.	Percentage of Deaths of Residents occurring in Hospitals, 1923.
Melbourne City	45·2	Preston Town	30·5
Fitzroy City	44·4	Coburg City	23·9
Collingwood City ..	36·1	Sandringham City ..	18·0
Richmond City	36·7	Remainder of Metropolis	23·7
Brunswick City ..	35·2	Ballarat	18·8
Northcote City	27·3	Bendigo	19·8
Prahran City	26·6	Geelong	20·8
South Melbourne City ..	34·3	Carrum	29·9
Port Melbourne City ..	37·2	Castlemaine	34·4
St. Kilda City	22·9	Hamilton	25·7
Brighton City	18·7	Mildura	47·8
Essendon City	18·9	Mordialloc	30·2
Hawthorn City	18·2	Stawell	17·2
Kew City	22·2	Warrnambool	22·0
Footscray City	30·5	Wonthaggi	43·6
Williamstown City ..	19·2	Summary—	
Oakleigh Borough ..	22·0	Greater Melbourne ..	28·0
Caulfield City	15·5	Eleven Country Towns	20·3
Malvern City	15·7	Remainder of State ..	21·4
Camberwell City ..	14·0	Whole State ..	24·9

Of the total deaths in the State 24·9 per cent. occurred in public hospitals in 1923, as against 23·3 in the previous year and 20·9 in 1910-15. The disparities in the proportions for different areas are very significant. Of the total cases of fatal illness which occurred amongst residents of the metropolitan districts mentioned in 1923, the percentage treated in public hospitals varied from 45·2 for Melbourne City, 44·4 for Fitzroy, 37·2 for Port Melbourne, and 36·1 for Collingwood, to 18.0 for Sandringham, 15·7 for Malvern, 15·5 for Caulfield, and 14·0 for Camberwell. For the whole metropolitan area the percentage was 28·0 as compared with 21·1 for the rest of the State. Taking the proportions for fatal cases as an index of all cases dealt with, it would appear that, relatively to population, the assistance rendered by public hospitals to the residents of Greater Melbourne exceeds by about 33 per cent. that given to people residing elsewhere.

Deaths in public institutions in Greater Melbourne.

In 1923 the deaths in public institutions were 31·1 per cent. of the total in the State. The number of deaths in each public institution in the metropolis in 1923 is given in the subjoined table :—

DEATHS IN PUBLIC INSTITUTIONS IN GREATER MELBOURNE, 1923.

Institution.	No. of Deaths.	Institution.	No. of Deaths.
Hospitals—		Other Public Institutions—	
Melbourne	1,051	Victorian Homes for Aged and Infirm	95
Alfred	377	Benevolent Asylum ...	181
St. Vincent's	199	Convent of the Little Sisters of the Poor	72
Homœopathic	88	Old Colonists' Homes ...	6
Austin	234	Foundling Hospital, Broadmeadows	27
Children's	541	Macleod Military Sanatorium	2
Women's	173	Depôt for Neglected Children	17
Infectious Diseases ...	100	Kew Lunatic Asylum ...	137
Queen Victoria	58	Yarra Bend Lunatic Asylum...	40
Eye and Ear	7	Mont Park Asylum ...	22
Williamstown ...	30	Receiving House — Mental Hospital	27
Caulfield Repatriation Hospital	41	The Haven	21
Police	1	Foundling Hospital, East Melbourne	...
Heatherton Sanatorium ...	88	Carlton Refuge	9
		Macleod Military Mental Asylum	6
		Anzac Hostel, Brighton ...	5
Total Hospitals ...	2,988	Total Hospitals and other Institutions	3,655

Residents of Greater Melbourne who died in public hospitals in Victoria during 1923 numbered 2,635.

Infantile mortality

The mortality of children under one year in proportion to births has been considerably less in recent than in earlier periods, but the necessity for reducing the risks to infant health and life, particularly amongst illegitimate children, is still apparent. The deaths of infants in 1923 numbered 2,358, and, as there were 35,876 births, it follows that of every 100 infants born approximately 6·57 died within twelve months. The rates for Melbourne and suburbs, the extra metropolitan area, and the whole

State, for different periods since 1880, are shown in the following table :—

INFANTILE DEATH RATES, 1881 TO 1923.

Period.	Deaths under One Year per 100 Births in—		
	Melbourne and Suburbs.	Remainder of the State.	Whole State.
1881–1890	17·14	9·50	12·68
1891–1900	13·36	9·60	11·11
1901–1905	11·26	8·45	9·58
1906–1910	9·47	6·95	8·00
1911	7·82	6·12	6·87
1912	9·02	6·05	7·45
1913	7·63	6·51	7·05
1914	8·45	7·24	7·83
1915	7·99	5·77	6·88
1916	8·56	6·29	7·46
1917	6·55	4·72	5·67
1918	7·09	5·16	6·17
1919	7·87	5·65	6·80
1920	8·41	6·21	7·38
1921	7·40	7·11	7·27
1922	5·86	4·77	5·33
1923	7·34	5·84	6·57

On the average of the past five years the infantile death rate for the metropolis was 7·38 per 100 births, which was 29 per cent. below that for the decennium ended 1910, and 45 per cent. below the rate for the decennium 1891–1900.

Infantile deaths in different areas.

The deaths of infants under 1 year of age per 100 births in Greater Melbourne, Ballarat, Bendigo, Geelong, and the rest of the State in 1923 were as follows :—

INFANTILE DEATH RATES IN DIFFERENT DIVISIONS OF THE STATE, 1923.

Division.	Deaths under One Year per 100 Births.
Melbourne and Suburbs	7·34
Ballarat and Suburbs	8·54
Bendigo and Suburbs	10·57
Geelong and Suburbs	10·01
Rest of the State	5·29
Victoria	6·57

The prejudicial effect of city surroundings on infant life is evidenced by the mortality being heavier in urban than in country districts. During 1923 the deaths of children under 1 year of age to every 1,000 births were 73 in Melbourne, 106 in Bendigo, 85 in Ballarat, and 100 in Geelong, as against 53 in the rest of the State.

Infantile death rates in metropolitan districts.

In computing birth and death rates for 1923 the system has been introduced of allotting all births and deaths to the place of usual residence of the parties. In the case of births the mother's residence is considered to be that of the child. The following table—compiled on this basis—shows for each metropolitan municipality the number of births, the deaths of infants under 1 year, and the number of such deaths per 100 births in the year 1923 :—

INFANTILE DEATH RATES FOR METROPOLITAN MUNICIPALITIES, 1923.

Municipality.	Births.	Deaths under One Year.		Municipality.	Births.	Deaths under One Year.	
		No.	Rate per 100 Births.			No.	Rate per 100 Births.
Melbourne City ..	2,011	237	11·79	Footscray City ..	1,022	68	6·65
Fitzroy City ..	805	84	10·43	Williamstown City	499	32	6·41
Collingwood City	687	64	9·32	Oakleigh Borough	235	10	4·26
Richmond City ..	898	73	8·13	Caulfield City ..	1,050	56	5·33
Brunswick City ..	1,130	85	7·52	Malvern City ..	625	31	4·96
Northcote City ..	823	49	5·95	Camberwell City	632	25	3·96
Prahran City ..	954	68	7·13	Preston Town ..	380	24	6·32
South Melb. City	951	95	9·99	Coburg City ..	553	42	7·59
Port Melb. City	305	25	8·20	Sandringham City	221	16	7·24
St. Kilda City ..	648	31	4·78	Remainder of Metropolis ..	927	51	5·50
Brighton City ..	482	22	4·56				
Essendon City ..	833	59	7·08				
Hawthorn City ..	562	32	5·69	Total Metropolitan ..	17,611	1,292	7·34
Kew City ..	378	13	3·44				

It is noticeable that the centres having the lowest infantile death rates are residential areas which are not so thickly populated as nearly all of the other metropolitan districts.

Deaths of infants at different ages.

Of the deaths of infants under 1 year in 1923, 51 per cent. occurred in the first month and 65 per cent. in the first three months of life. The annual deaths at ages under 1 month, from 1 to 3 months, from 3 to 6 months, and from 6 to 12 months, during the five years ended with 1922, and the numbers for the year 1923, are given in the following table, together with the percentage of deaths at each of those age-periods and the proportion of deaths to each 100 births :—

DEATHS OF INFANTS AT DIFFERENT AGES, 1918–22 AND 1923.

Age.	Average Annual Deaths of Infants under 1 year of Age.					
	Five Years—1918-22.			Year 1923.		
	Number.	Percentage at each Age.	Number per 100 Births.	Number.	Percentage at each Age.	Number per 100 Births.
Boys.						
Under 1 month	660	51·1	3·75	676	51·6	3·64
1 to 3 months	205	15·9	1·16	193	14·7	1·04
3 to 6 ,,	191	14·8	1·08	187	14·3	1·01
6 to 12 ,,	236	18·2	1·34	255	19·4	1·37
Total ..	1,292	100·0	7·33	1,311	100·0	7·06
Girls.						
Under 1 month	492	50·9	2·95	535	51·1	3·09
1 to 3 months	149	15·4	·90	134	12·8	·78
3 to 6 ,,	140	14·5	·84	149	14·2	·86
6 to 12 ,,	186	19·2	1·12	229	21·9	1·32
Total ..	967	100·0	5·81	1,047	100·0	6·05

Probable mortality of infants.

The experience of the years 1918–23 shows that, of every 20,000 newly-born boys and girls in equal numbers, 729 boys and 585 girls died within twelve months, and 9,271 of the former and 9,415 of the latter, or 18,686 of mixed sexes, were living at the end of the year. The corresponding numbers surviving the first year in earlier periods were 17,765 in the ten years

1891–1900 and 17,468 in 1881–1890. It is thus seen that, of every 20,000 births comprising equal numbers of each sex, there were 921 more survivors in 1917–22 than in 1891–1900, and 1,218 more than in 1881–1890.

Infantile death rates from certain causes.

An investigation of infantile mortalities would be incomplete if the diseases which have proved fatal in different years were not ascertained, and their incidence in each period compared. Information of this nature reveals the causes of high death rates, and, when a fairly early period is selected for comparison with recent years, it shows in what direction improvements have taken place. The chief preventable and non-preventable causes of death, grouped under certain headings, are shown in the subjoined table for the periods 1891–3, 1901–10, and 1911–20, and for the year 1923 :—

INFANTILE DEATH RATES FROM CERTAIN CAUSES, 1891–3, 1901–10, 1911–20, AND 1923.

Cause of Death.	Deaths under 1 year per 1,000 Births in—			
	1891-3.	1901-10.	1911-20.	1923.
Diarrhœal Diseases, all forms	29·66	24·62	16·13	14·36
Wasting Diseases (Marasmus, Atrophy, &c.)	22·24	12·74	13·09	8·67
Prematurity	13·13	14·99	15·17	17·98
Bronchitis, Broncho-pneumonia, Pneumonia	11·37	8·13	6·86	6·77
Convulsions	6·83	3·10	1·63	1·48
Congenital Defects and Malformations ...	3·45	4·86	4·38	3·76
Violence	3·16	2·47	1·07	0·81
Whooping Cough	2·60	2·52	1·82	0·33
Other causes	24·49	14·46	9·40	11·57
Total, all causes	116·93	87·89	69·55	65·73

Of every 1,000 infants born 23 died from diarrhœal and wasting diseases in 1923, as against 29 in 1911–20, 37 in 1901–10, and 52 in 1891–3—a decrease of 56 per cent. since the last mentioned period. In 1923 acute bronchitis, broncho-pneumonia and pneumonia were responsible for 6·77 deaths per 1,000 births, as compared with 11·37 in 1891–3—a decline of 40 per cent. between the two periods. Certain causes, which may be regarded as of a non-preventable nature, such as prematurity, congenital defects, and malformations, were responsible for 29 per cent. of the total infantile mortality during the past thirteen years.

Of the deaths from preventable causes 1 in every 3 is due to diarrhœal diseases, which are responsible for high death rates in December, January, February, March, and April. On the average of the last ten years, of every 1,000 children born 15 died from diarrhœal complaints within a year, a proportion which shows the necessity for further preventive measures in relation to these diseases.

The tables which follow show the number of deaths and the death rate of infants under one month for Melbourne and Suburbs and the whole State for the years 1919 to 1923, also the principal causes of death.

DEATHS OF INFANTS UNDER ONE MONTH, 1919 TO 1923.

Year.	Melbourne and Suburbs.		Victoria.	
	No. of Deaths.	Deaths per 100 Births.	No. of Deaths.	Deaths per 100 Births.
1919 ..	652	3·99	1,163	3·68
1920 ..	733	3·80	1,270	3·51
1921 ..	678	3·67	1,237	3·48
1922 ..	586	3·10	1,065	2·93
1923 ..	636	3·61	1,211	3·38

DEATHS OF INFANTS UNDER ONE MONTH FROM CERTAIN CAUSES, 1919 TO 1923.

Cause of Death.	Melbourne and Suburbs.					Victoria.				
	1919.	1920.	1921.	1922.	1923.	1919.	1920.	1921.	1922.	1923.
Diarrhœal Diseases (all forms)	17	7	11	11	11	32	18	26	22	26
Wasting Diseases (Marasmus, Atrophy, etc.)	103	120	78	81	87	203	228	182	188	166
Prematurity	308	361	322	277	326	537	583	548	485	594
Bronchitis, Broncho-Pneumonia and Pneumonia ..	16	18	23	13	33	29	33	37	19	55
Convulsions	13	11	16	31	6	22	24	37	54	27
Congenital Defects and Malformations	48	65	73	45	50	97	128	123	72	95
Violence	11	16	12	9	9	15	21	18	12	16
Syphilis	4	8	2	2	1	4	8	4	2	3
Other Causes	132	127	141	117	113	224	227	262	211	226

Legitimate and illegitimate Infantile death rates.

On the average of the past ten years, 166 in every 1,000 illegitimate infants died within a year, as against 62 in every 1,000 legitimate children. It is thus seen that the proportion of illegitimate children dying before the age of 1 year is nearly three times that of legitimate children. In the year 1923 the mortality rate of legitimate infants was 6·13 per 100 births. The children born out of wedlock during the same year numbered 1,578, and the deaths of illegitimate infants were 254, the death rate being thus 16·10 per 100 births. With the view of ascertaining the chief reasons for the marked disproportion in the mortality rates of the two classes the following table has been constructed, showing the deaths from certain causes, per 1,000 legitimate and illegitimate births, for the periods 1904–8 and 1914–22 and the year 1923 :—

DEATH RATES OF LEGITIMATE AND ILLEGITIMATE INFANTS FROM CERTAIN CAUSES.

Cause of Death.	Deaths under 1 year per 1,000 Births.					
	Legitimate.			Illegitimate.		
	1904-8.	1914-22.	1923.	1904-8.	1914-22.	1923.
Diarrhœal Diseases	19·8	13·5	13·1	72·6	47·8	41·2
Prematurity, Congenital Defects, Marasmus, &c.	30·3	30·6	28·8	52·1	68·9	64·7
Bronchitis, Broncho-pneumonia, Pneumonia	6·9	6·1	6·2	18·6	13·9	19·0
Other causes	18·3	13·0	13·2	58·7	39·3	36·1
Total, all causes	75·3	63·2	61·3	202·0	169·9	161·0

The rates for 1923 show that of every 1,000 children born out of wedlock 41·2 died from diarrhœal diseases within a year as compared with 13·1 deaths per 1,000 legitimate infants from the same cause. Owing to a larger proportion of the former children being deprived of breast food a higher mortality from these diseases might be expected among them than among legitimate infants, but the striking differences in the death rates from this cause and from the chief respiratory diseases indicate considerable neglect in the rearing of illegitimate infants.

Infantile deaths in each month from certain causes.

The influence of temperature on infantile mortality from the chief digestive and respiratory diseases is specially noticeable, whilst on deaths from other causes, particularly those of a developmental character, very little influence is apparent. The infantile deaths in Melbourne and suburbs from the two former classes of complaint in each month during the past five years are shown in the appended table :—

INFANTILE DEATHS IN EACH MONTH FROM CERTAIN CAUSES, 1919–23.

Month.	Infantile Deaths in Greater Melbourne in 1919–23 from—					
	Diarrhœal Diseases.			Respiratory Diseases.		
	Males.	Females.	Total.	Males.	Females.	Total.
January	168	129	297	22	19	41
February	117	93	210	22	13	35
March	92	85	177	15	16	31
April	76	65	141	15	18	33
May	65	69	134	32	17	49
June	32	20	52	34	32	66
July	21	13	34	58	38	96
August	16	15	31	54	40	94
September	16	6	22	51	41	92
October	16	9	25	30	23	53
November	43	22	65	28	21	49
December	101	83	184	22	24	46
Total, 1919–23 ..	763	609	1,372	383	302	685

The experience of the last five years shows that of the total infantile deaths in the metropolis from diarrhœal diseases 74 per cent. occur during the five months December to April, and of the deaths from respiratory diseases 51 per cent. occur in the four months June to September.

Infantile mortality in Australasia.

The deaths of infants under 1 year of age in the Commonwealth numbered 8,187 in 1923, as compared with 7,251 in the previous year, 8,952 in 1921, 9,431 in 1920, 8,464 in 1919, 7,364 in 1918, 7,302 in 1917, and 9,282 in 1916. The next table gives the proportion of such deaths to the total births in each

Australian State and New Zealand for each of the last twelve years, and for earlier periods back to 1891 :—

INFANTILE MORTALITY IN AUSTRALASIA.

Period.	Deaths under 1 year per 100 Births.						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	New Zealand.
1891–1900 ..	11·11	11·22	10·34	10·54	14·48	9·58	8·38
1902–6 ..	9·38	9·27	8·93	8·21	12·21	9·02	7·29
1907–11 ..	7·51	7·66	6·98	6·56	8·29	7·97	6·85
1912 ..	7·45	7·13	7·16	6·16	8·21	6·66	5·12
1913 ..	7·05	7·83	6·33	7·01	7·00	7·01	5·92
1914 ..	7·83	6·97	6·39	7·60	6·82	7·16	5·14
1915 ..	6·88	6·81	6·40	6·73	6·66	7·22	5·01
1916 ..	7·46	6·78	7·04	7·36	6·63	7·50	5·07
1917 ..	5·67	5·75	5·42	5·37	5·71	5·23	4·82
1918 ..	6·17	5·90	5·69	5·12	5·73	6·08	4·84
1919 ..	6·80	7·23	7·24	6·40	6·13	6·46	4·53
1920 ..	7·38	6·94	6·32	6·73	6·60	6·55	5·06
1921 ..	7·27	6·26	5·42	6·55	7·83	7·80	4·78
1922 ..	5·33	5·36	5·04	4·75	5·56	5·57	4·19
1923 ..	6·57	6·07	5·39	6·03	5·60	5·74	4·38

The infantile deaths per 100 births in the Australasian capitals in 1923 were as follows :—Melbourne 7·34, Sydney 6·38, Brisbane 5·95, Adelaide 6·67, Perth 6·17, Hobart 7·50, and Wellington 4·69.

Deaths of children under 5.

In 1923 the deaths of male children under 5 years of age numbered 1,696, and the deaths of female children under that age, 1,342—the former being in the proportion of 18·57 per cent., and the latter of 16·60 per cent., to the total number

of deaths of the respective sexes at all ages. The subjoined table gives the annual number of such deaths in the State at each year of age, and the proportion of the deaths under five years of age to the deaths at all ages in decennial periods from 1871 to 1920, and in the years 1921 to 1923 :—

MORTALITY OF CHILDREN UNDER FIVE YEARS.

Period.	Year of Age at Death.					Total under 5 Years.	
	0.	1.	2.	3.	4.	Number.	Proportion Per 100 Deaths at all Ages.
Males.							
1871–1880..	1,783	508	206	148	119	2,764	39·41
1881–1890..	2,158	464	161	114	92	2,989	34·28
1891–1900..	2,050	432	143	93	76	2,794	30·05
1901–1910..	1,504	249	83	59	41	1,936	22·93
1911–1920..	1,363	233	92	64	48	1,800	20·38
1921 ..	1,479	213	86	50	45	1,873	21·62
1922 ..	1,130	170	65	47	34	1,446	17·66
1923 ..	1,311	213	86	43	43	1,696	18·57
Females.							
1871–1880..	1,482	482	198	139	106	2,407	46·06
1881–1890..	1,805	423	151	105	84	2,568	39·61
1891–1900..	1,702	385	129	82	68	2,366	33·61
1901–1910..	1,192	217	81	51	40	1,581	23·58
1911–1920..	1,029	190	74	59	49	1,401	19·00
1921 ..	1,107	183	73	36	57	1,456	19·41
1922 ..	805	123	61	34	27	1,050	15·07
1923 ..	1,047	159	71	33	32	1,342	16·60

The number of persons of advanced ages was greater in the later than in the earlier years mentioned in the above table, and, as the mortality is very heavy at the older ages, this accounts to some extent for the gradual decrease in the proportion of deaths under the age of 5 years. After making allowance for this there is still a marked reduction in the mortality under 5 years of age in recent years as compared with that in periods prior to 1901.

Ages at death.

The ages of males and females who died in 1923 and in the two preceding years are shown in the following table :—

AGES AT DEATH IN VICTORIA, 1921 TO 1923.

Ages.	1921.			1922.			1923.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 ..	1,479	1,107	2,586	1,130	805	1,935	1,311	1,047	2,358
1 to 2	213	183	396	170	123	293	213	159	372
2 ,, 3	86	73	159	65	61	126	86	71	157
3 ,, 4	50	36	86	47	34	81	43	33	76
4 ,, 5	45	57	102	34	27	61	43	32	75
5 ,, 10	174	152	326	146	93	239	158	103	261
10 ,, 15	125	82	207	113	69	182	108	108	216
15 ,, 20	130	151	281	130	117	247	168	151	319
20 ,, 25	201	219	420	176	180	356	184	195	379
25 ,, 30	228	260	488	224	211	435	215	249	464
30 ,, 35	227	274	501	216	257	473	245	279	524
35 ,, 40	302	284	586	252	262	514	289	295	584
40 ,, 45	315	283	598	301	273	574	364	279	643
45 ,, 50	404	298	702	374	291	665	389	348	737
50 ,, 55	498	398	896	492	359	851	548	417	965
55 ,, 60	644	446	1,090	644	469	1,113	712	500	1,212
60 ,, 65	777	549	1,326	805	523	1,328	894	638	1,532
65 ,, 70	650	496	1,146	744	545	1,289	843	677	1,520
70 ,, 75	588	531	1,119	590	524	1,114	662	590	1,252
75 ,, 80	568	579	1,147	575	573	1,148	623	682	1,305
80 ,, 85	471	522	993	459	566	1,025	502	571	1,073
85 ,, 90	350	358	708	345	404	749	357	434	791
90 ,, 95	114	132	246	122	151	273	146	168	314
95 ..	7	9	16	10	19	29	12	21	33
96 ..	7	7	14	9	10	19	5	16	21
97 ..	2	9	11	5	8	13	5	9	14
98 ..	4	3	7	..	9	9	4	6	10
99 ..	1	4	5	1	2	3	1	2	3
100 ..	1	..	1	3	1	4	2	2	4
101 ..	..	1	1	1	..	1	..	..	..
102 ..	..	..	..	4	2	6	2	1	3
103 ..	1	..	1	..	..	..	..	..	..
104 ..	..	..	..	..	1	1	..	..	..
105 ..	..	..	..	..	..	..	..	1	1
109 ..	..	..	..	..	..	..	1	..	1
Total ..	8,662	7,503	16,165	8,187	6,969	15,156	9,135	8,084	17,219

Of the 48,540 persons who died in Victoria during the last three years 6,403 were aged 80 years and upwards, and 24—fifteen males and nine females—had attained or passed the age of 100 years.

The highest age at death recorded in the period 1921–23 was 109 years, which was attained by one man. To every 100 female deaths there were 113 male deaths in 1923, as against 117 in the previous year, 115 in 1921, and 117 in 1920.

Death rate from certain diseases.

The death rates from the chief diseases are shown in the appended table for the period 1908–12 and for the last five years :—

DEATHS PER MILLION FROM CERTAIN CAUSES.

Cause of Death.	Deaths per Million of the Population.					
	1908-1912.	1919.	1920.	1921.	1922.	1923.
Typhoid Fever	98	21	37	46	20	34
Scarlet Fever	16	24	24	12	8	11
Measles	33	17	146	4	1	48
Whooping Cough	77	24	125	63	26	12
Diphtheria and Croup	122	144	183	179	88	58
Influenza	109	2,407	52	88	46	248
Hydatids	22	18	13	14	13	10
Cancer	833	870	908	954	997	1,013
Phthisis	855	739	658	667	565	620
Other Tubercular Diseases	182	126	145	137	120	123
Syphilis	51	40	46	36	22	26
Diabetes	107	134	126	136	110	98
Anæmia, Chlorosis, Leucæmia	81	93	90	104	85	118
Simple Meningitis	133	42	54	64	68	67
Cerebro-Spinal Meningitis	..	10	10	11	8	8
Infantile Paralysis	..	2	3	3	2	1
Locomotor Ataxia and other diseases of Spinal Cord	71	78	45	52	38	49
Congestion and Hæmorrhage of the Brain	449	438	472	472	433	471
Epilepsy	35	38	31	34	27	39
Convulsions	76	55	45	47	59	45
Heart Disease (including Endocarditis, Pericarditis, and Angina Pectoris)	1,441	1,402	1,287	1,267	1,245	1,423
Acute and Chronic Bronchitis	348	284	273	222	209	233
Pneumonia and Broncho-pneumonia	834	904	801	676	746	978
Pleurisy	45	42	23	35	29	32
Congestion of Lungs and Pulmonary Apoplexy	63	51	84	59	59	45
Asthma and Pulmonary Emphysema	60	49	41	22	32	42
Enteritis, Gastro-enteritis, and Diarrhœal Diseases	833	501	639	657	358	480
Hernia, Intestinal Obstruction	113	111	118	100	107	95
Diseases of the Stomach (Cancer excepted)	99	98	106	79	81	81

DEATHS PER MILLION FROM CERTAIN CAUSES—*continued.*

Cause of Death.	Deaths per Million of the Population.					
	1908–1912.	1919.	1920.	1921.	1922.	1923.
Cirrhosis and other diseases of the Liver (Cancer excepted) ..	158	91	96	99	81	90
Biliary Calculi	27	27	31	25	20	14
Appendicitis	81	61	63	57	67	70
Simple Peritonitis (non-puerperal)..	35	31	28	24	29	34
Acute and Chronic Nephritis, Uræmia, Bright's Disease	576	510	540	516	514	501
Diseases of the Bladder and Prostate	94	88	82	57	55	68
Calculi of the Urinary System ..	7	6	6	8	4	6
Old Age	1,030	1,082	1,019	873	873	867
Suicide	102	89	95	95	81	78
Accidental Violence	531	424	451	452	393	414
Homicide	19	18	12	14	15	13

The above and other causes of death are fully dealt with in subsequent paragraphs.

Vaccinations. The proportion of successful vaccinations to every 100 births for the period 1876–1899, and for each year since, is given in the following table A great reduction in the percentage of vaccinations to births is shown for the years 1920 to 1923. This is due to a large number of persons having taken advantage of the "Conscience Clause" of the Health Act of 1919, which came into operation on 24th March, 1920.

SUCCESSFUL VACCINATIONS PER 100 BIRTHS.

Period.	Vaccinations per 100 births.	Period.	Vaccinations per 100 births.
1876–1899 ...	72	1912 ...	60
1900 ...	67	1913 ...	69
1901 ...	62	1914 ...	65
1902 ...	53	1915 ...	69
1903 ...	71	1916 ...	61
1904 ...	69	1917 ...	60
1905 ...	67	1918 ...	48
1906 ...	67	1919 ...	44
1907 ...	67	1920 ...	12
1908 ...	67	1921 ...	11
1909 ...	68	1922 ...	8
1910 ..	69	1923 ...	6
1911 ...	62		

In 1923 the vaccinations of children were equal to 6 per cent. of the births, as compared with 8 per cent. in the preceding year, 11

per cent. in 1921, 12 per cent. in 1920, 44 per cent. in 1919, 64 per cent. in the period 1900–1918, and 72 per cent. in the period 1876–1899.

Small-pox—Deaths from. Persons suffering from small-pox have arrived at Victorian ports on many occasions, but, as they were at once quarantined, the disease never spread among the people of the State. During the years 1853 to 1923 only 31 deaths occurred from this cause, and of that number only 8 took place in the last thirty-nine years of the period.

Typhoid fever. The reported cases of typhoid fever for the whole State declined from 288 per 100,000 of population in 1895–9 to 53 per 100,000 in 1914–18, and 29 per 100,000 in 1923, or by 90 per cent. in the intervening years. The death rate from the disease decreased by 85 per cent. during the same period. The deaths per 100 cases in 1923 were 11·8 as compared with 10·7 in 1914–18. The reported cases of, and deaths from typhoid fever and their proportions to the population, also the percentage of cases that ended fatally, are given in the next table for periods back to 1890 :—

TYPHOID FEVER IN VICTORIA, 1890 TO 1923.

Period.	Annual Cases Reported.		Annual Deaths.		Deaths per 100 reported Cases.
	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.	
1890–4	2,932	253·9	381	33·0	13·0
1895–9	3,397	288·4	355	30·1	10·4
1900–4	2,152	178·1	213	17·6	9·9
1905–9	1,569	125·4	135	10·8	8·6
1910–14	1,374	101·0	107	7·8	7·8
1915–19	563	39·3	60	4·2	10·6
1920	433	28·8	55	3·7	12·7
1921	532	34·6	71	4·6	13·3
1922	301	19·1	32	2·0	10·6
1923	468	29·1	55	3·4	11·8

The death rate from typhoid fever for Victoria is considerably lower than that for the Commonwealth.

Typhoid fever in the Metropolis.

The cases of, and deaths from typhoid fever in proportion to population, in Greater Melbourne, are given in the subjoined table for different periods during the past thirty-four years :—

TYPHOID FEVER IN THE METROPOLIS, 1890 TO 1923.

Period.	Annual Cases Reported.		Annual Deaths.	
	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.
1890–4	1,645	349·3	205	43·5
1895–9	1,510	327·6	156	33·8
1900–4	701	140·0	74	14·8
1905–9	466	86·7	49	9·1
1910–14	385	61·4	36	5·8
1915–19	128	18·0	19	2·7
1920	128	17.0	13	1·7
1921	119	15·1	29	3·7
1922	80	9·9	11	1·4
1923	103	12·3	13	1·6

Both the cases of, and the deaths from typhoid fever in proportion to population declined by 96 per cent. in Greater Melbourne between 1890–9 and 1923. The introduction and extension of the sewerage system coincide closely with, and in a large measure account for this great improvement.

Prevalence of typhoid fever in different areas.

The number of cases of typhoid fever during each of the last five years in five divisions of the State, and their proportions to the respective populations for the period 1910–19 and the years 1922 and 1923, are given in the following table :—

PREVALENCE OF TYPHOID FEVER.

Area.	Reported Cases of Typhoid Fever.					Annual Cases per 10,000 of Population.		
	1919.	1920.	1921.	1922.	1923.	1910–19.	1922.	1923.
Greater Melbourne ..	64	128	119	80	103	4·1	1·0	1·2
Ballarat and Suburbs	16	12	52	22	20	13·4	5·6	5·0
Bendigo and Suburbs	11	9	24	38	16	18·2	11·4	4·8
Geelong and Suburbs	5	10	35	7	3	9·0	1·9	0·8
Rest of the State ..	167	274	302	154	326	8·9	2·3	4·9

The cases in proportion to population were fewer by 71 per cent. in Greater Melbourne, 63 per cent. in Ballarat, 74 per cent. in Bendigo, 91 per cent. in Geelong, and 45 per cent. in the rest of the State in 1923 than in the period 1910–19.

Death rates from typhoid fever at different ages.

The mortality from typhoid fever is higher at early adult and middle ages than at other periods of life, and higher among males than females. This is shown in the next table, which gives the death rates in age groups for each sex in the years 1900-2, 1910–12, and 1920-22, being the years adjoining the censuses of 1901, 1911, and 1921 :—

DEATH RATES FROM TYPHOID FEVER, 1900-2, 1910–12, AND 1920–22.

Age Group.	Deaths per 10,000 of each Sex.					
	Males.			Females.		
	1900–2.	1910–12.	1920–22.	1900–2.	1910–12.	1920–22.
0–15	0·97	0·38	0·12	1·46	0·44	0·28
15–20	2·65	1·76	0·40	2·23	1·22	0·46
20–25	4·39	1·82	0·97	1·84	1·32	0·54
25–35	3·28	1·71	0·41	2·04	0·82	0·38
35–45	2·25	1·26	0·45	1·21	0·68	0·36
45–55	1·95	0·82	0·54	0·93	0·39	0·20
55–65	0·66	0·20	0·42	0·34	0·50	0·16
65 and over ..	..	0·10	0·10	0·23	0·19	0·09
All ages	1·95	1·00	0·37	1·49	0·69	0·32

The experience of the three census periods mentioned shows that the rate for males exceeds that for females by 33 per cent., and that the heaviest mortality occurs between the ages 15 and 35. It is notable that at each census period there were proportionately fewer deaths of boys than of girls under the age of 15.

Scarlet fever.

In 1923 the deaths from scarlet fever numbered 18, which corresponded to a rate of 11 per million of the population, as compared with rates of 8 in 1922, 12 in 1921, 24 in 1920 and 1919, and 34 in 1890-2. During 1923 there were 1,730 cases reported, as against 1,972 in the previous year, 2,816 in 1921,

2,259 in 1920, and 1,763 in 1919. For the five years mentioned the deaths were equal to 1·1 per cent. of the cases. According to the experience of the past ten years the chance of dying from the disease is 62 per cent. greater for females than for males.

Measles.

Although the mortality from measles has varied very considerably from period to period, there has been no very severe epidemic outbreak since 1898, when 671 deaths resulted from the disease. In 1923 there were 77 deaths attributed to this cause, representing a rate of 48 per million of the population, as compared with rates of ·6 in the previous year, 4 in 1921, 146 in 1920, 17 in 1919, 5 in 1918, 11 in 1917, 13 in 1916, 22 in 1915, 74 in 1914, and 32 in 1913.

On the average of the five years 1919 to 1923, 53 per cent. of those who died from the disease were under 2 years of age and 75 per cent. were under 5 years. The incidence of mortality at various ages for each sex for the period 1919–23 was as follows :—

Sex.	Annual Deaths from Measles per 10,000 of each Sex aged—									
	0 to 1.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 and over.	All Ages.
Males	4·17	7·64	2·83	1·69	0·87	0·75	0·06	0·06	0·02	0·46
Females	2·34	7·87	2·35	1·50	0·52	0·57	0·23	0·03	0·06	0·40

Whooping cough.

Whooping cough was responsible for 19 deaths in 1923, which equalled a rate of 12 per million of the population at all ages, as compared with rates of 26 in the previous year, 63 in 1921, 125 in 1920, 24 in 1919, 47 in 1918, 51 in 1917, 84 in 1916, 68 in 1915, 69 in 1914, and 71 in 1913. The infantile death rate is more affected than the general rate by this ailment, as it is practically confined to children. In the year under review 12 of the deaths were of infants under 1 year, and all the deaths were of children less than 5 years of age. On the average of the past ten years the mortality rate from the disease was 27 per cent. higher among girls than boys.

Diphtheria. The prevalence of diphtheria throughout the State during the past ten years was an unsatisfactory feature of the statistics of sickness relating to that period. For the year 1923 the number of cases was 3,467 as against 5,323 in 1922, 9,458 in 1921, and a yearly average of 5,161 in 1911–20, 1,410 in 1905–9, 1,680 in 1900–4, and 1,584 in 1895–9. On the other hand, a very great reduction took place from period to period in the proportion of cases which ended fatally. The case mortality rate was 2·7 per cent. in 1923, as compared with 4·6 per cent. in 1912–16, 6·3 per cent. in 1905–9, 9·5 per cent. in 1900–4, and 13·9 per cent. in 1895–9.

The appended table shows for the whole State and the metropolis the reported cases of and deaths from diphtheria, and their proportions to the population, also the ratios of deaths to cases for different periods since 1894 :—

DIPHTHERIA IN VICTORIA AND GREATER MELBOURNE, 1895 TO 1923.

Period.	Annual Cases Reported.		Annual Deaths.		Deaths per 100 Cases Reported.
	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.	
VICTORIA.					
1895–9	1,584	134·6	221	18·8	13·9
1900–4	1,680	139·0	159	13·2	9·5
1905–9	1,410	112·6	89	7·1	6·3
1910–14	4,612	339·1	212	15·6	4·6
1915–19	4,901	342·5	209	14·6	4·3
1920	6,458	429·2	276	18·3	4·3
1921	9,458	615·2	275	17·9	2·9
1922	5,323	338·8	138	8·8	2·6
1923	3,467	215·6	94	5·8	2·7
GREATER MELBOURNE.					
1895–9	748	162·1	113	24·6	15·1
1900–4	686	136·9	58	11·6	8·5
1905–9	758	140·8	46	8·5	6·1
1910–14	2,343	374·3	114	18·3	4·9
1915–19	2,864	402·6	127	17·9	4·4
1920	2,698	357·5	117	15·5	4·3
1921	3.724	473·2	104	13·2	2·8
1922	2,213	274·6	53	6·6	2·4
1923	1,900	227·6	50	6·0	2·6

Prevalence of diphtheria in different areas. The cases of diphtheria which occurred in five divisions of the State in each of the past five years and their proportions to the respective populations, for the period 1910–19 and the years 1922 and 1923, are given in the subjoined table :—

CASES OF DIPHTHERIA IN DIFFERENT AREAS.

Area.	Reported Cases of Diphtheria.					Annual Cases per 10,000 of Population.		
	1919.	1920.	1921.	1922.	1923.	1910–19.	1922.	1923.
Greater Melbourne ..	2,350	2,698	3,724	2,213	1,900	39·3	27·5	22·8
Ballarat and Suburbs	63	330	307	111	90	24·3	28·2	22·5
Bendigo and Suburbs	136	428	521	215	91	84·6	64·3	27·2
Geelong and Suburbs	165	369	405	200	98	43·4	54·9	26·4
Rest of the State ..	1,293	2,633	4,501	2,584	1,288	25·7	39·4	19·4

In 1923, the cases in each division of the State were considerably fewer than in the preceding year.

Death rates from diphtheria at various ages. Of the 488 males and 506 females who died from diphtheria during the five years 1919–23, 850, or 86 per cent., were under 10 years of age. The incidence of mortality for each sex at different ages, for the period mentioned, was as follows :—

DEATH RATES FROM DIPHTHERIA AT DIFFERENT AGES, 1919–23.

Sex.	Annual Deaths from Diphtheria per 10,000 of each Sex aged—									
	0 to 1.	1 to 2.	2 to 3.	3 to 4.	4 to 5.	5 to 10.	10 to 15.	15 to 20.	20 and over.	All Ages.
Males..	5·08	9·09	9·28	7·67	6·23	3·67	0·83	0·33	0·07	1·29
Females	3·86	6·65	6·09	6·56	7·10	4·91	0·96	0·62	0·13	1·30

Hydatids. The deaths attributed to hydatids in 1923 numbered 16, being equivalent to a rate of 10 per million of the population, as compared with rates of 13 in the preceding year, 14 in 1921, 13 in 1920, 18 in 1919, 21 in 1918, 14 in 1917, 21 in 1916, 18 in 1915, 22 in 1908–12, and 51 in 1890–2. According to the experience of the past ten years the death rate from this disease is 31 per cent. higher among males than females. Hospital returns for the period 1914–23 show that 678 cases of hydatids were treated therein and that 97, or 1 in every 7, ended fatally.

Anæmia, chlorosis, leucæmia.

Anæmia, chlorosis, and leucæmia were responsible for 190 deaths in 1923, which corresponded to a rate of 118 per million of the population, as against rates of 85 in the previous year, 104 in 1921, 90 in 1920, 93 in 1919, 90 in 1918, 97 in 1917, 94 in 1916, 83 in 1915, 100 in 1914, 76 in 1913, and 81 in 1908–12. Of the 37 persons who died from leucæmia in 1923, 19 were males.

Diabetes.

During 1923 diabetes was responsible for 59 male and 99 female deaths, representing a rate of 98 per million of the population, as compared with rates of 110 in the preceding year, 136 in 1921, 126 in 1920, 134 in 1919, 146 in 1918, 120 in 1917, 128 in 1916, 114 in 1915, 119 in 1914, 91 in 1913, and 107 in 1908–12. The deaths from diabetes per 10,000 of each sex in nine age groups, for the periods 1900–2, 1910–12, and 1920–22, are shown in the subjoined table :—

DEATHS FROM DIABETES PER 10,000 OF EACH SEX.

Age Group.	Deaths per 10,000 of each Sex.					
	Males.			Females.		
	1900–2.	1910–12.	1920–22.	1900–2.	1910–12.	1920–22.
0–10	·09	·10	·13	·05	·15	·22
10–20	·24	·20	·31	·26	·36	·39
20–30	·17	·64	·48	·36	·30	·53
30–40	·32	·58	·45	·51	·53	·54
40–50	·49	1·11	·95	·42	·78	1·11
50–60	1·38	1·80	2·14	1·42	3·18	2·79
60–70	2·67	5·63	5·19	3·19	8·47	8·02
70–80	4·36	7·34	7·37	5·01	11·54	12·51
80 and over	4·11	7·43	8·42	3·54	6·83	6·02
All Ages ...	·56	1·00	1·03	·60	1·26	1·45

In 1920–22 the female exceeded the male rate for each age group between 40 and 80, the excess for the twenty years of life 60 to 80 amounting to 61 per cent. For all ages combined the rate for females was 41 per cent. higher than that for males.

Influenza.

The deaths from influenza in 1923 numbered 398, which corresponded to a rate of 248 per million of the population, as compared with rates of 46 in the previous year, 88 in 1921, 52 in 1920, 2,407 in 1919, 148 in 1918, 71 in 1913–17, 109 in 1908–12, and 381 in 1890–92.

In 1923, 56 per cent. of the deaths recorded were associated with specified pneumonic complications.

With the exception of the 1919 epidemic, when 72 per cent. of the deaths were of persons between 20 and 50 years of age, influenza has always proved more fatal to elderly people than to those at middle or young ages.

The next table gives the death rate per 10,000 of each sex in age groups for the last five census periods:—

DEATHS FROM INFLUENZA IN VICTORIA PER 10,000 OF EACH SEX.

Age Group.	1880-2.	1890-2.	1900-2.	1910-12.	1920-22.
Males.					
0—15	·34	2·50	1·10	·40	·23
15—20	·07	·64	·34	·24	·30
20—25	...	1·20	·59	·21	·38
25—35	·07	1·50	·79	·17	·27
35—45	...	3·04	1·31	·59	·56
45—55	·24	5·12	3·20	·73	·92
55—65	·24	12·65	5·25	2·38	1·44
65 and upwards	2·36	27·13	17·02	12·27	4·18
All ages	·25	3·94	2·30	1·10	·65
Females.					
0—15	·34	1·86	1·15	·42	·25
15—20	...	·92	·83	·34	·26
20—25	...	1·28	·69	·35	·35
25—35	·07	2·35	·89	·22	·45
35—45	·08	4·11	1·86	·30	·46
45—55	...	5·39	2·02	·68	·68
55—65	·62	11·46	5·53	1·61	·91
65 and upwards	3·18	35·22	16·02	12·80	3·86
All ages	·24	3·72	2·13	1·10	·60

Influenza epidemic, 1919.

Information in regard to the epidemic of 1919 is given in the *Year-Book* for 1918–19, pages 214–216; and in the 1919–20 issue, pages 180–182.

Respiratory diseases.

In 1923 the deaths from respiratory diseases numbered 2,316, which represented a rate of 1,441 per million of the population, as compared with rates of 1,195 in the previous year, 1,141 in 1921, 1,329 in 1920, 1,430 in 1919, 1,160 in 1918, 1,094 in 1917, 1,336 in 1916, 1,368 in 1915, and 1,397 in 1914. Of the deaths from complaints of this nature in the year under review, 71 were referred to acute bronchitis, 111 to chronic bronchitis, 192 to bronchitis unspecified, 595 to broncho-pneumonia, 977 to pneumonia, 51 to

pleurisy, and 63 to asthma. These six diseases accounted for 89 per cent. of the total respiratory mortality. The seasonal incidence of the maladies is evidenced by the deaths in June, July, August, and September, which represented 46 per cent. of the total for the whole year. Respiratory diseases are much more fatal at the extremes of life than at middle ages, and among males than females. This is shown in the appended table, which gives for each sex the death rates relating to groups of ages at five census periods :—

DEATHS FROM RESPIRATORY DISEASES PER 10,000 OF EACH SEX.

Age Group.	1880–2.	1890–2.	1900–2.	1910–12.	1920–22.
Males.					
0—15	29·02	28·52	16·53	12·94	10·25
15—20	3·30	2·92	2·70	1·66	1·76
20—25	5·34	4·88	4·85	2·35	2·73
25—35	8·31	6·85	5·94	3·86	3·71
35—45	15·80	13·55	9·49	10·50	8·01
45—55	26·59	25·18	18·04	18·25	15·69
55—65	51·65	56·51	38·37	32·68	30·42
65 and upwards	136·54	141·07	112·38	138·87	112·17
All ages	24·48	24·30	18·66	17·17	14·42
Females.					
0—15	24·18	24·13	13·85	10·50	8·54
15—20	2·02	3·52	2·34	1·56	2·32
20—25	4·23	3·05	3·34	2·48	1·72
25—35	5·72	5·65	3·75	3·55	3·25
35—45	12·53	11·55	7·68	5·85	4·90
45—55	13·63	17·01	11·80	8·28	6·71
55—65	29·15	32·10	27·42	16·64	13·50
65 and upwards	116·12	112·38	86·78	99·81	86·51
All ages	17·08	17·62	13·28	11·81	10·15

The mortality from respiratory diseases at all ages combined was less in the period 1920–22 than in any of the four previous census periods. At each census date the male exceeded the female rate, the average excess for the five census periods being 42 per cent.

Cerebro-spinal, tubercular, and simple meningitis.

Cerebro-spinal meningitis was responsible for 13 deaths in 1923, 12 in 1922, 17 in 1921, 15 in 1920, 14 in 1919, 37 in 1918, 75 in 1917, 326 in 1916, and 338 in 1915. The cases reported to the Public Health Department in those years numbered 1693, and the proportion of these that ended fatally was 50 per cent.

The numbers of deaths from cerebro-spinal, tubercular, and simple meningitis during the last ten years were as follows :—

DEATHS FROM DIFFERENT FORMS OF MENINGITIS, 1914–23.

Year.	Cerebro-spinal Meningitis.		Tubercular Meningitis.		Simple Meningitis.		Total—All Forms of Meningitis.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
1914 ..	12	5	42	30	89	63	143	98
1915 ..	239	99	35	35	74	46	348	180
1916 ..	191	135	29	40	56	39	276	214
1917 ..	48	27	56	41	37	35	141	103
1918 ..	28	9	55	40	39	35	122	84
1919 ..	7	7	38	24	33	29	78	60
1920 ..	12	3	49	34	46	35	107	72
1921 ..	8	9	42	44	62	37	112	90
1922 ..	9	3	30	28	67	40	106	71
1923 ..	7	6	32	34	64	43	103	83

Age incidence of different forms of meningitis.

The next table shows the incidence of mortality at various ages from different forms of meningitis for the period 1914–23 :—

DEATHS AT DIFFERENT AGES FROM MENINGITIS, 1914–23.

Age Group.	Cerebro-spinal Meningitis.		Tubercular Meningitis.		Simple Meningitis.		Total—All Forms of Meningitis.	
	Males.	Females.	Males.	Females.	Males.	Females.	Males.	Females.
Under 5 ..	136	98	233	181	316	227	685	506
5 to 15 ..	69	57	87	79	68	50	224	186
15 ,, 25 ..	159	51	34	50	43	44	236	145
25 ,, 35 ..	77	26	28	19	26	18	131	63
35 ,, 45 ..	49	24	17	11	33	24	99	59
45 ,, 55 ..	48	28	4	8	43	17	95	53
55 ,, 65 ..	16	12	3	1	19	9	38	22
65 and over	7	7	2	1	19	13	28	21
Total 1914–23	561	303	408	350	567	402	1,536	1,055

On the average of the last ten years the deaths of children under 5 years of age from cerebro-spinal, tubercular, and simple meningitis represented 27, 55, and 56 per cent. respectively of the total deaths from these diseases. Of the 13 persons who succumbed to cerebro-spinal meningitis in 1923, 7 were under 5 and 10 were under 15 years of age. Up to the age of 15 years the incidence of the mortality from this disease in the period 1914–23 was 32 per cent. higher for males than for females, while for the age group 15 to 45 the rate for the former was about three times that for the latter.

Diseases of the spine. In 1923 locomotor ataxia and other diseases of the spine, excluding infantile paralysis, accounted for 52 male and 27 female deaths, representing a death rate of 49 per million of the population, as compared with rates of 38 in the previous year, 52 in 1921, 45 in 1920, 78 in 1919, 88 in 1918, 58 in 1917, 70 in 1916, 58 in 1915, 75 in 1914, 62 in 1913, and 71 in 1908–12. Of the 22 persons who died from locomotor ataxia 21 were males.

Infantile paralysis. Mortality returns show that infantile paralysis was responsible for 2 deaths in 1923 as against 3 in the previous year, 4 in 1921, 4 in 1920, 3 in 1919, 21 in 1918, 6 in 1917, 4 in 1916, 2 in 1915, 9 in 1914, 3 in 1913, and 6 in 1912. Of the 67 persons who died during these twelve years 40 were boys. Seven of the victims were under 1 year of age, and 33 were under 5 years. The cases reported to the Public Health Department in 1923 numbered 7, as compared with 23 in the preceding year, 27 in 1921, 5 in 1920, 2 in 1919, 303 in 1918, and 32 in 1917.

Heart disease. During 1923 there were 1,785 deaths ascribed to organic heart disease, 40 to pericarditis, 385 to endocarditis and acute myocarditis, and 78 to angina pectoris. The total—2,288—from these causes represented a rate of 1,423 per million of the population, as compared with 1,245 in the previous year, 1,267 in 1921, 1,287 in 1920, 1,402 in 1919, 1,400 in 1918, 1,442 in 1917, 1,287 in 1916, 1,134 in 1915, 1,278 in 1914, 1,294 in 1913, and 1,441 in 1908–12. Of the 1,956 persons who died from these diseases in 1923, only 59, or 2·6 per cent., were under 15 years of age. On the average of the three years 1920 to 1922 the deaths from all forms of heart disease per 10,000 of each sex, in age groups, were as follows :—

DEATH RATES FROM HEART DISEASE AT VARIOUS AGES, 1920–22.

Sex.	Deaths per 10,000 Persons aged—									
	0–15.	15–20.	20–25.	25–35.	35–45.	45–55.	55–65.	65–75.	75 and upwards.	All Ages.
Males ..	1·52	1·92	2·04	2·64	5·40	14·52	40·62	112·20	247·10	13·74
Females ..	1·15	1·85	1·53	3·25	5·26	10·73	29·53	85·65	208·17	11·70

The figures indicate that the mortality rate from heart disease is a function of age, and that it attains its maximum at the oldest age. Of the deaths of persons aged 75 and upwards, approximately 1 in 5 is due to some form of this disease.

Diseases of the digestive system. In 1923 there were 795 male and 675 female deaths from digestive ailments, representing a proportion of 914 per million of the population, as against rates of 796 in the previous year, 1,095 in 1921, 1,147 in 1920, 978 in 1919, 1,030 in 1918, 884 in 1917, 1,206 in 1916, 1,098 in 1915, 1,504 in 1914, 1,220 in

1913, 1,345 in 1912, 1,233 in 1911, and 2,382 in 1890–2. Diarrhœal diseases were responsible for 771 deaths, which were equivalent to a rate of 480 per million of population, the corresponding rates in previous periods being 358 in 1922, 657 in 1921, 639 in 1920, 501 in 1919, 504 in 1918, 408 in 1917, 731 in 1916, 590 in 1915, 941 in 1914, 709 in 1913, 833 in 1908–12, and 1,342 in 1890–2. The age incidence of these diseases shows that they are heaviest at the extremes of life. Of the 771 deaths from diarrhœal diseases in the year under review, 616, or 80 per cent., were of children under 2 years of age, and 61, or about 8 per cent., were of persons over 65 years of age. There were 45 male and 35 female deaths from cirrhosis of the liver, 48 male and 58 female deaths from other affections of that organ, and 84 male and 68 female deaths from hernia and intestinal obstruction.

Appendicitis. The deaths from appendicitis numbered 112 in 1923, 105 in the previous year, 88 in 1921, 95 in 1920, 89 in 1919, 94 in 1918, 87 in 1917, 78 in 1916, 102 in 1915, and 103 in 1914, and corresponded to rates of 70, 67, 57, 63, 61, 66, 62, 55, 72, and 72 per million of the population respectively. Hospital records show that during 1923 there were 2,077 cases treated, and that 43, or 2·1 per cent., ended fatally, as compared with fatality rates of 2·6 per cent. in 1922, 2·2 per cent. in 1921, 2·7 per cent. in 1920, 3·3 per cent. in 1919, 3·0 per cent. in 1918, 2·5 per cent. in 1917, 4·1 per cent. in 1916, 5·3 per cent. in 1915, and 6 per cent. in the period 1908–12. According to the experience of the three years 1920 to 1922 the death rate from appendicitis is approximately 63 per cent. higher among males than females. The mortality rates at various ages for that period were as follows :—

DEATH RATES FROM APPENDICITIS, 1920–22.

Sex.	Deaths from Appendicitis per 10,000 of each Sex aged—									
	Under 10.	10 to 15.	15 to 20.	20 to 25.	25 to 35.	35 to 45.	45 to 55.	55 to 65.	65 and over.	All Ages.
Males..	0·31	0·87	1·31	0·86	0·74	1·08	0·79	0·85	0·68	0·78
Females	0·30	0·66	0·51	0·59	0·53	0·56	0·40	0·32	0·69	0·48

Diseases of urinary system. In 1923 there were 1,009 deaths attributed to diseases of the urinary system, which corresponded to a rate of 628 per million of the population, as against rates of 624 in the previous year, 643 in 1921, 697 in 1920, 645 in 1919, 741 in 1918, 710 in 1917, 705 in 1916, 712 in 1915, 670 in 1914, 724 in 1913, and 700 in1909–12. Acute and chronic nephritis were responsible for 806 deaths, or 80 per cent., and complaints of the bladder and prostate for 110 deaths, or 11 per cent. of the total referred to maladies of the urinary system. The deaths per 10,000 of each sex, in age groups,

for the periods 1900–2, 1910–12, and 1920–22 are shown in the following table :—

DEATH RATES FROM DISEASES OF URINARY SYSTEM.

Age Group.	Deaths per 10,000 of each Sex.					
	Males.			Females.		
	1900–2.	1910–12.	1920–22.	1900–2.	1910–12.	1920–22.
0–10	·93	·67	·67	·59	·79	·67
10–20	·45	·73	·53	·82	·71	·52
20–30	1·83	1·72	1·23	1·59	1·61	1·72
30–40	3·55	3·03	2·66	4·21	3·76	2·89
40–50	8·12	9·03	6·23	7·26	7·07	5·27
50–60	17·43	18·95	14·59	11·36	13·81	10·57
60–70	39·62	46·63	38·30	21·49	24·44	22·04
70–80	80·68	96·18	97·19	27·70	38·53	40·26
80 and over	128·48	153·04	167·09	27·15	43·70	54·38
All Ages ...	8·05	9·18	8·04	4·28	5·34	5·13

The figures for the latest period show that there is scarcely any difference between the rates for males and females under 50 years of age. For older ages, however, the excess of the male over the female rate is very pronounced, especially at ages 70 and upwards. For all ages the rate for males exceeds that for females by 57 per cent.

Deaths from phthisis at various ages.

The ages and sexes of those who died from pulmonary tuberculosis in each of the last five years are given in the next table :—

DEATHS FROM PULMONARY TUBERCULOSIS AT VARIOUS AGES.

Age Group.	Males.					Females.				
	Year.					Year.				
	1919.	1920.	1921.	1922.	1923.	1919.	1920.	1921.	1922.	1923.
0–10 ...	5	12	3	6	4	3	6	2	5	3
10–15 ..	2	3	3	2	...	4	6	3	4	11
15–20 ...	22	17	16	20	20	43	33	27	34	42
20–25 ...	58	47	56	44	54	83	67	71	69	64
25–30 ...	77	64	64	59	67	75	76	79	57	77
30–35 ...	80	65	51	53	61	54	55	62	71	51
35–40 ...	72	57	68	47	63	54	45	54	45	53
40–45 ...	65	60	70	55	84	32	42	53	41	35
45–50 ...	68	70	69	42	51	35	26	34	27	31
50–55 ..	65	58	46	49	42	20	21	22	17	13
55–60 ...	67	46	42	43	38	16	15	20	16	25
60–65 ...	31	39	40	35	44	11	13	22	6	16
65–70 ..	17	16	18	20	19	6	6	8	7	8
70 and over	10	16	13	6	11	9	9	9	7	10
Total ...	639	570	559	481	558	445	420	466	406	439

Death rates from phthisis.

The deaths from phthisis in 1923 numbered 997—558 being of males and 439 of females—and equalled a rate of 620 per million of the population, as compared with rates of 565 in the previous year, 667 in 1921, 658 in 1920, 739 in 1919, 701 in 1918, 677 in 1917, 743 in 1916, 661 in 1915, 724 in 1914, 755 in 1913, 855 in 1908–12, and 1,365 in 1890–2. In England, Scotland, Northern Ireland, and the Irish Free State in 1922, the deaths from this cause were 890, 830, 1,260 and 1,150 per million of their respective populations. The rates for Victoria are more fully shown in the following table, which gives the mortality per 10,000 of each sex, in age groups, at six census periods :—

DEATH RATES IN VICTORIA FROM PHTHISIS IN AGE GROUPS AT SIX CENSUS PERIODS.

Age Group.	Annual Mortality from Phthisis per 10,000 of each Sex.					
	1870–2.	1880–2.	1890–2.	1900–2.	1910–12.	1920–22.
Males.						
0 to 15	1·22	1·74	·90	·38	·46	·42
15 " 20	5·71	6·88	5·41	5·06	3·71	2·67
20 " 25	18·75	21·19	18·29	14·35	8·45	7·88
25 " 35	22·21	30·33	23·70	20·31	13·11	9·70
35 " 45	21·83	25·11	28·28	22·07	15·63	12·43
45 " 55	22·24	28·65	31·17	25·05	18·07	13·94
55 " 65	27·86	31·41	36·48	35·75	18·88	13·03
65 and upwards ...	19·56	18·08	25·40	31·07	13·55	8·65
All Ages ...	12·89	15·33	15·73	13·51	8·98	7·11
Females.						
0 to 15	·98	1·76	1·43	·93	·97	·38
15 " 20	12·37	12·50	9·51	8·18	7·62	4·84
20 " 25	19·28	21·00	18·49	12·79	12·68	10·20
25 " 35	22·02	26·56	21·77	18·15	14·03	10·00
35 " 45	21·65	24·06	22·53	17·74	11·51	9·15
45 " 55	19·60	20·72	16·13	14·41	8·18	5·91
55 " 65	10·51	14·26	12·35	12·52	7·47	4·95
65 and upwards ...	12·61	13·12	8·25	8·18	5·29	3·94
All Ages ...	10·62	12·75	11·51	9·72	7·61	5·55

A comparison of the mortalities from pulmonary tuberculosis at the census periods 1910–12 and 1920–22 shows that lower death rates obtained in each age group in 1920–22 than in 1910–12, and that the improvement was greater among females than males. By combining the death rates from pulmonary tuberculosis, as shown above, with those from other forms of tubercular disease, given in a subsequent page, it appears that every section of the community

experienced relief from tubercular diseases in 1920–22 as compared with the previous census period.

Tubercular death rates in Melbourne, Ballarat, and Bendigo.

The distribution of tuberculous mortality shows that certain urban centres—particularly Bendigo and suburbs—furnish considerably higher death rates than the rural portions of the State. The tubercular death rate amongst miners is very considerably in excess of that among farmers and graziers, and, as mining occupations predominate in Bendigo and suburbs and farming and grazing occupations in the rural districts, the distribution of callings accounts in a large measure for the disparity in the mortality rates from this cause in the divisions of the State referred to. On the average of the past five years the tubercular death rate of Bendigo exceeded the rates of Ballarat and Melbourne by 53 and 66 per cent. respectively. The rates in these localities from phthisis and other tubercular diseases are given in the appended table for the periods 1891–1900, 1901–5, and 1906–10, and each of the last thirteen years :—

DEATH RATES FROM TUBERCULAR DISEASES IN MELBOURNE, BALLARAT, AND BENDIGO, 1891 TO 1923.

Period.	Deaths per 10,000 of the Population.								
	Phthisis.			Other Tubercular Diseases.			All Tubercular Diseases.		
	Melbourne and Suburbs.	Ballarat and Suburbs.	Bendigo and Suburbs.	Melbourne and Suburbs.	Ballarat and Suburbs.	Bendigo and Suburbs.	Melbourne and Suburbs.	Ballarat and Suburbs.	Bendigo and Suburbs.
1891–1900 ..	16·7	17·1	24·1	4·7	3·5	4·0	21·4	20·6	28·1
1901–1905 ..	13·9	15·3	22·7	4·2	4·0	4·7	18·1	19·3	27·4
1906–1910 ..	10·8	11·5	21·2	3·0	2·1	2·0	13·8	13·6	23·2
1911 ..	9·9	9·4	19·5	2·6	3·3	2·5	12·5	12·7	22·0
1912 ..	10·0	10·0	17·7	2·0	1·7	2·1	12·0	11·7	19·8
1913 ..	8·8	10·9	20·0	2·2	2·8	2·3	11·0	13·7	22·3
1914 ..	8·9	11·2	11·8	2·0	·9	1·0	10·9	12·1	12·8
1915 ..	7·7	10·2	13·6	1·7	2·1	2·4	9·4	12·3	16·0
1916 ..	8·6	14·3	14·2	1·8	1·5	1·4	10·4	15·8	15·6
1917 ..	7·9	10·9	16·8	2·2	1·7	2·2	10·1	12·6	19·0
1918 ..	8·3	9·2	17·4	1·8	1·3	3·1	10·1	10·5	20·5
1919 ..	8·7	10·8	14·7	1·7	1·0	2·0	10·4	11·8	16·7
1920 ..	7·9	10·6	17·1	1·9	2·0	1·2	9·8	12·6	18·3
1921 ..	8·1	7·0	14·2	1·9	1·3	2·1	10·0	8·3	16·3
1922 ..	6·7	8·1	11·4	1·5	·3	2·7	8·2	8·4	14·1
1923 ..	6·9	7·3	9·9	1·4	2·3	2·1	8·3	9·6	12·0

Prevalence of phthisis in different areas.

Relatively to population cases of pulmonary tuberculosis are fewer in country districts than in urban areas. The cases reported during each of the past five years in five divisions of the State, and their proportions to the populations of these divisions for the period 1910–19 and the years 1922 and 1923 are given in the subjoined table :—

PHTHISIS IN DIFFERENT AREAS.

Area.	Reported Cases of Pulmonary Tuberculosis.					Annual Cases per 10,000 of Population.		
	1919.	1920.	1921.	1922.	1923.	1910–19.	1922.	1923.
Greater Melbourne ..	889	653	878	783	750	13·9	9·7	9·0
Ballarat and Suburbs	28	21	36	31	27	12·8	7·9	6·8
Bendigo and Suburbs	31	21	45	52	47	18·0	15·6	14·0
Geelong and Suburbs	24	16	19	10	19	7·9	2·7	5·1
Rest of the State ..	213	211	324	282	245	5·8	4·3	3·7
Whole State ..	1,185	922	1,302	1,158	1,088	10·4	7·4	6·8

Phthisis in metropolitan municipalities.

In the *Year-Book* for 1918–19, page 226, a table is given showing the reported cases of phthisis in every 10,000 of the population of each metropolitan municipality. The rates are based on the reports received by the Public Health Depart ment for the two and one-half years ended 30th June, 1911.

Other phases of phthisis.

The results of an investigation of 3,198 cases of pul monary tuberculosis which occurred in the State during the two and a half years ended June, 1911, are given in the 1913–14 edition of this work. The matters dealt with are the sex and age of the patients, their usual place of residence, the chances of metropolitan and extra metropolitan residents contracting the disease at different ages, the time elapsing from the commencement of the complaint to the date on which medical advice is obtained, and the probability of recovering from the disease. In the issue referred to the medical and economic results of sanatorium treatment of tuberculosis of the lungs in Germany are shown for a series of years.

Tubercular diseases (phthisis excepted).

In 1923 there were in Victoria 193 deaths from tubercular diseases (excluding phthisis), which corresponded to a rate of 123 per million, as compared with rates of 120 in the previous year, 137 in 1921, 145 in 1920, 126 in 1919, 144 in 1918, 163 in 1917, 136 in 1916, 135 in 1915, 140 in 1914, 156 in 1913,

182 in 1908–12, and 379 in 1890–2. The death rates in various age groups are shown in the following table for five census periods :—

DEATH RATES FROM TUBERCULAR DISEASES (PHTHISIS EXCEPTED) IN AGE GROUPS.

Age Group.	Deaths per 10,000 of each Sex.				
	1880-2.	1890-2.	1900-2.	1910-12.	1920-22.
Males.					
0—15 ...	7·98	10·36	5·64	2·75	2·00
15—20 ...	·81	1·17	1·12	1·12	·83
20—25 ...	1·23	·89	1·77	1·23	1·55
25—35 ...	·66	·84	1·91	1·71	1·61
35—45 ...	·88	·77	1·39	1·38	1·15
45—55 ...	·85	·67	1·64	·82	1·17
55—65 ...	1·07	·78	2·40	1·29	1·06
65 and over	2·36	·56	1·17	·59	1·07
All ages	3·55	4·02	2·99	1·70	1·48
Females.					
0—15 ...	7·28	8·43	5·33	2·12	1·57
15—20 ...	1·30	1·27	1·95	2·34	1·13
20—25 ...	·69	1·23	2·09	2·59	1·73
25—35 ..	·41	·88	1·98	1·81	1·18
35—45 ...	·70	·42	1·77	1·33	·78
45—55 ...	·67	·34	1·01	·93	1·01
55—65 ...	·62	·69	·71	1·11	·70
65 and over	1·19	·64	·71	·29	·86
All ages	3·39	3·58	2·91	1·76	1·21

As compared with the period 1910–12 the proportion of persons under 15 years of age who died from tubercular diseases (excluding

phthisis) during 1920–22 represented a decline of 27 per cent. for males and of 26 per cent. for females.

Tubercular diseases—Deaths of recent arrivals. The experience of recent years shows that the tubercular death rate in Victoria is but slightly affected by the arrival from beyond Australia of persons suffering from tubercular diseases. Only two of those who died in 1923 had been born outside and resident less than one year in Australia, and 13 had resided in the continent for a shorter period than five years.

Cancer—Deaths at various ages. The numbers dying from cancer in different age groups in each of the last five years are given below :—

DEATHS FROM CANCER AT VARIOUS AGES.

Age Group.	Males.					Females.				
	1919.	1920.	1921.	1922.	1923.	1919.	1920.	1921.	1922.	1923.
0–15	6	4	7	6	3	4	7	5	2	3
15–25	5	4	7	7	3	4	3	3	3	7
25–35	8	9	7	12	12	13	16	21	14	12
35–45	31	31	33	31	38	42	62	65	75	73
45–55	106	118	111	105	110	160	139	164	173	193
55–65	182	240	243	278	252	202	194	223	224	236
65–75	173	162	185	219	238	134	159	168	164	210
75–85	79	83	84	103	83	84	83	103	97	109
85 and over ..	18	27	18	21	25	24	25	20	32	21
Total ..	608	678	695	782	764	667	688	772	784	864

The widely different social and economic effects produced by the prevalence of and deaths from the two important diseases—cancer and phthisis—are evidenced by the ages of their victims. For the year 1923 the average age of those who died from cancer was 62·8 years for males and 62·0 years for females, whilst the corresponding averages for phthisis were 41·3 years for males and 35·2 years for females.

Cancer—Death rates. Deaths from cancer in 1923 numbered 1,628, and represented a death rate of 1,013 per million of the whole population, as compared with rates of 997 in the previous year, 954 in 1921, 908 in 1920, 870 in 1919, 942 in 1918, 925 in 1917, 921 in 1916, 812 in 1915, 830 in 1914, 838 in 1913, 833 in 1908–12, and 584 in

1890–2. In England, Scotland, Northern Ireland, and the Irish Free State in 1922 the deaths per million of population from this cause were 1,230, 1,250, 990, and 800 respectively.

Cancer—Death Rates at different ages.

Cancer death rates, computed in relation to the general population in earlier and later periods, are not fairly comparable owing to the changed age distribution of the people. A more accurate mortality rate is obtained by comparing the deaths with the number of persons in the community of the same sex, in age groups. This has been done for four census periods, when the numbers of the people in age groups were accurately known, and the results are given in the appended table :—

DEATH RATES FROM CANCER IN AGE GROUPS.

Age Group.	Deaths from Cancer per 10,000 of each Sex.			
	1890–2.	1900–2.	1910-12.	1920–22.
Males.				
Under 5 ...	·18	·30	·73	·46
5 to 10 ..	·10	·42	·25	·13
10 „ 15 ...	·11	·20	·16	·14
15 „ 20 ...	·17	·22	·15	·30
20 „ 25 ...	·32	·33	·71	·64
25 „ 35 ...	·81	1·26	·96	·76
35 „ 45 ...	4·29	3·69	3·16	3·31
45 „ 55 ...	14·83	14·14	16·03	13·94
55 „ 65 ...	31·92	36·00	36·36	40·46
65 „ 75 ...	52·75	59·04	74·15	78·21
75 and over	58·55	74·04	88·40	110·12
All ages	6·16	7·52	8·50	9·52
Females.				
Under 5 ...	·09	·26	·19	·39
5 to 10 ...	·10	·04	·10	·17
10 „ 15 ...	·06	..	·27	·05
15 „ 20 ...	·12	·28	·44	·15
20 „ 25 ...	·22	·23	·41	·30
25 „ 35 ...	1·68	1·61	1·39	1·28
35 „ 45 ...	7·43	6·05	7·26	6·61
45 „ 55 ...	18·00	18·13	17·87	19·14
55 „ 65 ...	31·79	33·05	38·03	34·48
65 „ 75 ...	53·96	51·18	61·66	63·05
75 and over	49·55	62·70	86·19	92·86
All ages	5·57	6·64	8·76	9·63

Deaths from cancer occur at all age periods, but the rates in the foregoing table show that it is essentially a disease of later life, increasing rapidly in the groups past middle age, and reaching a maximum

mortality rate in the oldest age group. From the figures for the periods 1910–12 and 1920–22 it will be seen that there was in the later period a considerable increase in the death rate from cancer.

Seat of cancer.

The following table shows the seat of cancer in persons who died from this disease in 1923 :—

SEAT OF CANCER.

Seat of Disease.	Males.	Females.	Total.
Cancer of the buccal cavity (mouth, &c.) ..	77	14	91
,, the stomach and liver	331	247	578
,, the peritoneum, the intestines, and the rectum	107	116	223
,, the female genital organs ...	...	148	148
,, the breast	..	167	167
,, the skin	34	27	61
,, other and unspecified organs ...	215	145	360
Total Deaths	764	864	1,628

Thirty-six per cent. of the persons who died from cancer were affected in the stomach or liver. Of the females who died from the disease 36 per cent. were affected in the genital organs or the breast.

Senile decay.

During the year 1923, the deaths of 630 men and 764 women were ascribed to senile decay. The deaths at ages 65 and over from all causes during the year numbered 6,345—3,165 of men and 3,180 of women.

Accidental violence.

Death rates from accidental violence have been lower in late years than in earlier periods, a result that is chiefly due to the lighter mortality rate from accidental drowning, the smaller proportion of the population engaged in country occupations, which are generally of a more hazardous nature than those in towns, and the increasing proportion of females in the community.

In 1923, 528 male and 137 female deaths were attributed to accidents and negligence, which represented a rate of 414 per million of the population. This proportion was 2·4 per cent. below the average rate—424—for the previous five years, and 49 per cent. below the rate —811—for 1890–2. The numbers of deaths from various accidents in 1923 are given in the appended table :—

DEATHS FROM ACCIDENTAL VIOLENCE, 1923.

Nature or Place of Accident.	Males.	Females.	Total.
Poisoning by Food	1	1	2
Snake Bite	2	..	2
Other Acute Poisonings	11	1	12
Burns (including Conflagrations)	30	37	67
Absorption of Poisonous Gases	3	2	5
Accidental Mechanical Suffocation	19	9	28
Suffocation in bed (infants)	4	3	7
Drowning	101	25	126
Firearms	21	5	26
Falls	53	10	63
In Mines and Quarries	4	..	4
Machines	8	..	8
Vehicular Accidents—			
On Railways	33	8	41
Motor Car	72	5	77
Motor Cycle	15	1	16
Motor Lorry	9	1	10
Aeroplane	..	..	..
Bicycle	2	..	2
Tram Car	20	6	26
Vehicle drawn by Horses	25	1	26
Vehicle, Undefined	3	..	3
Injuries by Animals	8	3	11
Effects of Heat	3	..	3
Excessive Cold	1	..	1
Electricity	4	..	4
Lightning	..	..	..
Fractures, Unspecified	34	13	47
Other Violence	42	6	48
Total	528	137	665

On the average of the last three years the female mortality rate from accidents was 31 per cent. of the rate for males.

Fatal accidents among males at different ages. The mortality rate from accidents is only one-half as great among males aged 15 to 45 as among men over age 45. The deaths per 10,000 males at certain ages from drowning and other accidents for the period 1920–22 were as follows :—

DEATH RATES FROM ACCIDENTS—MALES, 1920–22.

—	Accidental Deaths per 10,000 Males Aged—							
	15–20.	20–25.	25–35.	35–45.	45–55.	55–65.	65 and over.	65 and upwards.
Drowning ..	1·92	1·13	1·06	1·11	1·46	1·91	2·43	1·44
Other Accidents ..	3·43	4·34	4·91	5·26	6·05	8·24	14·38	5·91
Total Accidents ..	5·35	5·47	5·97	6·37	7·51	10·15	16·81	7·35

For men aged 20 to 35 the death rate from accidental violence is about one-third of that for men over age 65 and slightly greater than one-half of the rate for those aged 55 to 65.

Occupations of men dying from accidents. During the year 1923, 397 males aged seventeen years and upwards died from the results of accidents. The numbers for the different occupations were as follows :—

Occupation.	Deaths from Accidents, 1923.	Occupation.	Deaths from Accidents, 1923.
Labourer (undefined) ..	73	Builder	3
Farmer, grazier	52	Butcher	3
Railway employee	17	Cabinet maker	3
Clerical	14	Cook	3
Carpenter	11	Explosive employee ..	3
Carter, carrier, driver ..	11	Leather worker	3
Seaman, shipping	11	Orchardist	3
Gardener, nurseryman ..	10	Storeman	3
Miner, quarryman ..	10	Student	3
Boot trade	9	Accountant	2
Engineering	7	Agent	2
Estate agent, auctioneer ..	6	Blacksmith	2
Merchant	6	Brewery trade	2
Painter	6	Dairyman	2
Timber worker	6	Dealer	2
Manager, overseer	5	Fisherman	2
Stevedore, wharf labourer ..	5	Fruiterer	2
Commercial traveller ..	4	Hawker	2
Electrician	4	Linesman	2
Engine-driver	4	Manufacturer	2
Grocer	4	Printer	2
Motor industry	4	Other (specified)	36
Publican	4	Unspecified	21
Boiler maker	3		
Bricklayer	3	Total	397

Of the above 397 deaths 66 were due to drowning.

Suicide. In the year 1923, 94 males and 31 females took their own lives. The deaths represented a rate of 78 per million of the population, as compared with rates of 81 in the preceding year, 99 in 1921, 95 in 1920, 89 in 1919, 72 in 1918, 88 in 1917, 83 in 1916, 105 in 1915, 90 in 1914, 103 in 1913, 102 in 1908–12, and 109 in 1890–2. A much lower rate from suicide obtains among females than males, the rate for the former being slightly less than one-fourth of that for the latter on the average of the past five years.

Homicide. The deaths ascribed to homicide in 1923 numbered 21, of which 4 were of males and 17 of females. These represented a rate of 13 per million of the population, as against rates of 15 in 1922, 14 in 1921, 12 in 1920, 18 in 1919, 13 in 1918 and 1917, 14 in 1916, 17 in 1915, 16 in 1914, 18 in 1913, and 19 in 1908–12.

Deaths of married women in childbed. The death rate of women in childbed varies considerably at different ages, and is less at younger than at older age periods. The number of deaths of married mothers in childbed, and the death rates in various age groups are shown for the decade 1906–15 and the year 1923 in the following table :—

DEATH RATES OF MARRIED MOTHERS IN CHILDBED IN AGE GROUPS, 1906–1915 AND 1923.

Age Group.	Married Mothers.			
	Deaths.		Deaths per 1,000 Confinements.	
	1906–15.	1923.	1906–15.	1923.
Under 20 years	23	3	2·71	3·08
20 to 25 ,, ...	184	10	2·85	1·42
25 ,, 30 ,, ...	326	23	3·60	2·20
30 ,, 35 ,, ...	334	27	4·59	3·19
35 ,, 40 ,, ...	346	23	6·86	4·59
40 years and over	156	8	6·90	4·13

The experience of the ten years 1906–15 showed that for the age period 35 years and upwards the deaths of mothers in childbed were 69 per 10,000 as against 37 per 10,000 for those under 35 years of age. For the same term of years the number of deaths per 1,000 married women of all ages in first confinements was 5·57, as against an average of 4·04 for other confinements.

Deaths in childbed.

The death rate of women in childbed is usually ascertained by comparing the number of deaths of parturient women with the total number of births. The proportions for each of the last eight years, and the averages of previous periods back to 1871 are given below :—

DEATHS OF MOTHERS (MARRIED AND SINGLE) TO EVERY 10,000 CHILDREN BORN ALIVE.

Period.	Number of Mothers who Died Annually of—			Deaths of Mothers to every 10,000 Children Born Alive.
	Puerperal Diseases or Accidents. (Excluding Septicæmia.)	Puerperal Septicæmia.	Total.	
1871–1880 ..	127	46	173	64·38
1881–1890 ..	121	64	185	59·19
1891–1900 ..	117	66	183	56·01
1901–1905 ..	126	58	184	60·92
1906–1910 ..	101	46	147	47·17
1911–1915 ..	96	58	154	43·55
1916 ..	75	55	130	37·97
1917 ..	89	45	134	40·56
1918 ..	64	43	107	33·86
1919 ..	95	39	134	42·38
1920 ..	132	62	194	53·57
1921 ..	105	58	163	45·80
1922	91	31	122	33·62
1923 ..	79	29	108	30·11

In recent periods a marked reduction has taken place in the death rate of women in childbed. The deaths of mothers per 10,000 children born alive were 41·0 in 1919–23, as compared with 43·5 in 1911–15, 47·2 in 1906–10, and 60·9 in 1901–5.

Puerperal septicæmia.

In 1923 there were 29 deaths of married and unmarried mothers from puerperal septicæmia, which corresponded to a death rate of 8·1 per 10,000 births, as against 8·5 in 1922, 16·3 in 1921, 17·1 in 1920, 12·3 in 1919, 13·6 in 1918 and 1917, 16·1 in 1916, 11·4 in 1915, 16·8 in 1914, 18·1 in 1913, 16·0 in 1908–12, and 18·1 in 1901–7.

NATURAL INCREASE.

Natural increase per 1,000 of population in Australasia.

The natural increase, *i.e.*, the excess of births over deaths, per 1,000 of the population, in the various Australian States and New Zealand, for the periods 1902–6, 1907–11 and 1912–16, and for each of the last seven years, is shown in the following table :—

NATURAL INCREASE PER 1,000 OF THE POPULATION, AUSTRALIAN STATES AND NEW ZEALAND.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.	New Zealand.
1902–6	12·30	15·76	15·41	13·28	18·04	18·12	14·68	16·94
1907–11	13·05	17·45	17·03	15·54	18·13	18·85	16·01	17·07
1912–16	13·72	18·04	18·51	17·21	18·65	19·62	16·82	16·70
1917	13·09	18·13	19·37	15·74	16·71	18·57	16·56	16·08
1918	11·53	16·42	17·72	15·43	13·88	17·54	15·01	8·60
1919	8·31	11·10	13·58	11·92	10·47	15·21	10·84	12·03
1920	12·82	15·97	16·47	14·27	14·45	17·60	14·95	15·10
1921	12·64	16·43	17·25	14·05	12·99	16·67	15·04	14·61
1922	13·45	16·76	16·39	14·60	14·62	17·78	15·47	15·04
1923	11·60	15·08	15·06	13·01	14·14	16·34	13·88	12·91
Mean 1919–23	11·76	15·07	15·75	13·57	13·33	16·72	14·04	13·94

The smallness of the natural increase in 1919 was very largely due to a heavy mortality rate from influenza in that year. The mean increase in the Australian States for the period 1919-23 was 14·04 per 1,000 of population, which is probably greater than will prevail when the age constitution of the people becomes similar to that of old settled countries. At present the proportion of elderly people is smaller than in those countries and, partly as a

consequence of this, the death rate is lower. The Victorian death rates are below those of England and Wales at nearly all periods of life. The Australian annual rate of increase due to excess of births over deaths—14·04—would enable a population to double itself in 50 years, whilst, at the Victorian rate of 11·76 per 1,000 of population, a period of slightly more than 59 years would be required. In England and Wales in 1923 the excess of births over deaths was 8·1 per 1,000 of population.