

## 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 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 the Government Statist or by an Assistant Government Statist are *prima 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. Since the present system was instituted approximately 4,895,200 original entries have been made in the indexes, of which 1,333,150 relate to marriages, 2,411,650 to births, and 1,150,400 to deaths.

Since the 1st August, 1932, all registrations of births and deaths occurring within the area of Greater Melbourne have been effected at the office of the Government Statist.

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. Searches are charged for at the following rates:—2s. 6d. for every search not exceeding a period of five years and for every search extending beyond a period of five years 2s. 6d. for each additional five years or part thereof. A search fee is not charged in any case where an application for a certificate is lodged within three months of the date of registration of the event. There is no extra charge for an extract of an entry, but, for a certificate, a further sum of 5s. is payable. 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 be required.

As evidence of the extent of the use made of the information contained in the records, the number of transactions which took place in 1934 was 43,089, and the amount of revenue received was £5,506. Included in the above number were 2,514 free ordinary searches (Repatriation Department, 1,342) and 205 free certificates.

**Law relating to  
Marriages, Births,  
and Deaths.**

The various Acts relating to the registration of marriages, births, and deaths in Victoria were consolidated in 1928.

Marriages may be celebrated by any minister of religion ordinarily officiating as such in one of the religious denominations, and whose name is registered in the office of the Government Statist, also by the Government Statist, an Assistant Government Statist, or a duly appointed registrar of marriages. The Governor in Council may prohibit from celebrating marriages any minister who is proved guilty of any indictable offence, misconduct or impropriety in the celebration of any marriage, or who makes a business of celebrating marriages for the purpose of profit or gain. At least three days before the performance of any marriage, written notice of such marriage must be given to the proposed celebrant by the parties about to be married, but such notice may, in respect of a marriage by a minister of religion, be dispensed with in the case of emergency by written permission of any Justice of the Peace. Marriage of minors is permissible only with the written consent of parents or guardian, or in certain circumstances by permission of a Guardian of Minors who is usually a police magistrate. Marriage with a deceased wife's sister is valid. Marriages of Jews and Quakers are exempted from the law relating to marriages, and are deemed legal and valid if celebrated according to their respective usages. Certificates of such marriages must, however, be lodged with the Government Statist for record purposes. No marriage is invalid by reason of its having been celebrated by an unqualified person if either of the parties believed at the time that such person was qualified, or by reason of any formal defect or irregularity where the identity of the parties to the marriage is not in question.

A person whose husband or wife has been continually absent from such person for the space of seven years or over, and has not been known by such person to be living within that time, may marry without being liable to prosecution for bigamy (*see* sec. 61 of the Crimes Act); but such a marriage would be void, and the issue thereof illegitimate, if it should be subsequently discovered that the former wife (or husband) was alive at the date of the marriage.

Births of live children must, under a penalty not exceeding £10 for default without reasonable cause, be registered within 60 days. After 60 days and within twelve months, registration may be effected after declaration, on the payment of a fee of 5s., after twelve months and under seven years, only by authority of the Government Statist (fee 20s.), and after seven years by order of a Judge of a County Court or the Supreme Court (fee 30s.). The occupier of every house or place in which an illegitimate child is born or in which an illegitimate child under the age of five years dies is required to give notice of such birth or death to the district registrar within three to seven days, according to the locality of the event. If the mother is the occupier the period of notification is extended to three weeks.

Legitimation of an illegitimate child may be effected by the father at any time after the marriage of the father to the mother provided there was at the time of the birth of the child no legal impediment to the marriage. Should the father be deceased, however, the mother may, on proof of his admission of paternity, effect the legitimation within two years of his death.

The *Adoption of Children Act* 1928 provides for the legal adoption of children and for the registration of each adoption by the Government Statist.

Stillbirths are not registered, but registrars issue burial certificates in accordance with the *Cemeteries Act* 1928, and are instructed to keep a memorandum of each case notified.

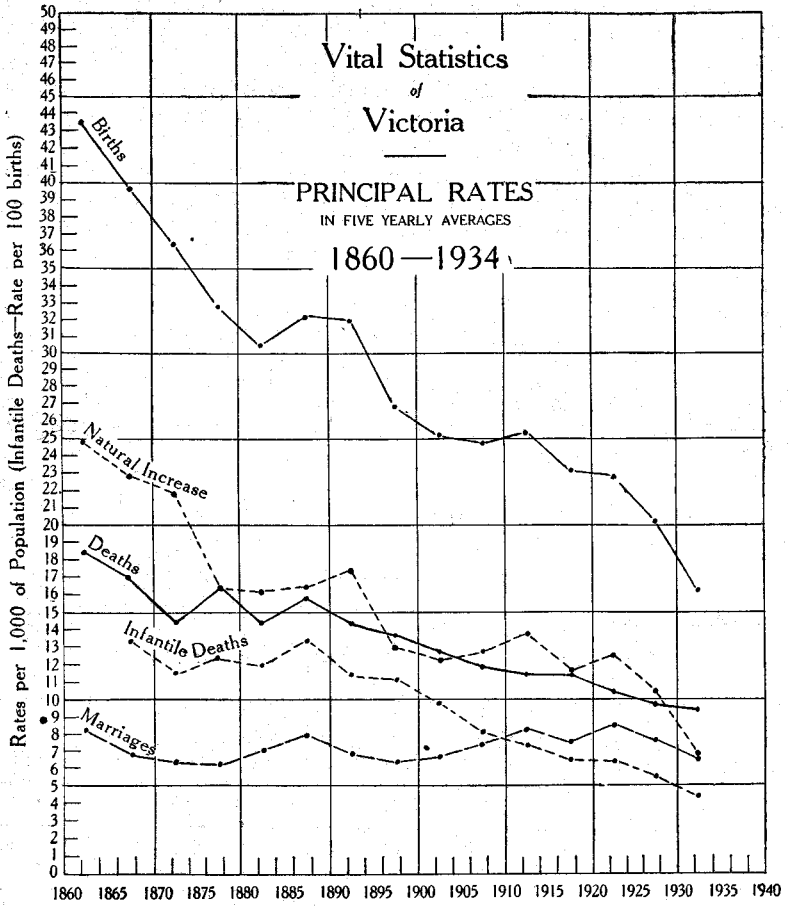
Deaths must, under a penalty not exceeding £10, be notified to the local registrar within seven days by the occupier of the house in which the death occurred or by the doctor or nurse present at the death, and must be registered within 21 days by a person present at the death or in attendance during last illness of the deceased. Sudden deaths and deaths of boarded-out children under five years of age should, however, be reported to the Coroner, and registered by him or on his authority.

The principal numbers and rates—male and female—relating to Vital Statistics in Victoria for the year 1934, are given in the following table:—

SUMMARY OF VITAL STATISTICS, VICTORIA, 1934.

Division.	Sex.	Mean Population.	Number of—			Rate per 1,000 of Population.		Deaths under One Year per 1,000 Births.
			Births.	Deaths.	Deaths under One Year.	Births.	Deaths.	
Greater Melbourne	Males	467,570	6,657	5,441	360	14·24	11·64	54·08
	Females	530,330	6,499	5,287	274	12·25	9·97	42·16
	Total	997,900	13,156	10,728	634	13·18	10·75	48·19
Rest of the State	Males	440,180	7,501	4,472	349	17·04	10·16	46·53
	Females	392,917	7,171	3,448	259	18·25	8·78	36·12
	Total	833,097	14,672	7,920	608	17·61	9·51	41·44
Victoria	Males	907,750	14,158	9,913	709	15·60	10·92	50·08
	Females	923,247	13,670	8,735	533	14·81	9·46	38·99
	Total	1,830,997	27,828	18,648	1,242	15·20	10·18	44·63

NOTE.—Particulars of marriages are available only for the whole State.



## MARRIAGES.

Marriages in Victoria in 1934 numbered 13,862, corresponding to a rate of 7.57 per 1,000 of the population. Rates for previous years were 6.96 in 1933, 6.49 in 1932, and 5.66 in 1931, the rate for 1931 being the lowest in the history of the State. The highest number of marriages, 14,898, and also the highest rate since 1857—9.85, were recorded in 1920. The high rate of 1920 was mainly due to the marriages of a large number of returned soldiers after their return to civilian life.

The following table shows the number of marriages, the quarters in which they were registered, and the proportion per 1,000 of the population, since 1854:—

## MARRIAGES IN EACH QUARTER, VICTORIA, 1855 TO 1934.

Period.	Average Annual Number of Marriages.	Quarter of Registration.				Rate per 1,000 of Mean Population.
		March.	June.	September.	December.	
1855-59..	4,362	*	*	*	*	10.24
1860-64..	4,418	1,068	1,166	1,079	1,105	8.16
1865-69..	4,533	1,123	1,144	1,113	1,153	6.94
1870-74..	4,823	1,168	1,299	1,131	1,225	6.40
1875-79..	5,023	1,239	1,307	1,207	1,270	6.21
1880-84..	6,296	1,528	1,611	1,483	1,674	7.07
1885-89..	8,208	1,899	2,196	1,915	2,198	8.04
1890-94..	7,945	1,995	2,100	1,838	2,012	6.88
1895-99..	7,627	1,816	2,074	1,778	1,959	6.44
1900-04..	8,201	2,000	2,252	1,930	2,019	6.78
1905-09..	9,209	2,185	2,548	2,182	2,294	7.36
1910-14..	11,244	2,664	3,000	2,644	2,936	8.29
1915-19..	10,908	2,437	2,754	2,815	2,902	7.62
1920-24..	13,598	3,252	3,578	3,152	3,616	8.64
1925-29..	13,301	3,136	3,603	3,047	3,515	7.72
1930-34..	12,019	2,929	3,123	2,727	3,240	6.64
1930 ..	11,641	2,837	3,323	2,630	2,851	6.52
1931 ..	10,182	2,346	2,638	2,425	2,773	5.66
1932 ..	11,744	2,915	2,866	2,626	3,337	6.49
1933 ..	12,868	2,872	3,331	2,950	3,515	6.96
1934 ..	13,862	3,677	3,457	3,005	3,723	7.57

\* Not available.

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 it affords a ready and approximate comparison between years not widely separated.

**Marriage Rates in Australasia.** The following statement shows the marriage rate per 1,000 of the population in each of the Australian States and in New Zealand, for the last five years:—

Year.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.	New Zealand.
1930	6·52	6·86	6·81	5·78	7·47	6·56	6·69	7·77
1931	5·66	6·02	6·43	5·33	6·34	6·68	5·96	6·79
1932	6·49	6·73	6·86	6·29	6·67	6·64	6·63	6·80
1933	6·96	7·07	6·84	6·84	7·69	7·13	7·03	7·16
1934	7·57	7·70	7·99	7·39	8·34	7·32	7·71	7·62

**Marriages. (Census and standardized rates.)**

Census rates and explanations of factors affecting the crude marriage rate will be found in previous editions of this work.

**Ages of bridegrooms and brides.**

The ages of bridegrooms and brides who were married in 1934 are shown in combination for various groups in the table which follows:—

**AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION IN VICTORIA, 1934.**

Ages of Bridegrooms.	Ages of Brides.														Total Bridegrooms.					
	13.	14.	15.	16.	17.	18.	19.	20.	21 to 24.	25 to 29.	30 to 34.	35 to 39.	40 to 44.	45 to 49.		50 to 54.	55 to 59.	60 to 64.	65 to 69.	70 and over.
16	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2
17	..	..	..	2	5	..	..	1	..	..	..	..	..	..	..	..	..	..	..	11
18	..	..	..	5	13	21	6	2	14	1	..	..	..	..	..	..	..	..	..	62
19	..	..	1	6	33	35	54	17	25	1	..	..	..	..	..	..	..	..	..	177
20	..	..	4	13	25	57	57	44	96	7	2	..	..	..	..	..	..	..	..	305
21 to 24	..	2	6	34	123	244	338	384	1,018	414	27	3	1	..	..	..	..	..	..	3,499
25 to 29	..	1	2	7	37	113	169	277	2,263	1,993	270	38	10	1	..	..	..	..	..	5,181
30 to 34	..	..	..	3	12	20	22	56	672	946	509	128	25	6	2	1	..	..	..	2,402
35 to 39	..	..	1	..	2	9	9	14	141	286	343	156	47	10	3	1	..	..	..	927
40 to 44	..	..	..	..	..	..	1	2	20	89	122	114	76	24	5	2	1	..	..	471
45 to 49	..	..	..	..	..	5	1	1	10	44	51	53	67	31	15	..	..	..	..	279
50 to 54	..	..	..	..	..	..	..	..	8	9	27	24	45	37	43	3	6	..	..	204
55 to 59	..	..	..	..	..	..	1	..	..	9	9	16	24	27	23	14	3	1	..	124
60 to 64	..	..	..	..	..	..	..	..	..	2	7	10	11	13	16	9	15	4	..	89
65 to 69	..	..	..	..	..	..	..	..	1	..	2	5	10	8	8	10	14	8	4	70
70 to 74	..	..	..	..	..	..	1	..	..	..	1	3	3	..	4	8	12	5	3	40
75 and over	..	..	..	..	..	..	..	..	..	..	..	1	4	1	2	2	..	4	5	19
<b>Total Brides</b>	..	3	16	72	260	505	664	803	5,179	3,801	1,272	549	323	158	121	50	52	22	12	13,862

Of every 1,000 men married during the year, 734 were older and 164 younger than their brides, and 102 were of the same age.

The following table shows the proportions of both sexes marrying in various age groups for 1934:—

PROPORTIONS OF BRIDEGROOMS AND BRIDES IN AGE GROUPS, 1934.

Age Group.	Proportion per 1,000 of total—		Age Group.	Proportion per 1,000 of total—	
	Bridegrooms.	Brides.		Bridegrooms.	Brides.
Under 16 ..	..	1.37	35 to 39 ..	66.87	39.61
16 .. ..	.14	5.19	40 to 44 ..	33.98	23.30
17 .. ..	.79	18.76	45 to 49 ..	20.13	11.40
18 .. ..	4.47	36.43	50 to 54 ..	14.72	8.73
19 .. ..	12.77	47.90	55 to 59 ..	8.95	3.61
20 .. ..	22.00	57.93	60 and over	15.72	6.20
21 to 24 ..	252.42	373.61	Total ..	1,000.00	1,000.00
25 to 29 ..	373.76	274.20			
30 to 34 ..	173.28	91.76			

The number of minors marrying at each age and the proportion of each sex to the total marriages are given in the following table for the years 1930 to 1934.

Year.	Age in Years.								Total.	
	13.	14.	15.	16.	17.	18.	19.	20.	Number.	Percentage of Total Marriages.
Bridegrooms.										
1930 .. ..	..	..	..	4	14	90	165	275	548	4.71
1931 .. ..	..	..	..	4	17	77	185	273	556	5.46
1932 .. ..	..	..	..	1	16	76	194	264	551	4.69
1933 .. ..	..	..	..	3	15	87	177	290	572	4.52
1934 .. ..	..	..	..	2	11	62	177	305	557	4.02
Brides.										
1930 .. ..	1	1	27	96	285	611	729	2,273	19.57	
1931 .. ..	..	3	17	102	272	463	594	616	2,067	20.30
1932 .. ..	..	2	19	110	300	503	650	708	2,292	19.62
1933 .. ..	..	..	12	92	274	542	659	689	2,268	17.90
1934 .. ..	..	3	16	72	260	505	664	803	2,323	16.76

**Age at marriage.** The mean ages at marriage, according to conjugal condition, are shown in the following table for each of the last five years :—

**MEAN AGE AT MARRIAGE, 1930 TO 1934.**

Year.	Bridegrooms.			Brides.		
	Bachelors.	All Bridegrooms.	Bridegrooms of Brides under 45.	Spinsters.	All Brides.	Brides under 45.
	Years.	Years.	Years.	Years.	Years.	Years.
1930 ..	28·16	29·72	28·81	25·19	26·22	25·29
1931 ..	27·89	29·52	28·65	25·02	26·02	25·03
1932 ..	28·02	29·50	28·66	25·19	26·05	25·18
1933 ..	28·09	29·45	28·63	25·26	26·10	25·25
1934 ..	28·26	29·68	28·84	25·40	26·25	25·41

In 1934 the mean marrying age of divorced men was 40·89 years and of widowers 49·61, while for divorced women the age was 35·21 and for widows 45·32.

**Birthplaces of persons marrying.** Marriage records for 1934 show that 85.2 per cent. of the bridegrooms and 91.7 per cent. of the brides were Australian born, while 11.5 per cent. of the grooms and 6.8 per cent. of the brides were born in Great Britain and Ireland. Of all persons married 88.5 per cent. were born in Australia, .8 per cent. in New Zealand, 9.1 per cent. in Great Britain and Ireland, .5 per cent. in other British Possessions, and only a small proportion (1.1 per cent.) were natives of foreign countries. The numbers born in Australia and other countries are shown in the subjoined table for the years 1914 and 1934 :—

**BIRTHPLACES OF PERSONS MARRIED, 1914 AND 1934.**

Where Born.	Bridegrooms.		Brides.	
	1914.	1934.	1914.	1934.
Australia .. .. .	10,071	11,813	10,826	12,708
New Zealand .. .. .	157	131	90	77
England and Wales .. .. .	957	1,156	591	667
Scotland .. .. .	245	334	117	209
Ireland .. .. .	132	106	93	61
Other British Possessions .. .. .	43	95	22	54
Germany .. .. .	61	23	20	5
Russia .. .. .	18	19	8	8
Italy .. .. .	21	52	14	14
United States .. .. .	28	11	16	7
Other Foreign Countries and unspecified .. .. .	97	122	33	52
Total .. .. .	11,830	13,862	11,830	13,862



Conjugal condition of persons marrying.

In the following tables are given the number of persons in each conjugal condition marrying in Victoria during the five years 1930 to 1934, and the proportions in each condition for periods since 1900.

CONJUGAL CONDITION OF PERSONS MARRYING, 1930 TO 1934.

Period.	Bridegrooms.				Brides.				Total Marriages.
	Bachelors.	Widowers.	Divorced.	Deserted.	Spinsters.	Widows.	Divorced.	Deserted.	
1930 ..	10,671	727	236	7	10,898	506	227	10	11,641
1931 ..	9,320	674	184	4	9,570	404	190	18	10,182
1932 ..	10,768	730	243	3	11,092	438	201	13	11,744
1933 ..	11,735	684	243	6	11,990	434	224	20	12,668
1934 ..	12,830	753	274	5	13,114	448	288	12	13,862

PERCENTAGE OF PERSONS MARRYING IN EACH CONJUGAL CONDITION, 1900 TO 1934.

Marriages Between—	1934.		Conjugal Condition.	Percentage of Total—			
	Number.	Percentage.		1900-09.	1910-19.	1920-29.	1934.
Bachelors and Spinsters ..	12,427	89·7	Bachelors Widowers Divorced Total	Bridegrooms.			
Bachelors and Widows ..	198	1·4		91·4	92·7	92·1	92·6
Bachelors and Divorced ..	210	1·5		8·1	6·5	6·3	5·4
Widowers and Spinsters ..	492	3·6		·5	·8	1·6	2·0
Widowers and Widows ..	213	1·5		100·0	100·0	100·0	100·0
Widowers and Divorced ..	48	·3	Spinsters Widows Divorced Total	Brides.			
Divorced and Spinsters ..	207	1·5		93·4	94·2	93·6	94·8
Divorced and Widows ..	37	·3		6·0	4·8	4·9	3·2
Divorced and Divorced ..	30	·2		·6	1·0	1·5	2·0
Total Marriages ..	13,862	100·0		100·0	100·0	100·0	100·0

NOTE.—In this table deserted men are included with bachelors and deserted women with spinsters.

The proportions of widowers and widows remarrying per 100 marriages, declined from 7·7 and 5·8 respectively in 1905-09 to 5·9 and 3·7 in 1930-34. During the same period the proportion of re-marriages of divorced men increased from ·5 to 2·0, and of divorced women from ·7 to 2·0. The increased proportion of divorced persons remarrying reflects the higher number of decrees for dissolution of marriage granted in recent years. The numbers of such decrees granted and of remarriages of divorced men and women in each decade since 1900 were as follows:—1900-09—decrees granted 1,208, remarriages of divorced men and women, 418 and 554; 1910-19—decrees granted 2,258, remarriages 867 and 1,096; and 1920-29—decrees granted 4,392, and remarriages 2,125 and 2,116. In 1934, decrees granted numbered 621, and remarriages 274 and 288.

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 1914, 1924, and 1934, are shown in the following

table:—

### MARRIAGES IN VARIOUS DENOMINATIONS.

Denomination.	1914.		1924.		1934.	
	Number.	Per-centage of Total Marriages.	Number.	Per-centage of Total Marriages.	Number.	Per-centage of Total Marriages.
Church of England ..	3,255	27·52	3,863	29·06	3,987	28·76
Roman Catholic Church	2,097	17·73	2,461	18·51	2,540	18·32
Presbyterian Church..	2,069	17·49	2,474	18·61	2,333	16·83
Methodist Church ..	1,836	15·52	1,830	13·76	2,153	15·53
Baptist Church ..	490	4·14	597	4·49	652	4·70
Church of Christ ..	283	2·39	279	2·10	396	2·86
Congregational Church	1,041	8·80	885	6·66	243	1·75
Lutheran Church ..	63	·53	63	·47	77	·56
Salvation Army ..	64	·54	43	·32	102	·74
Hebrew ..	44	·37	59	·44	65	·47
Other Sects ..	276	2·33	84	·63	158	1·14
Registrars of Marriages	312	2·64	658	4·95	1,156	8·34
Total ..	11,830	100·00	13,296	100·00	13,862	100·00

Civil marriages.

The following statement shows the numbers and proportions of marriages performed by civil registrars, for each of the last ten years:—

### CIVIL MARRIAGES, 1925 TO 1934.

Year.	Number.	Percentage of Total Marriages.	Year.	Number.	Percentage of Total Marriages.
1925 ..	528	3·95	1930 ..	1,224	10·51
1926 ..	617	4·61	1931 ..	1,143	11·23
1927 ..	845	6·21	1932 ..	1,515	12·90
1928 ..	1,013	7·68	1933 ..	1,340	10·58
1929 ..	1,040	8·04	1934 ..	1,156	8·34

**Registered clergymen.** The ministers qualified by registration to celebrate marriages in Victoria numbered 1,859 on 31st December, 1934. The numbers of ministers in each denomination (excepting Jews and Quakers) and civil registrars of marriages were as follows :—

## REGISTERED MINISTERS OF EACH DENOMINATION, 1934.

Denomination.	Number of Registered Ministers.	Denomination.	Number of Registered Ministers.
Church of England ..	445	Ballarat Town Mission ..	1
Roman Catholic ..	433	Free Christian ..	1
Methodist .. ..	328	New Church .. ..	1
Presbyterian .. ..	315	Greek Orthodox Church ..	1
Baptist .. ..	99	Syrian Orthodox .. ..	1
Church of Christ ..	74	International Bible Students' Association ..	1
Congregational .. ..	57	Latter Day Saints (Mormons) .. ..	1
Salvation Army .. ..	46	Pentecostal .. ..	1
Lutheran .. ..	29		
Seventh Day Adventist ..	13	Total Clergymen ..	1,859
Latter Day Saints (Re-organized) .. ..	4	Civil Registrars of Marriages .. ..	16
Catholic Apostolic .. ..	2		
Unitarian .. ..	2	Grand Total .. ..	1,875
Open Brethren .. ..	2		
Australian Church .. ..	2		

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.

**Births—Numbers and Rates.** The number of births registered in Victoria during the year 1934 was 27,828. This was 564 less than the number registered for the preceding year. The rate per 1,000 of population was 15·20 and was only slightly above the record low rate of 1932 (15·18). Stillbirths, which are excluded from both births and deaths, numbered 869, and corresponded to a ratio of 31·2 per 1,000 infants born alive in 1934. There were 1,036 male to every 1,000 female births in 1934, as compared with 1,042 in 1933, 1,051 in 1932, 1,063 in 1931, and 1,056 in 1930.

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,

such rates are naturally 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, consequently, the birth rate.

The following table shows the number of births—male and female—the quarters in which they were registered, and the proportion per 1,000 of the population since 1854:—

BIRTHS IN EACH QUARTER, VICTORIA, 1855 TO 1934.

Period.	Average Annual Number of Births.	Sex.		Quarter of Registration.				Rate per 1,000 of Mean Population.
		Males.	Females.	March.	June.	September.	December.	
1855-59	17,154	8,742	8,412	*	*	*	*	39.49
1860-64	24,060	12,379	11,681	5,614	5,991	6,534	5,921	43.29
1865-69	25,963	13,219	12,744	6,027	6,543	7,105	6,288	39.77
1870-74	27,359	13,944	13,415	6,478	6,769	7,467	6,645	36.35
1875-79	26,584	13,639	12,945	6,333	6,686	7,211	6,354	32.85
1880-84	27,286	13,965	13,321	6,374	7,025	7,300	6,587	30.64
1885-89	32,941	16,883	16,058	7,824	8,289	8,814	8,014	32.27
1890-94	36,945	18,901	18,044	8,669	9,604	9,735	8,937	31.99
1895-99	31,675	16,213	15,462	7,746	8,078	8,323	7,528	26.76
1900-04	30,316	15,544	14,772	7,384	7,682	7,880	7,370	25.08
1905-09	30,994	15,879	15,115	7,489	7,832	8,076	7,597	24.76
1910-14	34,500	17,717	16,783	8,329	8,619	8,850	8,702	25.42
1915-19	33,101	17,014	16,087	8,228	8,336	8,514	8,023	23.13
1920-24	36,022	18,549	17,473	8,729	8,970	9,367	8,956	22.89
1925-29	34,892	18,013	16,879	8,732	8,728	8,856	8,576	20.24
1930-34	29,429	15,075	14,354	7,383	7,409	7,361	7,276	16.27
1930 ..	33,127	17,015	16,112	8,360	8,308	8,329	8,130	18.55
1931 ..	30,332	15,632	14,700	7,835	7,888	7,294	7,315	16.86
1932 ..	27,464	14,076	13,388	6,819	6,940	6,818	6,887	15.18
1933 ..	28,392	14,491	13,901	6,945	7,081	7,255	7,111	15.59
1934 ..	27,828	14,158	13,670	6,953	6,830	7,109	6,936	15.20

\* Not available.

The following statement shows the birth rate per 1,000 of the population in each of the Australian States and in New Zealand for the last five years:—

Year.	Vic-toria.	New South Wales.	Queens-land.	South Aus-tralia.	Western Aus-tralia.	Tas-man-ia.	Aus-tralia.	New Zealand.
1930 ..	18.55	20.58	20.80	17.42	21.44	21.66	19.86	18.80
1931 ..	16.86	18.67	19.23	15.77	19.77	21.18	18.16	18.42
1932 ..	15.18	17.40	18.56	14.74	18.30	19.78	16.86	17.09
1933 ..	15.59	17.00	18.13	15.32	17.95	19.93	16.78	16.59
1934 ..	15.20	16.52	18.16	14.50	17.66	19.51	16.39	16.47

The birth rate in England and Wales was 14.4 in 1933.

**Births.**  
(Census and  
Standardized  
rates.)

Census rates and explanations of factors affecting the crude birth rate will be found in previous issues of this work.

**Birthplaces**  
**of parents**  
**of nuptial**  
**children.**

The birth records of children born in wedlock show that, in Victoria in 1934, 81 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:—77·6 in Victoria; 86·3 in Australia; 0·6 in New Zealand; 7·8 in England and Wales; 2·1 in Scotland; 0·9 in Ireland; 0·5 in other British Possessions; and 1·8 in foreign countries. The corresponding percentages for mothers were:—Victoria, 80·6; Australia, 89·9; New Zealand, 0·6; England and Wales, 6·0; Scotland, 1·5; Ireland, 0·5; other British Possessions, 0·4; and foreign countries, 1·1.

**Ages of**  
**parents of**  
**nuptial**  
**children.**

The average ages of fathers and mothers of nuptial children whose births were recorded in 1934 were 32·86 and 29·22 years respectively, which were 4·02 and 3·81 years respectively above the average ages of bridegrooms marrying brides under 45 years of age, and of such brides, for the year 1934. The proportions of both parents in various age groups are shown in the following table for the year mentioned:—

PERCENTAGE OF PARENTS OF NUPTIAL CHILDREN IN AGE GROUPS, 1934.

Father.			Mother.		
Age Group.	Proportion per 100 Births.		Age Group.	Proportion per 100 Births.	
Under 20 ... ..	59		Under 20 ... ..	4·70	
20 to 24 ... ..	11·79		20 to 24 ... ..	23·60	
25 to 29 ... ..	27·30		25 to 29 ... ..	30·21	
30 to 34 ... ..	27·15		30 to 34 ... ..	22·49	
35 to 39 ... ..	17·01		35 to 39 ... ..	13·18	
40 to 44 ... ..	9·62		40 to 44 ... ..	5·39	
45 to 49 ... ..	4·48		45 and over ... ..	43	
50 and over ... ..	2·06				
Total ... ..	100·00		Total ... ..	100·00	

It will be seen that, on the experience of 1934, 53·81 per cent. of the mothers were between ages 20 and 30, and 35·67 per cent. between ages 30 and 40. The proportions of fathers at these ages were 39·09 and 44·16 per cent. respectively. Of every 1,000 nuptial births, about 47 were to mothers under 20 years, and about 4 to mothers aged 45 years and upwards.

The following table shows the number of births (allotted to the place of usual residence of the mother), and the births per 1,000 of the mean population in Greater Melbourne, the principal country towns, and the remainder of the State for the five-year periods 1923 to 1927 and 1928 to 1932, and the last three years:—

**BIRTHS IN GREATER MELBOURNE, PRINCIPAL COUNTRY TOWNS, AND REMAINDER OF STATE.**

Municipality.	Annual Number of Births.					Births per 1,000 of Mean Population.				
	1923-1927.	1928-1932.	1932.	1933.	1934.	1923-1927.	1928-1932.	1932.	1933.	1934.
<b>Greater Melbourne—</b>										
Melbourne ..	1,812	1,348	1,069	1,173	1,120	18·39	14·29	11·67	13·04	12·43
Box Hill ..	*	259	214	217	197	*	18·31	14·09	14·15	12·83
Braybrook (Part) ..	*	187	149	188	178	*	22·28	17·16	21·44	20·16
Brighton ..	482	394	313	327	344	18·75	13·37	10·52	11·01	11·42
Brunswick ..	1,161	974	823	765	757	23·42	17·52	15·18	14·08	13·95
Camberwell ..	797	865	702	736	691	23·10	17·85	14·06	14·70	13·63
Caulfield ..	1,065	941	735	763	778	19·59	14·87	11·40	11·75	11·90
Chelsea ..	..	127	118	117	108	..	18·66	17·61	17·66	15·72
Coburg ..	703	742	640	659	614	25·15	20·80	17·34	17·29	15·97
Collingwood ..	690	532	469	502	491	20·35	16·63	15·18	16·37	16·15
Essendon ..	846	766	618	595	561	19·88	16·59	13·44	12·91	12·18
Fitzroy ..	683	517	450	478	469	19·92	15·96	14·49	15·51	15·24
Footscray ..	980	875	720	688	702	24·20	19·13	15·62	14·87	15·15
Hawthorn ..	525	424	362	356	388	16·63	12·70	10·76	10·54	11·40
Heidelberg (Part) ..	..	413	338	320	359	..	16·93	14·02	13·28	14·88
Kew ..	379	339	262	281	254	17·96	13·97	10·81	11·63	10·46
Malvern ..	636	499	361	431	468	15·07	11·46	8·35	9·97	10·73
Moorabbin ..	..	398	359	373	349	..	23·14	19·67	20·37	18·89
Mordialloc ..	..	148	113	127	120	..	15·37	12·04	13·78	12·54
Northcote ..	898	727	625	589	550	24·51	17·27	14·73	13·88	12·96
Oakleigh ..	*	264	205	220	195	*	22·72	17·30	18·48	16·25
Port Melbourne ..	278	230	215	195	172	21·14	17·24	16·63	15·11	13·32
Prahran ..	877	696	593	582	643	17·02	13·26	11·47	11·27	12·30
Preston ..	558	703	568	611	575	31·33	23·87	18·38	19·16	17·95
Richmond ..	836	693	592	584	596	20·34	16·71	14·82	14·74	15·04
Sandringham ..	275	272	216	210	204	17·90	15·33	11·99	11·62	11·24
South Melbourne ..	865	660	575	543	498	19·01	15·06	13·32	12·67	11·57
St. Kilda ..	659	533	458	503	458	16·05	11·61	9·90	10·80	9·62
Williamstown ..	485	423	319	324	317	23·25	19·28	14·45	14·61	14·25
Remainder of Metropolis ..	1,364	..	..	..	..	25·88	..	..	..	..
<b>Country Towns—</b>										
Ballarat ..	728	664	584	616	597	18·40	17·14	15·45	16·47	15·88
Bendigo ..	609	550	506	522	553	18·10	17·10	15·91	16·50	18·92
Geelong ..	862	844	698	725	692	21·87	19·26	16·02	16·61	17·52
Ararat ..	†	†	†	†	112	†	†	†	†	22·86
Castlemaine ..	132	105	72	111	96	18·50	15·16	10·93	17·02	18·11
Colac ..	†	†	†	†	94	†	†	†	†	18·80
Dandenong ..	†	†	†	†	105	†	†	†	†	22·34
Echuca ..	†	†	†	†	112	†	†	†	†	25·45
Hamilton ..	144	138	105	120	107	27·69	24·47	18·29	20·74	18·45
Horsham ..	†	†	†	†	100	†	†	†	†	18·87
Maryborough ..	114	118	120	119	108	23·57	21·35	21·43	21·13	18·93
Mildura ..	198	184	185	175	183	34·09	23·23	23·03	26·46	27·73
Sale ..	†	†	†	†	83	†	†	†	†	19·30
Shepparton ..	†	151	160	134	157	†	27·51	28·27	23·51	27·54
Stawell ..	111	92	91	83	89	23·88	19·46	19·16	17·47	18·54
Wangaratta ..	†	†	†	†	96	†	†	†	†	20·00
Warrnambool ..	183	176	185	158	196	22·75	20·17	20·90	17·73	21·78
Wonthaggi ..	159	141	116	112	96	25·06	22·44	20·00	20·03	17·14
<b>Summary—</b>										
Greater Melbourne ..	17,904	15,949	13,186	13,457	13,156	20·14	16·03	13·26	13·56	13·18
Country Towns ..	3,240	3,163	2,822	2,875	3,579	28·88	19·22	17·34	17·73	19·00
Remainder of State ..	14,581	12,698	11,456	12,060	11,093	23·31	20·40	17·65	18·14	17·21
Victoria ..	35,676	31,805	27,464	28,392	27,828	21·37	17·85	15·18	15·59	15·20

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—The boundaries of Greater Melbourne were re-defined in 1929.

**Multiple births.**

The number of cases of multiple births and the proportion per 1,000 of the total cases of births in Victoria in the last five years were as follows:—

## CASES OF TWINS AND TRIPLETS.

Year.	Cases of Twins.	Cases of Triplets.	Total Multiple Cases.	Multiple Cases, per 1,000 of Total Cases.
1930 ..	350	Nil	350	10·68
1931 ..	343	3	346	11·54
1932 ..	250	2	252	9·26
1933 ..	313	2	315	11·22
1934 ..	326	3	329	11·97

**Adoption of Children.**

The *Adoption of Children Act* 1928 makes provision for the legal adoption of children. An adopted child has the right of succession whether under an intestacy or disposition to the real and personal property of an adopter, but not of its natural parent or parents; it has no rights of succession to the property of adopting parents' relatives, but has rights in estate of natural parents' relatives. Marriage is prohibited between an adopter and an adopted child.

The first registration under the above Act was effected on 14th October, 1929, and, between that date and the end of the year 1934, the adoptions of 523 male and 889 female children have been registered. During 1934 adoptions registered comprised 97 male and 172 female children.

**Children legitimized.**

The first provision for the legitimation of children born out of wedlock was made by the Registration of Births, Deaths, and Marriages Act 1903. This Act was repealed in 1912, and an Act passed which provided for the legitimation of such children 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 1934 advantage was taken of these Acts to legitimate 3,435 children, of

whom 279 were registered in the years 1903 to 1909, 1,347 in 1910 to 1919, 1,374 in 1920 to 1929, 101 in 1930, 85 in 1931, 77 in 1932, 93 in 1933, and 79 in 1934.

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 1934, the numbers of legitimations in the various States and New Zealand during that year were as follows:—Victoria, 6·7; New South Wales, 23·1; Queensland, 15·3; South Australia, 7·1; Western Australia, 33·0; Tasmania, 13·6; and New Zealand, 32·6.

The following table shows the number of ex-nuptial births and their percentage to total births, in Victoria, since 1909:—

#### EX-NUPTIAL BIRTHS IN VICTORIA, 1910 TO 1934.

Period.	Average Annual Number of Births.	Average Annual Number of Ex-nuptial Births.			Percentage of Total Births.
		Male.	Female.	Total.	
1910-14 .. ..	34,500	1,013	979	1,992	5·77
1915-19 .. ..	33,101	941	912	1,853	5·60
1920-24 .. ..	36,022	869	821	1,690	4·69
1925-29 .. ..	34,892	806	752	1,558	4·47
1930-34 .. ..	29,429	685	620	1,305	4·43
1930 .. ..	33,127	751	729	1,480	4·47
1931 .. ..	30,332	748	668	1,416	4·67
1932 .. ..	27,464	640	561	1,201	4·37
1933 .. ..	28,392	656	586	1,242	4·37
1934 .. ..	27,828	630	554	1,184	4·25

The percentages in the various States and New Zealand in 1934 were as follows:—Victoria, 4·25 per cent.; New South Wales, 4·77 per cent.; Queensland, 4·90 per cent.; South Australia, 2·98 per cent.; Western Australia, 3·73 per cent.; Tasmania, 5·28 per cent.; Australia, 4·50 per cent.; and New Zealand, 4·77 per cent.



**Ex-nuptiality in town and country.** A larger proportion of ex-nuptiality prevails among residents of Greater Melbourne and of the principal country towns than in the rural districts of Victoria. During the year 1934, the proportion of ex-nuptial births to total births was 4·95 per cent. in Greater Melbourne, 4·64 per cent. in the principal country towns, and 3·31 per cent. in the rural districts.

## DEATHS

**Deaths.** The following table shows the number of deaths—male and female—the quarters in which they were registered, and the proportion per 1,000 of the population since 1854:—

## DEATHS IN EACH QUARTER, VICTORIA, 1855 TO 1934.

Period.	Average Annual Number of Deaths.	Sex.		Quarter of Registration.				Rate per 1,000 of Mean Population.
		Males.	Females.	March.	June.	September.	December.	
1855-59..	7,653	4,768	2,885	*	*	*	*	17·78
1860-64..	10,210	6,001	4,209	3,257	2,658	2,093	2,202	18·44
1865-69..	11,035	6,374	4,661	3,385	2,938	2,243	2,469	16·93
1870-74..	10,978	6,365	4,613	3,232	2,744	2,461	2,541	14·56
1875-79..	13,289	7,567	5,722	4,016	3,567	2,831	2,875	16·45
1880-84..	12,820	7,324	5,496	3,512	3,167	3,013	3,128	14·40
1885-89..	16,200	9,307	6,893	4,591	3,912	3,689	4,008	15·87
1890-94..	16,886	9,716	7,170	4,643	4,108	3,977	4,158	14·62
1895-99..	16,350	9,227	7,123	4,324	3,957	3,808	4,261	13·81
1900-04..	15,457	8,686	6,771	3,921	3,750	3,992	3,794	12·84
1905-09..	14,932	8,296	6,636	3,805	3,539	3,917	3,671	11·93
1910-14..	15,705	8,616	7,089	3,873	3,875	4,137	3,820	11·57
1915-19..	16,283	8,860	7,423	3,781	4,172	4,467	3,863	11·38
1920-24..	16,375	8,781	7,594	3,846	4,166	4,503	3,860	10·40
1925-29..	16,674	8,969	7,705	3,770	4,213	4,602	4,089	9·67
1930-34..	17,180	9,175	8,005	3,814	4,214	4,822	4,330	9·50
1930 ..	15,959	8,467	7,492	3,682	4,112	4,334	3,831	8·93
1931 ..	17,033	9,190	7,843	3,501	4,020	4,644	4,868	9·47
1932 ..	16,805	8,998	7,807	3,895	4,110	4,750	4,050	9·29
1933 ..	17,456	9,308	8,148	3,831	4,188	5,222	4,215	9·59
1934 ..	18,648	9,913	8,735	4,160	4,640	5,160	4,688	10·18

\* Not available.

The number of deaths in 1934 was 18,648, which was 1,854 more than the average of the preceding five years.

In 1934 there were 1,135 male to every 1,000 female deaths, the average for the last five years being 1,146. The corresponding proportion of male to female births in the quinquennium was 1,050, there being an actual excess of 2,250 females in the natural increase for the period.

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 periods 1891-1900, 1902-11, 1912-21, and 1922-33 :—

## DEATH RATES IN CERTAIN AGE GROUPS IN VICTORIA.

Age Group.	Average Annual Deaths per 1,000.			
	1891-1900.	1902-1911.	1912-1921.	1922-1933.
<i>Males.</i>				
Under 5 ..	39·29	26·73	23·85	17·32
5 to 9 ..	3·36	2·16	2·42	1·74
10 to 14 ..	2·20	1·87	1·75	1·40
15 to 19 ..	3·28	2·72	2·37	2·09
20 to 24 ..	4·79	3·51	3·57	2·77
25 to 34 ..	6·60	4·75	4·71	3·24
35 to 44 ..	9·03	7·81	7·14	5·31
45 to 54 ..	15·32	13·48	13·10	9·99
55 to 64 ..	32·90	25·38	25·05	23·12
65 to 74 ..	62·99	59·04	53·18	52·07
75 and upwards ..	145·05	157·26	157·97	127·72
All Ages ..	15·47	13·30	12·57	10·76
<i>Females.</i>				
Under 5 ..	34·09	22·35	19·26	13·71
5 to 9 ..	3·12	2·03	2·24	1·30
10 to 14 ..	2·06	1·78	1·56	1·05
15 to 19 ..	3·43	2·80	2·27	1·72
20 to 24 ..	4·81	3·59	3·56	2·54
25 to 34 ..	6·89	5·01	4·58	3·29
35 to 44 ..	8·68	7·16	6·01	4·55
45 to 54 ..	12·12	9·96	9·44	7·68
55 to 64 ..	23·64	18·80	17·46	16·06
65 to 74 ..	45·87	46·71	42·01	38·68
75 and upwards ..	124·33	131·77	136·61	114·31
All Ages ..	12·36	10·66	10·35	9·10

The figures show that at all ages lower death rates were experienced for both males and females during the period 1922-33 than in the previous periods.

The following statement shows the death rate per 1,000 of the population in each of the Australian States and in New Zealand for the last five years :—

Year.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.	New Zealand.
1930	8·93	8·39	8·19	8·46	8·79	8·82	8·56	8·56
1931	9·47	8·32	8·13	8·49	8·51	9·15	8·67	8·34
1932	9·29	8·27	8·35	8·58	8·54	8·90	8·63	8·02
1933	9·59	8·58	8·83	8·44	8·64	9·60	8·92	7·98
1934	10·18	8·95	8·57	9·26	9·23	10·23	9·32	8·48

The death rate in England and Wales was 12·3 in 1933.

The differences in the age and sex 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 a standard population, distributed according to sex, into eleven age groups. Mortality indexes for each State for the year 1934, as compiled by the Commonwealth Statistician, are as follows :—

INDEX OF MORTALITY FOR AUSTRALIA, 1934.

Year.	Index of Mortality for—						
	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.
1934	9·30	8·96	8·84	8·39	9·45	9·43	9·04

The following table, computed on the basis of allotment of all deaths to the place of usual residence, shows the number of deaths, and the deaths per 1,000 of the mean population in Greater Melbourne, the principal country towns, and the remainder of the State for the five-year periods 1923 to 1927 and 1928 to 1932, and the last three years.

Death rates in Municipalities.

## DEATHS IN GREATER MELBOURNE, PRINCIPAL COUNTRY TOWNS, AND REMAINDER OF STATE.

Municipality.	Annual Number of Deaths.					Deaths per 1,000 of Mean Population.				
	1923-1927.	1928-1932.	1932.	1933.	1934.	1923-1927.	1928-1932.	1932.	1933.	1934.
Greater Melbourne—										
Melbourne ..	1,264	1,091	1,023	1,098	1,139	12·83	11·57	11·17	12·21	12·64
Box Hill ..	*	125	132	144	150	*	8·81	8·69	9·39	9·77
Braybrook(Part)..	*	56	68	66	64	*	6·70	7·83	7·53	7·25
Brighton ..	242	272	286	267	290	9·43	9·22	9·61	8·99	9·63
Brunswick ..	520	532	560	578	575	10·50	9·57	10·26	10·64	10·60
Camberwell ..	316	430	458	477	470	9·15	8·87	9·17	9·53	9·27
Caulfield ..	463	552	553	594	648	8·52	8·72	8·57	9·15	9·90
Chelsea ..		63	66	81	76		9·24	9·85	12·23	11·06
Coburg ..	232	287	259	303	338	8·29	8·06	7·02	7·95	8·79
Collingwood ..	422	363	354	367	389	12·45	11·36	11·46	11·97	12·79
Essendon ..	404	429	435	460	487	9·51	9·30	9·46	9·98	10·57
Fitzroy ..	457	446	441	441	432	13·33	13·77	14·20	14·31	14·04
Footscray ..	397	402	403	385	439	9·78	8·79	8·74	8·32	9·47
Hawthorn ..	331	357	385	380	420	10·51	10·67	11·44	11·26	12·34
Heidelberg (Part)..	*	193	207	196	234	*	7·91	8·59	8·14	9·70
Kew ..	191	220	212	239	257	9·06	9·08	8·74	9·89	10·58
Malvern ..	368	404	419	472	493	8·71	8·78	9·69	10·91	11·30
Moorabbin ..		130	150	152	142		7·55	8·22	8·30	7·68
Mordialloc ..		85	74	75	89		8·86	7·88	8·14	9·30
Northcote ..	349	369	378	374	418	9·53	8·77	8·91	8·81	9·85
Oakleigh ..	*	101	140	103	125	*	8·72	11·81	8·65	10·42
Port Melbourne ..	151	137	142	147	141	11·49	10·26	10·99	11·39	10·92
Trarhan ..	608	628	612	643	661	11·80	11·96	11·83	12·45	12·65
Preston ..	168	242	242	253	280	9·44	8·20	7·83	7·93	8·74
Richmond ..	490	464	457	453	481	11·24	11·20	11·44	11·43	12·14
Sandringham ..	121	161	154	154	178	7·86	9·08	8·55	8·52	9·81
South Melbourne..	539	486	451	493	510	11·85	11·09	10·44	11·51	11·85
St. Kilda ..	441	452	458	501	567	10·73	9·84	9·90	10·76	11·91
Williamstown ..	237	211	210	192	235	11·82	9·63	9·52	8·66	10·56
Remainder of Metropolis ..	520	..	..	..	..	9·86	..	..	..	..
Country Towns—										
Ballarat ..	482	475	444	472	534	12·19	12·28	11·75	12·62	14·20
Bendigo ..	444	421	408	444	445	13·20	13·08	12·83	14·04	15·08
Geelong ..	401	455	434	475	444	10·16	10·40	9·96	10·88	11·24
Ararat ..	†	†	†	†	62	†	†	†	†	12·65
Castlemaine ..	78	73	60	75	60	10·19	10·61	9·10	11·50	11·32
Colac ..	†	†	†	†	58	†	†	†	†	11·60
Dandenong ..	†	†	†	†	51	†	†	†	†	10·85
Echuca ..	†	†	†	†	62	†	†	†	†	14·09
Hamilton ..	63	59	53	56	65	12·21	10·35	9·23	9·68	11·21
Horsham ..	†	†	†	†	65	†	†	†	†	12·26
Maryborough ..	59	59	57	73	69	12·25	10·66	10·18	12·96	12·32
Mildura ..	65	59	77	57	94	11·10	9·05	11·67	8·62	14·24
Sale ..	†	†	†	†	58	†	†	†	†	13·49
Shepparton ..	†	55	66	87	85	†	9·96	11·66	15·27	14·91
Stawell ..	53	51	57	49	57	11·38	10·87	12·00	10·31	11·88
Wangaratta ..	†	†	†	†	70	†	†	†	†	14·58
Warnambool ..	80	91	88	97	89	10·00	10·46	9·94	10·89	9·89
Wonthaggi ..	49	47	50	45	50	7·74	7·45	8·62	8·04	8·93
Summary—										
Greater Melbourne ..	9,231	9,688	9,729	10,088	10,728	10·38	9·74	9·79	10·17	10·75
Country Towns ..	1,769	1,845	1,794	1,930	2,418	11·25	11·22	11·02	11·90	12·33
Remainder of State ..	5,533	5,311	5,282	5,438	5,502	8·87	8·53	8·14	8·13	8·53
Victoria ..	16,533	16,844	16,805	17,456	18,648	9·91	9·45	9·30	9·59	10·18

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—The boundaries of Greater Melbourne were re-defined in 1929.

Residents of different areas dying in hospitals and other public institutions.

An examination of particulars of residence of persons who die in the public institutions of Victoria gives a definite indication of the assistance rendered by these institutions to people in different divisions of the State. The numbers and proportions of such deaths in the various municipalities are given below for 1934 :—

PROPORTION OF DEATHS OF RESIDENTS OF CERTAIN AREAS OCCURRING IN PUBLIC INSTITUTIONS, 1934.

Area.	Number of Deaths of Residents occurring in—		Percentage of Deaths of Residents occurring in—			Deaths of Residents occurring in Public Institutions per 1,000 of Population.
	Public Hospitals.	Other Public Institutions.	Public Hospitals.	Other Public Institutions.	Total Public Institutions.	
Greater Melbourne—						
Melbourne ..	402	130	35·30	11·41	46·71	5·90
Box Hill ..	29	16	19·33	10·67	30·00	2·93
Braybrook (Part) ..	19	6	29·69	9·37	39·06	2·83
Brighton ..	43	18	14·83	6·20	21·03	2·03
Brunswick ..	179	41	31·13	7·13	38·26	4·05
Camberwell ..	75	23	15·96	4·89	20·85	1·93
Caulfield ..	135	38	20·83	5·87	26·70	2·65
Chelsea ..	15	8	19·74	10·52	30·26	3·35
Coburg ..	113	24	33·43	7·10	40·53	3·56
Collingwood ..	156	40	40·10	10·29	50·39	6·45
Essendon ..	107	28	21·97	5·75	27·72	2·93
Fitzroy ..	177	47	40·97	10·88	51·85	7·28
Footscray ..	147	30	33·49	6·83	40·32	3·82
Hawthorn ..	73	29	17·38	6·91	24·29	3·00
Heidelberg (Part) ..	52	17	22·22	7·27	29·49	2·86
Kew ..	43	16	16·73	6·23	22·96	2·43
Malvern ..	81	24	16·43	4·87	21·30	2·41
Moorabbin ..	40	13	28·17	9·15	37·32	2·87
Mordialloc ..	25	9	28·09	10·11	38·20	3·55
Northcote ..	92	32	22·01	7·66	29·67	2·92
Oakleigh ..	35	10	28·00	8·00	36·00	3·75
Port Melbourne ..	42	10	29·79	7·09	36·88	4·03
Prahran ..	186	54	28·14	8·17	36·31	4·59
Preston ..	101	17	36·07	6·07	42·14	3·68
Richmond ..	179	45	37·21	9·36	46·57	5·65
Sandringham ..	41	18	23·04	10·11	33·15	3·25
South Melbourne ..	170	41	33·33	8·04	41·37	4·90
St. Kilda ..	137	33	24·16	5·82	29·98	3·57
Williamstown ..	68	11	28·94	4·68	33·62	3·55

PROPORTION OF DEATHS OF RESIDENTS OF CERTAIN AREAS  
OCCURRING IN PUBLIC INSTITUTIONS, 1934—*continued.*

Area.	Number of Deaths of Residents occurring in—		Percentage of Deaths of Residents occurring in—			Deaths of Residents occurring in Public Institutions per 1,000 of Population.
	Public Hospitals.	Other Public Institutions.	Public Hospitals.	Other Public Institutions.	Total Public Institutions.	
Country Towns—						
Ballarat .. ..	131	52	24·53	9·74	34·27	4·87
Bendigo .. ..	140	29	31·46	6·52	37·98	5·73
Geelong .. ..	134	18	30·18	4·05	34·23	3·85
Ararat .. ..	19	1	30·65	1·61	32·26	4·08
Castlemaine ..	17	7	28·33	11·67	40·00	4·53
Colac .. ..	26	1	44·83	1·72	46·55	5·40
Dandenong ..	8	3	15·69	5·88	21·57	2·34
Echuca .. ..	22	3	35·48	4·84	40·32	5·68
Hamilton .. ..	29	5	44·62	7·69	52·31	5·86
Horsham .. ..	29	2	44·62	3·07	47·69	5·85
Maryborough ..	33	4	47·82	5·80	53·62	6·61
Mildura .. ..	51	5	54·25	5·32	59·57	8·48
Sale .. ..	29	1	50·00	1·72	51·72	6·98
Shepparton ..	28	7	32·94	8·24	41·18	6·14
Stawell .. ..	22	1	38·60	1·75	40·35	4·79
Wangaratta ..	31	3	44·28	4·29	48·57	7·08
Warrnambool ..	32	7	35·95	7·87	43·82	4·33
Wonthaggi ..	21	4	42·00	8·00	50·00	4·46
Summary—						
Greater Melbourne	2,962	828	27·61	7·72	35·33	3·80
Country Towns ..	802	153	33·17	6·33	39·50	5·07
Remainder of State	1,372	269	24·94	4·89	29·83	2·55
Victoria .. ..	5,136	1,250	27·54	6·70	34·24	3·49

PERCENTAGE OF DEATHS OF RESIDENTS OF GREATER MELBOURNE, REST OF STATE, AND VICTORIA, OCCURRING IN PUBLIC HOSPITALS IN CERTAIN PERIODS SINCE 1910.

—	1910-14.	1920-24.	1925-29.	1932.	1933.	1934.
Greater Melbourne ..	24·3	27·0	29·5	27·6	26·9	27·6
Rest of State .. ..	17·0	21·2	23·7	25·5	26·5	27·4
Victoria .. ..	20·4	24·3	27·0	26·7	26·7	27·5

The proportion of residents of Greater Melbourne dying in public hospitals increased slightly between 1910-14 and 1925-29, but since the latter period has shown a tendency to recede. In the rest of the State the proportion, which in 1910-14 was 30 per cent. below that of Greater Melbourne, has increased constantly in each period, and in 1934, was on a level with the proportion for the metropolis.

The percentage of deaths occurring in the other public institutions of the State was 6·70 in 1934, 6·66 in 1933, and 6·47 in 1932. The rate in the metropolis is considerably higher than the rate for the rest of the State.

In 1934 the number of deaths in public institutions was 6,386, of which 3,790 were of residents of Greater Melbourne.

The number of deaths in each metropolitan public institution in 1934 is given in the subjoined table:—

DEATHS IN METROPOLITAN PUBLIC INSTITUTIONS, 1934.

Institution.	No. of Deaths.	Institution.	No. of Deaths.
<b>Hospitals—</b>		<b>Asylums—</b>	
Royal Melbourne .. .. .	882	<b>Mental—</b>	
Alfred .. .. .	561	Kew .. .. .	94
Hamilton Russell Com- munity .. .. .	29	Mont Park .. .. .	117
Children's .. .. .	408	Receiving House, Royal Park	73
St. Vincent's .. .. .	403	Macleod Military .. .. .	2
Austin .. .. .	349	<b>Total Mental .. .. .</b>	<b>286</b>
Women's .. .. .	218		
Prince Henry's .. .. .	166	<b>Benevolent—</b>	
Infectious Diseases .. .. .	120	Melbourne (Cheltenham) ..	260
Caulfield Repatriation .. ..	61	Victorian Homes for Aged and Infirm .. .. .	157
Queen Victoria .. .. .	105	Convent of Little Sisters of the Poor .. .. .	78
Jessie McPherson Com- munity .. .. .	21	Old Colonists' Homes .. ..	11
Williamstown .. .. .	38	<b>Total Benevolent .. .. .</b>	<b>506</b>
Caulfield Convalescent .. ..	3		
After Care Home .. .. .	2	<b>Foundling Homes, Refuges—</b>	
Eye and Ear .. .. .	31	Broadmeadows .. .. .	14
Police .. .. .	7	East Melbourne .. .. .	4
<b>Total Hospitals .. .. .</b>	<b>3,404</b>	The Haven, Fitzroy .. .. .	5
		Carlton .. .. .	1
<b>Sanatoria —</b>		Children's Welfare Depot .. ..	..
Heatherton .. .. .	34	Berwick .. .. .	..
Macleod Military .. .. .	1	<b>Total Refuges, etc. .. .. .</b>	<b>24</b>
Greenvale .. .. .	31		
Gresswell .. .. .	30	<b>Total Hospitals and other Institutions .. .. .</b>	<b>4,316</b>
<b>Total Sanatoria .. .. .</b>	<b>96</b>		

Of the 4,316 deaths in the above institutions, 2,538 were males and 1,778 were females.

In Greater Melbourne, in the decade 1925-34, there was an average of 9·96 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 approximately 56,000 lives in the last ten years. 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 1925-34 with those for the decennium 1892-1901. The following are the rates :—

Cause of Death.	Average Annual Deaths per 1,000,000 of Population.		
	1892-1901.	1925-34.	Decrease in 1925-34.
Pulmonary Tuberculosis ...	1,654	561	1,093
Other Tubercular Diseases ...	446	96	350
Typhoid Fever ... ..	293	9	284
Scarlet Fever ... ..	33	13	20
Measles ... ..	215	16	199
Diphtheria ... ..	196	62	134
Total ... ..	2,837	757	2,080

The figures show that the mortality from the six diseases mentioned declined by 73 per cent. in 1925-34—the decline representing a rate of 2,080 per million of the population.

The mortality from all causes showed a net decline of 5,800 per million of the population during the period mentioned.

The mortality of children under one year in proportion to births reveals a constant decline since 1890—the deaths per 1,000 children born having fallen from 133 in 1885-89 to 44 in 1930-34—a reduction of 67 per cent. In other words, where 100 infants died in the earlier years, only 33 died in the last five years.

**Infantile mortality**



The reduction has been contributed to by various health acts and educative measures, including the notification of infectious diseases, the regulation of the manufacture, sale, and distribution of foodstuffs and patent medicines, and the ensuring of a pure milk and water supply. The passing of the Midwives Act in 1915 and the inauguration of the Infant Welfare movement in 1917, coincide with, and, in a large degree, account for the reduction of the rate in the later years. Particulars of the latter movement will be found in Part "Social Condition" of this volume.

The infantile death rates for Greater Melbourne, the remainder of the State, and the whole State, for different periods since 1879, are shown in the following table:—

### INFANTILE MORTALITY IN VICTORIA, 1880 TO 1934

Period.	Greater Melbourne.		Remainder of State.		Victoria.	
	Average Annual Number of Deaths under One Year.	Rate per 1,000 Births.	Average Annual Number of Deaths under One Year.	Rate per 1,000 Births.	Average Annual Number of Deaths under One Year.	Rate per 1,000 Births.
1880-84..	1,649	170·1	1,626	92·3	3,275	120·0
1885-89..	2,576	178·5	1,812	97·9	4,388	133·3
1890-94..	2,311	140·4	1,926	94·9	4,237	114·7
1895-99..	1,650	131·5	1,913	100·0	3,563	112·5
1900-04..	1,417	116·5	1,565	86·2	2,982	98·2
1905-09..	1,209	96·5	1,307	71·5	2,516	81·2
1910-14..	1,345	84·2	1,201	64·9	2,546	73·8
1915-19..	1,302	76·2	886	55·4	2,188	66·1
1920-24..	1,328	71·6	1,024	58·6	2,352	65·3
1925-29..	1,034	58·4	863	50·2	1,897	54·4
1930-34..	674	47·3	618	40·7	1,292	43·9
1930 ..	847	50·7	694	42·3	1,541	46·5
1931 ..	711	48·0	638	41·1	1,349	44·5
1932 ..	629	47·7	552	38·7	1,181	43·0
1933 ..	550	40·9	598	40·0	1,148	40·4
1934 ..	634	48·2	608	41·4	1,242	44·6

In computing birth and death rates the system was introduced in 1923 of allotting all births and deaths to the place of usual residence of the parties. In the cases of births and infantile deaths the mother's residence is considered to be that of the child. This accounts for the slight increase in the rate for the remainder of the State in the period 1920-24, and a corresponding decrease in the rate for the Metropolis.

The record low infantile death rate for Victoria (40·4) was experienced in 1933.

The number of deaths of infants under 1 year of age, and the deaths per 1,000 births in Greater Melbourne, the principal country towns, and the remainder of the State for the five-year periods 1923 to 1927 and 1928 to 1932, and the last three years were as follows:—

Infantile  
deaths in  
municipalities.

## INFANTILE DEATHS IN GREATER MELBOURNE, PRINCIPAL COUNTRY TOWNS, AND REMAINDER OF STATE.

Municipality.	Annual Number of Deaths under One Year.					Deaths under One Year per 1,000 Births.				
	1923- 1927.	1928- 1932.	1932.	1933.	1934.	1923- 1927.	1928- 1932.	1932.	1933.	1934.
Greater Melbourne—										
Melbourne ..	163	86	62	56	56	89·97	63·95	58·00	47·74	50·00
Box Hill ..	*	10	8	9	10	*	37·04	37·38	41·47	50·76
Braybrook (Part) ..	*	6	5	9	15	*	33·19	33·56	47·87	84·27
Brighton ..	20	15	14	7	9	41·49	39·11	44·73	21·41	26·16
Brunswick ..	77	60	53	32	38	65·99	61·63	64·01	41·83	50·20
Camberwell ..	34	30	25	22	28	42·15	34·68	35·61	29·89	40·62
Caulfield ..	52	39	35	25	35	48·65	41·87	47·62	32·77	44·99
Chelsea ..	..	6	6	4	4	..	47·32	50·85	34·19	37·04
Coburg ..	44	33	19	24	37	62·29	44·47	29·69	36·42	60·26
Collingwood ..	62	38	38	17	34	89·80	71·78	81·02	33·86	69·25
Essendon ..	52	33	23	25	24	61·26	42·83	37·22	42·02	42·78
Fitzroy ..	57	41	35	27	34	83·50	79·33	77·78	56·48	72·49
Footscray ..	68	41	31	24	32	69·21	47·34	43·06	34·88	45·58
Hawthorn ..	25	16	11	11	17	47·66	37·23	30·89	30·90	43·81
Heidelberg (Part)	*	20	15	7	16	*	49·37	44·38	21·88	44·57
Kew ..	17	15	7	7	9	45·38	43·06	26·72	24·91	35·43
Malvern ..	28	19	16	18	15	44·63	38·91	44·32	41·70	32·05
Moorabbin ..	..	14	7	19	12	..	34·17	19·50	50·94	34·38
Mordialloc ..	..	8	4	3	10	..	55·48	35·40	23·62	33·33
Northcote ..	54	38	32	23	22	60·16	51·78	51·20	39·05	40·00
Oakleigh ..	..	12	16	9	4	..	46·18	78·05	40·91	20·51
Port Melbourne ..	25	16	13	18	7	89·08	71·24	60·47	92·31	40·70
Prahran ..	58	41	26	23	46	66·12	58·62	43·84	39·52	71·54
Preston ..	30	31	24	21	24	54·80	44·08	42·25	34·37	41·74
Richmond ..	65	46	32	35	29	73·81	65·53	54·05	59·93	48·66
Sandringham ..	15	10	9	9	13	53·86	35·95	41·67	42·86	63·73
South Melbourne ..	77	47	32	28	15	89·52	70·87	55·65	51·57	30·12
St. Kilda ..	34	22	20	25	22	50·97	41·67	43·67	49·70	48·03
Williamstown ..	33	19	11	13	17	67·99	44·44	34·48	40·12	53·63
Remainder of Metropolis ..	75	..	..	..	..	54·99	..	..	..	..
Country Towns—										
Ballarat ..	49	34	24	30	35	67·88	51·84	41·10	48·70	58·63
Bendigo ..	48	33	24	26	16	77·81	60·00	47·43	49·81	28·67
Geelong ..	61	49	40	45	38	70·75	58·56	57·31	62·07	54·91
Ararat ..	†	†	†	†	6	†	†	†	†	53·57
Castlemaine ..	8	5	5	3	5	59·18	47·80	69·44	27·03	62·08
Colac ..	†	†	†	†	5	†	†	†	†	53·19
Dandenong ..	†	†	†	†	8	†	†	†	†	76·19
Echuca ..	†	†	†	†	7	†	†	†	†	62·50
Hamilton ..	10	5	6	3	6	66·76	34·63	57·14	25·00	56·07
Horsham ..	†	†	†	†	5	†	†	†	†	50·00
Maryborough ..	6	5	3	5	2	48·03	45·84	25·00	42·02	18·87
Mildura ..	13	9	9	4	5	66·53	47·83	48·65	22·86	27·32
Sale ..	†	†	†	†	4	†	†	†	†	48·19
Shepparton ..	†	8	5	4	8	†	54·16	31·25	29·85	50·96
Stawell ..	7	3	2	3	5	61·15	28·26	21·98	36·14	56·18
Wangaratta ..	†	†	†	†	6	†	†	†	†	62·50
Warrnambool ..	9	9	3	4	5	49·34	52·33	16·22	25·32	25·51
Wonthaggi ..	10	8	10	3	10	63·99	53·67	86·21	26·79	104·17
Summary—										
Greater Melbourne ..	1,165	812	629	550	634	65·05	50·94	47·70	40·87	48·19
Country Towns ..	221	163	131	130	176	69·40	53·24	46·42	45·22	49·18
Remainder of State ..	725	535	421	468	432	49·25	42·12	36·75	38·80	38·94
Victoria ..	2,111	1,515	1,181	1,148	1,242	59·16	47·65	43·00	40·43	44·63

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—The boundaries of Greater Melbourne were re-defined in 1929.

The prejudicial effect of city surroundings on infant life is evidenced by the higher rate of infantile mortality in urban than in country districts. During the years 1930-34 the deaths of children under 1 year of age to every 1,000 births were 47 in Melbourne, 55 in Ballarat, 46 in Bendigo, and 59 in Geelong, as against 39 in the remainder of the State.

An investigation into the experience in regard to infantile mortality over a period of years discloses that the decrease in the infantile death rate, since the earlier periods, has been shared proportionately by each sex, and also by each age period, except that of "under one week." The rate per 1,000 births of infants "under one week," which in 1934 comprised 49 per cent. of the total infantile mortality, has varied from 21.5 in the quinquennium 1910-14 (the earliest years for which the information is available) to 23.7 in 1920-24 and 22.0 in 1934. Between 1910-14 and 1930-34 the mortality of infants "one week and under one month" decreased by 50 per cent. and that of infants "one month and under one year" by 61 per cent. Victoria lost, between the ages of one month and one year, sixty-four out of every 1,000 children born in 1900-04, thirty-three in 1915-19, and sixteen in 1930-34.

On the average of the years 1930-34, the total rate for males was higher than that for females by 28.3 per cent.

The tables which follow show the percentage of deaths of infants at various ages under one year for certain periods since 1899, and male and female death rates at each age period for the year 1934:—

INFANTILE MORTALITY IN VICTORIA AT DIFFERENT AGES, 1900 TO 1934.

Period.	Deaths Under One Year per 1,000 Births.						Males.	Females
	Under 1 Week.	1 Week to 1 Month.	1 and 2 Months.	3 to 5 Months.	6 to 11 Months.	Total under 1 Year.		
1900-04 ..		34.4	16.9	21.0	25.9	98.2	105.7	90.4
1905-09 ..		33.0	13.8	15.1	19.3	81.2	89.3	72.6
1910-14 ..	21.5	11.1	12.1	12.4	16.7	73.8	81.8	65.3
1915-19 ..	23.3	10.1	10.5	9.4	12.8	66.1	73.0	58.7
1920-24 ..	23.7	9.3	9.8	10.0	12.5	65.3	71.8	58.5
1925-29 ..	22.7	7.7	6.9	6.7	10.4	54.4	60.7	47.6
1930-34 ..	22.3	5.5	4.8	4.6	6.7	43.9	49.2	38.4
1930 ..	21.7	6.2	5.5	5.3	7.8	46.5	50.8	42.0
1931 ..	22.9	5.7	4.8	4.6	6.5	44.5	49.9	38.7
1932 ..	22.6	4.6	4.5	4.6	6.7	43.0	49.2	36.5
1933 ..	22.3	5.3	4.2	3.5	5.1	40.4	45.7	35.0
1934 ..	22.0	5.7	5.1	4.9	6.9	44.6	50.1	39.0

### INFANTILE MORTALITY AT DIFFERENT AGES, MALES AND FEMALES, 1934.

Age.	Males.			Females.		
	Number.	Rate per 1,000 Births.	Percentage at each Age.	Number.	Rate per 1,000 Births.	Percentage at each Age.
Under 1 week ..	342	24·15	48·24	271	19·82	50·84
1 week and under 1 month	91	6·43	12·83	67	4·90	12·57
1 and 2 months ..	89	6·29	12·55	53	3·88	9·94
3 to 5 months ..	82	5·79	11·57	56	4·10	10·51
6 to 11 months ..	105	7·42	14·81	86	6·29	16·14
Total under one year ..	709	50·08	100·00	533	38·99	100·00

**Infantile death rates from certain causes.**

An examination of the principal causes of infantile mortality over a period of years and at various ages reveals the direction in which an improvement has been achieved, and discloses those causes and factors to which future investigations need be directed if the decline in the rate is to be maintained. In the following tables the mortality under one year of age from the principal causes is given for various periods since 1890, and in age groups for 1934.

### INFANTILE DEATH RATES FROM CERTAIN CAUSES

Cause of Death.	Deaths under One Year per 1,000 Births in—						
	1891-93.	1901-10.	1911-20.	1921-30.	1932.	1933.	1934.
Epidemic, Endemic, and Infectious Diseases ..	12·41	7·31	4·87	3·57	2·84	2·61	3·59
Bronchitis, Broncho-pneumonia, Pneumonia ..	11·37	8·13	6·86	6·08	5·24	5·49	7·55
Diarrhoeal Diseases ..	29·66	24·62	16·13	9·85	3·09	1·62	2·88
Malformations, &c. (157) ..	3·45	4·86	4·88	4·43	3·86	5·18	4·39
Wasting Diseases (158) ..	22·24	12·74	13·09	6·77	3·85	3·13	2·80
Prematurity ..	18·13	14·99	15·17	15·34	13·84	12·61	11·21
Injury at birth ..				2·57	3·24	3·13	3·70
Early Infancy (161) ..	21·51	12·77	7·98	3·42	4·15	4·16	5·14
Other diseases ..				4·42	2·45	1·62	2·44
Violence ..	3·16	2·47	1·07	·80	·94	·88	·93
Total, all Causes ..	116·93	87·89	69·55	57·25	43·00	40·43	44·63

**INFANTILE DEATH RATES, AT DIFFERENT AGES, FROM  
CERTAIN CAUSES, 1934.**

Cause of Death.	Deaths under One Year per 1,000 Births.									
	Age Period.						Total.	Males.	Females.	Average Annual Rate, 1930-34.
	Under 1 Week.	1 Week and under 1 Month.	1 Month and under 3 Months.	3 Months and under 6 Months.	6 Months and under 12 Months.					
Epidemic, Endemic, and Infectious Diseases ..	.04	.32	.61	.90	1.72	3.59	3.67	3.51	3.15	
Bronchitis, Broncho-pneumonia, Pnuemonia ..	.93	1.12	1.76	1.58	2.16	7.55	8.97	6.07	5.96	
Diarrhoeal Diseases ..	.04	.36	.39	.58	1.51	2.88	3.53	2.20	3.03	
Malformations, &c. (157)	2.05	.69	.90	.50	.25	4.39	5.16	3.58	4.47	
Wasting Diseases (158)	1.40	.32	.47	.36	.25	2.80	3.18	2.41	3.57	
Prematurity .. ..	9.67	1.19	.28	.07	..	11.21	11.51	10.90	13.26	
Injury at Birth ..	3.16	.50	.04	..	..	3.70	4.52	2.85	3.16	
Early Infancy (161) ..	4.13	.86	.15	..	..	5.14	5.16	5.12	4.13	
Other Diseases ..	.29	.32	.32	.72	.79	2.44	3.32	1.54	2.41	
Violence .. ..	.32	..	.18	.25	.18	.93	1.06	.81	.77	
Total, all Causes ..	22.03	5.68	5.10	4.96	6.86	44.63	50.08	38.99	43.91	
Average Annual Rate, 1930-34 ..	22.33	5.53	4.82	4.60	6.63	43.91	49.20	38.36	..	

The mortality of infants under one year from pre-natal causes (malformations, congenital debility, prematurity, injury at birth etc.) was 28.6 per 1,000 births in 1930-34 and represented 65 per cent. of all infants who died. Variations in classification in the earlier years prevent exact comparison but no appreciable decline is evident. The rate in 1934 was 27.2, of which 75 per cent. occurred in the first week of life.

The mortality from the chief preventable diseases—*infectious, respiratory, and diarrhoeal*—has declined from 40·1 per 1,000 births in 1901-10 to 27·9 in 1911-20 and 12·1 in 1930-34. Of these causes, deaths from diarrhoeal diseases declined from 24·6 per 1,000 births in 1901-10 to 3·0 in 1930-34, the main respiratory diseases from 8·1 to 6·0 and the infectious from 7·3 to 3·1. It will thus be seen that since the beginning of this century mortality of infants from diarrhoeal diseases has been reduced by 88 per cent.; the main respiratory diseases by 26 per cent.; and the infectious by 58 per cent. Of recent years respiratory diseases have displaced diarrhoeal as the most fatal of the preventable infantile diseases. With few exceptions the mortality rate of males from infantile diseases is consistently higher than that of females.

The following table shows the number of deaths from the principal causes, and the death rate of infants under one month for Greater Melbourne and the whole State, for the years 1930 to 1934:—

#### DEATHS OF INFANTS UNDER ONE MONTH, 1930 TO 1934.

Cause of Death.	Greater Melbourne.					Victoria.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
Epidemic, Endemic, and Infectious Diseases ..	2	5	1	4	5	7	9	3	6	10
Bronchitis, Broncho-pneumonia, Pneumonia ..	27	23	19	27	37	37	40	28	39	57
Diarrhoeal Diseases ..	..	2	4	..	5	3	4	9	2	11
Malformations, &c. (157) ..	46	44	26	51	36	99	89	65	110	76
Wasting Diseases (158) ..	52	24	26	21	14	120	76	63	59	48
Prematurity ..	234	208	166	153	152	439	411	361	345	302
Injury at Birth ..	47	39	40	34	48	94	87	88	88	102
Early Infancy (161) ..	66	67	59	55	79	100	127	111	116	139
Other Diseases ..	8	7	4	8	4	21	18	13	14	17
Violence ..	5	3	2	4	5	6	8	7	6	9
<b>Total, all Causes ..</b>	<b>487</b>	<b>422</b>	<b>347</b>	<b>357</b>	<b>385</b>	<b>926</b>	<b>869</b>	<b>748</b>	<b>785</b>	<b>771</b>
Deaths per 1,000 Births	29·1	28·5	26·3	26·5	29·3	28·0	28·6	27·2	27·6	27·7

#### Stillbirths and Infantile Mortality.

A survey of the mortality from pre-natal causes is not complete without taking into account the loss due to stillbirths. In Victoria stillbirths are not registered, but cases are notified to registrars in accordance with the provisions of the Cemeteries Act and the (Commonwealth) Maternity Allowance Act. Rates based on these notifications should be regarded as minimum rates, as they possibly understate the full extent of the loss.

The following table contains information relating to stillbirths and infantile mortality in Victoria for the years 1925 to 1934.

Year.	Percentage of Stillbirths to—		Deaths of Infants under One Year per 1,000 Births.			
	Living Births.	All Births.	Exclusive of Stillbirths.			*Inclusive of Stillbirths.
			Under One Month.	One Month and under Twelve Months.	Total under One Year.	
1925 ..	3.1	3.0	30.9	26.1	57.0	85.2
1926 ..	3.0	2.9	29.7	25.9	55.6	82.9
1927 ..	3.0	2.9	31.3	24.8	56.1	83.8
1928 ..	2.8	2.7	29.5	26.1	55.6	80.9
1929 ..	3.1	3.0	30.4	16.8	47.2	76.0
1930 ..	3.0	2.9	28.0	18.5	46.5	74.2
1931 ..	2.8	2.7	28.6	15.9	44.5	70.4
1932 ..	2.9	2.8	27.2	15.8	43.0	69.9
1933 ..	2.9	2.8	27.6	12.8	40.4	67.1
1934 ..	3.1	3.0	27.7	16.9	44.6	73.6

\* In the computation of the rates for the numbers inclusive of stillbirths, the latter are taken into account in both births and deaths.

It will be seen that, as with other mortality due to pre-natal influences, the rate of stillbirths shows little tendency to decrease.

On the average of the last ten years, 98 in every 1,000 ex-nuptial infants died within a year, as against 47 in every 1,000 nuptial children. It is thus seen that the proportion of ex-nuptial children dying before the age of 1 year is 2.1 times that of nuptial children. In the year 1934 the mortality rate of nuptial infants was 42.4 per 1,000 births. The children born out of wedlock during the same year numbered 1,184, and the deaths of ex-nuptial infants were 113, the death rate being thus 95.4 per 1,000 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 nuptial and ex-nuptial births, for the periods 1904-08, 1914-18, 1924-28 and the year 1934 :—

**DEATH RATES OF NUPTIAL AND EX-NUPTIAL INFANTS FROM CERTAIN CAUSES.**

Cause of Death.	Deaths under One Year per 1,000 Births.							
	Nuptial.				Ex-nuptial.			
	1904-08.	1914-18.	1924-28.	1934.	1904-08.	1914-18.	1924-28.	1934.
Bronchitis, Broncho-pneumonia, Pneumonia ..	6.9	6.1	5.9	6.9	18.6	12.5	13.0	21.1
Diarrhoeal Diseases ..	19.8	14.2	8.9	2.7	72.6	48.6	23.1	7.6
Prematurity, Congenital Malformations, Marasmus, &c.* ..	30.3	27.2	25.0	17.9	52.1	64.9	46.9	29.5
Other causes ..	18.3	15.3	14.7	14.0	58.7	36.6	29.3	37.2
<b>Total, all Causes ..</b>	<b>75.3</b>	<b>62.8</b>	<b>54.5</b>	<b>42.4</b>	<b>202.0</b>	<b>162.6</b>	<b>112.3</b>	<b>95.4</b>

\* Not including "Injury at Birth" and "Other Diseases peculiar to Early Infancy."

The rates for the last five years show that of every 1,000 children born out of wedlock 10·4 died from diarrhoeal diseases within a year, as compared with 2·6 deaths per 1,000 nuptial 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 nuptial 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 ex-nuptial infants. The rates from bronchitis, broncho-pneumonia, and pneumonia were 15·3 and 5·5 per 1,000 births respectively.

The following statement shows the infantile death rate per 1,000 births in each of the Australian States and in New Zealand, for the last five years.

Year.	Vic-toria.	New South Wales.	Queens-land.	South Aus-tralia.	Western Aus-tralia.	Tas-man-ia.	Aus-tralia.	New Zealand.
1930	46·61	49·84	39·97	48·38	46·74	50·56	47·24	34·48
1931	44·47	43·48	36·67	36·35	41·53	45·99	42·14	32·15
1932	43·00	40·98	40·19	36·62	44·57	41·19	41·30	31·22
1933	40·43	39·33	42·62	32·13	36·83	41·07	39·49	31·64
1934	44·63	46·36	40·61	35·58	40·89	42·28	43·59	32·11

The infantile death rate in England and Wales was 63·3 in 1933.

The infantile deaths per 1,000 births in the Australasian capitals in 1934 were as follows:—Melbourne, 48·2; Sydney, 44·2; Brisbane, 42·7; Adelaide, 39·9; Perth, 40·6; Hobart, 42·4; and Wellington, 30·8.

In 1934 the deaths of male children under 5 years of age numbered 949, and the deaths of female children under that age, 749—the former being in the proportion of 9·57 per cent., and the latter of 8·57 per cent., to the total number of deaths of the respective sexes at all ages. Previous issues of the *Year-Book* contain detailed information relating to the deaths of children under 5 years of age for periods since 1870.

Deaths of children under 5.



The ages of males and females who died in each of the last three years are shown in the following table:—

AGES AT DEATH IN VICTORIA, 1932 TO 1934.

Ages.	1932.			1933.			1934.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 year	692	489	1,181	662	486	1,148	709	533	1,242
1 year	110	90	200	92	84	176	98	94	192
2 years	48	56	104	63	48	111	55	49	104
3 "	55	30	85	48	29	77	48	33	81
4 "	44	30	74	40	44	84	39	40	79
5 to 9	175	136	311	123	88	211	136	90	226
10 " 14	114	66	180	106	82	188	125	85	210
15 " 19	134	109	243	145	102	247	150	124	274
20 " 24	181	154	335	168	159	327	191	149	340
25 " 29	168	154	322	205	172	377	201	210	411
30 " 34	197	192	389	200	205	405	192	191	383
35 " 39	258	228	486	237	236	473	240	233	473
40 " 44	296	265	561	304	271	575	318	320	638
45 " 49	367	336	703	425	317	742	444	380	824
50 " 54	491	406	897	492	408	900	538	434	972
55 " 59	590	462	1,052	701	496	1,197	733	514	1,247
60 " 64	855	684	1,539	873	690	1,563	915	730	1,645
65 " 69	1,168	889	2,057	1,188	978	2,166	1,187	928	2,115
70 " 74	1,228	987	2,215	1,290	1,062	2,352	1,379	1,186	2,565
75 " 79	909	854	1,763	997	981	1,978	1,169	1,072	2,241
80 " 84	535	575	1,110	542	592	1,134	602	708	1,310
85 " 89	275	398	673	277	397	674	307	415	722
90 " 94	82	163	245	111	175	286	109	165	274
95 ..	10	21	31	8	14	22	8	13	21
96 ..	3	8	11	4	7	11	8	11	19
97 ..	6	11	17	3	11	14	3	8	11
98 ..	3	7	10	3	5	8	3	3	6
99 ..	1	3	4	..	6	6	2	8	10
100 ..	..	1	1	1	3	4	4	2	6
101 ..	1	3	4	..	..	..	..	2	2
102 ..	1	..	1	..	..	..	..	2	2
103 ..	..	..	..	..	..	..	..	1	1
104 ..	..	..	..	..	..	..	..	1	1
105 ..	1	..	1	..	..	..	..	..	..
109 ..	..	..	..	..	..	..	..	1	1
Total ..	8,998	7,807	16,805	9,308	8,148	17,456	9,913	8,735	18,648

NOTE.—Ages of very old people are frequently overstated; where particulars are available these are verified from official records.

Of the 52,909 persons who died in Victoria during the last three years 6,653 were aged 80 years and upwards, and 24—eight males and sixteen females—were stated as having attained or passed the age of 100 years.

The following tables show the causes of death in Victoria according to the international abridged classification for the period 1922-26 and for the last three years:—

CAUSES OF DEATH, VICTORIA, 1922-26, 1932, 1933, and 1934.

International Abridged Classification.	Number—			Deaths per Million of the Population.			
	1932.	1933.	1934.	1922-1926.	1932.	1933.	1934.
1. Typhoid Fever (1, 2)	12	16	11	21	7	9	6
4. Measles	17	13	25	17	9	7	14
5. Scarlet Fever	38	12	19	10	21	7	10
6. Whooping Cough	27	38	84	60	15	21	46
7. Diphtheria	166	126	110	59	92	69	60
8a. Influenza—Respiratory	53	130	231	61	29	71	126
8b. Influenza—Other	35	65	83	52	20	36	45
10. Tuberculosis of the Respiratory System	813	737	753	575	450	405	411
11a. Tubercular Meningitis	49	39	40	42	27	21	22
11b. Other Tuberculous Diseases	89	82	96	58	49	45	52
12. Syphilis	52	46	48	24	29	25	26
13. Malaria	1	2	2	1	1	1	1
14. Other Infectious or Parasitic Diseases	145	157	123	120	80	87	68
15. Cancer and other Malignant Tumours	2,128	2,148	2,173	1,000	1,178	1,180	1,190
16. Tumours, Non-Malignant or of Unspecified Nature	90	89	85	51	50	49	46
17. Chronic Rheumatism, Gout (57-58)	58	61	73	38	32	33	40
18. Diabetes Mellitus	296	296	319	112	164	163	174
19. Acute and Chronic Alcoholism	4	8	4	11	2	4	2
20. Other General Diseases (Classes 3, 4, 5)	304	292	329	165	169	161	180
21. Locomotor Ataxia, General Paralysis of Insane (80, 83)	29	46	37	31	16	25	20
22. Cerebral Haemorrhage, Embolism, &c. (82)	942	993	984	†	522	545	537
23. Other Diseases of Nervous System and Sense Organs	333	298	355	236	184	164	194
24. Diseases of the Heart (90-95)	3,173	3,423	3,684	1,347	1,757	1,880	2,012
25a. Arterio-sclerosis	798	834	922	†	442	458	504
25b. Other Diseases of Circulatory System	161	124	159	82	89	68	87
26a. Acute Bronchitis (106a and c)	41	44	51	48	23	24	28
26b. Chronic Bronchitis (106b and d)	205	177	213	147	114	97	116
27. Pneumonia (all forms) (107-109)	1,063	1,233	1,427	734	539	677	779
28. Other Diseases of the Respiratory System	347	364	369	214	190	200	202
29a. Diarrhoea and Enteritis (under two years of age)	123	77	106	294	68	42	58
29b. Diarrhoea and Enteritis (two years and over)	122	121	173	86	68	67	94
30. Appendicitis	125	126	124	71	69	69	68
31a. Cirrhosis of the Liver	94	94	88	49	52	52	48
31b. Other Diseases of the Liver and Biliary Calculi (125-127)	137	159	152	60	76	87	83
32a. Hernia, Intestinal obstruction	136	155	159	99	75	85	87
32b. Other Diseases of the Digestive System	234	253	260	148	130	139	142
33. Nephritis (130-132)	998	1,096	1,118	505	553	602	611
34. Other Diseases of the Genito-Urinary System	274	279	321	151	151	153	175
35a. Post-Abortive Sepsis	9	7	8	†	5	4	4
35b. Criminal Abortion (140b)	30	28	37	†	17	15	20
35c. Puerperal Septicaemia (without abortion)	27	30	32	†	15	16	17
36. Other Diseases of Pregnancy and Labour	89	61	93	†	49	34	51
37. Diseases of the Skin, Bones, &c.	82	89	87	61	45	49	48
38. Congenital Debility, Malformations, Premature Birth, &c.	809	835	791	731	448	459	432
39. Senility	1,031	1,041	1,087	802†	571	572	594
40. Suicide	174	187	171	87	96	103	93
41. Homicide	16	30	26	14	9	16	14
42. Accidental or Violent Death (176-198)	772	834	934	465	428	458	510
43. Non-specified or ill-defined Causes	54	61	67	94	30	34	37
* Total All Causes	16,805	17,456	18,648	9,898	9,305	9,588	10,184

\* One death from No. 2 Typhus-Fever in 1926, no deaths from No. 3 Small Pox and No. 9 Plague.

† Comparable figures not available.

‡ Vide page 88.

Detailed classification numbers in brackets.

CAUSES OF DEATH, VICTORIA, GREATER MELBOURNE,  
AND REST OF STATE, 1934.

International Abridged Classification.	Number of Deaths.				Deaths per 1,000,000 of Population.	
	Victoria.		Metro-polis.	Rest of State.	Metro-polis.	Rest of State.
	Males.	Fe-males.				
1. Typhoid Fever (1, 2)	7	4	6	5	6	6
4. Measles	10	15	18	7	18	8
5. Scarlet Fever	11	8	15	4	15	5
6. Whooping Cough	45	39	48	36	48	43
7. Diphtheria	43	67	49	61	49	73
8a. Influenza—Respiratory	114	117	114	117	114	140
8b. Influenza—Other	37	46	42	41	42	49
10. Tuberculosis of the Respiratory System	419	334	470	283	471	340
11a. Tubercular Meningitis	21	19	27	13	27	16
11b. Other Tuberculous Diseases	55	41	55	41	55	49
12. Syphilis	39	9	34	14	34	17
13. Malaria	2	..	..	2	..	2
14. Other Infectious or Parasitic Diseases	76	47	65	58	65	70
15. Cancer and other Malignant Tumours	1,074	1,104	1,311	867	1,314	1,041
16. Tumours, Non-Malignant or of Unspecified Nature	38	47	41	44	41	53
17. Chronic Rheumatism, Gout (57-58)	27	46	38	35	38	42
18. Diabetes Mellitus	116	203	195	124	196	149
19. Acute and Chronic Alcoholism	3	1	3	1	3	1
20. Other General Diseases (Classes 3, 4, 5)	150	179	182	147	182	176
21. Locomotor Ataxia, General Paralysis of Insane (80, 83)	32	5	28	9	28	11
22. Cerebral Haemorrhage, Embolism, &c. (82)	444	540	621	363	622	436
23. Other Diseases of Nervous System and Sense Organs	181	174	190	165	191	198
24. Diseases of the Heart (90-95)	1,997	1,687	2,270	1,414	2,275	1,697
25a. Arterio-sclerosis	423	494	606	316	607	379
25b. Other Diseases of Circulatory System	91	68	96	63	96	76
26a. Acute Bronchitis (106a and c)	25	26	34	17	34	21
26b. Chronic Bronchitis (106b and d)	109	104	129	84	129	101
27. Pneumonia (all forms) (107-109)	777	650	782	645	784	774
28. Other Diseases of the Respiratory System	242	127	183	186	184	223
29a. Diarrhoea and Enteritis (under two years of age)	64	42	54	52	54	63
29b. Diarrhoea and Enteritis (two years and over)	84	89	89	84	89	101
30. Appendicitis	80	44	66	58	66	70
31a. Cirrhosis of the Liver	60	28	60	28	60	34
31b. Other Diseases of the Liver and Biliary Calculi (125-127)	53	99	93	59	93	71
32a. Hernia, Intestinal obstruction	87	72	85	74	85	89
32b. Other Diseases of the Digestive System	173	87	159	101	160	121
33. Nephritis (130-132)	598	520	698	420	700	504
34. Other Diseases of the Genito-Urinary System	229	92	202	119	203	143
35a. Post-Abortive Sepsis	..	8	1	7	1	8
35b. Criminal Abortion (1406)	..	37	26	11	26	13
35c. Puerperal Septicæmia (without abortion)	..	32	16	16	16	19
36. Other Diseases of Pregnancy and Labour	..	93	38	55	38	66
37. Diseases of the Skin, Bones, &c.	49	38	52	35	52	42
38. Congenital Debility, Malformations, Premature Birth, &c.	433	358	390	401	391	481
39. Senility	497	590	446	641	447	769
40. Suicide	130	41	83	88	83	106
41. Homicide	16	10	20	6	20	7
42. Accidental or Violent Death (176-198)	701	233	475	459	476	551
43. Non-specified or ill-defined Causes	46	21	23	44	23	53
<b>*TOTAL ALL CAUSES</b>	<b>9,913</b>	<b>8,735</b>	<b>10,728</b>	<b>7,920</b>	<b>10,751</b>	<b>9,507</b>

\* No deaths from No. 2 Typhus Fever, No. 3 Small Pox, and No. 9 Plague.

Detailed classification numbers in brackets.

**Typhoid fever.**

Up to the beginning of the present century, typhoid fever was regarded as one of the chief menaces to the health of the community, but the introduction and subsequent extensions of the sewerage system and the increased supervision of water supplies, dairying, &c., have resulted in its incidence being reduced to very small proportions. In 1934, deaths numbered 11, being equivalent to a rate of 6 per million of population, as compared with rates of 9 in 1933, 7 in 1932, 14 in 1931, 31 in 1920-24, 108 in 1905-09, and 301 in 1895-99. Cases of typhoid fever reported in 1934 numbered 58, or 32 per million of population, as against 259 in 1920-24, and 2,884 in 1895-99. The deaths per 100 cases were 14.2 in 1930-34 and 10.4 in 1895-99.

**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 1934 only 31 deaths occurred from this cause, and of that number only 8 took place in the last fifty years of the period. The last death from small-pox occurred in 1921.

**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 1934 there were 25 deaths attributed to this cause, representing a rate of 14 per million of the population, as compared with rates of 7 in 1933, 9 in 1932, 8 in 1931, and 19 in 1930.

On the average of the five years 1930 to 1934, 44 per cent. of those who died from the disease were under 2 years of age and 76 per cent. were under 5 years.

**Scarlet fever.**

In 1934 the deaths from scarlet fever numbered 19, which corresponded to a rate of 10 per million of the population, as compared with rates of 7 in 1933, 21 in 1932, 15 in 1931, 6 in 1930, and 34 in 1890-92. During 1934 there were 1,834 cases reported, as against 2,493 in 1933, 4,152 in 1932, 3,386 in 1931, and 2,071 in 1930. For the five years mentioned the deaths were less than one per cent. of the cases. Seventy-seven per cent. of these deaths were of children under 10 years of age. According to the experience of the last ten years the chance of dying from the disease is 41 per cent. greater for females than for males.

**Whooping cough.**

Whooping cough was responsible for 84 deaths in 1934, which equalled a rate of 46 per million of the population at all ages, as compared with rates of 21 in 1933, 15 in 1932, 40 in 1931, and 40 in 1930. 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 47 of the deaths were of infants under 1 year, and all except two of the deaths were of children less than 5 years of age. On the average of the last ten years the

mortality rate from the disease was 30 per cent. higher among females than males.

The continued prevalence of diphtheria throughout the State since 1910, is one of the few instances in which morbidity statistics have not revealed material improvement. On the other hand a very great reduction has taken place since 1890, in the proportion of cases which ended fatally.

On the average of the five years 1930 to 1934, 47 per cent. of those who died were under 5 years, and 88 per cent. were under 10 years of age.

The appended table shows for Victoria and Greater Melbourne 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 1934.

Period.	Annual Cases Reported.		Annual Deaths.		Deaths per 100 Cases Reported.
	Number.	Per 100,000 of Population.	Number.	Per 100,000 of Population.	
VICTORIA.					
1895-99 .. ..	1,584	134·6	221	18·8	13·9
1900-04 .. ..	1,680	139·0	159	13·2	9·5
1905-09 .. ..	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
1920-24 .. ..	5,739	364·6	179	11·4	3·1
1925-29 .. ..	3,176	183·8	93	5·4	2·9
1930-34 .. ..	5,645	312·1	124	6·8	2·2
1930 .. ..	3,414	191·3	86	4·8	2·5
1931 .. ..	5,434	302·3	130	7·2	2·4
1932 .. ..	7,322	405·4	166	9·2	2·3
1933 .. ..	6,564	360·5	126	6·9	1·9
1934 .. ..	5,490	299·8	110	6·0	2·0
GREATER MELBOURNE.					
1895-99 .. ..	748	162·1	113	24·6	15·1
1900-04 .. ..	686	136·9	58	11·6	8·5
1905-09 .. ..	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
1920-24 .. ..	2,555	314·6	78	9·7	3·1
1925-29 .. ..	1,843	191·1	52	5·4	2·8
1930-34 .. ..	3,151	315·9	68	6·8	2·1
1930 .. ..	2,223	214·8	45	4·3	2·0
1931 .. ..	3,257	315·7	75	7·3	2·3
1932 .. ..	4,144	416·8	100	10·1	2·4
1933 .. ..	3,594	362·3	69	7·0	1·9
1934 .. ..	2,539	254·4	49	4·9	1·9

Prevalence of diphtheria in different areas.

The cases of diphtheria which occurred in five divisions of the State in each of the last five years and their proportions to the respective populations, for the period 1910-19 and the years 1932, 1933, and 1934, are given in the subjoined table:—

### CASES OF DIPHTHERIA IN DIFFERENT AREAS.

Area.	Reported Cases of Diphtheria.					Annual Cases per 10,000 of Population.			
	1930.	1931.	1932.	1933.	1934.	1910-19.	1932.	1933.	1934.
Greater Melbourne	2,223	3,257	4,144	3,594	2,539	39·3	41·7	36·2	25·4
Ballarat ..	67	324	300	237	241	24·3	79·4	63·4	64·1
Bendigo ..	53	121	377	263	109	84·6	118·5	83·1	36·9
Geelong ..	91	108	259	318	181	43·4	59·4	72·8	45·8
Remainder of State	980	1,634	2,242	2,152	2,420	25·7	32·1	30·1	33·3

**Influenza.** The deaths from influenza in 1934 numbered 314. This corresponded to a rate of 171 per million of the population, as compared with rates of 107 in 1933, 49 in 1932, 179 in 1931, 34 in 1930, 2,407 in 1919, 71 in 1913-17, 109 in 1908-12, and 381 in 1890-92.

In 1934, 74 per cent. of the deaths recorded were associated with specified respiratory 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. In 1934 56 per cent. were of persons over 50 years of age.

**Death rates from tuberculosis of the respiratory system.** The deaths from tuberculosis of the respiratory system in 1934 numbered 753—419 being of males and 334 of females—and equalled a rate of 411 per million of the population, as compared with rates of 405 in 1933, 450 in 1932, 481 in 1931, 498 in 1930, 660 in 1918-22, 855 in 1908-12, and 1,365 in 1890-92. In England and Wales, Scotland, Northern Ireland, and the Irish Free State in 1933 the deaths from this cause were 690, 600, 847, and 920 per million of their respective populations. The rates of mortality for Victoria at the last six censu

periods per 10,000 of each sex, in age groups, are shown in the following table:—

DEATH RATES IN VICTORIA FROM TUBERCULOSIS OF THE RESPIRATORY SYSTEM IN AGE GROUPS.

Age Group.	Annual Mortality from Tuberculosis of the Respiratory System per 10,000 of each Sex.					
	1880-82.	1890-92.	1900-02.	1910-12.	1920-22.	1932-34.
<i>Males.</i>						
Under 15 ..	1·74	·90	·38	·46	·42	·24
15 to 19 ..	6·88	5·41	5·06	3·71	2·67	1·07
20 to 24 ..	21·19	18·29	14·35	8·45	7·88	3·59
25 to 34 ..	30·33	23·70	20·31	13·11	9·70	5·44
35 to 44 ..	25·11	28·28	22·07	15·63	12·43	7·46
45 to 54 ..	28·65	31·17	25·05	18·07	13·94	9·05
55 to 64 ..	31·41	36·48	35·75	18·88	13·03	10·56
65 and upwards	18·08	25·40	31·07	13·55	8·65	7·80
All Ages ..	15·33	15·73	13·51	8·98	7·11	4·74
<i>Females.</i>						
Under 15 ..	1·76	1·43	·93	·97	·38	·23
15 to 19 ..	12·50	9·51	8·18	7·62	4·84	2·92
20 to 24 ..	21·00	18·49	12·79	12·68	10·20	6·60
25 to 34 ..	26·56	21·77	18·15	14·03	10·00	7·08
35 to 44 ..	24·06	22·53	17·74	11·51	9·15	5·26
45 to 54 ..	20·72	16·13	14·41	8·18	5·91	3·82
55 to 64 ..	14·26	12·35	12·52	7·47	4·95	3·78
65 and upwards	13·12	8·25	8·18	5·29	3·94	2·88
All Ages ..	12·75	11·51	9·72	7·61	5·55	3·70

A comparison of the mortality from tuberculosis of the respiratory system at the census periods 1920-22 and 1932-34 shows that lower death rates obtained in each age group in 1932-34 than in 1920-22, and that the improvement was greater among males than females.

Deaths from tuberculosis of the respiratory system at various ages.

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

### DEATHS FROM TUBERCULOSIS OF THE RESPIRATORY SYSTEM AT VARIOUS AGES.

Age Group.	Males.					Females.				
	Year.					Year.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
0-9 ...	5	4	3	3	7	4	2	3	4	2
10-14 ...	3	4	1	1	2	3	1	1	3	3
15-19 ...	14	13	7	12	7	33	34	22	27	21
20-24 ...	30	27	31	23	30	71	62	57	56	40
25-29 ...	51	47	41	30	40	79	55	40	51	62
30-34 ...	47	56	45	48	31	54	52	53	42	49
35-39 ...	69	60	57	42	38	38	53	52	35	40
40-44 ...	45	50	49	45	51	29	26	28	27	31
45-49 ...	50	47	43	44	47	25	27	31	24	22
50-54 ...	41	36	55	40	41	21	22	13	10	19
55-59 ...	45	33	43	34	45	12	13	18	15	12
60-64 ...	33	44	30	33	35	14	18	12	14	16
65-69 ...	29	29	30	24	25	12	18	11	12	7
70 and over	20	22	30	22	20	11	10	7	16	10
Total ...	482	472	465	401	419	406	393	348	336	334

For the year 1934, the average age of those who died from tuberculosis of the respiratory system was 45·1 years for males and 37·0 years for females.

Tubercular diseases (tuberculosis of the respiratory system excepted).

In 1934 there were in Victoria 136 deaths from tubercular diseases (excluding tuberculosis of the respiratory system), which corresponded to a rate of 74 per million of the population, as compared with rates of 66 in 1933, 76 in 1932, 68 in 1931, 97 in 1930, 134 in 1918-22, 182 in 1908-12, and 379 in 1890-92. In England and Wales, Scotland, Northern Ireland, and the Irish Free State, in 1933, the deaths from similar causes numbered 134, 200, 303, and 252 per million of their respective populations.

Tubercular death rates in Melbourne, Ballarat, and Bendigo.

In earlier periods, the death rate from tuberculosis was considerably higher in the Metropolis and the mining centres of Ballarat and Bendigo—Bendigo in particular—than in the rural portions of the State. During recent years the rates for Greater Melbourne and Ballarat have declined considerably. The rates in these localities from tubercular diseases are given in the appended table for different periods since 1890:—



DEATH RATES FROM TUBERCULAR DISEASES IN MELBOURNE, BALLARAT, BENDIGO, AND GEELONG.

Period.	Deaths per 10,000 of the Population.											
	Tuberculosis of the Respiratory System.				Other Tubercular Diseases.				All Tubercular Diseases.			
	Greater Melbourne.	Ballarat.	Bendigo.	Geelong.	Greater Melbourne.	Ballarat.	Bendigo.	Geelong.	Greater Melbourne.	Ballarat.	Bendigo.	Geelong.
1891-1900 ..	16.7	17.1	24.1	†	4.7	3.5	4.0	†	21.4	20.6	28.1	†
1901-05 ..	13.9	15.3	22.7	†	4.2	4.0	4.7	†	18.1	19.3	27.4	†
1906-10 ..	10.8	11.5	21.2	†	3.0	2.1	2.0	†	13.8	13.6	23.2	†
1911-15 ..	9.1	10.3	16.5	†	2.1	2.2	2.1	†	11.2	12.5	18.6	†
1916-20 ..	8.3	11.2	16.0	†	1.9	1.5	2.0	†	10.2	12.7	18.0	†
1921-25 ..	6.9	6.7	11.9	4.6	1.5	1.0	2.2	1.9	8.4	7.7	14.1	6.5
1926-30 ..	5.9	5.2	10.7	4.2	1.0	.4	.8	.8	6.9	5.6	11.5	5.0
1931 ..	5.1	6.5	7.7	4.1	.8	1.2	.3	1.0	5.9	7.7	8.0	5.1
1932 ..	4.9	3.1	8.9	2.0	.8	.7	.3	..	5.7	3.8	9.2	2.0
1933 ..	4.7	2.7	10.1	4.1	.8	.8	.9	1.0	5.5	3.5	11.0	5.1
1934 ..	4.7	5.3	6.1	1.8	.8	1.3	1.0	.7	5.5	6.6	7.1	2.5

† Not calculated.

**Other Infectious and Parasitic Diseases.**

Deaths in 1934, from diseases included under this heading (cause No. 14, on page 72) were dysentery 1, erysipelas 12, acute poliomyelitis 9, lethargic encephalitis 12, cerebrospinal meningitis 14, tetanus 13, septicaemia 30, hydatid cysts 23, and other diseases 9.

Acute poliomyelitis was responsible for 9 deaths in 1934, 7 in 1933, 4 in 1932, 16 in 1931, 12 in 1930, 17 in 1929, 32 in 1928, 8 in 1927, 8 in 1926, and 25 in 1925. Of these 138 deaths, 80 were of males and 58 were of females; 7 were under 1 year of age, 44 were between 1 and 5 years, 30 between 5 and 10 years, and 57 over 10 years.

In 1934, there were 15 male and 8 female deaths from hydatids, of which 5 deaths of males and 3 deaths of females were attributed to hydatid tumour of the liver. The deaths in 1934 were equivalent to a rate of 13 per million of the population, as compared with rates of 12 in 1933, 9 in 1932, 12 in 1931, 12 in 1930, 16 in 1918-22, 22 in 1908-12, and 51 in 1890-92.

**Cancer—Death rates.**

Deaths from cancer in 1934 numbered 2,178, and represented a death rate of 1,190 per million of the whole population, as compared with rates of 1,180 in 1933, 1,178 in 1932, 1,087 in 1931, 1,042 in 1930, 934 in 1918-22, 833 in 1908-12,

and 584 in 1890-92. In England and Wales, Scotland, Northern Ireland, and the Irish Free State, in 1933, the deaths per million of population from this cause were 1,526, 1,530, 1,202, and 1,091 respectively.

**Cancer—  
Death Rates  
at Different  
Ages.**

Cancer death rates, computed in relation to the general population in earlier and later periods, are not comparable owing to the changed age distribution of the people. Satisfactory comparisons are 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.	Average Annual Deaths from Cancer per 10,000 of each Sex.			
	1900-02.	1910-12.	1920-22.	1932-34.
<i>Males.</i>				
Under 5 ..	·30	·73	·46	·27
5 to 9 ..	·42	·25	·13	·20
10 to 14 ..	·20	·16	·14	·24
15 to 19 ..	·22	·15	·30	·37
20 to 24 ..	·33	·71	·64	·73
25 to 34 ..	1·26	·96	·76	·93
35 to 44 ..	3·69	3·16	3·31	3·04
45 to 54 ..	14·14	16·03	13·94	10·13
55 to 64 ..	36·00	36·36	40·46	37·25
65 to 74 ..	59·04	74·15	78·21	85·19
75 and over ..	74·04	88·40	110·12	133·78
All Ages ..	7·52	8·50	9·52	11·63
<i>Females.</i>				
Under 5 ..	·26	·19	·39	·38
5 to 9 ..	·04	·10	·17	·17
10 to 14 ..	..	·27	·05	·08
15 to 19 ..	·28	·44	·15	·17
20 to 24 ..	·23	·41	·30	·39
25 to 34 ..	1·61	1·39	1·28	1·57
35 to 44 ..	6·05	7·26	6·61	6·00
45 to 54 ..	18·13	17·87	19·14	17·31
55 to 64 ..	33·05	38·03	34·48	35·82
65 to 74 ..	51·18	61·66	63·05	61·17
75 and over ..	62·70	86·19	92·86	106·19
All Ages ..	6·64	8·76	9·63	12·00

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 1920-22 and 1932-34 it will be seen that there was in the later period a considerable increase in the death rate from cancer, the increase being in the age groups 65 to 74 and 75 and over.

**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.				
	1930.	1931.	1932.	1933.	1934.	1930.	1931.	1932.	1933.	1934.
0-14 .. ..	8	10	11	2	4	8	7	5	5	4
15-24 .. ..	9	10	8	13	5	7	4	6	6	1
25-34 .. ..	17	11	9	17	14	24	28	28	17	21
35-44 .. ..	42	46	41	37	37	70	77	78	84	81
45-54 .. ..	99	107	105	86	111	162	136	187	175	177
55-64 .. ..	251	268	273	242	261	235	255	265	287	273
65-74 .. ..	334	369	402	425	425	291	310	321	330	332
75-84 .. ..	139	149	172	196	191	124	123	164	180	180
85 and over ..	18	19	24	15	26	21	24	29	31	35
Total .. ..	917	989	1,045	1,033	1,074	942	964	1,083	1,115	1,104

The widely different social and economic effects produced by the prevalence of and deaths from the two important diseases, cancer and tuberculosis of the respiratory system, are evidenced by the ages of their victims. For the year 1934 the average age of those who died from the former was 65·7 years for males and 63·3 years for females, while the corresponding averages for the latter were 45·1 years for males and 37·0 years for females.

The following table shows the type and seat of cancer in persons who died from this disease in 1934 :—

TYPE AND SEAT OF CANCER, 1934.

Type of Disease.	Males.	Females.	Total.	Seat of Disease.	Males.	Females.	Total.
Carcinoma—simplex	904	958	1,862	Buccal cavity and pharynx ..	93	14	107
Epithelioma ..	40	23	63	Oesophagus ..	45	17	62
Rodent ulcer ..	9	10	19	Stomach, duodenum, liver and biliary ducts ..	354	258	612
Sarcoma ..	42	28	70	Pancreas ..	41	27	68
Other (specified) ..	19	18	37	Intestines, peritoneum and rectum	220	208	428
Malignant disease (unspecified) ..	60	67	127	Respiratory organs	61	24	85
				Female genital organs ..	..	215	215
				Female breast ..	..	213	213
				Male genito-urinary organs ..	156	..	156
				Skin ..	33	24	57
				Other and unspecified organs ..	71	104	175
Total Deaths ..	1,074	1,104	2,178	Total Deaths ..	1,074	1,104	2,178

Fifty-four per cent. of the persons who died from cancer were affected in the digestive tract or peritoneum. Of the females who died from the disease 39 per cent. were affected in the genital organs or the breast.

During 1934 diabetes was responsible for 116 male and 203 female deaths, representing a rate of 174 per million of the population, as compared with rates of 163 in 1933, 164 in 1932, 145 in 1931, 126 in 1930, 130 in 1918-22, and 107 in 1908-12.

The deaths from diabetes per 10,000 of each sex in age groups for the periods 1900-02, 1910-12, 1920-22, and 1932-34, are shown in the following table :—

DEATH RATES FROM DIABETES.

Age Group.	Average Annual Deaths from Diabetes per 10,000 of each Sex.			
	1900-02.	1910-12.	1920-22.	1932-34.
<i>Males.</i>				
Under 10 ..	·09	·10	·13	·13
10 to 19 ..	·24	·20	·31	·14
20 to 29 ..	·17	·64	·48	·18
30 to 39 ..	·32	·58	·45	·27
40 to 49 ..	·49	1·11	·95	·31
50 to 59 ..	1·38	1·80	2·14	1·92
60 to 69 ..	2·67	5·63	5·19	5·82
70 to 79 ..	4·36	7·34	7·37	13·13
80 and over ..	4·11	7·43	8·42	12·33
All Ages ..	·56	1·00	1·03	1·25

DEATH RATES FROM DIABETES—*continued.*

Age Group.	Average Annual Deaths from Diabetes per 10,000 of each Sex.			
	1900-02.	1910-12.	1920-22.	1932-34.
<i>Females.</i>				
Under 10 ..	·05	·15	·22	·04
10 to 19 ..	·26	·36	·39	·21
20 to 29 ..	·36	·30	·53	·16
30 to 39 ..	·51	·53	·54	·19
40 to 49 ..	·42	·78	1·11	·90
50 to 59 ..	1·42	3·18	2·79	4·00
60 to 69 ..	3·19	8·47	8·02	9·57
70 to 79 ..	5·01	11·54	12·51	17·97
80 and over ..	3·54	6·83	6·02	11·97
All Ages ..	·60	1·26	1·45	2·08

In 1932-34 the rate for females was 66 per cent. higher than that for males.

Deaths in 1934 from diseases included under this heading (cause No. 20 on page 72) were acute rheumatic fever 74, exophthalmic goitre 38, other diseases of the thyroid and parathyroid glands 14, pernicious anaemia 79, other anaemias 9, leucaemia 44, Hodgkin's disease 26, and other diseases 45.

In 1934, 444 male and 540 female deaths were ascribed to these causes, the total—984—corresponding to a rate of 537 per million of the population as compared with rates of 545 in 1933, 522 in 1932, 511 in 1931, and 508 in 1930. A change in the classification of deaths ascribed to cerebro-vascular lesion in association with arteriosclerosis does not permit of a comparison with earlier years. These deaths are now classified to arteriosclerosis. Of the 984 deaths in 1934, 566 were due to cerebral haemorrhage, 57 to apoplexy, 27 to cerebral embolism, 209 to cerebral thrombosis, 8 to softening of the brain, and 117 to hemiplegia and unspecified paralysis.

Included under this heading (cause No. 23 on page 72) in 1934, were 62 deaths from simple meningitis, 56 from other diseases of the spinal cord, 37 from epilepsy, 33 from diseases of the ear and mastoid process, and 167 from other diseases.

**Diseases of the Heart.**

During 1934 there were 3,684 deaths ascribed to diseases of the heart, including 9 due to pericarditis, 637 to endocarditis, 2,020 to diseases of the myocardium, 368 to diseases of coronary arteries, 151 to angina pectoris, 29 to angina pectoris with record of coronary disease, and 470 to other diseases of the heart. The total causes in 1934 represented a rate of 2,012 per million of the population, the rates for previous years being 1,880 in 1933, 1,757 in 1932, 1,759 in 1931, 1,518 in 1930, 1,347 in 1922-26, and 1,441 in 1908-12. On the average of the three years 1932 to 1934 the deaths from all forms of heart diseases per 10,000 of each sex, in age groups, were as follows :—

**DEATH RATES FROM HEART DISEASE AT  
VARIOUS AGES, 1932-34.**

Sex.	Deaths per 10,000 Persons aged—									
	0-14.	15-19.	20-24.	25-34.	35-44.	45-54.	55-64.	65-74.	75 and upwards.	All Ages
Males ..	.51	1.03	1.03	1.76	5.21	16.97	54.44	145.47	316.23	20.71
Females ..	.40	1.21	1.04	1.76	4.27	10.73	35.43	97.32	278.94	16.97

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 70 and upwards, approximately 1 in 4 is due to some form of this disease.

Deaths assigned to this cause have reached considerable proportions. Changes in classification are in part responsible. It is probable, however, that many deaths are now certified thereto which in past years would have been ascribed to senile decay. In 1934 the number of deaths from arteriosclerosis with record of cerebral vascular lesion (cerebral haemorrhage, etc.) was 499, and without such record 423. Of the total deaths, 551 or 60 per cent. were persons aged 70 years and over.

**Respiratory diseases.** In 1934 the deaths from respiratory diseases numbered 2,060, which represented a rate of 1,125 per million of the population, as compared with rates of 998 in 1933, 917 in 1932, 1,022 in 1931, and 851 in 1930. Of the deaths in the year under review, 51 were referred to acute bronchitis, 213 to chronic bronchitis, 660 to broncho-pneumonia, 280 to lobar pneumonia, 487 to pneumonia unspecified, 56 to pleurisy, 56 to asthma, 123 to pulmonary congestion,

embolism, etc., 96 to chronic interstitial pneumonia, and 38 to other diseases. Further details will be found under causes Nos. 26 to 28 on pages 72 and 73.

**Diseases of the digestive system.** In 1934 there were 601 male and 461 female deaths from digestive ailments, representing a proportion of 580 per million of the population, as against rates of 541 in 1933, 538 in 1932, 545 in 1931, 617 in 1930, 807 in 1922-26, and 2,382 in 1890-92. Deaths from the principal diseases in 1934 were, 137 from ulcers of the stomach and duodenum, 279 from diarrhoeal diseases, 124 from appendicitis, 54 from hernia, 105 from intestinal obstruction, 88 from cirrhosis of the liver, 60 from biliary calculi, 72 from other diseases of the gall bladder and biliary passages, and 143 from other diseases. Further rates and details are given under causes Nos. 29 to 32 on pages 72 and 73.

The 279 deaths from diarrhoeal diseases in 1934 corresponded to a rate of 152 per million of the population as compared with rates of 109 in 1933, 136 in 1932, 129 in 1931, 196 in 1930, 380 in 1922-26, 833 in 1908-12, and 1,342 in 1890-92. In earlier years these diseases constituted one of the most fatal menaces to infant life. The decline in the mortality therefrom has however been progressive and since 1928 the rate has reached small proportions. Of the deaths at all ages in 1934, 80 were of infants under one year of age, 26 were between the ages of one and two years, and 18 between two and five years, while 84 were of persons aged 65 years and over. Infantile diarrhoea is further dealt with in the section "Infantile Mortality."

**Diseases of the genito-urinary system.** In 1934 there were 1,439 deaths attributed to diseases of the genito-urinary system, which corresponded to a rate of 786 per million of the population, as against rates of 755 in 1933, 704 in 1932, 721 in 1931, 649 in 1930, 670 in 1918-22, and 700 in 1909-12. In 1934 acute and chronic nephritis were responsible for 1,118 deaths, other diseases of the kidney, etc., for 77, diseases of the prostate for 146, and other genito-urinary diseases for 98.

**Deaths in childbirth.** The death rate of women in childbirth is usually ascertained by comparing the number of deaths of parturient women with the total number of live births. In the following table

are given the proportions of deaths from puerperal septicaemia and all other puerperal causes for each of the last seven years and the averages of previous periods back to 1871. For reasons set forth in the 1931-32 issue of the *Year-Book* the rates given for years prior to 1926 are not strictly comparable with rates for subsequent years.

### DEATHS OF MOTHERS (MARRIED AND SINGLE) TO EVERY 10,000 CHILDREN BORN ALIVE, 1871 TO 1934.

Period.	Number of Mothers who Died Annually from—						Deaths of Mothers to every 10,000 Children Born Alive from—											
	Puerperal Septicæmia.			Other Puerperal Causes.	Total.		Puerperal Septicæmia.			Other Puerperal Causes.	Total.							
	Without Abortion.	Septic Abortion.	Criminal Abortion.		Excluding Criminal Abortion.	Including Criminal Abortion.	Without Abortion.	Septic Abortion.	Criminal Abortion.		Excluding Criminal Abortion.	Including Criminal Abortion.						
1871-1880	46			127	173		17·12			47·26	64·38							
1881-1890	64			121	185		20·48			38·71	59·19							
1891-1900	66			117	183		20·20			35·81	56·01							
1901-1910	52			114	166		16·93			37·12	54·05							
1911-1920	53			94	147		15·42			27·35	42·77							
1921-1925	43			102	145		11·96			28·37	40·33							
1926 ..	43	15	13	126	184	197	12	16	4	24	3	68	35	63	52	03	55	71
1927 ..	47	14	22	113	174	196	13	40	3	99	6	27	32	22	49	61	55	88
1928 ..	43	6	28	131	180	208	12	46	1	74	8	12	37	97	52	17	60	29
1929 ..	44	13	19	113	170	189	13	09	3	87	5	65	33	63	50	59	56	24
1930 ..	40	13	21	121	174	195	12	07	3	92	6	34	36	53	52	52	58	86
1931 ..	34	9	19	92	135	154	11	21	2	97	6	26	30	33	44	51	50	77
1932 ..	27	9	30	89	125	155	9	83	3	28	10	92	32	41	45	52	56	44
1933 ..	30	7	28	61	98	126	10	57	2	47	9	86	21	48	34	52	44	38
1934 ..	32	8	37	93	133	170	11	50	2	87	13	30	33	42	47	79	61	09

The death rate of women from puerperal causes as shown in the above table declined steadily during each period from 1871-80 to 1921-25, but the average rate for the following years showed a considerable increase.



The following tables give information in age groups for the year 1934 relating to the causes of death of women in childbirth, and the total number of children born to married mothers:—

DEATHS FROM PUERPERAL CAUSES, VICTORIA, 1934.

Causes of Death.	Ages at Death.						Total.	Married Mothers.	Unmarried Mothers.
	Under 20.	20 to 24.	25 to 29.	30 to 34.	35 to 39.	40 and over.			
140. (a) Abortion with septic conditions .. ..	..	..	3	3	1	1	8	8	..
(b) Criminal abortion .. ..	1	7	12	10	4	3	37*	29	8
141. Abortion without septic conditions .. ..	2	..	..	2	2	..	6	3	3
142. Ectopic gestation .. ..	..	..	1	1	2	2	6	5	1
143. Other accidents of pregnancy (excluding hæmorrhage) .. ..	..	..	1	..	..	..	1	1	..
144. Puerperal hæmorrhage .. ..	..	4	10	6	6	2	28	28	..
145. Puerperal septicæmia (not consequent on abortion) .. ..	..	6	10	3	10	3	32	30	2
146. Puerperal albuminuria and eclampsia .. ..	1	6	4	2	4	2	19	18	1
147. Other toxæmias of pregnancy .. ..	..	2	5	2	1	1	11	11	..
148. (a) Phlegmasia alba dolens and thrombosis .. ..	..	1	1	..	..	..	2	2	..
(b) Embolism or sudden death .. ..	..	..	3	2	1	..	6	5	1
149. Other accidents of childbirth—	..	..	..	1	1	..	2	2	..
(a) Cæsarean section .. ..	..	..	..	1	1	..	2	2	..
(b) Other surgical operations and instrumental delivery .. ..	..	1	..	..	..	..	1	1	..
(c) Others .. ..	..	..	2	..	2	2	6	5	1
150. (a) Puerperal diseases of the breast .. ..	..	..	..	..	..	..	..	..	..
(b) Other unspecified conditions of the puerperal state .. ..	1	1	1	1	1	..	5	4	1
Total .. ..	5	28	53	33	35	16	170	152	18
Married Mothers .. ..	2	24	48	31	32	15	152	..	..
Unmarried Mothers .. ..	3	4	5	2	3	1	18	..	..
Total Issue of Married Mothers .. ..	1	29	74	88	136	77	405	..	..

\* Illegal operation 4; self-induced 8; open verdict 25.

Of the 405 children born to the 152 married women who died, 375 were living at the time of their mother's death, or an average of 2.5 children per mother, as compared with 2.6 in 1933, 2.6 in 1932, 2.6 in 1931, and 2.5 in 1930.

First confinements were responsible for 50, or 32·9 per cent. of the total deaths of married mothers, as compared with 28·6 per cent. in 1933, 32·4 per cent. in 1932, 35·7 per cent. in 1931, and 41·4 per cent. in 1930.

The death rate of women in childbirth varies considerably at different ages, and is higher at older than at younger ages. The number of deaths of women in childbirth and the death rates in various age groups in Victoria, for the period 1926-30 and the years 1932, 1933, and 1934 are shown in the following table:—

**DEATH RATES OF WOMEN IN CHILDBIRTH, IN AGE GROUPS, 1926 TO 1934.**

Age Group.	Mothers.							
	Deaths.				Deaths per 10,000 children born alive.			
	1926-30.	1932.	1933.	1934.	1926-30.	1932.	1933.	1934.
Under 20 years ..	41	10	4	5	47·1	60·0	23·9	31·7
20 to 24 ,, ..	150	23	23	28	39·1	36·6	35·4	41·6
25 ,, 29 ,, ..	231	28	25	53	46·5	36·1	30·5	64·5
30 ,, 34 ,, ..	226	34	35	33	56·8	54·4	55·0	54·0
35 ,, 39 ,, ..	226	33	24	35	88·1	84·6	59·4	97·2
40 years and over	111	27	15	16	117·8	167·5	92·6	100·4
Total .. ..	985	155	126	170	57·4	56·4	44·4	61·1

The experience of the years 1926-30 showed that, for the age period 35 years and upwards, the deaths of mothers in childbirth were 96 per 10,000 live births, as compared with 47 per 10,000 for those under 35 years of age.

**Senile decay.** During the year 1934, the deaths of 497 men and 590 women were ascribed to senile decay, as compared with 491 men and 550 women in 1933. Prior to 1927, deaths from ill-defined causes, i.e., heart failure, debility, etc., of those persons over 65 years of age, were shown as being due to senile decay. In 1927, however, in accordance with the rule laid down in the International List of Causes of Death, only deaths of persons over 70 years of age from such causes

were included therein. The deaths at ages 70 and over from all causes during 1934 numbered 7,192—3,594 of men and 3,598 of women, or 38·6 per cent. of the total deaths.

In 1934, 701 male and 233 female deaths were attributed to accidents and negligence, which represented a rate of 510 per million of the population. This proportion was above the average rate—455—for the previous five years, and 37 per cent. below the rate—811—for 1890-92. In 1931 a distinction was made for the first time between deaths recorded as “open verdict” and those returned definitely as “accidental.” The numbers of deaths from various accidents in the last five years are given in the appended table :—

DEATHS FROM ACCIDENTAL VIOLENCE, 1930 TO 1934.

Nature or Place of Accident.	Annual Deaths during—						
	1930.	1931.	1932.	1933.	1934.		
					Total.	Males.	Females
Snake Bite .. .. .	2	2	4	..	..	..	..
Other Venomous Bites and Stings .. .. .	..	..	..	..	..	..	..
Poisoning by Food .. .. .	2	1	4	3	5	4	1
Absorption of Poisonous Gases .. .. .	4	6	3	8	6	3	3
Other Acute Poisonings .. .. .	12	7	3	5	6	3	3
Conflagration (Bush fires, &c.) .. .. .	6	7	16	2	4	2	2
Burns, Scalds, &c... .. .	58	54	39	63	68	37	31
Accidental Mechanical Suffocation .. .. .	16	14	17	10	5	5	..
Drowning { accidental .. .. .	136	{ 69	79	74	94	77	17
open verdict .. .. .							
Firearms { accidental .. .. .	32	{ 23	21	24	26	26	..
open verdict .. .. .							
In Mines and Quarries .. .. .	6	15	1	16	17	17	..
Machines .. .. .	7	6	5	9	12	11	1
Transport Accidents .. .. .	406	376	357	352	385	316	69
Falls { accidental .. .. .	57	{ 73	89	94	121	63	58
open verdict .. .. .							
Other Crushings .. .. .	23	18	22	20	29	28	1
Injuries by Animals .. .. .	7	7	11	10	4	4	..
Excessive Cold .. .. .	..	2	1	5	6	5	1
Effects of Heat .. .. .	8	2	10	1	15	5	10
Lightning .. .. .	2	2	3	2	..	..	..
Electricity .. .. .	8	4	6	4	4	3	1
Other Violence { accidental .. .. .	65	{ 26	28	39	45	32	13
open verdict .. .. .							
Total accidental .. .. .	..	714	719	741	852	641	211
.. open verdict .. .. .	..	63	50	92	82	60	22
Grand Total .. .. .	857	777	769	833	934	701	233

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

In 1934, deaths from transport accidents numbered **Transport Accidents.** 385, as against 350 in 1933, 350 in 1932, 373 in 1931, 406 in 1930, 394 in 1929, 382 in 1928, 301 in 1927, 309 in 1926, and 299 in 1925.

In the following table details are given of deaths due to collisions between various types of conveyances, pedestrians killed, and other fatal accidents in which transport was concerned, for the year 1934 :—

#### DEATHS FROM TRANSPORT ACCIDENTS, IN VICTORIA, 1934.

	Collisions between—							Pedestrians killed.	* Other accidents.	Total.	Males.	Females.
	Railway vehicle.	Motor omnibus, car, lorry.	Motor cycle.	Horse-drawn vehicle.	Bicycle.	Horse.	Aeroplane.					
Railway train .. ..	5	1	..	..	..	..	6	20	19	†45	42	3
Tramcar .. ..	..	1	..	1	..	..	2	7	3	12	7	5
Motor car .. ..	20	24	4	18	1	..	67	80	39	186	140	46
„ omnibus .. ..	..	..	..	..	..	..	..	2	..	2	2	..
„ lorry, &c. .. ..	4	2	3	7	..	..	16	28	24	68	59	9
„ cycle .. ..	6	2	3	1	1	..	13	4	14	31	31	..
Horse - drawn vehicle .. ..	..	..	..	..	..	..	..	..	19	19	16	3
Bicycle .. ..	..	..	..	..	1	..	1	3	5	9	8	1
Horse .. ..	..	..	..	..	..	..	..	..	10	10	8	2
Aeroplane .. ..	..	..	..	..	..	..	..	..	2	2	2	..
Other vehicles .. ..	..	..	..	..	..	..	..	..	1	1	1	..
Total .. ..	35	30	10	28	2	..	105	144	133	385	316	69

\* Includes all rail accidents to railway employees (collisions excepted) and accidents to persons boarding or leaving vehicles.

† Includes 9 railway employees.

Accidental  
deaths  
involving  
motor vehicles.

The number of motor vehicles (including motor cycles) registered in Victoria and the deaths in which they were involved, for the years 1925 to 1934, were as follows:—

DEATHS INVOLVING MOTOR VEHICLES, 1925 TO 1934.

Year.	Number of Motor Vehicles (30th June.)	Deaths Involving Motor Vehicles.		
		Number.	Per 10,000 Motor Vehicles.	Per 1,000,000 of Population.
1925 .. ..	89,403	174	19·5	104
1926 .. ..	103,551	193	18·6	114
1927 .. ..	134,135	214	16·0	124
1928 .. ..	150,343	297	19·8	170
1929 .. ..	168,578	294	17·4	166
1930 .. ..	179,887	307	17·1	172
1931 .. ..	168,231	296	17·6	165
1932 .. ..	167,952	262	15·6	145
1933 .. ..	179,602	255	14·2	140
1934 .. ..	188,256	294	15·6	161

It will be observed that, while registrations of motor vehicles increased greatly during the years mentioned, the mortality per 10,000 vehicles fluctuated only slightly with a tendency to decline, the average rate for the period 1930-34 being 16·0 as compared with a rate of 18·1 in 1925-29.

The mortality per million of population was 161 in 1934, 140 in 1933, 172 (highest recorded) in 1930, and 82 in 1924.

On the average of the five years, 1930 to 1934, motor cars, &c., were involved in 16·4 deaths per 10,000 cars registered, and motor cycles in 25·6 deaths per 10,000 cycles registered.

**Suicide.** In the year 1934, 130 males and 41 females took their own lives. The deaths represented a rate of 93 per million of the population, as compared with rates of 103 in 1933, 96 in 1932, 101 in 1931, 116 in 1930, 87 in 1918-22, 102 in 1908-12, and 109 in 1890-92. A much lower rate from suicide obtains among females than males, the rate for the former being 26 per cent. of that for the latter on the average of the last five years.

**Homicide.** The deaths ascribed to homicide in 1934 numbered 26, of which 16 were of males and 10 of females. These represented a rate of 14 per million of the population, as against rates of 16 in 1933, 9 in 1932, 23 in 1931, 11 in 1930, 14 in 1918-22, and 19 in 1908-12. Since 1930 deaths from criminal abortion have been excluded from these figures and included with deaths from puerperal causes.

**Vaccinations.** On 30th December, 1931, an amendment of the Health Act 1928 repealing the provisions as to compulsory vaccinations came into operation. Particulars of vaccination in past years are given in previous issues of this book.

## NATURAL INCREASE

The average annual natural increase, i.e., the excess of births over deaths, per 1,000 of the mean population, in the various Australian States, the Commonwealth of Australia, and New Zealand, for different periods since 1909, as well as detailed particulars for Victoria since 1879, are shown in the following tables:—

## NATURAL INCREASE PER 1,000 OF THE MEAN POPULATION.

## AUSTRALASIA.

Period.	Victoria.	New South Wales.	Queensland.	South Australia.	Western Australia.	Tasmania.	Australia.	New Zealand.
1910-14	13·85	18·38	18·51	17·68	18·61	19·35	17·03	16·80
1915-19	11·75	15·98	17·06	14·84	15·47	17·83	14·99	16·80
1920-24	12·49	15·73	16·13	13·75	13·96	16·66	14·60	14·01
1925-29	10·57	12·99	13·35	11·18	12·71	13·27	12·18	11·65
1930-34	6·77	9·52	10·56	6·89	10·26	11·05	8·78	9·19
1930 ..	9·62	12·19	12·61	8·96	12·65	12·84	11·30	10·24
1931 ..	7·39	10·35	11·15	7·28	11·26	12·03	9·49	10·08
1932 ..	5·89	9·13	10·21	6·16	9·76	10·88	8·23	9·07
1933 ..	6·00	8·42	9·30	6·88	9·31	10·33	7·86	8·61
1934 ..	5·02	7·57	9·59	5·24	8·43	9·28	7·07	7·99

## VICTORIA.

Period.	Average Annual Excess of Births over Deaths.	Annual Rates per 1,000 of Mean Population.			Period.	Average Annual Excess of Births over Deaths.	Annual Rates per 1,000 of Mean Population.		
		Births.	Deaths.	Natural Increase.			Births.	Deaths.	Natural Increase.
1880-84	14,466	30·64	14·40	16·24	1925-29	18,218	20·24	9·67	10·57
1885-89	16,741	32·27	15·87	16·40	1930-34	12,249	16·27	9·50	6·77
1890-94	20,059	31·99	14·62	17·37					
1895-99	15,625	26·76	13·81	12·95					
1900-04	14,859	25·08	12·78	12·30	1930 ..	17,168	18·55	8·93	9·62
1905-09	16,062	24·76	11·93	12·83	1931 ..	13,299	16·86	9·47	7·39
1910-14	18,795	25·42	11·57	13·85	1932 ..	10,659	15·18	9·29	5·89
1915-19	16,818	23·13	11·38	11·75	1933 ..	10,936	15·59	9·59	6·00
1920-24	19,647	22·89	10·40	12·49	1934 ..	9,180	15·20	10·18	5·02

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 for 1930-34 (8·78) would enable a population to double itself in 79 years, while, at the Victorian rate of 6·77 per 1,000 of population, a period of 102 years would be required. In England and Wales in 1933 the excess of births over deaths was 2·1 per 1,000 of population.