

## VITAL STATISTICS.

Registration  
of Births,  
Deaths, and  
Marriages.

The present official system of compulsory registration of births, deaths, and marriages in Victoria has been in force since 1853, and the registers—framed on the best models—are replete with all necessary information bearing on the family history of the people. The statutory duties under the Registration Acts are performed by the Government Statist, who has control over the local registrars of births and deaths, and the registrars of marriages, and (so far as regards their registration duties) over the clergymen who celebrate marriages. Copies of entries certified by 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 4,821,000 original entries have been made in the indexes, of which 1,305,450 relate to marriages, 2,383,800 to births, and 1,131,750 to deaths.

On the 1st August, 1932, 55 metropolitan registration offices were closed, and a branch for the registration of births and deaths occurring within the area of Greater Melbourne was established 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 the first five years and an additional 2s. 6d. for every five years or part of five years thereafter. There is no extra charge for an extract of an entry, but, for a certificate, a further sum of 5s. is payable, except where application is made within three months of the registration of the event, when the extra charge is only 2s. 6d. For a search in the early church records, prior to 1st July, 1853, the fee is only 1s., a further sum of 1s. being payable if a certificate is required.

As evidence of the extent by which the information in the records is availed of, the number of transactions which took place in 1933 was 39,684, yielding £4,902 revenue. Included in the above number were 4,142 free ordinary searches (Repatriation Department, 2,463) and 447 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. Three clear days notice must precede all marriages; where the parties are being married by a minister this notice may be dispensed with, in cases of emergency, on the written permission of a 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 time.

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.) Births (and deaths under five years of age) of illegitimate children must, in addition to being registered, be notified to the local registrar, by the occupier of the house within 3 or 7 days according to locality. 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.

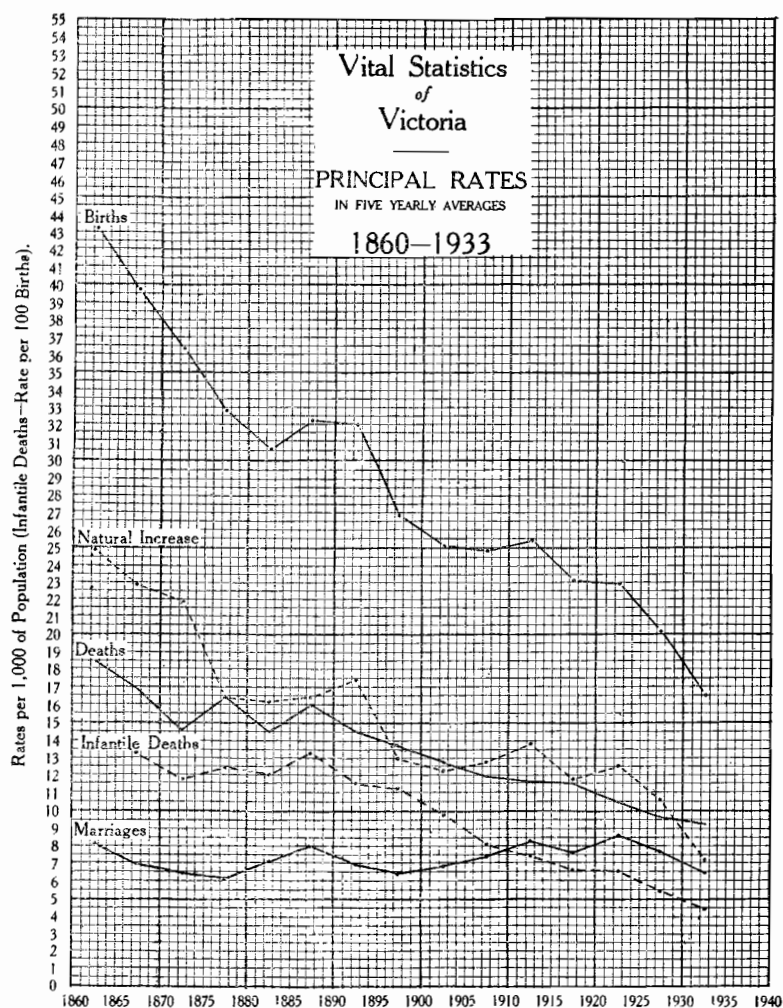
The principal numbers and rates—male and female—  
**Summary of** Vital Statistics, relating to Vital Statistics in Victoria for the year 1933, are  
**1933.** given in the following table:—

## SUMMARY OF VITAL STATISTICS, VICTORIA, 1933.

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	464,886	6,845	5,102	316	14·72	10·97	46·17
	Females	527,162	6,612	4,986	234	12·54	9·46	35·39
	Total	992,048	13,457	10,088	550	13·56	10·17	40·87
Rest of the State	Males	438,756	7,646	4,206	346	17·43	9·59	45·25
	Females	389,863	7,289	3,162	252	18·70	8·11	34·57
	Total	828,619	14,935	7,368	598	18·02	8·89	40·04
Victoria	Males	903,642	14,491	9,308	662	16·04	10·30	45·68
	Females	917,025	13,901	8,148	486	15·16	8·89	34·96
	Total	1,820,667	28,392	17,456	1,148	15·59	9·59	40·43

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

The infantile death rate for 1933 was the lowest recorded in Victoria.



## MARRIAGES.

Marriages in Victoria in 1933 numbered 12,668, corresponding to a rate of 6.96 per 1,000 of the population. Rates for previous years were 6.49 in 1932, 5.66 in 1931, and 6.52 in 1930, 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 1933.

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
1929 ..	12,935	3,292	3,303	2,801	3,539	7.31
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 ..	12,668	2,872	3,331	2,950	3,515	6.96

\* 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** 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.
1929	7.31	7.80	6.87	6.50	8.00	7.86	7.43	7.78
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

**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 1933 are shown in combination for various groups in the table which follows:—

### AGES OF BRIDEGROOMS AND BRIDES IN COMBINATION IN VICTORIA, 1933.

Ages of Bride- grooms.		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	..	..	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	..	3	
17	..	..	..	..	5	1	..	..	1	..	..	..	..	..	..	..	..	..	..	15	
18	..	..	..	..	18	21	17	6	17	1	..	..	..	..	..	..	..	..	..	87	
19	..	..	1	..	27	45	42	24	28	2	..	..	..	..	..	..	..	..	..	177	
20	..	..	1	17	37	47	52	51	79	6	..	..	..	..	..	..	..	..	..	290	
21 to 24	..	..	8	37	130	265	332	309	1,748	387	31	4	1	1	1	..	..	..	..	3,254	
25 to 29	..	..	2	16	51	123	167	235	2,050	1,780	292	39	5	2	1	1	..	..	..	4,764	
30 to 34	..	..	..	1	6	25	35	54	536	884	444	92	20	6	..	..	..	..	..	2,105	
35 to 39	..	..	..	..	3	9	9	3	132	251	218	153	35	10	4	2	2	..	..	829	
40 to 44	..	..	..	1	..	1	1	4	32	65	105	96	73	30	2	3	..	..	..	413	
45 to 49	..	..	..	..	..	1	..	2	12	29	45	51	60	49	9	5	5	..	..	263	
50 to 54	..	..	..	..	..	..	..	1	4	14	26	35	33	34	24	6	2	1	..	180	
55 to 59	..	..	..	..	..	..	1	..	2	4	16	14	12	25	22	15	7	2	..	120	
60 to 64	..	..	..	..	..	..	..	..	1	4	1	5	7	14	18	15	7	1	1	74	
65 to 69	..	..	..	..	..	..	..	..	..	1	2	5	5	4	14	8	9	3	1	52	
70 to 74	..	..	..	..	..	..	..	..	..	..	..	2	4	1	2	3	6	4	3	25	
75 and over	..	..	..	..	..	..	..	..	..	2	..	2	..	2	4	1	6	..	..	17	
Total Brides	..	..	12	92	274	542	659	689	4,644	3,430	1,180	498	255	178	101	61	37	11	5	12,668	

Of every 1,000 men married during the year, 730 were older and 169 younger than their brides, and 101 were of the same age as their partners.

**Proportion of marriages at various ages.**

The following table shows the proportions of both sexes marrying in various age groups for 1933 :—

PROPORTIONS OF BRIDEGROOMS AND BRIDES IN AGE GROUPS, 1933.

Age Group.	Proportion per 1,000 of total—		Age Group.	Proportion per 1,000 of total—	
	Bridegrooms.	Brides.		Bridegrooms.	Brides.
Under 16 ..	..	·95	35 to 39 ..	65·44	39·31
16 to 17 ..	·24	7·26	40 to 44 ..	32·60	20·13
17 to 18 ..	1·18	21·63	45 to 49 ..	20·76	14·05
18 to 19 ..	6·87	42·79	50 to 54 ..	14·21	7·97
19 to 20 ..	13·97	52·02	55 to 59 ..	9·47	4·82
20 to 21 ..	22·89	54·38	60 and over	13·26	4·19
21 to 24 ..	256·87	366·59			
25 to 29 ..	376·07	270·76	Total ..	1,000·00	1,000·00
30 to 34 ..	166·17	93·15			

**Marriages of Minors.**

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 1929 to 1933.

Year.	Age in Years.									Total.	
	13.	14.	15.	16.	17.	18.	19.	20.	Number.	Percentage of Total Marriages.	
Bridegrooms.											
1929	..	..	..	2	23	69	188	275	557	4·31	
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	
Brides.											
1929	..	..	2	31	116	279	537	668	740	2,373	18·35
1930	..	1	1	27	96	285	528	611	729	2,278	19·57
1931	..	..	3	17	102	272	463	594	616	2,067	20·30
1932	..	..	2	19	110	300	503	650	708	2,292	19·52
1933	..	..	..	12	92	274	542	659	689	2,268	17·90

**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, 1929 TO 1933.

Year.	Bridegrooms.			Brides.		
	Bachelors.	All Bridegrooms.	Bridegrooms of Brides under 45.	Spinsters.	All Brides.	Brides under 45.
	Years.	Years.	Years.	Years.	Years.	Years.
1929 ..	28·07	29·59	28·71	25·31	26·23	25·35
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

In 1933 the mean marrying age of divorced men was 40·23 years and of widowers 48·80, while for divorced women the age was 36·09 and for widows 43·52.

Marriage records for 1933 show that 85·6 per cent. of the bridegrooms and 90·9 per cent. of the brides were Australian born, while 11·3 per cent. of the grooms and 7·1 per cent. of the brides were born in Great Britain and Ireland. Of all persons married 88·2 per cent. were born in Australia, .8 per cent. in New Zealand, 9·2 per cent. in Great Britain and Ireland, and .5 per cent. in other British Possessions, and only small proportions, about 1·7 per cent. of the bridegrooms and .8 per cent. of the brides, were natives of foreign countries. The numbers born in Australia and other countries are shown in the sub-joined table for the years 1913 and 1933 :—

### BIRTHPLACES OF PERSONS MARRIED, 1913 AND 1933.

Where Born.	Bridegrooms.		Brides.	
	1913.	1933.	1913.	1933.
Australia ... ..	9,628	10,841	10,274	11,511
New Zealand ... ..	155	103	82	95
England and Wales ... ..	972	1,049	644	661
Scotland ... ..	213	279	141	201
Ireland ... ..	126	101	83	42
Other British Possessions ... ..	40	77	24	56
Germany ... ..	46	21	19	10
Russia ... ..	17	15	3	3
Italy ... ..	15	53	12	20
United States ... ..	30	17	14	10
Other Foreign Countries and unspecified ... ..	82	112	28	59
Total .. ..	11,324	12,668	11,324	12,668



**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 1929 to 1933, and the proportions in each condition for periods since 1900.

### CONJUGAL CONDITION OF PERSONS MARRYING, 1929 TO 1933.

Period.	Bridegrooms.				Brides.				Total Marriages.
	Bachelors.	Widowers.	Divorced.	Deserted.	Spinsters.	Widows.	Divorced.	Deserted.	
1929 ..	11,866	830	236	3	12,162	492	276	5	12,935
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

### PERCENTAGE OF PERSONS MARRYING IN EACH CONJUGAL CONDITION, 1900 TO 1933.

Marriages Between—	1933.		Conjugal Condition.	Percentage of Total—			
	Number.	Percentage.		1900-09.	1910-19.	1920-29.	1933.
Bachelors and Spinsters ..	11,362	89.7	Bachelors Widowers Divorced  Total	Bridegrooms.			
Bachelors and Widows ..	229	1.8		91.4	92.7	92.1	92.7
Bachelors and Divorced ..	152	1.2		8.1	6.5	6.3	5.3
Widowers and Spinsters ..	460	3.6		.5	.8	1.6	2.0
Widowers and Widows ..	184	1.4		100.0	100.0	100.0	100.0
Widowers and Divorced ..	38	.3	Spinsters Widows Divorced  Total	Brides.			
Divorced and Spinsters ..	186	1.5		93.4	94.2	93.6	94.8
Divorced and Widows ..	23	.2		6.0	4.8	4.9	3.4
Divorced and Divorced ..	34	.3		.6	1.0	1.5	1.8
Total Marriages ..	12,668	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 8.1 and 6.0 respectively in 1900-09 to 6.2 and 3.8 in 1929-33. During the same period the proportion of re-marriages of divorced men increased from .5 to 1.9, and of divorced women from .6 to 1.9. 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, re-marriages 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 1933, decrees granted numbered 449, and remarriages 243 and 224.

Marriages in  
religious  
denomina-  
tions.

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 1913, 1923, and 1933, are shown in the following

table:—

### MARRIAGES IN VARIOUS DENOMINATIONS.

Denomination.	1913.		1923.		1933.	
	Number.	Per-centage of Total Marriages.	Number.	Per-centage of Total Marriages.	Number.	Per-centage of Total Marriages.
Church of England ..	3,179	28·07	3,756	28·61	3,452	27·25
Roman Catholic Church	1,922	16·97	2,399	18·28	2,303	18·18
Presbyterian Church..	2,105	18·59	2,528	19·26	2,151	16·98
Methodist Church ..	1,633	14·42	1,852	14·11	1,865	14·72
Baptist Church ..	449	3·97	641	4·88	584	4·61
Church of Christ ..	257	2·27	272	2·07	423	3·34
Congregational Church	1,014	8·95	850	6·48	211	1·67
Lutheran Church ..	71	·63	47	·36	74	·58
Salvation Army ..	47	·42	57	·43	114	·90
Hebrew ..	43	·38	46	·35	67	·53
Other Sects ..	314	2·77	170	1·30	84	·66
Registrars of Marriages	290	2·56	508	3·87	1,340	10·58
Total .. ..	11,324	100·00	13,126	100·00	12,668	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, 1924 TO 1933.

Year.	Number.	Percentage of Total Marriages.	Year.	Number.	Percentage of Total Marriages.
1924 ..	658	4·95	1929 ..	1,040	8·04
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

**Registered** The ministers qualified by registration to celebrate  
**clergymen.** marriages in Victoria numbered 1,861 on 31st December,  
1933. The numbers of ministers in each denomination (excepting  
Jews and Quakers) and civil registrars of marriages were as follows :—

## REGISTERED MINISTERS OF EACH DENOMINATION, 1933.

Denomination.	Number of Registered Ministers.	Denomination.	Number of Registered Ministers.
Church of England ..	449	New Church .. ..	1
Roman Catholic ..	425	Greek Orthodox Church ..	1
Presbyterian .. ..	308	Syrian Orthodox .. ..	1
Methodist .. ..	333	Unitarian .. ..	2
Baptist .. ..	97	International Bible Students' Association ..	1
Church of Christ ..	81	Latter Day Saints (Mor- mons) .. ..	1
Congregational .. ..	59	Open Brethren .. ..	2
Lutheran .. ..	30	Pentecostal .. ..	1
Salvation Army ..	48		
Latter Day Saints (Re- organized) .. ..	4	Total Clergymen ..	1,861
Seventh Day Adventist ..	11	Civil Registrars of Mar- riages .. ..	17
Catholic Apostolic ..	2		
Free Christian .. ..	1	Grand Total ..	1,878
Australian Church ..	2		
Ballarat Town Mission ..	1		

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—** The number of births registered in Victoria during the  
**Numbers and** year 1933 was 28,392. This was 928 more than the number  
**Rates.** registered for the preceding year. The rate per 1,000 of  
population had declined steadily since 1920, until 1933, when a slight  
increase on the record low rate of 1932 (15.18) was recorded. Still-  
births, which are excluded from both births and deaths, numbered  
811, and corresponded to a ratio of 28.6 per 1,000 infants born alive in  
1933. There were 1,042 male to every 1,000 female births in 1933,  
as compared with 1,051 in 1932, 1,063 in 1931, 1,056 in 1930, and  
1,073 in 1929.

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 1933.

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	31,875	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
1929 ..	33,604	17,394	16,210	8,512	8,564	8,153	8,375	18.98
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

\* 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.
1929 ..	18.98	21.04	20.59	18.63	21.51	22.03	20.25	19.01
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

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 1933, 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:—77·5 in Victoria; 85·8 in Australia; 0·7 in New Zealand; 8·0 in England and Wales; 2·3 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, 89·6; New Zealand, 0·5; England and Wales, 6·1; Scotland, 1·7; Ireland, 0·5; other British Possessions, 0·4; and foreign countries, 1·2.

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

The average ages of fathers and mothers of nuptial children whose births were recorded in 1933 were 33·04 and 29·39 years respectively, which were 4·41 and 4·14 years respectively above the average ages of bridegrooms marrying brides under 45 years of age, and of such brides, for the year 1933. 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, 1933.

Father.			Mother.		
Age Group.		Proportion per 100 Births.	Age Group.		Proportion per 100 Births.
Under 20	...	67	Under 20	...	4·76
20 to 24	...	11·65	20 to 24	...	22·41
25 to 29	...	26·33	25 to 29	...	29·61
30 to 34	...	26·86	30 to 34	...	22·87
35 to 39	...	17·38	35 to 39	...	14·55
40 to 44	...	10·38	40 to 44	...	5·40
45 to 49	...	4·35	45 and over	...	·40
50 and over	...	2·38			
Total	...	100·00	Total	...	100·00

It will be seen that, on the experience of 1933, 52·02 per cent. of the mothers were between ages 20 and 30, and 37·42 per cent. between ages 30 and 40. The proportions of fathers at these ages were 37·98 and 44·24 per cent. respectively. Of every 1,000 nuptial births, about 48 were due 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. (Corrected rates.)				
	1923- 1927.	1928- 1932.	1931.	1932.	1933.	1923- 1927.	1928- 1932.	1931.	1932.	1933.
Greater Melbourne—										
Melbourne ..	1,812	1,348	1,220	1,069	1,173	18·39	14·29	12·99	11·67	13·04
Box Hill ..	*	259	234	214	217	*	18·31	16·16	14·09	14·15
Braybrook (Part) ..	*	187	186	149	188	*	22·28	21·75	17·16	21·44
Brighton ..	482	394	371	313	327	18·75	13·37	12·44	10·52	11·01
Brunswick ..	1,161	974	888	828	765	23·42	17·52	16·08	15·18	14·08
Camberwell ..	797	865	819	702	736	23·10	17·85	16·35	14·06	14·70
Caulfield ..	1,065	941	877	735	763	19·59	14·87	13·70	11·40	11·75
Chelsea ..	..	127	126	118	117	..	18·66	18·39	17·61	17·66
Coburg ..	703	742	696	640	659	25·15	20·80	19·27	17·34	17·29
Collingwood ..	690	532	505	469	502	20·35	16·63	16·06	15·18	16·37
Essendon ..	846	766	737	618	595	19·88	16·59	15·99	13·44	12·91
Fitzroy ..	683	517	465	450	478	19·92	15·96	14·68	14·49	15·51
Footscray ..	980	875	777	720	688	24·20	19·13	16·89	15·62	14·87
Hawthorn ..	525	424	387	362	356	16·63	12·70	11·52	10·76	10·54
Heidelberg (Part) ..	*	413	366	338	320	*	16·93	15·00	14·02	13·28
Kew ..	379	339	319	262	281	17·96	13·97	13·03	10·81	11·63
Malvern ..	636	499	466	361	431	15·07	11·46	10·72	8·35	9·97
Moorabbin ..	..	398	360	359	373	..	23·14	19·93	19·67	20·37
Mordialloc ..	..	148	157	113	127	..	15·37	16·33	12·04	13·78
Northcote ..	898	727	698	625	589	24·51	17·27	16·59	14·73	13·88
Oakleigh ..	*	264	244	205	220	*	22·72	20·68	17·30	18·48
Port Melbourne ..	278	230	220	215	195	21·14	17·24	16·76	16·63	15·11
Prahran ..	877	696	637	593	582	17·02	13·26	12·19	11·47	11·27
Preston ..	558	703	647	568	611	31·33	23·87	21·55	18·38	19·16
Richmond ..	886	693	672	592	584	20·34	16·71	16·49	14·82	14·74
Sandringham ..	275	272	248	216	210	17·90	15·33	13·83	11·99	11·62
South Melbourne ..	865	660	592	575	543	19·01	15·06	13·61	13·32	12·67
St. Kilda ..	659	533	473	458	503	16·05	11·61	10·33	9·90	10·80
Williamstown ..	485	423	414	319	324	23·25	19·28	18·92	14·45	14·61
Remainder of										
Metropolis ..	1,364	..	..	..	..	25·88	..	..	..	..
Country Towns—										
Ballarat ..	728	664	681	584	616	18·40	17·14	17·85	15·45	16·47
Bendigo ..	609	550	523	506	522	18·10	17·10	16·36	15·91	16·50
Geelong ..	862	844	772	698	725	21·87	19·26	17·74	16·02	16·61
Chelsea ..	126	..	..	..	..	19·28	..	..	..	..
Castlemaine ..	132	105	116	72	111	18·50	15·16	17·50	10·93	17·02
Hamilton ..	144	138	146	105	120	27·69	24·47	25·61	18·29	20·74
Maryborough ..	114	118	128	120	119	23·57	21·35	23·15	21·43	21·13
Mildura ..	198	184	168	185	175	34·09	28·23	25·53	28·03	26·46
Mordialloc ..	150	..	..	..	..	19·70	..	..	..	..
Shepparton ..	†	151	136	160	134	†	27·51	24·46	28·27	28·51
Stawell ..	111	92	86	91	83	23·88	19·46	18·11	19·16	17·47
Warrnambool ..	183	176	162	185	158	22·75	20·17	18·41	20·90	17·73
Wonthaggi ..	159	141	150	116	112	25·06	22·44	24·59	20·00	20·03
Summary—										
Greater Melbourne ..	17,904	15,949	14,801	13,186	13,457	20·14	16·03	14·84	13·26	13·56
Country Towns ..	3,516	3,163	3,068	2,822	2,875	20·88	19·22	18·79	17·34	17·73
Remainder of State ..	14,255	12,693	12,463	11,456	12,060	23·31	20·40	19·57	17·65	18·14
Victoria ..	35,675	31,805	30,332	27,464	28,392	21·37	17·85	16·88	15·21	15·59

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—Up to the end of 1928, Greater Melbourne was defined as that area within a radius of ten miles of the Elizabeth-street Post Office. At the beginning of 1929 the area was re-defined to conform to the expansion of the Metropolis in a south-easterly direction, and to include, as far as possible, complete Local Government areas. In the Heidelberg shire, the Greensborough Riding, and, in the Braybrook Shire, the Western Riding, are excluded.

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 five last 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.
1929 ..	348	3	351	10·56
1930 ..	350	Nil	350	10·68
1931 ..	343	3	346	11·54
1932 ..	250	2	252	9·26
1933 ..	313	2	315	11·22

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 1933, the adoptions of 426 male and 717 female children were registered. During 1933 adoptions registered comprised 124 male and 145 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 1933 advantage was taken of these Acts to legitimate 3,356 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, and 93 in 1933.

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 1933, the numbers of legitimations in the various States and New Zealand during that year were as follows:—Victoria, 7·5; New South Wales, 20·4; Queensland, 15·4; South Australia, 10·9; Western Australia, 26·4; Tasmania, 13·2; and New Zealand, 36·1.

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 1933.							
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
1929	..	..	33,604	744	717	1,461	4·35
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

The percentages in the various States and New Zealand in 1933 were as follows:—Victoria, 4·37 per cent.; New South Wales, 5·05 per cent.; Queensland, 4·99 per cent.; South Australia, 3·19 per cent.; Western Australia, 4·38 per cent.; Tasmania, 5·01 per cent.; Australia, 4·71 per cent.; and New Zealand, 4·60 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 1933, the proportion of ex-nuptial births to total births was 5·40 per cent. in Greater Melbourne, 4·00 per cent. in the principal country towns, and 3·32 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 1933.

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
1929 ..	16,717	9,131	7,586	3,587	4,138	4,987	4,005	9·44
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

\* Not available.

The number of deaths in 1933 was 17,456, which was 612 more than the average of the preceding five years.

In 1933 there were 1,142 male to every 1,000 female deaths, the average for the last five years being 1,160. The corresponding proportion of male to female births in the quinquennium was 1,058, there being an actual excess of 1,921 females in the natural increase for the period.

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.	Vic- toria.	New South Wales.	Queens- land.	South Aus- tralia.	Western Aus- tralia.	Tas- mania.	Aus- tralia.	New Zealand.
1929	9·44	9·82	9·26	8·80	9·34	9·99	9·52	8·75
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

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 years 1929 to 1933 as compiled by the Commonwealth Statistician, are as follows :—

#### INDEX OF MORTALITY FOR AUSTRALIA, 1929 TO 1933.

Year.	Index of Mortality for—						
	Victoria.	New South Wales.	Queens- land.	South Australia.	Western Australia.	Tasmania.	Australia.
1929	9·78	11·14	10·21	8·97	11·69	10·98	10·39
1930	9·31	9·54	9·03	8·69	11·16	9·66	9·38
1931	9·88	9·59	9·04	8·69	10·99	10·14	9·56
1932	9·72	9·55	9·31	8·79	11·12	9·88	9·54
1933	10·02	9·75	10·28	8·76	11·04	10·39	9·86

Though the death rate is usually higher in Victoria than in any other Australian State, the figures in the above table show that, by taking an average over the last five years, only two States—Queensland and South Australia—had a lower index of mortality than Victoria.

Information relating to death rates for groups of ages at the decennial periods, 1891-1900, 1902-11, and 1912-21, will be found in previous issues of this publication.

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

Death rates in  
Municipalities.

Death rates  
at various  
ages.

towns, and the remainder of the State for the five-year periods 1923 to 1927 and 1928 to 1932, and the last three years.

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

Municipality.	Annual Number of Deaths.					Deaths per 1,000 of Mean Population. (Corrected rates.)				
	1923-1927.	1928-1932.	1931.	1932.	1933.	1923-1927.	1928-1932.	1931.	1932.	1933.
Greater Melbourne—										
Melbourne ..	1,264	1,091	1,111	1,023	1,098	12.83	11.57	11.83	11.17	12.21
Box Hill ..	*	125	99	132	144	*	8.81	6.84	8.69	9.39
Braybrook(Part)..	*	56	59	68	66	*	6.70	6.90	7.83	7.53
Brighton ..	242	272	275	286	267	9.43	9.22	9.22	9.61	8.99
Brunswick ..	520	532	535	560	578	10.50	9.57	9.69	10.26	10.64
Camberwell ..	316	430	452	458	477	9.15	8.87	9.02	9.17	9.53
Caulfield ..	463	552	567	553	594	8.52	8.72	8.86	8.57	9.15
Chelsea ..	..	63	64	66	81	..	9.24	9.34	9.85	12.23
Coburg ..	232	287	319	259	303	8.29	8.06	8.83	7.02	7.95
Collingwood ..	422	363	377	354	367	12.45	11.36	11.99	11.46	11.97
Essendon ..	404	429	439	435	460	9.51	9.30	9.52	9.46	9.98
Fitzroy ..	457	446	447	441	441	13.33	13.77	14.11	14.20	14.31
Footscray ..	397	402	417	403	385	9.78	8.79	9.07	8.74	8.32
Hawthorn ..	331	357	381	385	380	10.51	10.67	11.34	11.44	11.26
Heidelberg (Part)..	..	193	199	207	196	*	7.91	8.16	8.59	8.14
Kew ..	191	220	220	212	239	9.06	9.08	8.99	8.74	9.89
Malvern ..	368	404	412	419	472	8.71	9.28	9.48	9.69	10.91
Moorabbin ..	..	130	129	150	152	..	7.55	7.14	8.22	8.30
Mordialloc ..	..	85	91	74	75	..	8.86	9.46	7.88	8.14
Northeast ..	349	369	398	378	374	9.53	8.77	9.46	8.91	8.81
Oakleigh ..	..	101	85	140	103	*	8.72	7.20	11.81	8.65
Port Melbourne ..	151	137	131	142	147	11.49	10.26	9.98	10.99	11.39
Prahran ..	608	628	600	612	643	11.80	11.06	11.48	11.83	12.45
Preston ..	168	242	231	242	253	9.44	8.20	7.69	7.83	7.93
Richmond ..	490	464	465	457	453	11.24	11.20	11.41	11.44	11.43
Sandringham ..	121	161	163	154	154	7.86	9.08	9.09	8.55	8.52
South Melbourne ..	539	486	471	451	493	11.85	11.09	10.83	10.44	11.51
St. Kilda ..	441	452	401	458	501	10.73	9.84	8.76	9.90	10.76
Williamstown ..	237	211	226	210	192	11.32	9.63	10.33	9.52	8.66
Remainder of Metropolis ..	520	..	..	..	..	9.86	..	..	..	..
Country Towns—										
Ballarat ..	482	475	525	444	472	12.19	12.28	13.76	11.75	12.62
Bendigo ..	444	421	397	408	444	13.20	13.08	12.42	12.83	14.04
Geelong ..	401	455	480	434	475	10.16	10.40	11.03	9.96	10.88
Chelsea ..	56	..	..	..	..	8.61	..	..	..	..
Castlemaine ..	73	73	77	60	75	10.19	10.61	11.61	9.10	11.50
Hamilton ..	63	59	59	53	56	12.21	10.35	10.35	9.23	9.68
Maryborough ..	59	59	53	57	73	12.25	10.66	9.58	10.18	12.96
Mildura ..	65	59	54	77	57	11.10	9.05	8.21	11.67	8.62
Mordialloc ..	70	..	..	..	..	9.20	..	..	..	..
Shepparton ..	†	55	45	66	87	†	9.96	8.09	11.66	15.27
Stawell ..	53	51	61	57	49	11.38	10.87	12.84	12.00	10.31
Warrnambool ..	80	91	95	88	97	10.00	10.46	10.80	9.94	10.89
Wonthaggi ..	49	47	51	50	45	7.74	7.45	8.36	8.62	8.04
Summary—										
Greater Melbourne ..	9,231	9,688	9,764	9,729	10,088	10.38	9.74	9.79	9.79	10.17
Country Towns ..	1,895	1,845	1,897	1,794	1,950	11.25	11.22	11.62	11.02	11.90
Remainder of State ..	5,407	5,311	5,372	5,282	5,438	8.87	8.53	8.44	8.14	8.18
Victoria ..	16,533	16,844	17,033	16,805	17,456	9.91	9.45	9.48	9.30	9.59

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—Up to the end of 1928, Greater Melbourne was defined as that area within a radius of ten miles of the Elizabeth-street Post Office. At the beginning of 1929 the area was re-defined to conform to the expansion of the Metropolis in a south-easterly direction, and to include, as far as possible, complete Local Government areas. In the Heidelberg Shire, the Greensborough Riding, and in the Braybrook Shire, the Western Riding, are excluded.

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 1933 :—

PROPORTION OF DEATHS OF RESIDENTS OF CERTAIN AREAS OCCURRING IN PUBLIC INSTITUTIONS, 1933.

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 ..	391	138	35·61	12·57	48·18	5·88
Box Hill ..	26	11	18·05	7·64	25·69	2·41
Braybrook (Part) ..	27	4	40·91	6·06	46·97	3·54
Brighton ..	45	13	16·85	4·87	21·72	1·95
Brunswick ..	188	42	32·52	7·27	39·79	4·23
Camberwell ..	79	28	16·56	5·87	22·43	2·14
Caulfield ..	111	27	18·69	4·54	23·23	2·12
Chelsea ..	15	4	18·52	4·94	23·46	2·87
Coburg ..	84	16	27·72	5·28	33·00	2·62
Collingwood ..	134	36	36·51	9·81	46·32	5·54
Essendon ..	94	33	20·44	7·17	27·61	2·75
Fitzroy ..	161	53	36·51	12·02	48·53	6·95
Footscray ..	111	25	28·83	6·49	35·32	2·94
Hawthorn ..	72	26	18·95	6·84	25·79	2·90
Heidelberg (Part) ..	41	9	20·92	4·59	25·51	2·08
Kew ..	52	22	21·76	9·20	30·96	3·06
Malvern ..	76	22	16·10	4·66	20·76	2·27
Moorabbin ..	40	11	26·31	7·24	33·55	2·78
Mordialloc ..	16	6	21·33	8·00	29·33	2·39
Northcote ..	106	29	28·34	7·76	36·10	3·18
Oakleigh ..	32	9	31·07	8·74	39·81	3·44
Port Melbourne ..	57	9	38·78	6·12	44·90	5·12
Prahran ..	159	43	24·73	6·69	31·42	3·91
Preston ..	83	21	32·81	8·30	41·11	3·26
Richmond ..	145	40	32·01	8·83	40·84	4·67
Sandringham ..	32	7	20·78	4·54	25·32	2·16
South Melbourne ..	158	40	32·05	8·11	40·16	4·62
St. Kilda ..	123	33	24·55	6·59	31·14	3·35
Williamstown ..	50	11	26·04	5·73	31·77	2·75

PROPORTION OF DEATHS OF RESIDENTS OF CERTAIN AREAS  
OCCURRING IN PUBLIC INSTITUTIONS, 1933—*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 .. ..	123	40	26·06	8·47	34·53	4·36
Bendigo .. ..	125	32	28·15	7·21	35·36	4·96
Geelong .. ..	153	24	32·21	5·05	37·26	4·05
Castlemaine ..	19	9	25·33	12·00	37·33	4·29
Hamilton .. ..	24	4	42·86	7·14	50·00	4·84
Maryborough ..	27	3	36·99	4·11	41·10	5·33
Mildura .. ..	26	4	45·61	7·02	52·63	4·54
Shepparton ..	40	1	45·98	1·15	47·13	7·19
Stawell .. ..	15	5	30·61	10·21	40·82	4·21
Warrnambool ..	37	4	38·15	4·12	42·27	4·60
Wonthaggi ..	27	1	60·00	2·22	62·22	5·01
Summary—						
Greater Melbourne	2,708	768	26·85	7·61	34·46	3·50
Country Towns ..	616	127	31·92	6·58	38·50	4·58
Remainder of State	1,339	268	24·60	4·93	29·53	2·42
Victoria .. ..	4,663	1,163	26·72	6·66	33·38	3·20

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.	1931.	1932.	1933.
Greater Melbourne ..	24·3	27·0	29·5	27·5	27·6	26·9
Rest of State .. ..	17·0	21·2	23·7	25·0	25·5	26·5
Victoria .. ..	20·4	24·3	27·0	26·4	26·7	26·7

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 1933, was on a level with the proportion for the metropolis.

The percentage of deaths occurring in the other public institutions of the State was 6·66 in 1933, 6·47 in 1932 and 6·53 in 1931. The rate in the metropolis is considerably higher than the rate for the rest of the State.

In 1933 the number of deaths in public institutions was 5,826, of which 3,476 were of residents of Greater Melbourne.

**Deaths in  
Metropolitan  
public  
institutions.**

The number of deaths in each metropolitan public institution in 1933 is given in the subjoined table:—

### DEATHS IN METROPOLITAN PUBLIC INSTITUTIONS, 1933.

Institution.	No. of Deaths.	Institution.	No. of Deaths.
<b>Hospitals—</b>		<b>Asylums—</b>	
Melbourne .. ..	919	<b>Mental—</b>	
Alfred .. ..	570	Kew .. ..	112
Hamilton Russell .. ..	18	Mont Park .. ..	106
Children's .. ..	371	Receiving House, Royal Park .. ..	59
St. Vincent's .. ..	243	Macleod Military .. ..	..
Austin .. ..	259		
Women's .. ..	193	<b>Total Mental .. ..</b>	<b>277</b>
Homœopathic .. ..	135		
Infectious Diseases .. ..	91	<b>Benevolent—</b>	
Caulfield Repatriation .. ..	54	Melbourne (Cheltenham) .. ..	199
Queen Victoria .. ..	77	Victorian Homes for Aged and Infirm .. ..	154
Jessie McPherson Com- munity .. ..	31	Convent of Little Sisters of the Poor .. ..	73
Williamstown .. ..	37	Old Colonists' Homes .. ..	4
Caulfield Convalescent .. ..	10		
After Care Home .. ..	7	<b>Total Benevolent .. ..</b>	<b>430</b>
Eye and Ear .. ..	14		
Police .. ..	3	<b>Foundling Homes, Refuges—</b>	
<b>Total Hospitals .. ..</b>	<b>3,032</b>	Broadmeadows .. ..	4
		East Melbourne .. ..	5
<b>Sanatoria —</b>		The Haven, Fitzroy .. ..	8
Heatherton .. ..	56	Carlton .. ..	..
Janefield .. ..	4	Children's Welfare Depot .. ..	..
Macleod Military .. ..	1	Berwick .. ..	..
Greenvale .. ..	21		
Gresswell .. ..	20	<b>Total Refuges, etc. .. ..</b>	<b>17</b>
<b>Total Sanatoria .. ..</b>	<b>102</b>	<b>Total Hospitals and other Institutions .. ..</b>	<b>3,858</b>

Of the 3,858 deaths in the above institutions, 2,267 were males and 1,591 were females.

**Decrease in  
Metropolitan  
death rate.**

In Greater Melbourne, in the decade 1924-33, there was an average of 9·93 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 1924-33 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.	1924-33.	Decrease in 1924-33.
Pulmonary Tuberculosis ...	1,654	580	1,074
Other Tubercular Diseases ...	446	101	345
Typhoid Fever ... ..	293	10	283
Scarlet Fever ... ..	33	13	20
Measles ... ..	215	15	200
Diphtheria ... ..	196	65	131
Total ... ..	2,837	784	2,053

The figures show that the mortality from the six diseases mentioned declined by 72 per cent. in 1924-33—the decline representing a rate of 2,053 per million of the population.

The mortality from all causes showed a net decline of 5,830 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 45 in 1929-33—a reduction of 66 per cent. In other words, where 100 infants died in the earlier years, only 34 died in the last five years.

Various health Acts and educative measures have contributed to the reduction, including the notification of infectious diseases, the regulation of the manufacture, sale, and distribution of foodstuffs and

**Infantile  
mortality.**

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 1933.

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
1929 ..	855	50·5	732	43·9	1,587	47·2
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

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.

Since 1929 a record low infantile death rate for Victoria has been experienced in each succeeding year.

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.	1931.	1932.	1933.	1923- 1927.	1928- 1932.	1931.	1932.	1933.
<b>Greater Melbourne—</b>										
Melbourne ..	183	86	67	62	56	89.97	63.95	54.91	58.00	47.74
Box Hill ..	*	10	5	8	9	*	37.04	21.37	37.38	41.47
Braybrook (Part) ..	*	6	8	5	9	*	33.19	43.01	33.56	47.87
Brighton ..	20	15	9	14	7	41.49	39.11	24.26	44.73	21.41
Brunswick ..	77	60	41	53	32	65.99	61.63	46.17	64.01	41.83
Camberwell ..	34	30	19	25	22	42.15	34.68	23.20	35.61	29.89
Canfield ..	52	39	38	35	25	48.65	41.87	43.33	47.62	32.77
Chelsea ..	..	6	9	6	4	..	47.32	71.43	50.85	34.19
Coburg ..	44	33	29	19	24	62.29	44.47	41.67	29.69	36.42
Collingwood ..	62	38	43	33	17	89.80	71.78	85.15	81.02	33.86
Essendon ..	52	33	33	23	25	61.26	42.83	44.78	37.22	42.02
Fitzroy ..	57	41	44	35	27	83.50	79.33	94.62	77.78	56.48
Footscray ..	68	41	39	31	24	69.21	47.34	50.19	43.06	34.88
Hawthorn ..	25	16	11	11	11	47.66	37.23	28.42	30.39	30.90
Heidelberg (Part) ..	*	20	16	15	7	*	49.37	43.72	44.38	21.88
Kew ..	17	15	13	7	7	45.38	43.66	40.75	26.72	24.91
Malvern ..	28	19	16	16	18	44.63	38.91	34.33	44.32	41.76
Moorabbin ..	..	14	13	7	19	..	34.17	36.11	19.50	50.94
Mordialloc ..	..	8	12	4	3	..	55.48	76.43	35.40	23.62
Northcote ..	54	38	32	32	23	60.16	51.73	45.85	51.20	39.05
Oakleigh ..	*	12	5	16	9	*	46.18	20.49	78.05	40.91
Port Melbourne ..	25	16	20	13	18	89.08	71.24	90.91	60.47	92.31
Prahran ..	58	41	42	26	23	66.12	58.62	65.93	43.84	39.52
Preston ..	30	31	19	24	21	54.80	44.03	29.37	42.25	34.37
Richmond ..	65	46	46	32	35	73.81	65.53	68.45	54.05	59.93
Sandringham ..	15	10	7	9	9	53.86	35.95	28.23	41.67	42.86
South Melbourne ..	77	47	42	32	28	89.52	70.87	70.95	55.65	51.57
St. Kilda ..	34	22	13	20	25	50.97	41.67	27.48	43.67	49.70
Williamstown ..	33	19	20	11	13	67.99	44.44	48.31	34.48	40.12
Remainder of Metropolis ..	75	..	..	..	..	54.99	..	..	..	..
<b>Country Towns—</b>										
Ballarat ..	49	34	42	24	30	67.88	51.84	61.67	41.10	48.70
Bendigo ..	48	33	30	24	26	77.81	60.00	57.36	47.43	49.81
Geelong ..	61	49	46	40	45	70.75	58.56	59.59	57.31	62.07
Chelsea ..	10	..	..	..	..	79.49	..	..	..	..
Castlemaine ..	8	5	2	5	3	59.18	47.80	17.24	69.44	27.03
Hamilton ..	10	5	3	6	3	66.76	34.63	20.55	57.14	25.00
Maryborough ..	6	5	1	3	5	48.03	45.84	7.81	25.00	42.02
Mildura ..	13	9	12	9	4	66.53	47.83	71.43	48.65	22.86
Mordialloc ..	13	..	..	..	..	86.44	..	..	..	..
Shepparton ..	†	8	10	5	4	†	54.16	73.53	31.25	29.85
Stawell ..	7	3	1	2	3	61.15	28.26	11.63	21.98	36.14
Warrnambool ..	9	9	11	3	4	49.34	52.33	67.90	16.22	25.32
Wonthaggi ..	10	8	11	10	3	63.99	53.67	73.83	86.21	26.79
<b>Summary—</b>										
Greater Melbourne ..	1,165	812	711	629	550	65.05	50.94	48.04	47.70	40.87
Country Towns ..	244	168	169	131	130	69.40	53.24	55.08	46.42	45.22
Remainder of State ..	702	535	469	421	468	49.25	42.12	37.63	36.75	38.80
Victoria ..	2,111	1,515	1,349	1,181	1,148	59.16	47.65	44.47	43.00	40.43

\* Included in Remainder of Metropolis.

† Not calculated.

NOTE.—Up to the end of 1928, Greater Melbourne was defined as that area within a radius of ten miles of the Elizabeth-street Post Office. At the beginning of 1929 the area was re-defined to conform to the expansion of the Metropolis in a south-easterly direction, and to include, as far as possible, complete Local Government areas. In the Heidelberg Shire, the Greensborough Riding, and in the Braybrook Shire, the Western Riding, are excluded.

The prejudicial effect of city surroundings on infant life is evidenced by the mortality being heavier in urban than in country districts. During the years 1929-33 the deaths of children under 1 year of age to every 1,000 births were 48 in Melbourne, 50 in Ballarat, 52 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 1933 comprised 55 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 22·3 in 1933. Between 1910-14 and 1929-33 the mortality of infants "one week and under one month" decreased by 45 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-two in 1915-19, and sixteen in 1929-33.

On the average of the years 1929-33, the total rate for males was higher than that for females by 31·4 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 1933 :—

#### INFANTILE MORTALITY IN VICTORIA AT DIFFERENT AGES, 1900 TO 1933.

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
1929 ..	22·4	8·0	5·2	4·6	7·0	47·2	55·1	38·7
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

### INFANTILE MORTALITY AT DIFFERENT AGES, MALES AND FEMALES, 1933.

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 ..	369	25.46	55.74	265	19.06	54.53
1 week to 1 month	82	5.66	12.39	69	4.96	14.20
1 and 2 months ..	70	4.83	10.57	48	3.45	9.87
3 to 5 months ..	61	4.21	9.21	38	2.74	7.82
6 to 11 months ..	80	5.52	12.09	66	4.75	13.58
Total under one year ..	662	45.68	100.0	486	34.96	100.00

Infantile death rates from certain causes.

An examination of the principal causes of infantile mortality over a period of year 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 1933.

### 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.	1931.	1932.	1933.
Epidemic, Endemic, and Infectious Diseases ..	12.41	7.31	4.87	3.57	3.59	2.84	2.61
Bronchitis, Broncho-pneumonia, Pneumonia ..	11.37	8.13	6.86	6.08	6.33	5.24	5.49
Diarrhoeal Diseases ..	29.66	24.62	16.13	9.85	2.31	3.09	1.62
Malformations, &c. (157) ..	3.45	4.86	4.38	4.43	4.55	3.86	5.18
Wasting Diseases (158) ..	22.24	12.74	13.09	6.77	3.20	3.35	3.13
Prematurity ..	13.13	14.99	15.17	15.34	14.14	13.84	12.61
Injury at birth ..	..	..	..	2.57	2.90	3.24	3.13
Early Infancy (161) ..	21.51	12.77	7.98	3.42	4.32	4.15	4.16
Other diseases ..	..	..	..	4.42	2.50	2.45	1.62
Violence ..	3.16	2.47	1.07	.80	.63	.94	.88
Total, all Causes ..	116.93	87.89	69.55	57.25	44.47	43.00	40.43

# INFANTILE DEATH RATES, AT DIFFERENT AGES, FROM CERTAIN CAUSES, 1933.

Cause of Death.	Deaths under One Year per 1,000 Births.								
	Age Period.					Total.	Males.	Females.	Average Annual Rate, 1929-33.
	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 ..	·11	·11	·74	·42	1·23	2·61	2·07	3·16	3·00
Bronchitis, Broncho-pneumonia, Pneumonia ..	·74	·63	1·06	1·20	1·86	5·49	6·83	4·10	5·87
Diarrhœal Diseases ..	..	·07	·21	·53	·81	1·62	1·86	1·37	3·24
Malformations, &c. (157)	2·75	1·13	·70	·28	·32	5·18	6·21	4·10	4·56
Wasting Diseases (158) ..	1·48	·59	·46	·42	·18	3·13	3·59	2·66	3·94
Prematurity ..	10·88	1·27	·32	·14	..	12·61	13·66	11·51	13·79
Injury at Birth ..	2·71	·39	·03	..	..	3·13	4·14	2·08	3·06
Early Infancy (161) ..	3·31	·78	·07	..	..	4·16	4·35	3·96	3·80
Other Diseases ..	·14	·35	·28	·32	·53	1·62	1·86	1·37	2·54
Violence ..	·21	..	·28	·18	·21	·88	1·11	·65	·71
Total, all Causes ..	22·33	5·32	4·15	3·49	5·14	40·43	45·68	34·96	44·51
Average Annual Rate, 1929-33 ..	22·39	6·06	4·86	4·53	6·67	44·51	50·35	38·33	..

The mortality of infants under one year from pre-natal causes (malformations, congenital debility, prematurity, injury at birth etc.) was 29·2 per 1,000 births in 1929-33 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 1933 was 28·2, 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 1929–33. Of these causes, deaths from diarrhoeal diseases declined from 24·6 per 1,000 births in 1901–10 to 3·2 in 1929–33, the main respiratory diseases from 8·1 to 5·9 and the infectious from 7·3 to 3·0. It will thus be seen that since the beginning of this century mortality of infants from diarrhoeal diseases has been reduced by 87 per cent.; the main respiratory diseases by 27 per cent.; and the infectious by 59 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 1929 to 1933:—

#### DEATHS OF INFANTS UNDER ONE MONTH, 1929 TO 1933.

Cause of Death.	Greater Melbourne.					Victoria.				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
Epidemic, Endemic, and Infectious Diseases ..	5	2	5	1	4	6	7	9	3	6
Bronchitis, Broncho-pneumonia, Pneumonia ..	55	27	23	19	27	71	37	40	28	39
Diarrhoeal Diseases ..	4	..	2	4	..	13	3	4	9	2
Malformations, &c. (157) ..	57	46	44	26	51	113	99	89	65	110
Wasting Diseases (158) ..	52	52	24	26	21	112	120	76	63	59
Prematurity ..	242	234	208	166	153	452	439	411	361	345
Injury at Birth ..	54	47	39	40	34	103	94	87	88	88
Early Infancy (161) ..	56	66	67	59	55	114	100	127	111	116
Other Diseases ..	12	8	7	4	8	32	21	18	13	14
Violence ..	4	5	3	2	4	6	6	8	7	6
Total, all Causes ..	541	487	422	347	357	1,022	926	869	748	785
Deaths per 1,000 Births	32·0	29·1	28·5	26·3	26·5	30·4	28·0	28·6	27·2	27·6

#### 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. In 1933 the rate per 1,000 live births in Victoria was 28·6; in the States where registration of stillbirths is in force the rates for that year were, Western Australia, 25·5 and Tasmania, 27·2. The rate in New Zealand in 1933 was 29·7.

In the following table are given the stillbirth rates and other rates of infantile mortality in Victoria and Greater Melbourne in each of the last ten years :—

Year.	Stillbirths and Deaths under one Year per 1,000 Live Births.							
	Greater Melbourne.				Victoria.			
	* Stillbirths (Notifications).	Under one Month.	1 and under 12 Months.	Infant Mortality including Stillbirths.	Stillbirths (Notifications).	Under one Month.	1 and under 12 Months.	Infant Mortality including Stillbirths.
1924	31·0	34·8	32·9	98·7	30·1	32·1	29·2	91·4
1925	32·1	32·2	28·0	92·3	30·9	30·9	26·1	87·9
1926	31·3	31·5	30·1	92·9	29·7	29·7	25·9	85·3
1927	32·7	34·3	28·2	95·2	30·2	31·3	24·8	86·3
1928	31·3	30·4	26·4	88·1	27·5	29·5	26·1	83·1
1929	34·1	32·0	18·5	84·6	31·1	30·4	16·8	78·3
1930	32·9	29·1	21·6	83·6	29·9	28·0	18·5	76·4
1931	28·8	28·5	19·5	76·8	27·9	28·6	15·9	72·4
1932	29·8	26·3	21·4	77·5	28·9	27·2	15·8	71·9
1933	30·2	26·5	14·4	71·1	28·6	27·6	12·8	69·0

\* Based on the total registrations of births in Greater Melbourne.

It will be seen that, as with other mortality due to pre-natal influences, the rate of stillbirths shows little tendency to decrease. The rate in Victoria now approximates to the total mortality occurring within one month after birth.

On the average of the last ten years, 103 in every 1,000 ex-nuptial infants died within a year, as against 49 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 1933 the mortality rate of nuptial infants was 38·3 per 1,000 births. The children born out of wedlock during the same year numbered 1,242, and the deaths of ex-nuptial infants were 108, the death rate being thus 87·0 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 1933 :—

Nuptial and  
ex-nuptial  
infantile  
death rates.

# 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.	1933.	1904-08.	1914-18.	1924-28.	1933.
Bronchitis, Broncho-pneumonia, Pneumonia ..	6·9	6·1	5·9	5·2	18·6	12·5	13·0	12·1
Diarrhoeal Diseases ..	19·8	14·2	8·9	1·5	72·6	48·6	23·1	4·8
Prematurity, Congenital Malformations, Marasmus, &c.* ..	30·3	27·2	25·0	19·8	52·1	64·9	46·9	45·1
Other causes ..	18·3	15·3	14·7	11·8	58·7	36·6	29·3	25·0
Total, all Causes ..	75·3	62·8	54·5	38·3	202·0	162·6	112·3	87·0

\* 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 12·5 died from diarrhoeal diseases within a year, as compared with 2·8 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 15·9 and 5·4 per 1,000 births respectively.

The following statement shows the infantile death rate per 1,000 births in each of the Australasian 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-mania.	Aus-tralia.	New Zealand.
1929	47·23	56·44	46·03	40·88	56·13	53·16	51·10	34·10
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

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 1933 were as follows :—Melbourne, 40·87 ; Sydney, 36·82 ; Brisbane, 42·52 ; Adelaide, 31·77 ; Perth, 35·16 ; Hobart, 51·95 ; and Wellington, 37·77.

In 1933 the deaths of male children under 5 years of age numbered 905, and the deaths of female children under that age, 691—the former being in the proportion of 9·72 per cent., and the latter of 8·48 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, 1931 TO 1933.

Ages. Ages at death.	1931.			1932.			1933.		
	Males.	Females.	Total.	Males.	Females.	Total.	Males.	Females.	Total.
Under 1 year	780	569	1,349	692	489	1,181	662	486	1,148
1 year	107	100	207	110	90	200	92	84	176
2 years	61	34	95	48	56	104	63	48	111
3 "	44	29	73	55	30	85	48	29	77
4 "	26	29	55	44	30	74	40	44	84
5 to 9	159	98	257	175	136	311	123	88	211
10 " 14	120	68	188	114	66	180	106	82	188
15 " 19	155	120	275	134	109	243	145	102	247
20 " 24	167	170	337	181	154	335	168	159	327
25 " 29	221	187	408	168	154	322	205	172	377
30 " 34	221	251	472	197	192	389	200	205	405
35 " 39	249	265	514	258	228	486	237	236	473
40 " 44	337	290	627	296	265	561	304	271	575
45 " 49	365	320	685	367	336	703	425	317	742
50 " 54	482	367	849	491	406	897	492	408	900
55 " 59	653	451	1,104	590	462	1,052	701	496	1,197
60 " 64	858	642	1,500	855	684	1,539	873	690	1,563
65 " 69	1,163	872	2,035	1,168	889	2,057	1,188	978	2,166
70 " 74	1,179	1,013	2,192	1,228	987	2,215	1,290	1,062	2,352
75 " 79	868	770	1,638	909	854	1,763	997	981	1,978
80 " 84	551	620	1,171	535	575	1,110	542	592	1,134
85 " 89	294	383	677	275	398	673	277	397	674
90 " 94	108	145	253	82	163	245	111	175	286
95 ..	6	12	18	10	21	31	8	14	22
96 ..	4	13	17	3	8	11	4	7	11
97 ..	4	10	14	6	11	17	3	11	14
98 ..	1	3	4	3	7	10	3	5	8
99 ..	2	7	9	1	3	4	..	6	6
100 ..	1	1	2	..	1	1	1	3	4
101 ..	..	1	1	1	3	4	..	..	..
102 ..	2	1	3	1	..	1	..	..	..
103 ..	1	1	2	..	..	..	..	..	..
104 ..	1	1	2	..	..	..	..	..	..
105 ..	..	..	..	1	..	1	..	..	..
Total ..	9,190	7,843	17,033	8,998	7,807	16,805	9,308	8,148	17,456

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

Of the 51,294 persons who died in Victoria during the last three years 6,440 were aged 80 years and upwards, and 21—nine males and twelve 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, 1931, 1932, and 1933.

International Abridged Classification.	Number —			Deaths per Million of the Population.			
	1931.	1932.	1933.	1922-1926.	1931.	1932.	1933.
1. Typhoid Fever (1, 2) .. ..	26	12	16	21	14	7	9
4. Measles .. ..	15	17	13	17	8	9	7
5. Scarlet Fever .. ..	27	38	12	10	15	21	7
6. Whooping Cough .. ..	72	27	38	60	40	15	21
7. Diphtheria .. ..	130	166	126	59	72	92	69
8a. Influenza—Respiratory .. ..	235	53	180	61	131	29	71
8b. Influenza—Other .. ..	86	35	65	52	49	20	36
10. Tuberculosis of the Respiratory System .. ..	865	813	737	575	481	450	405
11a. Tubercular Meningitis .. ..	57	49	39	42	32	27	21
11b. Other Tuberculous Diseases .. ..	66	89	82	58	37	40	45
12. Syphilis .. ..	43	52	46	24	24	29	25
13. Malaria .. ..	1	2	1	1	1	1	1
14. Other Infectious or Parasitic Diseases .. ..	143	145	157	120	80	80	87
15. Cancer and other Malignant Tumours .. ..	1,953	2,128	2,148	1,000	1,087	1,178	1,180
16. Tumours, Non-Malignant or of Unspecified Nature .. ..	89	90	89	51	50	50	49
17. Chronic Rheumatism, Gout (57-58) .. ..	69	58	61	38	38	32	33
18. Diabetes Mellitus .. ..	260	296	296	112	145	164	163
19. Acute and Chronic Alcoholism .. ..	14	4	8	11	8	2	4
20. Other General Diseases (Classes 3, 4, 5) .. ..	278	304	292	165	155	169	161
21. Locomotor Ataxia, General Paralysis of Insane (80, 83) .. ..	38	29	46	31	21	16	25
22. Cerebral Haemorrhage, Embolism, &c. (82) .. ..	919	942	993	†	511	522	545
23. Other Diseases of Nervous System and Sense Organs .. ..	277	333	298	236	154	184	164
24. Diseases of the Heart (90-95) .. ..	3,162	3,173	3,423	1,347	1,759	1,757	1,880
25a. Arterio-sclerosis .. ..	755	798	834	†	420	442	458
25b. Other Diseases of Circulatory System .. ..	114	161	124	82	63	89	68
26a. Acute Bronchitis (106a and c) .. ..	45	41	44	48	25	23	24
26b. Chronic Bronchitis (106b and d) .. ..	216	205	177	147	120	114	97
27. Pneumonia (all forms) (107-109) .. ..	1,221	1,063	1,233	734	679	589	677
28. Other Diseases of the Respiratory System .. ..	356	347	364	214	198	190	200
29a. Diarrhoea and Enteritis (under two years of age) .. ..	93	123	77	294	52	68	42
29b. Diarrhoea and Enteritis (two years and over) .. ..	139	122	121	86	77	68	67
30. Appendicitis .. ..	152	125	126	71	85	69	69
31a. Cirrhosis of the Liver .. ..	72	94	94	49	40	52	52
31b. Other Diseases of the Liver and Biliary Calculi (125-127) .. ..	123	137	159	60	69	76	87
32a. Hernia, Intestinal obstruction .. ..	151	136	155	99	84	75	85
32b. Other Diseases of the Digestive System .. ..	250	234	253	148	139	130	139
33. Nephritis (130-132) .. ..	997	998	1,096	505	555	553	602
34. Other Diseases of the Genito-Urinary System .. ..	299	274	279	151	166	151	153
35a. Post-Abortive Sepsis .. ..	9	9	7	†	5	5	4
35b. Criminal Abortion (140b) .. ..	19	30	28	†	11	17	15
35c. Puerperal Septicæmia (without abortion) .. ..	34	27	30	†	19	15	16
36. Other Diseases of Pregnancy and Labour .. ..	92	89	61	†	51	49	34
37. Diseases of the Skin, Bones, &c. .. ..	79	82	89	61	44	45	49
38. Congenital Debility, Malformations, Premature Birth, &c. .. ..	899	809	835	731	500	448	459
39. Senility .. ..	1,023	1,031	1,041	802	589	571	572
40. Suicide .. ..	181	174	187	37	101	96	103
41. Homicide .. ..	41	16	30	14	23	9	16
42. Accidental or Violent Death (176-198) .. ..	777	772	834	465	432	428	458
43. Non-specified or ill-defined Causes .. ..	72	54	61	94	40	30	34
* Total all Causes .. ..	17,033	16,805	17,456	9,898	9,478	9,305	9,588

\* 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 95.

Detailed classification numbers in brackets.

# CAUSES OF DEATH, VICTORIA, GREATER MELBOURNE, AND REST OF STATE, 1933.

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) .. .. .	9	7	10	6	10	7
4. Measles .. .. .	6	7	5	8	5	10
5. Scarlet Fever .. .. .	4	8	8	4	8	5
6. Whooping Cough .. .. .	14	24	29	9	29	11
7. Diphtheria .. .. .	57	69	69	57	70	69
8a. Influenza—Respiratory .. .. .	67	63	73	57	74	69
8b. Influenza—Other .. .. .	25	40	30	35	30	42
10. Tuberculosis of the Respiratory System .. .. .	401	336	470	267	474	322
11a. Tubercular Meningitis .. .. .	18	21	24	15	24	18
11b. Other Tuberculous Diseases .. .. .	52	30	53	29	53	35
12. Syphilis .. .. .	37	9	36	10	36	12
13. Malaria .. .. .	1	1	2	2	2	..
14. Other Infectious or Parasitic Diseases .. .. .	86	71	83	74	84	89
15. Cancer and other Malignant Tumours .. .. .	1,033	1,115	1,313	835	1,324	1,008
16. Tumours, Non-Malignant or of Unspecified Nature .. .. .	32	57	53	36	53	43
17. Chronic Rheumatism, Gout (57-58) .. .. .	19	42	41	20	41	24
18. Diabetes Mellitus .. .. .	110	186	167	129	168	156
19. Acute and Chronic Alcoholism .. .. .	7	1	6	2	6	2
20. Other General Diseases (Classes 3, 4, 5) .. .. .	127	165	184	103	186	130
21. Locomotor Ataxia, General Paralysis of Insane (80, 83) .. .. .	38	8	37	9	37	11
22. Cerebral Haemorrhage, Embolism, &c. (82) .. .. .	415	578	596	397	601	479
23. Other Diseases of Nervous System and Sense Organs .. .. .	160	138	158	140	159	169
24. Diseases of the Heart (90-95) .. .. .	1,879	1,544	2,057	1,366	2,073	1,649
25a. Arterio-sclerosis .. .. .	389	445	575	259	580	313
25b. Other Diseases of Circulatory System .. .. .	58	66	72	52	73	63
26a. Acute Bronchitis (106a and c) .. .. .	23	21	19	25	19	30
26b. Chronic Bronchitis (106b and d) .. .. .	100	77	105	69	109	83
27. Pneumonia (all forms) (107-109) .. .. .	734	499	736	497	742	600
28. Other Diseases of the Respiratory System .. .. .	218	146	174	190	175	229
29a. Diarrhoea and Enteritis (under two years of age) .. .. .	43	34	44	33	44	40
29b. Diarrhoea and Enteritis (two years and over) .. .. .	53	68	61	60	61	72
30. Appendicitis .. .. .	82	44	67	59	68	71
31a. Cirrhosis of the Liver .. .. .	73	21	62	32	63	39
31b. Other Diseases of the Liver and Biliary Calculi (125-127) .. .. .	61	98	107	52	108	63
32a. Hernia, Intestinal obstruction .. .. .	92	63	89	66	90	80
32b. Other Diseases of the Digestive System .. .. .	162	91	154	99	155	119
33. Nephritis (130-132) .. .. .	546	550	666	430	671	519
34. Other Diseases of the Genito-Urinary System .. .. .	207	72	163	116	165	140
35a. Post-Abortive Sepsis .. .. .	..	7	1	6	1	7
35b. Criminal Abortion (140b) .. .. .	..	28	25	3	25	4
36. Puerperal Septicaemia (without abortion) .. .. .	..	30	14	16	14	19
36. Other Diseases of Pregnancy and Labour .. .. .	..	61	25	36	25	43
37. Diseases of the Skin, Bones, &c. .. .. .	51	38	49	40	49	48
38. Congenital Debility, Malformations, Premature Birth, &c. .. .. .	477	358	376	459	379	554
39. Senility .. .. .	491	550	468	573	472	692
40. Suicide .. .. .	150	37	92	95	93	115
41. Homicide .. .. .	21	9	17	13	17	16
42. Accidental or Violent Death (176-198) .. .. .	641	193	405	429	409	518
43. Non-specified or ill-defined Causes .. .. .	39	22	15	46	15	55
*TOTAL ALL CAUSES .. .. .	9,308	8,148	10,088	7,368	10,169	8,892

\* 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 1933, deaths numbered 16, being equivalent to a rate of 9 per million of population, as compared with rates of 7 in 1932, 14 in 1931, 10 in 1930, 31 in 1920-24, 108 in 1905-09, and 301 in 1895-99. Cases of typhoid fever reported in 1933 numbered 73, or 40 per million of population, as against 259 in 1920-24, and 2,884 in 1895-99. The deaths per 100 cases were 12·8 in 1929-33 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 1933 only 31 deaths occurred from this cause, and of that number only 8 took place in the last forty-nine years of the period.

**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 1933 there were 13 deaths attributed to this cause, representing a rate of 7 per million of the population, as compared with rates of 9 in 1932, 8 in 1931, 19 in 1930, and 25 in 1929.

On the average of the five years 1929 to 1933, 40 per cent. of those who died from the disease were under 2 years of age and 74 per cent. were under 5 years.

**Scarlet fever.**

In 1933 the deaths from scarlet fever numbered 12, which corresponded to a rate of 7 per million of the population, as compared with rates of 21 in 1932, 15 in 1931, 6 in 1930, 7 in 1929, and 34 in 1890-92. During 1933 there were 2,493 cases reported, as against 4,152 in 1932, 3,386 in 1931, 2,071 in 1930, and 1,490 in 1929. For the five years mentioned the deaths were less than one per cent. of the cases. Seventy-five 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 58 per cent. greater for females than for males.

**Whooping cough.**

Whooping cough was responsible for 38 deaths in 1933, which equalled a rate of 21 per million of the population at all ages, as compared with rates of 15 in 1932, 40 in 1931, 40 in 1930, and 44 in 1929. 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 24 of the deaths were of infants under 1 year, and all except one 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 29 per cent. higher among females than males.

**Diphtheria.** 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 1929 to 1933, 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 1933.**

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
1929 .. ..	3,256	184·1	101	5·7	3·1
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
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
1929 .. ..	2,048	199·4	60	5·8	2·9
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

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 and 1933, are given in the subjoined table :—

### CASES OF DIPHTHERIA IN DIFFERENT AREAS.

Area.	Reported Cases of Diphtheria.					Annual Cases per 10,000 of Population.			
	1929.	1930.	1931.	1932.	1933.	1910-19.	1931.	1932.	1933.
Greater Melbourne	2,048	2,223	3,257	4,144	3,594	39·3	31·6	41·7	36·2
Ballarat ..	117	67	324	300	237	24·3	77·6	79·4	63·4
Bendigo ..	60	53	121	377	263	84·6	35·9	118·5	83·1
Geelong ..	94	91	108	259	318	43·4	25·3	59·4	72·8
Remainder of State	937	980	1,634	2,242	2,152	25·7	25·2	32·1	30·1

Influenza.

The deaths from influenza in 1933 numbered 195. This corresponded to a rate of 107 per million of the population, as compared with rates of 49 in 1932, 179 in 1931, 34 in 1930, 77 in 1929, 2,407 in 1919, 71 in 1913-17, 109 in 1908-12, and 381 in 1890-92.

In 1933, 67 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 1933 66 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 1933 numbered 737—401 being of males and 336 of females—and equalled a rate of 405 per million of the population, as compared with rates of 450 in 1932, 481 in 1931, 498 in 1930, 496 in 1929, 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 1932 the deaths from this cause were 687, 610, 830, and 961 per million of their respective

populations. The incidence of mortality for Victoria at various ages for the period 1920-22 was as follows :—

### DEATH RATES IN VICTORIA FROM TUBERCULOSIS OF THE RESPIRATORY SYSTEM IN AGE GROUPS, 1920-22.

Sex.	Annual Mortality from Tuberculosis of the Respiratory System per 10,000 of each Sex, Aged—								
	0-14.	15-19.	20-24.	25-34.	35-44.	45-54.	55-64.	65 and Over.	All Ages.
Males ..	0·42	2·67	7·88	9·70	12·43	13·94	13·03	8·65	7·11
Females	0·38	4·84	10·20	10·00	9·15	5·91	4·95	3·94	5·55

**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.				
	1920.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
0-9 ...	9	5	4	3	3	3	4	2	3	4
10-14 ...	1	3	4	1	1	7	3	1	1	3
15-19 ...	17	14	13	7	12	31	33	34	22	27
20-24 ...	47	30	27	31	23	62	71	62	57	56
25-29 ...	53	51	47	41	30	58	79	55	40	51
30-34 ...	57	47	56	45	48	47	54	52	53	42
35-39 ...	68	69	60	57	42	42	38	53	52	35
40-44 ...	57	45	50	49	45	18	29	26	28	27
45-49 ...	49	50	47	43	44	21	25	27	31	24
50-54 ...	55	41	36	55	40	20	21	22	13	10
55-59 ...	28	45	33	43	34	12	12	13	18	15
60-64 ...	43	33	44	30	33	13	14	18	12	14
65-69 ...	22	29	29	30	24	2	12	18	11	12
70 and over	23	20	22	30	22	12	11	10	7	16
Total ..	529	482	472	465	401	348	406	393	348	336

For the year 1933, 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 1933 there were in Victoria 121 deaths from tubercular diseases (excluding tuberculosis of the respiratory system), which corresponded to a rate of 66 per million of the population, as compared with rates of 76 in 1932, 63 in 1931, 97 in 1930, 92 in 1929, 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 1932, the deaths from similar causes numbered 150, 230, 292, and 275 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 to about the level of that for the whole of the State. The rate for Bendigo has declined considerably, but on the average of the last five years was 95 per cent. above the rate for Victoria. 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, AND BENDIGO, 1891 TO 1933.

Period.	Deaths per 10,000 of the Population.								
	Tuberculosis of the Respiratory System.			Other Tubercular Diseases.			All Tubercular Diseases.		
	Greater Melbourne.	Ballarat.	Bendigo.	Greater Melbourne.	Ballarat.	Bendigo.	Greater Melbourne.	Ballarat.	Bendigo.
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	1·5	1·0	2·2	8·4	7·7	14·1
1926-30 ..	5·9	5·2	10·7	1·0	·4	·8	6·9	5·6	11·5
1931 ..	5·1	6·5	7·7	·8	1·2	·3	5·9	7·7	8·0
1932 ..	4·9	3·1	8·9	·8	·7	·3	5·7	3·8	9·2
1933 ..	4·7	2·7	10·1	·8	·8	·9	5·5	3·5	11·0

In Geelong the death rate from tuberculosis of the respiratory system per 10,000 of the population was 4·1 in 1933, 2·6 in 1932, 4·0 in

1931, 3·8 in 1926-30, and 4·1 in 1921-25. Corresponding rates for deaths from other tubercular diseases were ·9 in 1933, 0 in 1932, ·9 in 1931, ·4 in 1926-30, and ·6 in 1921-25.

**Other  
Infectious  
and Parasitic  
Diseases.**

Deaths in 1933 from diseases included under this heading (No. 14 in the abridged tables) were dysentery 12, erysipelas 20, acute poliomyelitis 7, lethargic encephalitis 12, cerebrospinal meningitis 14, tetanus 25, septicaemia 33, hydatid cysts 21, and other diseases 13.

Acute poliomyelitis was responsible for 7 deaths in 1933, 4 in 1932, 16 in 1931, 12 in 1930, 17 in 1929, 32 in 1928, 8 in 1927, 8 in 1926, 25 in 1925 and 4 in 1924. Of these 133 deaths, 77 were of males and 56 were of females; 7 were under 1 year of age, 41 were between 1 and 5 years; 30 between 5 and 10 years, and 55 over 10 years.

In 1933, there were 12 male and 9 female deaths from hydatids, of which 8 deaths of males and 7 deaths of females were attributed to hydatid tumour of the liver. The deaths in 1933 were equivalent to a rate of 12 per million of the population, as compared with rates of 9 in 1932, 12 in 1931, 12 in 1930, 17 in 1929, 16 in 1918-22, 22 in 1908-12, and 51 in 1890-92.

**Cancer—  
Death rates.** Deaths from cancer in 1933 numbered 2,148, and represented a death rate of 1,180 per million of the whole population, as compared with rates of 1,178 in 1932, 1,087 in 1931, 1,042 in 1930, 1,068 in 1929, 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 1932, the deaths per million of population from this cause were 1,510, 1,530, 1,241, and 1,114 respectively. The death rates in Victoria for various age groups, for the period 1920-22, are shown in the following table:—

**DEATH RATES FROM CANCER IN AGE GROUPS, 1920-22.**

Age Group	Deaths from Cancer per 10,000 of each Sex.	
	Males.	Females.
0 to 4 .. ..	0·46	0·39
5 „ 9 .. ..	0·13	0·17
10 „ 14 .. ..	0·14	0·05
15 „ 19 .. ..	0·30	0·15
20 „ 24 .. ..	0·64	0·30
25 „ 34 .. ..	0·76	1·28
35 „ 44 .. ..	3·31	6·61
45 „ 54 .. ..	13·94	19·14
55 „ 64 .. ..	40·46	34·48
65 „ 74 .. ..	78·21	63·05
75 and over ..	110·12	92·86
All Ages .. ..	9·52	9·63



**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.				
	1929.	1930.	1931.	1932.	1933.	1929.	1930.	1931.	1932.	1933.
0-14 .. ..	8	8	10	11	2	7	8	7	5	5
15-24 .. ..	4	9	10	8	13	4	7	4	6	6
25-34 .. ..	15	17	11	9	17	18	24	28	28	17
35-44 .. ..	32	42	46	41	37	83	70	77	78	84
45-54 .. ..	100	99	107	105	86	172	162	136	187	175
55-64 .. ..	260	251	268	273	242	232	235	255	265	287
65-74 .. ..	371	334	369	402	425	291	291	310	321	330
75-84 .. ..	122	139	149	172	196	123	124	123	164	180
85 and over ..	19	18	19	24	15	28	21	24	29	31
Total .. ..	931	917	989	1,045	1,033	958	942	964	1,083	1,115

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 1933 the average age of those who died from the former was 65·8 years for males and 63·0 years for females, while the corresponding averages for the latter were 45·1 years for males and 37·0 years for females.

**Type and seat of cancer.** The following table shows the type and seat of cancer in persons who died from this disease in 1933 :—

### TYPE AND SEAT OF CANCER, 1933.

Type of Disease.	Males.	Females.	Total.	Seat of Disease.	Males.	Females.	Total.
Carcinoma—simplex	882	956	1,838	Buccal cavity and pharynx ..	101	13	114
Epithelioma ..	43	18	61	Oesophagus ..	46	30	76
Rodent ulcer ..	7	4	11	Stomach, duodenum, liver and biliary ducts ..	376	262	638
Sarcoma .. ..	31	39	70	Pancreas ..	39	32	71
Other (specified) ..	4	19	23	Intestines, peritoneum and rectum	169	198	367
Malignant disease (unspecified) ..	66	79	145	Respiratory organs	57	24	81
				Female genital organs ..	..	223	223
				Female breast ..	..	217	217
				Male genito-urinary organs ..	149	..	149
				Skin .. ..	34	23	57
				Other and unspecified organs ..	62	93	155
Total Deaths ..	1,033	1,115	2,148	Total Deaths ..	1,033	1,115	2,148

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 1933 diabetes was responsible for 110 male and 186 female deaths, representing a rate of 163 per million of the population, as compared with rates of 164 in 1932, 145 in 1931, 126 in 1930, 132 in 1929, 130 in 1918-22, and 107 in 1908-12. The incidence of mortality from diabetes in Victoria at various ages, for the period 1920-22, was as follows:—

DEATHS FROM DIABETES PER 10,000 OF EACH SEX,  
1920-22.

Sex.	Deaths per 10,000 of each Sex Aged—								
	0-9.	10-19.	20-29.	30-39.	40-49.	50-59.	60-69.	70-79.	80 and Over. All Ages.
Males ..	0·13	0·31	0·48	0·45	0·95	2·14	5·19	7·37	8·42
Females	0·22	0·39	0·53	0·54	1·11	2·79	8·02	12·51	6·02

Deaths in 1933 from diseases included under this heading (No. 20 in the tables) were acute rheumatic fever 51, exophthalmic goitre 37, other diseases of the thyroid and parathyroid glands 14, pernicious anaemia 78, other anaemias 10, leucaemia 31, Hodgkin's disease 20, and other diseases 51.

In 1933, 415 male and 578 female deaths were ascribed to these causes, the total—993—corresponding to a rate of 545 per million of the population as compared with rates of 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 993 deaths in 1933, 589 were due to cerebral haemorrhage, 56 to apoplexy, 22 to cerebral embolism, 212 to cerebral thrombosis, 9 to softening of the brain, and 105 to hemiplegia and unspecified paralysis.

Included under this heading (No. 23 in the tables) in 1933, were 48 deaths from simple meningitis, 48 from other diseases of the spinal cord, 33 from epilepsy, 26 from diseases of the ear and mastoid process, and 143 from other diseases.

**Diseases of the Heart.** During 1933 there were 3,423 deaths ascribed to diseases of the heart, including 15 due to pericarditis, 646 to endocarditis, 1,734 to diseases of the myocardium, 316 to diseases of coronary arteries, 215 to angina pectoris, and 497 to other diseases of the heart. The total causes in 1933 represented a rate of 1,880 per million of the population, the rates for previous years being 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 1920 to 1922 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, 1920-22.**

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 ..	1.52	1.92	2.04	2.64	5.40	14.52	40.62	112.20	247.10	13.74
Females ..	1.15	1.85	1.53	3.25	5.26	10.73	29.53	85.65	208.17	11.70

The figures indicate that the mortality rate from heart disease is a function of age, and that it attains its maximum at the oldest age. Of the deaths of persons aged 70 and upwards, approximately 1 in 4 is due to some form of this disease

Deaths assigned to this cause have in recent years 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 1933 the number of deaths from arteriosclerosis with record of cerebral vascular lesion (cerebral haemorrhage etc.) was 453, and without such record 381. Of the total deaths, 466 or 56 per cent. were persons aged 70 years and over.

**Respiratory diseases.** In 1933 the deaths from respiratory diseases numbered 1,818, which represented a rate of 998 per million of the population, as compared with rates of 917 in 1932, 1,022 in 1931, 851 in 1930, and 1,080 in 1929. Of the deaths in the year under review, 44 were referred to acute bronchitis, 177 to chronic bronchitis, 600 to broncho-pneumonia, 259 to lobar pneumonia, 374 to pneumonia unspecified, 65 to pleurisy, 48 to asthma, 126 to pulmonary congestion, embolism, etc., 81 to chronic interstitial pneumonia, and 44 to other diseases. Further details will be found in the tables under causes Nos. 26 to 28.

**Diseases of  
the digestive  
system.**

In 1933 there were 566 male and 419 female deaths from digestive ailments, representing a proportion of 541 per million of the population, as against rates of 538 in 1932, 545 in 1931, 617 in 1930, 584 in 1929, 807 in 1922-26, and 2,382 in 1890-92. Deaths from the principal diseases in 1933 were, 126 from ulcers of the stomach and duodenum, 198 from diarrhoeal diseases, 126 from appendicitis, 49 from hernia, 106 from intestinal obstruction, 94 from cirrhosis of the liver, 72 from biliary calculi, 64 from other diseases of the gall bladder and biliary passages, and 150 from other diseases. Further rates and details are given in the tables (Nos. 29 to 32).

The 198 deaths from diarrhoeal diseases in 1933 corresponded to a rate of 109 per million of the population as compared with rates of 136 in 1932, 129 in 1931, 196 in 1930, 153 in 1929, 380 in 1922-26, 833 in 1908-12, and 1,342 in 1890-92. Until recent 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 1933, 46 were of infants under one year of age, 31 were between the ages of one and two years, and 16 between two and five years, while 48 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 1933 there were 1,375 deaths attributed to diseases of the genito-urinary system, which corresponded to a rate of 755 per million of the population, as against rates of 704 in 1932, 721 in 1931, 649 in 1930, 725 in 1929, 670 in 1918-22 and 700 in 1909-12. In 1933 acute and chronic nephritis were responsible for 1,096 deaths, other diseases of the kidney etc. for 82, diseases of the prostate for 112, and other genito-urinary diseases for 85.

**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 1933.

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	

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. This increase, however, is probably more apparent than real, owing to the measures taken to identify the association of the puerperal condition with the cause of death shown on the certificate, recourse being had to the information contained in the birth registers and to direct inquiry of the certifying doctor. The rate for 1933 is the lowest recorded since 1925.

The following tables give information in age groups for the year 1933 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, 1933.

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 .. ..	..	..	1	3	2	1	7	6	1
(b) Criminal abortion .. ..	3	7	6	7	4	1	28*	16	12
141. Abortion without septic conditions .. ..	..	2	1	3	..	1	7	5	2
142. Ectopic gestation .. ..	..	..	..	2	1	..	3	3	..
143. Other accidents of pregnancy (excluding hæmorrhage) .. ..	..	..	..	1	2	..	3	3	..
144. Puerperal hæmorrhage .. ..	..	1	4	2	3	3	13	12	1
145. Puerperal septicæmia (not consequent on abortion) .. ..	1	5	9	10	4	1	30	26	4
146. Puerperal albuminuria and eclampsia .. ..	..	3	1	4	3	1	12	12	..
147. Other toxæmias of pregnancy .. ..	..	2	1	2	..	..	5	5	..
148. (a) Phlegmasia alba dolens and thrombosis .. ..	..	..	1	..	..	3	4	3	1
(b) Embolism or sudden death .. ..	..	1	..	..	1	1	3	3	..
149. Other accidents of childbirth—									
(a) Cæsarean section .. ..	..	..	..	..	..	..	..	..	..
(b) Other surgical operations and instrumental delivery .. ..	..	..	..	..	..	..	..	..	..
(c) Others .. ..	..	1	1	1	2	3	8	8	..
150. (a) Puerperal diseases of the breast .. ..	..	..	..	..	1	..	1	1	..
(b) Other unspecified conditions of the puerperal state .. ..	..	1	..	..	1	..	2	2	..
Total .. ..	4	23	25	35	24	15	126	105	21
Married Mothers .. ..	..	14	22	33	24	12	105	..	..
Unmarried Mothers .. ..	4	9	3	2	..	3	21	..	..
Total Issue of Married Mothers .. ..	..	16	43	92	76	59	286	..	..

\* Illegal operation 2; self-induced 12; open verdict 14.

Of the 286 children born to the 105 married women who died, 268 were living at the time of their mother's death, or an average of 2·6 children per mother, as compared with 2·6 in 1932, 2·6 in 1931, 2·5 in 1930, and 2·8 in 1929.

First confinements were responsible for 30, or 28·6 per cent., of the total deaths of married mothers, as compared with 32·4 in 1932, 35·7 per cent. in 1931, 41·4 per cent. in 1930, and 28·1 per cent. in 1929.

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 1931, 1932, and 1933 are shown in the following table:—

**DEATH RATES OF WOMEN IN CHILDBIRTH, IN AGE GROUPS, 1926 TO 1933.**

Age Group.	Mothers.							
	Deaths.				Deaths per 10,000 children born alive.			
	1926-30.	1931.	1932.	1933.	1926-30.	1931.	1932.	1933.
Under 20 years ..	41	6	10	4	47·1	34·0	60·0	23·9
20 to 24 „ ..	150	22	23	23	39·1	30·9	36·6	35·4
25 „ 29 „ ..	231	37	28	25	46·5	43·8	36·1	30·5
30 „ 34 „ ..	226	42	34	35	56·8	61·6	54·4	55·0
35 „ 39 „ ..	226	30	33	24	88·1	67·7	84·6	59·4
40 years and over	111	17	27	15	117·8	98·0	167·5	92·6
Total .. ..	985	154	155	126	57·4	50·8	56·4	44·4

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.

During the year 1933, the deaths of 491 men and 550 women were ascribed to senile decay, as compared with 436 men and 595 women in 1932. 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 1933 numbered 6,489—3,236 of men and 3,253 of women, or 37·2 per cent. of the total deaths.

In 1933, 640 male and 193 female deaths were attributed to accidents and negligence, which represented a rate of 458 per million of the population. This proportion was slightly below the average rate—461—for the previous five years, and 44 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, 1929 TO 1933.

Nature or Place of Accident.	Annual Deaths during—						
	1929.	1930.	1931.	1932.	1933.		
					Total.	Males.	Females
Snake Bite .. ..	..	2	2	4	..	..	..
Other Venomous Bites and Stings .. ..	..	..	..	..	..	..	..
Poisoning by Food ..	9	2	1	4	3	2	1
Absorption of Poisonous Gases ..	10	4	6	3	8	5	3
Other Acute Poisonings ..	17	12	7	3	5	3	2
Conflagration (Bush fires, &c.) ..	1	6	7	16	2	2	..
Burns, Scalds, &c. . .	64	58	54	39	63	31	32
Accidental Mechanical Suffocation ..	9	16	14	17	10	7	3
Drowning { accidental ..	97	136	{ 69	79	74	59	15
{ open verdict ..							
Firearms { accidental ..	26	32	{ 23	21	24	22	2
{ open verdict ..							
In Mines and Quarries ..	10	6	15	1	16	16	..
Machines .. ..	16	7	6	5	9	9	..
Transport Accidents ..	394	406	376	357	352	285	67
Falls { accidental ..	71	57	{ 73	89	94	54	40
{ open verdict ..							
Other Crushings ..	26	23	18	22	20	20	..
Injuries by Animals ..	10	7	7	11	10	10	..
Excessive Cold ..	2	..	2	1	5	5	..
Effects of Heat ..	5	8	2	10	1	1	..
Lightning ..	2	2	2	3	2	2	..
Electricity ..	12	8	4	6	4	4	..
Other Violence { accidental ..	67	65	{ 26	28	39	32	7
{ open verdict ..							
Total accidental ..	..	..	714	719	741	569	172
„ open verdict ..	..	..	63	50	92	71	21
Grand Total ..	848	857	777	769	833	640	193



On the average of the last five years the female mortality rate from accidents was about 30 per cent. of the rate for males.

In 1933, deaths from transport accidents (excluding Transport Accidents. 2 accidents on ships) numbered 350, as against 350 in 1932, 373 in 1931, 406 in 1930, 394 in 1929, 382 in 1928, 301 in 1927, 309 in 1926, 299 in 1925, and 245 in 1924.

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 1933 :—

#### DEATHS FROM TRANSPORT ACCIDENTS, IN VICTORIA, 1933.

	Collisions between—								Pedestrians killed.	* Other accidents.	Total.	Males.	Females.
	Railway vehicle.	Motor omnibus, car, lorry.	Motor cycle.	Horse-drawn vehicle.	Bicycle.	Horse.	Aeroplane.	Total.					
Railway train ..	..	6	..	1	1	..	..	8	15	16	†39	32	7
Tramcar ..	..	3	2	..	1	..	..	6	5	3	14	11	3
Motor omnibus ..	..	..	..	..	..	..	..	..	1	2	3	1	2
„ car ..	..	14	14	3	21	2	..	54	94	36	184	146	38
„ lorry, &c. ..	..	..	7	..	3	..	..	10	15	13	38	29	9
„ cycle ..	..	..	1	1	3	..	..	5	5	9	19	16	3
Horse - drawn vehicle..	..	..	..	..	1	..	..	1	3	13	17	14	3
Bicycle ..	..	..	..	..	3	..	..	3	..	10	13	13	..
Horse ..	..	..	..	..	..	..	..	..	..	21	21	19	2
Aeroplane ..	..	..	..	..	..	..	2	2	..	..	2	2	..
Other vehicles ..	..	..	..	..	..	..	..	..	..	..	..	..	..
Total ..	..	23	24	5	33	2	2	89	138	123	350	283	67

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

† Includes 7 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 1924 to 1933, were as follows:—

### DEATHS INVOLVING MOTOR VEHICLES, 1924 TO 1933.

Year.	Number of Motor Vehicles. (30th June.)	Deaths Involving Motor Vehicles.		
		Number.	Per 10,000 Motor Vehicles.	Per 1,000,000 of Population.
1924 .. ..	69,809	135	19·3	82
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

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 1929-33 being 16·4 as compared with a rate of 18·5 in 1924-28.

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

On the average of the five years, 1929 to 1933, motor cars, &c., were involved in 16·7 deaths per 10,000 cars registered, and motor cycles in 25·4 deaths per 10,000 cycles registered.

**Suicide.** In the year 1933, 150 males and 37 females took their own lives. The deaths represented a rate of 103 per million of the population, as compared with rates of 96 in 1932, 101 in 1931, 116 in 1930, 103 in 1929, 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 25 per cent. of that for the latter on the average of the last five years.

**Homicide.** The deaths ascribed to homicide in 1933 numbered 30, of which 21 were of males and 9 of females. These represented a rate of 16 per million of the population, as against rates of 9 in 1932, 23 in 1931, 11 in 1930, 20 in 1929, 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

**Natural increase per 1,000 of population in Australasia.** 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
1929 ..	9·54	11·22	11·33	9·83	12·17	12·04	10·73	10·26
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

## VICTORIA.

Period.	Excess of Births over Deaths.	Annual Rates per 1,000 of Mean Population.			Period.	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					
1890-94	20,059	31·99	14·62	17·37					
1895-99	15,625	26·76	13·81	12·95	1929 ..	16,887	18·98	9·44	9·54
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	15·69	9·59	6·00
1920-24	19,647	22·89	10·40	12·49					

The mean increase in the Australian States for the period 1929-33 was 9·52 per 1,000 of population, which is probably greater than will prevail when the age constitution of the people becomes similar to that of old settled countries. At present the proportion of elderly people is smaller than in those countries, and, partly as a consequence of this, the death rate is lower. The Victorian death rates are below those of England and Wales at nearly all periods of life. The Australian annual rate of increase due to excess of births over deaths for 1929-33—9·52—would enable a population to double itself in 73 years, while, at the Victorian rate of 7·69 per 1,000 of population, a period of 90 years would be required. In England and Wales in 1933 the excess of births over deaths was 2·1 per 1,000 of population.

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