The Consultative Council on Obstetric and Paediatric Mortality and Morbidity

2012 and 2013 Victoria's Mothers, Babies and Children

Section 2: Data, tables and figures

VICTORIA State Government | Health and Human Services

2012 and 2013 Victoria's Mothers, Babies and Children

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About the cover image

The 'radar' on the front cover and in the report signifies the multifaceted and interconnected factors collected and explored by the Consultative Council on Obstetric and Paediatric Mortality and Morbidity. These lead to a central focus point or learning. The layers symbolise the depth of analysis and review, leading to the identification of underlying circumstances. The central point of the radar represents a focus for performance improvement for individual care and the broader health system, like a lens in a camera focuses clearly on its subject.

The many colours represent the diversity within the Victorian community, which the Council serves. They also symbolise the different speciality Sub-committees of the Council and the diverse expertise contained within them.

The Division within the Department of Health and Human Services, which provides secretariat and project support to the Council, has a focus on health service safety, quality and performance. This is symbolised by the central 'focus' on system improvement. Council held data is used in 'radar graphs' to capture related health service performance measures – contributing a new focus on the use of information for performance improvement.

The colour scheme was selected for its universality; because the Council aims to serve all Victorian mothers, babies and children.

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Where the term 'Aboriginal' is used it refers to both Aboriginal and Torres Strait Islander people. Indigenous is retained when it is part of the title of a report, program or quotation.

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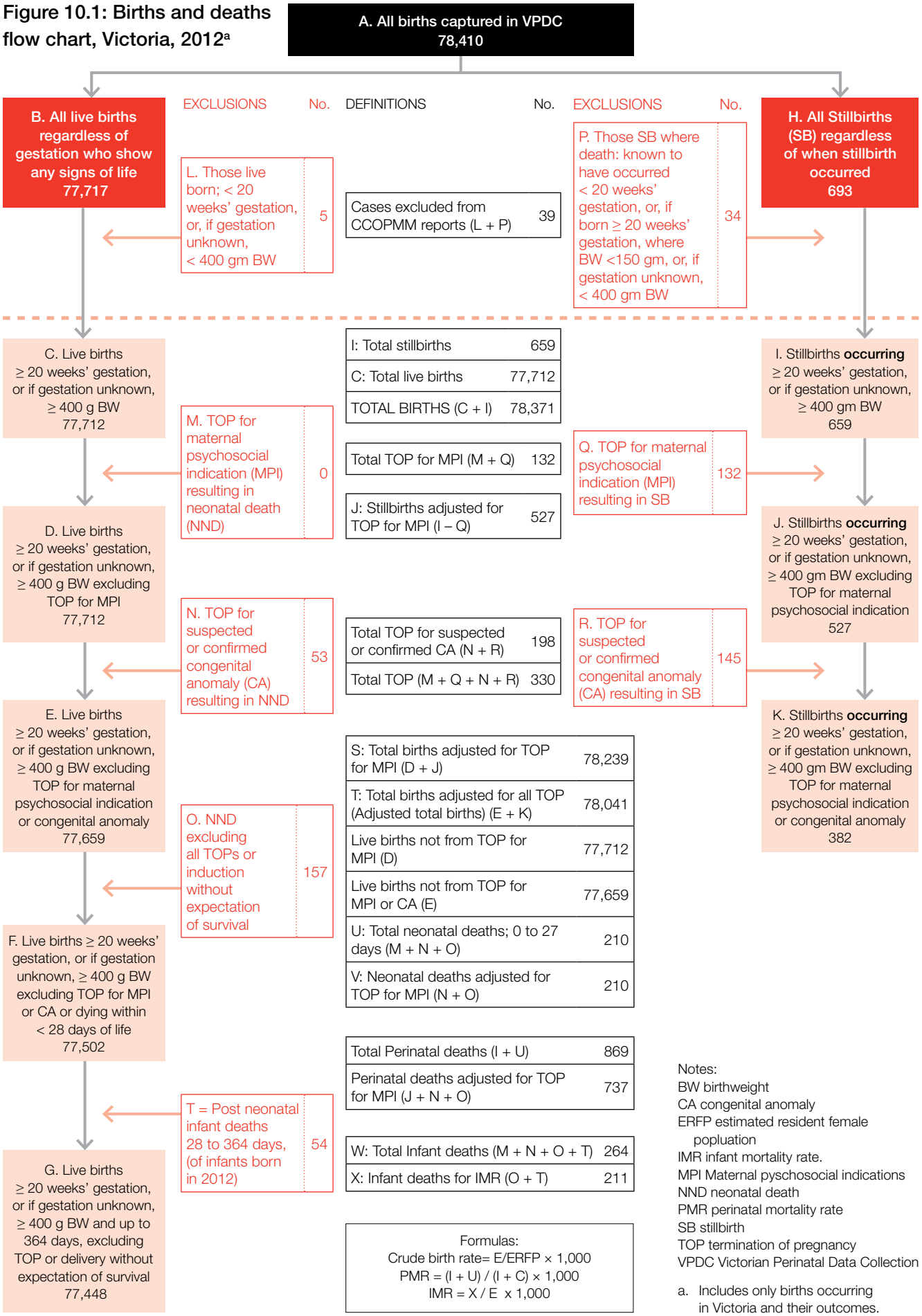
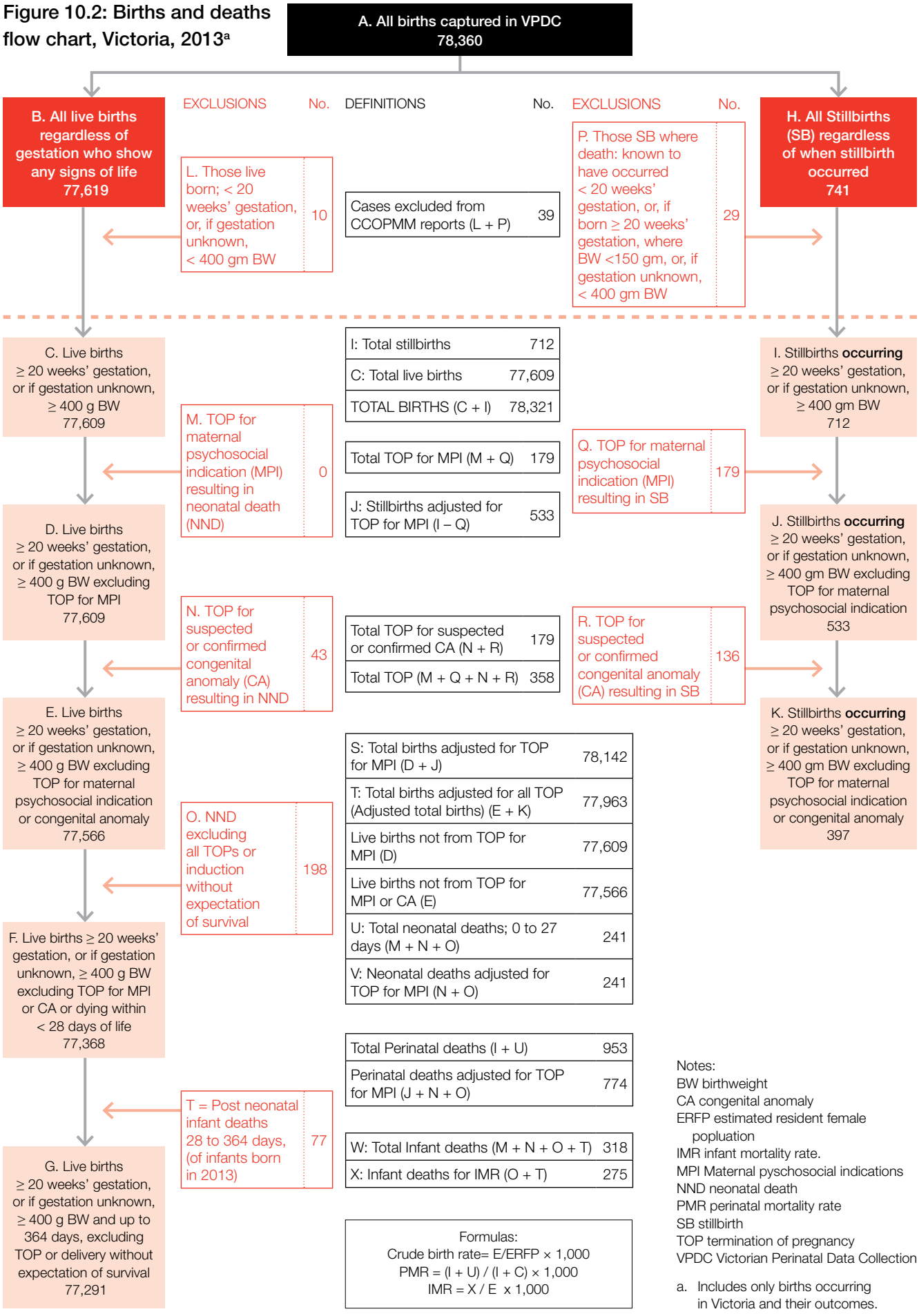
Figure 10.1: Births and deaths flow chart, Victoria, 2012[a]



Notes:
BW birthweight
CA congenital anomaly
ERFP estimated resident female popluation
IMR infant mortality rate.
MPI Maternal pyschosocial indications
NND neonatal death
PMR perinatal mortality rate
SB stillbirth
TOP termination of pregnancy
VPDC Victorian Perinatal Data Collection

a. Includes only births occurring in Victoria and their outcomes.

Figure 10.2: Births and deaths flow chart, Victoria, 2013[a]



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a. Includes only births occurring in Victoria and their outcomes.

Births in Victoria 2012 and 2013

Births in Victoria

Table 11.1: Total births in Victoria, 2012 and 2013

	2012	2013
Births		
Total births (C + I)	78,371	78,321
Total stillbirths (I)	659	712
Total live births (C)	77,712	77,609
Terminations of pregnancy – TOP[b] (M + Q + N + R)	330	358
Confinements	77,150	77,095
Adjusted total births[c] (E + K)	78,041	77,963
Adjusted live births[c] (E)	77,659	77,566
Adjusted stillbirths[c]	382	397
Confinements		
Adjusted confinements	76,825	76,744
Crude birth rate	64.7	63.6
Cases excluded from CCOPMM report[a] (L + P)	39	39

a. Cases excluded from the report were known to have died before 20 weeks' gestation.
b. Terminations of pregnancy at 20 or more weeks' gestation for congenital anomalies or maternal psychosocial indications.
c. Adjusted figures exclude terminations of pregnancy for congenital anomalies or for maternal psychosocial indications.

Table 11.2: Crude birth rate, Victoria 2012 and 2013

	2012	2013
Adjusted live births	77,659	77,566
Estimated female resident population aged 15–44 years[a]	1,200,168	1,219,535
Crude birth rate per 1,000 EFRP[b]	64.7	63.6

a. 3235.0 – Population by Age and Sex, Regions of Australia, 2012; http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02012
b. Estimated female resident population (ERFP) – ABS 2012, Regional Population Growth Australia, cat. No. 3218.0.

Table 11.3: Trends in births, confinements and live births per 1,000 EFRP[a] aged 15–44 years, Victoria 1985–2013

	1985	1990	1995	2000	2005	2010	2012	2013
Adjusted total births	61,189	66,878	64,717	62,555	66,340	74,127	78,041	77,963
Adjusted live births	60,784	66,374	63,247	62,148	65,993	73,731	77,659	77,566
Adjusted confinements	60,468	66,004	62,734	61,562	65,115	72,914	76,825	76,744
EFRP[a]	974,347	1,044,969	1,033,818	1,053,114	1,082,355	1,170,211	1,200,168	1,219,535
Live births per 1,000 EFRP	62.4	63.5	61.2	59.0	61.0	63.0	64.7	63.6

a. Estimated female resident population (ERFP) – ABS 2012, Regional Population Growth Australia, cat. No. 3218.0. Births to women younger than 15 years are included in the 15–19 age group and women aged 45 or older are included in the 40–44 age group.

Maternal characteristics

Table 11.4: Maternal age group, confinements 2012 and 2013

	2012		2013	
Maternal age group	n	%	n	%
Younger than 20 years	1,763	2.3	1,695	2.2
20–24 years	8,344	10.9	8,300	10.8
25–29 years	20,622	26.8	20,194	26.3
30–34 years	26,741	34.8	27,260	35.5
35–39 years	15,641	20.4	15,489	20.2
40–44 years	3,473	4.5	3,586	4.7
45 + years	190	0.2	177	0.2
Unknown	51	0.1	43	0.1
Total	**76,825**	**100**	**76,744**	**100**

Table 11.5: Trends in maternal age group, % of confinements 1985–2013

Maternal age group	1985	1990	1995	2000	2005	2010	2012	2013
Younger than 20 years	4.4	4.3	3.5	3.3	2.7	2.4	2.3	2.2
20–24 years	23.1	18.3	15.7	12.4	11.3	11.2	10.9	10.8
25–29 years	40.2	37.6	33.6	30.7	25.4	26.4	26.8	26.3
30–34 years	24.4	29.0	32.7	34.6	37.0	33.9	34.8	35.5
35–39 years	6.9	9.3	12.5	16.2	19.9	21.3	20.4	20.2
40 + years	0.9	1.3	2.1	2.9	3.7	4.7	4.7	4.9
Median age – overall (years)	27	28	29	30	31	31	31	31
Median age – primiparae (years)	25	26	27	28	29	29	29	29
Mean age – overall (years)	27.5	28.2	29.1	29.9	30.6	31.3	31.2	31.3
Mean age – primiparae (years)	25.4	26.2	27.2	28.2	29.1	29.6	29.7	29.8

Figure 11.1: Trends in maternal age group, confinements 1985–2013 (%)

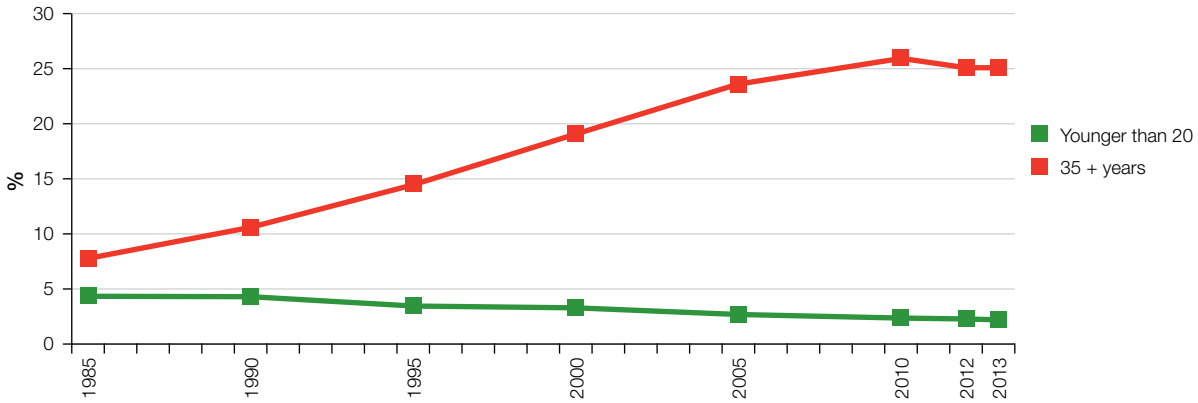


Table 11.6: Trends in confinements, Department of Health regions, 1990–2013

Department of Health regions	1990		2000		2010		2012		2013	
	n	%	n	%	n	%	n	%	n	%
Barwon-South West	4,780	7.2	4,001	6.5	4,353	6.0	4,459	5.8	4,554	5.9
Grampians	n/a	n/a	2,838	4.6	2,630	3.6	2,777	3.6	2,826	3.7
Loddon Mallee	3,897	5.9	3,484	5.7	3,757	5.2	3,805	5.0	3,876	5.1
Hume	n/a	n/a	3,116	5.1	3,196	4.4	3,368	4.4	3,313	4.3
Gippsland	3,582	5.4	2,683	4.4	2,980	4.1	3,137	4.1	3,074	4.0
Total rural	***18,388***	***27.9***	***16,122***	***26.2***	***16,916***	***23.3***	***17,546***	***22.9***	***17,643***	***23.0***
Western Metropolitan	12,767	19.3	8,643	14.0	n/a	n/a	n/a	n/a	n/a	n/a
Northern Metropolitan	n/a	n/a	10,219	16.6	25,204	34.6	27,640	36.0	27,985	36.5
Eastern Metropolitan	19,197	29.1	11,334	18.4	11,403	15.6	11,541	15.0	11,350	14.8
Southern Metropolitan	15,146	22.9	13,989	22.7	17,813	24.4	18,662	24.3	18,379	23.9
Total metropolitan	***47,110***	***71.4***	***44,185***	***71.8***	***54,420***	***74.6***	***57,843***	***75.3***	***57,714***	***75.2***
Other (non-Victorian)	506	0.8	1,262	2.0	1,564	2.1	1,436	1.9	1,335	1.7
Total confinements	**66,003**	**100**	**61,569**	**100**	**72,900**	**100**	**76,825**	**100**	**76,692**	**100**

n/a: not applicable. This regional boundary was combined with another regional boundary, for example in 2009 Northern Metropolitan and Western Metropolitan regions were called Northern and Western Metropolitan region.

2013 data excludes 52 cases with missing address data.

Table 11.7: Marital status, confinements 2012 and 2013

Marital status	2012		2013	
	n	%	n	%
Married	53,454	69.6	52,958	69.0
De facto	13,038	17.0	13,286	17.3
Single	8,941	11.6	9,080	11.8
Separated	346	0.5	358	0.5
Divorced	168	0.2	167	0.2
Widowed	18	0.0	6	0.0
Unknown	860	1.1	889	1.2
Total	**76,825**	**100**	**76,744**	**100**

Table 11.8: Trends in marital status, confinements 1990–2013 (%)

Marital status	1990	2000	2010	2012	2013
Married	83.4	75.3	69.7	69.6	69.0
De facto	6.2	11.8	15.8	17.0	17.3
Single	9.2	11.7	11.0	11.6	11.8
Separated/divorced/widowed	1.1	1.1	0.8	0.7	0.7

Table 11.9: Maternal place of birth, confinements 2012 and 2013

Place of birth[a]	2012		2013	
	n	%	n	%
Australia	50,804	66.1	50,458	65.7
Southern and Central Asia	6,100	7.9	6,640	8.7
South-East Asia	5,024	6.5	4,748	6.2
North-West Europe	2,318	3.0	2,278	3.0
North Africa and Middle East	2,420	3.2	2,472	3.2
Oceania and Antarctica	2,145	2.8	2,178	2.8
North-East Asia	3,412	4.4	3,342	4.4
Southern and Eastern Europe	1,425	1.9	1,385	1.8
Sub-Saharan Africa	1,551	2.0	1,602	2.1
Americas	980	1.3	1,068	1.4
Unknown	646	0.8	573	0.7
Total	**76,825**	**100**	**76,744**	**100**

a. Standard Australian Classification of Countries (SACC) 2011, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/1269.0>

Table 11.10: Ten most common countries of birth, for women born in non-English speaking countries, confinements in 1990, 2000, 2010, 2012 and 2013

	1990		2000		2010		2012		2013	
Rank	Country of birth	Number of confinements	Country of birth	Number of confinements	Country of birth	Number of confinements	Country of birth	Number of confinements	Country of birth	Number of confinements
1	Vietnam	1,068	Vietnam	1,905	India	3,508	India	3,960	India	4,244
2	Former Yugoslavia	971	China	883	China	1,573	China	2,422	China	2,376
3	Lebanon	721	Former Yugoslavia	579	Vietnam	1,452	Vietnam	1,859	Vietnam	1,554
4	Italy	712	Philippines	567	Sri Lanka	776	Sri Lanka	869	Sri Lanka	915
5	Philippines	609	Lebanon	548	Phillipines	727	Phillipines	757	Philippines	814
6	Turkey	584	India	519	Malaysia	522	Malaysia	683	Malaysia	665
7	Malaysia	502	Sri Lanka	457	Sudan	493	Sudan	513	Pakistan	555
8	Greece	489	Other Africa	411	Iraq	441	Indonesia	499	Sudan	522
9	India	385	Turkey	403	Indonesia	427	Iraq	478	Lebanon	482
10	Sri Lanka	346	Malaysia	322	Lebanon	417	Pakistan	448	Iraq	469

Note: Other Africa excludes South, North and Central Africa.

Table 11.11: Maternal BMI, confinements 2012 and 2013

BMI	2012		2013	
	n	%	n	%
< 18.5	2,052	2.7	1,927	2.5
18.5 to < 25	34,107	44.4	34,063	44.4
25 to < 30	18,086	23.5	18,333	23.9
30 to < 35	8,124	10.6	8,262	10.8
35 to < 40	3,365	4.4	3,364	4.4
40 to < 50	1,712	2.2	1,766	2.3
50 to < 60	136	0.2	190	0.2
≥ 60	37	0.0	20	0.0
Unknown	9,206	12.0	8,819	11.5
Total	**76,825**	**100**	**76,744**	**100**

Table 11.12: Proportion of women reporting any smoking during first 20 weeks of pregnancy, Victoria 2012 and 2013

Reported smoking	2012		2013	
	n	%	n	%
No smoking < 20 weeks of pregnancy	67,261	87.6	67,618	88.1
Quit smoking < 20 weeks of pregnancy	1,790	2.3	1,693	2.2
Continued smoking < 20 weeks of pregnancy	6,638	8.6	6,252	8.1
Not stated	1,136	1.5	1,181	1.5
Total	**76,825**	**100**	**76,744**	**100**

Table 11.13: Number of cigarettes smoked per day in the second half of pregnancy, all confinements 2012 and 2013

Number of cigarettes	2012		2013	
	n	%	n	%
None	66,797	86.9	67,285	87.7
1 to 10	3,376	4.4	3,682	4.8
More than 10	783	1.0	861	1.1
Occasional smoking, less than 1	158	0.2	204	0.3
Not stated	5,711	7.4	4,712	6.1
Total	**76,825**	**100**	**76,744**	**100**

Table 11.14: Number of cigarettes smoked per day in the second half of pregnancy by maternal age group, all confinements in Victoria 2012 and 2013 (%)

Maternal age group	None	1–10	> 10	Occasionally	Unknown	Total
2012						
Younger than 20 years	63.9	20.0	2.9	0.6	12.6	**100**
20–24 years	78.1	10.5	2.2	0.4	8.7	**100**
25–29 years	87.0	4.4	1.1	0.2	7.3	**100**
30–34 years	89.3	2.7	0.6	0.1	7.2	**100**
35–39 years	89.4	2.6	0.9	0.1	7.0	**100**
40 + years	89.9	2.9	0.7	0.2	6.2	**100**
Total	**86.9**	**4.4**	**1.0**	**0.2**	**7.4**	**100**
2013						
Younger than 20 years	69.4	17.8	3.0	1.2	8.6	**100**
20–24 years	79.0	12.0	2.2	0.6	6.3	**100**
25–29 years	87.6	5.0	1.2	0.3	5.9	**100**
30–34 years	90.0	3.0	0.8	0.2	6.1	**100**
35–39 years	89.9	2.9	0.9	0.1	6.2	**100**
40 + years	89.6	2.8	1.1	0.2	6.3	**100**
Total	**87.7**	**4.8**	**1.1**	**0.3**	**6.1**	**100**

Table 11.15: Number of cigarettes smoked per day in the second half of pregnancy by metropolitan or rural residence, all confinements in Victoria 2012 and 2013 (%)

Place of residence	None	1–10	> 10	Occasionally	Unknown	Total
2012						
Metropolitan	91.3	3.1	0.6	0.2	4.8	**100**
Rural	73.0	8.3	2.2	0.3	16.1	**100**
Unknown/outside Victoria	83.1	8.5	2.2	0.2	5.9	**100**
Total	**86.9**	**4.4**	**1.0**	**0.2**	**7.4**	**100**
2013						
Metropolitan	91.9	3.4	0.7	0.2	3.7	**100**
Rural	74.2	9.0	2.2	0.4	14.2	**100**
Unknown/outside Victoria	81.5	10.5	4.1	0.4	3.5	**100**
Total	**87.7**	**4.8**	**1.1**	**0.3**	**6.1**	**100**

Table 11.16: IRSD quintile and maternal age, confinements 2012 and 2013 (%)

Maternal age group	1 %	2 %	3 %	4 %	5 %	Total %
2012						
Younger than 20 years	43.0	28.2	14.3	9.1	5.3	**100**
20–24 years	36.3	26.3	18.7	11.5	7.3	**100**
25–29 years	24.0	22.8	20.9	18.1	14.2	**100**
30–34 years	15.7	18.3	21.3	21.9	22.9	**100**
35–39 years	13.4	15.9	19.4	22.7	28.6	**100**
40 + years	12.8	15.2	18.4	22.2	31.5	**100**
2013						
Younger than 20 years	43.9	23.5	16.2	10.1	6.2	**100**
20–24 years	36.7	26.5	16.8	11.9	8.2	**100**
25–29 years	23.7	23.1	21.0	17.9	14.4	**100**
30–34 years	15.3	18.3	20.8	22.4	23.3	**100**
35–39 years	13.2	16.1	19.9	22.9	27.9	**100**
40 + years	13.9	15.5	17.9	24.0	28.7	**100**

Table 11.17: IRSD quintile and place of residence, confinements 2012 and 2013 (%)

Place of residence	1	2	3	4	5	Total
2012						
Metropolitan	17.2	18.1	20.2	21.1	23.4	**100**
Rural	31.3	26.9	20.1	14.1	7.6	**100**
2013						
Metropolitan	17.1	17.9	19.9	21.6	23.4	**100**
Rural	29.9	27.2	20.7	14.3	8.0	**100**

Organisational factors

Table 11.18: Admission status, confinements 2012 and 2013

Admission status	2012		2013	
	n	%	n	%
Public	53,966	70.2	54,211	70.6
Private in public hospital	1,786	2.3	2,185	2.8
Private in private hospital	20,840	27.1	20,067	26.1
Private – planned home birth	233	0.3	279	0.4
Unknown	0	0.0	2	0.0
Total	**76,825**	**100**	**76,744**	**100**

Table 11.19: Trends in admission status, confinements 2000–2013 (%)

Admission status	2000	2005	2010	2012	2013
Public	69.6	63.5	68.7	70.2	70.6
Private	30.4	36.5	31.3	29.7	29.3

Figure 11.2: Admission for the birth as a public patient by maternal age group, confinements 2012 and 2013 (%)

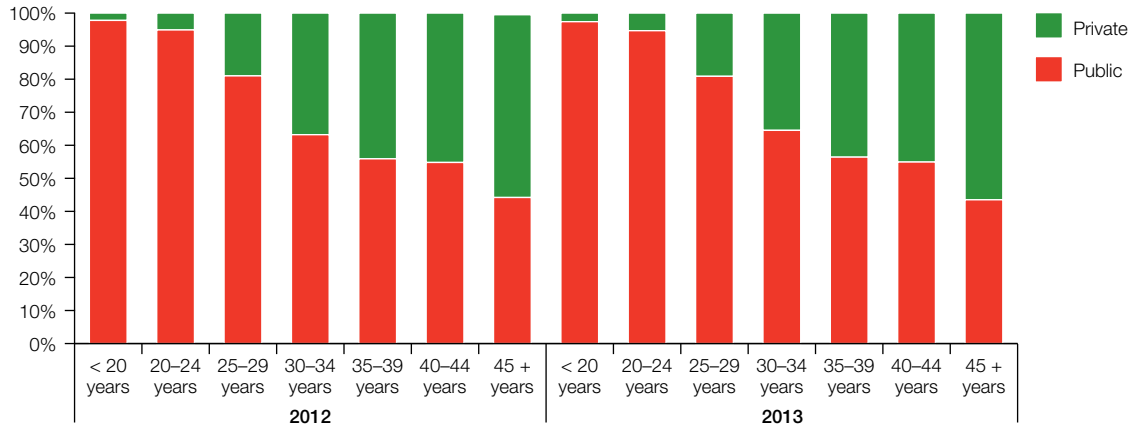


Table 11.20: Postnatal length of stay, confinements 2012 and 2013

Length of stay	2012		2013	
	n	%	n	%
< 1 day	2,255	2.9	2,431	3.2
1 day	8,732	11.4	8,931	11.7
2 days	21,825	28.5	22,245	29.1
3 days	15,164	19.8	16,560	21.6
4 days	17,707	23.1	16,241	21.2
5 days	8,508	11.1	7,902	10.3
6 or more days	2,425	3.2	2,189	2.9
Total	**76,616**	**100**	**76,499**	**100**

** There were errors in the dates submitted for 209 cases in 2012 and 245 cases in 2013 – length of stay unable to be calculated.

Note: excludes women whose length of stay was not reported adequately. Length of stay excludes time spent in second hospital following transfer, for example to an external intensive care unit, or to a hospital closer to home.

Figure 11.3: Trends in postnatal length of stay, confinements 1985–2013 (%)

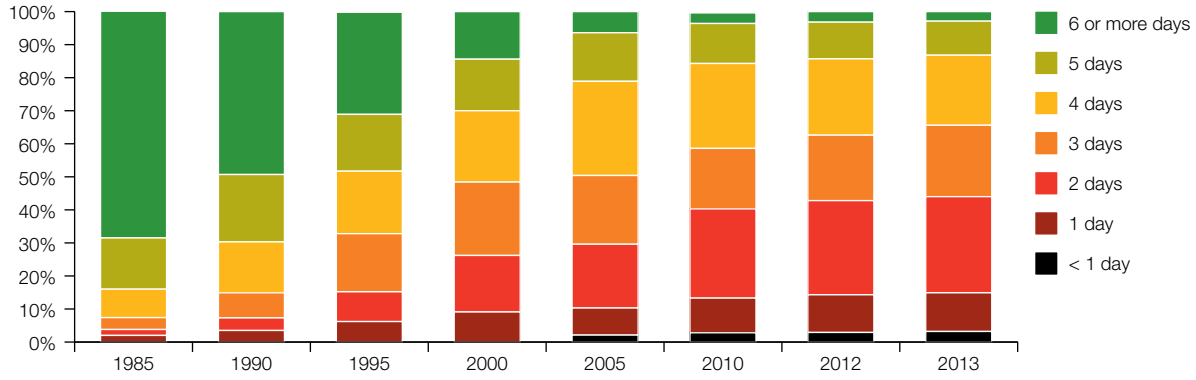


Table 11.21: Postnatal length of stay by type of birth, confinements 2012 and 2013

	2012				2013			
	Unassisted vaginal birth		Caesarean section		Unassisted vaginal birth		Caesarean section	
Length of stay	n	%	n	%	n	%	n	%
< 1 day	2,102	5.2	40	0.2	2,290	5.8	48	0.2
1 day	7,711	19.0	205	0.8	7,935	20.1	215	0.8
2 days	16,575	40.9	1,328	5.4	16,401	41.5	1,630	6.4
3 days	5,414	13.4	7,936	32.1	4,938	12.5	9,681	38.0
4 days	7,423	18.3	6,581	26.6	6,742	17.0	5,899	23.2
5 days	833	2.1	7,018	28.4	758	1.9	6,537	25.7
6 or more days	480	1.2	1,642	6.6	482	1.2	1,442	5.7
Total	**40,538**	**100**	**24,750**	**100**	**39,546**	**100**	**25,452**	**100**

Note: excludes women whose length of stay was not reported adequately. Length of stay excludes time spent in second hospital following transfer, for example to an external intensive care unit, or to a hospital closer to home.

Table 11.22: Postnatal length of stay by admission status, confinements 2012 and 2013

	2012				2013			
	Public		Private		Public		Private	
Length of stay	n	%	n	%	n	%	n	%
< 1 day	1,925	3.6	329	1.4	2,067	3.8	364	1.6
1 day	8,487	15.8	245	1.1	8,667	16.1	264	1.2
2 days	21,046	39.1	776	3.4	21,373	39.6	872	3.9
3 days	13,079	24.3	2,082	9.1	14,233	26.4	2,327	10.3
4 days	6,140	11.4	11,563	50.7	4,903	9.1	11,337	50.4
5 days	1,785	3.3	6,722	29.5	1,514	2.8	6,388	28.4
6 or more days	1,328	2.5	1,097	4.8	1,242	2.3	946	4.2
Total	**53,790**	**100**	**22,814**	**100**	**53,999**	**100**	**22,498**	**100**

Note: excludes women whose length of stay was not reported adequately and women who had planned homebirths. Length of stay excludes time spent in second hospital following transfer, for example to an external intensive care unit, or to a hospital closer to home.

Figure 11.4: Postnatal length of stay by admission status, confinements 2012 (%)

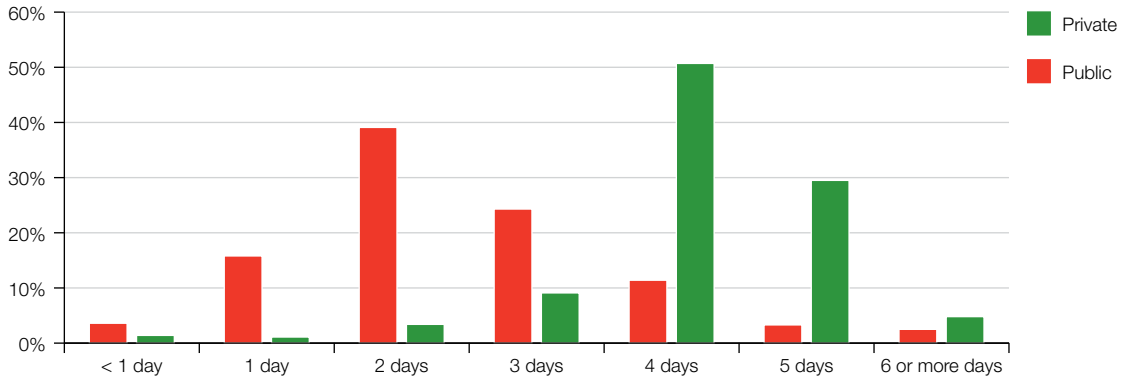


Figure 11.5: Postnatal length of stay by admission status, confinements 2013 (%)

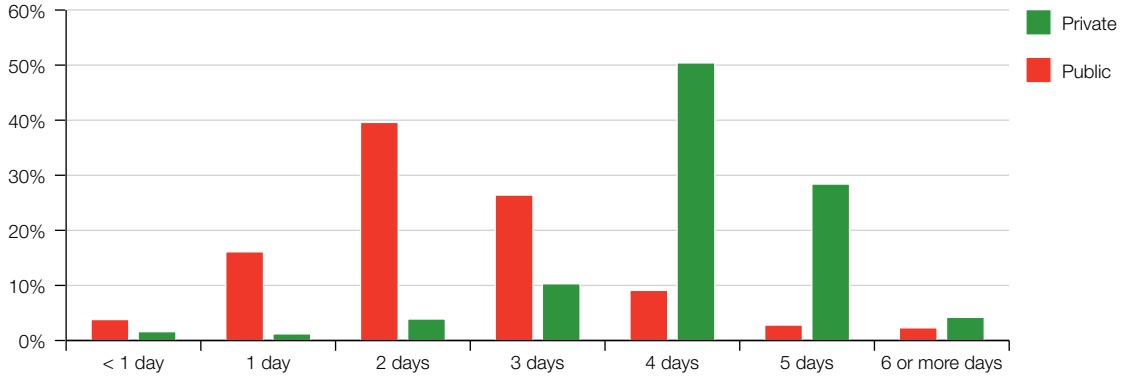


Table 11.23: Trends in median postnatal length of stay (days) by type of birth, confinements 1985–2013

Type of births	1985	1990	1995	2000	2005	2010	2012	2013
All confinements median	6	5	4	4	3	3	3	3
Vaginal births[a] median	6	5	4	3	3	2	2	2
Caesarean sections median	8	7	6	5	5	4	4	4

a. Includes unassisted and instrumental vaginal births.

Table 11.24: Actual place of birth, confinements 2012 and 2013

Place of birth	2012		2013	
	n	%	n	%
Hospital	75,290	98.0	75,468	98.3
Birth centre	824	1.1	505	0.7
Planned home births – private midwife	232	0.3	279	0.4
Planned home births – public hospital program	50	0.1	62	0.1
Unplanned out-of-hospital births	427	0.6	401	0.6
Inadequately described	2	0.0	29	0.0
Total	**76,825**	**100**	**76,744**	**100**

Note: Includes some women who did not initially plan a home birth, but who changed their plan and gave birth at home under the care of a midwife.

Table 11.25: Place of birth for women who initially intended to give birth in a birth centre, 2012 and 2013

Place of birth	2012				2013			
	Primip		Multi		Primip		Multi	
	n	%	n	%	n	%	n	%
Birth centre	265	30.0	532	70.4	146	34.1	332	75.1
Hospital	612	69.3	200	26.4	275	64.3	103	23.3
Home (unplanned or planned)	5	0.6	19	2.5	7	1.6	6	1.4
In transit	1	0.1	5	0.7	0	0.0	1	0.2
Total	**883**	**100**	**756**	**100**	**428**	**100**	**442**	**100**

Note: 27 additional women gave birth in birth centres with no reported plan to do so.

Table 11.26: Place of birth by maternal age group for women who initially planned to give birth in a birth centre, 2012 and 2013

Maternal age group	2012							2013						
	Birth centre		Hospital		Home/ In transit		Total	Birth centre		Hospital		Home/ In transit		Total
	n	%	n	%	n	%	n	n	%	n	%	n	%	n
Younger than 20 years	1	20.0	4	80.0	0	0.0	**5**	0	0.0	0	0.0	0	0.0	**0**
20–24 years	66	46.8	71	50.4	4	2.8	**141**	31	62.0	19	38.0	0	0.0	**50**
25–29 years	207	42.3	278	56.9	4	0.8	**489**	96	45.5	112	53.1	3	1.4	**211**
30–34 years	314	50.1	299	47.7	14	2.2	**627**	226	57.4	163	41.4	5	1.3	**394**
35–39 years	174	54.7	137	43.1	7	2.2	**318**	100	55.9	74	41.3	5	2.8	**179**
40 + years	35	59.3	23	39.0	1	1.7	**59**	25	69.4	10	27.8	1	2.8	**36**
Total	**797**	**48.6**	**812**	**49.5**	**30**	**1.8**	**1,639**	**478**	**54.9**	**378**	**43.4**	**14**	**1.6**	**870**

Table 11.27: Onset of labour for planned birth centre confinements by actual place of birth, 2012 and 2013

Onset of labour	2012				2013			
	Birth centre		Hospital		Birth centre		Hospital	
	n	%	n	%	n	%	n	%
Spontaneous (not augmented)	724	90.8	264	32.8	422	88.3	130	34.4
Augmented	61	7.7	255	31.6	43	9.0	112	29.6
Induced	12	1.5	253	31.4	13	2.7	113	29.9
No Labour (and no attempted induction)	0	0.0	34	4.2	0	0.0	20	5.3
No Labour (failed induction)	0	0.0	6	0.7	0	0.0	3	0.8
Total	**797**	**100**	**812**	**100**	**478**	**100**	**378**	**100**

Table 11.28: Method of birth for planned birth centre confinements by actual place of birth, 2012 and 2013

	2012				2013			
	Birth centre		Hospital		Birth centre		Hospital	
Method of birth	n	%	n	%	n	%	n	%
Unassisted vaginal	793	99.5	389	47.9	474	99.2	169	44.7
Vacuum	1	0.1	85	10.5	1	0.2	36	9.5
Forceps	3	0.4	138	17.0	1	0.2	73	19.3
Caesarean section	0	0.0	200	24.6	2	0.4	100	26.5
Total	**797**	**100**	**812**	**100**	**478**	**100**	**378**	**100**

Table 11.29: Age of women planning public or private home confinements, 2012 and 2013

	2012				2013			
	Public		Private		Public		Private	
Maternal age group	n	%	n	%	n	%	n	%
Younger than 20 years	0	0.0	0	0.0	0	0.0	1	0.3
20–24 years	5	8.3	9	3.0	5	6.5	16	4.7
25–29 years	17	28.3	57	19.2	23	29.9	73	21.7
30–34 years	19	31.7	111	37.4	22	28.6	121	35.9
35–39 years	15	25.0	93	31.3	23	29.9	87	25.8
40 + years	4	6.7	21	7.1	4	5.2	26	7.7
Unknown	0	0.0	6	2.0	0	0.0	13	3.9
Total	**60**	**100**	**297**	**100**	**77**	**100**	**337**	**100**

Table 11.30: Place of birth for planned home confinements, 2012 and 2013

	2012						2013					
	Home		Hospital		Total		Home		Hospital		Total	
Place of birth	n	%	n	%	n	%	n	%	n	%	n	%
Planned public home birth	50	83.3	10	16.7	**60**	**100**	60	77.9	17	22.1	**77**	**100**
Planned private home birth	226	76.1	71	23.9	**297**	**100**	271	80.4	66	19.6	**337**	**100**

Table 11.31: Time of change in plan for women who planned public or private home confinements and gave birth in hospital, 2012 and 2013

	2012				2013			
	Public		Private		Public		Private	
Time of change	n	%	n	%	n	%	n	%
Before onset of labour	3	30.0	25	35.2	11	64.7	23	34.8
During labour	7	70.0	46	64.8	6	35.3	43	65.2
Total	**10**	**100**	**71**	**100**	**17**	**100**	**66**	**100**

Table 11.32: Trend in number of women achieving planned home confinements, 1985–2013

	1985	1990	1995	2000	2005	2007	2008	2009	2010	2011	2012	2013
Public (n)	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	45	58	50	60
% of all confinements	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.1	0.1	0.1	0.1
Private (n)	144	181	110	114	182	248	298	300	262	266	226	271
% of all confinements	0.2	0.3	0.2	0.2	0.3	0.4	0.4	0.4	0.4	0.4	0.3	0.4

Table 11.33: Method of birth for planned public or private home confinements by actual place of birth, 2012 and 2013

	2012								2013							
	Planned private home birth				Planned public home birth				Planned private home birth				Planned public home birth			
	Birth at home		Birth in hospital		Birth at home		Birth in hospital		Birth at home		Birth in hospital		Birth at home		Birth in hospital	
Method of birth	n	%	n	%	n	%	n	%	n	%	n	%	n	%	n	%
Unassisted vaginal	225	99.6	29	40.8	50	100.0	8	80.0	271	100.0	30	45.4	60	100.0	11	64.7
Vacuum	1	0.4	9	12.7	0	0.0	0	0.0	0	0.0	4	5.9	0	0.0	1	5.9
Forceps	0	0.0	7	9.9	0	0.0	0	0.0	0	0.0	8	12.1	0	0.0	1	5.9
Caesarean section	0	0.0	26	36.6	0	0.0	2	20.0	0	0.0	24	36.4	0	0.0	4	23.5
Unknown	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
Total	**226**	**100**	**71**	**100**	**50**	**100**	**10**	**100**	**271**	**100**	**66**	**100**	**60**	**100**	**17**	**100**

Reproductive history

Table 11.34: Gravidity, confinements, 2012 and 2013

Gravidity	2012		2013	
	n	%	n	%
One (index pregnancy)	25,757	33.5	25,565	33.3
Two	23,751	30.9	23,742	30.9
Three	13,954	18.2	13,756	17.9
Four	6,740	8.8	6,993	9.1
Five	3,299	4.3	3,264	4.3
Six or more	3,323	4.3	3,424	4.5
Unknown	1	0.0	0	0.0
Total	**76,825**	**100**	**76,744**	**100**

Table 11.35: Parity prior to the index birth, confinements, 2012 and 2013

Parity	2012		2013	
	n	%	n	%
None (index pregnancy)	34,199	44.5	34,536	45.0
One	26,736	34.8	26,484	34.5
Two	10,487	13.7	10,237	13.3
Three	3,267	4.3	3,375	4.4
Four	1,141	1.5	1,095	1.4
Five or more	974	1.3	1,014	1.3
Unknown	21	0.0	3	0.0
Total	**76,825**	**100**	**76,744**	**100**

Table 11.36: Trends in parity, confinements, 2012 and 2013

Parity	1990	2000	2010	2012	2013
	%	%	%	%	%
None	40.8	41.7	43.7	44.5	45.0
One	33.3	34.6	34.5	34.8	34.5
Two	17	15.7	14.2	13.7	13.3
Three	5.9	5.2	4.7	4.3	4.4
Four	1.9	1.7	1.6	1.5	1.4
Five or more	1.1	1.2	1.3	1.3	1.3

Table 11.37: Number of previous caesarean sections, of women who had one or more prior births, 2000–2013

Number of previous caesarean sections	2000		2005		2010		2012		2013	
	n	%	n	%	n	%	n	%	n	%
None	28,806	80.3	27,653	74.4	29,419	72.0	30,302	71.1	29,739	70.5
One	5,572	15.5	7,488	20.2	8,996	22.0	9,662	22.7	9,777	23.2
Two	1,241	3.5	1,678	4.5	2,104	5.1	2,143	5.0	2,184	5.2
Three	231	0.6	276	0.7	414	1.0	387	0.9	425	1.0
Four	32	0.1	47	0.1	60	0.1	78	0.2	59	0.1
Five or more	9	0.0	10	0.0	8	0.0	29	0.1	19	0.0
Total	**35,891**	**100**	**37,152**	**100**	**41,001**	**100**	**42,601**	**100**	**42,203**	**100**

Labour and birth

Table 11.38: Trends in gestation, confinements 1990–2013 (%)

Gestation	1990	1995	2000	2005	2010	2012	2013
	n=66,004	n=62,734	n=61,562	n=65,115	n=72,864	n=76,825	n=76,744
20–27 weeks	0.6	0.7	0.7	0.6	0.6	0.5	0.6
28–31 weeks	0.6	0.7	0.7	0.6	0.7	0.6	0.6
32–36 weeks	5	5.1	5.5	5.5	5.8	6.0	6.0
37–41 weeks	88.1	89.9	91.8	91.9	91.6	92.0	92.0
42 + weeks	4.5	3	1.3	1.3	1.2	0.9	0.8
Not reported	1.1	0.7	0	0	0.1	0.0	0.0

Table 11.39: Onset of labour, confinements 2012 and 2013

Onset of labour	2012		2013	
	n	%	n	%
Spontaneous (not augmented)	28,488	37.1	27,297	35.6
Spontaneous and augmented	14,145	18.4	13,870	18.1
Induced	19,123	24.9	20,063	26.2
No labour	15,050	19.6	15,480	20.2
Total	**76,806**	**100**	**76,710**	**100**

Excludes cases with missing data.

Figure 11.6: Trends in onset of labour, confinements 1990–2013 (%)

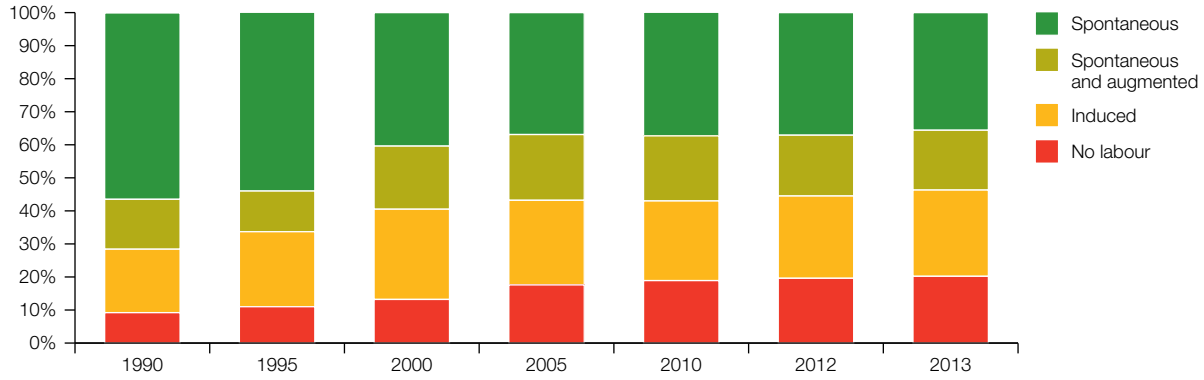


Figure 11.7: Onset of labour by admission status, confinements 2012 and 2013 (%)

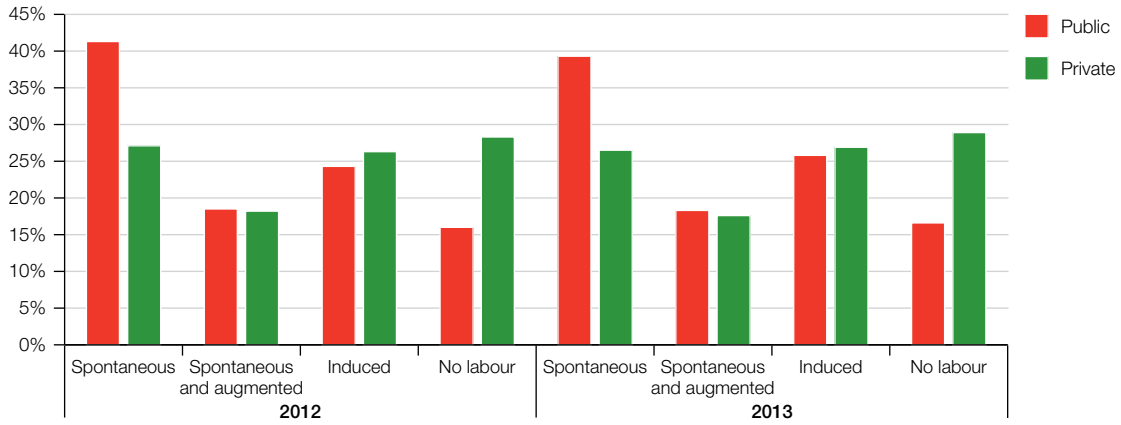


Table 11.40: Fetal monitoring in labour (of women who experienced labour), 2012 and 2013

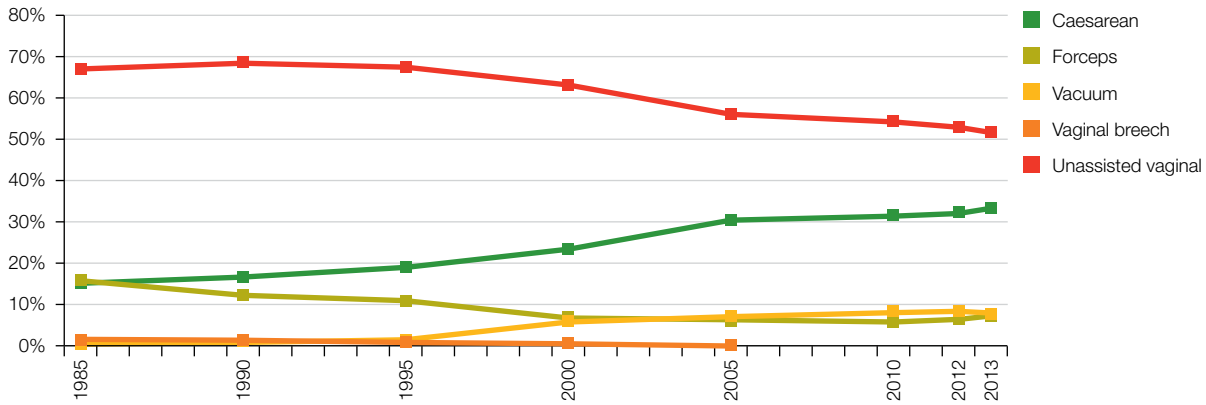
Type of monitoring	2012		2013	
	n	%	n	%
None	1,182	1.9	1,203	2.0
Intermittent auscultation	9,198	14.9	8,527	13.9
Admission CTG/Intermittent CTG	12,744	20.6	11,541	18.8
Continuous external CTG	30,730	49.8	31,202	51.0
Internal CTG (scalp electrode)	7,649	12.4	8,426	13.8
Fetal blood sampling	237	0.4	294	0.5
Other/Not adequately described	16	0.0	37	0.1
Total	**61,756**	**100**	**61,230**	**100**

Note: Fetal monitoring in labour is reported in a hierarchical manner e.g. a woman who had intermittent auscultation followed by continuous external CTG monitoring is reported as 'continuous external CTG monitoring'.

Table 11.41: Method of birth, confinements, 2012 and 2013

Method of birth	2012		2013	
	n	%	n	%
Unassisted vaginal	40,657	52.9	39,695	51.7
Vacuum	6,435	8.4	5,928	7.7
Forceps	4,919	6.4	5,593	7.3
Total caesarean	24,812	32.3	25,521	33.3
– planned	*13,275*	*17.3*	*13,276*	*17.3*
– unplanned	*11,537*	*15.0*	*12,245*	*16.0*
Unknown	2	0.0	7	0.0
Total	**76,825**	**100**	**76,744**	**100**

Figure 11.8: Trends in method of birth, all confinements, 1985–2013 (%)



Note: Vaginal breech now reported as presentation and method of birth e.g. if forceps used for after-coming head, reported as forceps.

Table 11.42: Method of birth by onset of labour, confinements 2012 and 2013

Method of birth	Unassisted vaginal		Vacuum		Forceps		Caesarean		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
2012												
Spontaneous (not augmented)	21,979	77.2	2,033	7.1	1,245	4.4	3,230	11.3	1	0.0	**28,488**	**100**
Augmented	7,816	55.3	2,156	15.2	1,739	12.3	2,434	17.2	0	0.0	**14,145**	**100**
Induced	10,850	56.7	2,241	11.7	1,931	10.1	4,100	21.4	1	0.0	**19,123**	**100**
No labour[a]	0	0.0	0	0.0	0	0.0	15,046	100.0	4	0.0	**15,050**	**100**
Total	**40,645**	**52.9**	**6,430**	**8.4**	**4,915**	**6.4**	**24,810**	**32.3**	**6**	**0.0**	**76,806**	**100**
2013												
Spontaneous (not augmented)	20,726	75.9	1,841	6.7	1,367	5.0	3,362	12.3	1	0.0	**27,297**	**100**
Augmented	7,507	54.1	1,951	14.1	2,006	14.5	2,403	17.3	3	0.0	**13,870**	**100**
Induced	11,435	57.0	2,131	10.6	2,214	11.0	4,281	21.3	2	0.0	**20,063**	**100**
No labour[a]	0	0.0	0	0.0	0	0.0	15,471	100.0	9	0.0	**15,480**	**100**
Total	**39,668**	**51.7**	**5,923**	**7.7**	**5,587**	**7.3**	**25,517**	**33.3**	**15**	**0.0**	**76,710**	**100**

a. No labour includes those experiencing failed induction.

Excludes cases with missing data on onset of labour.

Table 11.43: Method of birth by admission status, confinements 2012 and 2013

Admission status		Unassisted vaginal	Vacuum	Forceps	Caesarean	Unknown	Total
2012							
Public patient	n	31,506	3,868	3,217	15,380	0	**53,971**
	%	58.4	7.2	6.0	28.5	0.0	**100**
Private patient	n	9,143	2,564	1,702	9,431	2	**22,842**
	%	40.0	11.2	7.5	41.3	0.0	**100**
Total	n	**40,649**	**6,432**	**4,919**	**24,811**	**2**	76,813
	%	**52.9**	**8.4**	**6.4**	**32.3**	**0.0**	**100**
2013							
Public patient	n	30,931	3,511	3,756	16,019	1	**54,218**
	%	57.0	6.5	6.9	29.5	0.0	**100**
Private patient	n	8,764	2,416	1,837	9,501	6	**22,524**
	%	38.9	10.7	8.2	42.2	0.0	**100**
Total	n	**39,695**	**5,927**	**5,593**	**25,520**	**7**	76,742
	%	**51.7**	**7.7**	**7.3**	**33.3**	**0.0**	**100**

Figure 11.8: Method of birth by admission status, confinements 2012 and 2013 (%)

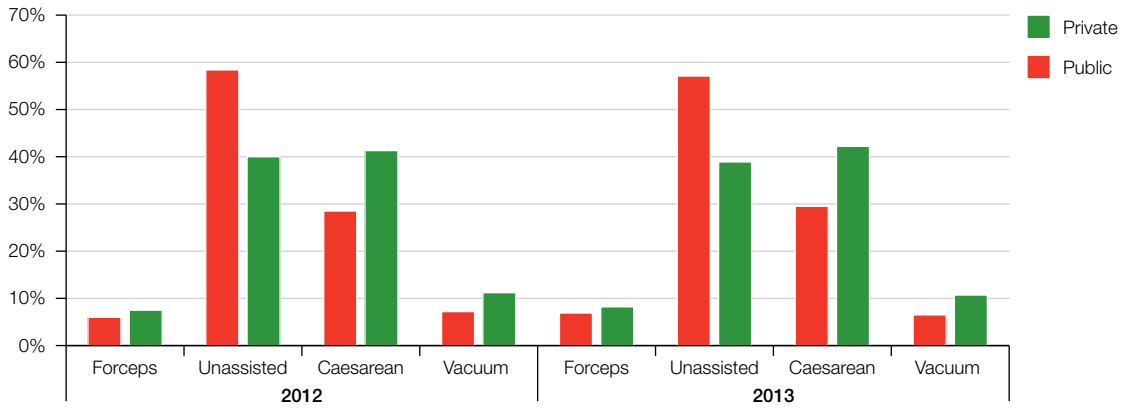


Table 11.44: Method of birth by presentation, confinements 2012 and 2013

Method of birth		Forceps	Unassisted vaginal	Caesarean	Vacuum	Unknown	Total
2012							
Vertex	n	4,866	39,886	21,766	6,364	2	**72,884**
	%	6.7	54.7	29.9	8.7	0.0	**100**
Breech	n	15	251	2,695	3	0	**2,964**
	%	0.5	8.5	90.9	0.1	0.0	**100**
Other	n	38	501	295	65	0	**899**
	%	4.2	55.7	32.8	7.2	0.0	**100**
Not reported	n	0	19	56	3	0	**78**
	%	0.0	24.4	71.8	3.8	0.0	**100**
Total	n	**4,919**	**40,657**	**24,812**	**6,435**	**2**	**76,825**
2013							
Vertex	n	5,545	38,931	22,296	5,882	6	**72,660**
	%	7.6	53.6	30.7	8.1	0.0	**100**
Breech	n	12	233	2,811	1	1	**3,058**
	%	0.4	7.6	91.9	0.0	0.0	**100**
Other	n	36	504	348	45	0	**933**
	%	3.9	54.0	37.3	4.8	0.0	**100**
Not reported	n	0	27	66	0	0	**93**
	%	0.0	29.0	71.0	0.0	0.0	**100**
Total	n	**5,593**	**39,695**	**25,521**	**5,928**	**7**	**76,744**

Note: 'Other' includes all presentations other than vertex or breech, for example face, brow, compound, shoulder, etc.
'Unassisted vaginal' means without instruments.

Table 11.45: Trends in method of birth for breech presentation at term, singleton confinements 1985–2013 (%)

Method of birth	1985	1990	1995	2000	2005	2007	2008	2009	2010	2011	2012	2013
	n= 1,658	n= 1,940	n= 1,948	n= 1,886	n= 2,067	n= 2,087	n= 2,107	n= 2,666	n= 2,089	n= 2,031	n= 2,100	n= 2,137
	%	%	%	%	%	%	%	%	%	%	%	%
Vaginal	35.8	27.3	19.4	10	4	4.2	4.4	5.3	3.5	3.8	4.7	3.7
Caesarean	64.2	72.8	80.6	90	96	95.8	95.6	94.6	96.5	96.2	95.3	96.3

Table 11.46: Analgesia used by women who experienced labour, confinements 2012 and 2013

Type of analgesia	2012		2013	
	n	%	n	%
None	13,145	21.3	12,903	21.1
'Other' only	2,236	3.6	2,161	3.5
Nitrous oxide and oxygen only	17,582	28.5	17,700	28.9
Parenteral opioids +/– nitrous	10,876	17.6	9,789	16.0
Regional analgesia +/– nitrous/parenteral opioids	17,917	29.0	18,677	30.5
Total	**61,756**	**100**	**61,230**	**100**

Table 11.47: Type of anaesthesia for operative vaginal birth, confinements 2012 and 2013

Type of anaesthesia	2012		2013	
	n	%	n	%
None	1,420	12.5	1,251	10.9
Local anaesthetic/Pudendal block	3,078	27.1	3,036	26.4
Regional only	6,565	57.8	6,982	60.6
General anaesthetic only	5	0.0	4	0.0
General anaesthetic + regional	2	0.0	4	0.0
Other	284	2.5	244	2.1
Total	**11,354**	**100**	**11,521**	**100**

Table 11.48: Type of anaesthesia for caesarean birth, confinements 2012 and 2013

Type of anaesthesia	2012		2013	
	n	%	n	%
Not known	36	0.1	28	0.1
Regional only	23,415	94.4	24,194	94.8
General anaesthetic only	1,088	4.4	1,056	4.1
General anaesthetic + regional	273	1.1	243	1.0
Total	**24,812**	**100**	**25,521**	**100**

Table 11.49: 3rd and 4th degree lacerations following vaginal birth by admission type and parity, confinements 2012 and 2013

3rd and 4th degree lacerations	Public admission				Private admission			
	Primiparous women		Multiparous women		Primiparous women		Multiparous women	
	n	%	n	%	n	%	n	%
2012								
Yes	977	5.8	349	1.6	173	2.8	52	0.7
No	15,812	94.2	21,441	98.4	5,991	97.2	7,193	99.3
Total	**16,789**	**100**	**21,790**	**100**	**6,164**	**100**	**7,245**	**100**
2013								
Yes	1,031	6.2	313	1.5	182	3.0	42	0.6
No	15,681	93.8	21,171	98.5	5,930	97.0	6,863	99.4
Total	**16,712**	**100**	**21,484**	**100**	**6,112**	**100**	**6,905**	**100**

Note: Excludes a small number of cases with missing data on parity and/or admission status.

Table 11.50: Episiotomy for vaginal birth by admission type and parity, confinements 2012 and 2013

Episiotomy	Public admission				Private admission			
	Primiparous women		Multiparous women		Primiparous women		Multiparous women	
	n	%	n	%	n	%	n	%
2012								
Yes	6,805	40.5	1,986	9.1	3,104	50.4	1,196	16.5
No	9,984	59.5	19,804	90.9	3,060	49.6	6,049	83.5
Total	**16,789**	**100**	**21,790**	**100**	**6,164**	**100**	**7,245**	**100**
2013								
Yes	7,220	43.2	2,108	9.8	3,121	51.1	1,145	16.6
No	9,492	56.8	19,376	90.2	2,990	48.9	5,759	83.4
Total	**16,712**	**100**	**21,484**	**100**	**6,111**	**100**	**6,904**	**100**

Note: Excludes a small number of cases with missing data.

Table 11.51: Estimated blood loss by parity, confinements 2012 and 2013

Parity	< 500 mL		500–1,499 mL		1,500 mL or more		Not reported	
	n	%	n	%	n	%	n	%
2012								
Primiparae	25,037	73.2	8,100	23.7	568	1.7	494	1.4
transfused[a]	*70*	*0.3*	*305*	*3.8*	*265*	*46.7*	*2*	*0.4*
Multiparae	33,982	79.8	7,599	17.8	516	1.2	508	1.2
transfused[a]	*57*	*0.2*	*184*	*2.4*	*233*	*45.2*	*1*	*0.2*
2013								
Primiparae	24,960	72.3	8,528	24.7	621	1.8	427	1.2
transfused[a]	*80*	*0.3*	*291*	*3.4*	*290*	*46.7*	*2*	*0.5*
Multiparae	33,363	79.0	7,752	18.4	559	1.3	531	1.3
transfused[a]	*63*	*0.2*	*204*	*2.6*	*255*	*45.6*	*5*	*0.9*

a. % transfused within each blood loss category.

Table 11.52: Women given prophylactic oxytocics in the third stage of labour, 2012 and 2013

Prophylactic oxytocic	2012		2013	
	n	%	n	%
Prophylactic oxytocic given	75,481	98.3	75,313	98.1
Prophylactic oxytocic not given	1,306	1.7	1,364	1.8
Not reported	38	0.0	67	0.1

Breastfeeding

Table 11.53: Initiation of breastfeeding (women with a live birth), 2012 and 2013

Initiation of breastfeeding	2012		2013	
	n	%	n	%
Attempted to breastfeed or express breastmilk	71,961	94.1	71,874	94.1
Did not attempt to breastfeed or express	4,414	5.8	4,378	5.7
Unknown	89	0.1	114	0.1

Table 11.54: Term, live-born babies whose mothers initiated breastfeeding given formula in hospital, 2012 and 2013

Infant formula	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
2012						
Infant formula given	19,396	28.6	12,377	25.4	7,019	37.1
Infant formula not given	47,464	69.9	35,486	72.8	11,754	62.1
Unknown	970	1.4	805	1.7	164	0.9
2013						
Infant formula given	19,483	28.9	12,491	25.3	6,992	38.6
Infant formula not given	47,044	69.8	36,085	73.1	10,959	60.5
Unknown	876	1.3	725	1.5	151	0.8

Note: Babies not fed in the birth hospital, and those born at home under private midwife care are excluded.

Table 11.55: Term, live-born babies whose mothers initiated breastfeeding having their last feed before discharge entirely and directly from the breast, 2012 and 2013

Breastfeeding status	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
2012						
Exclusively breast fed	53,332	78.6	38,930	79.9	14,182	74.9
Not exclusively breast fed	14,119	20.8	9,523	19.5	4,593	24.3
Unknown	415	0.6	257	0.5	156	0.8
2013						
Exclusively breast fed	52,831	78.3	39,351	79.7	13,480	74.5
Not exclusively breast fed	14,264	21.1	9,791	19.8	4,473	24.7
Unknown	359	0.5	216	0.4	143	0.8

Note: Babies not fed in the birth hospital, and those born at home under private midwife care are excluded.

Infant factors

Table 11.56: Sex of infants born in 2012 and 2013

Sex	2012		2013	
	n	%	n	%
Male	40,076	51.4	39,936	51.2
Female	37,933	48.6	38,004	48.7
Indeterminate	23	0.0	16	0.0
Unknown	9	0.0	7	0.0
Total	**78,041**	**100**	**77,963**	**100.0**

Table 11.57: Trends in preterm and post-term births, 1985–2013 (%)

Gestation	1985	1990	1995	2000	2005	2010	2012	2013
< 37 weeks	6.0	6.7	7.1	7.6	7.7	8.0	7.9	8.2
≥ 42 weeks	3.8	4.5	2.9	1.3	1.3	1.2	0.9	0.8

Figure 11.9: Trends in preterm and post-term birth, 1985–2013 (%)

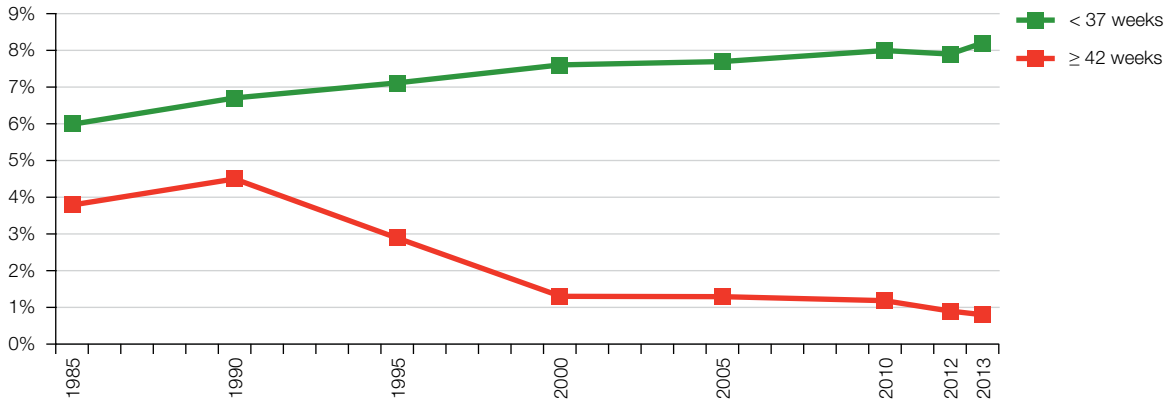


Table 11.58: Size of maternity service (annual births) for birth at various gestations (completed weeks) 2012 and 2013

Gestation		Size of maternity service (births in 2012)				
		< 100	100–999	1,000–1,999	2,000 +	Total
2012						
20–27	n	2	38	52	362	**454**
	%	0.4	8.4	11.5	79.7	**100**
28–31	n	4	15	51	497	**567**
	%	0.7	2.6	9.0	87.7	**100**
32–36	n	14	634	920	3,607	**5,175**
	%	0.3	12.3	17.8	69.7	**100**
37–41	n	1,050	12,201	13,420	44,468	**71,139**
	%	1.5	17.2	18.9	62.5	**100**
42 +	n	24	111	112	444	**691**
	%	3.5	16.1	16.2	64.3	**100**
Not stated/ inadequately described	n	0	6	1	8	**15**
	%	0.0	40.0	6.7	53.3	**100**
Total	**n**	**1,094**	**13,005**	**14,556**	**49,386**	**78,041**
	%	**1.4**	**16.7**	**18.7**	**63.3**	**100**
Gestation		**Size of maternity service (births in 2013)**				
		< 100	**100–999**	**1,000–1,999**	**2,000 +**	**Total**
2013						
20–27	n	5	35	47	432	**519**
	%	1.0	6.7	9.1	83.2	**100**
28–31	n	5	15	68	499	**587**
	%	0.9	2.6	11.6	85.0	**100**
32–36	n	9	684	916	3,648	**5,257**
	%	0.2	13.0	17.4	69.4	**100**
37–41	n	1,008	11,960	13,541	44,494	**71,003**
	%	1.4	16.8	19.1	62.7	**100**
42 +	n	12	77	106	401	**596**
	%	2.0	12.9	17.8	67.3	**100**
Not stated/ inadequately described	n	0	0	0	1	**1**
	%	0.0	0.0	0.0	0.0	**0**
Total	**n**	**1,039**	**12,771**	**14,678**	**49,475**	**77,963**
	%	**1.3**	**16.4**	**18.8**	**63.5**	**100**

Table 11.59: Type of birth by gestation, births 2012 and 2013

	20–27 weeks		28–31 weeks		32–36 weeks		37 + weeks		Unknown	
Method of birth	n	%	n	%	n	%	n	%	n	%
2012										
Unassisted vaginal	334	73.6	187	33.0	2,073	40.1	38,307	53.3	10	66.7
Vacuum	0	0.0	1	0.2	226	4.4	6,249	8.7	0	0.0
Forceps	11	2.4	18	3.2	288	5.6	4,656	6.5	0	0.0
Planned caesarean	20	4.4	59	10.4	1,078	20.8	12,665	17.6	3	20.0
Unplanned caesarean	89	19.6	302	53.3	1,510	29.2	9,951	13.9	2	13.3
Unknown	0	0.0	0	0.0	0	0.0	2	0.0	0	0.0
Total	**454**	**100**	**567**	**100**	**5,175**	**100**	**71,830**	**100**	**15**	**100**
2013										
Unassisted vaginal	374	72.1	195	33.2	1,911	36.4	37,444	52.3	1	100.0
Vacuum	0	0.0	1	0.2	191	3.6	5,771	8.1	0	0.0
Forceps	13	2.5	25	4.3	330	6.3	5,277	7.4	0	0.0
Planned caesarean	11	2.1	66	11.2	1,102	21.0	12,616	17.6	0	0.0
Unplanned caesarean	121	23.3	300	51.1	1,723	32.8	10,483	14.6	0	0.0
Unknown	0	0.0	0	0.0	0	0.0	8	0.0	0	0.0
Total	**519**	**100**	**587**	**100**	**5,257**	**100**	**71,599**	**100**	**1**	**100**

Table 11.60: Birth weight categories, births 2012 and 2013

	2012		2013	
Grams	n	%	n	%
< 500 g	207	0.3	193	0.2
500–999 g	287	0.4	362	0.5
1,000–1,499 g	469	0.6	486	0.6
1,500–1,999 g	995	1.3	1,016	1.3
2,000–2,499 g	3,024	3.9	3,218	4.1
2,500–2,999 g	12,005	15.4	12,294	15.8
3,000–3,499 g	28,080	36.0	28,141	36.1
3,500–3,999 g	23,745	30.4	23,320	29.9
4,000–4,499 g	7,863	10.1	7,589	9.7
4,500 g +	1,302	1.7	1,271	1.6
Not known	64	0.1	73	0.1
Total	**78,041**	**100**	**77,963**	**100**

Table 11.61: Trends in birth weight categories, births 2000–2013

Grams	2000 n=62,555	2005 n=66,340	2010 n=74,117	2012 n=78,041	2013 n=77,963
Less than 500 g	0.3	0.2	0.3	0.3	0.2
500–999 g	0.5	0.5	0.5	0.4	0.5
1,000–1,499 g	0.6	0.6	0.6	0.6	0.6
1,500–1,999 g	1.3	1.3	1.3	1.3	1.3
2,000–2,499 g	3.9	4.1	3.9	3.9	4.1
2,500–2,999 g	15.4	15.3	15.4	15.4	15.8
3,000–3,499 g	36.1	35.5	35.6	36.0	36.1
3,500–3,999 g	30.1	30.6	30.2	30.4	29.9
4,000–4,499 g	9.9	10.2	10	10.1	9.7
4,500 g +	1.9	1.8	1.9	1.7	1.6
Unknown	0	0	0.2	0.1	0.1

Figure 11.10: Trends in major birth weight categories, births 1985–2013 (%)

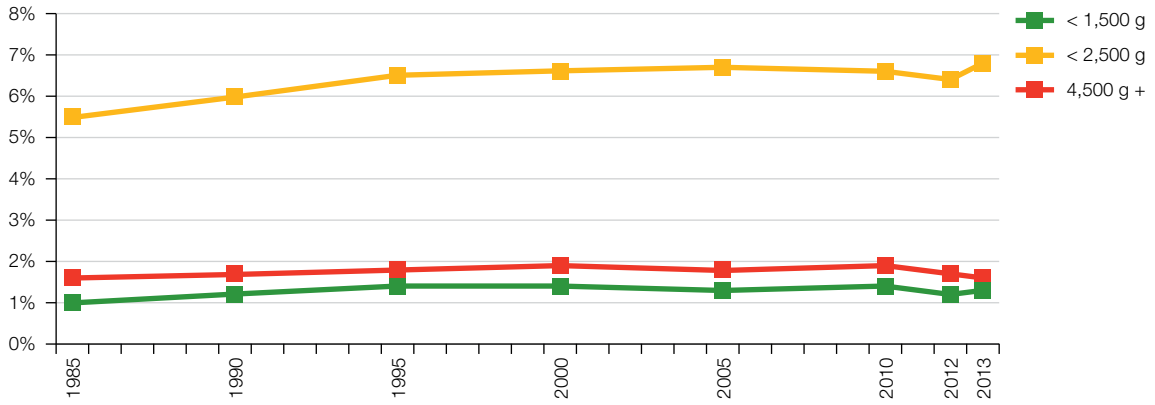


Table 11.62: Type of birth by birth weight category, births 2012 and 2013

Method of birth		< 1,500 g	1,500–2,499 g	2,500–4,499 g	4,500 g +	Unknown
2012						
Unassisted vaginal birth	n	478	1,575	38,190	629	39
	%	49.6	39.2	53.3	48.3	60.9
Vacuum extraction	n	2	157	6,235	79	3
	%	0.2	3.9	8.7	6.1	4.7
Forceps	n	17	220	4,670	66	0
	%	1.8	5.5	6.5	5.1	0.0
Planned caesarean section	n	104	885	12,606	219	11
	%	10.8	22.0	17.6	16.8	17.2
Unplanned caesarean section	n	362	1,182	9,990	309	11
	%	37.6	29.4	13.9	23.7	17.2
Not stated	n	0	0	2	0	0
	%	0.0	0.0	0.0	0.0	0.0
Total		**963**	**4,019**	**71,693**	**1,302**	**64**
2013						
Unassisted vaginal birth	n	513	1,541	37,219	613	39
	%	49.3	36.4	52.2	48.2	53.4
Vacuum extraction	n	2	172	5,721	64	4
	%	0.2	4.1	8.0	5.0	5.5
Forceps	n	24	253	5,281	77	10
	%	2.3	6.0	7.4	6.1	13.7
Planned caesarean section	n	96	896	12,555	242	6
	%	9.2	21.2	17.6	19.0	8.2
Unplanned caesarean section	n	406	1,371	10,562	274	14
	%	39.0	32.4	14.8	21.6	19.2
Not stated	n	0	1	6	1	0
	%	0.0	0.0	0.0	0.1	0.0
Total		**1,041**	**4,234**	**71,344**	**1,271**	**73**

Table 11.63: Apgar score at five minutes, 2012 and 2013 (live births only)

Apgar	2012		2013	
	n	%	n	%
< 4	230	0.3	262	0.3
4 to 6	1,198	1.5	1,259	1.6
7 to 10	76,128	98.0	75,917	97.9
Unknown	103	0.1	128	0.2
Total	**77,659**	**100**	**77,566**	**100**

Table 11.64: Method of resuscitation used, 2012 and 2013 (live births only)

Type of resuscitation	2012		2013	
	n	%	n	%
None	58,505	75.3	58,602	75.6
Suction and or oxygen	4,335	5.6	3,852	5.0
Intermittent positive pressure respiration bag and mask with air	1,200	1.5	1,247	1.6
Intermittent positive pressure respiration bag and mask with oxygen	1,277	1.6	1,016	1.3
Continuous positive airway pressure with air	2,372	3.1	2,769	3.6
Continuous positive airway pressure with oxygen	2,505	3.2	2,659	3.4
Endotracheal intubation and IPPR with air	136	0.2	111	0.1
Endotracheal intubation and IPPR with oxygen	352	0.5	404	0.5
External cardiac massage and ventilation	184	0.2	261	0.3
Other	6,779	8.7	6,623	8.5
Total	**77,645**	**100**	**77,544**	**100**

Note: Excludes 14 cases in 2012 and 22 cases in 2013 where the method of resuscitation is not known.

Multiple births

Table 11.65: Multiple births, 2012 and 2013

Plurality	2012		2013	
	n	% of all births	n	%
Twins	2,373	3.0	2,363	3.0
Triplets	36	0.0	48	0.1
Quadruplets	0	0.0	8	0.0
Quintuplets	5	0.0	0	0.0
Not stated	1	0.0	0	0.0
Total	**2,415**	**3.1**	**2,419**	**3.1**

Table 11.66: Trends in multiple births, 1990–2013

Year	Twins	% of all births	Triplets	% of all births	Quads or higher order	% of all births
1990	1,649	2.5	69	0.1	4	0.0
1995	1,850	2.9	87	0.1	0	0.0
2000	1,903	3.0	63	0.1	0	0.0
2005	2,388	3.6	48	0.1	0	0.0
2010	2,339	3.2	56	0.1	6	0.0
2012	2,373	3.0	36	0.0	5	0.0
2013	2,363	3.0	48	0.1	8	0.0

Table 11.67: Multiple birth by maternal age group, confinements 2012 and 2013 (% of mothers in each age group)

Maternal age	Sets of twins	% of all confinements in this age group	Sets of triplets	% of all confinements in this age group
2012				
Younger than 20 years	16	0.9	0	0.0
20–24 years	81	1.0	0	0.0
25–29 years	266	1.3	6	0.0
30–34 years	429	1.6	3	0.0
35–39 years	311	2.0	1	0.0
40–44 years	76	2.2	2	0.1
45 years or older	10	5.3	0	0.0
2013				
Younger than 20 years	17	1.0	0	0.0
20–24 years	91	1.1	1	0.0
25–29 years	284	1.4	2	0.0
30–34 years	412	1.5	7	0.0
35–39 years	279	1.8	5	0.0
40–44 years	76	2.1	1	0.0
45 years or older	23	13.0	0	0.0

Table 11.68: Gestation by plurality, confinements 2012 and 2013

Gestation at birth (completed weeks)	Singletons	%	Sets of twins	%	Sets of triplets	%
2012						
20–27	354	0.5	47	4.0	2	16.7
28–31	404	0.5	75	6.3	3	25.0
32–36	3,978	5.3	588	49.5	7	58.3
37–41	70,181	92.8	479	40.3	0	0.0
42 +	691	0.9	0	0.0	0	0.0
Total	**75,608**	**100**	**1,189**	**100**	**12**	**100**
2013						
20–27	382	0.5	60	5.1	5	31.3
28–31	397	0.5	91	7.7	2	12.5
32–36	4,028	5.3	599	50.7	9	56.3
37–41	70,140	92.8	432	36.5	0	0.0
42 +	596	0.8	0	0.0	0	0.0
Total	**75,543**	**100**	**1,182**	**100**	**16**	**100**

Table 11.69: Method of birth for singleton and multiple births, confinements 2012 and 2013[a]

Method of birth	Singleton pregnancy (n=75,623) %	Twin pregnancy (n=1,189) %	Triplet pregnancy (n=12) %
2012			
Unassisted vaginal birth	53.4	19.9	16.7
Vacuum	8.5	3.6	0.0
Forceps	6.4	6.5	0.0
Caesarean section – total	31.7	70.0	83.3
– planned	*16.8*	*44.2*	*75.0*
– unplanned	*14.8*	*25.7*	*8.3*
Not reported	0.0	0.0	0.0
Method of birth	**Singleton pregnancy (n =75,544) %**	**Twin pregnancy (n=1,182) %**	**Triplet pregnancy (n=16) %**
2013			
Unassisted vaginal birth	52.2	19.0	6.3
Vacuum	7.8	2.7	0.0
Forceps	7.3	5.9	0.0
Caesarean section – total	32.6	72.4	93.8
– planned	*16.9*	*42.9*	*43.8*
– unplanned	*15.7*	*29.5*	*50.0*
Not reported	0.0	0.0	0.0

a. Method of birth for first born in a multiple birth.

Aboriginal mothers and babies

Table 11.70: Trends in births and confinements to Aboriginal women, 1985–2013

Year	Births		Confinements	
	n	% of all births	n	% of all confinements
1985	323	0.5	321	0.5
1990	436	0.7	429	0.6
1995	423	0.7	417	0.7
2000	380	0.6	376	0.6
2001	419	0.7	414	0.7
2002	421	0.7	416	0.7
2003	372	0.6	364	0.6
2004	435	0.7	431	0.7
2005	534	0.8	525	0.8
2006	568	0.8	561	0.8
2007	698	1.0	688	1.0
2008	727	1.0	720	1.0
2009	835	1.2	825	1.2
2010	874	1.2	868	1.2
2011	932	1.3	912	1.3
2012	965	1.2	955	1.2
2013	1,014	1.3	1,000	1.3

Table 11.71: Maternal age by Aboriginal status, confinements 2012 and 2013

Maternal age	Aboriginal		Non-Aboriginal		Unknown	
	n	%	n	%	n	%
2012						
Younger than 20 years	128	13.4	1,618	2.1	17	3.4
20–34 years	698	73.1	54,645	72.5	364	73.8
35 years or older	129	13.5	19,063	25.3	112	22.7
Total	**955**	**100**	**75,326**	**100**	**493**	**100**
2013						
Younger than 20 years	134	13.4	1,551	2.1	10	2.0
20–34 years	731	73.1	54,678	72.7	345	70.7
35 years or older	135	13.5	18,986	25.2	131	26.8
Total	**1,000**	**100**	**75,215**	**100**	**486**	**100**

Note: Excludes 51 women in 2012 and 43 in 2013 (all non-Indigenous or with unknown Indigenous status) with maternal age not stated or inadequately described.

Table 11.72: Method of birth by maternal Aboriginal status, confinements 2012 and 2013

Method of birth	Aboriginal		Non-Aboriginal		Unknown	
	n	%	n	%	n	%
2012						
Unassisted vaginal	620	64.9	39,783	52.8	254	51.5
Vacuum	47	4.9	6,349	8.4	39	7.9
Forceps	38	4.0	4,844	6.4	37	7.5
Caesarean section	250	26.2	24,399	32.4	163	33.1
Total	**955**	**100**	**75,375**	**100**	**493**	**100**
2013						
Unassisted vaginal	609	60.9	38,842	51.6	244	50.0
Vacuum	50	5.0	5,852	7.8	26	5.3
Forceps	46	4.6	5,512	7.3	35	7.2
Caesarean section	295	29.5	25,043	33.3	183	37.5
Total	**1,000**	**100**	**75,249**	**100**	**488**	**100**

Table 11.73: Onset of labour by maternal Aboriginal status, confinements 2012 and 2013

Onset of labour	Aboriginal		Non-Aboriginal		Unknown	
	n	%	n	%	n	%
2012						
Spontaneous (not augmented)	411	43.0	27,894	37.0	183	37.1
Augmented	186	19.5	13,881	18.4	78	15.8
Induced	222	23.2	18,771	24.9	130	26.4
No Labour	136	14.2	14,812	19.7	102	20.7
Total	**955**	**100**	**75,358**	**100**	**493**	**100**
2013						
Spontaneous (not augmented)	402	40.2	26,715	35.5	180	36.9
Augmented	185	18.5	13,618	18.1	67	13.7
Induced	257	25.7	19,685	26.2	121	24.8
No Labour	156	15.6	15,204	20.2	120	24.6
Total	**1,000**	**100**	**75,222**	**100**	**488**	**100**

Note: Excludes 19 women in 2012 and 34 in 2013 (all non-Indigenous) with onset of labour not stated or inadequately described.

Table 11.74: Birth weight by maternal Aboriginal status, births 2012 and 2013

	Mother Aboriginal		Mother non-Aboriginal		Unknown	
Grams	n	%	n	%	n	%
2012						
< 1,500 g	17	1.8	940	1.2	6	1.2
1,500–2,499 g	85	8.8	3,907	5.1	27	5.4
2,500–4,499 g	850	88.1	70,381	91.9	462	92.0
4,500 g +	13	1.3	1,283	1.7	6	1.2
Unknown	0	0.0	63	0.1	1	0.2
Total	**965**	**100**	**76,574**	**100**	**502**	**100**
2013						
< 1,500 g	27	2.7	1,010	1.3	6	1.2
1,500–2,499 g	95	9.4	4,110	5.4	29	5.8
2,500–4,499 g	880	86.8	70,011	91.6	453	90.8
4,500 g +	11	1.1	1,250	1.6	10	2.0
Unknown	1	0.1	69	0.1	1	0.2
Total	**1,014**	**100**	**76,450**	**100**	**499**	**100**

Table 11.75: Birth weight by maternal and baby Aboriginal status, births 2012 and 2013

	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Aboriginal status unknown	
Grams	n	%	n	%	n	%
2012						
< 1,500 g	22	1.6	940	1.2	1	1.3
1,500–2,499 g	120	8.5	3,896	5.1	3	4.0
2,500–4,499 g	1,246	88.4	70,378	91.9	69	92.0
4,500 g +	22	1.6	1,279	1.7	1	1.3
Unknown	0	0.0	63	0.1	1	1.3
Total	**1,410**	**100**	**76,556**	**100**	**75**	**100**
2013						
< 1,500 g	33	2.2	1,010	1.3	0	0.0
1,500–2,499 g	128	8.4	4,101	5.4	5	5.7
2,500–4,499 g	1,339	88.2	69,924	91.6	81	93.1
4,500 g +	16	1.1	1,254	1.6	1	1.1
Unknown	2	0.1	69	0.1	0	0.0
Total	**1,518**	**100**	**76,358**	**100**	**87**	**100**

Table 11.76: Gestation by maternal Aboriginal status, births 2012 and 2013

Gestation	Mother Aboriginal		Mother non-Aboriginal		Aboriginal status unknown	
	n	%	n	%	n	%
2012						
20–27 weeks	13	1.3	439	0.6	2	0.4
28–31 weeks	6	0.6	557	0.7	4	0.8
32–36 weeks	91	9.4	5,037	6.6	47	9.4
37–41 weeks	848	87.9	69,852	91.2	439	87.5
42 weeks +	7	0.7	674	0.9	10	2.0
Total	**965**	**100**	**76,559**	**100**	**502**	**100**
2013						
20–27 weeks	16	1.6	499	0.7	4	0.8
28–31 weeks	20	2.0	564	0.7	3	0.6
32–36 weeks	97	9.6	5,123	6.7	37	7.4
37–41 weeks	877	86.5	69,676	91.1	450	90.2
42 weeks +	4	0.4	587	0.8	5	1.0
Total	**1,014**	**100**	**76,449**	**100**	**499**	**100**

Note: Excludes 1 baby (non-Indigenous mother) in 2013 with gestation not stated or inadequately described.

Table 11.77: Gestation by maternal and baby Aboriginal status, births 2012 and 2013

Gestation	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Aboriginal status unknown	
	n	%	n	%	n	%
2012						
20–27 weeks	15	1.1	438	0.6	1	1.3
28–31 weeks	10	0.7	557	0.7	0	0.0
32–36 weeks	129	9.1	5,039	6.6	7	9.3
37–41 weeks	1,248	88.5	69,825	91.2	66	88.0
42 weeks +	8	0.6	682	0.9	1	1.3
Total	**1,410**	**100**	**75,623**	**100**	**75**	**100**
2013						
20–27 weeks	21	1.4	498	0.7	0	0.0
28–31 weeks	22	1.4	565	0.7	0	0.0
32–36 weeks	129	8.5	5,122	6.7	6	6.9
37–41 weeks	1,339	88.2	69,584	91.1	80	92.0
42 weeks +	7	0.5	588	0.8	1	1.1
Total	**1,518**	**100**	**76,357**	**100**	**87**	**100**

Note: Excludes cases with gestation not stated or inadequately described.

Maternal deaths in Victoria 2012 and 2013

Table 12.1: Maternal mortality ratios in Victoria 1988–2013 (per 100,000 confinements)

Year	Direct deaths	Indirect deaths	Confinements	Maternal mortality ratio[a]
1988	3	5	62,854	12.7
1989	2	3	63,419	7.9
1990	6	3	66,004	13.6
1991	1	3	64,338	6.2
1992	2	2	65,404	6.1
1993	3	0	63,795	4.7
1994	2	3	63,983	7.8
1995	4	3	62,734	11.2
1996	2	0	62,028	3.2
1997	2	2	61,312	6.5
1998	2	1	61,071	4.9
1999	2	2	61,588	6.5
2000	2	2	61,571	6.5
2001	1	4	61,108	8.2
2002	5	2	62,023	11.3
2003	0	3	62,403	4.8
2004	4	8	62,543	19.2
2005	3	4	65,429	10.7
2006	1	6	68,547	10.2
2007	1	9	71,190	14.0
2008	2	1	71,323	4.2
2009	1	4	71,986	6.9
2010	3	3	73,275	8.2
2011	3	4	72,915	9.6
2012	4	6	77,150	13.0
2013	2	5	77,095	9.1

a. Per 100,000 confinements. Ratio calculated using direct and indirect deaths.

Note that this table refers only to direct and indirect deaths occurring within 42 days of the birth. Excluded from this table are late maternal deaths (indirect or direct deaths occurring 42–364 days after birth) and incidental maternal deaths.

The maternal mortality ratio for the period 2010–2013 is 10.0/100,000 confinements.

Table 12.2: Maternal mortality ratios by triennia, Victoria and Australia 1988–2013

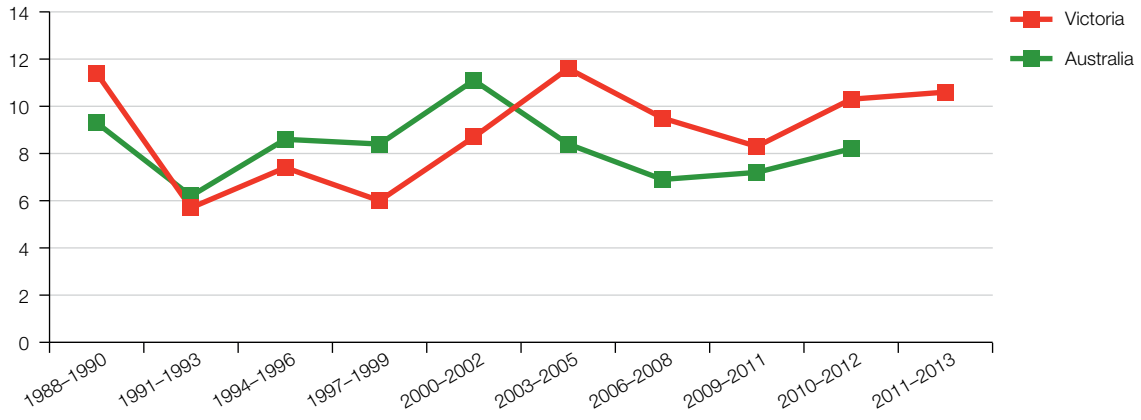
Triennium	Direct deaths	Indirect deaths	Confinements	Victoria Maternal mortality ratio[a]	Australia Maternal mortality ratio[a,b]
1988–1990	11	11	192,277	11.4	9.3
1991–1993	6	5	193,537	5.7	6.2
1994–1996	8	6	188,745	7.4	8.6
1997–1999	6	5	183,971	6.0	8.4
2000–2002	8	8	184,702	8.7	11.1
2003–2005	7	15	190,375	11.6	8.4
2006–2008	4	16	211,060	9.5	6.9
2009–2011	7	11	218,176	8.3	7.2
2010–2012[c]	10	13	223,340	10.3	8.2
2011–2013[c]	9	15	227,160	10.6	n/a

a. Per 100,000 confinements. Ratio calculated using direct and indirect deaths occurring within 42 days of the birth.
b. Source of Australian mortality ratios: Australian Institute of Health and Welfare 2015, *Maternal deaths in Australia 2008–2012,* AIHW, Canberra. (Data for 2010–2012 calculated from raw data provided in that report).
c. Note that the years 2010, 2011 and 2012 are included twice in this table, that is, a rolling triennia was used for the most recent two triennia so that the 2012 and 2013 data could be represented. Australian data for the triennium 2011–2013 is not yet available.

n/a – not available

The Victorian maternal mortality ratio for the period 2010–2013 is 10.0/100,000 confinements.

Figure 12.1: Mortality ratios by triennia, Victoria and Australia, 1988–2013



Note: Data taken from Table 12.2.

Table 12.3: Five year period for national comparison

Five year period	Direct deaths	Indirect deaths	Confinements	Victoria Maternal mortality ratio[a]	Australia Maternal mortality ratio[a]
2006–2010[b]	8	23	356,321	8.7	6.8
2008–2012[c]	13	18	366,649	8.5	7.1

a. Per 100,000 confinements. Ratio calculated using direct and indirect deaths occurring within 42 days of the birth.
b. Source of Australian mortality ratios: Australian Institute of Health and Welfare 2014, *Maternal deaths in Australia 2006–2010,* AIHW, Canberra.
c. Source of Australian mortality ratios: Australian Institute of Health and Welfare 2015, *Maternal deaths in Australia 2008–2012,* AIHW, Canberra.

The Victorian maternal mortality ratio for the period 2010–2013 is 10.0/100,000 confinements.

Table 12.4: Causes of maternal deaths, Victoria 2012

	Total
Direct maternal deaths	**4**
• postpartum haemorrhage	1
• abdominal haemorrhage complicating laparoscopic surgery for tubal ectopic pregnancy	1
• pulmonary embolism and infarction secondary to deep vein thrombosis	1
• haemorrhage from placenta accreta	1
Indirect maternal deaths	**6**
• haemorrhagic shock from retroperitoneal haemorrhage in the setting of anticoagulation following caesarean section	1
• undetermined	1
• suicide	1
• arrhythmogenic right ventricular cardiomyopathy	1
• acute post-partum pyelonephritis	1
• haemothorax complicating pulmonary arteriovenous malformation	1
Incidental maternal deaths	**1**
• bronchopneumonia on a background of multiple drug use	1
Late maternal death (direct or indirect)	**1**
• bilateral pulmonary embolism	1
Total	**12**

Table 12.5: Causes of maternal deaths, Victoria 2013

	Total
Direct maternal deaths	**2**
• postpartum haemorrhage	1
• postpartum infection (Group A *Streptococcus)*	1
Indirect maternal deaths	**5**
• intracerebral haemorrhage / ruptured arteriovenous malformation	1
• cerebellar haemorrhage	1
• dilated cardiomyopathy (intracerebral haemorrhage complicating treatment)	1
• lymphocytic myocarditis	1
• myocardial infarction	1
Incidental maternal deaths	**0**
Nil	0
Late maternal death (direct or indirect)	**5**
• suicide	2
• complications of heart transplant for treatment of peripartum cardiomyopathy	1
• bronchopneumonia with associated substance abuse and domestic violence	1
• cervical cancer	1
Total	**12**

Table 12.6: Causes of maternal deaths, Victoria 2010–2013

	Cause of death	Maternal deaths included in mortality ratio	Late[a] maternal deaths
Direct (due to a complication of the pregnancy)	Thromboembolism	3	1
	Obstetric haemorrhage	4	
	Anaesthetic related death	1	
	Amniotic fluid embolus	1	
	Hypertensive disorders in pregnancy	1	
	Early pregnancy death – ectopic pregnancy	1	
	Post partum sepsis – *Streptococcus Group A*	1	
Indirect (related to a pre-existing or newly diagnosed condition exacerbated by pregnancy)	Cardiac disease	8	1
	Non-obstetric haemorrhage (includes intracerebral bleeding)	6	
	Psychosocial[b]	2	3
	Sepsis – acute pyelonephritis	1	
	Undetermined	1	
	Carcinoma of the cervix		1
	Bronchopneumonia		1
Incidental (where the pregnancy is unlikely to have contributed significantly to the death)	Family violence		1
	Asphyxia		1
	Undetermined		1
	Bronchopneumonia		1
Total		**30**	**11**

a. Late maternal deaths occur after 42 days but within 1 year of the birth and are not included in the maternal mortality ratio.

The Victorian maternal mortality ratio for the period 2010–2013 is 10.0/100,000 confinements.

b. Psychosocial causes include deaths in which a psychiatric condition contributed to the cause of death and encompass wider issues such as family violence and substance misuse. In 2012 the National Maternal Mortality Advisory Committee advised that maternal deaths from suicide where the onset of mental health disorder is first recognised in pregnancy should be classified as "direct" deaths, all other maternal suicides and psychosocial deaths should be classified as "indirect". Previously many psychosocial deaths unrelated to the pregnancy were classified as "incidental" deaths.

Psychosocial causes can include suicide and homicide.

Table 12.7: Characteristics of women who died, Victoria 2010–2013

	Direct %	Indirect %	Incidental %	Total (n=41) %
Age group				
< 20	0	4	0	**2**
20–24	0	4	0	**2**
25–29	15	29	75	**29**
30–34	8	33	25	**24**
35–39	54	17	0	**27**
40 or more	23	13	0	**15**
Total	100	100	100	**100**
Country of origin				
Australia	54	46	75	**51**
Other Pacific	15	13		**12**
Eastern Europe	8			**2**
India and SE Asia	23	13		**15**
Africa		4	25	**5**
Missing/Unknown		25		**15**
Total	100	100	100	**100**
Marital status				
Defacto	23	25		**22**
Divorced	8			**2**
Married	62	38	50	**46**
Separated		8		**5**
Single	8	8	50	**12**
Unknown		21		**12**
Total	100	100	100	**100**
Aboriginality				
Aboriginal		4	50	**7**
Non-Aboriginal	85	75	50	**76**
Unknown	15	21		**17**
Total	100	100	100	**100**

Table continues on page 50.

	Direct %	Indirect %	Incidental %	Total (n=41) %
BMI				
< 18.5		4		**2**
18.5–24	23	17	25	**20**
25–29	39	38		**34**
30 or more	31	38		**32**
Unknown	8	4	75	**12**
Total	100	100	100	**100**
Admission status				
Public	85	75	75	**78**
Private	15	25		**20**
Unknown			25	**2**
Total	100	100	100	**100**
Alcohol or substance use				
Yes	8	13	25	**12**
No	69	63	25	**61**
Unknown	23	25	50	**27**
Total	100	100	100	**100**
Smoking				
Yes	23	33		**27**
No	54	29	50	**39**
Unknown	23	38	50	**34**
Total	100	100	100	**100**

Table 12.8: Assessment of contributing factors in maternal deaths, Victoria 2010–2013

Contributing factor	Number
Factors relating to access to care	**4**
Delay in transfer	2
Lack of access to specialist care and services	2
Factors relating to professional practice	**21**
Delay in access specialist assistance	2
Delay in diagnosis and transfer	1
Failure to diagnose placenta accreta	1
Failure to follow recommended best practice	2
Failure to maintain an adequate airway and ventilation	2
Failure to recognise deteriorating patient condition	3
Inadequate communication	2
Inadequate management of obstetric haemorrhage	1
Inadequate monitoring of patient	3
Inadequate resuscitation	1
Inadequate screening for appropriate risk factors	1
Inappropriate discharge	1
Poor organisational management	1
Factors relating to the pregnant woman, her family and social situation	**10**
Compliance with medical advice	1
Compliance with treatment for mental health condition	1
Delay in seeking medical advice	1
Family violence	2
Socio-cultural factors	2
Substance misuse	3
Total	**35**

Note: Contributing factors were identified in 17 of the 41 maternal deaths (41%). Multiple contributing factors were present in some cases. There were 24 cases in which no contributing factors were identified.

Perinatal deaths in Victoria 2012 and 2013

Perinatal mortality rates (PMR) defined

Table 13.1: Perinatal mortality rates in Victoria 2012

Specified birth weight/ gestation	Total births	Live births	Stillbirths		Neonatal deaths		Perinatal deaths	
			Number	Rate (per 1,000)	Number	Rate (per 1,000)	Number	Rate (per 1,000)
PMR_{Crude} ≥ 20 weeks (or ≥ 400 g if gestation unknown)	78,371	77,712	659	8.4	210	2.7	869	11.1
$PMR_{Adjusted}$ ≥ 20 weeks (or ≥ 400 g if gestation unknown) excluding TOP for MPI[a]	78,239	77,712	527	6.7	210	2.7	737	9.4
PMR_{500} ≥ 500 g (or ≥ 22 weeks if birthweight unknown)	78,000	77,618	382	4.9	121	1.6	503	6.4
$PMR_{1,000}$ ≥ 1,000 g (or ≥ 28 weeks if birthweight unknown)[b]	77,592	77,375	217	2.8	47	0.6	264	3.4

Table 13.2: Perinatal mortality rates in Victoria 2013

Specified birth weight/ gestation	Total births	Live births	Stillbirths		Neonatal deaths		Perinatal deaths	
			Number	Rate (per 1,000)	Number	Rate (per 1,000)	Number	Rate (per 1,000)
PMR_{Crude} ≥ 20 weeks (or ≥ 400 g if gestation unknown)	78,321	77,609	712	9.1	241	3.1	953	12.2
$PMR_{Adjusted}$ ≥ 20 weeks (or ≥ 400 g if gestation unknown) excluding TOP for MPI[a]	78,142	77,609	533	6.8	241	3.1	774	9.9
PMR_{500} ≥ 500 g (or ≥ 22 weeks if birthweight unknown)	77,906	77,505	401	5.1	156	2.0	557	7.1
$PMR_{1,000}$ ≥ 1,000 g (or ≥ 28 weeks if birthweight unknown)[b]	77,428	77,216	212	2.7	46	0.6	258	3.3

Notes:
Stillbirth and perinatal death rates were calculated using total births (live births and stillbirths) as the denominator.
Neonatal death rates were calculated using live births as the denominator.
MPI – Maternal psychosocial indications
TOP – Termination of pregnancy
Figures may differ slightly from previously published reports due to continual updating of data.

a. Births, deaths and rates are adjusted for TOP and MPI.
b. This category is for international comparision, and only includes early neonatal deaths (0–6 days) not all neonatal deaths (0–27 days).

Further information on definitions is provided on page 204.

Table 13.3: Perinatal deaths and crude and adjusted mortality rates in Victoria 2001–2013

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number													
Live births[a]	61,705	62,688	63,028	63,082	66,041	69,229	71,780	71,843	72,474	73,755	73,389	77,712	77,609
Stillbirths	444	445	521	610	599	607	672	682	767	738	705	659	712
Neonatal deaths	204	227	237	207	247	227	241	215	226	235	223	210	241
Perinatal deaths	648	672	758	817	846	834	913	897	993	973	928	869	953
PMR_{Crude} [a,b]													
Stillbirth	7.1	7.0	8.2	9.6	9.0	8.7	9.3	9.4	10.5	9.9	9.5	8.4	9.1
Neonatal	3.3	3.6	3.8	3.3	3.7	3.3	3.4	3.0	3.1	3.2	3.0	2.7	3.1
Perinatal	10.4	10.6	11.9	12.8	12.7	11.9	12.6	12.4	13.6	13.1	12.5	11.1	12.2
Number (adjusted)													
Live births	61,705	62,688	63,028	63,082	66,039	69,229	71,780	71,843	72,474	73,755	73,389	77,712	77,609
Stillbirths	399	385	418	413	421	457	508	504	553	547	522	527	533
Neonatal deaths	204	227	237	207	245	227	241	215	226	235	223	210	241
Perinatal deaths	603	612	655	620	666	684	749	719	779	782	745	737	774
$PMR_{Adjusted}$ [a,b]													
Stillbirth	6.4	6.1	6.6	6.5	6.3	6.6	7.0	7.0	7.6	7.4	7.1	6.7	6.8
Neonatal	3.3	3.6	3.8	3.3	3.7	3.3	3.4	3.0	3.1	3.2	3.0	2.7	3.1
Perinatal	9.7	9.7	10.3	9.8	10.0	9.8	10.4	9.9	10.7	10.5	10.1	9.4	9.9

Note: this table contains amended figures since previous reports.
a. Stillbirth and perinatal death rates were calculated using total births (live births and stillbirths) as the denominator.
b. Neonatal death rates were calculated using live births as the denominator.

Figure 13.1: Perinatal mortality rates in Victoria 2000–2013 (crude and adjusted)

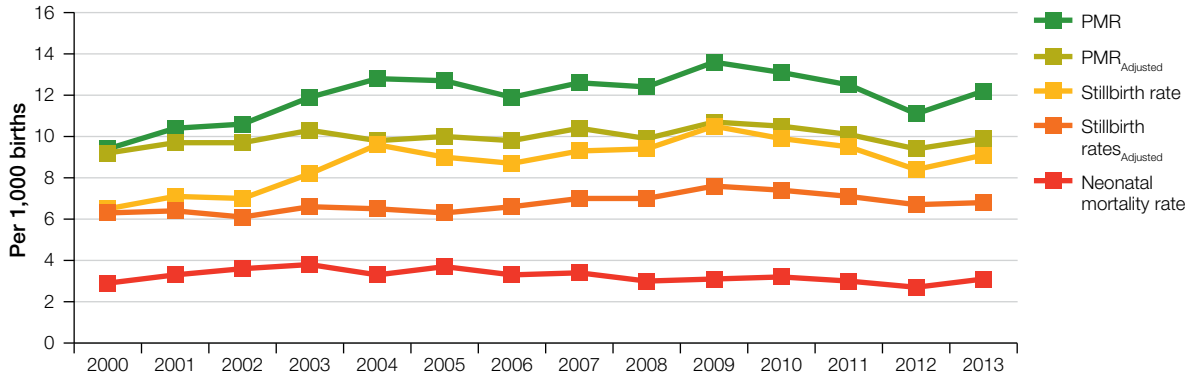


Table 13.4: Different definitions of perinatal mortality

	Perinatal death definitions				PMR, Victoria				
	Criteria 1	Condition	Criteria 2	Inclusions	Impact on PMR compared with CCOPMM results	PMR 2012	PMR adjusted for TOP for MPI 2012	PMR 2013	PMR adjusted for TOP for MPI 2013
CCOPMM (Victoria)	≥ 20 weeks' gestation	or, where gestation is unknown	birth weight of ≥ 400 g	Includes deaths of *babies born in Victoria,* even if mother not usually resident in Victoria	Results in more deaths included in the PMR than ABS	11.1	9.4	12.2	9.9
ABS	Birth weight of ≥ 400 g	or, where birth weight is unknown	≥ 20 weeks' gestation	Includes deaths of babies born only to mothers *usually resident in the jurisdiction (Victoria)*	Results in fewer deaths included in the PMR and therefore lower PMR than CCOPMM	7.7	6.3	8.5	7.9
NPDC 1[a]	Birth weight of ≥ 400 g	or	≥ 20 weeks' gestation	Includes deaths of babies *occurring in Victoria* even if mother not usually resident in the jurisdiction, or infant not born in Victoria	Results in more deaths included in the PMR than CCOPMM	11.5	9.8	12.5	10.3
NPDC 2[a]	Birth weight of ≥ 400 g	or	≥ 20 weeks' gestation	Adjusted to include only *mothers usually resident in the jurisdiction (Victoria)*	Results in fewer deaths included in the PMR and therefore lower PMR than CCOPMM	10.6[a]	9.7	11.3	10.1

a. Calculated according to National Perinatal Data Collection (NPDC) definitions, using data from the Victorian Perinatal Data Collection (VPDC).
Figures may differ slightly from previously published reports due to continual updating of data.

Table 13.5: PMR_{Crude} by maternal state or territory of usual residence, ABS 2008–2013

Usual residence of mother	2008	2009	2010	2011	2012	2013
New South Wales	7.8	7.9	7.6	8.0	7.5	8.1
Victoria	**7.9**	**8.9**	**8.0**	**8.1**	**7.7**	**8.2**
Queensland	9.9	10.4	10.5	9.1	10.0	9.1
South Australia	6.5	6.2	6.1	6.0	5.9	6.1
Western Australia	8.1	8.8	8.0	9.7	8.4	7.5
Tasmania	9.1	10.6	10.9	10.1	10.1	9.5
Northern Territory	7.8	14.8	12.5	12.8	9.4	14.4
Australian Capital Territory	6.4	7.0	16.7	7.2	10.0	7.0
Australia	**8.2**	**8.8**	**8.6**	**8.4**	**8.2**	**8.2**

References: ABS Cat No 3303.0 Causes of death, Australia, 2013, released 31 March 2015 (http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3303.02013?OpenDocument), accessed October 27, 2015. Table 13.1 Fetal, neonatal and perinatal deaths, Australia, 2004–2013 and Table 13.4 Perinatal deaths by state or territory of usual residence of mother, 2004–2013.

Note: The published PMR in this table differ from that previously published for 2010–2011 CCOPMM Annual Report, due to the ongoing revisions at ABS.

Table 13.6: PMR_{Crude} by state or territory of death, AIHW 2008–2013

State or territory reporting the death	2008	2009	2010	2011	2012	2013
New South Wales	8.7	8.6	8.2	8.5	8.1	8.0
Victoria	**12.7**	**13.8**	**13.3**	**12.9**	**11.5**	**12.5**
Queensland	9.6	11.0	10.4	9.7	10.1	9.5
South Australia	9.2	10.0	9.1	10.3	8.9	9.0
Western Australia	10.1	9.3	8.1	9.5	8.4	7.8
Tasmania	10.8	10.7	10.1	8.2	10.8	9.8
Northern Territory	14.0	14.0	15.3	11.2	9.2	18.2
Australian Capital Territory	11.2	15.1	12.9	13.0	11.2	9.1
Australia	**10.2**	**9.8**	**9.3**	**9.9**	**9.6**	**9.7**

References:
2012 data: Hilder L, Zhichao Z, Parker M, Jahan S, Chambers GM 2014. Australia's mothers and babies 2012. Perinatal statistics series no. 30. Cat. no. PER 69. Canberra: AIHW.
2013 data: AIHW 2015. Australia's mothers and babies 2013 – supplementary tables. Perinatal statistics series no. 31. Cat. no. PER 72. Canberra: AIHW.

Table 13.7: PMR_{500} in Victoria 2005–2013 (birth weight ≥ 500 g)

	2005	2006	2007	2008	2009	2010	2011	2012	2013
Number									
Total births (birth weight ≥ 500 g)	66,226	69,421	71,981	72,100	72,706	74,000	73,628	78,000	77,906
Live births	65,948	69,155	71,677	71,774	72,360	73,641	73,273	77,618	77,505
Stillbirths	278	266	304	326	346	359	355	382	401
Neonatal deaths	159	157	148	149	143	152	143	121	156
Perinatal deaths	437	423	452	475	489	511	498	503	557
Rate per 1,000 births[a,b]									
Stillbirths	4.2	3.8	4.2	4.5	4.8	4.9	4.8	4.9	5.1
Neonatal	2.4	2.3	2.1	2.1	2.0	2.1	2.0	1.6	2.0
Perinatal	6.6	6.1	6.3	6.6	6.7	6.9	6.8	6.4	7.1

a. Stillbirth and perinatal death rates were calculated using total births (live births and stillbirths) as the denominator.
b. Neonatal death rates were calculated using live births as the denominator.

Note: This table includes updated figures since previous reports.

Figure 13.2: PMR_{500} in Victoria 2000–2013

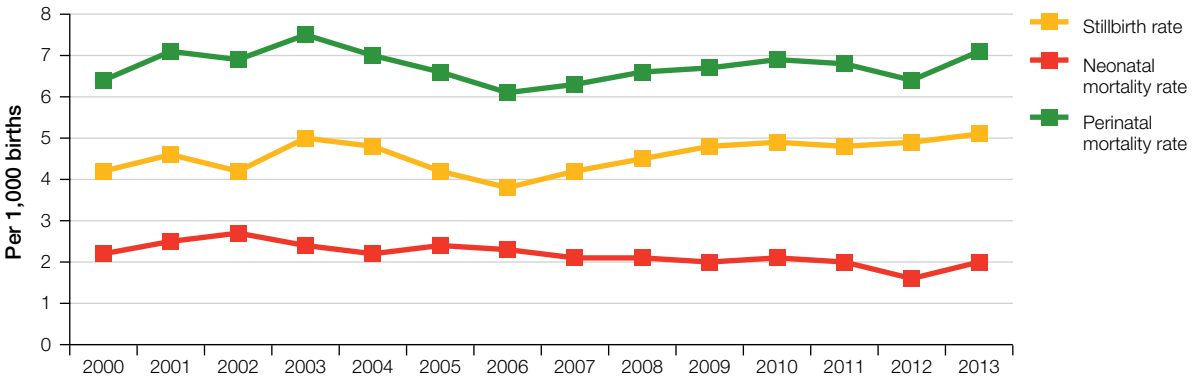


Table 13.8: $PMR_{1,000}$ for international comparison, Victoria 2004–2013

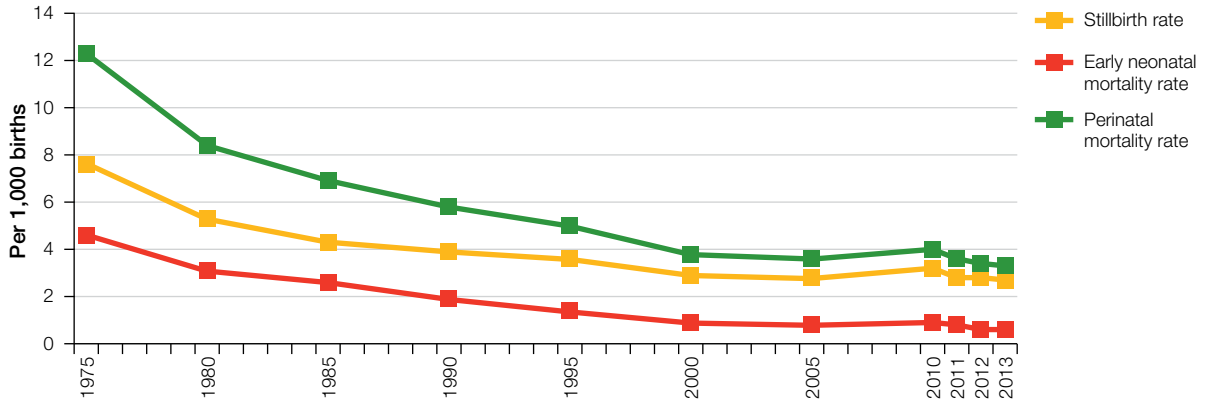
	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Stillbirth rate[a]	2.6	2.8	2.5	2.6	3	2.8	3.2	2.8	2.8	2.7
Early neonatal mortality rate[b]	0.8	0.8	0.8	0.8	0.7	1.1	0.9	0.8	0.6	0.6
Perinatal mortality rate[a]	3.3	3.6	3.3	3.4	4	3.9	4.0	3.6	3.4	3.3

a. Stillbirth and perinatal death rates were calculated using all births (live births and stillbirths).
b. Neonatal death rates were calculated using live births as the denominator. This category is for international comparision, and only includes early neonatal deaths (0–6 days) not all neonatal deaths (0–27 days).

Table 13.9: Trends in $PMR_{1,000}$ for international comparison, Victoria, 1975–2013

	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	2013
Stillbirth rate	7.6	5.3	4.3	3.9	3.6	2.9	2.8	3.2	2.8	2.8	2.7
Early neonatal mortality rate	4.6	3.1	2.6	1.9	1.4	0.9	0.8	0.9	0.8	0.6	0.6
Perinatal mortality rate	12.3	8.4	6.9	5.8	5.0	3.8	3.6	4.0	3.6	3.4	3.3

Figure 13.3: Trends in $PMR_{1,000}$ for international comparison, Victoria, 1975–2013



Note: Rate per 1,000 births (birth weight ≥ 1,000 g or gestation ≥ 28 weeks. Stillbirth and perinatal death rates were calculated using all births (live births and stillbirths). Neonatal death rates were calculated using live births as the denominator. Neonatal deaths occurred during the first seven days of life (0–6 days).

Table 13.10: Gestational age and $PMR_{Adjusted}$, Victoria 2012

Gestational age	Total births (adjusted)[a]		Stillbirths (adjusted)				Live births[b]		Neonatal death			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each gestation	
	n	%	n	%	rate[c]	risk[d]	n	%	n	%	rate[e]	n	%	rate[f]	n	%
20–21 weeks	184	0.2	121	23.0	657.6	1.5	63	0.1	63	30.0	1,000.0	184	25.0	1,000.0	0	0.0
22–23 weeks	151	0.2	81	15.4	536.4	1.0	70	0.1	60	28.6	857.1	141	19.1	933.8	10	14.3
24–25 weeks	141	0.2	61	11.6	432.6	0.8	80	0.1	17	8.1	212.5	78	10.6	553.2	63	78.8
26–27 weeks	152	0.2	37	7.0	243.4	0.5	115	0.1	5	2.4	43.5	42	5.7	276.3	110	95.7
28–31 weeks	585	0.8	61	11.6	104.3	0.8	524	0.7	12	5.7	22.9	73	9.9	124.8	512	97.7
32–36 weeks	5,180	6.7	68	12.9	13.1	0.9	5,112	6.6	18	8.6	3.5	86	11.7	16.6	5,094	99.6
37–41 weeks	71,140	91.5	98	18.6	1.4	1.4	71,042	91.4	34	16.2	0.5	132	17.9	1.9	71,008	100.0
> 41 weeks	691	0.9	0	0.0	0.0	0.0	691	0.9	1	0.5	1.4	1	0.1	1.4	690	99.9
Not known	15	0.0	0	0.0	0.0	0.0	15	0.0	0	0.0	0.0	0	0.0	0.0	15	100.0
Total	**78,239**	**100.7**	**527**	**100**	**6.7**	**N/A**	**77,712**	**100**	**210**	**100**	**2.7**	**737**	**100**	**9.4**	**77,502**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes neonatal deaths (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births and is expressed as deaths per 1,000 total births at that gestation.
d. Stillbirth risk is calculated using total births (still in utero at that gestation), and is expressed as deaths per 1,000 total births at or beyond that gestation.
e. Neonatal death rate is calculated using live births only, and is expressed as deaths per 1,000 live births at that gestation.
f. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births at that gestation.

N/A: Not applicable

Table 13.11: Gestational age and $PMR_{Adjusted}$, Victoria 2013

Gestational age	Total births (adjusted)[a]		Stillbirths (adjusted)				Live births[b]		Neonatal death			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each gestation	
	n	%	n	%	rate[c]	risk[d]	n	%	n	%	rate[e]	n	%	rate[f]	n	%
20–21 weeks	157	0.2	106	19.9	675.2	1.4	51	0.1	51	21.2	1,000.0	157	20.3	1,000.0	0	0.0
22–23 weeks	197	0.3	111	20.8	563.5	1.4	86	0.1	81	33.6	941.9	192	24.8	974.6	5	5.8
24–25 weeks	164	0.2	62	11.6	378.0	0.8	102	0.1	31	12.9	303.9	93	12.0	567.1	71	69.6
26–27 weeks	167	0.2	40	7.5	239.5	0.5	127	0.2	10	4.1	78.7	50	6.5	299.4	117	92.1
28–31 weeks	596	0.8	47	8.8	78.9	0.6	549	0.7	10	4.1	18.2	57	7.4	95.6	539	98.2
32–36 weeks	5,260	6.7	78	14.6	14.8	1.0	5,182	6.7	18	7.5	3.5	96	12.4	18.3	5,164	99.7
37–41 weeks	71,004	90.9	89	16.7	1.3	1.2	70,915	91.4	40	16.6	0.6	129	16.7	1.8	70,875	99.9
> 41 weeks	596	0.8	0	0.0	0.0	0.0	596	0.8	0	0.0	0.0	0	0.0	0.0	596	100.0
Not known	1	0.0	0	0.0	0.0	0.0	1	0.0	0	0.0	0.0	0	0.0	0.0	1	100.0
Total	**78,142**	**100**	**533**	**100**	**6.8**	**N/A**	**77,609**	**100**	**241**	**100**	**3.1**	**774**	**100**	**9.9**	**77,368**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes those babies who later died during the neonatal period (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births and is expressed as deaths per 1,000 total births at that gestation.
d. Stillbirth risk is calculated using total births (still in utero at that gestation), and is expressed as deaths per 1,000 total births at or beyond that gestation.
e. Neonatal death rate is calculated using live births only, and is expressed as deaths per 1,000 live births at that gestation.
f. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births at that gestation.

N/A: Not applicable

Table 13.12: Birth weight and $PMR_{Adjusted}$, Victoria 2012

	Total births (adjusted)[a]		Stillbirths (adjusted)			Live births[b]		Neonatal deaths			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each weight category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
< 500 g	289	0.4	195	37.0	674.7	94	0.1	89	42.4	946.8	284	38.5	982.7	5	5.3
500–999 g	354	0.5	114	21.6	322.0	240	0.3	55	26.2	229.2	169	22.9	477.4	185	77.1
1,000–1,499 g	486	0.6	48	9.1	98.8	438	0.6	14	6.7	32.0	62	8.4	127.6	424	96.8
1,500–1,999 g	1,003	1.3	34	6.5	33.9	969	1.2	9	4.3	9.3	43	5.8	42.9	960	99.1
2,000–2,499 g	3,029	3.9	35	6.6	11.6	2,994	3.9	5	2.4	1.7	40	5.4	13.2	2,989	99.8
2,500–2,999 g	12,015	15.4	29	5.5	2.4	11,986	15.4	10	4.8	0.8	39	5.3	3.2	11,976	99.9
3,000–3,499 g	28,089	35.9	39	7.4	1.4	28,050	36.1	13	6.2	0.5	52	7.1	1.9	28,037	100.0
3,500–3,999 g	23,755	30.4	20	3.8	0.8	23,735	30.5	11	5.2	0.5	31	4.2	1.3	23,724	100.0
> 4,000 g	9,156	11.7	12	2.3	1.3	9,144	11.8	4	1.9	0.4	16	2.2	1.7	9,140	100.0
Not known	63	0.1	1	0.2	15.9	62	0.1	0	0.0	0.0	1	0.1	15.9	62	100.0
Total	**78,239**	**100**	**527**	**100**	**6.7**	**77,712**	**100**	**210**	**100**	**2.7**	**737**	**100**	**9.4**	**77,502**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes neonatal deaths (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births and is expressed as deaths per 1,000 total births of that birthweight category.
d. Neonatal death rate is calculated using live births only, and is expressed as deaths per 1,000 live births of that birthweight category.
e. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births of that birthweight category.

Table 13.13: Birth weight and $PMR_{Adjusted}$, Victoria 2013

	Total births (adjusted)[a]		Stillbirths (adjusted)			Live births[b]		Neonatal deaths			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each weight category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
< 500 g	285	0.4	182	34.1	638.6	103	0.1	85	35.3	825.2	267	34.5	936.8	18	17.5
500–999 g	430	0.6	141	26.5	327.9	289	0.4	84	34.9	290.7	225	29.1	523.3	205	70.9
1,000–1,499 g	498	0.6	51	9.6	102.4	447	0.6	11	4.6	24.6	62	8.0	124.5	436	97.5
1,500–1,999 g	1,020	1.3	29	5.4	28.4	991	1.3	10	4.1	10.1	39	5.0	38.2	981	99.0
2,000–2,499 g	3,219	4.1	34	6.4	10.6	3,185	4.1	8	3.3	2.5	42	5.4	13.0	3,177	99.7
2,500–2,999 g	12,295	15.7	27	5.1	2.2	12,268	15.8	11	4.6	0.9	38	4.9	3.1	12,257	99.9
3,000–3,499 g	28,142	36.0	41	7.7	1.5	28,101	36.2	17	7.1	0.6	58	7.5	2.1	28,084	99.9
3,500–3,999 g	23,320	29.8	17	3.2	0.7	23,303	30.0	11	4.6	0.5	28	3.6	1.2	23,292	100.0
> 4,000 g	8,860	11.3	11	2.1	1.2	8,849	11.4	3	1.2	0.3	14	1.8	1.6	8,846	100.0
Not known	73	0.1	0	0.0	0.0	73	0.1	1	0.4	0.0	1	0.1	13.7	72	98.6
Total	**78,142**	**100**	**533**	**100**	**6.8**	**77,609**	**100**	**241**	**100**	**3.1**	**774**	**100**	**9.9**	**77,368**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes those babies who later died during the neonatal period (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births and is expressed as deaths per 1,000 total births of that birthweight category.
d. Neonatal death rate is calculated using live births only, and is expressed as deaths per 1,000 live births of that birthweight category.
e. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births of that birthweight category.

Table 13.14: $PMR_{Adjusted}$ in singleton and multiple births, Victoria 2012

	Total births (adjusted)[a]		Stillbirths (adjusted)			Live births[b]		Neonatal deaths			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each plurality category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
Singleton births	75,814	96.9	479	90.9	6.3	75,335	96.9	180	85.7	2.4	659	89.4	8.7	75,155	99.8
Twin births	2,383	3.0	45	8.5	18.9	2,338	3.0	29	13.8	12.4	74	10.0	31.1	2,309	98.8
Triplet births	36	0.0	2	0.4	55.6	34	0.0	1	0.5	29.4	3	0.4	83.3	33	97.1
Quintuplets births	5	0.0	1	0.2	200.0	4	0.0	0	0.0	0.0	1	0.1	200.0	4	100.0
(Multiples beyond twin)	*41*	*0.1*	*3*	*0.6*	*73.2*	*38*	*0.0*	*1*	*0.5*	*26.3*	*4*	*0.5*	*97.6*	*37*	*97.4*
(All Multiple births)	*2,424*	*3.1*	*48*	*9.1*	*19.8*	*2,376*	*3.1*	*30*	*14.3*	*12.6*	*78*	*10.6*	*32.2*	*2,346*	*98.7*
Unknown	1	0.0	0	0.0	0.0	1	0.0	0	0.0	0.0	0	0.0	0.0	1	0.0
Total births	**78,239**	**100**	**527**	**100**	**6.7**	**77,712**	**100**	**210**	**100**	**2.7**	**737**	**100**	**9.4**	**77,502**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes those babies who later died during the neonatal period (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births, and expressed as deaths per 1,000 total births of that plurality.
d. Neonatal mortality rate is calculated using live births only, and is expressed as deaths per 1,000 live births of that plurality.
e. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births of that plurality.

Table 13.15: $PMR_{Adjusted}$ in singleton and multiple births, Victoria 2013

	Total births (adjusted)[a]		Stillbirths (adjusted)			Live births[b]		Neonatal deaths			Perinatal deaths (adjusted)			Live births surviving beyond neonatal period at each plurality category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
Singleton births	75,713	96.9	490	91.9	6.5	75,223	96.9	193	80.1	2.6	683	88.2	9.0	75,030	99.7
Twin births	2,373	3.0	38	7.1	16.0	2,335	3.0	45	18.7	19.3	83	10.7	35.0	2,290	98.1
Triplet births	48	0.1	2	0.4	41.7	46	0.1	1	0.4	21.7	3	0.4	62.5	45	97.8
Quadruplets	8	0.0	3	0.6	375.0	5	0.0	2	0.8	400.0	5	0.6	625.0	3	60.0
(Multiples beyond twin)	*56*	*0.1*	*5*	*0.9*	*89.3*	*51*	*0.1*	*3*	*1.2*	*58.8*	*8*	*1.0*	*142.9*	*48*	*94.1*
(All Multiple births)	*2,429*	*3.1*	*43*	*8.1*	*17.7*	*2,386*	*3.1*	*48*	*19.9*	*20.1*	*91*	*11.8*	*37.5*	*2,338*	*98.0*
Unknown	0	0.0	0	0.0	0.0	0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
Total births	**78,142**	**100**	**533**	**100**	**6.8**	**77,609**	**100**	**241**	**100**	**3.1**	**774**	**100**	**9.9**	**77,368**	**99.7**

a. Total births includes live births and stillbirths, (live birth data obtained from VPDC).
b. Live births includes those babies who later died during the neonatal period (babies born alive who died within 28 days of birth).
c. Stillbirth rate is calculated using total births, and expressed as deaths per 1,000 total births of that plurality.
d. Neonatal mortality rate is calculated using live births only, and is expressed as deaths per 1,000 live births of that plurality.
e. Perinatal death rate is calculated using total births, and is expressed as deaths per 1,000 total births of that plurality.

Table 13.16: Stillbirth, neonatal death and $PMR_{Adjusted}$ by plurality, Victoria 2007–2013

	Singletons		Twins		Other multiple births		Total	
Year	n	Rate	n	Rate	n	Rate	n	Rate
Stillbirths								
2007	462	6.6	44	18.0	2	40.8	**508**	**7.0**
2008	454	6.5	48	20.1	2	47.6	**504**	**7.0**
2009	496	7.0	57	23.8	0	N/A	**553**	**7.6**
2010	499	7.0	45	19.6	3	55.6	**547**	**7.4**
2011	471	6.6	46	19.6	5	172.4	**522**	**7.1**
2012	479	6.3	45	18.9	3	73.2	**527**	**6.7**
2013	490	6.5	38	16.0	5	89.3	**533**	**6.8**
Neonatal deaths								
2007	196	2.8	43	17.6	2	42.6	**241**	**3.4**
2008	173	2.5	42	18.0	0	N/A	**215**	**3.0**
2009	185	2.6	41	17.0	0	N/A	**226**	**3.1**
2010	194	2.7	36	16.0	5	686.3	**235**	**3.2**
2011	184	2.6	39	17.6	0	N/A	**223**	**3.1**
2012	180	2.4	29	12.4	1	26.3	**210**	**2.7**
2013	193	2.6	45	19.3	3	58.8	**241**	**3.1**
Perinatal deaths								
2007	658	9.4	87	35.0	4	81.6	**749**	**10.4**
2008	627	9.0	90	37.8	2	47.6	**719**	**9.9**
2009	681	9.7	98	40.9	0	N/A	**779**	**10.7**
2010	693	9.7	81	35.2	8	740.7	**782**	**10.6**
2011	655	9.2	85	37.6	5	172.4	**745**	**10.2**
2012	659	8.7	74	31.1	4	97.6	**737**	**9.4**
2013	683	9.0	83	35.0	8	142.9	**774**	**9.9**

Source of total births denominator data: VPDC.

Stillbirth and perinatal mortality rates were calculated using total births (live births and stillbirths). Neonatal mortality rates were calculated using all live births.

N/A: Not applicable

Table 13.17: Perinatal mortality (adjusted) by maternal place of birth, Victoria 2012

	Live births	Stillbirths	Neonatal deaths	Perinatal deaths	%	PMR
Australia	51,427	364	141	505	68.5	9.8
Oceania including New Zealand	2,168	12	6	18	2.4	8.3
North-West Europe	2,354	3	4	7	0.9	3.0
Southern and Eastern Europe	1,446	4	0	4	0.5	2.8
North Africa and Middle East	2,447	25	15	40	5.4	16.2
South-East Asia	5,072	28	11	39	5.3	7.6
North-East Asia	3,443	11	7	18	2.4	5.2
Southern and Central Asia	6,146	43	18	61	8.3	9.9
Americas	995	4	2	6	0.8	6.0
Sub-Saharan Africa	1,564	20	4	24	3.3	15.2
Unknown	650	13	2	15	2.0	22.6
Total	**77,712**	**527**	**210**	**737**	**100**	**9.4**

Table 13.18: Perinatal mortality (adjusted) by maternal place of birth, Victoria 2013

	Live births	Stillbirths	Neonatal deaths	Perinatal deaths	%	PMR
Americas	1,081	7	1	8	1.0	7.4
North-West Europe	2,299	10	7	17	2.2	7.4
Southern and Eastern Europe	1,399	8	5	13	1.7	9.2
North-East Asia	3,366	23	9	32	4.1	9.4
Oceania including New Zealand	2,191	14	7	21	2.7	9.5
South-East Asia	4,777	27	19	46	5.9	9.6
Australia	51,115	349	152	501	64.7	9.7
Sub-Saharan Africa	1,626	10	6	16	2.1	9.8
Southern and Central Asia	6,684	52	27	79	10.2	11.7
North Africa and Middle East	2,497	24	7	31	4.0	12.3
Unknown	574	9	1	10	1.3	17.2
Total	**77,609**	**533**	**241**	**774**	**100**	**9.9**

Table 13.19: Aboriginal and non-Aboriginal perinatal mortality (adjusted), by triennia, Victoria 2001–2013

	Total births (adjusted)			Live births			Stillbirths (adjusted)		Neonatal deaths		Stillbirth rate (adjusted)[a]			Neonatal mortality rate[b]			$PMR_{Adjusted}$[a]		
	All births	Non ATSI	ATSI	All live births	Non ATSI	ATSI	Non ATSI	ATSI	Non ATSI	ATSI	Non ATSI	ATSI	RR(CI)	Non ATSI	ATSI	RR(CI)	Non ATSI	ATSI	RR(CI)
2001–2003	188,625	187,413	1,212	187,390	186,196	1,194	1,217	18	658	10	6.5	14.9	2.3(1.4–3.6)	3.5	8.4	2.4(1.3–4.1)	10.0	23.1	2.3(1.5–3.3)
2002–2004	189,996	188,768	1,228	188,780	187,565	1,215	1,203	13	657	14	6.4	10.6	1.7(0.95–2.9)	3.5	11.5	3.3(1.9–5.6)	9.9	22.0	2.2(1.5–3.2)
2003–2005	193,381	192,039	1,342	192,138	190,807	1,331	1,232	11	676	14	6.4	8.2	1.3(0.7–2.3)	3.5	10.5	3.2(1.9–5.4)	9.9	18.6	1.9(1.3–2.7)
2004–2006	199,615	198,076	1,539	198,328	196,797	1,531	1,279	8	665	16	6.5	5.2	0.8(0.4–1.6)	3.4	10.5	3.1(1.9–5.1)	9.8	15.6	1.6(1.1–2.4)
2005–2007	208,448	206,643	1,805	207,024	205,234	1,790	1,409	15	701	15	6.8	8.3	1.2(0.7–2.0)	3.4	8.4	2.4(1.5–4.1)	10.2	16.6	1.6(1.1–2.3)
2006–2008	214,322	212,324	1,998	212,784	210,806	1,978	1,518	20	668	16	7.1	10.0	1.4(0.9–2.2)	3.2	8.1	2.5(1.5–4.2)	10.3	18.0	1.7(1.3–2.4)
2007–2009	216,598	214,332	2,266	214,994	212,763	2,231	1,569	35	656	13	7.3	15.4	2.1(1.5–2.9)	3.1	5.8	1.9(1.1–3.3)	10.4	21.2	2.0(1.5–2.7)
2008–2010	218,514	216,054	2,460	216,898	214,480	2,418	1,574	42	642	16	7.3	17.1	2.3(1.7–3.1)	3.0	6.6	2.2(1.3–3.6)	10.3	23.6	2.3(1.8–3.0)
2009–2011	219,762	217,095	2,667	218,161	215,536	2,625	1,559	42	647	16	7.2	15.7	2.2(1.6–2.9)	3.0	6.1	2.0(1.2–3.3)	10.2	21.7	2.1(1.6–2.8)
2010–2012	225,185	222,403	2,782	223,599	220,857	2,742	1,546	40	643	14	7.0	14.4	2.1(1.5–2.8)	2.9	5.1	1.7(1.0–2.9)	9.8	19.4	2.0(1.5–2.6)
2011–2013	228,955	226,038	2,917	227,380	224,499	2,881	1,539	36	649	16	6.8	12.3	1.8(1.3–2.5)	2.9	5.6	1.9(1.2–3.1)	9.7	17.8	1.8(1.4–2.4)

Notes:

Source of total birth and live birth denominator data: VPDC.

Excludes births in which Aboriginality was unknown.

ATSI: Infants born to women who identified themselves as Aboriginal or of Torres Strait Islander descent.

Corrections have been made to adjusted Stillbirth rates and their RR for the triennia 2001–2003, 2002–2004 and 2003–2005 since previous reports. Figures are also different for 2009–2011 due to updated population figures. In addition the triennium 2008–2010 has been added.

a. Stillbirth and perinatal mortality rates are calculated using adjusted total births as the denominator, and expressed as deaths per 1,000 total births.
b. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births.

Figures may differ slightly from other reported data due to continual updating of data.

Figure 13.4: $PMR_{Adjusted}$ by Aboriginal status, Victoria 2001–2013

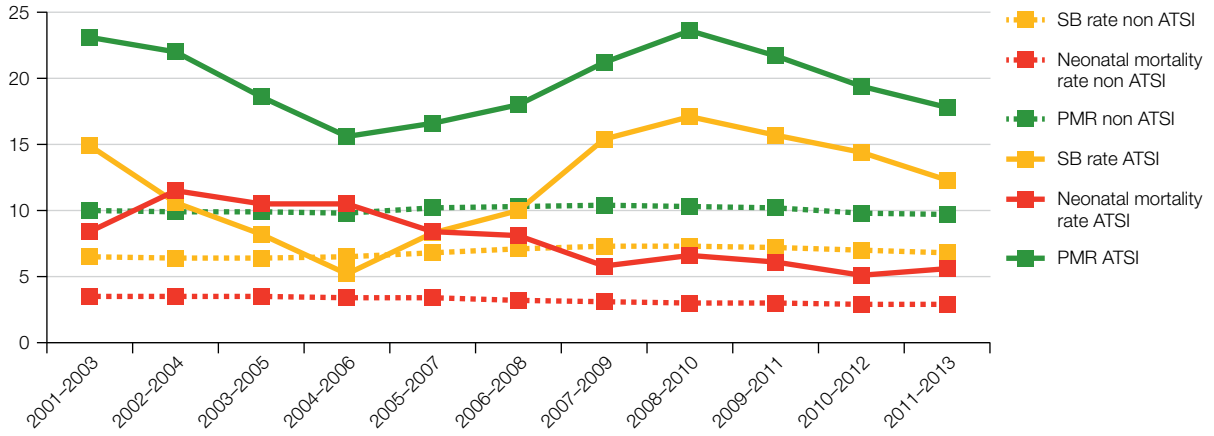
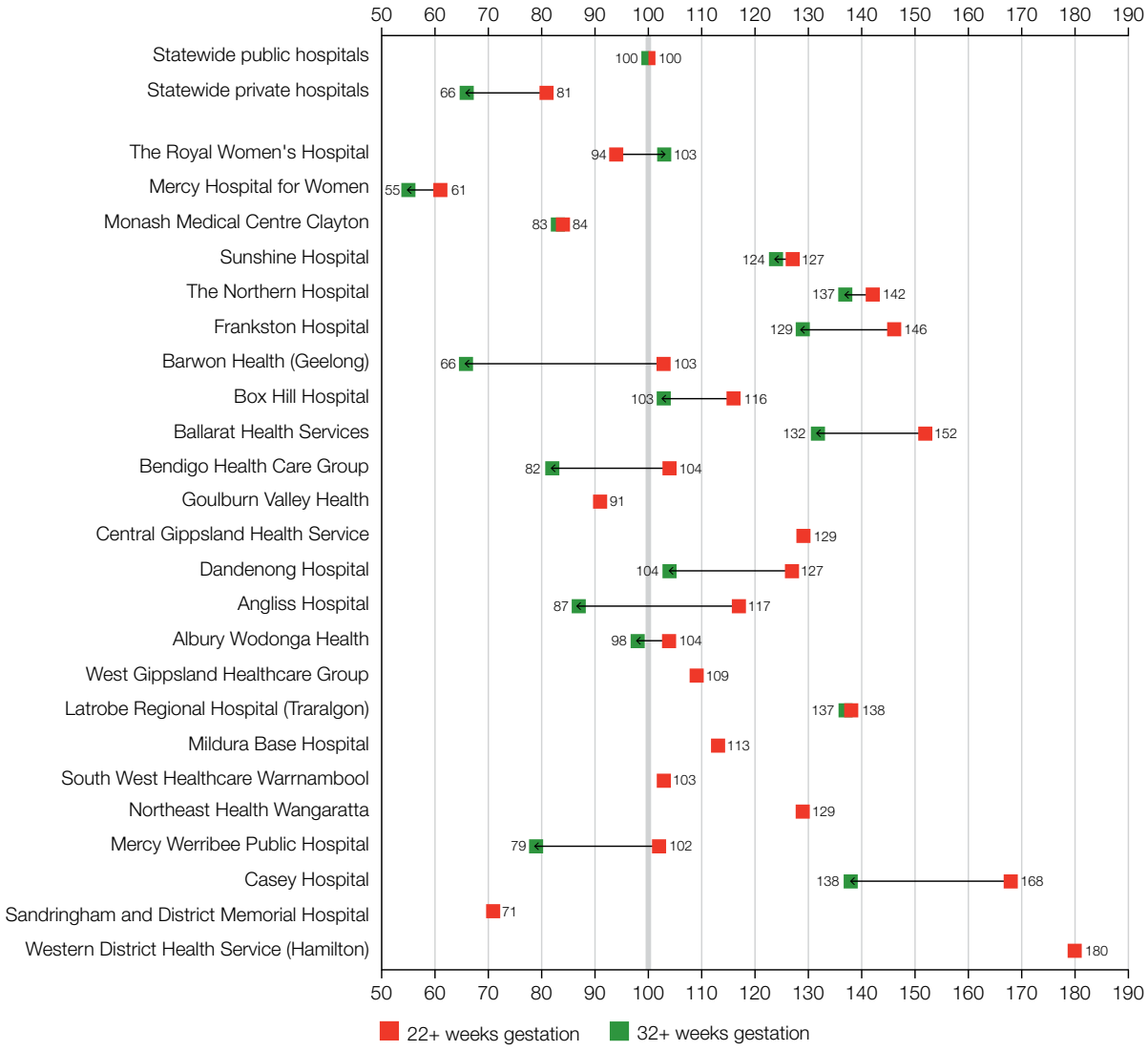
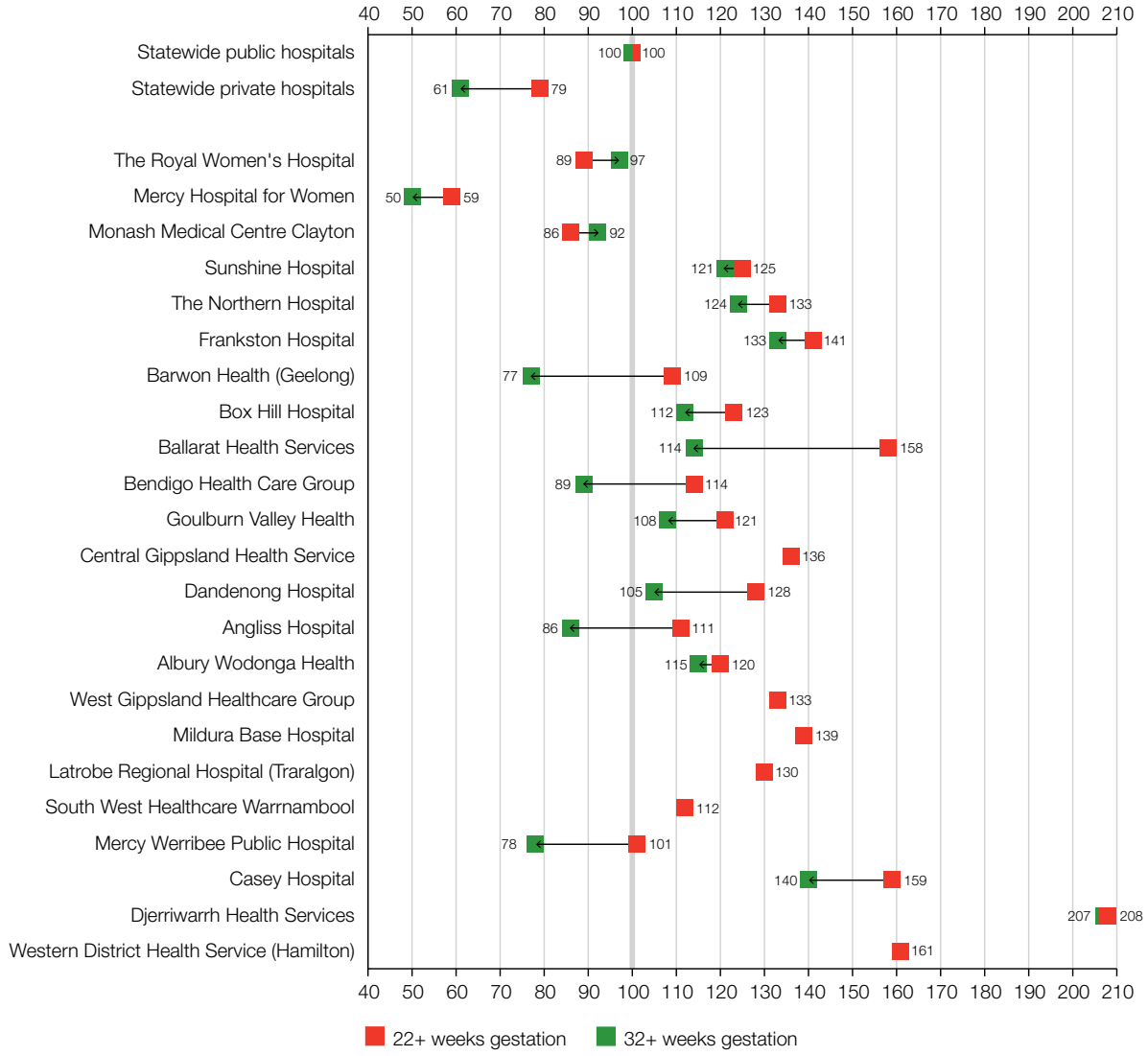


Figure 13.5: Perinatal mortality ratio for babies born at 22 weeks and 32 weeks or more (gestation standardised, excluding all terminations of pregnancy and deaths due to congenital anomalies) using five years of pooled data in Victorian public hospitals, 2008–12



Note: The gestation standardised perinatal mortality ratio (GSPMR) is a measure of perinatal mortality which compares the observed perinatal mortality rate of individual hospitals with what would be expected, taking into account the gestation of babies born there. It is a partially risk adjusted calculation, enabling hospitals with higher proportions of low gestation infants (and therefore higher likelihood of perinatal mortality) to be validly compared with hospitals that have a different casemix. Pooling the data over five-year periods adds stability to the data and reduces the risk of over-interpretation of chance fluctuations.

Figure 13.6: Perinatal mortality ratio for babies born at 22 weeks and 32 weeks or more (gestation standardised, excluding all terminations of pregnancy and deaths due to congenital anomalies) using five years of pooled data in Victorian public hospitals, 2009–13



Note: The gestation standardised perinatal mortality ratio (GSPMR) is a measure of perinatal mortality which compares the observed perinatal mortality rate of individual hospitals with what would be expected, taking into account the gestation of babies born there. It is a partially risk adjusted calculation, enabling hospitals with higher proportions of low gestation infants (and therefore higher likelihood of perinatal mortality) to be validly compared with hospitals that have a different casemix. Pooling the data over five-year periods adds stability to the data and reduces the risk of over-interpretation of chance fluctuations.

Causes of perinatal deaths 2012 and 2013

Table 13.20: Perinatal deaths, Victoria 2012, by PSANZ PDC major categories and type

Cause of death PSANZ PDC	Stillbirths			Adjusted stillbirths			Neonatal deaths			Total perinatal deaths			Total perinatal deaths adjusted		
	n	%	Rate[b]	n	%	Rate[d]	n	%	Rate[b]	n	%	Rate[b]	n	%	Rate[d]
1. Congenital abnormality	184	27.9	2.3	184	34.9	2.4	86	41.0	1.1	270	31.1	3.4	270	36.6	3.5
2. Infection	14	2.1	0.2	14	2.7	0.2	4	1.9	0.1	18	2.1	0.2	18	2.4	0.2
3. Hypertension	24	3.6	0.3	24	4.6	0.3	1	0.5	0.0	25	2.9	0.3	25	3.4	0.3
4. Antepartum haemorrhage	41	6.2	0.5	41	7.8	0.5	18	8.6	0.2	59	6.8	0.8	59	8.0	0.8
5. Maternal conditions[a]	152	23.1	1.9	20	3.8	0.3	1	0.5	0.0	153	17.6	2.0	21	2.8	0.3
6. Specific perinatal conditions[c]	42	6.4	0.5	42	8.0	0.5	15	7.1	0.2	57	6.6	0.7	57	7.7	0.7
7. Hypoxic peripartum death	2	0.3	0.0	2	0.4	0.0	10	4.8	0.1	12	1.4	0.2	12	1.6	0.2
8. Fetal growth restriction (FGR)	46	7.0	0.6	46	8.7	0.6	6	2.9	0.1	52	6.0	0.7	52	7.1	0.7
9. Spontaneous preterm	50	7.6	0.6	50	9.5	0.6	68	32.4	0.9	118	13.6	1.5	118	16.0	1.5
10. Unexplained antepartum death	104	15.8	1.3	104	19.7	1.3	0	0.0	0.0	104	12.0	1.3	104	14.1	1.3
11. No obstetric antecedent	0	0.0	0.0	0	0.0	0.0	1	0.5	0.0	1	0.1	0.0	1	0.1	0.0
Total	**659**	**100**	**8.4**	**527**	**100**	**6.7**	**210**	**100**	**2.7**	**869**	**100**	**11.1**	**737**	**100**	**9.4**

a. Maternal conditions includes terminations of pregnancy ≥ 20 weeks for psychosocial indications.
b. Stillbirth and perinatal death rates were calculated using total births (live births and stillbirths) as the denominator. Neonatal death rates were calculated using live births as the denominator.
c. Specific perinatal conditions includes termination for suspected but not confirmed congenital abnormalities.
d. Adjusted stillbirth and adjusted perinatal rates are calculated using livebirths and adjusted stillbirths (stillbirths not including the terminations of pregnancy for maternal psychosocial indications) as the denominator.

Table 13.21: Perinatal deaths, Victoria 2013, by PSANZ PDC major categories and type

Cause of death PSANZ PDC	Stillbirths			Adjusted stillbirths			Neonatal deaths			Total perinatal deaths			Total perinatal deaths adjusted		
	n	%	Rate[b]	n	%	Rate[d]	n	%	Rate[b]	n	%	Rate[b]	n	%	Rate[d]
1. Congenital abnormality	176	24.7	2.2	176	33.0	2.3	86	35.7	1.1	262	27.5	3.3	262	33.9	3.4
2. Infection	12	1.7	0.2	12	2.3	0.2	4	1.7	0.1	16	1.7	0.2	16	2.1	0.2
3. Hypertension	15	2.1	0.2	15	2.8	0.2	3	1.2	0.0	18	1.9	0.2	18	2.3	0.2
4. Antepartum haemorrhage	31	4.4	0.4	31	5.8	0.4	19	7.9	0.2	50	5.2	0.6	50	6.5	0.6
5. Maternal conditions[a]	196	27.5	2.5	17	3.2	0.2	3	1.2	0.0	199	20.9	2.5	20	2.6	0.3
6. Specific perinatal conditions[c]	53	7.4	0.7	53	9.9	0.7	32	13.3	0.4	85	8.9	1.1	85	11.0	1.1
7. Hypoxic peripartum death	4	0.6	0.1	4	0.8	0.1	11	4.6	0.1	15	1.6	0.2	15	1.9	0.2
8. Fetal growth restriction (FGR)	49	6.9	0.6	49	9.2	0.6	1	0.4	0.0	50	5.2	0.6	50	6.5	0.6
9. Spontaneous preterm	57	8.0	0.7	57	10.7	0.7	77	32.0	1.0	134	14.1	1.7	134	17.3	1.7
10. Unexplained antepartum death	119	16.7	1.5	119	22.3	1.5	0	0.0	0.0	119	12.5	1.5	119	15.4	1.5
11. No obstetric antecedent	0	0.0	0.0	0	0.0	0.0	5	2.1	0.1	5	0.5	0.1	5	0.6	0.1
Total	**712**	**100**	**9.1**	**533**	**100**	**6.8**	**241**	**100**	**3.1**	**953**	**100**	**12.2**	**774**	**100**	**9.9**

a. Maternal conditions includes terminations of pregnancy ≥ 20 weeks for psychosocial indications.
b. Stillbirth and perinatal death rates were calculated using total births (live births and stillbirths) as the denominator. Neonatal death rates were calculated using live births as the denominator.
c. Specific perinatal conditions includes termination for suspected but not confirmed congenital abnormalities.
d. Adjusted stillbirth and adjusted perinatal rates are calculated using livebirths and adjusted stillbirths (stillbirths not including the terminations of pregnancy for maternal psychosocial indications) as the denominator.

Figure 13.7: Causes of perinatal death (%), PSANZ PDC, Victoria 2012

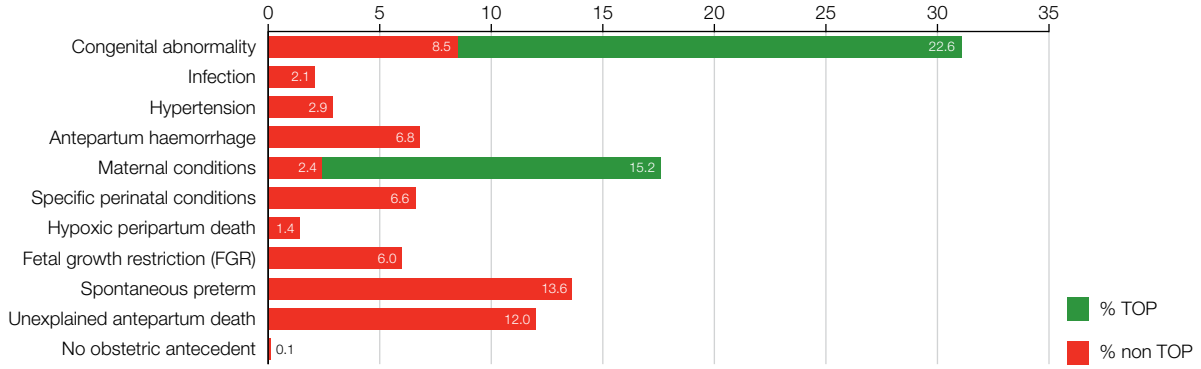


Figure 13.8: Causes of stillbirth (%), PSANZ PDC, Victoria 2012

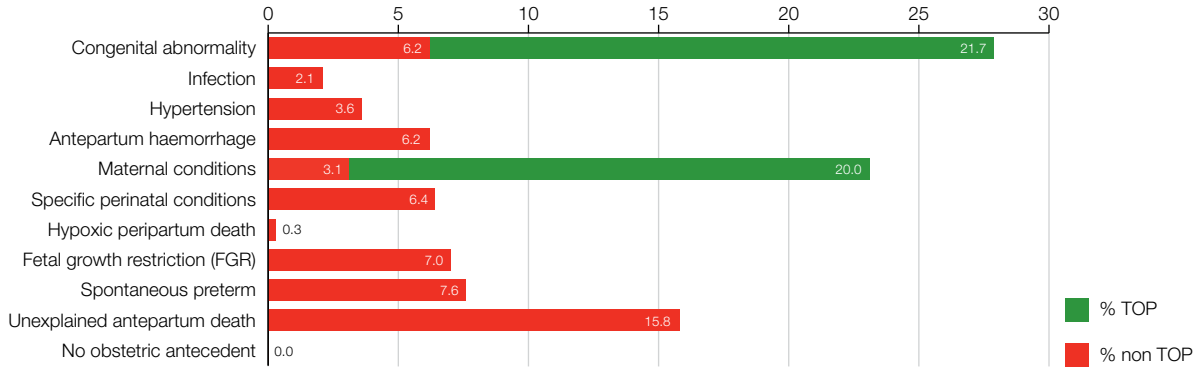


Figure 13.9: Causes of neonatal death (%), PSANZ PDC, Victoria 2012

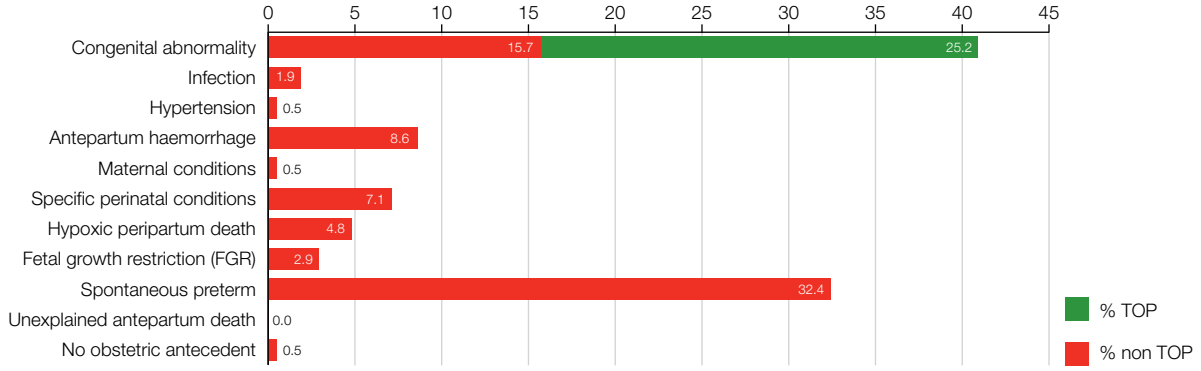


Figure 13.10: Causes of perinatal death (%), PSANZ PDC, Victoria 2013

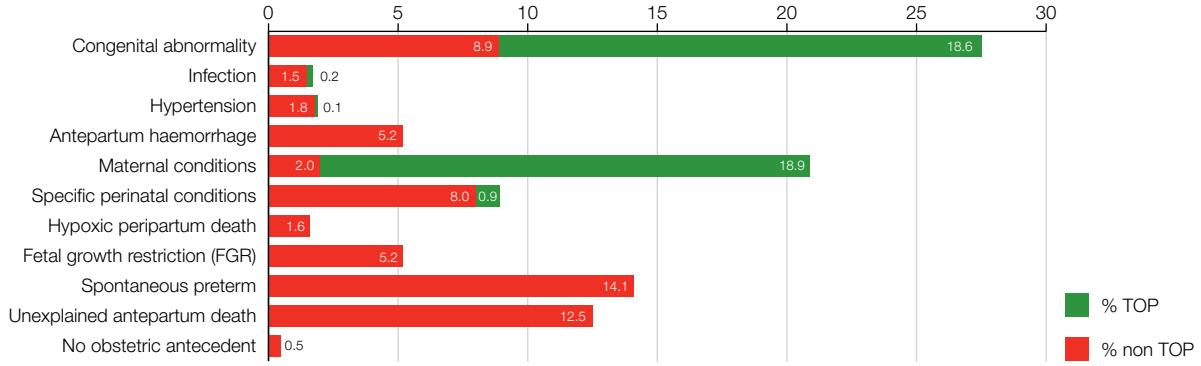


Figure 13.11: Causes of stillbirth (%), PSANZ PDC, Victoria 2013

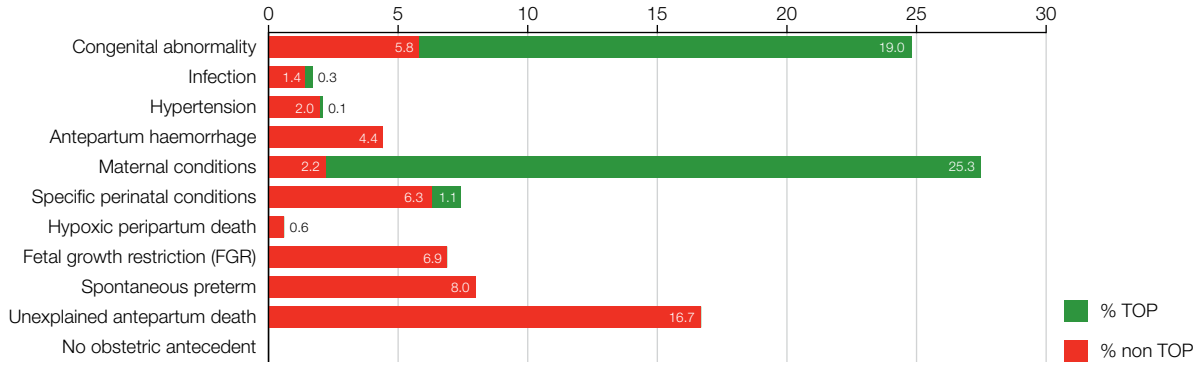


Figure 13.12: Causes of neonatal death (%), PSANZ PDC, Victoria 2013

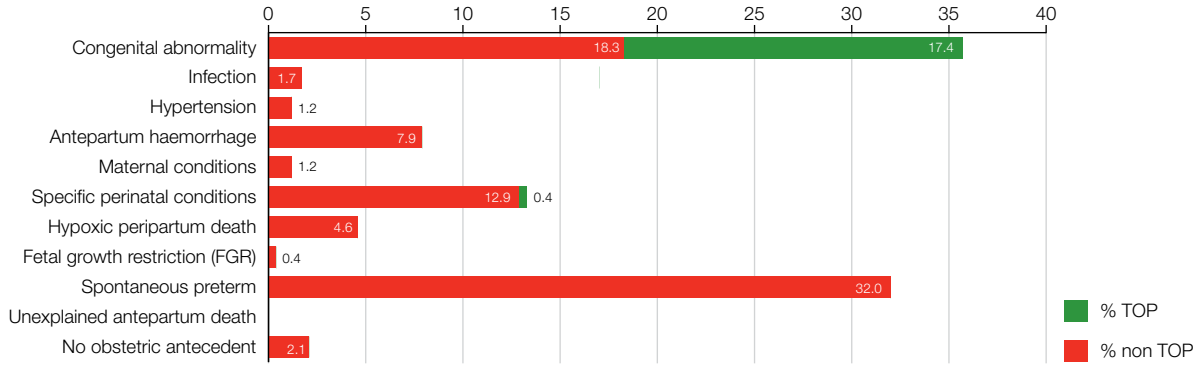


Table 13.22: Perinatal deaths, Victoria 2012, by PSANZ PDC expanded categories and type

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
1. CONGENITAL ABNORMALITY	**184**	**27.9**	**86**	**41.0**	**270**	**31.1**
1.1 Central nervous system abnormalities	2	0.3	4	1.9	**6**	**0.7**
TOP Central nervous system abnormalities	34	5.2	13	6.2	**47**	**5.4**
1.2 Cardiovascular system	3	0.5	4	1.9	**7**	**0.8**
TOP Cardiovascular system	18	2.7	14	6.7	**32**	**3.7**
1.3 Urinary Tract	0	0.0	1	0.5	**1**	**0.1**
TOP Urinary Tract	7	1.1	1	0.5	**8**	**0.9**
1.4 Gastrointestinal	1	0.2	2	1.0	**3**	**0.3**
TOP Gastrointestinal	1	0.2	0	0.0	**1**	**0.1**
1.5 Chromosomal	22	3.3	7	3.3	**29**	**3.3**
TOP Chromosomal	41	6.2	12	5.7	**53**	**6.1**
1.6 Metabolic	0	0.0	0	0.0	**0**	**0.0**
TOP Metabolic	1	0.2	0	0.0	**1**	**0.1**
1.7 Multiple	8	1.2	8	3.8	**16**	**1.8**
TOP Multiple	25	3.8	9	4.3	**34**	**3.9**
1.81 Musculoskeletal	0	0.0	1	0.5	**1**	**0.1**
TOP Musculoskeletal	5	0.8	3	1.4	**8**	**0.9**
1.82 Respiratory	0	0.0	1	0.5	**1**	**0.1**
TOP Respiratory	1	0.2	0	0.0	**1**	**0.1**
1.83 Diaphragmatic hernia	2	0.3	3	1.4	**5**	**0.6**
TOP Diaphragmatic hernia	3	0.5	0	0.0	**3**	**0.3**
1.84 Haematological	1	0.2	1	0.5	**2**	**0.2**
Haematological (termination)	5	0.8	0	0.0	**5**	**0.6**
1.85 Tumours	0	0.0	1	0.5	**1**	**0.1**
TOP Tumours	2	0.3	0	0.0	**2**	**0.2**
1.88 Other specified congenital abnormality	2	0.3	0	0.0	**2**	**0.2**
TOP Other specified congenital abnormality	0	0.0	1	0.5	**1**	**0.1**
1.9 Unspecified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**
TOP Other specified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
2. INFECTION	**14**	**2.1**	**4**	**1.9**	**18**	**2.1**
2.11 Group B Streptococcus	5	0.8	1	0.5	**6**	**0.7**
2.12 E coli	0	0.0	1	0.5	**1**	**0.1**
2.13 Listeria	0	0.0	1	0.5	**1**	**0.1**
2.18 Other bacterial	1	0.2	1	0.5	**2**	**0.2**
2.19 Unspecified bacterial	0	0.0	0	0.0	**0**	**0.0**
2.21 Cytomegalovirus	5	0.8	0	0.0	**5**	**0.6**
2.22 Parvovirus	1	0.2	0	0.0	**1**	**0.1**
2.24 Rubella	1	0.2	0	0.0	**1**	**0.1**
2.28 Other viral	0	0.0	0	0.0	**0**	**0.0**
2.29 Unspecified viral	0	0.0	0	0.0	**0**	**0.0**
2.3 Protozoal e.g. toxoplasma	0	0.0	0	0.0	**0**	**0.0**
2.5 Fungal	0	0.0	0	0.0	**0**	**0.0**
2.8 Other unspecified organism	0	0.0	0	0.0	**0**	**0.0**
2.9 Other unspecified organism	1	0.2	0	0.0	**1**	**0.1**
3. HYPERTENSION	**24**	**3.6**	**1**	**0.5**	**25**	**2.9**
3.1 Chronic hypertension: essential	2	0.3	0	0.0	**2**	**0.2**
3.2 Chronic hypertension: secondary e.g renal disease	1	0.2	0	0.0	**1**	**0.1**
3.4 Gestational hypertension	4	0.6	0	0.0	**4**	**0.5**
3.5 Pre-eclampsia	15	2.3	1	0.5	**16**	**1.8**
3.51 Pre-eclampsia with evidence thrombophilia	0	0.0	0	0.0	**0**	**0.0**
3.6 Pre-eclampsia superimposed on chronic hypertension	2	0.3	0	0.0	**2**	**0.2**
3.9 Unspecified hypertension	0	0.0	0	0.0	**0**	**0.0**
4. ANTEPARTUM HAEMORRHAGE	**41**	**6.2**	**18**	**8.6**	**59**	**6.8**
4.1 Placental abruption	37	5.6	16	7.6	**53**	**6.1**
4.11 Placental abruption with laboratory evidence of Thrombophilia	0	0.0	0	0.0	**0**	**0.0**
4.2 Placenta praevia	0	0.0	0	0.0	**0**	**0.0**
4.3 Vasa praevia	1	0.2	0	0.0	**1**	**0.1**
4.8 Other antepartum haemorrhage	0	0.0	1	0.5	**1**	**0.1**
4.9 Antepartum haemorrhage of unknown origin	3	0.5	1	0.5	**4**	**0.5**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
5. MATERNAL CONDITIONS	**152**	**23.1**	**1**	**0.5**	**153**	**17.6**
5.1 TOP maternal psychosocial indications	132	20.0	0	0.0	**132**	**15.2**
5.2 Diabetes / gestational diabetes	9	1.4	0	0.0	**9**	**1.0**
5.3 Maternal injury	0	0.0	0	0.0	**0**	**0.0**
5.31 Maternal injury (accidental)	1	0.2	0	0.0	**1**	**0.1**
5.32 Maternal injury (non-accidental)	0	0.0	0	0.0	**0**	**0.0**
5.4 Maternal sepsis	1	0.2	0	0.0	**1**	**0.1**
5.5 Antiphospholipid syndrome	3	0.5	0	0.0	**3**	**0.3**
5.6 Obstetric cholestasis	1	0.2	0	0.0	**1**	**0.1**
5.8 Other specified maternal conditions	5	0.8	1	0.5	**6**	**0.7**
6. SPECIFIC PERINATAL CONDITIONS	**42**	**6.4**	**15**	**7.1**	**57**	**6.6**
6.1 Twin-twin transfusion	13	2.0	5	2.4	**18**	**2.1**
6.2 Fetomaternal haemorrhage	3	0.5	1	0.5	**4**	**0.5**
6.30 Antepartum cord complications	0	0.0	0	0.0	**0**	**0.0**
6.31 Antepartum cord complications (Cord haemorrhage)	1	0.2	0	0.0	**1**	**0.1**
6.32 Antepartum cord complications (True knot with evidence of occlusion)	4	0.6	0	0.0	**4**	**0.5**
6.38 Antepartum cord complications (Other)	5	0.8	1	0.5	**6**	**0.7**
6.39 Antepartum cord complications (Unspecified)	5	0.8	0	0.0	**5**	**0.6**
6.4 Uterine abnormalities	5	0.8	4	1.9	**9**	**1.0**
6.5 Birth trauma	0	0.0	0	0.0	**0**	**0.0**
6.61 Alloimmune disease: Rhesus	2	0.3	0	0.0	**2**	**0.2**
6.7 Idiopathic hydrops	1	0.2	3	1.4	**4**	**0.5**
6.8 Other specific perinatal conditions	0	0.0	0	0.0	**0**	**0.0**
6.810 Rupture of membranes after amniocentesis	0	0.0	0	0.0	**0**	**0.0**
6.82 TOP for suspected congenital abnormality	2	0.3	0	0.0	**2**	**0.2**
6.88 Other	1	0.2	0	0.0	**1**	**0.1**
6.89 Unspecified	0	0.0	1	0.5	**1**	**0.1**
7. HYPOXIC PERIPARTUM DEATH	**2**	**0.3**	**10**	**4.8**	**12**	**1.4**
7.11 Uterine rupture	0	0.0	0	0.0	**0**	**0.0**
7.12 Cord prolapse	0	0.0	0	0.0	**0**	**0.0**
7.18 Other intrapartum complication	0	0.0	3	1.4	**3**	**0.3**
7.2 No intrapartum complication (evidence of non-reassuring fetal status)	2	0.3	5	2.4	**7**	**0.8**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
7.3 No intrapartum complication (no evidence of non-reassuring fetal status)	0	0.0	0	0.0	**0**	**0.0**
7.9 Unspecified hypoxic peripartum death	0	0.0	2	1.0	**2**	**0.2**
8. FETAL GROWTH RESTRICTION (FGR)	**46**	**7.0**	**6**	**2.9**	**52**	**6.0**
8.1 Evidence of uteroplacental insufficiency	25	3.8	3	1.4	**28**	**3.2**
8.2 With chronic villitis	3	0.5	0	0.0	**3**	**0.3**
8.3 No placental pathology	7	1.1	0	0.0	**7**	**0.8**
8.4 No examination of placenta	2	0.3	0	0.0	**2**	**0.2**
8.8 Other specified placental pathology	6	0.9	1	0.5	**7**	**0.8**
8.9 Unspecified or not known whether placenta examined	3	0.5	2	1.0	**5**	**0.6**
9. SPONTANEOUS PRETERM	**50**	**7.6**	**68**	**32.4**	**118**	**13.6**
9.10 Spontaneous preterm with intact membranes or membrane rupture < 24 hrs before delivery	1	0.2	1	0.5	**2**	**0.2**
9.11 Chorioamnionitis (placental histology)	9	1.4	14	6.7	**23**	**2.6**
9.12 No chorioamnionitis (placental histology)	4	0.6	9	4.3	**13**	**1.5**
9.13 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	0	0.0	**0**	**0.0**
9.17 No clinical signs of chorioamnionitis, no examination of placenta	0	0.0	1	0.5	**1**	**0.1**
9.19 Unspecified or not known whether placenta examined	6	0.9	4	1.9	**10**	**1.2**
9.20 Spontaneous preterm with intact membranes or membrane rupture < 24 hrs before delivery	0	0.0	0	0.0	**0**	**0.0**
9.21 Chorioamnionitis (placental histology)	11	1.7	14	6.7	**25**	**2.9**
9.22 No chorioamnionitis (placental histology)	2	0.3	7	3.3	**9**	**1.0**
9.23 With clinical evidence of chorioamnionitis, no examination of placenta	1	0.2	1	0.5	**2**	**0.2**
9.27 No clinical signs of chorioamnionitis, no examination of placenta	1	0.2	0	0.0	**1**	**0.1**
9.29 Unspecified or not known whether placenta examined	5	0.8	2	1.0	**7**	**0.8**
9.31 Chorioamnionitis (placental histology)	6	0.9	4	1.9	**10**	**1.2**
9.32 No chorioamnionitis (placental histology)	2	0.3	1	0.5	**3**	**0.3**
9.33 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	0	0.0	**0**	**0.0**
9.37 No clinical signs of chorioamnionitis, no examination of placenta	0	0.0	0	0.0	**0**	**0.0**
9.39 Unspecified or not known whether placenta examined	2	0.3	10	4.8	**12**	**1.4**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
10. UNEXPLAINED ANTEPARTUM DEATH	**104**	**15.8**	**0**	**0**	**104**	**12.0**
10.1 Evidence of uteroplacental insufficiency	20	3.0	0	0.0	**20**	**2.3**
10.2 With chronic villitis	3	0.5	0	0.0	**3**	**0.3**
10.3 No placental pathology	44	6.7	0	0.0	**44**	**5.1**
10.4 No examination of placenta	6	0.9	0	0.0	**6**	**0.7**
10.8 Other specified placental pathology	22	3.3	0	0.0	**22**	**2.5**
10.9 Unspecified or not known whether placenta examined	9	1.4	0	0.0	**9**	**1.0**
11. NO OBSTETRIC ANTECEDENT	**0**	**0.0**	**1**	**0.5**	**1**	**0.1**
11.8 Other specified	0	0.0	1	0.5	**1**	**0.1**
Total	**659**	**100**	**210**	**100**	**869**	**100**

Table 13.23: Perinatal deaths, Victoria 2013, by PSANZ PDC expanded categories and type

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
1. CONGENITAL ABNORMALITY	**176**	**24.7**	**86**	**35.7**	**262**	**27.5**
1.1 Central nervous system abnormalities	3	0.4	5	2.1	**8**	**0.8**
TOP Central nervous system abnormalities	26	3.7	8	3.3	**34**	**3.6**
1.2 Cardiovascular system	10	1.4	9	3.7	**19**	**2.0**
TOP Cardiovascular system	24	3.4	6	2.5	**30**	**3.1**
1.3 Urinary Tract	1	0.1	6	2.5	**7**	**0.7**
TOP Urinary Tract	10	1.4	5	2.1	**15**	**1.6**
1.4 Gastrointestinal	1	0.1	0	0.0	**1**	**0.1**
TOP Gastrointestinal	2	0.3	0	0.0	**2**	**0.2**
1.5 Chromosomal	20	2.8	5	2.1	**25**	**2.6**
TOP Chromosomal	44	6.2	14	5.8	**58**	**6.1**
1.6 Metabolic	0	0.0	1	0.4	**1**	**0.1**
TOP Metabolic	1	0.1	0	0.0	**1**	**0.1**
1.7 Multiple	3	0.4	12	5.0	**15**	**1.6**
TOP Multiple	15	2.1	4	1.7	**19**	**2.0**
1.81 Musculoskeletal	0	0.0	1	0.4	**1**	**0.1**
TOP Musculoskeletal	7	1.0	2	0.8	**9**	**0.9**
1.82 Respiratory	2	0.3	1	0.4	**3**	**0.3**
TOP Respiratory	1	0.1	0	0.0	**1**	**0.1**
1.83 Diaphragmatic hernia	1	0.1	2	0.8	**3**	**0.3**
TOP Diaphragmatic hernia	1	0.1	1	0.4	**2**	**0.2**
1.84 Haematological	0	0.0	0	0.0	**0**	**0.0**
Haematological (termination)	2	0.3	2	0.8	**4**	**0.4**
1.85 Tumours	0	0.0	2	0.8	**2**	**0.2**
TOP Tumours	2	0.3	0	0.0	**2**	**0.2**
1.88 Other specified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**
TOP Other specified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**
1.9 Unspecified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**
TOP Other specified congenital abnormality	0	0.0	0	0.0	**0**	**0.0**
2. INFECTION	**12**	**1.7**	**4**	**1.7**	**16**	**1.7**
2.11 Group B Streptococcus	1	0.1	1	0.4	**2**	**0.2**
2.12 E coli	1	0.1	2	0.8	**3**	**0.3**
2.13 Listeria	0	0.0	0	0.0	**0**	**0.0**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
2.18 Other bacterial	2	0.3	0	0.0	**2**	**0.2**
2.19 Unspecified bacterial	1	0.1	0	0.0	**1**	**0.1**
2.2 Perinatal infection	0	0.0	1	0.4	**1**	**0.1**
2.21 Perinatal infection (Viral) – Cytomegalovirus	2	0.3	0	0.0	**2**	**0.2**
2.22 Parvovirus	4	0.6	0	0.0	**4**	**0.4**
2.24 Rubella	0	0.0	0	0.0	**0**	**0.0**
2.28 Other viral	0	0.0	0	0.0	**0**	**0.0**
2.29 Unspecified viral	0	0.0	0	0.0	**0**	**0.0**
2.3 Protozoal e.g. toxoplasma	0	0.0	0	0.0	**0**	**0.0**
2.5 Fungal	0	0.0	0	0.0	**0**	**0.0**
2.8 Other unspecified organism	0	0.0	0	0.0	**0**	**0.0**
2.9 Other unspecified organism	1	0.1	0	0.0	**1**	**0.1**
3. HYPERTENSION	**15**	**2.1**	**3**	**1.2**	**18**	**1.9**
3.1 Chronic hypertension: essential	0	0.0	1	0.4	**1**	**0.1**
3.2 Chronic hypertension: secondary e.g renal disease	0	0.0	0	0.0	**0**	**0.0**
3.3 Chronic hypertension: unspecified	1	0.0	0	0.0	**1**	**0.1**
3.4 Gestational hypertension	1	0.1	0	0.0	**1**	**0.1**
3.5 Pre-eclampsia	9	1.3	1	0.4	**10**	**1.0**
3.51 Pre-eclampsia with evidence thrombophilia	1	0.1	0	0.0	**1**	**0.1**
3.6 Pre-eclampsia superimposed on chronic hypertension	2	0.3	1	0.4	**3**	**0.3**
3.9 Unspecified hypertension	1	0.1	0	0.0	**1**	**0.1**
4. ANTEPARTUM HAEMORRHAGE	**31**	**4.4**	**19**	**7.9**	**50**	**5.2**
4.1 Placental abruption	24	3.4	13	5.4	**37**	**3.9**
4.11 Placental abruption with laboratory evidence of Thrombophilia	4	0.6	1	0.4	**5**	**0.5**
4.2 Placenta praevia	0	0.0	1	0.4	**1**	**0.1**
4.3 Vasa praevia	0	0.0	0	0.0	**0**	**0.0**
4.8 Other APH	0	0.0	1	0.4	**1**	**0.1**
4.9 APH of unknown origin	3	0.4	3	1.2	**6**	**0.6**
5. MATERNAL CONDITIONS	**196**	**27.5**	**3**	**1.2**	**199**	**20.9**
5.1 TOP maternal psychosocial indications	179	25.1	0	0.0	**179**	**18.8**
5.2 Diabetes / gestational diabetes	8	1.1	1	0.4	**9**	**0.9**
5.3 Maternal injury	0	0.0	0	0.0	**0**	**0.0**
5.31 Maternal injury (accidental)	0	0.0	0	0.0	**0**	**0.0**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
5.32 Maternal injury (non-accidental)	0	0.0	0	0.0	**0**	**0.0**
5.4 Maternal sepsis	0	0.0	1	0.4	**1**	**0.1**
5.5 Antiphospholipid syndrome	5	0.7	0	0.0	**5**	**0.5**
5.6 Obstetric cholestasis	1	0.1	0	0.0	**1**	**0.1**
5.8 Other specified maternal conditions	3	0.4	1	0.4	**4**	**0.4**
6. SPECIFIC PERINATAL CONDITIONS	**53**	**7.4**	**32**	**13.3**	**85**	**8.9**
6.1 Twin-twin transfusion	9	1.3	6	2.5	**15**	**1.6**
6.2 Fetomaternal haemorrhage	9	1.3	0	0.0	**9**	**0.9**
6.30 Antepartum cord complications	0	0.0	0	0.0	**0**	**0.0**
6.31 Antepartum cord complications (Cord haemorrhage)	0	0.0	0	0.0	**0**	**0.0**
6.32 Antepartum cord complications (True knot with evidence of occlusion)	6	0.8	0	0.0	**6**	**0.6**
6.38 Antepartum cord complications (Other)	7	1.0	0	0.0	**7**	**0.7**
6.39 Antepartum cord complications (Unspecified)	0	0.0	0	0.0	**0**	**0.0**
6.4 Uterine abnormalities	8	1.1	22	9.1	**30**	**3.1**
6.5 Birth trauma	0	0.0	0	0.0	**0**	**0.0**
6.61 Alloimmune disease: Rhesus	0	0.0	0	0.0	**0**	**0.0**
6.7 Idiopathic hydrops	3	0.4	2	0.8	**5**	**0.5**
6.8 Other specific perinatal conditions	0	0.0	1	0.4	**1**	**0.1**
6.810 Rupture of membranes after amniocentesis	2	0.3	0	0.0	**2**	**0.2**
6.82 TOP for suspected congenital abnormality	1	0.1	1	0.4	**2**	**0.2**
6.88 Other	8	1.1	0	0.0	**8**	**0.8**
6.89 Unspecified	0	0.0	0	0.0	**0**	**0.0**
7. HYPOXIC PERIPARTUM DEATH	**4**	**0.6**	**11**	**4.6**	**15**	**1.6**
7.11 Uterine rupture	1	0.1	1	0.4	**2**	**0.2**
7.12 Cord prolapse	0	0.0	1	0.4	**1**	**0.1**
7.18 Other intrapartum complication	0	0.0	0	0.0	**0**	**0.0**
7.2 No intrapartum complication (evidence of non-reassuring fetal status)	2	0.3	7	2.9	**9**	**0.9**
7.3 No intrapartum complication (no evidence of non-reassuring fetal status)	0	0.0	1	0.4	**1**	**0.1**
7.9 Unspecified hypoxic peripartum death	1	0.1	1	0.4	**2**	**0.2**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
8. FETAL GROWTH RESTRICTION (FGR)	**49**	**6.9**	**1**	**0.4**	**50**	**5.2**
8.1 Evidence of uteroplacental insufficiency	26	3.7	1	0.4	**27**	**2.8**
8.2. With chronic villitis	4	0.6	0	0.0	**4**	**0.4**
8.3 No placental pathology	13	1.8	0	0.0	**13**	**1.4**
8.4 No examination of placenta	2	0.3	0	0.0	**2**	**0.2**
8.8 Other specified placental pathology	3	0.4	0	0.0	**3**	**0.3**
8.9 Unspecified or not known whether placenta examined	1	0.1	0	0.0	**1**	**0.1**
9. SPONTANEOUS PRETERM	**57**	**8.0**	**77**	**32.0**	**134**	**14.1**
9.10 Spontaneous preterm with intact membranes or membrane rupture < 24 hrs before delivery	0	0.0	0	0.0	**0**	**0.0**
9.11 Chorioamnionitis (placental histology)	14	2.0	22	9.1	**36**	**3.8**
9.12 No chorioamnionitis (placental histology)	11	1.5	14	5.8	**25**	**2.6**
9.13 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	0	0.0	**0**	**0.0**
9.17 No clinical signs of chorioamnionitis, no examination of placenta	2	0.3	5	2.1	**7**	**0.7**
9.19 Unspecified or not known whether placenta examined	0	0.0	4	1.7	**4**	**0.4**
9.20 Spontaneous preterm with intact membranes or membrane rupture < 24 hrs before delivery	0	0.0	0	0.0	**0**	**0.0**
9.21 Chorioamnionitis (placental histology)	20	2.8	20	8.3	**40**	**4.2**
9.22 No chorioamnionitis (placental histology)	4	0.6	5	2.1	**9**	**0.9**
9.23 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	2	0.8	**2**	**0.2**
9.27 No clinical signs of chorioamnionitis, no examination of placenta	3	0.4	0	0.0	**3**	**0.3**
9.29 Unspecified or not known whether placenta examined	1	0.1	0	0.0	**1**	**0.1**
9.31 Chorioamnionitis (placental histology)	1	0.1	0	0.0	**1**	**0.1**
9.32 No chorioamnionitis (placental histology)	0	0.0	3	1.2	**3**	**0.3**
9.33 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	1	0.4	**1**	**0.1**
9.37 No clinical signs of chorioamnionitis, no examination of placenta	0	0.0	1	0.4	**1**	**0.1**
9.39 Unspecified or not known whether placenta examined	1	0.1	0	0.0	**1**	**0.1**

PSANZ PDC	Stillbirths (Fetal death)		Neonatal death		Total	
	n	%	n	%	n	%
10. UNEXPLAINED ANTEPARTUM DEATH	**119**	**16.7**	**0**	**0**	**119**	**12.5**
10.1 Evidence of uteroplacental insufficiency	27	3.8	0	0	**27**	**2.8**
10.2 With chronic villitis	2	0.3	0	0	**2**	**0.2**
10.3 No placental pathology	69	9.7	0	0	**69**	**7.2**
10.4 No examination of placenta	4	0.6	0	0	**4**	**0.4**
10.8 Other specified placental pathology	13	1.8	0	0	**13**	**1.4**
10.9 Unspecified or not known whether placenta examined	4	0.6	0	0	**4**	**0.4**
11. NO OBSTETRIC ANTECEDENT	**0**	**0.0**	**5**	**2.1**	**5**	**0.5**
11.8 Other specified	0	0.0	0	0.0	**0**	**0.0**
11.13 No obstetric antecedent – Sudden Infant Death Syndrome (SIDS) (SIDS Category II: Infant deaths that meet Category I except for one or more features)	0	0.0	2	0.8	**2**	**0.2**
11.2 No obstetric antecedent – Postnatally acquired infection	0	0.0	1	0.4	**1**	**0.1**
11.92 No obstetric antecedent – Unknown/Undetermined (Other Unknown/Undetermined)	0	0.0	2	0.8	**2**	**0.2**
Total	**712**	**100**	**241**	**100**	**953**	**100**

Table 13.24: Perinatal deaths (adjusted) in singleton and multiple births, by cause (PSANZ PDC) Victoria, 2012

PSANZ PDC	Singleton		Multiple		Total	
	n	%	n	%	n	%
1. Congenital abnormality	253	38.4	17	21.8	**270**	**36.6**
2. Infection	18	2.7	0	0.0	**18**	**2.4**
3. Hypertension	24	3.6	1	1.3	**25**	**3.4**
4. Antepartum haemorrhage	53	8.0	6	7.7	**59**	**8.0**
5. Maternal conditions	21	3.2	0	0.0	**21**	**2.8**
6. Specific perinatal conditions	37	5.6	20	25.6	**57**	**7.7**
7. Hypoxic peripartum death	12	1.8	0	0.0	**12**	**1.6**
8. Fetal growth restriction (FGR)	46	7.0	6	7.7	**52**	**7.1**
9. Spontaneous preterm	93	14.1	25	32.1	**118**	**16.0**
10. Unexplained antepartum death	101	15.3	3	3.8	**104**	**14.1**
11. No obstetric antecedent	1	0.2	0	0.0	**1**	**0.1**
Total	**659**	**100**	**78**	**100**	**737**	**100**

Table 13.25: Perinatal deaths (adjusted) in singleton and multiple births, by cause (PSANZ PDC) Victoria, 2013

PSANZ PDC	Singleton		Multiple		Total	
	n	%	n	%	n	%
1. Congenital abnormality	246	36.0	16	17.6	**262**	**33.9**
2. Infection	16	2.3	0	0.0	**16**	**2.1**
3. Hypertension	16	2.3	2	2.2	**18**	**2.3**
4. Antepartum haemorrhage	45	6.6	5	5.5	**50**	**6.5**
5. Maternal conditions	18	2.6	2	2.2	**20**	**2.6**
6. Specific perinatal conditions	63	9.2	22	24.2	**85**	**11.0**
7. Hypoxic peripartum death	14	2.0	1	1.1	**15**	**1.9**
8. Fetal growth restriction (FGR)	50	7.3	0	0.0	**50**	**6.5**
9. Spontaneous preterm	98	14.3	36	39.6	**134**	**17.3**
10. Unexplained antepartum death	112	16.4	7	7.7	**119**	**15.4**
11. No obstetric antecedent	5	0.7	0	0.0	**5**	**0.6**
Total	**683**	**100**	**91**	**100**	**774**	**100**

Table 13.26: Perinatal deaths (adjusted) by PSANZ PDC and Aboriginal status, Victoria, 2003–2013

PSANZ PDC	Aboriginal or Torres Strait Islander			Non-Aboriginal			Total		
	Count	%	Rate	Count	%	Rate	Count	%	Rate
1. Congenital abnormality	23	13.9	2.9	2,488	32.4	3.2	**2,511**	**32.0**	**3.2**
2. Infection	3	1.8	0.4	184	2.4	0.2	**187**	**2.4**	**0.2**
3. Hypertension	12	7.3	1.5	227	3.0	0.3	**239**	**3.0**	**0.3**
4. Antepartum haemorrhage	20	12.1	2.5	600	7.8	0.8	**620**	**7.9**	**0.8**
5. Maternal conditions	2	1.2	0.3	209	2.7	0.3	**211**	**2.7**	**0.3**
6. Specific perinatal conditions	12	7.3	1.5	674	8.8	0.9	**686**	**8.7**	**0.9**
7. Hypoxic peripartum death	4	2.4	0.5	224	2.9	0.3	**228**	**2.9**	**0.3**
8. Fetal growth restriction	13	7.9	1.6	503	6.6	0.6	**516**	**6.6**	**0.7**
9. Spontaneous preterm	49	29.7	6.1	1,319	17.2	1.7	**1,368**	**17.4**	**1.7**
10. Unexplained antepartum death	23	13.9	2.9	1,197	15.6	1.5	**1,220**	**15.6**	**1.6**
11. No obstetric antecedent	4	2.4	0.5	52	0.7	0.1	**56**	**0.7**	**0.1**
Total	**165**	**100**	**20.7**	**7,677**	**100**	**9.9**	**7,842**	**100**	**10.0**

This table excludes perinatal deaths in which Aboriginality was unknown.
Figures may differ slightly from other reported data due to continual updating of data.

Table 13.27: Perinatal deaths as a result of terminations in pregnancy, Victoria 2012

Cause of death PSANZ PDC	Stillbirths (Fetal death)	Neonatal death	Total
	n	n	n
Termination for suspected or confirmed congenital abnormality	145	53	**198**
Terminations for psychosocial indications	132	0	**132**
Total	**277**	**53**	**330**

Table 13.28: Perinatal deaths as a result of terminations in pregnancy, Victoria 2013

Cause of death PSANZ PDC	Stillbirths (Fetal death)	Neonatal death	Total
	n	n	n
Termination for suspected or confirmed congenital abnormality	136	43	**179**
Terminations for psychosocial indications	179	0	**179**
Total	**315**	**43**	**358**

Table 13.29: Perinatal deaths, Victoria 2012, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total		Total excluding PSANZ PDC 5.1[a]	
	n	%	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	189	42.5	27	37.0	27	31.4	27	20.3	**270**	**31.1**	**270**	**36.6**
2. Infection	9	2.0	1	1.4	3	3.5	5	3.8	**18**	**2.1**	**18**	**2.4**
3. Hypertension	14	3.1	3	4.1	6	7.0	2	1.5	**25**	**2.9**	**25**	**3.4**
4. Antepartum haemorrhage	39	8.8	4	5.5	9	10.5	7	5.3	**59**	**6.8**	**59**	**8.0**
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	5	1.1	4	5.5	4	4.7	8	6.0	**21**	**2.4**	**21**	**2.8**
5.1 Maternal conditions (terminations for psychosocial indications only)	132	29.7	0	0.0	0	0.0	0	0.0	**132**	**15.2**	**NA**	**NA**
6. Specific perinatal conditions	27	6.1	7	9.6	10	11.6	13	9.8	**57**	**6.6**	**57**	**7.7**
7. Hypoxic peripartum death	0	0.0	1	1.4	0	0.0	11	8.3	**12**	**1.4**	**12**	**1.6**
8. Fetal growth restriction	22	4.9	10	13.7	8	9.3	12	9.0	**52**	**6.0**	**52**	**7.1**
9. Spontaneous preterm	113	25.4	3	4.1	2	2.3	0	0.0	**118**	**13.6**	**118**	**16.0**
10. Unexplained antepartum death	27	6.1	13	17.8	17	19.8	47	35.3	**104**	**12.0**	**104**	**14.1**
11. No obstetric antecedent	0	0.0	0	0.0	0	0.0	1	0.8	**1**	**0.1**	**1**	**0.1**
Total	**445**	**100**	**73**	**100**	**86**	**100**	**133**	**100**	**869**	**100**	**737**	**100**

a. Perinatal Society of Australia & New Zealand Perinatal Death Classification 5.1: Termination of Pregnancy for Maternal Psychosocial Indications.

NA – not applicable

Table 13.30: Perinatal deaths, Victoria 2013, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total		Total excluding PSANZ PDC 5.1[a]	
	n	%	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	183	27.3	15	26.3	30	31.3	34	26.4	**262**	**27.5**	**262**	**33.9**
2. Infection	10	1.5	1	1.8	1	1.0	4	3.1	**16**	**1.7**	**16**	**2.1**
3. Hypertension	13	1.9	1	1.8	3	3.1	1	0.8	**18**	**1.9**	**18**	**2.3**
4. Antepartum haemorrhage	34	5.1	5	8.8	4	4.2	7	5.4	**50**	**5.2**	**50**	**6.5**
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	9	1.3	2	3.5	3	3.1	6	4.7	**20**	**2.1**	**20**	**2.6**
5.1 Maternal conditions (terminations for psychosocial indications only)	179	26.7	0	0.0	0	0.0	0	0.0	**179**	**18.8**	**NA**	**NA**
6. Specific perinatal conditions	61	9.1	5	8.8	11	11.5	8	6.2	**85**	**8.9**	**85**	**11.0**
7. Hypoxic peripartum death	1	0.1	0	0.0	2	2.1	12	9.3	**15**	**1.6**	**15**	**1.9**
8. Fetal growth restriction	15	2.2	8	14.0	16	16.7	11	8.5	**50**	**5.2**	**50**	**6.5**
9. Spontaneous preterm	129	19.2	3	5.3	2	2.1	0	0.0	**134**	**14.1**	**134**	**17.3**
10. Unexplained antepartum death	37	5.5	17	29.8	22	22.9	43	33.3	**119**	**12.5**	**119**	**15.4**
11. No obstetric antecedent	0	0.0	0	0.0	2	2.1	3	2.3	**5**	**0.5**	**5**	**0.6**
Total	**671**	**100**	**57**	**100**	**96**	**100**	**129**	**100**	**953**	**100**	**774**	**100**

a. Perinatal Society of Australia & New Zealand Perinatal Death Classification 5.1: Termination of Pregnancy for Maternal Psychosocial Indications.

NA – not applicable

Figure 13.13: Causes of perinatal death (unadjusted), PSANZ PDC, Victoria 2012

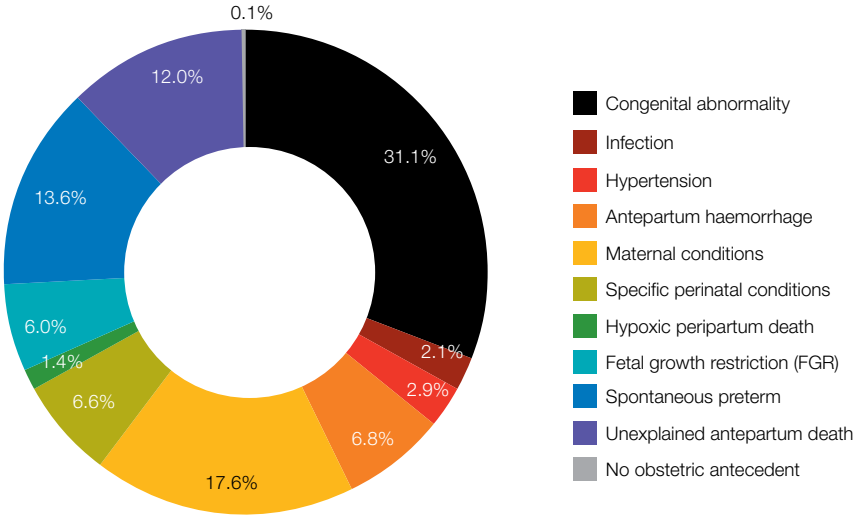


Figure 13.14: Causes of perinatal death (adjusted), PSANZ PDC, Victoria 2012

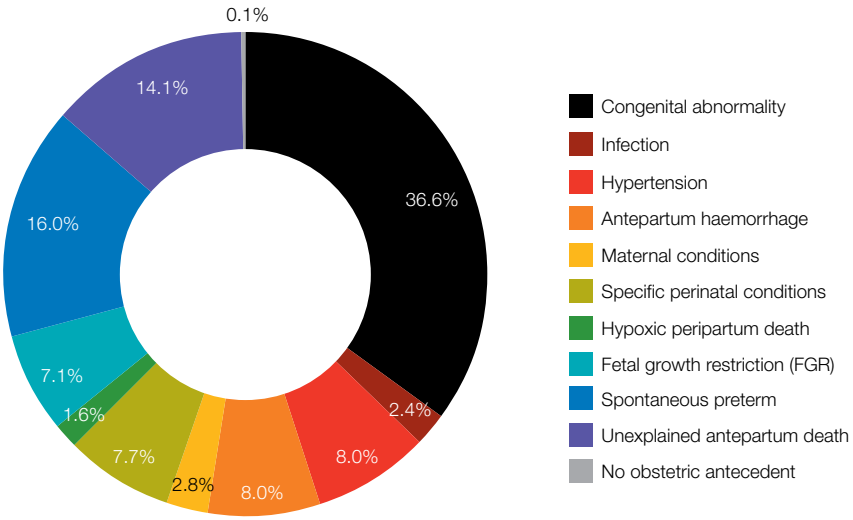


Figure 13.15: Causes of perinatal death (unadjusted), PSANZ PDC, Victoria 2013

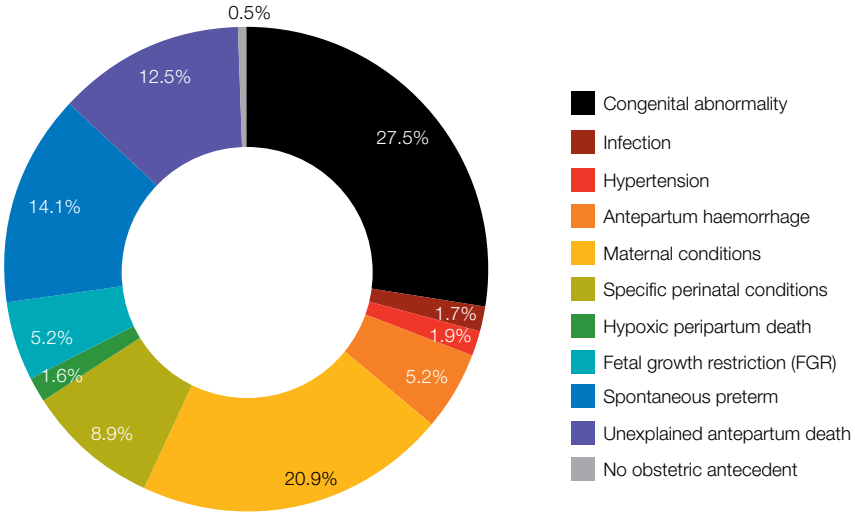


Figure 13.16: Causes of perinatal death (adjusted), PSANZ PDC, Victoria 2013

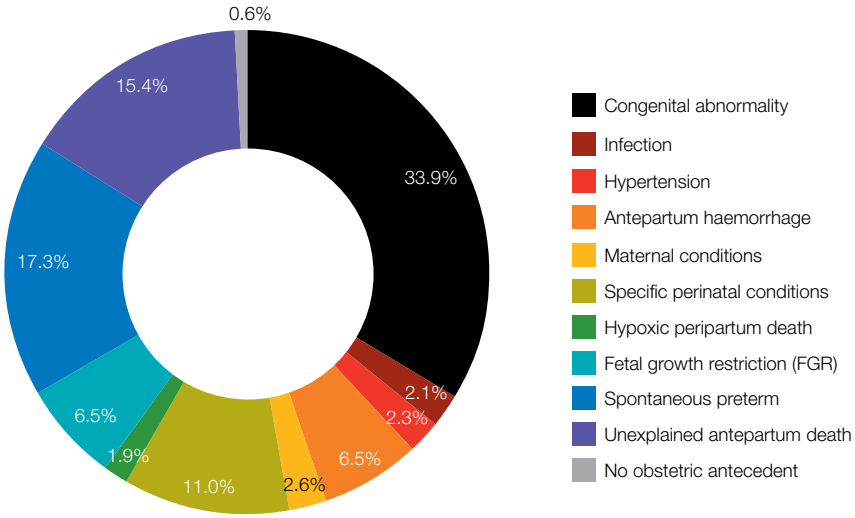


Table 13.31: Stillbirths, Victoria 2012, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total		Total excluding PSANZ PDC 5.1[a]	
	n	%	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	136	45.3	25	41.0	13	19.1	10	10.2	**184**	**27.9**	**184**	**34.9**
2. Infection	8	2.7	1	1.6	2	2.9	3	3.1	**14**	**2.1**	**14**	**2.7**
3. Hypertension	13	4.3	3	4.9	6	8.8	2	2.0	**24**	**3.6**	**24**	**4.6**
4. Antepartum haemorrhage	23	7.7	3	4.9	9	13.2	6	6.1	**41**	**6.2**	**41**	**7.8**
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	5	1.7	4	6.6	4	5.9	7	7.1	**20**	**3.0**	**20**	**3.8**
5.1 Maternal conditions (terminations for psychosocial indications only)	132	44.0	0	0.0	0	0.0	0	0.0	**132**	**20.0**	**NA**	**NA**
6. Specific perinatal conditions	19	6.3	5	8.2	8	11.8	10	10.2	**42**	**6.4**	**42**	**8.0**
7. Hypoxic peripartum death	0	0.0	0	0.0	0	0.0	2	2.0	**2**	**0.3**	**2**	**0.4**
8. Fetal growth restriction	20	6.7	7	11.5	8	11.8	11	11.2	**46**	**7.0**	**46**	**8.7**
9. Spontaneous preterm	49	16.3	0	0.0	1	1.5	0	0.0	**50**	**7.6**	**50**	**9.5**
10. Unexplained antepartum death	27	9.0	13	21.3	17	25.0	47	48.0	**104**	**15.8**	**104**	**19.7**
Total	**300**	**144**	**61**	**100**	**68**	**100**	**98**	**100**	**659**	**100**	**527**	**100**

a. Perinatal Society of Australia & New Zealand Perinatal Death Classification 5.1: Termination of Pregnancy for Maternal Psychosocial Indications.

NA – not applicable

Table 13.32: Stillbirths, Victoria 2013, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total		Total excluding PSANZ PDC 5.1[a]	
	n	%	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	138	27.7	12	25.5	16	20.5	10	11.2	**176**	**24.7**	**176**	**33.0**
2. Infection	8	1.6	1	2.1	1	1.3	2	2.2	**12**	**1.7**	**12**	**2.3**
3. Hypertension	11	2.2	1	2.1	3	3.8	0	0.0	**15**	**2.1**	**15**	**2.8**
4. Antepartum haemorrhage	18	3.6	3	6.4	4	5.1	6	6.7	**31**	**4.4**	**31**	**5.8**
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	6	1.2	2	4.3	3	3.8	6	6.7	**17**	**2.4**	**17**	**3.2**
5.1 Maternal conditions (terminations for psychosocial indications only)	179	35.9	0	0.0	0	0.0	0	0.0	**179**	**25.1**	**NA**	**NA**
6. Specific perinatal conditions	32	6.4	3	6.4	10	12.8	8	9.0	**53**	**7.4**	**53**	**9.9**
7. Hypoxic peripartum death	0	0.0	0	0.0	1	1.3	3	3.4	**4**	**0.6**	**4**	**0.8**
8. Fetal growth restriction	15	3.0	7	14.9	16	20.5	11	12.4	**49**	**6.9**	**49**	**9.2**
9. Spontaneous preterm	54	10.8	1	2.1	2	2.6	0	0.0	**57**	**8.0**	**57**	**10.7**
10. Unexplained antepartum death	37	7.4	17	36.2	22	28.2	43	48.3	**119**	**16.7**	**119**	**22.3**
Total	**498**	**100**	**47**	**100**	**78**	**100**	**89**	**100**	**712**	**100**	**533**	**100**

a. Perinatal Society of Australia & New Zealand Perinatal Death Classification 5.1: Termination of Pregnancy for Maternal Psychosocial Indications.

NA – not applicable

Figure 13.17: Causes of stillbirth (unadjusted), PSANZ PDC, Victoria 2012

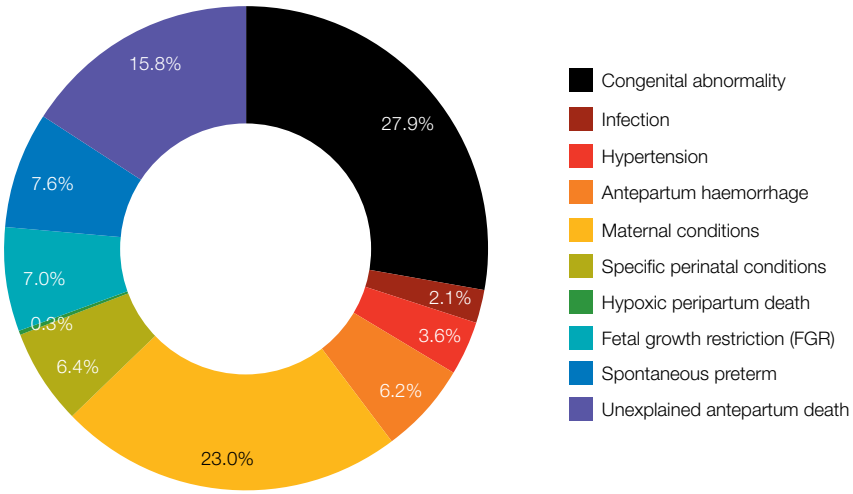


Figure 13.18: Causes of stillbirth (adjusted), PSANZ PDC, Victoria 2012

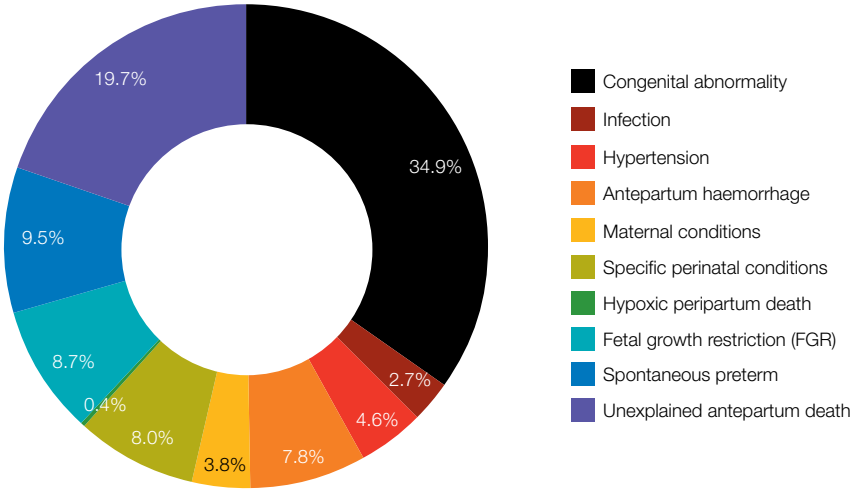


Figure 13.19: Causes of stillbirth (unadjusted), PSANZ PDC, Victoria 2013

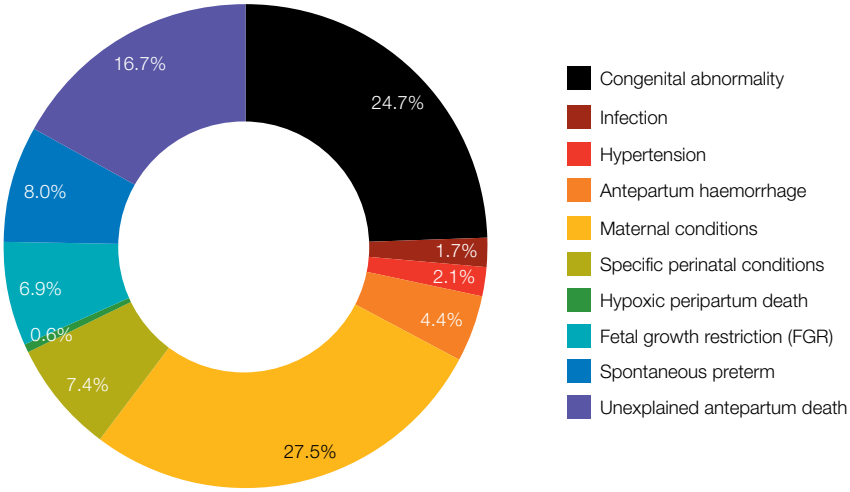


Figure 13.20: Causes of stillbirth (adjusted), PSANZ PDC, Victoria 2013

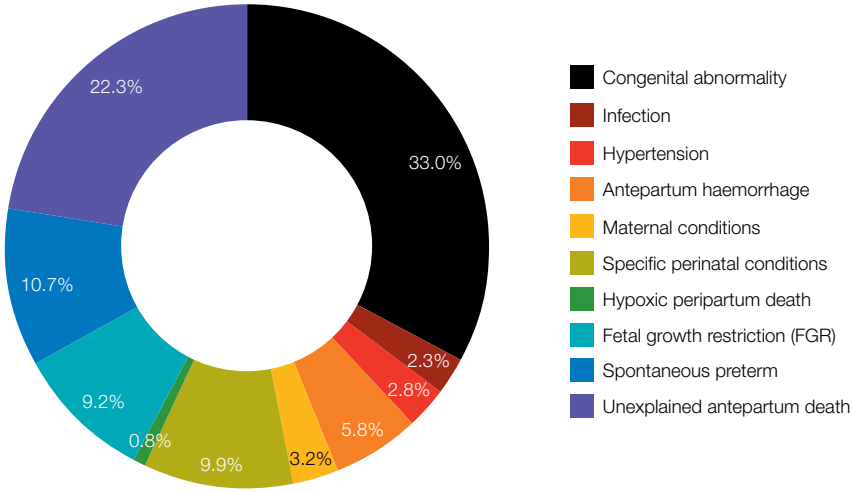


Table 13.33: Neonatal deaths, Victoria 2012, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	53	36.6	2	16.7	14	77.8	17	48.6	**86**	**41.0**
2. Infection	1	0.7	0	0.0	1	5.6	2	5.7	**4**	**1.9**
3. Hypertension	1	0.7	0	0.0	0	0.0	0	0.0	**1**	**0.5**
4. Antepartum haemorrhage	16	11.0	1	8.3	0	0.0	1	2.9	**18**	**8.6**
5. Maternal conditions	0	0.0	0	0.0	0	0.0	1	2.9	**1**	**0.5**
6. Specific perinatal conditions	8	5.5	2	16.7	2	11.1	3	8.6	**15**	**7.1**
7. Hypoxic peripartum death	0	0.0	1	8.3	0	0.0	9	25.7	**10**	**4.8**
8. Fetal growth restriction	2	1.4	3	25.0	0	0.0	1	2.9	**6**	**2.9**
9. Spontaneous preterm	64	44.1	3	25.0	1	5.6	0	0.0	**68**	**32.4**
11. No obstetric antecedent	0	0.0	0	0.0	0	0.0	1	2.9	**1**	**0.5**
Total	**145**	**100**	**12**	**100**	**18**	**100**	**35**	**100**	**210**	**100**

Table 13.34: Neonatal deaths, Victoria 2013, by PSANZ PDC and gestational age

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	45	26.0	3	30.0	14	77.8	24	60.0	**86**	**35.7**
2. Infection	2	1.2	0	0.0	0	0.0	2	5.0	**4**	**1.7**
3. Hypertension	2	1.2	0	0.0	0	0.0	1	2.5	**3**	**1.2**
4. Antepartum haemorrhage	16	9.2	2	20.0	0	0.0	1	2.5	**19**	**7.9**
5. Maternal conditions	3	1.7	0	0.0	0	0.0	0	0.0	**3**	**1.2**
6. Specific perinatal conditions	29	16.8	2	20.0	1	5.6	0	0.0	**32**	**13.3**
7. Hypoxic peripartum death	1	0.6	0	0.0	1	5.6	9	22.5	**11**	**4.6**
8. Fetal growth restriction	0	0.0	1	10.0	0	0.0	0	0.0	**1**	**0.4**
9. Spontaneous preterm	75	43.4	2	20.0	0	0.0	0	0.0	**77**	**32.0**
11. No obstetric antecedent	0	0.0	0	0.0	2	11.1	3	7.5	**5**	**2.1**
Total	**173**	**100**	**10**	**100**	**18**	**100**	**40**	**100**	**241**	**100**

Figure 13.21: Causes of neonatal deaths, PSANZ PDC, Victoria 2012

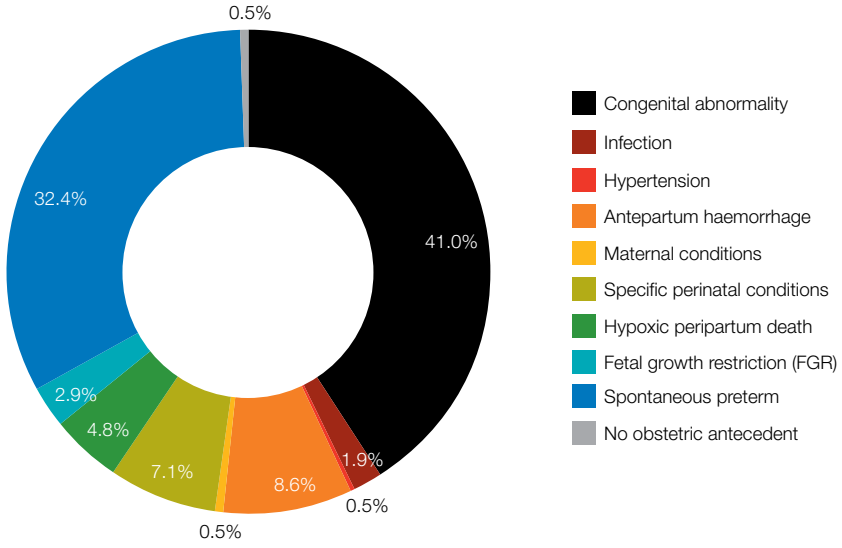


Figure 13.22: Causes of neonatal deaths, PSANZ PDC, Victoria 2013

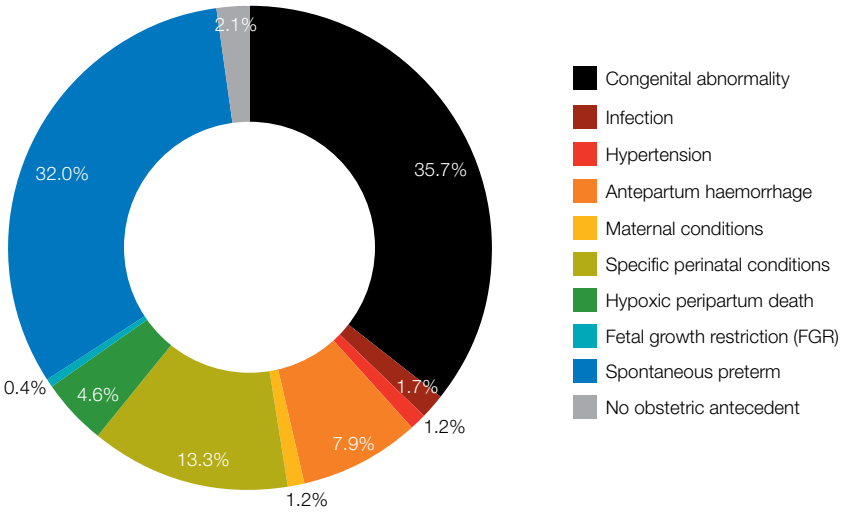


Table 13.35: Neonatal deaths, Victoria 2012, by PSANZ NDC and gestational age

Cause of death PSANZ NDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	53	36.6	2	16.7	14	77.8	17	48.6	**86**	**41.0**
2. Extreme prematurity	73	50.3	0	0.0	0	0.0	0	0.0	**73**	**34.8**
3. Cardio-respiratory disease	13	9.0	4	33.3	3	16.7	4	11.4	**24**	**11.4**
4. Infection	3	2.1	0	0.0	1	5.6	2	5.7	**6**	**2.9**
5. Neurological	2	1.4	4	33.3	0	0.0	11	31.4	**17**	**8.1**
6. Gastrointestinal	1	0.7	2	16.7	0	0.0	0	0.0	**3**	**1.4**
7. Other	0	0.0	0	0.0	0	0.0	1	2.9	**1**	**0.5**
Total	**145**	**100**	**12**	**100**	**18**	**100**	**35**	**100**	**210**	**100**

Table 13.36: Neonatal deaths, Victoria 2013, by PSANZ NDC and gestational age

Cause of death PSANZ NDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	44	25.4	3	30.0	14	77.8	24	60.0	**85**	**35.3**
2. Extreme prematurity	94	54.3	0	0.0	0	0.0	0	0.0	**94**	**39.0**
3. Cardio-respiratory disease	26	15.0	1	10.0	1	5.6	1	2.5	**29**	**12.0**
4. Infection	2	1.2	2	20.0	1	5.6	2	5.0	**7**	**2.9**
5. Neurological	5	2.9	3	30.0	1	5.6	10	25.0	**19**	**7.9**
6. Gastrointestinal	2	1.2	1	10.0	0	0.0	0	0.0	**3**	**1.2**
7. Other	0	0.0	0	0.0	1	5.6	3	7.5	**4**	**1.7**
Total	**173**	**100**	**10**	**100**	**18**	**100**	**40**	**100**	**241**	**100**

Table 13.37: Neonatal deaths, Victoria 2012, by PSANZ NDC, expanded categories and gestational age

	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
PSANZ NDC	n	n	n	n	n
1. Congenital abnormality	**53**	**2**	**14**	**17**	**86**
2. Extreme prematurity	**73**	**0**	**0**	**0**	**73**
3. Cardio-respiratory disease	**13**	**4**	**3**	**4**	**24**
3.1 Hyaline membrane disease / Respiratory Distress Syndrome	10	4	0	0	**14**
3.2 Meconium aspiration syndrome	0	0	0	1	**1**
3.4 Pulmonary hypoplasia	2	0	0	0	**2**
3.6 Pulmonary haemorhhage	0	0	1	0	**1**
3.8 Other cardio-respiratory	1	0	2	3	**6**
4. Infection	**3**	**0**	**1**	**2**	**6**
4.111 Group B Streptococcus	0	0	0	1	**1**
4.112 E coli	1	0	1	0	**2**
4.113 Lysteria monocytogenes	1	0	0	0	**1**
4.118 Other bacterial	0	0	0	1	**1**
4.5 Fungal	1	0	0	0	**1**
5. Neurological	**2**	**4**	**0**	**11**	**17**
5.1 Hypoxic ischaemic encephalopathy / perinatal asphyxia	1	2	0	10	**13**
5.21 Intraventricular haemorrhage	1	2	0	0	**3**
5.8 Other	0	0	0	1	**1**
6. Gastrointestinal	**1**	**2**	**0**	**0**	**3**
6.1 Necrotising enterocolitis	0	2	0	0	**2**
6.8 Other	1	0	0	0	**1**
7. Other	**0**	**0**	**0**	**1**	**1**
7.8 Other specified	0	0	0	1	**1**
Total	**145**	**12**	**18**	**35**	**210**

Table 13.38: Neonatal deaths, Victoria 2013, by PSANZ NDC, expanded categories and gestational age

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
1. Congenital abnormality	**44**	**3**	**14**	**24**	**85**
2. Extreme prematurity	**94**	**0**	**0**	**0**	**94**
3. Cardio-respiratory disease	**26**	**1**	**1**	**1**	**29**
3.1 Hyaline membrane disease / Respiratory Distress Syndrome	21	0	0	0	**21**
3.2 Meconium aspiration syndrome	0	0	0	0	**0**
3.4 Pulmonary hypoplasia	0	0	1	0	**1**
3.6 Pulmonary haemorhhage	0	0	0	0	**0**
3.5 Pneumothorax	1	0	0	0	**1**
3.8 Other cardio-respiratory	4	1	0	1	**6**
4. Infection	**2**	**2**	**1**	**2**	**7**
4.11 Congenital bacterial	0	1	0	0	**1**
4.111 Group B Streptococcus	0	0	1	0	**1**
4.112 Bacterial – E coli	0	0	0	1	**1**
4.121 Acquired bacterial – Group B Streptococcus	0	0	0	1	**1**
4.122 Acquired Bacterial – E coli	0	0	0	0	**0**
4.113 Lysteria monocytogenes	0	0	0	0	**0**
4.118 Other bacterial	2	0	0	0	**2**
4.5 Fungal	0	1	0	0	**1**
5. Neurological	**5**	**3**	**1**	**10**	**19**
5.1 Hypoxic ischaemic encephalopathy / perinatal asphyxia	1	0	1	10	**12**
5.2 Intracranial haemorrhage	2	0	0	0	**2**
5.21 Intraventricular haemorrhage	2	2	0	0	**4**
5.8 Other	0	1	0	0	**1**
6. Gastrointestinal	**2**	**1**	**0**	**0**	**3**
6.1 Necrotising enterocolitis	2	1	0	0	**3**

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
6.8 Other	0	0	0	0	**0**
7. Other	**0**	**0**	**1**	**3**	**4**
7.8 Other specified	0	0	0	0	**0**
7.13 Other – Sudden Infant Death Syndrome (SIDS) (SIDS Category II: Infant deaths that meet category I except for one or more features)	0	0	0	2	**2**
7.92 Other – Unknown/ Undetermined (Other Unknown/ Undetermined)	0	0	0	1	**1**
Total	**173**	**10**	**18**	**40**	**241**

Other characteristics of perinatal mortality

Table 13.39: Trends in maternal and infant characteristics relating to perinatal deaths (PND), Victoria 2007–2013 (%)

	Perinatal deaths not relating to termination of pregnancy for CA or MPI							Termination of pregnancy for suspected or confirmed CA							Termination of pregnancy for maternal psychosocial indications (MPI)						
	2007	2008	2009	2010	2011	2012	2013	2007	2008	2009	2010	2011	2012	2013	2007	2008	2009	2010	2011	2012	2013
	n=568	n=569	n=636	n=607	n=550	n=539	n=595	n=181	n=150	n=196	n=175	n=195	n=198	n=179	n=164	n=170	n=214	n=191	n=183	n=132	n=179
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Maternal age																					
< 20 years	5.8	4.9	6.1	5.1	5.6	2.8	6.6	2.2	2.0	2.0	2.3	2.6	2.0	0.6	38.4	36.5	26.6	28.8	31.7	25.8	21.8
20–24 years	13.3	14.4	13.8	13.3	12.2	12.4	12.3	12.7	13.3	7.6	12.0	8.2	9.1	5.6	29.3	30.9	32.7	31.4	25.7	28.0	31.8
25–29 years	25.3	25.8	24.2	25.7	25.3	24.5	25.5	25.4	32.0	21.9	26.9	27.7	26.8	22.9	15.2	12.4	19.6	19.4	21.9	17.4	14.5
30–34 years	28.3	14.4	24.1	28.3	28.9	32.1	26.9	26.0	26.0	42.3	31.4	30.3	33.3	37.4	5.5	9.0	9.3	11.0	12.0	13.6	16.2
35–39 years	21.9	25.8	23.9	19.8	22.2	20.8	22.4	28.7	21.3	23.5	21.7	25.6	20.7	24.6	6.1	4.5	7.5	6.3	4.4	8.3	11.7
≥ 40 years	5.3	6.7	7.9	7.1	5.5	7.4	6.4	5.0	5.3	2.0	5.1	5.6	8.1	8.9	2.4	3.4	4.2	2.1	4.3	6.0	2.8
Unknown	0.0	7.9	0.0	0.7	0.4	0.0	0.0	0.0	0.0	0.5	0.6	0.0	0.0	0.0	3.0	3.4	0.0	1.0	0.0	0.8	1.1
Place of residence																					
Victoria	97.5	97.7	95.3	98.2	96.5	96.7	96.1	94.5	95.3	87.8	92.0	90.8	96.0	98.3	35.4	37.1	46.3	48.7	45.9	48.5	43.6
Interstate	2.1	2.1	4.7	1.8	3.5	3.2	3.9	4.4	3.3	12.2	8.0	9.2	4.0	1.7	51.8	49.4	53.7	48.2	45.9	50.0	49.2
Overseas	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	10.4	11.2	0.0	3.1	8.2	1.5	7.3
Unknown	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	2.4	2.2	0.0	0.0	0.0	0.0	0

	Perinatal deaths not relating to termination of pregnancy for CA or MPI							Termination of pregnancy for suspected or confirmed CA							Termination of pregnancy for maternal psychosocial indications (MPI)						
	2007	2008	2009	2010	2011	2012	2013	2007	2008	2009	2010	2011	2012	2013	2007	2008	2009	2010	2011	2012	2013
	n=568	n=569	n=636	n=607	n=550	n=539	n=595	n=181	n=150	n=196	n=175	n=195	n=198	n=179	n=164	n=170	n=214	n=191	n=183	n=132	n=179
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Gestation																					
20–22 weeks	26.2	27.2	23.6	26.5	24.4	28.2	26.4	76.2	67.3	61.7	54.3	63.6	56.1	61.5	48.8	48.3	51.4	51.8	51.9	59.8	72.6
23–27 weeks	23.7	22.5	25.3	23.9	27.8	22.1	28.4	21.0	27.3	25.5	30.3	26.2	31.8	31.3	49.4	48.9	43.5	44.5	42.1	40.2	27.4
≥ 28 weeks	50.1	50.1	50.9	49.6	47.8	49.7	45.2	2.2	5.3	3.9	15.4	10.3	12.1	7.3	1.2	1.1	5.1	3.7	6.0	0.0	0
Unknown	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.6	0.0	8.6	0.0	0.0	0.0	0.0	0.6	1.7	0.0	0.0	0.0	0.0	0
Infant sex																					
Male	49.2	53.1	54.4	51.7	58.5	47.1	51.8	51.0	52.0	49.5	54.3	55.9	52.0	56.4	43.0	53.0	45.6	43.5	41.0	31.8	33.5
Female	49.0	45.7	43.2	46.0	39.1	50.3	46.9	46.0	47.0	46.3	43.4	41.5	46.5	41.3	51.0	38.0	41.9	43.5	44.8	34.8	36.3
Indeterminate	0.0	0.0	1.9	2.3	2.2	2.6	1.3	2.0	1.0	1.0	2.3	2.6	1.0	2.3	0.0	0.0	1.4	8.4	10.9	28.8	28.5
Unknown	1.8	1.2	0.5	0.0	0.2	0.0	0.0	1.0	0.0	3.2	0.0	0.0	0.5	0.0	6.0	9.0	11.2	4.7	3.3	4.5	1.7

Notes
CA – congenital anomaly
MPI – maternal psychosocial indication

Table 13.40: Time of fetal death in stillbirths (by gestational age), Victoria 2012

	Prior to labour		During labour		Total	
Gestation (weeks)	n	%	n	%	n	%
20–21	34	10.9	37	52.9	**71**	**18.6**
22–23	35	11.2	13	18.6	**48**	**12.6**
24–25	32	10.3	6	8.6	**38**	**9.9**
26–27	19	6.1	2	2.9	**21**	**5.5**
28–31	44	14.1	0	0.0	**44**	**11.5**
32–36	57	18.3	6	8.6	**63**	**16.5**
37+	91	29.2	6	8.6	**97**	**25.4**
Total	**312**	**100**	**70**	**100**	**382**	**100**

Note: Terminations of pregnancy for suspected or confirmed congenital abnormaltiy and maternal psychosocial indications have been excluded from this table.

Time of fetal death data is provided by the VPDC. This is a compulsory field on the birth form so there are no missing or unknown cases.

Table 13.41: Time of fetal death in stillbirths (by gestational age), Victoria 2013

	Prior to labour		During labour		Total	
Gestation (weeks)	n	%	n	%	n	%
20–21	41	12.9	24	30.8	**65**	**16.4**
22–23	34	10.7	30	38.5	**64**	**16.1**
24–25	35	11.0	5	6.4	**40**	**10.1**
26–27	25	7.8	2	2.6	**27**	**6.8**
28–31	37	11.6	1	1.3	**38**	**9.6**
32–36	70	21.9	5	6.4	**75**	**18.9**
37+	77	24.1	11	14.1	**88**	**22.2**
Total	**319**	**100**	**78**	**100**	**397**	**100**

Note: Terminations of pregnancy for suspected or confirmed congenital abnormaltiy and maternal psychosocial indications have been excluded from this table.

Time of fetal death data is provided by the VPDC. This is a compulsory field on the birth form so there are no missing or unknown cases.

Table 13.42: Age at time of death of neonates, Victoria 2012

Gestation (weeks)	Early neonatal death 0–6 days	Late neonatal death 7–27 days	Total
20–21	33	1	**34**
22–23	38	3	**41**
24–25	10	4	**14**
26–27	4	0	**4**
28–31	7	4	**11**
32–36	11	7	**18**
37+	24	11	**35**
Total	**127**	**30**	**157**
% of Total	**80.9**	**19.1**	**100**

Note: All neonatal deaths that were a result of termination of pregnancy for suspected or confirmed congenital abnormality were excluded from this table.

Table 13.43: Age at time of death of neonates, Victoria 2013

Gestation (weeks)	Early neonatal death 0–6 days	Late neonatal death 7–27 days	Total
20–21	30	0	**30**
22–23	57	2	**59**
24–25	25	6	**31**
26–27	7	3	**10**
28–31	7	3	**10**
32–36	12	6	**18**
37+	24	16	**40**
Total	**162**	**36**	**198**
% of Total	**81.8**	**18.2**	**100**

Note: All neonatal deaths that were a result of termination of pregnancy for suspected or confirmed congenital abnormality were excluded from this table.

Perinatal autopsy service

Table 13.44: Perinatal autopsy rates, Victoria 2012

	Stillbirths		Neonatal deaths		Perinatal deaths	
Type	n	%	n	%	n	%
Full	228	43.3	57	27.1	285	38.7
Partial	8	1.5	5	2.4	13	1.8
External	30	5.7	8	3.8	38	5.2
Other	1	0.2	0	0.0	1	0.1
Unknown	1	0.2	0	0.0	1	0.1
None	259	49.1	140	66.7	399	54.1
Total	**527**	**100**	**210**	**100**	**737**	**100**

Table 13.45: Perinatal autopsy rates, Victoria 2013

	Stillbirths		Neonatal deaths		Perinatal deaths	
Type	n	%	n	%	n	%
Full	229	43.0	59	24.5	288	37.2
Partial	4	0.8	10	4.1	14	1.8
External	30	5.6	12	5.0	42	5.4
Other	0	0.0	0	0.0	0	0.0
Unknown	5	0.9	0	0.0	5	0.6
None	265	49.7	160	66.4	425	54.9
Total	**533**	**100**	**241**	**100**	**774**	**100**

Figure 13.23: Perinatal autopsy rates, Victoria 2000–2013

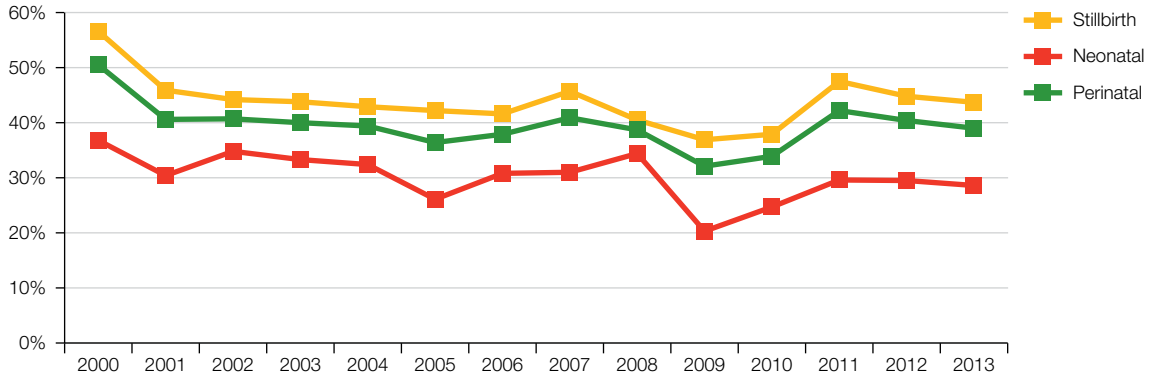


Table 13.46: Placental pathology, Victoria 2012

Placental pathology available	n	%
Yes	551	74.8
No	107	14.5
Missing/Unknown	79	10.7
Total	**737**	**100**

Table 13.47: Placental pathology, Victoria 2013

Placental pathology available	n	%
Yes	608	78.6
No	132	17.1
Missing/Unknown	34	4.4
Total	**774**	**100**

Contributing factors in perinatal deaths 2008–2013

Table 13.48: Contributing factors in perinatal deaths (birth weight ≥ 500 g), Victoria 2008–2013

Suspected contributing factor	Count of contributing factor identified					
	Stillbirths	% of stillbirth factors identified	Neonates	% of neonatal death factors identified	Total	% of Total
Obstetric factors						
Antenatal care:	**61**	**22.3**	**13**	**5.1**	**74**	**14.0**
Delay or lack of consultation in high-risk pregnancy	22	8.1	6	2.4	**28**	**5.3**
Inadequate care of diabetic mother	15	5.5	1	0.4	**16**	**3.0**
Insufficient antenatal care	24	8.8	2	0.8	**26**	**4.9**
Cervical incompetence	0	0.0	4	1.6	**4**	**0.8**
No clinical evidence apparent	0	0.0	0	0.0	**0**	**0.0**
Inadequate management of:	**42**	**15.4**	**17**	**6.7**	**59**	**11.2**
Hypertension/PET/eclampsia	7	2.6	2	0.8	**9**	**1.7**
Antepartum haemorrhage	1	0.4	2	0.8	**3**	**0.6**
Multiple pregnancy	3	1.1	2	0.8	**5**	**0.9**
Growth-restricted fetus	20	7.3	7	2.7	**27**	**5.1**
Macrosomia	5	1.8	1	0.4	**6**	**1.1**
Inadequate management of Rh immunised mother	2	0.7	0	0.0	**2**	**0.4**
Prolonged pregnancy	0	0.0	0	0.0	**0**	**0.0**
Premature rupture of membranes	3	1.1	3	1.2	**6**	**1.1**
Cervical incompetence	1	0.4	0	0.0	**1**	**0.2**
Inadequate antenatal monitoring:	**69**	**25.3**	**18**	**7.1**	**87**	**16.5**
Clinical need for test apparent	22	8.1	5	2.0	**27**	**5.1**
Misinterpretation of or undue reliance on tests	47	17.2	13	5.1	**60**	**11.4**
Failure of transfer of patient:	**0**	**0.0**	**4**	**1.6**	**4**	**0.8**
PRM < 34 weeks	0	0.0	3	1.2	**3**	**0.6**
PET < 34 weeks	0	0.0	1	0.4	**1**	**0.2**
Factors relating to the pregnant woman, her family and her social situation:	**42**	**15.4**	**11**	**4.3**	**37**	**7.0**
Inappropriate maternal drugs	3	1.1	2	0.8	**5**	**0.9**
Failure/delay in reporting decreased movements	9	3.3	2	0.8	**11**	**2.1**
Family neglect or ignorance	20	7.3	5	2.0	**9**	**1.7**

Suspected contributing factor	Count of contributing factor identified					
	Stillbirths	% of stillbirth factors identified	Neonates	% of neonatal death factors identified	Total	% of Total
Maternal smoking	10	3.7	2	0.8	**12**	**2.3**
Intrapartum care:	**38**	**13.9**	**84**	**32.9**	**122**	**23.1**
Caesarean section too late	0	0.0	14	5.5	**14**	**2.7**
Caesarean section too early	1	0.4	0	0.0	**1**	**0.2**
Failure to perform caesarean section	1	0.4	6	2.4	**7**	**1.3**
Failure to expedite delivery	16	5.9	22	8.6	**38**	**7.2**
Inadequate intrapartum monitoring	16	5.9	29	11.4	**45**	**8.5**
Surgical induction too late	0	0.0	2	0.8	**2**	**0.4**
Unsuitable hospital for delivery	3	1.1	10	3.9	**13**	**2.5**
Forceps delivery	1	0.4	0	0.0	**1**	**0.2**
Surgical induction too early	0	0.0	0	0.0	**0**	**0.0**
Prolonged labour	0	0.0	1	0.4	**1**	**0.2**
Cephalopelvic disproportion	0	0.0	0	0.0	**0**	**0.0**
Inadequate intrapartum management of:	**21**	**7.7**	**38**	**14.9**	**59**	**11.2**
Sepsis	0	0.0	5	2.0	**5**	**0.9**
Breech/other malpresentation	2	0.7	6	2.4	**8**	**1.5**
Obstructed labour	0	0.0	3	1.2	**3**	**0.6**
Preterm delivery	1	0.4	10	3.9	**11**	**2.1**
Fetal distress	2	0.7	7	2.7	**9**	**1.7**
Other maternal factor (includes poor compliance)	16	5.9	7	2.7	**23**	**4.4**
Of haemorrhage	0	0.0	0	0.0	**0**	**0.0**
Paediatric factors[a]						
Delay in recognition/treatment:			**36**	**14.1**	**52**	**9.8**
Delay or lack of consultation			10	3.9	**10**	**1.9**
Delay/difficulties/failure to transfer infant			5	2.0	**5**	**0.9**
Family neglect or ignorance			4	1.6	**20**	**3.8**
Of malformation			8	3.1	**8**	**1.5**
Of sepsis			8	3.1	**8**	**1.5**
Of haemorrhage			1	0.4	**1**	**0.2**
Inadequate:			**30**	**11.8**	**30**	**5.7**
Paediatric management			14	5.5	**14**	**2.7**

Suspected contributing factor	Count of contributing factor identified					
	Stillbirths	% of stillbirth factors identified	Neonates	% of neonatal death factors identified	Total	% of Total
Resuscitation			15	5.9	**15**	**2.8**
Nursery care			1	0.4	**1**	**0.2**
Inadequate management of:			**4**	**1.6**	**4**	**0.8**
Low birth weight baby			2	0.8	**2**	**0.4**
Obstructed labour			0	0.0	**0**	**0.0**
Respiratory distress			1	0.4	**1**	**0.2**
Other infant factor			1	0.4	**1**	**0.2**
Total number of preventable factors identified	**273**	**100**	**255**	**100**	**528**	**100**
Total number of cases	**160**		**121**		**281**	

a. There are no paediatric factors in stillbirths.

Definitions, methods and measures

Congenital anomaly / congenital abnormality

A congenital anomaly is any anomaly of prenatal origin, arising from conception or occurring before the end of pregnancy.

This includes structural, functional, genetic, chromosomal and biochemical anomalies.

PSANZ uses the wording 'congenital abnormality', and where PSANZ codes are used in this report, 'congenital abnormality' is used.

CCOPMM uses the wording 'congenital anomaly' in other areas of this report.

Perinatal death

Perinatal deaths refer to stillbirths and live births with only brief survival and are grouped on assumption that similar factors are associated with these losses.

CCOPMM defines perinatal death to include stillbirth and neonatal deaths within 28 days of birth of infants of gestation ≥ 20 weeks gestation or if gestation is unknown, of birth weight ≥ 400 g.

For national statistics, CCOPMM also reports on perinatal deaths of infants with a birth weight of ≥ 500 g or, if the birth weight is unknown, infants of ≥ 22 weeks gestation.

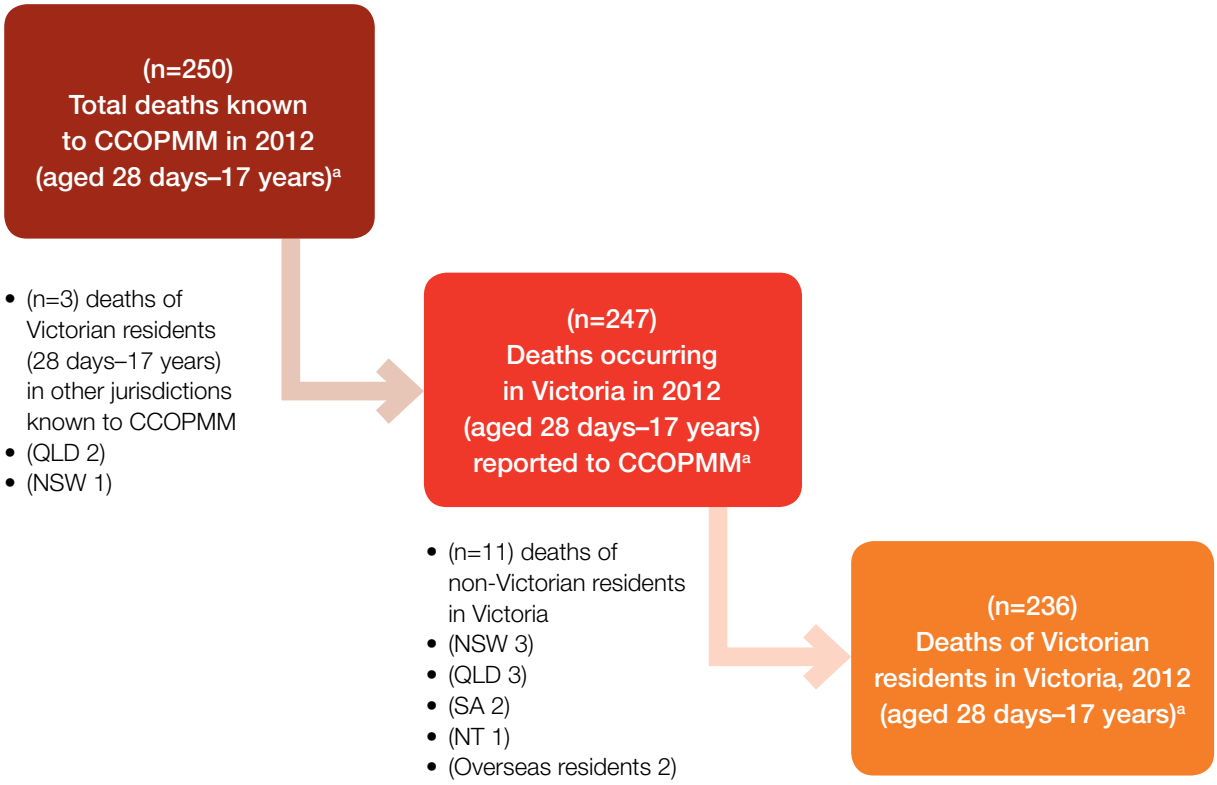
This definition has certain advantages because it excludes from the calculation those mostly pre-viable live births of < 500 g and also the majority of cases where the pregnancy was terminated for fetal or maternal indications.

For international comparison as recommended by WHO, only fetuses and infants of at least 1,000 g birth weight, or where birth weight is unavailable, the corresponding gestational age (28 weeks) or body length (35 cm crown-heel) are included in the perinatal mortality ratio.

Post-neonatal infant, child and adolescent deaths in Victoria 2012 and 2013

Post-Neonatal Infant, Child and Adolescent Death Review 2012 and 2013

Figure 14.1: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2012[a]



a. Neonatal deaths 0–27 days are not included in this section.

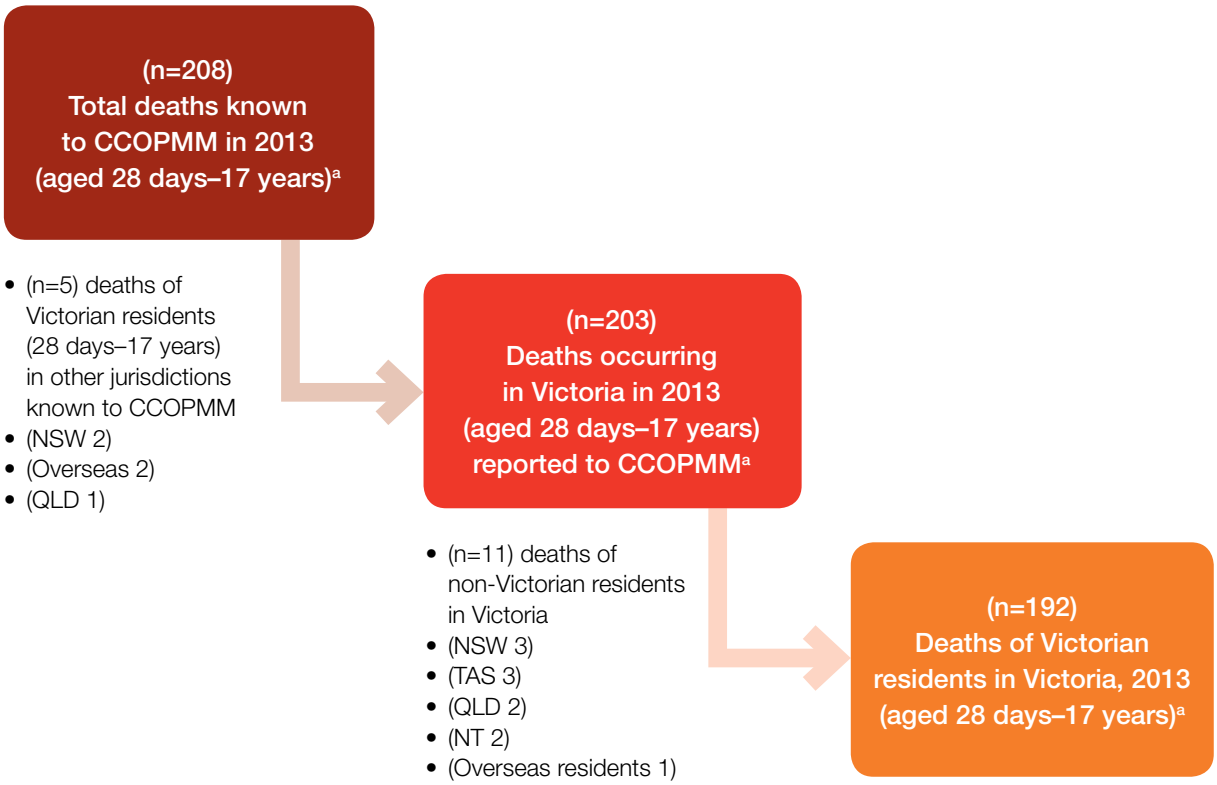
As in previous reports, CCOPMM only reports on deaths of children who were residents in Victoria and who died in Victoria (n=236 in the age group 28 days–17 years). As a result the following deaths are excluded:

- Deaths of Victorian residents dying outside Victoria. CCOPMM is aware of Victorian resident children dying interstate from the published reports and databases of other Australian jurisdictions. These deaths were not reported to CCOPMM. These include deaths which occurred in NSW (1)[1] and QLD (2)[2]. There was one infant, one child in the 1–4 year age group and one child in the 5–9 year age group. The causes of death were drowning (2) and diseases and morbid conditions (1).
- There were 11 deaths in Victoria of post-neonatal infants and children not resident in Victoria. The causes of death were motor vehicle accident (5), malignancy (2) congenital anomaly (2) and other acquired illness (2). The place of residence was listed as NSW (3), QLD (3), SA (2), NT (1) and overseas residents (2).

Seven infants and children/adolescents were identified as Aboriginal or Torres Strait Islander (ATSI), or were identified as having at least one parent who was ATSI. The causes of death in these infants and children were prematurity, congenital anomaly, SIDS and unintentional injury.

1. NSW Child Death Review Team, NSW Ombudsman. Annual Report 2012. October 2013.
2. The State of Queensland (Commission for Children and Young People and Child Guardian). 2012. Annual Report: Deaths of children and young people, Queensland, 2011–12.

Figure 14.2: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2013[a]



a. Neonatal deaths 0–27 days are not included in this section.

As in previous reports, CCOPMM only reports on deaths of children who were residents in Victoria and who died in Victoria (n=192 in the age group 28 days–17 years). As a result the following deaths are excluded:

- Two Victorian resident children died overseas, both from malignancy.
- Three Victorian resident post neonatal infants (2) and children (1) died interstate (NSW n=2, QLD n=1), from diseases and morbid conditions.[3,4]
- There were 11 deaths in Victoria in 2013 of post-neonatal infants (5) and children (6) not resident in Victoria. The causes of death were congenital anomaly (6), SIDS II (1), motor vehicle accident (1), infection (1), other acquired illness (1) and undetermined (1). The place of residence was listed as NSW (3), TAS (3) QLD (2), NT (2) and overseas residents (1).

Fewer than five infants and children/adolescents were identified as Aboriginal or Torres Strait Islander, or were identified as having at least one parent who was ATSI. The causes of death in these infants and children was prematurity, congenital anomaly and undetermined.

3. Data obtained from the NSW Child Death Review Team, NSW Ombudsman.
4. Data obtained from the Queensland Family and Child Commission.

Rates of death by age and gender

Table 14.1: Infant, child and adolescent deaths (0–17 years), age at death by gender, Victoria 2012

	Females		Males		Total	
Age at death	n	%	n	%	n	%
Under 1 year						
Less than 28 days	83	42.6	73	37.1	**156**	**39.8**
≥ 28 days to < 1 year	36	18.5	31	15.7	**67**	**17.1**
Subtotal < 1 year	***119***	***61.0***	***104***	***52.8***	***223***	***56.9***
1 to 4 years	22	11.3	33	16.8	**55**	**14.0**
5 to 9 years	9	4.6	19	9.6	**28**	**7.1**
10 to 14 years	14	7.2	19	9.6	**33**	**8.4**
15 to 17 years	31	15.9	22	11.2	**53**	**13.5**
Subtotal 1–17 years	***76***	***39.0***	***93***	***47.2***	***169***	***43.1***
Total: 0–17 years[a]	**195**	**100**	**197**	**100**	**392**	**100**

a. This table excludes:
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (n=2).
- Neonatal deaths following termination of pregnancy for congenital anomaly.
- One neonatal death where gender was not described.
- Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (n=11).
- Deaths of Victorian infants (1) and children (2), known to have occurred interstate (n=3).

Table 14.2: Infant, child and adolescent deaths (0–17 years), age at death by gender, Victoria 2013

	Females		Males		Total	
Age at death	n	%	n	%	n	%
Under 1 year						
Less than 28 days	102	53.7	96	48.0	198	50.8
≥ 28 days to < 1 year	34	17.9	33	16.5	67	17.2
Subtotal < 1 year	***136***	***71.6***	***129***	***64.5***	***265***	***67.9***
1 to 4 years	15	7.9	18	9.0	33	8.5
5 to 9 years	11	5.8	19	9.5	30	7.7
10 to 14 years	13	6.8	13	6.5	26	6.7
15 to 17 years	15	7.9	21	10.5	36	9.2
Subtotal 1–17 years	***54***	***28.4***	***71***	***35.5***	***125***	***32.1***
Total: 0–17 years[a]	**190**	**100.0**	**200**	**100.0**	**390**	**100.0**

a. This table excludes:
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (n=0).
- Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly.
- Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (n=11).
- Two Victorian resident children known to have died overseas.
- Deaths of Victorian resident infants (2) and children (1) known to have occurred interstate.

Table 14.3: Infant, child and adolescent deaths (0–17 years), death rates for age group by gender, Victoria 2012

Age category	Females		Males		Total	
	n	Rate per 100,000[a]	n	Rate per 100,000[a]	n	Rate per 100,000[a]
Less than 28 days	83	228.3	73	190.4	**156**	**208.8**
≥ 28 days to < 1 year	36	99.0	31	80.8	**67**	**89.7**
Subtotal 0–1 year	***119***	***327.3***	***104***	***271.2***	***223***	***298.5***
1 to 4 years	22	15.8	33	22.5	**55**	**19.3**
Subtotal 0 to 4 years	***141***	***80.5***	***137***	***74.0***	***278***	***77.2***
5 to 9 years	9	5.4	19	10.9	**28**	**8.2**
10 to 14 years	14	8.7	19	11.2	**33**	**10.0**
15 to 17 years	31	30.6	22	20.6	**53**	**25.5**
Total: 0 to 17 years[b]	**195**	**32.3**	**197**	**31.0**	**392**	**31.6**

a. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.

b. This table excludes:
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (n=2).
- Neonatal deaths following termination of pregnancy for congenital anomaly.
- One neonatal death where gender was not described.
- Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (n=11).
- Deaths of Victorian infants (1) and children (2), known to have occurred interstate (n=3).

Table 14.4: Infant, child and adolescent deaths (0–17 years), death rates for age group by gender, Victoria 2013

Age category	Females		Males		Total	
	n	Rate per 100,000[a]	n	Rate per 100,000[a]	n	Rate per 100,000[a]
Less than 28 days	102	274.5	96	244.3	198	259.0
≥ 28 days to < 1 year	34	91.5	33	84.0	67	87.6
Subtotal 0–1 year	***136***	***366.1***	***129***	***328.3***	***265***	***346.6***
1 to 4 years	15	10.5	18	12.0	33	11.3
Subtotal 0 to 4 years	***151***	***84.2***	***147***	***77.5***	***298***	***80.7***
5 to 9 years	11	6.5	19	10.6	30	8.6
10 to 14 years	13	8.0	13	7.6	26	7.8
15 to 17 years	15	14.9	21	19.7	36	17.4
Total: 0 to 17 years[b]	**190**	**31.0**	**200**	**31.0**	**390**	**31.0**

a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.

b. This table excludes:
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (n=0).
- Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly.
- Post neontatal infants, children and adolescents not resident of Victoria, dying in Victoria (n=11).
- Two Victorian resident children known to have died overseas.
- Deaths of Victorian resident infants (2) and children (1) known to have occurred interstate.

Infant mortality rate

Figure 14.3: Infant mortality rate, Victoria 2000–2013

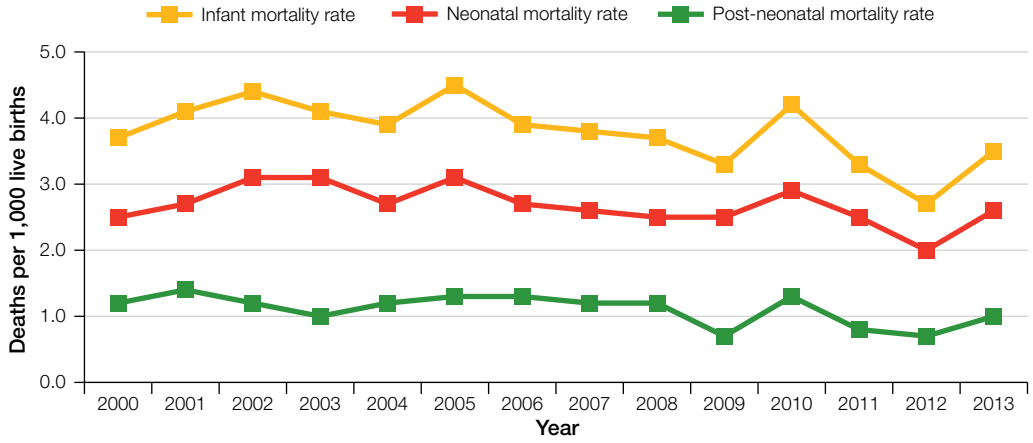


Table 14.5: Neonatal, post-neonatal and infant mortality rates, Victoria 2000–2013

Number	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Live births[a]	62,127	61,670	62,658	62,987	63,047	65,996	69,187	71,728	71,811	72,432	73,731	73,349	77,659	77,566
Neonatal deaths[a,b]	154	169	197	196	172	207	185	189	183	184	211	183	157	198
Post-neonatal infant deaths[b]	73	86	78	60	75	87	88	87	84	54	95	56	54	77
Total infant deaths[b]	227	255	275	256	247	294	273	276	267	238	306	239	211	275
Mortality rate per 1,000 live births														
Neonatal mortality rate	2.5	2.7	3.1	3.1	2.7	3.1	2.7	2.6	2.5	2.5	2.9	2.5	2.0	2.6
Post-neonatal infant mortality rate	1.2	1.4	1.2	1.0	1.2	1.3	1.3	1.2	1.2	0.7	1.3	0.8	0.7	1.0
Infant mortality rate	3.7	4.1	4.4	4.1	3.9	4.5	3.9	3.8	3.7	3.3	4.2	3.3	2.7	3.5

a. The following are excluded:
- Live births and neonatal deaths from terminations of pregnancy for suspected or confirmed congenital anomaly resulting in neonatal death.
- Births occurring interstate or overseas, with death occurring in Victoria (neonates n=2 in 2012, n=0 in 2013; post neonatal infants n=5 in 2012, n=5 in 2013).
- Deaths of Victorian-born infants occurring in other jurisdictions (n=2 post neonatal infants born in Victoria in 2012, dying interstate in 2013). Adding these two cases does not change the post-neonatal mortality rate, nor the infant mortality rate for 2012.

b. The deaths in all categories (neonatal, post-neonatal infant and infant deaths), and the corresponding rates, refer to all those who died who were ***born in the index year,*** *regardless of whether they died in the index year or the following year.*
- For 2012: There were 54 post neonatal infants born in Victoria in 2012 who died in Victoria. Forty-three of these infants died in 2012, and 11 died in 2013. In addition, two infants born in Victoria in 2012 died interstate (NSW) in 2013. Adding these two cases to the post neonatal infant death total does not change the post neonatal mortality rate or the infant mortality rate for 2012.
- For 2013: There were 77 postneonatal infants born in Victoria in 2013 who died in Victoria. Fifty-six of these infants died in 2013 and 21 died in 2014.

Table 14.6: Comparison of infant mortality rates (per 1,000 live births) of Victoria and 34 OECD countries[a], 1960–2013

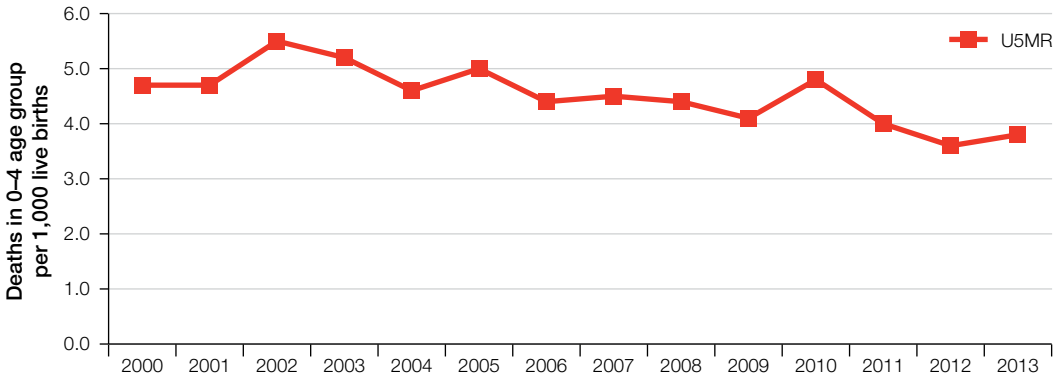
	Country	1960	1970	1980	1990	2000	2010	2012	2013
1	Luxembourg	N/A	19.2	10.9	7.3	3.9	1.9	1.7	1.6
2	Iceland	17.5	12.8	7.4	5.1	3.1	1.9	1.7	1.6
3	Japan	30.4	13.4	6.9	4.6	3.3	2.4	2.2	2.1
4	Finland	21.9	13.2	6.8	5.5	3.5	2.5	2.2	2.1
5	Norway	18.4	13.1	8.0	7.0	3.9	2.6	2.3	2.3
6	Slovenia	N/A	N/A	15.5	8.8	4.5	2.6	2.4	2.3
7	Sweden	16.3	11.3	6.9	5.8	3.4	2.5	2.4	2.4
	Victoria	N/A	N/A	N/A	N/A	**3.7**	**4.2**	**2.7**	**3.5**
8	Estonia	N/A	N/A	21.6	16.5	8.8	3.6	2.9	2.7
9	Denmark	21.3	14.0	8.1	7.4	4.6	3.3	3.0	2.9
10	Italy	44.2	29.7	13.4	8.3	4.7	3.4	3.1	3.0
11	Czech Republic	N/A	N/A	16.5	12.8	5.6	3.4	3.1	2.9
12	Portugal	84.6	55.4	21.3	11.5	5.5	3.1	3.1	3.1
13	Austria	37.3	25.0	13.2	8.0	4.6	3.6	3.3	3.2
14	Israel	N/A	N/A	14.7	9.7	5.6	3.6	3.3	3.2
15	Germany	N/A	22.1	11.8	7.0	4.4	3.5	3.3	3.2
16	Ireland	30.4	19.0	11.2	7.7	6.0	3.5	3.3	3.2
17	Korea, Rep.	80.6	41.2	11.3	6.1	5.2	3.5	3.3	3.2
18	**Australia**	**20.4**	**17.8**	**10.4**	**7.6**	**5.1**	**4.0**	**3.5**	**3.4**
19	Netherlands	16.4	12.6	8.6	6.8	5.1	3.7	3.5	3.3
20	France	23.7	15.0	9.8	7.4	4.4	3.5	3.5	3.5
21	Belgium	29.5	20.5	11.7	8.3	4.8	3.6	3.6	3.5
22	Spain	47.7	25.5	14.1	9.3	5.4	3.9	3.7	3.6
23	Switzerland	21.6	15.0	8.1	6.7	4.6	3.8	3.7	3.6
24	Greece	48.3	33.8	19.9	11.3	6.9	4.0	3.8	3.7
25	United Kingdom	22.9	18.0	11.4	7.9	5.6	4.4	4.0	3.9
26	Poland	57.8	32.2	20.5	15.1	8.1	5.0	4.5	4.5
27	Canada	27.8	18.5	9.7	6.8	5.2	4.9	4.7	4.6
28	Hungary	53.4	39.0	22.8	17.0	9.7	5.7	5.3	5.2
29	New Zealand	22.6	16.9	12.4	9.2	6.1	5.3	5.3	5.2
30	United States	25.9	19.9	12.1	9.4	7.1	6.3	6.1	5.9
31	Slovak Republic	N/A	N/A	23.3	15.6	10.2	6.8	6.3	6.0
32	Chile	127.7	67.3	25.6	16.0	9.2	7.5	7.2	7.1
33	Mexico	101.5	77.3	53.7	37.0	21.6	14.4	13.1	12.5
34	Turkey	169.2	126.5	85.4	55.7	33.7	19.5	17.4	16.5

a. Source: <http://data.worldbank.org/indicator/SP.DYN.IMRT.IN?display=graph>, accessed May 13, 2015. Victoria's figures added for comparison.

N/A: Not available

Under 5 mortality rate

Figure 14.4: Under 5 mortality rate (U5MR), Victoria, 2000–2013



	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Live births	62,127	61,670	62,658	62,987	63,047	65,996	69,187	71,728	71,811	72,432	73,731	73,349	77,659	77,566
Neonatal deaths	154	169	197	196	172	207	185	189	183	184	211	183	157	198
Post-neonatal infant deaths[a]	89	73	86	67	75	82	84	86	84	64	93	60	67	67
1–4 year deaths	52	45	62	62	40	44	35	47	47	50	49	49	55	33
Total 0–4 deaths	295	287	345	325	287	333	304	322	314	298	353	292	279	298
U5MR	**4.7**	**4.7**	**5.5**	**5.2**	**4.6**	**5.0**	**4.4**	**4.5**	**4.4**	**4.1**	**4.8**	**4.0**	**3.6**	**3.8**

Note: Deaths in children 0–4 years of age occurring in the index year per 1,000 live births occurring in the index year.

a. Note that the post neonatal infant numbers are different to those in the tables and calculations for infant mortality rate (Figure 14.3, Table 14.5). For the U5MR calculation, *post neonatal infant deaths* ***occurring*** *in the index year* are counted. For infant mortality rate *post neonatal infant deaths occurring in infants* ***born*** *in the index year* are counted, regardless of when they occurred.

The numbers of deaths in this table exclude:

- Neonates where birth occurred interstate or overseas, with death occurring in Victoria.
- Post neonatal infants and children not normally resident of Victoria, dying in Victoria.
- Deaths of Victorian resident infants and children known to have occurred outside Victoria.

Live births and neonatal deaths exclude terminations of pregnancy for congenital anomaly resulting in neonatal death.

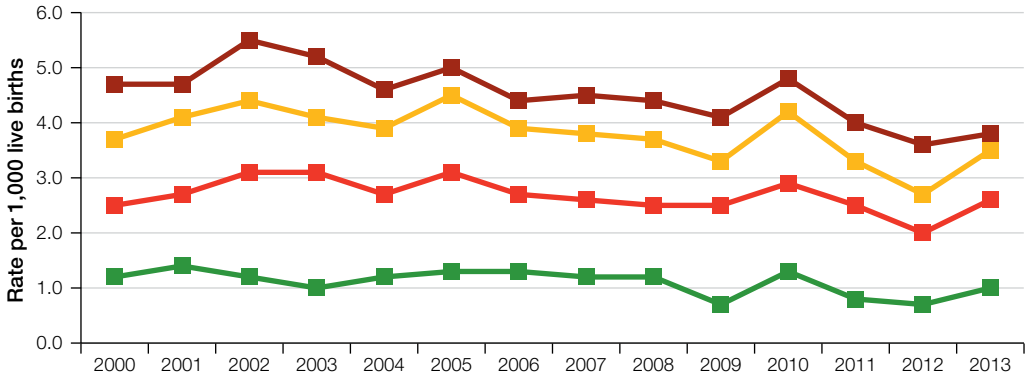
Table 14.7: Under 5 mortality rate (probability of dying by age 5 per 1,000 live births), Victoria and selected OECD member countries, 1960–2013[a]

	Country	1960	1970	1980	1990	2000	2010	2012	2013
1	Luxembourg	N/A	22.3	13.4	8.8	4.8	2.4	2.2	2.0
2	Iceland	21.5	15.8	9.8	6.4	4.0	2.4	2.2	2.1
3	Finland	26.8	16.1	8.7	6.7	4.3	3.0	2.7	2.6
4	Norway	22.6	16.2	10.1	8.7	4.8	3.2	2.9	2.8
5	Sweden	19.6	13.4	8.4	6.9	4.1	3.1	3.0	3.0
6	Slovenia	N/A	N/A	N/A	10.4	5.5	3.3	3.0	2.9
7	Japan	39.7	17.5	9.9	6.3	4.5	3.2	3.0	2.9
8	Denmark	25.0	16.6	10.0	8.9	5.6	4.0	3.7	3.5
9	Italy	52.0	33.6	16.1	9.6	5.5	4.0	3.7	3.6
10	Estonia	N/A	N/A	27.1	20.2	11.0	4.5	3.7	3.4
	Victoria	N/A	N/A	N/A	N/A	**4.7**	**4.8**	**3.6**	**3.8**
11	Czech Republic	N/A	N/A	N/A	14.6	6.6	4.1	3.8	3.6
12	Portugal	114.6	68.2	27.6	14.7	7.2	3.9	3.8	3.8
13	Korea, Rep.	113.6	52.4	14.4	7.1	6.1	4.1	3.9	3.7
14	Ireland	35.3	22.2	14.3	9.2	7.2	4.2	3.9	3.8
15	Germany	N/A	25.7	15.0	8.5	5.4	4.2	4.0	3.9
16	Austria	42.9	29.0	16.3	9.5	5.5	4.4	4.0	3.9
17	**Australia**	**24.9**	**21.4**	**13.0**	**9.2**	**6.2**	**4.8**	**4.2**	**4.0**
18	Israel	N/A	N/A	18.0	11.6	6.9	4.5	4.2	4.0
19	France	28.5	18.2	12.4	9.0	5.4	4.2	4.2	4.2
20	Netherlands	20.8	15.8	10.9	8.3	6.2	4.4	4.2	4.0
21	Switzerland	26.5	18.4	10.4	8.2	5.6	4.5	4.3	4.2
22	Spain	55.6	29.2	17.8	11.0	6.5	4.6	4.3	4.2
23	Belgium	33.9	24.0	14.5	10.0	5.8	4.5	4.4	4.4
24	Greece	55.8	37.5	23.4	12.5	7.8	4.7	4.5	4.4
25	United Kingdom	26.6	21.0	14.1	9.3	6.6	5.2	4.8	4.6
26	Canada	32.6	22.0	12.5	8.3	6.2	5.6	5.3	5.2
27	Poland	64.7	36.3	23.9	17.3	9.3	5.8	5.3	5.2
28	Hungary	59.4	42.7	26.0	19.0	11.2	6.6	6.2	6.1
29	New Zealand	27.9	20.8	15.6	11.2	7.4	6.4	6.4	6.3
30	United States	30.1	23.3	15.0	11.2	8.4	7.4	7.1	6.9
31	Slovak Republic	N/A	N/A	N/A	17.7	11.8	8.1	7.5	7.2
32	Chile	157.6	79.3	33.1	19.1	10.9	8.7	8.4	8.2
33	Mexico	146.7	108.4	74.9	46.4	25.6	16.8	15.3	14.5
34	Turkey	253.7	187.4	127.2	74.4	41.7	23.0	20.4	19.2

a. Selected data (ranked by 2012 value), taken from <http://data.worldbank.org/indicator/SH.DYN.MORT/countries/US--XS?display=graph> Accessed May 13, 2015. Victoria's figures added for comparison.

N/A: Not available

Figure 14.5: Neonatal, post-neonatal, infant and under 5 mortality rates, Victoria 2000–2013



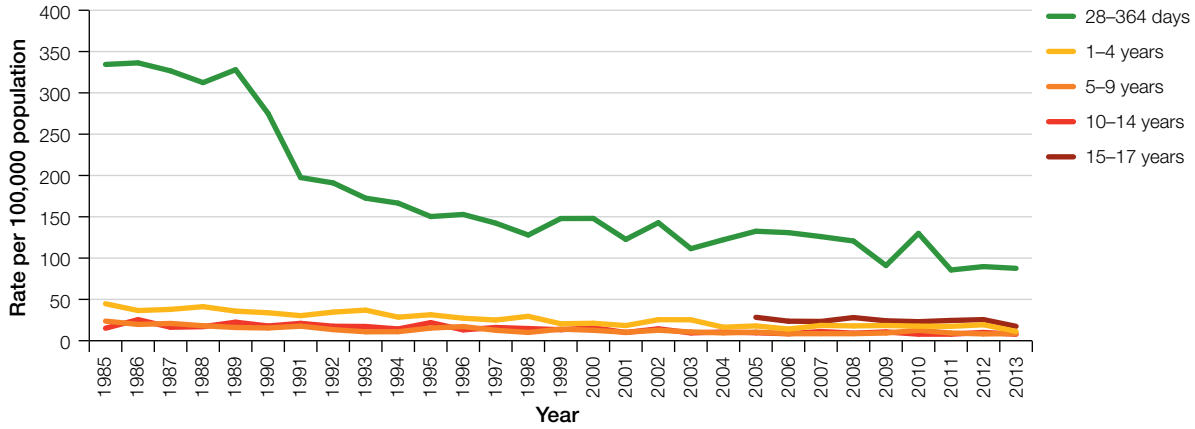
	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Neonatal mortality rate	2.5	2.7	3.1	3.1	2.7	3.1	2.7	2.6	2.5	2.5	2.9	2.5	2.0	2.6
Post-neonatal mortality rate	1.2	1.4	1.2	1.0	1.2	1.3	1.3	1.2	1.2	0.7	1.3	0.8	0.7	1.0
Infant mortality rate	3.7	4.1	4.4	4.1	3.9	4.5	3.9	3.8	3.7	3.3	4.2	3.3	2.7	3.5
Under 5 mortality rate	4.7	4.7	5.5	5.2	4.6	5.0	4.4	4.5	4.4	4.1	4.8	4.0	3.6	3.8

For the U5MR calculation, *deaths* ***occurring*** *in the index year* are counted. For neonatal, post neonatal infant and overall infant mortality rate *post neonatal infant deaths occurring in infants* ***born*** *in the index year* are counted, regardless of when they occurred.

The numbers of deaths in this table excludes:

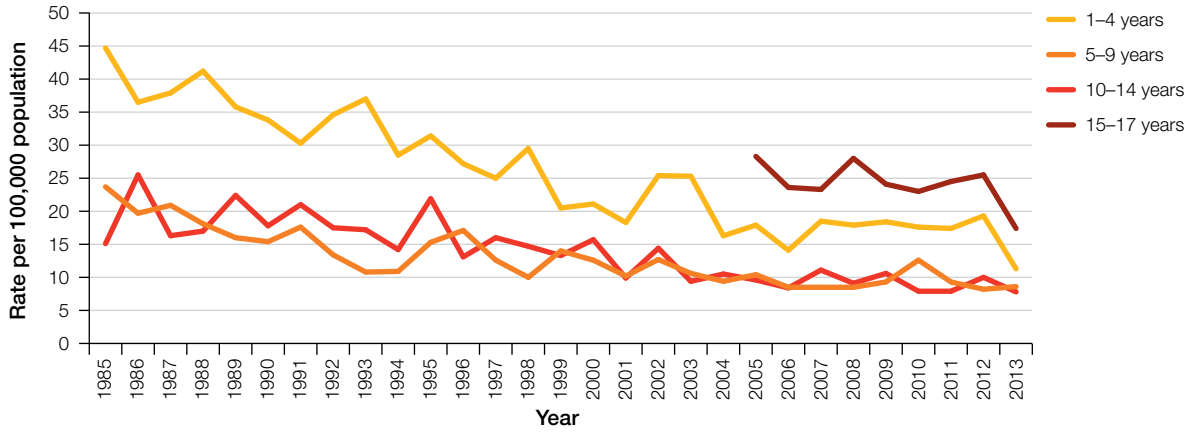
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria.
- Neonatal deaths following termination of pregnancy for congenital anomaly, or following delivery without expectation of survival.
- Post neonatal infants and children not resident of Victoria, dying in Victoria.
- Deaths of Victorian resident infants and children known to have occurred interstate or overseas.

Figure 14.6: Rates of death by age group, Victoria, 1985–2013[a,b]



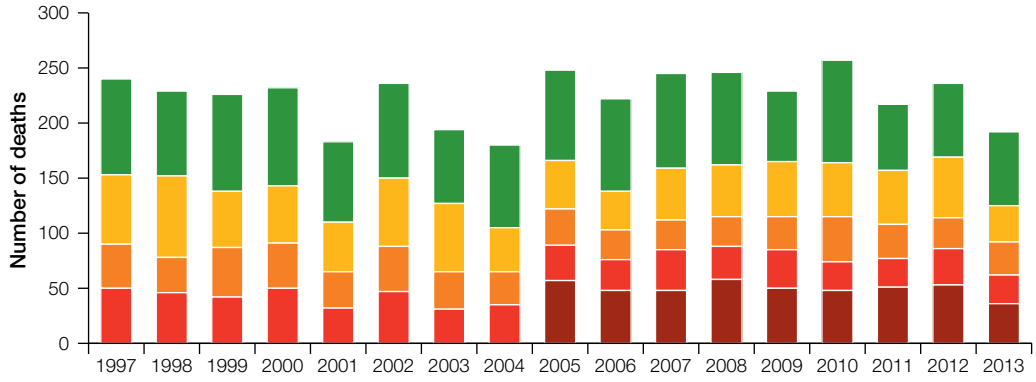
a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian demographic statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria', cat. No. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015. For post-neonatal infants, the denominator includes all Victorian resident infants 0–364 days of age; while the numerator includes only post-neonatal infants aged 28–364 days.
b. CCOPMM commenced reporting on the 15–17 year age group in 2005.

Figure 14.7: Rates of death by age group, (excluding 28–364 days) Victoria 1985–2013[a,b]



a. Denominators were obtained from Australian Bureau of Statistics 2014, Australian demographic statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria', cat. No. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.
b. CCOPMM commenced reporting on the 15–17 year age group in 2005.

Figure 14.8: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997–2013[a]



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
28–364 days	87	77	88	89	73	86	67	75	82	84	86	84	64	93	60	67	67
1–4 years	63	74	51	52	45	62	62	40	44	35	47	47	50	49	49	55	33
5–9 years	40	32	45	41	33	41	34	30	33	27	27	27	30	41	31	28	30
10–14 years	50	46	42	50	32	47	31	35	32	28	37	30	35	26	26	33	26
15–17 years	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	57	48	48	58	50	48	51	53	36
Total	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**248**	**222**	**245**	**246**	**229**	**257**	**217**	**236**	**192**

a. CCOPMM commenced reporting on the 15–17 year age group in 2005.
N/A – Not applicable.

Most common causes of death by age group

Table 14.8: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2012

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	28	41.8	37.5
2	Conditions determined at birth[a]	14	20.9	18.7
3	Sudden infant death syndrome (SIDS IB, SIDS II)	11	16.4	14.7
4	Undetermined	4	6.0	5.4
5	Infection	2	3.0	2.7
5	Malignancy	2	3.0	2.7
5	Intentionally inflicted injury	2	3.0	2.7
8	Motor vehicle accident	1	1.5	1.3
8	Drowning	1	1.5	1.3
8	Asphyxiation	1	1.5	1.3
8	Other unintentional injury	1	1.5	1.3
	Total	**67**	**100**	**89.7**

Note: Denominator includes all Victorian resident infants 0 to 364 days of age; while the numerator includes only post-neonatal infants aged 28–364 days.

Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.

a. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.22.

This table excludes the death of one Victorian resident in the post neonatal infant age group known to have occurred interstate from diseases and morbid conditions.

Table 14.9: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2013

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	39	58.2	51.0
2	Conditions determined at birth[b]	13	19.4	17.0
3	Sudden infant death syndrome (SIDS IB, SIDS II)	6	9.0	7.8
4	Undetermined	4	6.0	5.2
5	Asphyxiation	2	3.0	2.6
5	Infection	2	3.0	2.6
7	Intentionally inflicted injury	1	1.5	1.3
	Total	**67**	**100**	**87.6**

a. Denominator includes all Victorian resident infants 0 to 364 days of age; while the numerator includes only post-neonatal infants aged 28–364 days.

a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.

b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia'. 'prematurity' and 'other', as listed in Table 14.23.

This table excludes the death of two Victorian residents in the post neonatal infant age group known to have occurred interstate from diseases and morbid conditions.

Table 14.10: Rank cause of death, children aged 1 to 4 years, Victoria 2012

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	17	30.9	6.0
2	Undetermined	10	18.2	3.5
3	Infection	7	12.7	2.5
3	Malignancy	7	12.7	2.5
5	Motor vehicle accident	3	5.5	1.1
5	Drowning	3	5.5	1.1
7	Asphyxiation	2	3.6	0.7
7	Other unintentional injury	2	3.6	0.7
9	Conditions determined at birth[b]	1	1.8	0.4
9	Fire	1	1.8	0.4
9	Other acquired illness	1	1.8	0.4
9	Intentionally inflicted injury	1	1.8	0.4
	Total	**55**	**100**	**19.3**

a. Denominator includes all Victorian resident children aged 1 to 4 years. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.22.

This table excludes the death of one Victorian resident in the 1–4 year age group known to have occurred interstate from drowning.

Table 14.11: Rank cause of death, children aged 1 to 4 years, Victoria 2013

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	15	45.5	5.1
2	Drowning	4	12.1	1.4
2	Infection	4	12.1	1.4
2	Undetermined	4	12.1	1.4
5	Asphyxiation	2	6.1	0.7
5	Other unintentional injury	2	6.1	0.7
7	Malignancy	1	3.0	0.3
7	Intentionally inflicted injury	1	3.0	0.3
	Total	**33**	**100**	**11.3**

a. Denominator includes all Victorian resident children aged 1 to 4 years.
a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.

This table excludes the death of one Victorian resident in the 1–4 year age group known to have occurred overseas from malignancy.

Table 14.12: Rank cause of death, children aged 5 to 9 years, Victoria 2012

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	7	25.0	2.1
2	Malignancy	6	21.4	1.8
3	Other acquired illness	3	10.7	0.9
3	Intentionally inflicted injury	3	10.7	0.9
5	Motor vehicle accident	2	7.1	0.6
5	Drowning	2	7.1	0.6
5	Undetermined	2	7.1	0.6
8	Conditions determined at birth[b]	1	3.6	0.3
8	Fire	1	3.6	0.3
8	Asphyxiation	1	3.6	0.3
	Total	**28**	**100**	**8.2**

a. Denominator includes all Victorian resident children 5 to 9 years. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.22.

This table excludes the death of one Victorian resident in the 5–9 year age group known to have occurred interstate from drowning.

Table 14.13: Rank cause of death, children aged 5 to 9 years, Victoria 2013

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	14	46.7	4.0
2	Malignancy	8	26.7	2.3
3	Motor vehicle accident	3	10.0	0.9
4	Other unintentional injury	2	6.7	0.6
4	Undetermined	2	6.7	0.6
6	Asphyxiation	1	3.3	0.3
	Total	**30**	**100**	**8.6**

a. Denominator includes all Victorian resident children 5 to 9 years. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.

This table excludes the death of one Victorian resident in the 5–9 year age group known to have occurred interstate from diseases and morbid conditions.

Table 14.14: Rank of cause of death, children aged 10 to 14 years, Victoria 2012

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	15	45.5	4.5
2	Other acquired illness	7	21.2	2.1
3	Malignancy	4	12.1	1.2
4	Suicide	3	9.1	0.9
5	Motor vehicle accident	2	6.1	0.6
6	Conditions determined at birth[b]	1	3.0	0.3
6	Undetermined	1	3.0	0.3
	Total	**33**	**100**	**10.0**

a. Denominator includes all Victorian resident children 10 to 14 years. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.22.

Table 14.15: Rank of cause of death, children aged 10 to 14 years, Victoria 2013

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Malignancy	9	34.6	2.7
2	Congenital anomaly	5	19.2	1.5
3	Motor vehicle accident	4	15.4	1.2
4	Other unintentional injury	2	7.7	0.6
4	Other acquired disease	2	7.7	0.6
6	Conditions determined at birth[b]	1	3.8	0.3
6	Train	1	3.8	0.3
6	Intentionally inflicted injury	1	3.8	0.3
6	Suicide	1	3.8	0.3
	Total	**26**	**100**	**7.8**

a. Denominator includes all Victorian resident children 10 to 14 years. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.23.

Table 14.16: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2012

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Suicide	22	41.5	10.6
2	Congenital anomaly	8	15.1	3.8
3	Motor vehicle accident	5	9.4	2.4
4	Other unintentional injury	4	7.5	1.9
5	Malignancy	3	5.7	1.4
5	Other acquired illness	3	5.7	1.4
7	Conditions determined at birth[b]	2	3.8	1.0
7	Undetermined	2	3.8	1.0
9	Fire	1	1.9	0.5
9	Train accidents	1	1.9	0.5
9	Infection	1	1.9	0.5
9	Intentionally inflicted injury	1	1.9	0.5
	Total	**53**	**100**	**25.5**

a. Denominator includes all Victorian resident adolescents aged 15 to 17 years. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.22.

Table 14.17: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2013

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Suicide	13	36.1	6.3
2	Congenital anomaly	6	16.7	2.9
3	Motor vehicle accident	4	11.1	1.9
3	Malignancy	4	11.1	1.9
5	Fire	2	5.6	1.0
5	Other unintentional injury	2	5.6	1.0
5	Undetermined	2	5.6	1.0
8	Conditions determined at birth[b]	1	2.8	0.5
8	Drowning	1	2.8	0.5
8	Other acquired disease	1	2.8	0.5
	Total	**36**	**100**	**17.4**

a. Denominator includes all Victorian resident adolescents aged 15 to 17 years. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015.
b. The 'conditions determined at birth' category encompasses the 'determined at birth' categories 'birth hypoxia/asphyxia', 'prematurity' and 'other', as listed in Table 14.23.

This table excludes the death of one Victorian resident in the 15–17 year age group known to have occurred overseas from malignancy.

Causes of death by age group

Table 14.18: Cause of death by age group, 28 days to 17 years, Victoria 2012

Category	Age group					Total	%
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years		
Determined at birth							
Birth hypoxia/asphyxia	3	1	0	0	1	**5**	**2.1**
Congenital anomaly	28	17	7	15	8	**75**	**31.8**
Prematurity	11	0	1	1	0	**13**	**5.5**
Other	0	0	0	0	1	**1**	**0.4**
Subtotal	***42***	***18***	***8***	***16***	***10***	***94***	***39.8***
Sudden infant death syndrome/ USID[a]							
Category 1A SIDS	0	0	0	0	0	**0**	**0.0**
Category 1B SIDS	1	0	0	0	0	**1**	**0.4**
Category II SIDS	10	0	0	0	0	**10**	**4.2**
Unclassified sudden infant death	0	0	0	0	0	**0**	**0.0**
Subtotal	***11***	***0***	***0***	***0***	***0***	***11***	***4.7***
Unintentional injury							
Motor vehicle accident	1	3	2	2	5	**13**	**5.5**
Drowning	1	3	2	0	0	**6**	**2.5**
Fire	0	1	1	0	1	**3**	**1.3**
Asphyxiation	1	2	1	0	0	**4**	**1.7**
Train	0	0	0	0	1	**1**	**0.4**
Other	1	2	0	0	4	**7**	**3.0**
Subtotal	***4***	***11***	***6***	***2***	***11***	***34***	***14.4***
Acquired disease							
Infection	2	7	0	0	1	**10**	**4.2**
Malignancy	2	7	6	4	3	**22**	**9.3**
Other	0	1	3	7	3	**14**	**5.9**
Subtotal	***4***	***15***	***9***	***11***	***7***	***46***	***19.5***
Undetermined							
Undetermined	4	10	2	1	2	**19**	**8.1**
Subtotal	***4***	***10***	***2***	***1***	***2***	***19***	***8.1***
Intentional injury							
Intentionally inflicted injury	2	1	3	0	1	**7**	**3.0**
Suicide	0	0	0	3	22	**25**	**10.6**
Subtotal	***2***	***1***	***3***	***3***	***23***	***32***	***13.6***
Total	**67**	**55**	**28**	**33**	**53**	**236**	**100**

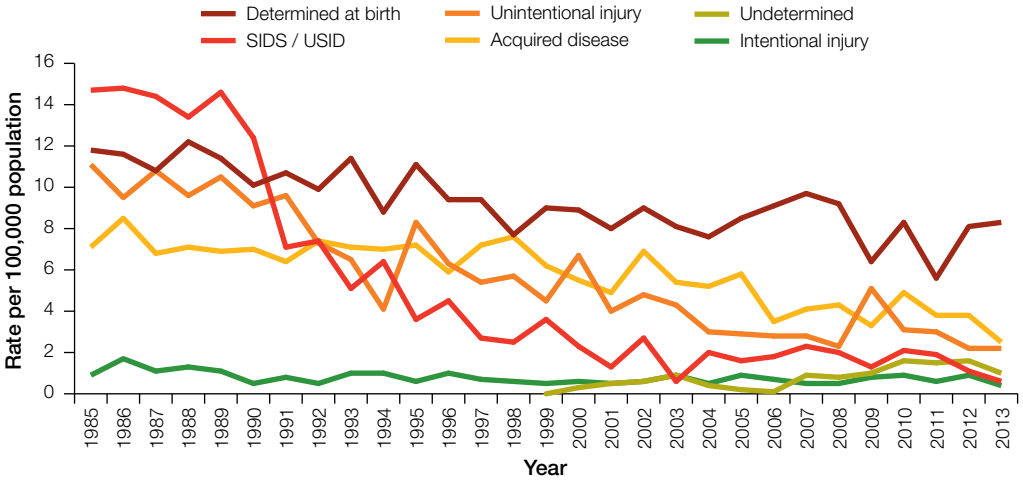
a. The classification of SIDS/USID is detailed in the Appendix.

Table 14.19: Cause of death by age group, 28 days to 17 years, Victoria 2013

Category	Age group					Total	%
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years		
Determined at birth							
Birth hypoxia/asphyxia	1	0	0	0	1	**2**	**1.0**
Congenital anomaly	39	15	14	5	6	**79**	**41.1**
Prematurity	12	0	0	0	0	**12**	**6.3**
Other	0	0	0	1	0	**1**	**0.5**
Subtotal	***52***	***15***	***14***	***6***	***7***	***94***	***49.0***
Sudden infant death syndrome/ USID[a]							
Category 1A SIDS	0	0	0	0	0	**0**	**0.0**
Category 1B SIDS	2	0	0	0	0	**2**	**1.0**
Category II SIDS	4	0	0	0	0	**4**	**2.1**
Unclassified sudden infant death	0	0	0	0	0	**0**	**0.0**
Subtotal	***6***	***0***	***0***	***0***	***0***	***6***	***3.1***
Unintentional injury							
Motor vehicle accident	0	0	3	4	4	**11**	**5.7**
Drowning	0	4	0	0	1	**5**	**2.6**
Fire	0	0	0	0	2	**2**	**1.0**
Asphyxiation	2	2	1	0	0	**5**	**2.6**
Train	0	0	0	1	0	**1**	**0.5**
Other	0	2	2	2	2	**8**	**4.2**
Subtotal	***2***	***8***	***6***	***7***	***9***	***32***	***16.7***
Acquired disease							
Infection	2	4	0	0	0	**6**	**3.1**
Malignancy	0	1	8	9	4	**22**	**11.5**
Other	0	0	0	2	1	**3**	**1.6**
Subtotal	***2***	***5***	***8***	***11***	***5***	***31***	***16.1***
Undetermined							
Undetermined	4	4	2	0	2	**12**	**6.3**
Subtotal	***4***	***4***	***2***	***0***	***2***	***12***	***6.3***
Intentional injury							
Intentionally inflicted injury	1	1	0	1	0	**3**	**1.6**
Suicide	0	0	0	1	13	**14**	**7.3**
Subtotal	***1***	***1***	***0***	***2***	***13***	***17***	***8.9***
Total	**67**	**33**	**30**	**26**	**36**	**192**	**100**

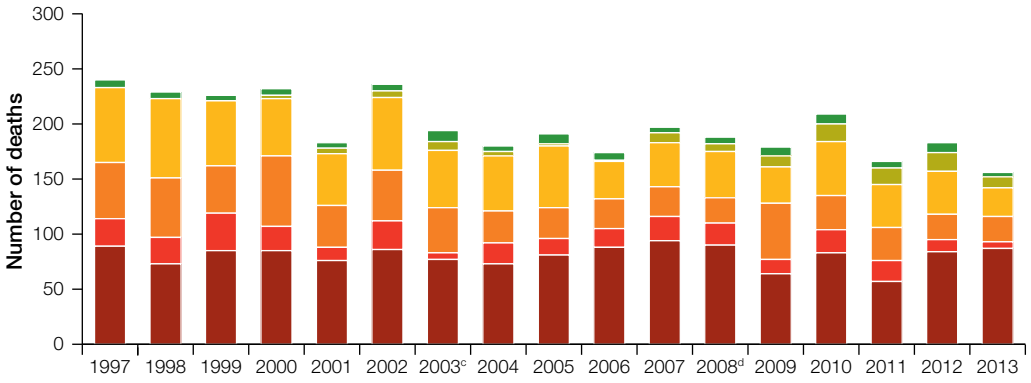
a. The classification of SIDS/USID is detailed in the Appendix.

Figure 14.9: Rates of major cause of death of post-neonatal infants and children 28 days to 14 years, 1985 to 2013[a]



a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian demographic statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria', cat. No. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015. Denominator includes all Victorian residents 0 to 14 years of age; while the numerator includes only those aged 28 days to 14 years.

Figure 14.10a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997–2013[a,b]

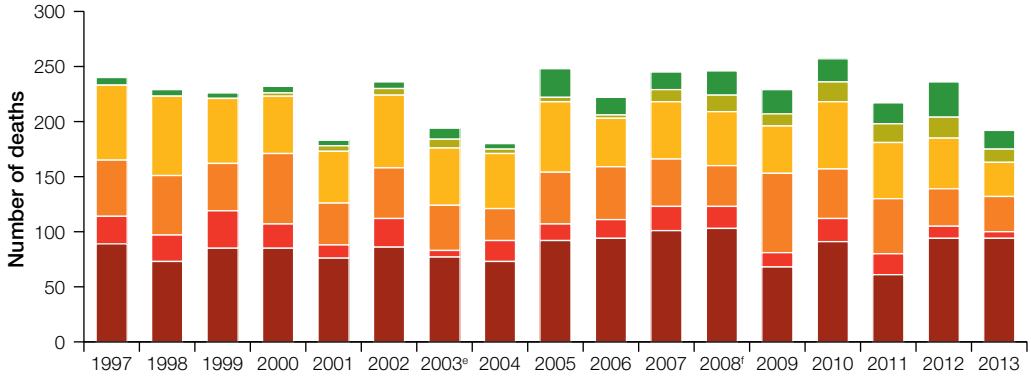


	1997	1998	1999	2000	2001	2002	2003[c]	2004	2005	2006	2007	2008[d]	2009	2010	2011	2012	2013
Determined at birth	89	73	85	85	76	86	77	73	81	88	94	90	64	83	57	84	87
SIDS / USID[a]	25	24	34	22	12	26	6	19	15	17	22	20	13	21	19	11	6
Unintentional injury	51	54	43	64	38	46	41	29	28	27	27	23	51	31	30	23	23
Acquired disease	68	72	59	52	47	66	52	50	56	34	40	42	33	49	39	39	26
Undetermined[b]	0	0	0	3	5	6	8	4	2	1	9	7	10	16	15	17	10
Intentional injury	7	6	5	6	5	6	10	5	9	7	5	6	8	9	6	9	4
Total cases	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**191**	**174**	**197**	**188**	**179**	**209**	**166**	**183**	**156**

a. SIDS/USID (Sudden Unexpected Death Syndrome and Unclassified Sudden Infant Death) represent all infants who die suddenly and unexpectedly and for whom no cause is determined at autopsy. It includes, prior to 2004, all SIDS infants. Since 2004, this category includes infants classified to SIDS 1A, SIDS 1B, SIDS II and USID. Prior to 2004, USID equivalent infants were classified as 'Undetermined'.
b. In reports prior to 2002 where a cause of death was not identified or has been classified as unascertained, it was included in 'Acquired Disease', under subcategory 'Other Acquired'. Since the 2002 annual report (incorporating data since 1999) these deaths have been classified under the category 'Undetermined'.
c. A case in 2003 (1–4 year age group) has been recoded to intentional injury (previously listed as undetermined).
d. A case in 2008 (1–4 year age group) has been recoded to intentional injury (previously listed as undetermined).

Note: significant changes to these categories have occurred from 2001 onwards due to reclassification of malignancy associated with syndrome as malignancy rather than the syndrome, and other reclassification changes.

Figure 14.10b: Post-neonatal infant, child and adolescent deaths[a,b] by major cause, Victoria 1997–2013[d,e]



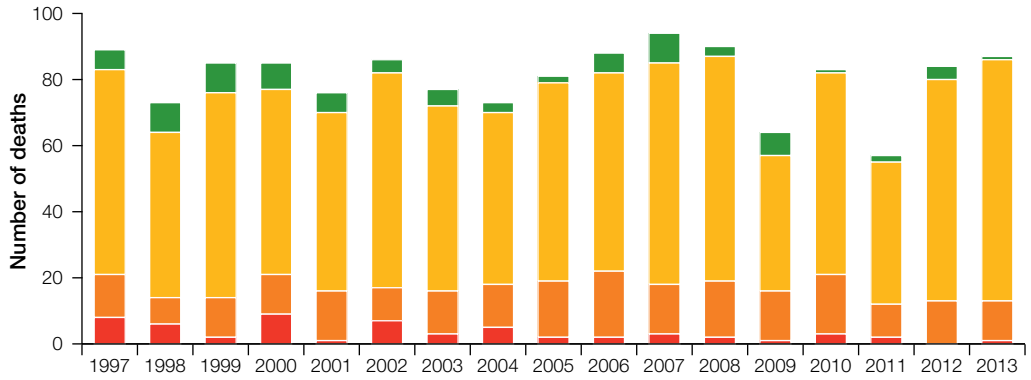
	1997	1998	1999	2000	2001	2002	2003[e]	2004	2005	2006	2007	2008[f]	2009	2010	2011	2012	2013
Determined at birth	89	73	85	85	76	86	77	73	92	94	101	103	68	91	61	94	94
SIDS / USID[c]	25	24	34	22	12	26	6	19	15	17	22	20	13	21	19	11	6
Unintentional injury	51	54	43	64	38	46	41	29	47	48	43	37	72	45	50	34	32
Acquired disease	68	72	59	52	47	66	52	50	64	44	52	49	43	61	51	46	31
Undetermined[d]	N/A	N/A	0	3	5	6	8	4	4	3	11	15	11	18	17	19	12
Intentional injury	7	6	5	6	5	6	10	5	26	16	16	22	22	21	19	32	17
Total cases	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**248**	**222**	**245**	**246**	**229**	**257**	**217**	**236**	**192**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children aged 28 days to 17 years.
c. SIDS/USID (Sudden Unexpected Death Syndrome and Unclassified Sudden Infant Death) represent all infants who die suddenly and unexpectedly and for whom no cause is determined at autopsy. It includes, prior to 2004, all SIDS infants. Since 2004, this category includes infants classified to SIDS 1A, SIDS 1B, SIDS II and USID. Prior to 2004, USID equivalent infants were classified as 'Undetermined'
d. In reports prior to 2002 where a cause of death was not identified or has been classified as unascertained, it was included in 'Acquired Disease', under subcategory 'Other Acquired'. Since the 2002 annual report (incorporating data since 1999) these deaths have been classified under the category 'Undetermined'.
e. A case in 2003 (1–4 year age group) has been recoded to intentional injury (previously listed as undetermined).
f. A case in 2008 (1–4 year age group) has been recoded to intentional injury (previously listed as undetermined).

N/A – Not applicable.

Deaths from conditions determined at birth

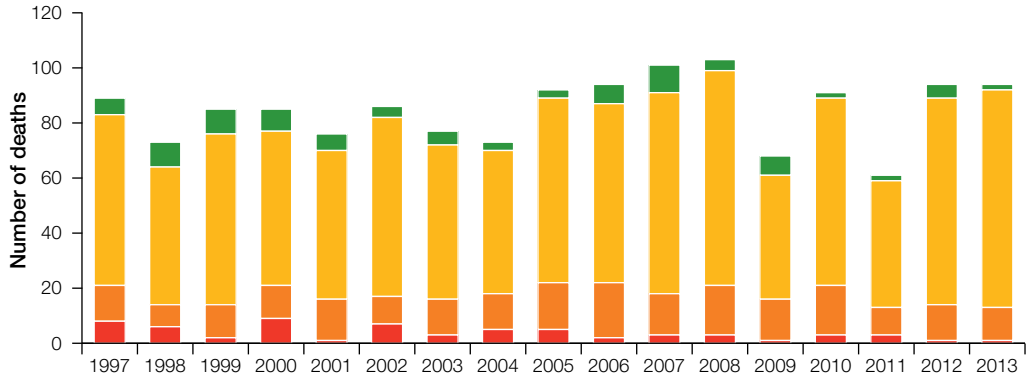
Figure 14.11a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Birth hypoxia / asphyxia	6	9	9	8	6	4	5	3	2	6	9	3	7	1	2	4	1
Congenital anomaly	62	50	62	56	54	65	56	52	60	60	67	68	41	61	43	67	73
Prematurity	13	8	12	12	15	10	13	13	17	20	15	17	15	18	10	13	12
Other	8	6	2	9	1	7	3	5	2	2	3	2	1	3	2	0	1
Total cases	**89**	**73**	**85**	**85**	**76**	**86**	**77**	**73**	**81**	**88**	**94**	**90**	**64**	**83**	**57**	**84**	**87**

Note: Significant changes to these categories have occurred from 2001 onwards due to reclassification of malignancy associated with syndromes as malignancy rather than the syndrome, and other reclassification changes.

Figure 14.11b: Causes of death determined at birth: post-neonatal infants, children and adolescents,[a,b] Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Birth hypoxia / asphyxia	6	9	9	8	6	4	5	3	3	7	10	4	7	2	2	5	2
Congenital anomaly	62	50	62	56	54	65	56	52	67	65	73	78	45	68	46	75	79
Prematurity	13	8	12	12	15	10	13	13	17	20	15	18	15	18	10	13	12
Other	8	6	2	9	1	7	3	5	5	2	3	3	1	3	3	1	1
Total cases	**89**	**73**	**85**	**85**	**76**	**86**	**77**	**73**	**92**	**94**	**101**	**103**	**68**	**91**	**61**	**94**	**94**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children and adolescents aged 28 days to 17 years.

Note: Significant changes to these categories have occurred from 2001 onwards due to reclassification of malignancy associated with syndromes as malignancy

Table 14.20: Deaths from congenital anomaly by age group, Victoria 2012

Type of congenital anomaly	Age group					Total
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	
Cardiovascular						**12**
Hypoplastic left heart syndrome	3	1	0	0	0	**4**
Complex congenital heart disease	2	0	0	0	2	**4**
Double inlet left ventricle	0	1	0	0	0	**1**
William's syndrome, congenital heart disease	0	0	0	1	0	**1**
Truncus arteriosus	0	0	0	1	0	**1**
Total anomalous pulmonary venous drainage	1	0	0	0	0	**1**
Ateriovenous malformation (AVM)						**4**
Cerebral / cerebellar arteriovenous malformation	0	0	1	2	0	**3**
Cervicothoracic arteriovenous malformation	1	0	0	0	0	**1**
Respiratory including diaphragm						**7**
Cystic fibrosis	0	0	0	1	3	**4**
Congenital lobar emphysema	0	1	0	0	0	**1**
Congenital diaphragmatic hernia	0	1	0	0	0	**1**
Oesophaegal atresia with tracheoesophageal fistula	1	0	0	0	0	**1**
Gastrointestinal including liver						**0**
No cases	0	0	0	0	0	**0**
Central nervous system – structural						**7**
Rhombencephalosynapsis	0	0	0	1	0	**1**
Polymicrogyria	1	0	0	0	0	**1**
Microcephaly, unspecified cause	0	1	1	1	0	**3**
Cerebellar pontine hypoplasia	1	0	0	0	0	**1**
Pontine tegmental cap hypoplasia	1	0	0	0	0	**1**
Central nervous system – severe and/or degenerative disease						**8**
Undiagnosed	2	1	0	2	0	**5**
Lennox Gastaut	0	0	0	0	1	**1**
Dravet syndrome	0	0	0	1	0	**1**
Rett syndrome	0	0	0	1	0	**1**
Neuromuscular disorder						**8**
Spinal muscular atrophy type 1	2	1	0	0	0	**3**
Spinal muscular atrophy type 2	0	0	0	0	1	**1**
Charcot-Marie-Tooth type 3	0	1	0	0	0	**1**

Type of congenital anomaly	Age group					Total
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	
Congenital hypomyelinating neuropathy	1	0	0	0	0	**1**
Undiagnosed	1	1	0	0	0	**2**
Mitochondrial disorder						**2**
Complex 4 deficiency	0	0	0	1	0	**1**
Undiagnosed mitochondrial disorder	1	0	0	0	0	**1**
Metabolic						**7**
Tay Sachs disease	0	1	0	0	0	**1**
Metachromic leukodystrophy	0	0	1	0	0	**1**
Hypomyelinating leukodystrophy	0	0	0	1	0	**1**
Glycogen storage disease	1	0	0	0	0	**1**
Pyruvate dehydrogenase deficiency	0	1	0	0	0	**1**
Neuronal ceroid lipofuscinosis	0	0	0	1	0	**1**
Undiagnosed metabolic disorder	0	1	0	0	0	**1**
Chromosomal anomalies including trisomies and monosomies						**5**
Trisomy 18	2	0	0	0	0	**2**
Other specified chromosomal abnormality	0	1	1	0	0	**2**
Chromosomal abnormality, not specified	0	0	1	0	0	**1**
Other syndromes and rare genetic disorders						**10**
Severe combined immunodeficiency	1	1	1	0	0	**3**
Haemophagocytic lymphohistiocytosis	1	0	0	0	0	**1**
Bartter syndrome	1	0	0	0	0	**1**
Osteopetrosis	0	0	1	0	0	**1**
Noonan syndrome	0	1	0	0	0	**1**
Alagille syndrome	0	0	0	1	0	**1**
Undiagnosed connective tissue disorder, (with AVM)	0	0	0	0	1	**1**
Aicardi-Goutieres syndrome	0	1	0	0	0	**1**
Multiple system malformation						**5**
Multiple abnormalities	2	1	0	0	0	**3**
Undiagnosed syndrome	2	0	0	0	0	**2**
Total	**28**	**17**	**7**	**15**	**8**	**75**

Table 14.21: Deaths from congenital anomaly by age group, Victoria 2013

Type of congenital anomaly	Age group					Total
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	
Cardiovascular						**21**
Hypoplastic left heart syndrome	2	1				**3**
Tetraology of Fallot	1			2		**3**
Complex congenital heart disease	5	1				**6**
Pulmonary atresia, hypoplastic right ventricle		1				**1**
Primary pulmonary hypertension	1					**1**
Truncus arteriosus	1					**1**
Pulmonary stenosis	1					**1**
Coarctation of the aorta	1					**1**
Transposition of the great arteries	1					**1**
Total anomalous pulmonary venous drainage	2					**2**
Dilated cardiomyopathy	1					**1**
Ateriovenous malformation (AVM)						**1**
Dural ateriovenous fistula		1				**1**
Respiratory including diaphragm						**3**
Laryngomalacia and bronchomalacia	1					**1**
Congenital diaphragmatic hernia	2					**2**
Gastrointestinal including liver						**4**
Extra hepatic biliary atresia			1			**1**
Anal stenosis	1					**1**
Multiple intestinal atresias	1					**1**
Ileal atresia	1					**1**
Central nervous system – structural						**5**
Schizencepahly	1		1			**2**
Lissencephaly		1		1		**2**
Hydranencephaly		1				**1**
Central nervous system – severe and/or degenerative disease						**9**
Neuroaxonal dystrophy			2			**2**
Lennox Gastaut			1			**1**
Juvenile Huntington's disease					1	**1**
GM 1 Gangliosidosis		1				**1**
Rett syndrome			1	1		**2**
Krabbe disease		1				**1**
Undiagnosed neurodegenerative disorder				1		**1**

Type of congenital anomaly	Age group					Total
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	
Neuromuscular disorder						**2**
Spinal muscular atrophy type 1	1					**1**
Undiagnosed neuromuscular disorder	1					**1**
Mitochondrial disorder						**3**
Leigh disease	1					**1**
Histiocytoid cardiomyopathy		1				**1**
Mitochondrial deletion syndrome		1				**1**
Metabolic						**5**
Metachromic leukodystrophy			1			**1**
Neuronal ceroid lipofuscinosis			3			**3**
Undiagnosed metabolic disorder	1					**1**
Genitourinary						**1**
Posterior urethral valves	1					**1**
Chromosomal anomalies including trisomies and monosomies						**4**
Trisomy 21	2					**2**
Other specified chromosomal abnormality		2				**2**
Other syndromes and rare genetic disorders						**17**
Congenital surfactant deficiency	1					**1**
Aicardi Syndrome		1				**1**
Williams -Beuren Syndrome	1					**1**
Severe combined immunodeficiency	1	1	1			**3**
Noonan Syndrome	1					**1**
Rhizomelic chondrodysplasia punctata			1			**1**
Walker-Warburg syndrome			1			**1**
Cockayne syndrome					2	**2**
Niemann- Pick syndrome					1	**1**
Adrenoleukodystrophy					1	**1**
Myofibromatosis	1					**1**
Alagille syndrome	1					**1**
Deafness, onychodystrophy, osteodystrophy and mental retardation (DOOR syndrome)	1					**1**
Primary hyperoxaluria type 1		1				**1**
Multiple system malformation						**4**
Multiple abnormalities	1		1			**2**
Undiagnosed syndrome	1				1	**2**
Total	**39**	**15**	**14**	**5**	**6**	**79**

Table 14.22: Deaths from birth asphyxia / hypoxia, prematurity and other causes determined at birth, Victoria, 2012, by age group

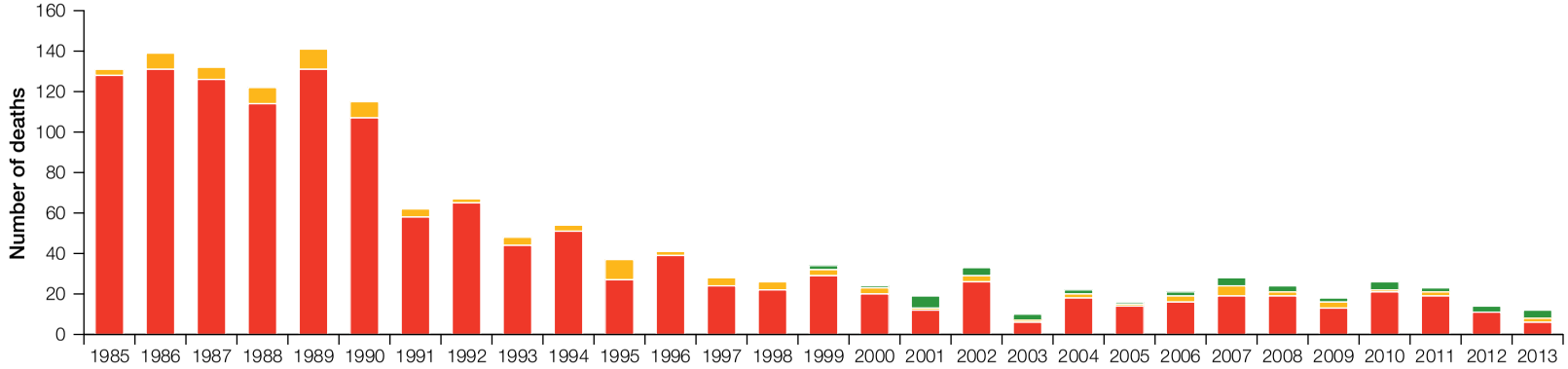
	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Birth asphyxia/hypoxia	3	1	0	0	1	**5**
Prematurity	11	0	1	1	0	**13**
Other	0	0	0	0	1	**1**
Total	**14**	**1**	**1**	**1**	**2**	**19**

Table 14.23: Deaths from birth asphyxia / hypoxia, prematurity and other causes determined at birth, Victoria, 2013, by age group

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Birth asphyxia/hypoxia	1	0	0	0	1	**2**
Prematurity	12	0	0	0	0	**12**
Other	0	0	0	1	0	**1**
Total	**13**	**0**	**0**	**1**	**1**	**15**

Sudden unexpected deaths in infants (SUDI)

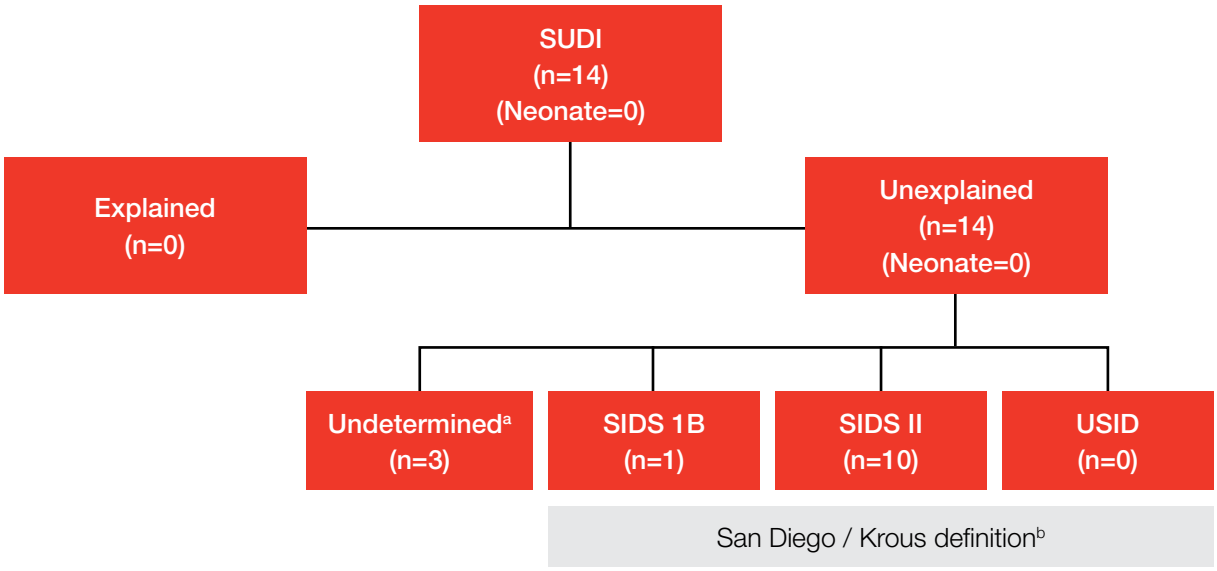
Figure 14.12: Sudden unexpected death in infants, Victoria 1985–2013[a,b]



	1985	1986	1987	1988	1989	1990	1991	1992	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Undetermined / USID	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	1	6	4	3	2	1	2	4	3	2	4	2	3	4
SIDS Neonatal	3	8	6	8	10	8	4	2	4	3	10	2	4	4	3	3	1	3	1	2	1	3	5	2	3	1	2	0	2
SIDS Post neonatal	128	131	126	114	131	107	58	65	44	51	27	39	24	22	29	20	12	26	6	18	14	16	19	19	13	21	19	11	6
Total cases	**131**	**139**	**132**	**122**	**141**	**115**	**62**	**67**	**48**	**54**	**37**	**41**	**28**	**26**	**34**	**24**	**19**	**33**	**10**	**22**	**16**	**21**	**28**	**24**	**18**	**26**	**23**	**14**	**12**

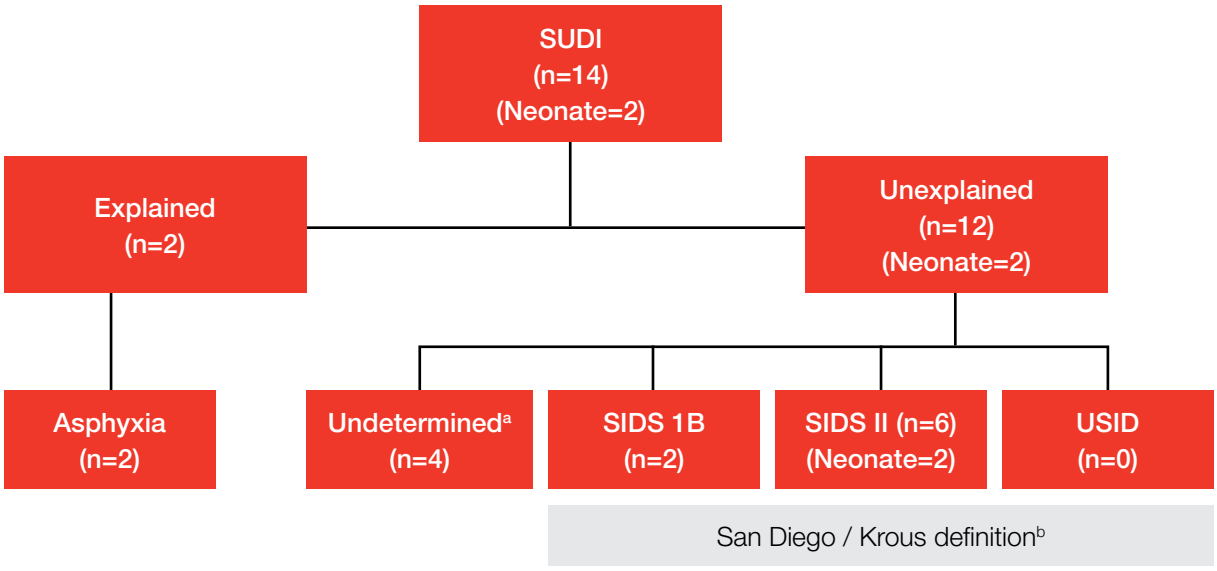
a. SIDS categories 2A/2B/2C/2D until 2003 and since 2004 SIDS 1A/1B/II.
b. This figure has now been amended to include USID/Undetermined SUDI cases as a separate category from 1999. From 2004–2007 unclassified sudden infant death (USID) was previously included in the SIDS categories in this figure, but is now listed in the undetermined category. Prior to 1999, USID equivalent cases were classified as 'undetermined', and are not included in this amended figure.
c. Figures for 2004, 2006 and 2007 updated with Neonatal undetermined/USID figures added.

Figure 14.13: Sudden unexpected deaths of infants, Victoria 2012



a. See Table 14.41. Note that not all undetermined deaths are considered by CCOPMM to be SUDI, as they may not meet all the criteria (e.g. not occurring during sleep).
b. See Appendix for full definition.

Figure 14.14: Sudden unexpected deaths of infants, Victoria 2013



a. See Table 14.42.
b. See Appendix for full definition.

Table 14.24: SUDI[a] deaths: cause of death, Victoria 2004–2013

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Unexplained deaths											
ICD 10 code	**San Diego (Krous) definition**										
R95	Sudden infant death syndrome (category SIDS 1B)	4	2	1	2	1	0	2	0	1	2
R95	Sudden infant death syndrome (category SIDS II)	16	13	18	22	20	16	20	21	10	6
	Undetermined[b] / Undetermined sudden infant death	2	1	2	4	3	2	4	2	3	4
Explained deaths											
	Congenital anomaly	2	1	1	1	1	1	0	0	0	0
	Asphyxiation	1	1	3	2	0	0	0	0	0	2
	Infection	5	5	1	1	0	1	0	0	0	0
	Intentional injury	0	2	0	0	0	0	0	0	0	0
	Aspiration pneumonia	0	1	0	0	0	0	0	0	0	0
	Intestinal ischaemia	0	0	1	0	0	0	0	0	0	0
	Complications of prematurity	0	0	0	1	0	0	0	0	0	0
Total[c]		**30**	**26**	**27**	**33**	**25**	**20**	**26**	**23**	**14**	**14**

a. See Appendix for full definition.
b. SeeTables 14.41 and 14.42.
c. Totals have been corrected since previous report.

Table 14.25: Selected features of the (n=16) infants categorised as SIDS II[a], Victoria 2012–2013

SIDS II features[a]	n
Prematurity	4
Age ≤ 21 days	1
Age ≥ 9 months	0
History of similar death among siblings, close relatives or infants in care of same caregiver	1
Neonatal or perinatal conditions which had resolved by the time of death	2
Mechanical asphyxia or suffocation caused by overlaying not determined with certainty (as co-sleeping or unsafe sleeping environment)	9
Marked inflammatory changes not sufficient to be unequivocal causes of death	0
Abnormal growth or development not thought to have contributed to death	4
Total	**21**

a. Infants can have more than one feature.

Table 14.26: Selected features of the (n=26) unexplained SUDI deaths, 2012–2013[a]

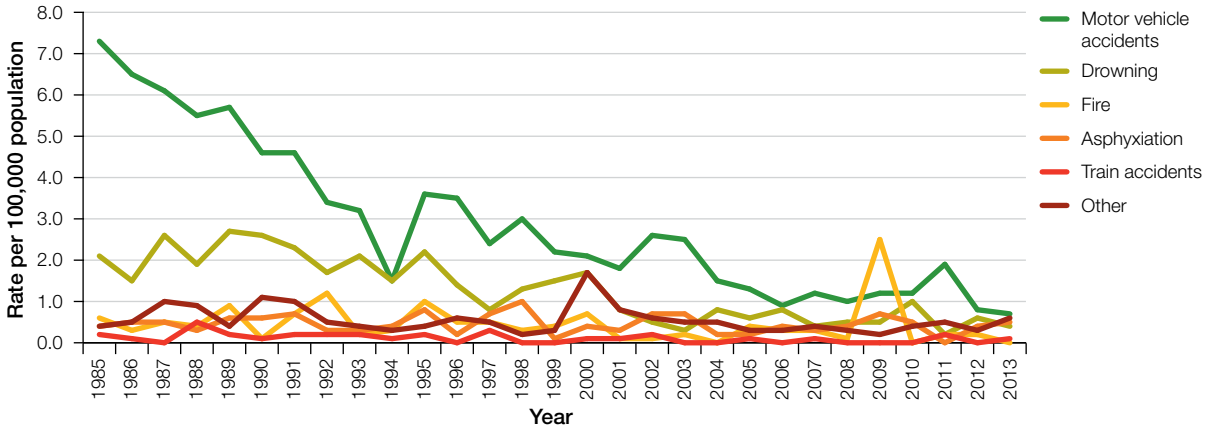
		Females	Males	Total	
		n	n	n	%
Sex and age at death	< 21 days	0	1	1	3.8
	21 days to < 1 month	1	1	2	7.7
	1 month	3	4	7	26.9
	2 months	1	3	4	15.4
	3 months	1	4	5	19.2
	4 months	1	2	3	11.5
	5 months	0	0	0	0.0
	≥ 6 months	1	3	4	15.4
	Total	**8**	**18**	**26**	**100**
		n	%		
Gestational age	Preterm < 37	5	19.2		
	Term	21	80.8		
	Total	**26**	**100**		
Mother's age at delivery (years)	15–19	2	7.7		
	20–24	4	15.4		
	25–29	6	23.1		
	≥ 30 years	11	42.3		
	Not stated	3	11.5		
	Total	**26**	**100**		

		n	%
Position when placed to sleep	Prone	2	14.3
	Side	0	0.0
	Supine	7	21.4
	Not stated	17	64.3
	Total	**26**	**100**
Co-sleeping	Yes	10	38.5
	No	16	61.5
	Total	**26**	**100**
Co-sleeping site	Couch	2	20.0
	Adult bed	8	80.0
	Other	0	0.0
	Total	**10**	**100**
Non co-sleeping bed[b]	Cot	5	31.3
	Bassinette	4	25.0
	Portable cot	2	12.5
	Adult bed	4	25.0
	Not fully described	1	6.3
	Total	**16**	**100**
Position when found	Prone	7	26.9
	Side	4	15.4
	Supine	2	7.7
	Not stated	13	50.0
	Total	**26**	**100**
DHHS region	Metropolitan	15	57.7
	Non-metropolitan	11	42.3
	Total	**26**	**100**
Season of death	Spring	6	23.1
	Summer	8	30.8
	Autumn	6	23.1
	Winter	6	23.1
	Total	**26**	**100**

a. The 2012 (n=14) unexplained SUDI deaths are coded as: SIDS 1A (n=0), IB (n=1), SIDS II (n=10), USID (n=0) and Undetermined (n=3). The 2013 (n=12) unexplained SUDI deaths are coded as: SIDS 1A (n=0), IB (n=2), SIDS II (n=6), USID (n=0) and Undetermined (n=4).
b. Sleeping site may not have been safe according to recommendations, all adult beds are considered unsafe sleep environments.

Deaths from unintentional injury

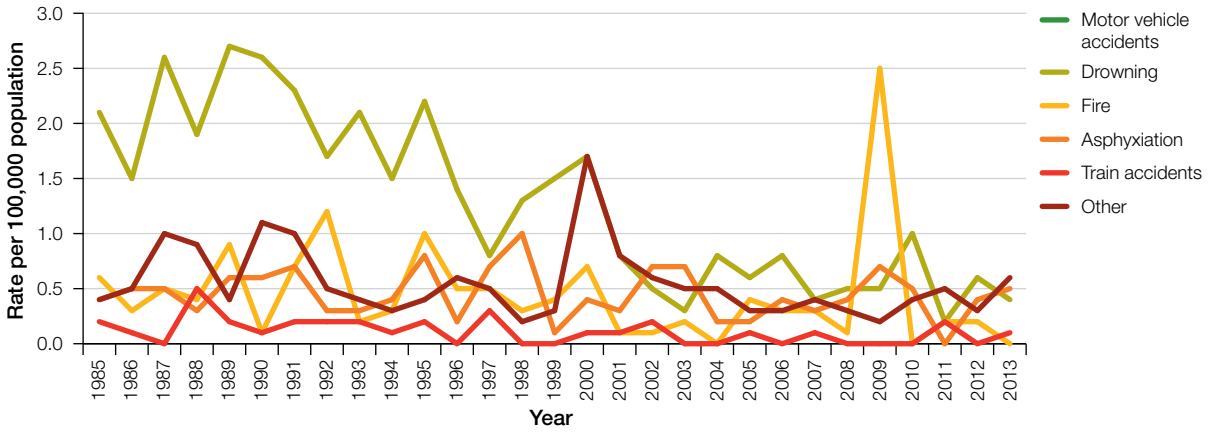
Figure 14.15: Rates of unintentional injury deaths, 28 days to 14 years, Victoria 1985–2013[a]



a. Denominators were obtained from Australian Bureau of Statistics, Australian Demographic statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria', cat. No. 3101.0, Commonwealth Government of Australia, Canberra. Issue June 25 2015. For post-neonatal infants, the denominator includes all Victorian resident infants 0–364 days of age; while the numerator includes only post-neonatal infants aged 28–364 days.

The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

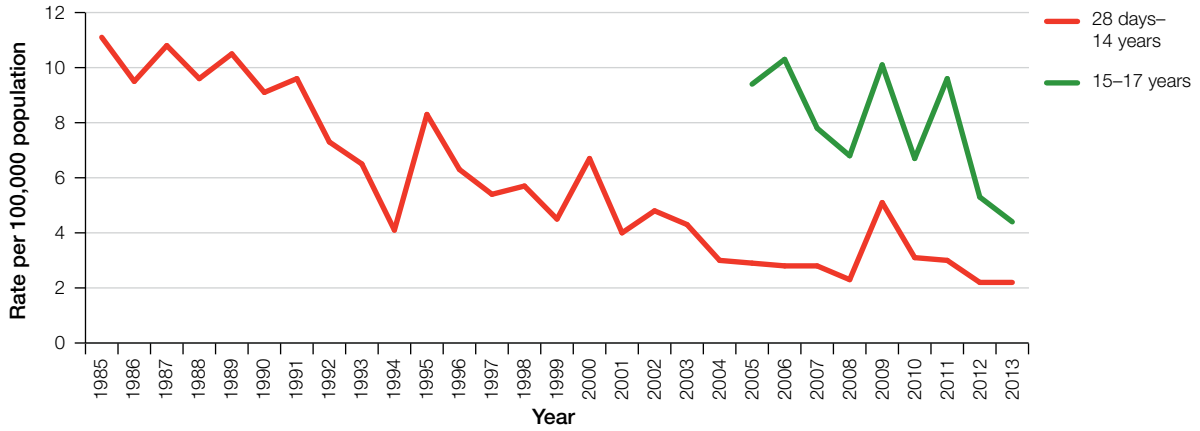
Figure 14.16: Rates of unintentional injury deaths (excluding motor vehicle accidents), 28 days to 14 years, Victoria 1985–2013[a]



a. Denominators were obtained from Australian Bureau of Statistics, Australian Demographic statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria', cat. No. 3101.0, Commonwealth Government of Australia, Canberra. Issue 25 June 2015. For post-neonatal infants, the denominator includes all Victorian resident infants 0–364 days of age; while the numerator includes only post-neonatal infants aged 28–364 days.

The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

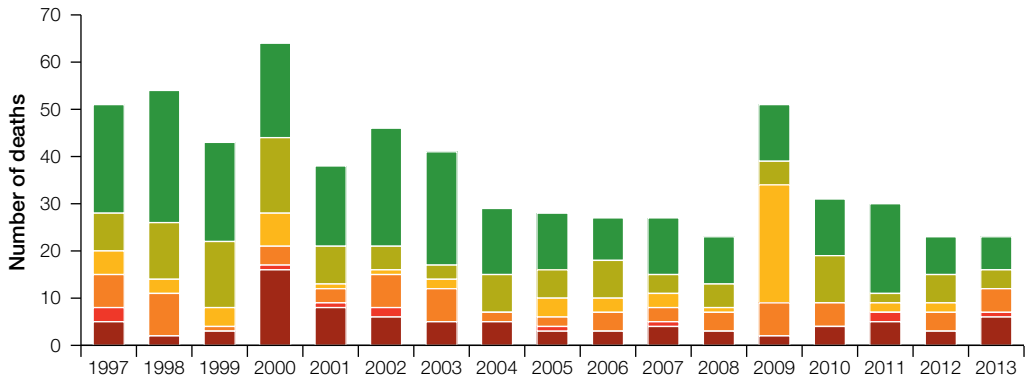
Figure 14.17: Rate of unintentional injury by age group, Victoria, 1985–2013



CCOPMM commenced reporting in the 15–17 year age group in 2005.

The spike in deaths in 2009 relates to the Victorian bushfires on February 2009.

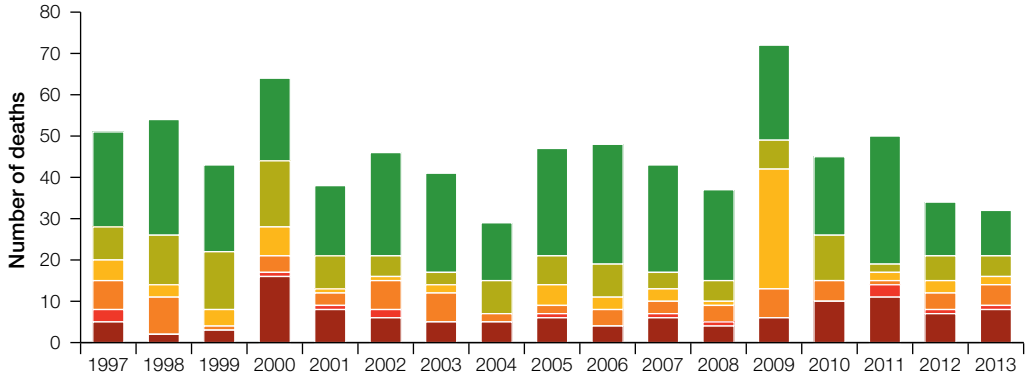
Figure 14.18a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Motor vehicle accidents	23	28	21	20	17	25	24	14	12	9	12	10	12	12	19	8	7
Drowning	8	12	14	16	8	5	3	8	6	8	4	5	5	10	2	6	4
Fire	5	3	4	7	1	1	2	0	4	3	3	1	25	0	2	2	0
Asphyxiation	7	9	1	4	3	7	7	2	2	4	3	4	7	5	0	4	5
Train accidents	3	0	0	1	1	2	0	0	1	0	1	0	0	0	2	0	1
Other	5	2	3	16	8	6	5	5	3	3	4	3	2	4	5	3	6
Total	**51**	**54**	**43**	**64**	**38**	**46**	**41**	**29**	**28**	**27**	**27**	**23**	**51**	**31**	**30**	**23**	**23**

The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

Figure 14.18b: Unintentional injury deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Motor vehicle accidents	23	28	21	20	17	25	24	14	26	29	26	22	23	19	31	13	11
Drowning	8	12	14	16	8	5	3	8	7	8	4	5	7	11	2	6	5
Fire	5	3	4	7	1	1	2	0	5	3	3	1	29	0	2	3	2
Asphyxiation	7	9	1	4	3	7	7	2	2	4	3	4	7	5	1	4	5
Train accidents	3	0	0	1	1	2	0	0	1	0	1	1	0	0	3	1	1
Other	5	2	3	16	8	6	5	5	6	4	6	4	6	10	11	7	8
Total	**51**	**54**	**43**	**64**	**38**	**46**	**41**	**29**	**47**	**48**	**43**	**37**	**72**	**45**	**50**	**34**	**32**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children aged 28 days to 17 years.

The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

Figure 14.19a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2013[a]

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Traffic accidents	22	26	16	15	15	20	19	14	11	8	11	10	7	9	13	5	4
Non-traffic accidents	1	2	5	5	2	5	5	0	1	1	1	0	5	3	6	3	3
Total	**23**	**28**	**21**	**20**	**17**	**25**	**24**	**14**	**12**	**9**	**12**	**10**	**12**	**12**	**19**	**8**	**7**

a. A traffic accident is defined (ICD-10) as a vehicle on the public highway (originating on, terminating on or involving a vehicle party on the highway), whereas a non-traffic accident is defined as any vehicle accident that occurs entirely in any place other than a public highway (for example, a private property or involving only off-road motor vehicles).

Figure 14.19b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2013[c]

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Traffic accidents	22	26	16	15	15	20	19	14	25	27	25	21	17	16	24	10	8
Non-traffic accidents	1	2	5	5	2	5	5	0	1	2	1	1	6	3	7	3	3
Total	**23**	**28**	**21**	**20**	**17**	**25**	**24**	**14**	**26**	**29**	**26**	**22**	**23**	**19**	**31**	**13**	**11**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children and adolescents aged 28 days to 17 years.
c. A traffic accident is defined (ICD-10) as a vehicle on the public highway (originating on, terminating on or involving a vehicle party on the highway), whereas a non-traffic accident is defined as any vehicle accident that occurs entirely in any place other than a public highway (for example, a private property or involving only off-road motor vehicles).

Table 14.27: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2012

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Passenger in motor vehicle	1	0	0	2	2	**5**
Driver in motor vehicle	0	0	0	0	2	**2**
Pedestrian	0	3	2	0	0	**5**
Motorcycle / trailbike rider	0	0	0	0	1	**1**
Total	**1**	**3**	**2**	**2**	**5**	**13**

Note: three adolescents died in one incident, all others were individual accidents.

Table 14.28: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2013

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Passenger in motor vehicle	0	0	2	0	1	**3**
Driver of motor vehicle	0	0	0	0	2	**2**
Pedestrian	0	0	1	3	0	**4**
Motorcycle / trailbike rider	0	0	0	1	1	**2**
Total	**0**	**0**	**3**	**4**	**4**	**11**

Table 14.29: Location of drowning fatalities by age group, Victoria 2012

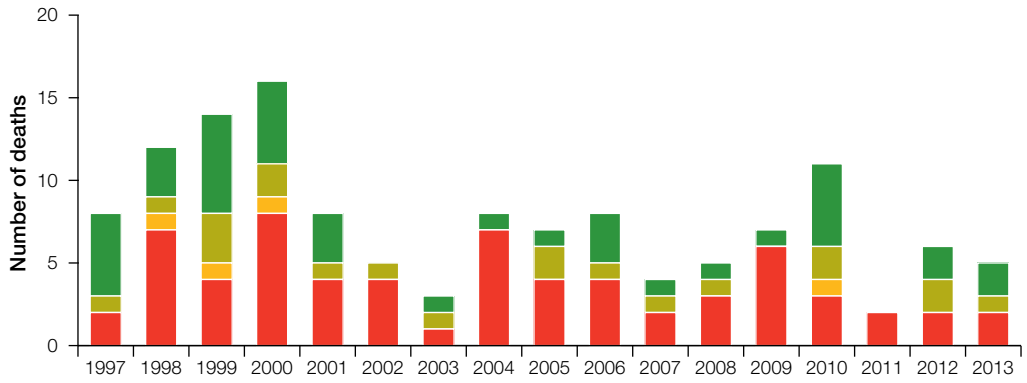
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Bath tub	1	1	0	0	0	**2**
Domestic pool	0	2	0	0	0	**2**
Sea	0	0	1	0	0	**1**
Dam	0	0	1	0	0	**1**
Total	**1**	**3**	**2**	**0**	**0**	**6**

Note one comorbidity of autism, epilepsy and intellectual disability (Dravet syndrome).

Table 14.30: Location of drowning fatalities by age group, Victoria 2013

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Bath tub	0	1	0	0	0	**1**
Domestic pool	0	2	0	0	0	**2**
Sea	0	0	0	0	1	**1**
Dam	0	1	0	0	0	**1**
Total	**0**	**4**	**0**	**0**	**1**	**5**

Figure 14.20: Drowning fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013
Domestic pool[c]	5	3	6	5	3	0	1	1	1	3	1	1	1	5	0	2	2
Adult bath	1	1	3	2	1	1	1	0	2	1	1	1	0	2	0	2	1
Public pool	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0
Other[d]	2	7	4	8	4	4	1	7	4	4	2	3	6	3	2	2	2
Total	**8**	**12**	**14**	**16**	**8**	**5**	**3**	**8**	**7**	**8**	**4**	**5**	**7**	**11**	**2**	**6**	**5**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children and adolescents ages 28 days to 17 years.
c. 'Domestic pool' includes spa, wading pool.
d. 'Other' includes bucket, river, sea, dam, irrigation channel, reservoir, storm drain, creek, river, lake.

Table 14.31: Fire fatalities by age group, Victoria 2012

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
House fire	0	1	1	0	1	**3**
Total	**0**	**1**	**1**	**0**	**1**	**3**

Note: there were two additional fire-related deaths occurring as a result of intentional injury. These deaths are noted in Table 14.43.

Table 14.32: Fire fatalities by age group, Victoria 2013

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
House fire	0	0	0	0	2	**2**
Total	**0**	**0**	**0**	**0**	**2**	**2**

Table 14.33: Deaths from asphyxiation, train and other types of injury, by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Asphyxiation						
Portacot / bed	1	1	0	0	0	**2**
Accidental hanging	0	0	1	0	0	**1**
Choked on food	0	1	0	0	0	**1**
Train						
Train deaths	0	0	0	0	1	**1**
Other injury type						
Heat stroke	1	0	0	0	0	**1**
Post-operative	0	1	0	0	0	**1**
Struck by farm machinery	0	1	0	0	0	**1**
Volatile inhalation	0	0	0	0	1	**1**
High velocity missile injury to head	0	0	0	0	1	**1**
Horse riding incident	0	0	0	0	1	**1**
Mixed drug toxicity	0	0	0	0	1	**1**
Total	**2**	**4**	**1**	**0**	**5**	**12**

Note: that there were two additional deaths from suffocation / asphyxiation, however these were classified as intentionally inflicted injury and detailed in Table 14.43.

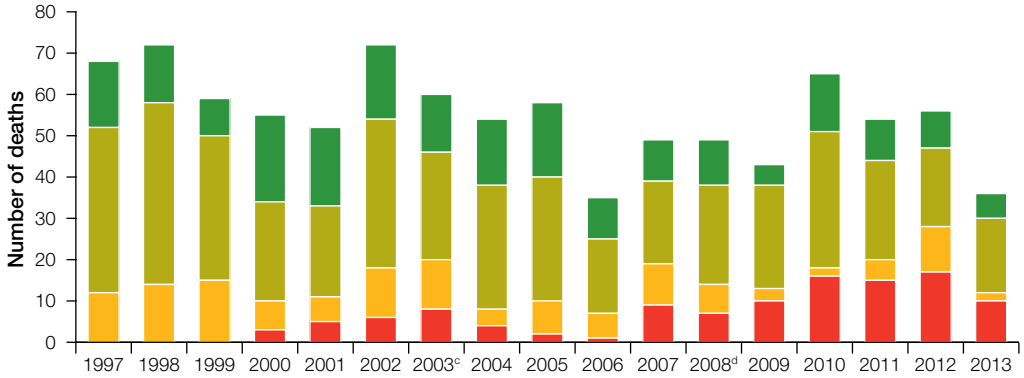
Table 14.34: Deaths from asphyxiation, train and other types of injury, by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Asphyxiation						
Portacot / cot / bed	1	0	0	0	0	**1**
Smothered (co-sleeping)	1	0	0	0	0	**1**
Foreign body	0	1	1	0	0	**2**
Choked on food	0	1	0	0	0	**1**
Train						
Train deaths	0	0	0	1	0	**1**
Other injury type						
Hit by falling branch	0	1	0	0	0	**1**
Crushed by furniture	0	1	0	0	0	**1**
Brown snake bite	0	0	1	0	0	**1**
Fall from structure (sleep walking)	0	0	0	1	0	**1**
Heroin toxicity	0	0	0	0	1	**1**
Head injury (fall from bicycle)	0	0	0	1	0	**1**
Post operative procedures	0	0	1	0	1	**2**
Total	**2**	**4**	**3**	**3**	**2**	**14**

Note: Asphyxial deaths – one comorbidity of trache-oesophageal fistual and oesophageal atresia.

Deaths from acquired disease and undetermined deaths

Figure 14.20a: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997–2013



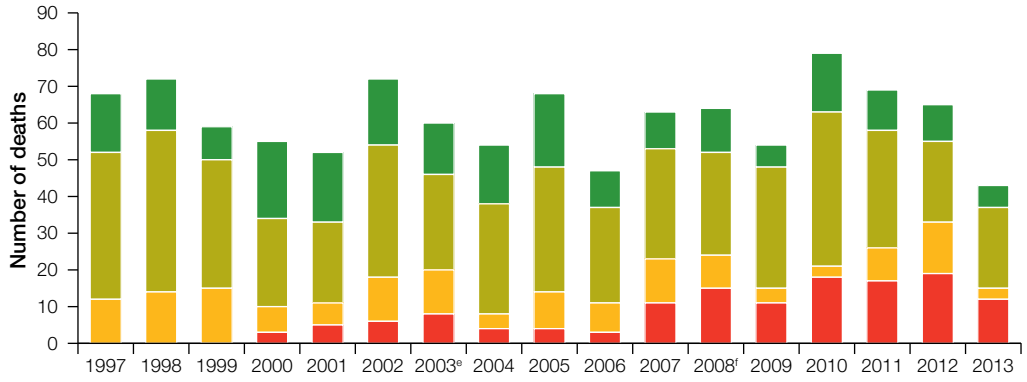
	1997	1998	1999	2000	2001	2002	2003[c]	2004	2005	2006	2007	2008[d]	2009	2010	2011	2012	2013
Infection	16	14	9	21	19	18	14	16	18	10	10	11	5	14	10	9	6
Malignancy	40	44	35	24	22	36	26	30	30	18	20	24	25	33	24	19	18
Other acquired[a]	12	14	15	7	6	12	12	4	8	6	10	7	3	2	5	11	2
Undetermined[b]	N/A	N/A	0	3	5	6	8	4	2	1	9	7	10	16	15	17	10
Total	**68**	**72**	**59**	**55**	**52**	**72**	**60**	**54**	**58**	**35**	**49**	**49**	**43**	**65**	**54**	**56**	**36**

a. Other acquired category: this category is summarised in Tables 14.39 and 14.40.
b. Undetermined category: in reports prior to 2002 (backdated to 1999), where a cause of death was not identified or had been classified as 'unascertained/undetermined' it was included in the 'other acquired' category.
c. A case in 2003 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to a reduction to 60 total in this section) for 2003.
d. A case in 2008 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to a reduction to 49 total in this section) for 2008.

Note: significant changes to these categories have occurred from 2001 onwards due to reclassification of malignancy associated with syndromes as malignancy rather than the syndrome, and other reclassification changes.

N/A – Not applicable.

Figure 14.20b: Acquired disease deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003[e]	2004	2005	2006	2007	2008[f]	2009	2010	2011	2012	2013
Infection	16	14	9	21	19	18	14	16	20	10	10	12	6	16	11	10	6
Malignancy	40	44	35	24	22	36	26	30	34	26	30	28	33	42	32	22	22
Other acquired[c]	12	14	15	7	6	12	12	4	10	8	12	9	4	3	9	14	3
Undetermined[d]	N/A	N/A	0	3	5	6	8	4	4	3	11	15	11	18	17	19	12
Total	**68**	**72**	**59**	**55**	**52**	**72**	**60**	**54**	**68**	**47**	**63**	**64**	**54**	**79**	**69**	**65**	**43**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children and adolescents ages 28 days to 17 years.
c. Other acquired category. This category is summarised in Tables 14.39 and 14.40.
d. Undetermined category. In reports prior to 2002 (backdated to 1999), where a cause of death was not identified or had been classified as 'unascertained/undetermined' it was included in 'other acquired'.
e. A case in 2003 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to a reduction to 60 total in this section) for 2003.
f. A case in 2008 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to a reduction to 64 total in this section) for 2008.

Note: significant changes to these categories have occurred from 2001 onwards due to reclassification of malignancy associated with syndromes as malignancy rather than the syndrome, and other reclassification changes.

N/A – Not applicable.

Table 14.35: Deaths from infection by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Streptococcus pneumoniae (serotype 7F) meningitis and septicaemia	1	0	0	0	0	**1**
Neisseria meningitidis type B meningitis	0	1	0	0	0	**1**
Escherichia coli meningitis	0	1	0	0	0	**1**
Pseudomonas aeruginosa urinary sepsis	0	0	0	0	1	**1**
Septic shock, no organism detected	0	1	0	0	0	**1**
Respiratory syncytial virus bronchopneumonia	1	0	0	0	0	**1**
Influenza B disease	0	1	0	0	0	**1**
Enterovirus 71 encephalomyelitis	0	1	0	0	0	**1**
Chronic upper and lower respiratory tract infections, acute tonsillitis	0	1	0	0	0	**1**
Myocarditis, no organism detected	0	1	0	0	0	**1**
Total	**2**	**7**	**0**	**0**	**1**	**10**

Note: co-morbidities – one with Trisomy 21 and one with spina bifida and renal transplantation.

Table 14.36: Deaths from infection by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Enteroviral encephalitis	0	1	0	0	0	**1**
Septicaemia	0	1	0	0	0	**1**
Acute myocarditis	0	1	0	0	0	**1**
Bronchopneumonia	1	1	0	0	0	**2**
Methicillin resistant *Staphylococcus aureus* sepsis	1	0	0	0	0	**1**
Total	**2**	**4**	**0**	**0**	**0**	**6**

Table 14.37: Deaths from malignancy by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Central nervous system						
Glioblastoma multiforme	0	0	1	0	0	**1**
Atypical teratoid rhabdoid tumour	0	0	0	1	0	**1**
Medulloblastoma	0	0	1	0	0	**1**
Anaplastic astrocytoma	0	0	1	0	0	**1**
Pontine glioma	0	3	0	0	0	**3**
Primitive neuroectodermal tumour	0	1	0	0	0	**1**
Unspecified	1	0	0	0	0	**1**
Neuroblastoma	0	1	2	0	0	**3**
Leukaemia						
Acute lymphoblastic leukaemia	0	1	1	1	1	**4**
Acute myeloid leukaemia	0	1	0	1	0	**2**
Other						
Ovarian carcinoma	0	0	0	0	1	**1**
Osteosarcoma	0	0	0	0	1	**1**
Rhabdomyosarcoma	0	0	0	1	0	**1**
Tumour of chest, unspecified	1	0	0	0	0	**1**
Total	**2**	**7**	**6**	**4**	**3**	**22**

Note: co-morbidities – Sturge Weber syndrome and Meckel Gruber Syndrome.

Table 14.38: Deaths from malignancy by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Central nervous system						
Pilocytic astrocytoma	0	0	0	2	0	**2**
Rhabdomyosarcoma	0	0	0	1	0	**1**
Glioblastoma/anaplastic astrocytoma	0	0	0	0	1	**1**
Synovial sarcoma	0	0	0	0	1	**1**
Anaplastic oligodendroglioma	0	0	0	0	1	**1**
Anaplastic astrocytoma	0	0	1	0	0	**1**
Pontine glioma	0	0	2	1	0	**3**
Ependymoma	0	0	2	0	0	**2**
Lymphoma						
Peripheral T-cell lymphoma	0	0	0	1	0	**1**
Neuroblastoma	0	0	0	1	0	**1**
Leukaemia						
Acute lymphoblastic leukaemia	0	0	1	1	0	**2**
Acute myeloid leukaemia	0	1	0	0	0	**1**
Lymphoid leukaemia	0	0	0	1	0	**1**
Juvenile myelomonocytic leukaemia	0	0	1	0	0	**1**
Other						
Adenocarcinoma	0	0	0	1	0	**1**
Endoermal sinus tumour	0	0	1	0	0	**1**
Osteosarcoma	0	0	0	0	1	**1**
Total	**0**	**1**	**8**	**9**	**4**	**22**

Note: Two additional deaths from malignancy of Victorian residents are noted in 2013: one with osteosarcoma and one with neuroblastoma. They are excluded as they died overseas.

Table 14.39: Deaths from other acquired disease by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Asthma	0	1	2	3	0	**6**
Anaphylaxis	0	0	1	0	1	**2**
Appendicitis	0	0	0	1	0	**1**
Acquired immunodeficiency	0	0	0	1	0	**1**
Reye Syndrome	0	0	0	1	0	**1**
Postpartum cardiomyopathy	0	0	0	0	1	**1**
Cardiomyopathy (arrhythmogenic right ventricular)	0	0	0	1	0	**1**
Cardiac fibroma	0	0	0	0	1	**1**
Total	**0**	**1**	**3**	**7**	**3**	**14**

Note: Co-morbidities – Trisomy 21, obesity.
One case also represents a maternal death, detailed elsewhere in this report.

Table 14.40: Deaths from other acquired disease by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Anaphylaxis	0	0	0	2	0	**2**
Asthma	0	0	0	0	1	**1**
Total	**0**	**0**	**0**	**2**	**1**	**3**

Table 14.41: Deaths where cause was undetermined, by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Undetermined (autopsy performed)	4	10	2	1	2	**19**
Total	**4**	**10**	**2**	**1**	**2**	**19**

Table 14.42: Deaths where cause was undetermined, by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Undetermined (autopsy performed)	4	4	2	0	2	**12**
Total	**4**	**4**	**2**	**0**	**2**	**12**

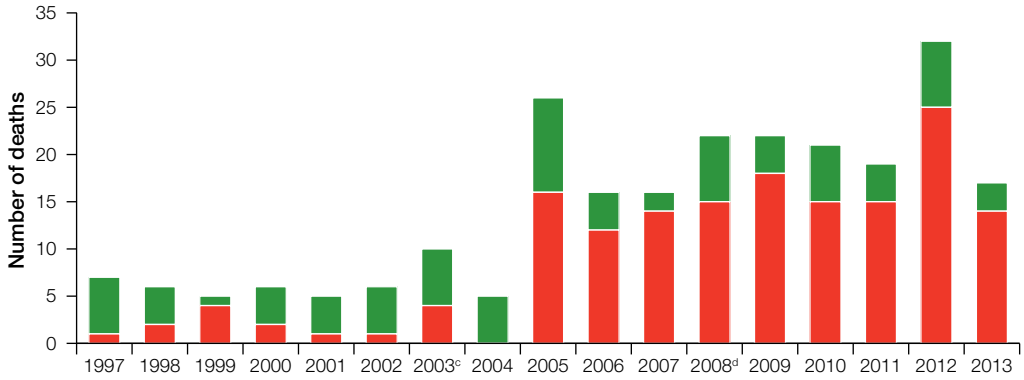
Deaths from intentional trauma and suicide

Figure 14.21a: Intentional trauma and suicide deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2013

	1997	1998	1999	2000	2001	2002	2003[a]	2004	2005	2006	2007	2008[b]	2009	2010	2011	2012	2013
Intentional trauma	6	4	1	4	4	5	6	5	8	3	1	3	4	5	4	6	3
Suicide	1	2	4	2	1	1	4	0	1	4	4	3	4	4	2	3	1
Total	**7**	**6**	**5**	**6**	**5**	**6**	**10**	**5**	**9**	**7**	**5**	**6**	**8**	**9**	**6**	**9**	**4**

a. A case in 2003 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to an increase to 10 total in this section) for 2003.
b. A case in 2008 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to an increase to 6 total in this section) for 2008.

Figure 14.21b: Intentional trauma and suicide deaths: post-neonatal infants, children and adolescents[a,b] Victoria 1997–2013



	1997	1998	1999	2000	2001	2002	2003[c]	2004	2005	2006	2007	2008[d]	2009	2010	2011	2012	2013
Intentional trauma	6	4	1	4	4	5	6	5	10	4	2	7	4	6	4	7	3
Suicide	1	2	4	2	1	1	4	0	16	12	14	15	18	15	15	25	14
Total	**7**	**6**	**5**	**6**	**5**	**6**	**10**	**5**	**26**	**16**	**16**	**22**	**22**	**21**	**19**	**32**	**17**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2013 children and adolescents aged 28 days to 17 years.
c. A case in 2003 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to an increase to 10 total in this section) for 2003.
d. A case in 2008 (1–4 year age group) has been changed from Undetermined to intentionally inflicted injury (leading to an increase to 22 total in this section) for 2008.

Table 14.43: Deaths from intentional trauma by age group, Victoria 2012

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Head injury	2	0	0	0	0	**2**
Suffocation	0	1	1	0	0	**2**
Effects of fire	0	0	2	0	0	**2**
Haemorrhage from stab wound	0	0	0	0	1	**1**
Total	**2**	**1**	**3**	**0**	**1**	**7**

Table 14.44: Deaths from intentional trauma by age group, Victoria 2013

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Head injury	1	1	0	1	0	**3**
Total	**1**	**1**	**0**	**1**	**0**	**3**

Table 14.45: Deaths from completed suicide: age at death by gender, Victoria 2012

Age at death	Females	Males	Total
13 years	0	0	**0**
14 years	3	0	**3**
15 years	4	2	**6**
16 years	3	2	**5**
17 years	8	3	**11**
Total	**18**	**7**	**25**
Rate[a] 13 to 17 years	**10.9**	**4.0**	**7.3**
Rate[a] 15 to 17 years	**14.8**	**6.6**	**10.6**

a. Denominators were obtained from Australian Bureau of Statistics 2014, Australian Demographic Statistics, September 2013, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Rates expressed as per 100,000 population of relevant age group.

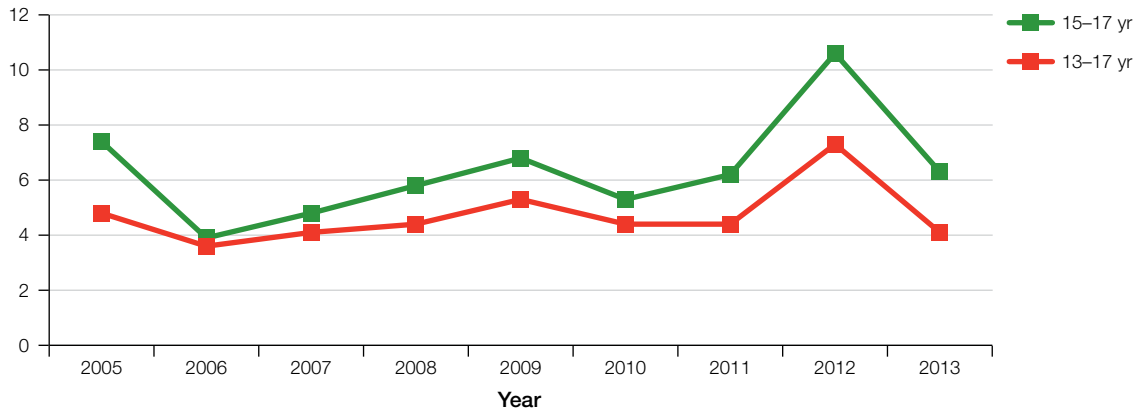
Table 14.46: Deaths from completed suicide: age at death by gender, Victoria 2013

Age at death	Females	Males	Total
13 years	0	0	**0**
14 years	0	1	**1**
15 years	1	1	**2**
16 years	3	3	**6**
17 years	1	4	**5**
Total	**5**	**9**	**14**
Rate[a] 13 to 17 years	**3.0**	**5.1**	**4.1**
Rate[a] 15 to 17 years	**5.0**	**7.5**	**6.3**

a. Denominators were obtained from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra, issue June 25 2015.

Rates expressed as per 100,000 population.

Figure 14.22: Trends in completed suicide rates in adolescents, Victoria 2005–2013



Notes:

- Note that in 2011, one 12 year old is included in the rate of completed suicide in the 13–17 year age group. Excluding this case decreases the completed suicide rate in the 13–17 year age group from 4.4 to 4.1/100,000.
- In the 2005 annual report, rates were calculated for 14–17 year age group (not 13–17 year age group) and 15–17 year age group.
- Slight differences across the rates are noted from previously published annual reports as population denominators used to generate this data have been updated and are taken from Australian Bureau of Statistics 2015, Australian Demographic Statistics, December 2014, 'Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue June 25 2015.