The Consultative Council on Obstetric and Paediatric Mortality and Morbidity

Victoria's mothers, babies and children 2014 and 2015

Appendices

VICTORIA State Government | Health and Human Services

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Authorised and published by the Victorian Government, 1 Treasury Place, Melbourne.

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.

ISBN 978-0-7311-7185-9

Available at https://www2.health.vic.gov.au/hospitals-and-health-services/quality-safety-service/consultative-councils/council-obstetric-paediatric-mortality/

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Appendix 1: Definitions

Child death

Child death refers to the death of a child occurring after and including the 1st birthday and up to, but not including, the 18th birthday (1–17 years).

Confinements

Confinements refer to the number of women who gave birth to one or more live births and/or stillbirths (regardless of plurality) with a pregnancy of 20 weeks gestation or more.

Congenital anomaly, formerly birth anomaly

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.

Crude birth rate

The crude birth rate is measured by the number of live births (see definition below) per 1000 estimated female resident population aged 14–44 years for a given calendar year.

Estimated resident population

The estimated resident population (ERP) is an Australian Bureau of Statistics (ABS) measure of the population based on the concept of residence and refers to all people, regardless of nationality or citizenship, who usually live in Australia, with the exception of foreign diplomatic personnel and their families.

Infant death

Infant death refers to the death of a live-born infant occurring within one year of birth. Infant death can be divided into neonatal death referring to the death of a live-born infant less than 28 days after birth, of at least 20 weeks gestation or, if gestation is unknown, weighing at least 400 g, and post-neonatal infant death, referring to the death of an infant between 28 days and 364 days.

Late maternal death

Late maternal death refers to the death of a woman after 42 days, but within a year of the birth or termination of the pregnancy. The death may be due to direct, indirect or incidental causes; however, indirect and incidental late maternal deaths are not included in the maternal mortality ratio.

Live birth

A live birth is the birth of a child who, after delivery, breathes or shows any evidence of life such as a heartbeat.

Maternal death

For classification of cause of death

For classification purposes, maternal death refers to the death of a woman while pregnant or within 42 days of the end of the pregnancy, irrespective of the cause of death. This definition allows for classification of maternal deaths based on direct, indirect or incidental causes, as follows:

- direct — the death is considered to be due to a complication of the pregnancy (for example, haemorrhage from placenta praevia)
- indirect — the death is considered to be due to a pre-existing or newly diagnosed condition aggravated by the physiological or pathological changes of pregnancy (for example, deterioration in pre-existing heart disease or diabetes). Deaths consequent on psychiatric disease are usually categorised as indirect, except for puerperal psychosis, which is classified as direct
- incidental — the death is considered unrelated to pregnancy (for example, passenger in motor vehicle accident).
- late maternal death — when the death occurs after 42 days, but within a year of the birth or termination of pregnancy.

For calculating the maternal mortality ratio

The World Health Organization (WHO) defines maternal death as 'the death of a woman during pregnancy, childbirth or in the 42 days of the puerperium, irrespective of the duration and site of the pregnancy, from any cause related to, or aggravated by, the pregnancy or its management'. This WHO definition allows for identification of maternal deaths as either direct or indirect only. It includes deaths from abortion and ectopic pregnancy, however excludes incidental deaths from causes unrelated to pregnancy, such as deaths from injury or malignancy. The WHO definition is used by the CCOPMM to calculate the maternal mortality ratio.

Perinatal death

Perinatal deaths refer to stillbirths and live births with only brief survival and are grouped on the assumption that similar factors are associated with these losses. The CCOPMM defines perinatal death to include stillbirth and neonatal deaths within 28 days of birth of infants of gestation ≥ 20 weeks or if gestation is unknown of birthweight ≥ 400 g.

For national statistics, the CCOPMM also reports on perinatal deaths of infants with a birthweight of ≥ 500 g, or, if the birthweight 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 and as recommended by WHO, only fetuses and infants of at least 1000 g birthweight, or where birthweight 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

These deaths are classified under the following categories:

- determined at birth
- SUDI, including SIDS
- unintentional injury
- acquired disease
- intentional injury
- undetermined.

Standardised mortality ratio

This is a risk ratio where the observed mortality pattern in a group is compared with what would have been expected if the variable–specific mortality rates had been the same as the specified reference population. Indirect standardisation adjusts for differences in the distribution of the variable of interest (for example, age) between the study and reference population.

Stillbirth

A stillbirth is defined as the birth of an infant of at least 20 weeks gestation or, if gestation is unknown, weighing at least 400 g, who shows no signs of life at birth.

Sudden unexpected deaths in infancy (SUDI)[3]

This group of deaths includes all infants (under one year of age) who die suddenly and unexpectedly after they are placed for sleeping. SUDI can be classified into explained SUDI and unexplained SUDI and can include deaths related to:

- unexplained:
  - SIDS is the sudden unexpected death of an infant < one year of age, with onset of the fatal episode apparently occurring during sleep
  - unclassified sudden infant death (USID), with or without autopsy
  - undetermined
- explained:
  - suffocation while sleeping (including asphyxiation by bedclothes and overlaying)
  - infection, metabolic disorders, congenital anomalies, genetic conditions
  - other, for example non-accidental injury.

Some international definitions of SUDI include unexpected events such as unintentional injury (for example, motor vehicle accidents). The CCOPMM does not include unintentional injuries in its SUDI definitions, but details of unintentional injury in infants are listed elsewhere in the report. SUDI deaths where a cause of death is identified (usually at autopsy) are included in the 'explained' category and are also included within other appropriate categories (for example, congenital anomalies or genetic conditions, infection) elsewhere in the report. Unexplained SUDI deaths are classified according to the Krous definition.

Category IA SIDS

Category IA includes deaths that meet the requirements of the general definitions and also all of the following requirements.

Clinical

- > 21 days and < 9 months of age
- Normal clinical history including term pregnancy (gestational age ≥ 37 weeks)
- Normal growth and development
- No similar deaths among siblings, close genetic relatives (uncles, aunts or first degree cousins) or other infants in the custody the same caregiver

Circumstances of death

- Investigation of the various scenes where incidents leading to death might have occurred and determination that they do not provide an explanation for the death
- Found in a safe sleeping environment, with no evidence of accidental death

3 Krous HF, Beckwith JB, Byard RW, Rognum TO, Bajanowski T, Corey T, Cutz E, Hanzlick R, Keens TG, Mitchell EA. Sudden Infant Death Syndrome and Unclassified Sudden Infant Deaths: A definitional and Diagnostic Approach" Pediatrics 2004;114(1):234-238.

Autopsy

- Absence of potentially fatal pathologic findings. Minor respiratory system inflammatory infiltrates are acceptable; intrathoracic petechial haemorrhage is a supportive but not obligatory or diagnostic finding
- No evidence of unexplained trauma, abuse, neglect or unintentional injury
- No evidence of substantial thymic stress effect (thymic weight of < 15 g and/or moderate/severe cortical lymphocyte depletion). Occasional 'starry sky' macrophages or minor cortical depletion is acceptable
- Negative results of toxicologic, microbiologic, radiologic, vitreous chemistry and metabolic screening studies

Category IB SIDS

Category IB includes infant deaths that meet the requirements of the general definition and also meet all of the criteria for category IA except that investigation of the various scenes where incidents leading to death might have occurred was not performed or ≥ 1 of the following analyses were not performed: toxicologic, microbiologic, radiologic, vitreous, chemistry or metabolic screening studies.

Category II SIDS

Category II includes infants that meet category I except for ≥ 1 of the following.

Clinical

- Age range outside that of category IA or IB (that is 0–21 days or 270 days [9 months] through to first birthday)
- Similar deaths among siblings, close relatives or infants in the custody of the same caregiver that are not recognised suspect for infanticide or recognised genetic disorders
- Neonatal or perinatal conditions (for example those resulting from preterm birth) that have resolved by the time of death

Circumstances of death

- Mechanical asphyxia or suffocation caused by overlaying not determined with certainty

Autopsy

- Abnormal growth or development not thought to have contributed to death
- Marked inflammatory changes or abnormalities not sufficient to be unequivocal causes of death

Unclassified sudden infant death

Includes deaths that do not meet the criteria for category I or II SIDS, but for which alternative diagnoses of natural or unnatural conditions are equivocal, including cases where autopsies were not preformed.

Post-resuscitation cases

Infants found in extremis who are not resuscitated and later die ('temporarily interrupted SIDS') may be included in the aforementioned categories, depending on the fulfilment of relevant criteria.

Acronyms

APMAT	Perinatal Mortality Audit Tool
BMI	body–mass index
CCOPMM	Consultative Council on Obstetric and Paediatric Mortality and Morbidity
CTG	Cardiotocography
FGR	fetal growth restriction
FSE	fetal scalp electrode
MCH	Maternal and Child Health
MMR	Maternal Mortality Ratio
PIPER	Paediatric Infant Perinatal Emergency Retrieval.
PPH	Postpartum Haemorrhage
PSANZ	Perinatal Society of Australia and New Zealand
SUDEP	sudden unexplained death in epilepsy
UVC	umbilical vein cannulation
VPDC	Victorian Perinatal Data Collection
VCAR	Victorian Congenital Anomalies Register
ViCTOR	Victorian Children's Tool for Observation and Response

Appendix 2: Measures of obstetric and paediatric mortality and morbidity

Maternal mortality ratio (MMR)

The MMR is defined as follows:

$$\text{Maternal mortality ratio} = \frac{\text{number of direct and indirect maternal deaths} \times 100{,}000}{\text{total number of confinements}}$$

The MMR excludes late maternal deaths.

Confinements is the number of pregnancies of 20 weeks gestation or more resulting in live birth or stillbirth (regardless of plurality).

Maternal deaths in early pregnancy from direct or indirect causes are included in the numerator for the MMR even though the denominator does not include pregnancies that end before 20 weeks gestation because the available data on the number of these pregnancies are unreliable.

Perinatal mortality rate (PMR)

The PMR is calculated as stillbirths and neonatal deaths per 1000 total births (stillbirths and live births). For CCOPMM statistics, the rate refers to all births of at least 20 weeks gestation or, if gestation is unknown, of birthweight of at least 400 g. However, for purposes of continuity, PMR of infants of ≥ 500 g or, where the birthweight is unknown, of at least 22 weeks gestation, is also presented (PMR_{500}). For international comparisons, the rate refers to all births of at least 1000 g birthweight or, when the birthweight is unknown, of at least 28 weeks gestation and neonatal deaths occurring within seven days of birth (recommended by WHO).

$$\text{Perinatal mortality rate} = \frac{(\text{number of stillbirths} + \text{neonatal deaths}) \times 1000}{\text{total (stillbirths} + \text{live births)}}$$

Neonatal mortality rate (NMR)

The NMR is calculated per 1000 live births of at least 20 weeks gestation or, if gestation is unknown, of birthweight at least 400 g.

$$\text{Neonatal mortality rate} = \frac{\text{number of neonatal deaths} \times 1000}{\text{total live births}}$$

Stillbirth rate

$$\text{Stillbirth rate} = \frac{\text{number of stillbirths} \times 1000}{\text{total (stillbirths} + \text{live births)}}$$

Infant mortality rate (IMR)

The IMR is calculated as the number of infant deaths divided by the number of total (Victorian-born) live births for the index year (reported as the rate per 1000 live births). The live births are limited to those infants ≥ 20 weeks gestation or, if the gestation is unknown, of birthweight ≥ 400 g.

Deaths during the neonatal period of infants born as the result of termination of pregnancy for congenital anomaly or other reasons, such as maternal conditions, are excluded from the IMR calculation.

$$\textit{Infant mortality rate} = \frac{\textit{(number of infant deaths) x 1000}}{\textit{total live births}}$$

Appendix 3: Births and deaths flowcharts 2014 and 2015

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Figure 1: Births and deaths flow chart, Victoria 2014

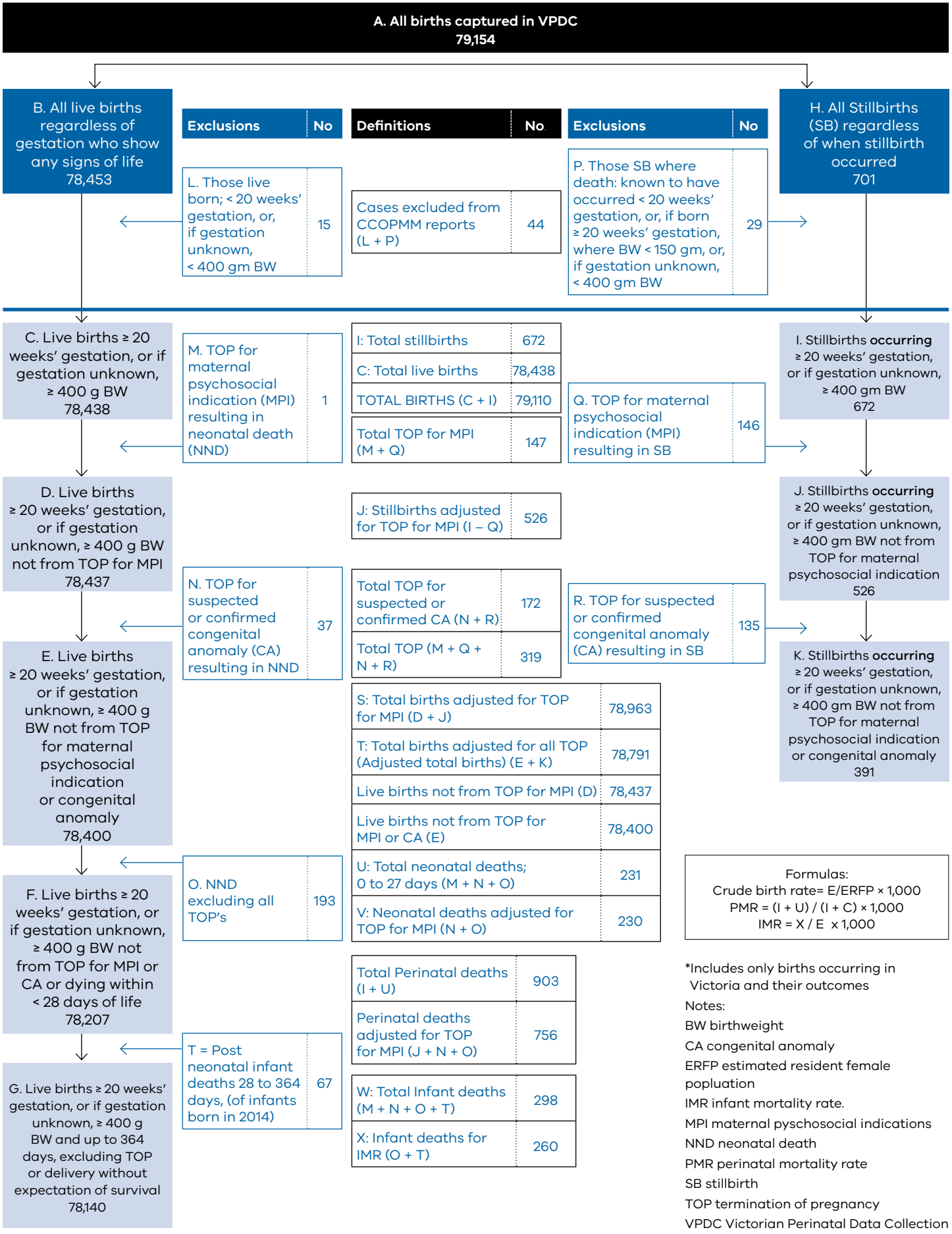
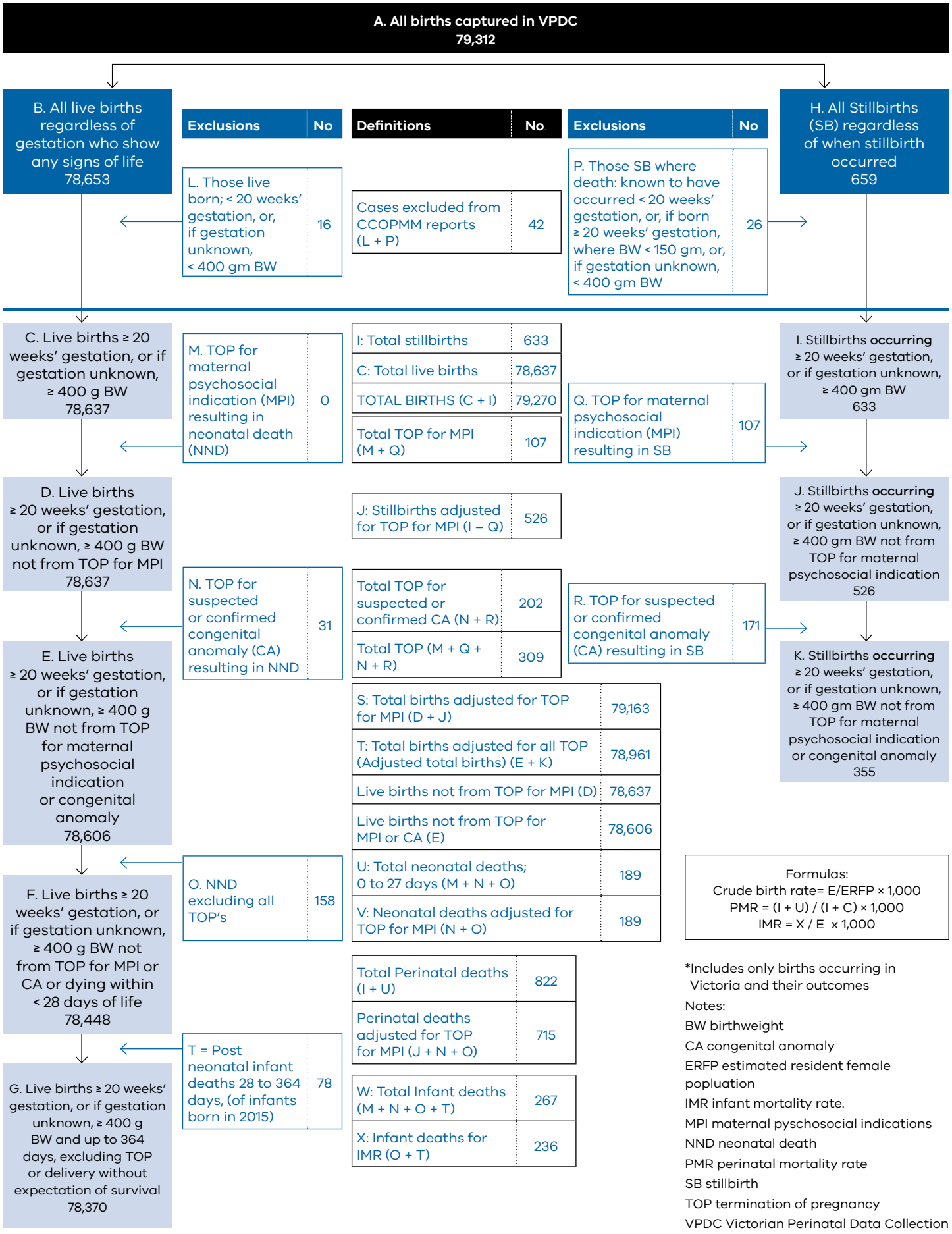


Figure 2: Births and deaths flow chart, Victoria 2015



Appendix 4: Births in Victoria 2014 and 2015

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Table 1: Total births in Victoria, 2014 and 2015

	2014	2015
Births		
Total births (C + I)[a]	79,110	79,270
Total stillbirths (I)	672	633
Total live births (C)	78,438	78,637
Terminations of pregnancy – TOP[b] (M + Q + N + R)	319	309
Adjusted[c] births		
Adjusted total births (E + K)	78,791	78,961
Adjusted live births (E)	78,400	78,606
Adjusted stillbirths (K)	391	355
Confinements		
Total confinements	77,930	78,147
Adjusted[c] confinements	**77,577**	**77,752**
Crude birth rate[d]	63.4	62.4
Births excluded from CCOPMM report[e] (L + P)	44	42

a. Information in parentheses refers to the numbers in the Births and Deaths Flow Chart.

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 maternal psychosocial indications. Tables in Appendix 4 exclude 7 cases in 2014 and 54 cases in 2015 where the birthweight was incorrectly reported as < 150 grams. This results in 78,784 adjusted total births in 2014 and 78,907 adjusted total births in 2015 used as the denominator for tables in Appendix 4. In addition, cases with missing data are excluded from some tables.

d. Estimated female resident population (ERFP) – 3235.0 – Population by Age and Sex, Regions of Australia, 2014 and 3235.0 – Population by Age and Sex, Regions of Australia, 2015

e. Cases excluded from the report were known to have died before 20 weeks' gestation.

Table 2: Crude birth rate, Victoria 2014 and 2015

	2014	2015
Adjusted live births	78,400	78,606
Estimated female resident population (EFRP) aged 15–44 years	1,236,981	1,259,172
Crude birth rate per 1,000 EFRP (aged 15-44 years)[a]	63.4	62.4

a. The EFRP (aged 15- 44 years) was obtained from ABS Catalogue 3235.0 – Population by Age and Sex, Regions of Australia 2014 and Catalogue 3235.0 – Population by Age and Sex, Regions of Australia 2015, (http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02014 and http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02015

Table 3: Trends in births, confinements and live births per 1,000 ERFP[a] aged 15–44 years, Victoria 1985 to 2015

	1985	1990	1995	2000	2005	2010	2012	2013	2014	2015
Adjusted total births	61,189	66,878	64,717	62,555	66,340	74,127	78,041	77,963	78,791	78,961
Adjusted live births	60,784	66,374	63,247	62,148	65,993	73,731	77,659	77,566	78,400	78,606
Adjusted confinements	60,468	66,004	62,734	61,562	65,115	72,914	76,825	76,744	77,577	77,752
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	1,236,981	1,259,172
Live births per 1,000 EFRP	62.4	63.5	61.2	59.0	61.0	63.0	64.7	63.6	63.4	62.4

a. The EFRP (aged 15- 44 years) for the years 2014 and 2015 were obtained from ABS Catalogue 3235.0 – Population by Age and Sex, Regions of Australia 2014 and Catalogue 3235.0 – Population by Age and Sex, Regions of Australia 2015, (http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02014 and http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/3235.02015
EFRP for years prior to 2014 were obtained from ABS data. Births to women younger than 15 years are included in the 15–19 year age group and women aged 45 or older are included in the 40–44 year age group.

Maternal characteristics

Table 4: Maternal age group, confinements 2014 and 2015

	2014		2015	
Maternal age group	n	%	n	%
Younger than 20 years	1,544	2.0	1,261	1.6
20–24 years	8,081	10.4	7,825	10.1
25–29 years	20,672	26.6	20,186	26.0
30–34 years	28,354	36.5	29,000	37.3
35–39 years	15,232	19.6	15,800	20.3
40–44	3,444	4.4	3,399	4.4
45+ years	228	0.3	257	0.3
Unknown	22	0.0	24	0.0
Total	77,577	100.0	77,752	100.0

Table 5: Trends in maternal age group, % of confinements 1985 to 2015

Maternal age group	1985	1990	1995	2000	2005	2010	2012	2013	2014	2015
Younger than 20 years	4.4	4.3	3.5	3.3	2.7	2.4	2.3	2.2	2.0	1.6
20–24 years	23.1	18.3	15.7	12.4	11.3	11.2	10.9	10.8	10.4	10.1
25–29 years	40.2	37.6	33.6	30.7	25.4	26.4	26.8	26.3	26.6	26.0
30–34 years	24.4	29.0	32.7	34.6	37.0	33.9	34.8	35.5	36.5	37.3
35–39 years	6.9	9.3	12.5	16.2	19.9	21.3	20.4	20.2	19.6	20.3
40+ years	0.9	1.3	2.1	2.9	3.7	4.7	4.7	4.9	4.7	4.7
Median age – overall (years)	27.0	28.0	29.0	30.0	31.0	31.0	31.0	31.0	30.8	31.0
Median age – primiparae (years)	25.0	26.0	27.0	28.0	29.0	29.0	29.0	29.0	29.0	30.0
Mean age – overall (years)	27.5	28.2	29.1	29.9	30.6	31.3	31.2	31.3	30.8	31.0
Mean age – primiparae (years)	25.4	26.2	27.2	28.2	29.1	29.6	29.7	29.8	29.4	29.6

Figure 1: Trends in maternal age group, confinements 1985 to 2015 (%)

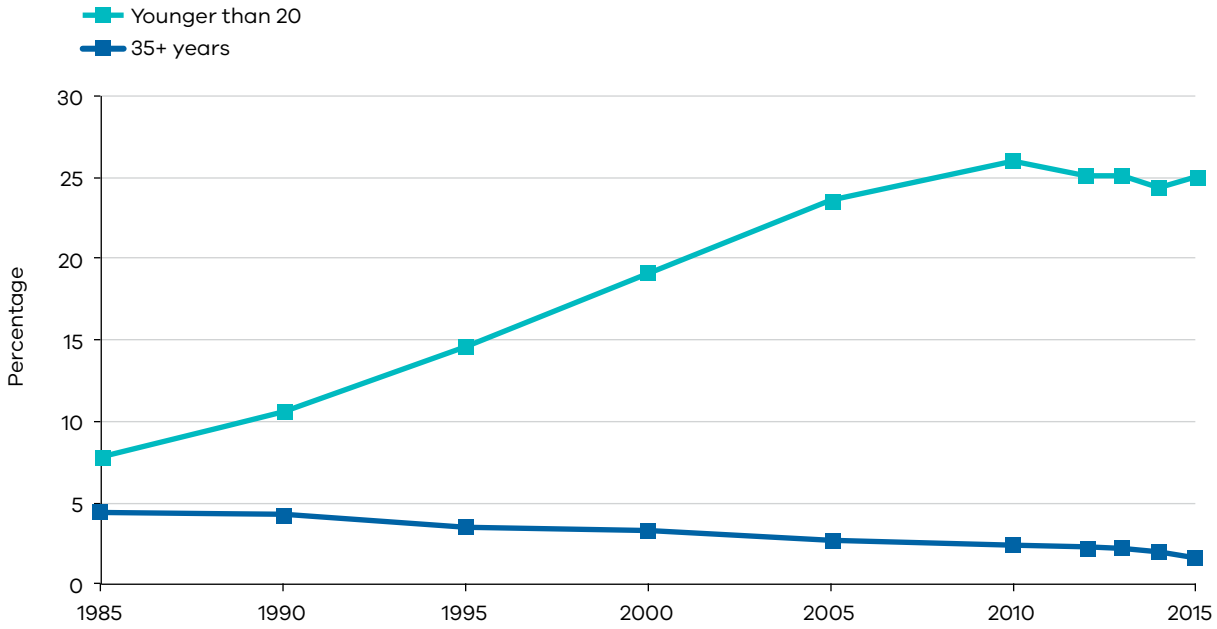


Table 6: Trends in confinements, Department of Health regions, 1990 to 2015

Department of Health regions	1990		2000		2010		2014		2015	
	n	%	n	%	n	%	n	%	n	%
Barwon-South West	4,780	7.2	4,001	6.5	4,353	6.0	4469	5.8	4563	5.9
Grampians	N/A	N/A	2,838	4.6	2,630	3.6	2723	3.5	2797	3.6
Loddon Mallee	3,897	5.9	3,484	5.7	3,757	5.2	3821	4.9	3606	4.6
Hume	N/A	N/A	3,116	5.1	3,196	4.4	3286	4.2	3281	4.2
Gippsland	3,582	5.4	2,683	4.4	2,980	4.1	3042	3.9	3069	3.9
Total rural	**18,388**	**27.9**	**16,122**	**26.2**	**16,916**	**23.3**	**17,341**	**22.3**	**17,316**	**22.2**
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	28617	36.9	28723	36.9
Eastern Metropolitan	19,197	29.1	11,334	18.4	11,403	15.6	11601	15.0	11232	14.4
Southern Metropolitan	15,146	22.9	13,989	22.7	17,813	24.4	18610	24.0	18900	24.3
Total metropolitan	**47,110**	**71.4**	**44,185**	**71.8**	**54,420**	**74.6**	**58,828**	**75.9**	**58,855**	**75.6**
Other (non-Victorian)	506	0.8	1,262	2.0	1,564	2.1	1409	1.8	1581	2
Total confinements	**66,003**	**100**	**61,569**	**100**	**72,900**	**100**	**77578**	**100**	**77,752**	**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.

Table 7: Trends in marital status, confinements 1990 to 2015 (%)

Marital status	1990	2000	2010	2014	2015
Married	83.4	75.3	69.7	69.8	69.6
De facto	6.2	11.8	15.8	17.5	17.9
Single	9.2	11.7	11.0	11.0	10.9
Separated/divorced/widowed	1.1	1.1	0.8	0.7	0.6

Table 8: Maternal place of birth, confinements 2014 and 2015

Place of birth[a]	2014		2015	
	n	%	n	%
Australia	49,698	64.1	49,395	63.5
Southern and Central Asia	7,271	9.4	7,800	10.0
South-East Asia	4,841	6.2	5,017	6.5
North-West Europe	2,226	2.9	2,249	2.9
North Africa and Middle East	2,621	3.4	2,717	3.5
Oceania and Antarctica	2,165	2.8	2,187	2.8
North-East Asia	4,070	5.2	3,681	4.7
Southern and Eastern Europe	1,510	1.9	1,415	1.8
Sub-Saharan Africa	1,594	2.1	1,673	2.2
Americas	1,025	1.3	1,100	1.4
Unknown	556	0.7	518	0.7
Total	**77,577**	**100.0**	**77,752**	**100.0**

a. Standard Australian Classification of Countries (SACC) 2011, <http://www.abs.gov.au/ausstats/abs@.nsf/mf/1269.

Table 9: Ten most common countries of birth, for women born in non-English speaking countries, confinements in 1990, 2000, 2010 and 2014 and 2015

1990		2000		2010		2014		2015	
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
Vietnam	1,068	Vietnam	1,905	India	3,508	India	4,546	India	4,888
Former Yugoslavia	971	China	883	China	1,573	China	3,079	China	2,645
Lebanon	721	Former Yugoslavia	579	Vietnam	1,452	Vietnam	1,557	Vietnam	1,599
Italy	712	Philippines	567	Sri Lanka	776	Sri Lanka	1,024	Sri Lanka	1,028
Philippines	609	Lebanon	548	Philippines	727	Philippines	842	Philippines	918
Turkey	584	India	519	Malaysia	522	Malaysia	688	Pakistan	704
Malaysia	502	Sri Lanka	457	Sudan	493	Pakistan	643	Malaysia	696
Greece	489	Other Africa	411	Iraq	441	Sudan	550	Sudan	608
India	385	Turkey	403	Indonesia	427	Iraq	545	Afghanistan	594
Sri Lanka	346	Malaysia	322	Lebanon	417	Afghanistan	544	Iraq	538

Table 10: Maternal BMI, confinements 2014 and 2015

BMI	2014		2015	
	n	%	n	%
< 18.5	2,370	3.1	2,388	3.1
18.5 to < 25	36,710	47.3	39,482	50.8
25 to < 30	18,656	24.0	19,847	25.5
30 to < 35	8,425	10.9	8,650	11.1
35 to < 40	3,388	4.4	3,589	4.6
40 to < 50	1,834	2.4	2,060	2.6
50 to < 60	196	0.3	229	0.3
≥ 60	26	0.0	35	0.0
Unknown	5,972	7.7	1,472	1.9
Total	**77,577**	**100.0**	**77,752**	**100.0**

Table 11: Proportion of women reporting any smoking during first 20 weeks of pregnancy, Victoria 2014 and 2015

Reported smoking	2014		2015	
	n	%	n	%
No smoking < 20 weeks of pregnancy	68,896	88.8	69,495	89.4
Quit smoking < 20 weeks of pregnancy	1,631	2.1	1,576	2.0
Continued smoking < 20 weeks of pregnancy	5,973	7.7	5,588	7.2
Not stated	1,077	1.4	1,093	1.4
Total	**77,577**	**100.0**	**77,752**	**100.0**

Table 12: IRSD quintile* and maternal age, confinements 2014 and 2015 (%)

Quintile	1	2	3	4	5	Total
Maternal age group	%	%	%	%	%	%
2014						
< 20 years	42.2	24.4	16.4	10.2	6.8	100
20–24 years	36.7	25.3	17.1	13.1	7.8	100
25–29 years	23.5	22.9	20.8	18.1	14.7	100
30–34 years	15.7	18.4	20.9	22.2	22.7	100
35–39 years	13.6	16.7	19.5	22.5	27.7	100
40 + years	14.8	16.8	18.3	22.4	27.8	100
2015						
< 20 years	43.0	25.7	15.2	11.0	5.1	100
20–24 years	36.3	25.2	18.1	12.5	8.0	100
25–29 years	24.1	23.1	20.6	17.6	14.5	100
30–34 years	16.0	18.7	20.8	22.0	22.5	100
35–39 years	13.6	16.6	19.5	23.0	27.3	100
40 + years	14.5	15.1	18.3	23.0	29.2	100

*Index of Relative Social Disadvantage. Quintile 1 is most disadvantaged.

Table 13: IRSD quintile* and place of residence, confinements 2014 and 2015 (%)

Quintile	1	2	3	4	5	Total
Place of residence	%	%	%	%	%	%
2014						
Metropolitan	17.6	17.3	19.9	21.8	23.4	100
Rural	26.7	27.6	20.2	15.0	10.4	100
2015						
Metropolitan	15.9	17.7	20.1	22.6	23.7	100
Rural	24.1	22.2	19.9	17.4	16.3	100

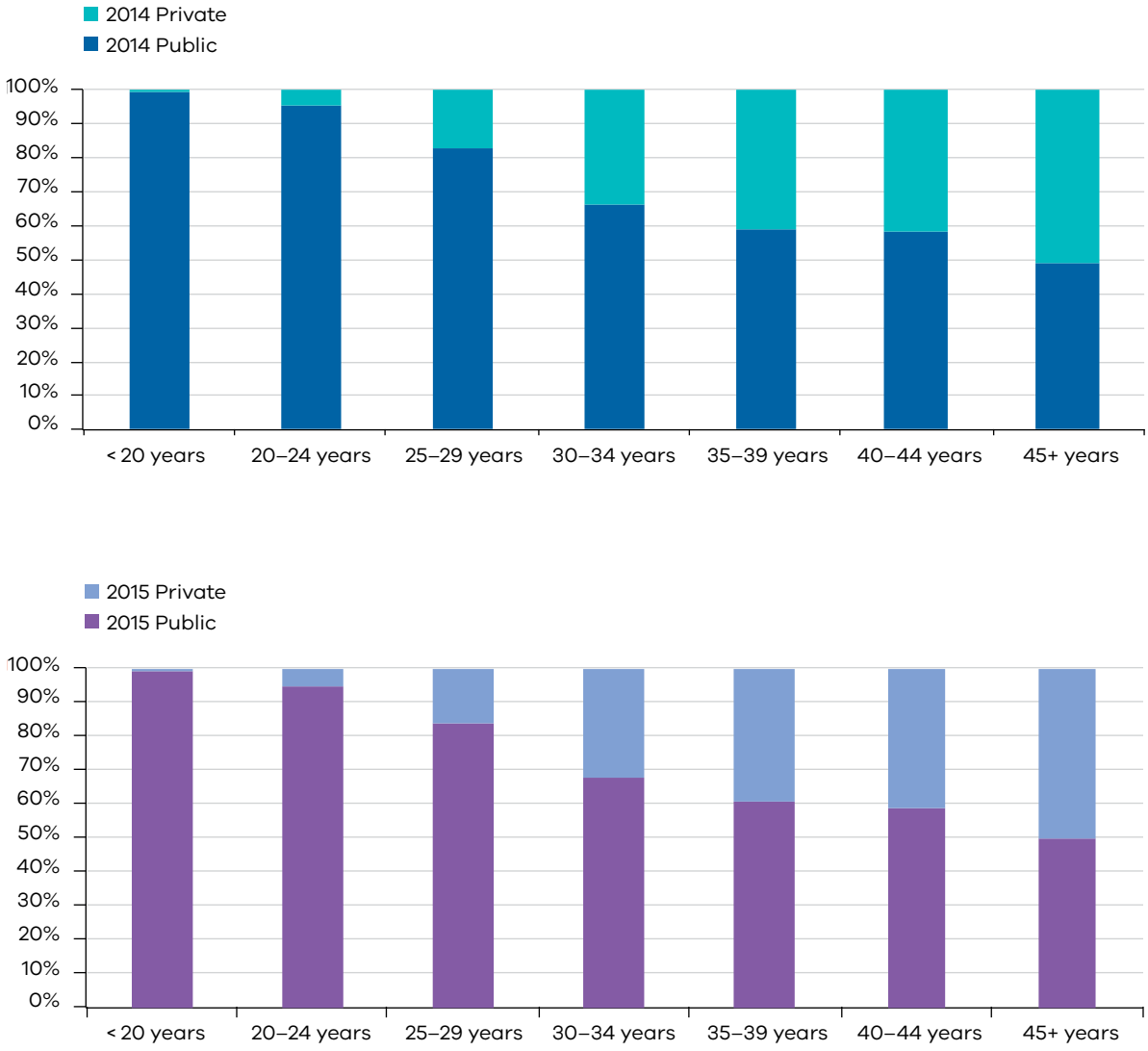
*Index of Relative Social Disadvantage. Quintile 1 is most disadvantaged.

Organisational Factors

Table 14: Admission status, confinements 2014 and 2015

Admission status	2014		2015	
	n	%	n	%
Public	56,177	72.4	57,037	73.4
Private in public hospital	1513	2.0	1488	1.9
Private in private hospital	19,621	25.3	18,947	24.4
Private – planned home birth	249	0.3	254	0.3
Unknown	1,525	2.0	1,506	1.9
Total	77,577	100.0	77,752	100.0

Figure 2: Public or private admission by maternal age group, confinements 2014 and 2015 (%)



Excludes cases with unknown admission status and / or unknown maternal age.

Table 15: Trends in admission status, confinements 2000 to 2015 (%)

Admission status	2000	2005	2010	2012	2013	2014	2015
Public	69.6	63.5	68.7	70.2	70.6	72.4	73.4
Private	30.4	36.5	31.3	29.7	29.3	27.6	26.6

Table 16: Actual place of birth, confinements 2014 and 2015

Place of birth	2014		2015	
	n	%	n	%
Hospital	76,829	99	76,977	99
Birth centre	3	0	3	0
Planned home births – private midwife	242	0.3	250	0.3
Planned home births – public hospital program	82	0.1	74	0.1
Unplanned out-of-hospital births	402	0.5	419	0.5
Inadequately described	19	0	29	0
Total	77,577	100	77,752	100

Table 17: Age of women planning public or private home confinements, 2014 and 2015

Maternal age group	2014				2015			
	Public		Private		Public		Private	
	n	%	n	%	n	%	n	%
Younger than 20 years	1	0.9	0	0	0	0	0	0
20–24 years	7	6.3	15	5.1	2	2.1	15	4.8
25–29 years	28	25	70	23.9	20	21.1	56	18
30–34 years	44	39.3	111	37.9	33	34.7	120	38.6
35–39 years	23	20.5	75	25.6	38	40	85	27.3
40 + years	9	8	15	5.1	2	2.1	25	8
Unknown	0	0	7	2.4	0	0	10	3.2
Total	112	100	293	100	95	100	311	100

Table 18: Place of birth for planned home confinements, 2014 and 2015

Place of birth	2014						2015					
	Home		Hospital		Total		Home		Hospital		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Planned pubic homebirth	82	73.2	30	26.8	112	100	74	77.9	21	22.1	95	100
Planned private homebirth	242	82.6	51	17.4	293	100	250	80.4	61	19.6	311	100

Table 19: Time of change in plan for women who planned public or private home confinements and gave birth in hospital, 2014 and 2015

	2014				2015			
	Public		Private		Public		Private	
Time of change	n	%	n	%	n	%	n	%
Before onset of labour	14	46.7	16	31.4	13	61.9	24	39.3
During labour	16	53.3	35	68.6	8	38.1	37	60.7
Total	30	100	51	100	21	100	61	100

Table 20: Trend in number of women achieving planned home confinements, 1985 to 2015

	1985	1990	1995	2000	2005	2007	2008	2009	2010	2011	2012	2013	2014	2015
Public (n)	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	45	58	50	60	82	74
% 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	0.1	0.1
Private (n)	144	181	110	114	182	248	298	300	262	266	226	271	242	250
% 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	0.3	0.3

Table 21: Trends in parity, confinements, 1990 to 2015

	1990	2000	2010	2012	2013	2014	2015
Parity	%	%	%	%	%	%	%
None	40.8	41.7	43.7	44.5	45	45.1	43.8
One	33.3	34.6	34.5	34.8	34.5	34.7	36.0
Two	17	15.7	14.2	13.7	13.3	13.1	13.2
Three	5.9	5.2	4.7	4.3	4.4	4.2	4.2
Four	1.9	1.7	1.6	1.5	1.4	1.6	1.5
Five or more	1.1	1.2	1.3	1.3	1.3	1.3	1.2

Table 22: Number of previous caesarean sections, of women who had one or more prior births, 2000 to 2015

Number of previous caesarean sections	2000		2005		2010		2012		2013		2014		2015	
	n	%	n	%	n	%	n	%	n	%	n	%	n	%
None	28,806	80.3	27,653	74.4	29,419	72.0	30,302	71.1	29739	70.5	29071	69.6	29959	69.7
One	5,572	15.5	7,488	20.2	8,996	22.0	9,662	22.7	9777	23.2	9967	23.9	10165	23.6
Two	1,241	3.5	1,678	4.5	2,104	5.1	2,143	5.0	2184	5.2	2178	5.2	2341	5.4
Three	231	0.6	276	0.7	414	1.0	387	0.9	425	1.0	435	1.0	439	1.0
Four	32	0.1	47	0.1	60	0.1	78	0.2	59	0.1	80	0.2	83	0.2
Five or more	9	0.0	10	0.0	8	0.0	29	0.1	19	0.0	29	0.1	14	0.0
Total	35,891	100	37,152	99.9	41,001	100	42,601	100	42,203	100.0	41,760	100.0	43,001	100.0

Table 23: Trends in gestation, confinements 1990 to 2015 (%)

Gestation	1990 n = 66,004	1995 n = 62,734	2000 n = 61,562	2005 n = 65,115	2010 n = 72,864	2012 n = 76,825	2013 n = 76,744	2014 n = 77,577	2015 n = 77,752
20–27 weeks	0.6	0.7	0.7	0.6	0.6	0.5	0.6	0.6	0.5
28–31 weeks	0.6	0.7	0.7	0.6	0.7	0.6	0.6	0.7	0.7
32–36 weeks	5	5.1	5.5	5.5	5.8	6.0	6.0	6.2	6.4
37–41 weeks	88.1	89.9	91.8	91.9	91.6	92.0	92.0	91.6	92.0
42 + weeks	4.5	3	1.3	1.3	1.2	0.9	0.8	0.7	0.5
Not reported	1.1	0.7	0	0	0.1	0.0	0.0	0.2	0.0

Table 24: Onset of labour, confinements 2014 and 2015

Onset of labour	2014		2015	
	n	%	n	%
Spontaneous (not augmented)	26960	34.8	26731	34.4
Spontaneous and augmented	13217	17.0	12256	15.8
Induced	21331	27.5	22377	28.8
No labour	16,039	20.7	16,372	21.1
Total	77,547	100.0	77,736	100.0

Excludes cases with missing data.

Figure 3: Trends in onset of labour, confinements 1990 to 2015 (%)

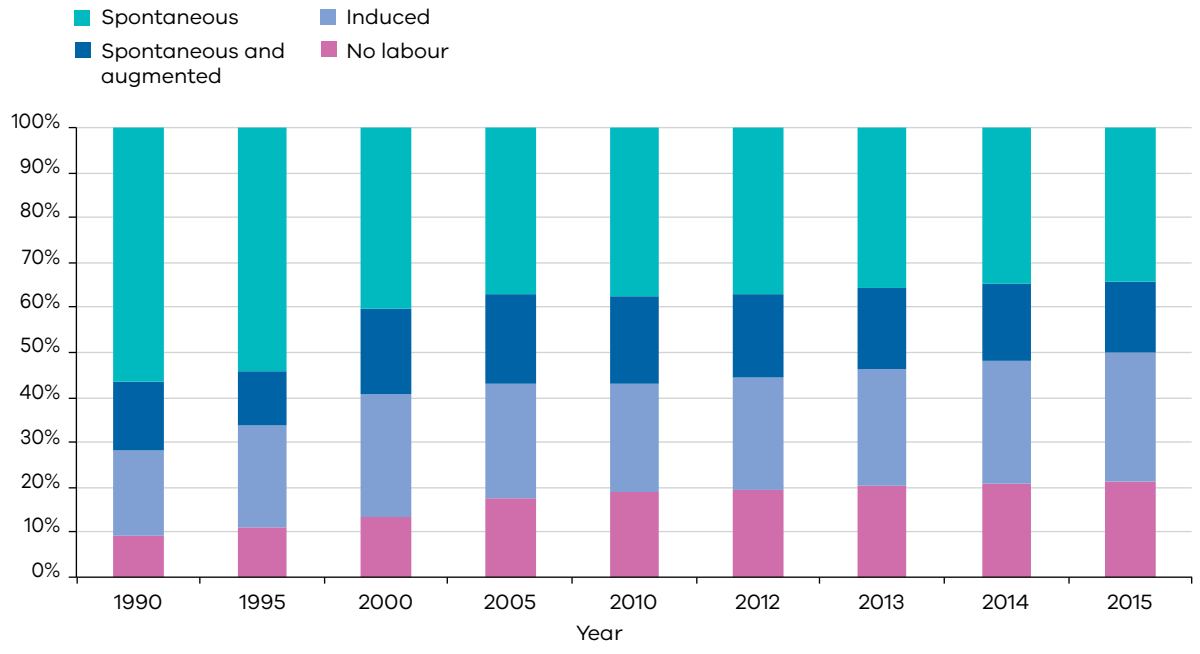
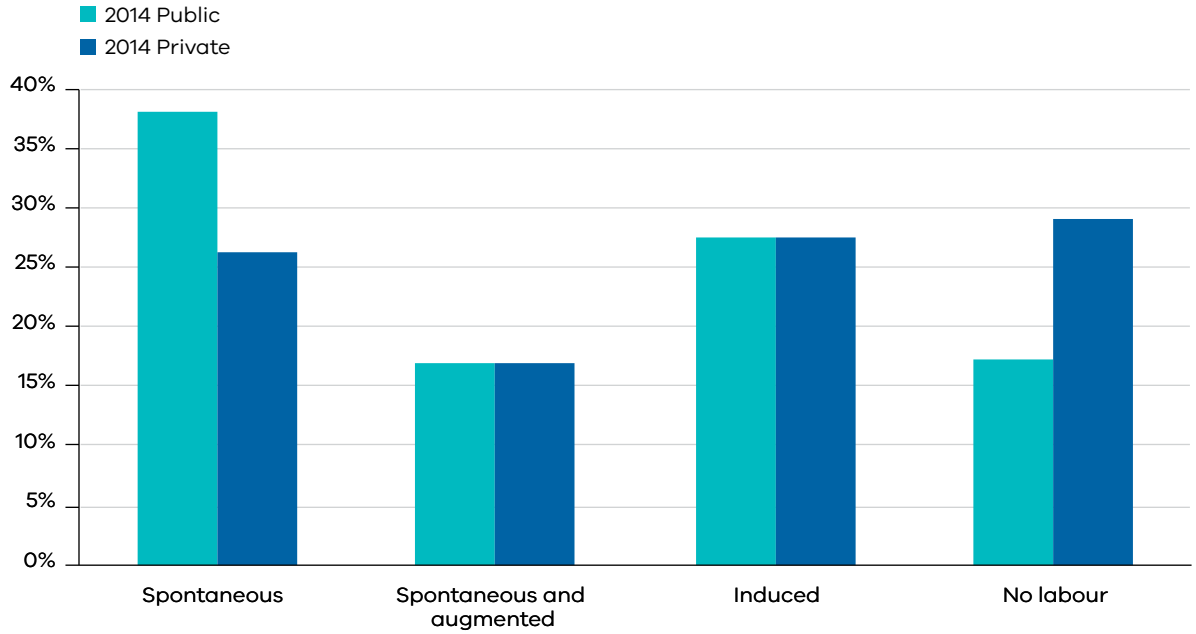


Figure 4: Onset of labour by admission status, confinements 2014 and 2015 (%)



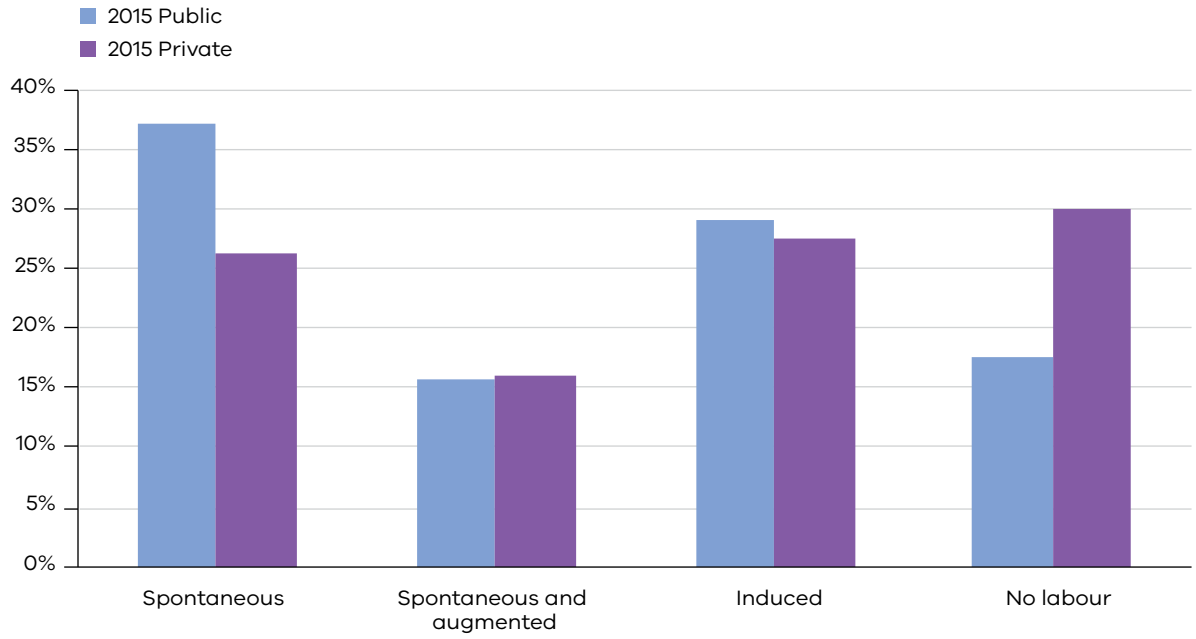


Table 25: Fetal monitoring in labour (of women who experienced labour), 2014 and 2015

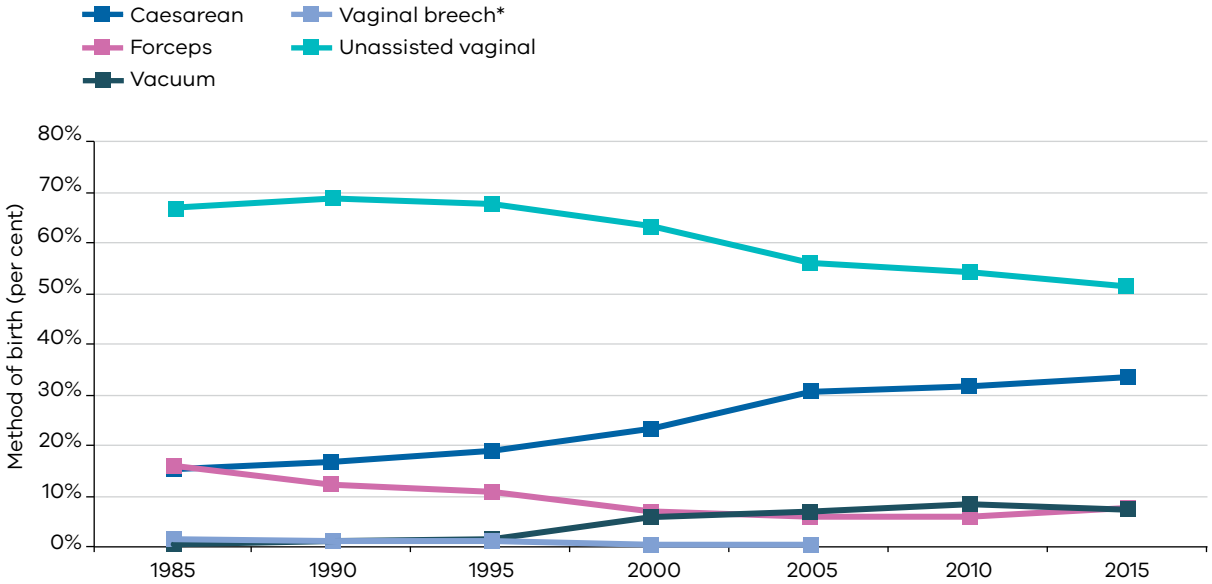
Type of monitoring	2014		2015	
	n	%	n	%
None	1,132	1.8	1,464	2.4
Intermittent auscultation	8,230	13.4	7,786	12.6
Admission CTG/Intermittent CTG	10,555	17.2	9,980	16.2
Continuous external CTG	32,109	52.2	31,998	51.8
Internal CTG (scalp electrode)	9,094	14.8	10,071	16.3
Fetal blood sampling	316	0.5	351	0.6
Other/not adequately described	72	0.1	96	0.2
Total	**61,508**	**100.0**	**61,746**	**100.0**

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 26: Method of birth, confinements, 2014 and 2015

Method of birth	2014		2015	
	n	%	n	%
Unassisted vaginal	39847	51.4	40059	51.5
Vacuum	5659	7.3	5569	7.2
Forceps	6049	7.8	6132	7.9
Total caesarean	26,012	33.5	25,989	33.4
– *planned*	13,454	17.3	13,547	17.4
– *unplanned*	12,558	16.2	12,442	16.0
Unknown	10	0.0	3	0.0
Total	**77,577**	**100.0**	**77,752**	**100.0**

Figure 5: Trends in method of birth, all confinements, 1985 to 2015 (%)



*Vaginal breech now included in unassisted vaginal or forceps.

Table 27: Method of birth by onset of labour, confinements, 2014 and 2015

Method of birth by onset of labour, confinements 2014												
Method of birth	Unassisted vaginal		Vacuum		Forceps		Caesarean		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Spontaneous (not augmented)	20,594	76.4	1746	6.5	1397	5.2	3223	12.0	0	0.0	26,960	100
Augmented	7124	53.9	1753	13.3	2084	15.8	2254	17.1	2	0.0	13,217	100
Induced	12,109	56.8	2156	10.1	2566	12.0	4500	21.1	1	0.0	21,332	100
No labour[a]	0	0.0	0	0.0	0	0.0	16029	0.0	11	0.0	16,040	100
Total	**39,827**	**51.4**	**5,655**	**7.3**	**6,047**	**7.8**	**26,006**	**33.5**	**14**	**0.0**	**77,549**	**100**

a. No labour includes those experiencing failed induction. Excludes cases with missing data on onset of labour.

Method of birth by onset of labour, confinements 2015												
Method of birth	Unassisted vaginal		Vacuum		Forceps		Caesarean		Unknown		Total	
	n	%	n	%	n	%	n	%	n	%	n	%
Spontaneous (not augmented)	20,495	76.7	1742	6.5	1426	5.3	3066	11.5	2	0.0	26,731	100
Augmented	6557	53.5	1593	13.0	2018	16.5	2088	17.0	0	0.0	12,256	100
Induced	12,994	58.1	2231	10.0	2687	12.0	4464	19.9	1	0.0	22,377	100
No labour[a]	0	0.0	0	0.0	0	0.7	16368	0.6	4	0.0	16,372	100
Total	**40,046**	**51.5**	**5,566**	**7.2**	**6,131**	**7.9**	**25,986**	**33.4**	**7**	**0.0**	**77,736**	**100**

a. No labour includes those experiencing failed induction. Excludes cases with missing data on onset of labour.

Table 28: Method of birth by admission status, confinements 2014 and 2015

Method of birth by admission status, confinements 2014							
Admission status		Unassisted vaginal	Vacuum	Forceps	Caesarean	Unknown	Total
Public patient	n	31,739	3320	4232	16,890	4	56,185
	%	56.5	5.9	7.5	30.1	0.0	100
Private patient	n	8105	2338	1817	9119	4	21,383
	%	37.9	10.9	8.5	42.6	0.9	100
Total	**n**	**39,844**	**5658**	**6049**	**26,009**	**8**	**77,568**
	%	**51.4**	**7.3**	**7.8**	**33.5**	**0.0**	**100**

Method of birth by admission status, confinements 2015							
Admission status		Unassisted vaginal	Vacuum	Forceps	Caesarean	Unknown	Total
Public patient	n	32,194	3325	4426	17,099	1	57,045
	%	56.4	5.8	7.8	30.0	0.0	100
Private patient	n	7855	2244	1705	8884	1	20,689
	%	38.0	10.8	8.2	42.9	0.0	100
Total	**n**	**40,049**	**5569**	**6131**	**25,983**	**2**	**77,734**
	%	**51.7**	**7.7**	**7.3**	**33.3**	**0.0**	**100**

*NB excludes a small number of cases with unknown admission status.

Figure 6: Methods of birth by admission status, confinements 2014 and 2015 (%)

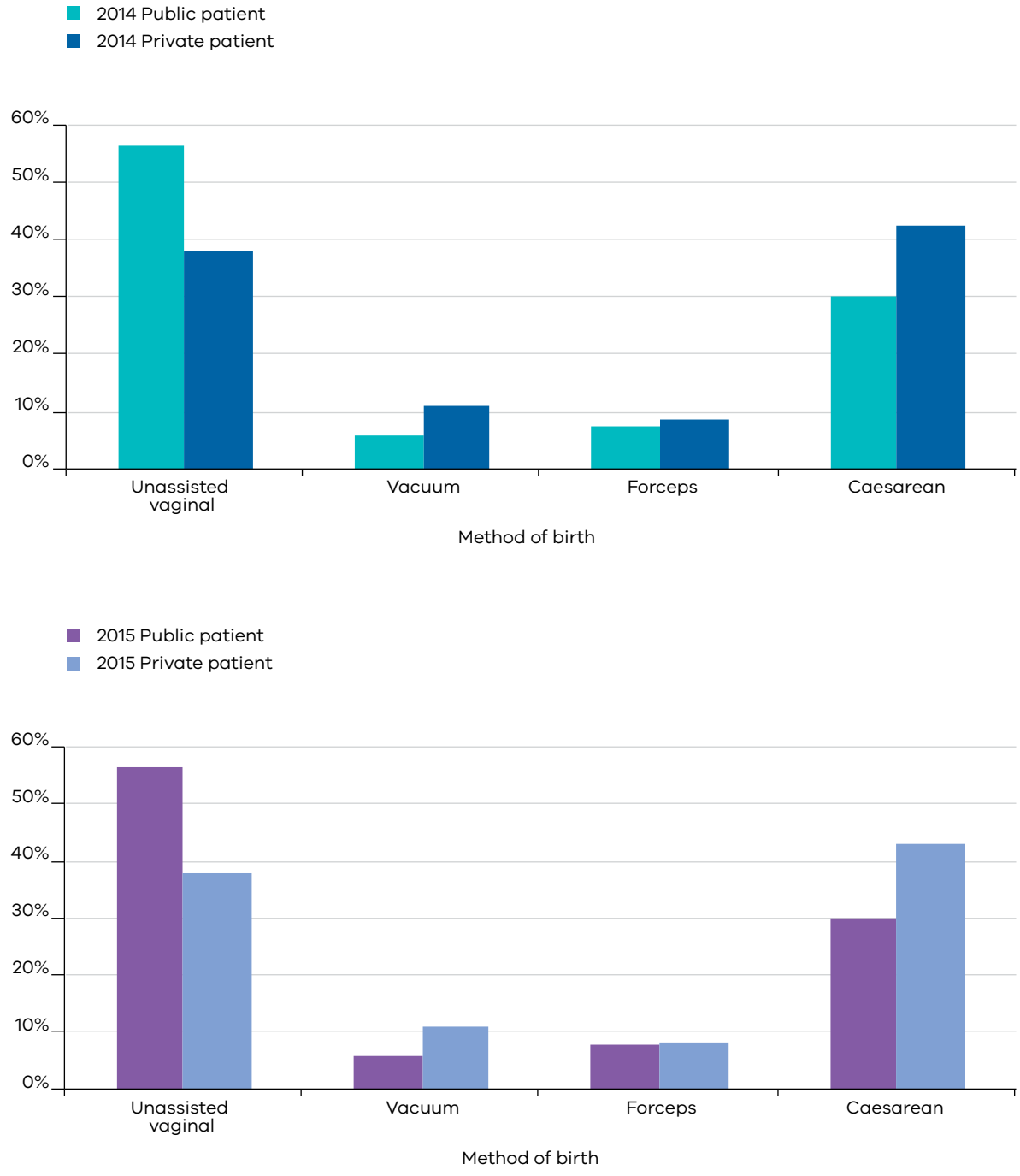


Table 29: Method of birth by presentation, confinements 2014 and 2015

2014		Unassisted	Vacuum	Forceps	Caesarean	Unknown	Total
Vertex	n	39,083	5,602	5,990	22,748	1	73,424
	%	53.2	7.6	8.2	31	0	100
Breech	n	257	0	13	2836	1	3,107
	%	8.3	0	0.4	91.3	0	100
Other	n	451	49	45	353	2	900
	%	50.1	5.4	5	39.2	0.2	100
Not reported	n	57	8	1	75	5	146
	%	39	5.5	0.7	51.4	3.4	100
Total	n	39,848	5,659	6,049	26,012	9	77,577

2015		Unassisted	Vacuum	Forceps	Caesarean	Unknown	Total
Vertex	n	39,268	5523	6081	22,743	1	73,616
	%	53.3	7.5	8.3	30.9	0	100
Breech	n	258	2	13	2863	0	3136
	%	8.2	0.1	0.4	91.3	0	100
Other	n	499	42	37	305	0	883
	%	56.5	4.8	4.2	34.5	0	100
Not reported	n	34	2	1	78	2	117
	%	29.1	1.7	0.9	66.7	1.7	100
Total	n	40,059	5569	6132	25,989	3	77,752

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

Table 30: Epidural analgesia for women who experienced labour, confinements 2014 and 2015

	2014		2015	
Used epidural analgesia	n	%	n	%
First births	13,254	44.0	13,116	44.9
Subsequent births	5,956	19.0	6,187	19.3
Total	19,210	31.2	19,303	31.5

Table 31: Type of anaesthesia for operative vaginal birth, confinements 2014 and 2015

	2014		2015	
Type of anaesthesia	n	%	n	%
None	1083	9.3	1067	9.1
Local anaesthetic/ Pudendal block	2988	25.5	3204	27.4
Regional only	7302	62.4	7298	62.4
General anaesthetic + epidural	0	0	2	0.0
General anaesthetic only	13	0.1	10	10.0
Other	322	2.8	120	100.0
Total	11,708	100	11,701	100

Table 32: Type of anaesthesia for caesarean birth, confinements 2014 and 2015

Type of anaesthesia	2014		2015	
	n	%	n	%
Not known	46	0.1	12	0.1
Regional only	24,533	94.3	24,620	94.7
General anaesthetic only	1169	4.5	1111	4.3
General anaesthetic and regional	264	1.0	246	0.9
Total	26,012	100	25,989	100

Table 33: 3rd and 4th degree lacerations following vaginal birth by admission type and parity, confinements 2014 and 2015

3rd and 4th degree lacerations			2014	2015
Public admission	Primiparous women	n	990	980
		%	5.8	5.8
	Multiparous women	n	324	369
		%	1.5	1.6
Private admission	Primiparous women	n	190	133
		%	3.2	3
	Multiparous women	n	70	32
		%	1.1	0.6

This table excludes a small number of cases with missing data on parity and/or admission status.

Table 34: Episiotomy for vaginal birth by admission type and parity, confinements 2014 and 2015

Episiotomy			2014	2015
Public admission	Primiparous women	n	7571	7458
		%	44.2	44.1
	Multiparous women	n	2222	2434
		%	10.0	10.6
Private admission	Primiparous women	n	3043	2902
		%	51.6	52.3
	Multiparous women	n	985	994
		%	15.5	15.9

This table excludes a small number of cases with missing data on parity and/or admission status.

Table 35: Estimated blood loss and blood transfusion by parity, confinements 2014 and 2015

2014	< 500 mL		500–1,499 mL		1,500 mL or more		Not reported	
Parity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Primiparae	24,996	71.4	8,892	25.4	765	2.2	364	1
*transfused**	71	0.3	319	3.6	369	48.2	*0*	0
Multiparae	33,384	78.5	8,035	18.9	692	1.6	443	1
*transfused**	66	0.2	176	2.2	307	44.4	2	0.4
All women	58,381	75.3	16,929	21.8	1,457	1.9	810	1
*transfused**	137	0.2	495	2.9	676	46.4	2	0.2

2015	< 500 mL		500–1,499 mL		1,500 mL or more		Not reported	
Parity	**n**	**%**	**n**	**%**	**n**	**%**	**n**	**%**
Primiparae	24,419	71.7	8,592	25.2	704	2.1	356	1
*transfused**	101	0.4	293	3.4	303	43	3	0.8
Multiparae	34,283	78.5	8,280	19	711	1.6	404	0.9
*transfused**	98	0.3	180	2.2	306	43	3	0.7
All women	58,704	75.5	16,872	21.7	1,415	1.8	761	1
*transfused**	199	0.3	473	2.8	609	43	6	0.8

* % transfused within each blood loss category.

Table 36: Women given prophylactic oxytocics in the third stage of labour, 2014 and 2015

	2014		2015	
Prophylactic oxytocic	**n**	**%**	**n**	**%**
Prophylactic oxytocic given	76,287	98.3	76,579	98.5
Prophylactic oxytocic not given	1181	1.5	1096	1.4
Not reported	109	0.1	77	0.1

Table 37: Initiation of breastfeeding (women with a live birth), 2014 and 2015

	2014		2015	
Initiation of breastfeeding	**n**	**%**	**n**	**%**
Attempted to breastfeed or express breastmilk	72,993	94.5	73,145	94.5
Did not attempt to breastfeed or express	4111	5.3	4077	5.3
Unknown	112	0.1	200	0.3

Table 38: Term, live-born babies whose mothers initiated breastfeeding given formula in hospital, 2014 and 2015

2014	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
Infant formula given	19,181	28.2	12,371	24.6	6808	38.8
Infant formula not given	47,977	70.5	37,139	73.9	10,602	60.5
Unknown	854	1.3	723	1.4	123	0.7

2015	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
Infant formula given	19,248	28.2	12,704	24.9	6542	38.5
Infant formula not given	48,206	70.6	37,588	73.7	10,368	61.1
Unknown	743	1.1	669	1.3	72	0.4

These tables exclude babies not fed in the birth hospital, and those born at home under private midwife care:

Table 39: Term, live-born babies whose mothers initiated breastfeeding having their last feed before discharge entirely and directly from the breast, 2014 and 2015

Breastfeeding status 2014	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
Exclusively breast fed	53,182	78.1	40,102	79.7	12,848	73.3
Not exclusively breast fed	14,502	21.3	9,884	19.7	4,610	26.3
Unknown	373	0.5	300	0.6	67	0.4

Breastfeeding status 2015	Overall		Public hospitals		Private hospitals	
	n	%	n	%	n	%
Exclusively breast fed	53,022	77.7	40,425	79.2	12,351	72.8
Not exclusively breast fed	14,854	21.8	10,267	20.1	4,582	27.0
Unknown	369	100	324	0.6	42	0.2

These tables exclude babies not fed in the birth hospital, and those born at home under private midwife care.

Table 40: Trends in preterm and post-term births, 1985 to 2015 (%)

Gestation	1985	1990	1995	2000	2005	2010	2012	2013	2014	2015
< 37 weeks	6	6.7	7.1	7.6	7.7	8.0	7.9	8.2	8.3	8.4
≥ 42 weeks	3.8	4.5	2.9	1.3	1.3	1.2	0.9	0.8	0.9	0.5

Figure 7: Trends in preterm and post-term births, 1985 to 2015 (%)

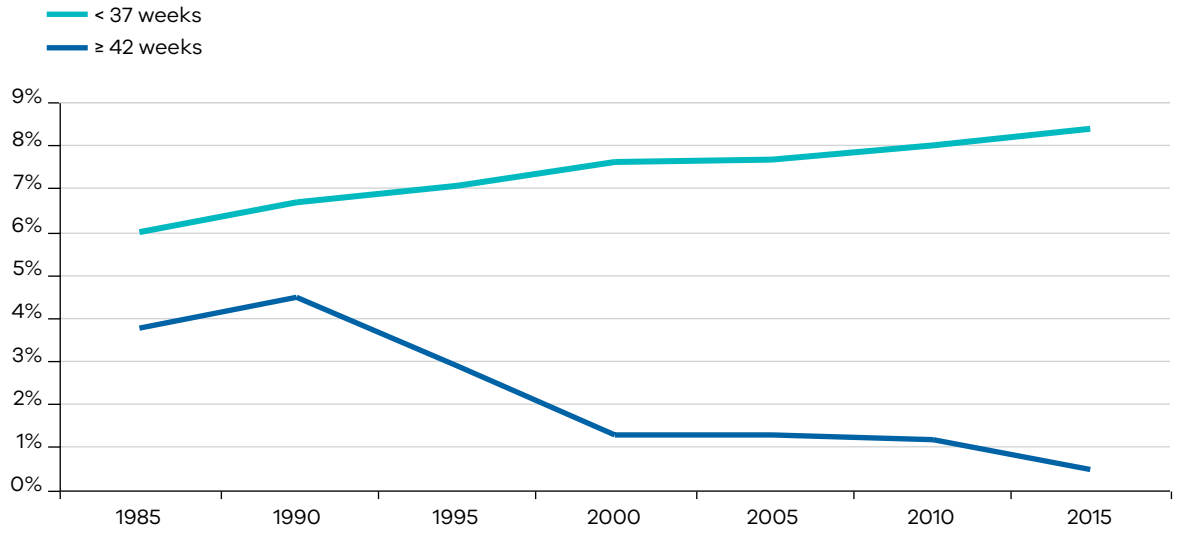


Table 41: Neonatal capability level of maternity service for birth at various gestations (completed weeks) 2014 and 2015

2014 Neonatal capability level of maternity service									
Gestation		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Not stated	Total
20–27	n	1	81	38	58	42	281	0	501
	%	0.2	16.2	7.6	11.6	8.4	56.1	0.0	100.0
28–31	n	0	121	10	30	38	451	0	650
	%	0.0	18.6	1.5	4.6	5.8	69.4	0.0	100.0
32–36	n	0	1449	586	1152	727	1489	0	5403
	%	0.0	26.8	10.8	21.3	13.5	27.6	0.0	100.0
37–41	n	43	21,930	8990	15,590	10,111	14,822	16	71,502
	%	0.1	30.7	12.6	21.8	14.1	20.7	0.0	100.0
42 +	n	1	263	68	125	96	173	0	726
	%	0.1	36.2	9.4	17.2	13.2	23.8	0.0	100.0
Total	n	45	23,844	9,692	16,955	11,014	17,216	16	78,782
	%	0.1	30.3	12.3	21.5	14.0	21.9	0.0	100.0

2015 Neonatal capability level of maternity service									
Gestation		Level 1	Level 2	Level 3	Level 4	Level 5	Level 6	Not stated	Total
20–27	n	0	83	35	62	34	235	0	449
	%	0.0	18.5	7.8	13.8	7.6	52.3	0.0	100.0
28–31	n	0	90	14	40	26	432	0	602
	%	0.0	15.0	2.3	6.6	4.3	71.8	0.0	100.0
32–36	n	0	1476	571	1160	800	1544	0	5551
	%	0.0	26.6	10.3	20.9	14.4	27.8	0.0	100.0
37–41	n	27	21,325	9307	16,305	10,069	14,888	1	71,922
	%	0.0	29.7	12.9	22.7	14.0	20.7	0.0	100.0
42 +	n	0	83	56	62	51	131	0	383
	%	0.0	21.7	14.6	16.2	13.3	34.2	0.0	100.0
Total	n	27	23,057	9,983	17,629	10,980	17,230	1	78,907
	%	0.0	29.3	12.7	22.4	13.9	21.9	0.0	100.2

Table 42: Birthweight categories, births 2014 and 2015

Grams	2014		2015	
	n	%	n	%
< 500 g	202	0.3	173	0.2
500–999 g	352	0.4	321	0.4
1,000–1,499 g	508	0.6	459	0.6
1,500–1,999 g	1093	1.4	1015	1.3
2,000–2,499 g	3203	4.1	3324	4.2
2,500–2,999 g	12441	15.8	12,735	16.1
3,000–3,499 g	28,977	36.8	28,847	36.6
3,500–3,999 g	23,279	29.5	23,701	30
4,000–4,499 g	7406	9.4	7161	9.1
4,500 +	1250	1.6	1171	1.5
Not known	73	0.1	0	0
Total	**78784**	**100**	**78907**	**100**

Figure 8: Trends in preterm and post-term births, 1985 to 2015 (%)

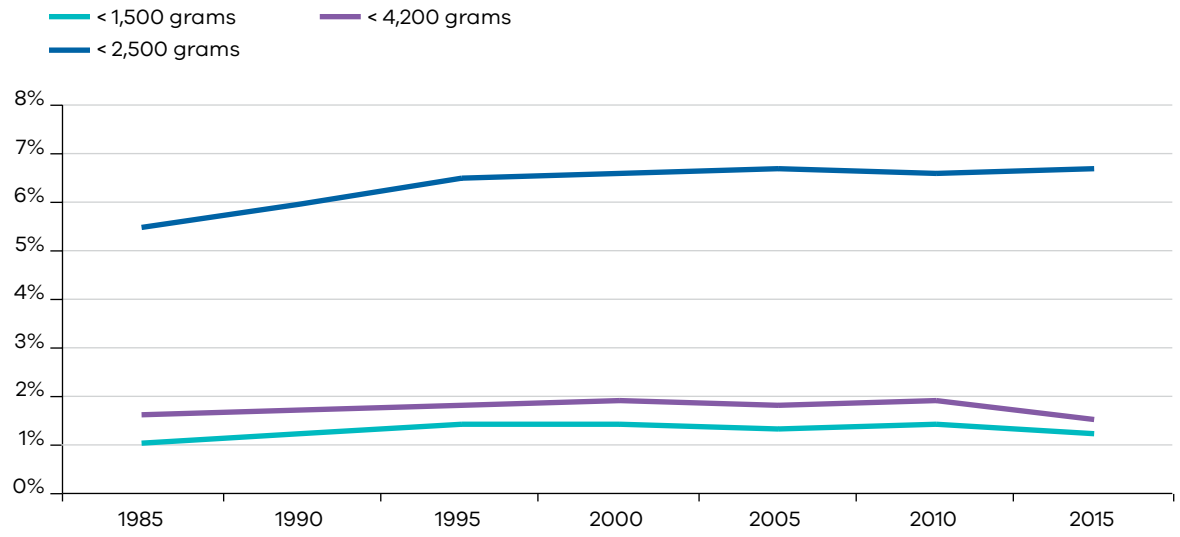


Table 43: Apgar score at five minutes, 2014 and 2015 (live births only)

Apgar	2014		2015	
	n	%	n	%
< 4	250	0.3	247	0.3
4 to 6	1258	1.6	1191	1.5
7 to 10	76,726	97.9	76,992	98
Unknown	166	0.2	124	0.2
Total	**78,400**	**100**	**78,554**	**100**

Table 44: Method of resuscitation used, 2014 and 2015 (live births only)

Type of resuscitation	2014		2015	
	n	%	n	%
None	60,023	76.6	60,300	76.8
Suction and or oxygen	3679	4.7	3079	3.9
Intermittent positive pressure respiration bag and mask with air	1209	1.5	1137	1.4
Intermittent positive pressure respiration bag and mask with oxygen	785	1	736	0.9
Continuous positive airway pressure with air	2952	3.8	3272	4.2
Continuous positive airway pressure with oxygen	2951	3.8	3024	3.8
Endotracheal intubation and IPPR with air	111	0.1	93	0.1
Endotracheal intubation and IPPR with oxygen	397	0.5	293	0.4
External cardiac massage and ventilation	250	0.3	204	0.3
Other	5992	7.6	5952	7.6
Total	**78,349**	**100.0**	**78,090**	**100.0**

Excludes cases with resuscitation method not known (51 in 2014, 464 in 2015)

Table 45: Multiple births, 2014 and 2015

Plurality	2014		2015	
	n	% of all births	n	% of all births
Twins	2349	3.0	2226	2.8
Triplets	57	0.1	63	0.1
Quadruplets	0	0	0	0
Quintuplets	0	0	0	0
Not stated	0	0	0	0
Total	**2406**	**3.1**	**2289**	**2.9**

Table 46: Trends in multiple births, 1990 to 2015

Year	Twins	% of all births	Triplets	% of all births	Quads or higher order	% of all births
1990	1649	2.5	69	0.1	4	0
1995	1850	2.9	87	0.1	0	0
2000	1903	3.0	63	0.1	0	0
2005	2388	3.6	48	0.1	0	0
2010	2339	3.2	56	0.1	6	0
2014	2349	3.0	57	0.1	0	0
2015	2226	2.8	63	0.1	0	0

Table 47: Multiple birth by maternal age group, confinements 2014 and 2015 (% of mothers in each age group)

2014				
Maternal age	Sets of twins	% of all confinements in this age group	Sets of triplets	% of all confinements in this age group
Younger than 20 years	9	0.6	1	0.06
20–24 years	76	0.9	0	0.00
25–29 years	276	1.3	1	0.00
30–34 years	434	1.5	10	0.04
35–39 years	282	1.9	4	0.03
40–44 years	86	2.5	1	0.03
45 years or older	17	7.5	2	0.88

2015				
Maternal age	Sets of twins	% of all confinements in this age group	Sets of triplets	% of all confinements in this age group
Younger than 20 years	11	0.9	0	0.00
20–24 years	85	1.1	2	0.03
25–29 years	245	1.2	7	0.03
30–34 years	419	1.4	6	0.02
35–39 years	276	1.7	5	0.03
40–44 years	56	1.6	1	0.03
45 years or older	22	8.6	0	0.00

Table 48: Gestation by plurality, confinements 2014 and 2015

2014						
Gestation at birth (completed weeks)	Singletons	%	Sets of twins	%	Sets of triplets	%
20–27	376	0.5	60	5.1	4	21.1
28–31	421	0.6	103	8.7	6	31.6
32–36	4,243	5.6	572	48.4	9	47.4
37–41	70,619	92.5	445	37.7	0	0.0
42 +	719	0.9	1	0.1	0	0.0
Total	**76,378**	**100.0**	**1,181**	**100.0**	**19**	**100.0**

2015						
Gestation at birth (completed weeks)	Singletons	%	Sets of twins	%	Sets of triplets	%
20–27	350	0.5	45	4.0	3	14.3
28–31	439	0.6	71	6.4	7	33.3
32–36	4,376	5.7	571	51.3	11	52.4
37–41	71,072	92.8	427	38.3	0	0.0
42 +	380	0.5	0	0.0	0	0.0
Total	**76,617**	**100.0**	**1,114**	**100.0**	**21**	**100.0**

Table 49: Method of birth for singleton and multiple births, confinements 2014 and 2015*

2014	Singleton pregnancy (n = 76,377)	Twin pregnancy (n = 1,181)	Triplet pregnancy (n = 19)
Method of birth	**%**	**%**	**%**
Unassisted vaginal birth	51.9	19.1	21.1
Vacuum	7.4	3.0	0.0
Forceps	7.8	7.5	0.0
Caesarean section – total	32.9	70.2	78.9
planned	16.9	42.0	36.8
unplanned	16.0	28.2	42.1
Not reported	0.0	0.2	0.0

2015	Singleton pregnancy (n = 76,617)	Twin pregnancy (n = 1114)	Triplet pregnancy (n = 21)
Method of birth	**%**	**%**	**%**
Unassisted vaginal birth	52.0	20.6	4.8
Vacuum	7.2	2.9	0.0
Forceps	7.9	5.7	4.8
Caesarean section – total	32.9	70.8	90.5
planned	17.1	41.7	52.4
unplanned	15.8	29.1	38.1
Not reported	0.0	0.0	0.0

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

Table 50: Trends in births and confinements to Aboriginal women, 1985 to 2015

	Births		Confinements	
Year	**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	1014	1.3	1,000	1.3
2014	1037	1.3	1,020	1.3
2015	1171	1.5	1156	1.5

Table 51: Maternal age by Aboriginal status, confinements 2014 and 2015

2014	Aboriginal		Non-Aboriginal		Unknown	
Maternal age	n	%	n	%	n	%
Younger than 20 years	116	11.4	1,415	1.9	12	3.7
20–34 years	757	74.2	56,131	73.6	218	66.9
35 years or older	145	14.2	18,668	24.5	93	28.5
Not stated	2	0.2	17	0.0	3	0.9
Total	**1,020**	**100.0**	**76,231**	**100.0**	**326**	**100.0**

2015	Aboriginal		Non-Aboriginal		Unknown	
Maternal age	n	%	n	%	n	%
Younger than 20 years	89	7.7	1,166	1.5	6	2.5
20–34 years	909	78.6	55,945	73.3	157	64.6
35 years or older	158	13.7	19,225	25.2	73	30.0
Not stated	0	0.0	17	0.0	7	2.9
Total	**1,156**	**100.0**	**76,353**	**100.0**	**243**	**100.0**

Table 52: Birthweight by maternal Aboriginal status, births 2014 and 2015

	Mother Aboriginal		Mother non-Aboriginal		Unknown	
2014	n	%	n	%	n	%
< 1,500 grams	20	1.9	1031	1.3	11	3.3
1,500–2,499 grams	106	10.2	4166	5.4	24	7.1
2,500–4,499 grams	900	86.8	70,914	91.6	288	85.7
4,500+ grams	11	1.1	1230	1.6	9	2.7
Unknown	0	0	69	0.1	4	1.2
Total	**1037**	**100**	**77,410**	**100**	**336**	**100**

	Mother Aboriginal		Mother non-Aboriginal		Unknown	
2015	n	%	n	%	n	%
< 1,500 grams	22	1.9	920	1.2	11	4.4
1,500–2,499 grams	112	9.6	4198	5.4	29	11.5
2,500–4,499 grams	1017	86.9	71,215	91.9	212	84.1
4,500+ grams	20	1.7	1151	1.5	0	0
Unknown	0	0	0	0	0	0
Total	**1171**	**100**	**77,484**	**100**	**252**	**100**

Table 53: Birthweight by maternal and baby Aboriginal status, births 2014 and 1015

2014	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	21	1.4	854	1.1	187	23.3
1,500–2,499 grams	141	9.1	4064	5.3	91	11.34
2,500–4,499 grams	1369	88.0	70,230	91.9	503	62.7
4,500+ grams	23	1.5	1213	1.6	14	1.8
Unknown	1	0.1	65	0.1	7	0.9
Total	**1555**	**100**	**76,426**	**100**	**802**	**100**

2015	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	25	1.5	748	0.9	180	22.0
1,500–2,499 grams	146	8.6	4086	5.4	107	13.1
2,500–4,499 grams	1499	88.2	70,420	92.2	525	64.2
4,500+ grams	30	1.8	1135	1.5	6	0.7
Unknown	0	0	0	0	0	0
Total	**1700**	**100**	**76,389**	**100**	**818**	**100**

Table 54: Proportion of women smoked at all during pregnancy by Aboriginal status, Victoria 2014 and 2015

2014	Aboriginal		Non Aboriginal		Not stated/ Inadequately described		Total	
Reported smoking	n	%	n	%	n	%	n	%
No smoking during pregnancy	567	55.6	65,198	85.5	256	78.5	66,021	85.1
Continued smoking during pregnancy	412	40.4	7,390	9.7	45	13.8	7,847	10.1
Not known	41	4.0	3,643	4.8	25	7.7	3,709	4.8
Total	**1,020**	**100.0**	**76,231**	**100.0**	**326**	**100.0**	**77,577**	**100.0**

2015	Aboriginal		Non Aboriginal		Not stated/ Inadequately described		Total	
Reported smoking	n	%	n	%	n	%	n	%
No smoking during pregnancy	661	57.2	65,905	86.3	193	79.4	66,759	85.9
Continued smoking during pregnancy	457	39.5	6,910	9.1	28	11.5	7,395	9.5
Not known	38	3.3	3,538	4.6	22	9.1	3,598	4.6
Total	**1,156**	**100.0**	**76,353**	**100.0**	**243**	**100.0**	**77,752**	**100.0**

Table 55: Maternal Body Mass Index by Aboriginal status, confinements 2014 and 2015

2014	Aboriginal		Non Aboriginal		Not stated/ inadequately described		Total	
BMI	n	%	n	%	n	%	n	%
< 18.5	40	3.9	2,317	3.0	13	4.0	2,370	3.1
18.5 to < 25	345	33.8	36,251	47.6	114	35.0	36,710	47.3
25 to < 30	235	23.0	18,344	24.1	78	23.9	18,657	24.0
30 to < 35	163	16.0	8,227	10.8	35	10.7	8,425	10.9
35 to < 40	70	6.9	3,306	4.3	12	3.7	3,388	4.4
40 to < 50	53	5.2	1,769	2.3	12	3.7	1,834	2.4
50 to < 60	4	0.4	190	0.2	2	0.6	196	0.3
≥ 60	0	0.0	24	0.0	2	0.6	26	0.0
Unknown	110	10.8	5,803	7.6	58	17.8	5,971	7.7
Total	1,020	100.0	76,231	100	326	100.0	77,577	100

2015	Aboriginal		Non Aboriginal		Not stated/ inadequately described		Total	
BMI	n	%	n	%	n	%	n	%
< 18.5	38	3.3	2,347	3.1	3	1.2	2,388	3.1
18.5 to < 25	462	40.0	38,916	51.0	104	42.8	39,482	50.8
25 to < 30	270	23.4	19,530	25.6	47	19.3	19,847	25.5
30 to < 35	167	14.4	8,448	11.1	35	14.4	8,650	11.1
35 to < 40	103	8.9	3,475	4.6	11	4.5	3,589	4.6
40 to < 50	65	5.6	1,987	2.6	8	3.3	2,060	2.6
50 to < 60	11	1.0	217	0.3	1	0.4	229	0.3
≥ 60	1	0.1	33	0.0	1	0.4	35	0.0
Unknown	39	3.4	0	1.8	33	13.6	1,472	1.9
Total	1,156	100	74,953	100	243	100	77,752	100

Table 56: Birthweight by maternal Aboriginal status, births 2014 and 2015

2014	Mother Aboriginal		Mother non-Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	20	1.9	1,031	1.3	11	3.3
1,500–2,499 grams	106	10.2	4,166	5.4	24	7.1
2,500–4,499 grams	900	86.8	70,914	91.6	288	85.7
4,500+ grams	11	1.1	1,230	1.6	9	2.7
Unknown	0	0.0	69	0.1	4	1.2
Total	1,037	100.0	77,410	100.0	336	100.0

2015	Mother Aboriginal		Mother non-Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	22	1.9	920	1.2	11	4.4
1,500–2,499 grams	112	9.6	4,198	5.4	29	11.5
2,500–4,499 grams	1,017	86.8	71,215	91.9	212	84.1
4,500+ grams	20	1.7	1,151	1.5	0	0.0
Unknown	0	0.0	0	0.0	0	0.0
Total	1,171	100.0	77,484	100.0	252	100.0

Table 57: Birthweight by maternal and baby Aboriginal status, births 2014 and 2015

2014	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	21	1.4	854	1.1	187	23.3
1,500–2,499 grams	141	9.1	4064	5.3	91	11.3
2,500–4,499 grams	1369	88.0	70,230	91.9	503	62.7
4,500+ grams	23	1.5	1213	1.6	14	1.7
Unknown	1	0.1	65	0.1	7	0.9
Total	**1555**	**100.0**	**76,426**	**100.0**	**802**	**100.0**

2015	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
	n	%	n	%	n	%
< 1,500 grams	25	1.5	748	1.0	180	22.0
1,500–2,499 grams	146	8.6	4086	5.3	107	13.1
2,500–4,499 grams	1499	88.2	70,420	92.2	525	64.2
4,500+ grams	30	1.8	1135	1.5	6	0.7
Unknown	0	0.0	0	0.0	0	0.0
Total	**1700**	**100.0**	**76,389**	**100.0**	**818**	**100.0**

Table 58: Gestation by maternal Aboriginal status, births 2014 and 2015

2014	Mother Aboriginal		Mother non-Aboriginal		Unknown	
Gestation	n	%	n	%	n	%
20–27 weeks	7	0.7	496	0.6	5	1.5
28–31 weeks	15	1.4	629	0.8	5	1.5
32–36 weeks	117	11.3	5,260	6.8	24	7.1
37–41 weeks	890	85.8	70,322	90.8	292	86.9
42 weeks +	8	0.8	703	0.9	10	3.0
Total	**1,037**	**100.0**	**77,410**	**100.0**	**336**	**100.0**

2015	Mother Aboriginal		Mother non-Aboriginal		Unknown	
Gestation	n	%	n	%	n	%
20–27 weeks	14	1.2	429	0.6	6	2.4
28–31 weeks	9	0.8	585	0.8	8	3.2
32–36 weeks	130	11.1	5,388	7.0	33	13.1
37–41 weeks	1,014	86.6	70,707	91.3	204	81.0
42 weeks +	4	0.3	375	0.5	1	0.4
Total	**1,171**	**100.0**	**77,484**	**100.0**	**252**	**100.0**

Table 59: Gestation by maternal and/or baby Aboriginal status, births 2014 and 2015

2014	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
Gestation	n	%	n	%	n	%
20–27 weeks	8	0.5	361	0.5	139	17.3
28–31 weeks	14	0.9	585	0.8	50	6.2
32–36 weeks	162	10.4	5,124	6.7	115	14.3
37–41 weeks	1,360	87.5	69,660	91.1	484	60.3
42 weeks +	11	0.7	696	0.9	14	1.7
Total	**1,555**	**100.0**	**76,426**	**100.0**	**802**	**100.0**

2015	Mother and/or baby Aboriginal		Neither mother nor baby Aboriginal		Unknown	
Gestation	n	%	n	%	n	%
20–27 weeks	15	0.9	299	0.4	135	16.5
28–31 weeks	11	0.6	544	0.7	47	5.7
32–36 weeks	156	9.2	5,265	6.9	130	15.9
37–41 weeks	1,513	89.0	69,907	91.5	505	61.7
42 weeks +	5	0.3	374	0.5	1	0.1
Total	**1,700**	**100.0**	**76,389**	**100.0**	**818**	**100.0**

Appendix 5: Maternal deaths in Victoria 2014 and 2015

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Table 1: Maternal mortality ratios in Victoria 1988-2015 (per 100,000 confinements)

Year	Direct deaths	Indirect deaths	Confinements[a]	Maternal mortality ratio[b]
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	73,302	8.2
2011	3	4	72,951	9.6
2012	4	6	77,183	13.0
2013	2	5	77,130	9.1
2014	2	4	77,930	7.7
2015[c]	1	3	78,147	5.1

a. Includes confinements related to termination of pregnancy.

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

c. The single direct death is included in 2015, however the death did not occur in Victoria. A Victorian resident, who had her obstetric care in Victoria, died from sepsis related to preterm rupture of membranes. She died at a health service interstate. Excluding her death from the Victorian Maternal Mortality ratio decreases the Maternal Mortality ratio to 3.8.

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

Table 2: Maternal mortality ratios by triennia, Victoria and Australia 1988–2015

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	218,239	8.2	7.2
2012–2014	8	15	232,243	9.9	N/A
2013–2015[C]	5	12	233,207	7.3	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.
c. Note that the year 2013 and 2014 are included twice in this table, that is, a rolling triennia was used for the most recent two triennia so that the 2014 and 2015 data could be represented.
N/A – not available

Figure 1: Mortality ratios by triennia, Victoria and Australia, 1988–2015

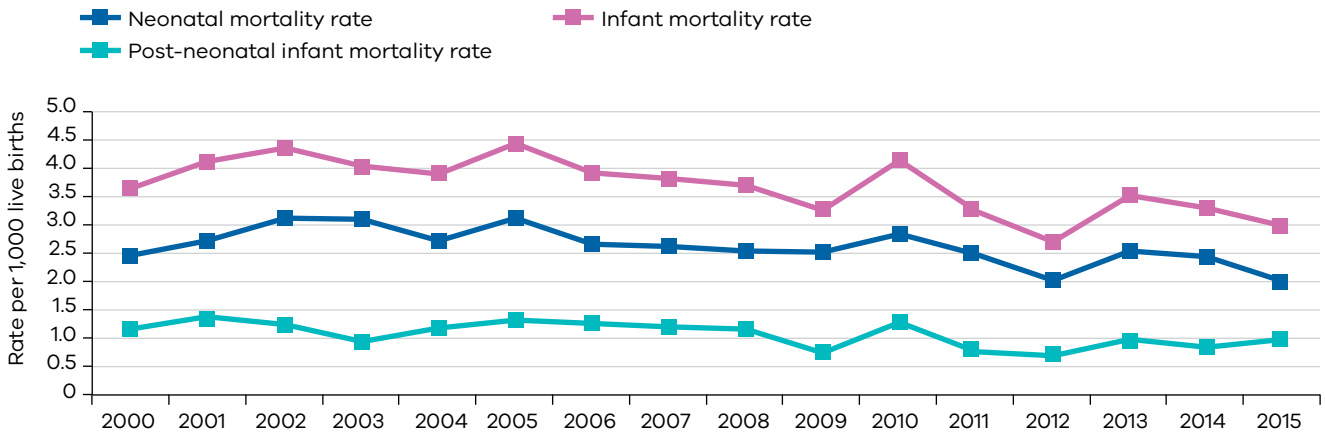

Table 3: Five year periods for National comparison

Five year period	Direct deaths	Indirect deaths	Confinements	Victoria Maternal mortality ratio[a]	Australia Maternal mortality ratio[a]
2006–2010[b]	8	23	356,348	8.7	6.8
2008–2012[c]	14	18	366,745	8.7	7.1
2010–2014	14	22	378,496	9.5	N/A
2011–2015[d]	12	22	383,341	8.9	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 maternal mortality ratios: Australian Institute of Health and Welfare 2014, Maternal deaths in Australia 2006–2010, AIHW, Canberra.
c. Source of Australian maternal mortality ratios: Australian Institute of Health and Welfare 2015, Maternal deaths in Australia 2008–2012, AIHW, Canberra.
d. The Victorian maternal mortality ratio for the period 2011–2015 is added to include data covering 2015.
N/A – not available

Table 4: Causes of maternal deaths, Victoria 2014

	Total
Direct maternal deaths	**2**
Amniotic fluid embolism	1
Anaesthetic – related death	1
Indirect maternal deaths	**4**
Intracranial haemorrhage	1
Intraventricular haemorrhage	1
Aortic aneurysm dissection	1
Undetermined	1
Incidental maternal deaths	**0**
Late maternal death (direct or indirect)	**0**
Late maternal death (incidental)	**4**
Subarachnoid haemorrhage secondary to endocarditis	1
Metastatic melanoma	1
Traumatic head injury (unintentional)	1
Traumatic head injury (assault)	1
Total	**10**

Table 5: Causes of maternal deaths, Victoria 2015

	Total
Direct maternal deaths	**1**
Sepsis[a]	1
Indirect maternal deaths	**3**
Dilated cardiomyopathy	1
Combined drug toxicity	1
Unascertained	1
Incidental maternal deaths	**0**
Late maternal death (direct or indirect)	**0**
Late maternal death (incidental)	**5**
Prolonged QT syndrome	1
Pulmonary embolus	1
Combined drug toxicity	2
Multiple injuries (assault)	1
Total	**9**

a. This death did not occur in Victoria.

Table 6: Causes of maternal deaths, Victoria 2011-2015

	Cause of death	Maternal deaths included in mortality ratio	Late[a] maternal deaths
Direct		N = 12	N = 1
(due to a complication of the pregnancy)	Obstetric haemorrhage	3	
	Thromboembolism	2	1
	Anaesthetic related death	2	
	Amniotic fluid embolus	2	
	Early pregnancy death – ectopic pregnancy	1	
	Sepsis[b]	1	
	Post partum sepsis – *Streptococcus* Group A	1	
Indirect		N = 22	N = 5
(related to a pre-existing or newly diagnosed condition exacerbated by pregnancy)	Cardiac disease	8	
	Non-obstetric haemorrhage (includes intracerebral bleeding)	8	
	Psychosocial[c]	1	2
	Sepsis – acute pyelonephritis	1	
	Complications of heart transplant for the treatment of peripartum cardiomyopathy		1
	Carcinoma of the cervix		1
	Bronchopneumonia with associated psychosocial problems		1
	Mixed drug toxicity	1	
	Undetermined	3	
Incidental		N = 0	N = 11
(where the pregnancy is unlikely to have contributed significantly to the death)	Bronchopneumonia		1
	Metastatic melanoma		1
	Subarachnoid haemorrhage secondary to endocarditis		1
	Prolonged QT syndrome		1
	Pulmonary embolus		1
	Complications post tubal ligation		1
	Injuries (assault)		2
	Traumatic head injury (unintentional)		1
	Combined drug toxicity		2
Total		34	17

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

b. This death did not occur in Victoria.

c. Psychosocial causes include deaths in which a psychiatric and/or social 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 intentional self-harm and homicide.

Table 7: Assessment of contributing factors in maternal deaths, Victoria 2011–2015

Contributing factor	Number
Factors relating to access to care	**3**
Delay in transfer	1
Delay in access to specialist assistance	1
Lack of access to specialist care and services	1
Factors relating to professional practice	**23**
Anaesthetic issues	3
Delay in diagnosis and transfer	4
Failure to review diagnosis in light of diagnostic evidence	1
Failure to maintain an adequate airway and ventilation	1
Over-reliance on test result despite clinical evidence of placenta accreta	1
Inadequate communication/communication breakdown	1
Inadequate management of obstetric haemorrhage (monitoring, diagnosis, resuscitation)	3
Inadequate investigation and management of sepsis	1
Suboptimal resuscitation	3
Suboptimal diabetes management	1
Inappropriate discharge	1
Poor organisational management	1
Poor crisis management	1
Poor documentation	1
Factors relating to the pregnant woman, her family and social situation	**8**
Declining or not following medical advice	1
Delay in seeking medical advice	1
Family violence	3
Substance misuse	3
Total	**33**

Contributing factors were identified in 15 of all 51 maternal deaths (29%). Multiple contributing factors were present in some cases.

Removing the 11 incidental deaths increases the proportion in whom contributing factors were found to 48% (15/40).

Appendix 6: Perinatal deaths in Victoria 2014 and 2015

List of tables

List of figures

Table 1: Perinatal mortality rates in Victoria 2014

Specified birthweight/ gestation	Total births	Live births	Stillbirths		Neonatal deaths		Perinatal deaths	
			Number	Rate	Number	Rate	Number	Rate
PMR_{Crude} ≥ 20 weeks or ≥ 400 g	79,110	78,438	672	8.5	231	2.9	903	11.4
$PMR_{Adjusted}$ ≥ 20 weeks or ≥ 400 g excluding TOP for MPI[a]	78,963	78,437	526	6.7	230	2.9	756	9.6
PMR_{500} ≥ 500 g or ≥ 22 weeks	78,729	78,338	391	5.0	142	1.8	533	6.8
$PMR_{1,000}$ ≥ 1,000 g or ≥ 28 weeks[b]	78,220	78,007	213	2.7	51	0.7	264	3.4

Table 2: Perinatal mortality rates in Victoria 2015

Specified birthweight/ gestation	Total births	Live births	Stillbirths		Neonatal deaths		Perinatal deaths	
			Number	Rate	Number	Rate	Number	Rate
PMR_{Crude} ≥ 20 weeks or ≥ 400 g	79,270	78,637	633	8.0	189	2.4	822	10.4
$PMR_{Adjusted}$ ≥ 20 weeks or ≥ 400 g excluding TOP for MPI[a]	79,163	78,637	526	6.6	189	2.4	715	9.0
PMR_{500} ≥ 500 g or ≥ 22 weeks	78,867	78,515	352	4.5	129	1.6	481	6.1
$PMR_{1,000}$ ≥ 1,000 g or ≥ 28 weeks[b]	78,430	78,255	175	2.2	52	0.7	227	2.9

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

a. Births, deaths and rates are adjusted for TOP for MPI.

b. This category is for international comparison, and only includes early neonatal deaths (0–6 days) not all neonatal deaths (0–27 days).

Table 3: Perinatal deaths and crude and adjusted mortality rates in Victoria 2001–2015

	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number															
Live births	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	78438	78637
Stillbirths	444	445	521	610	599	607	672	682	767	738	705	659	712	672	633
Neonatal deaths	204	227	237	207	247	227	241	215	226	235	223	210	241	231	189
Perinatal deaths	648	672	758	817	846	834	913	897	993	973	928	869	953	903	822
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	8.5	8.0
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	2.9	2.4
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	11.4	10.4
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	78437	78637
Stillbirths	399	385	418	413	421	457	508	504	553	547	522	527	533	526	526
Neonatal deaths	204	227	237	207	245	227	241	215	226	235	223	210	241	230	189
Perinatal deaths	603	612	655	620	666	684	749	719	779	782	745	737	774	756	715
PMRAdjusted [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	6.7	6.6
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	2.9	2.4
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	9.6	9.0

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 1: Perinatal mortality rates in Victoria 2000–2015 (crude and adjusted)

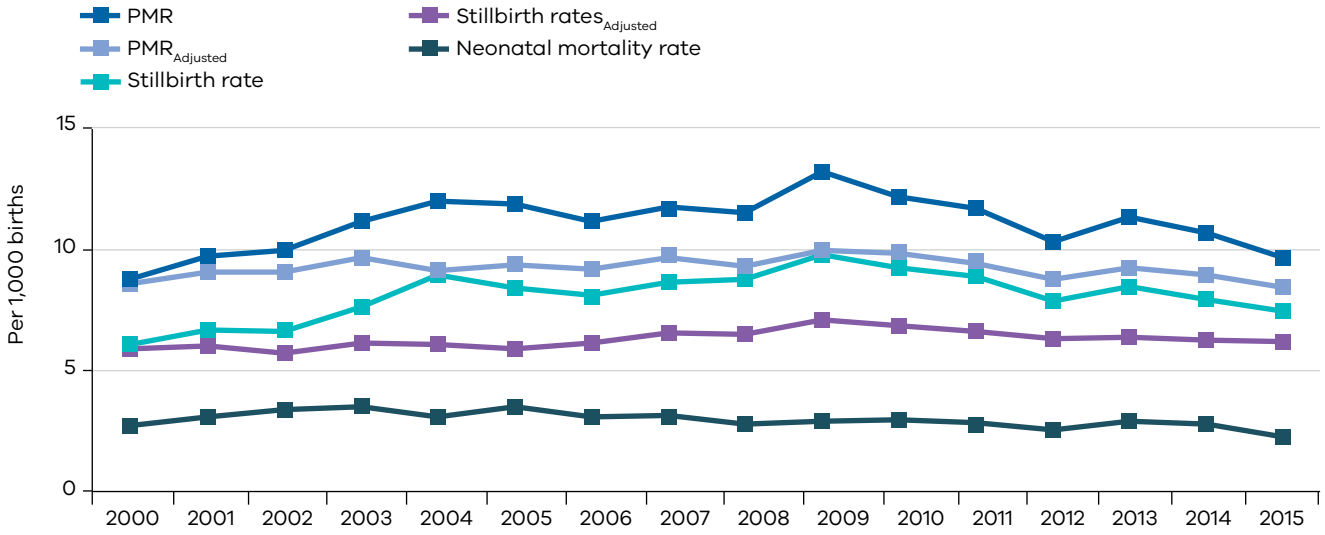

Table 4: Different definitions of perinatal mortality

Perinatal death definitions						PMR, Victoria			
	Criteria 1	Condition	Criteria 2	Inclusions	Impact on PMR compared with CCOPMM results	PMR 2014	$PMR_{Adjusted}$ 2014	PMR 2015	$PMR_{Adjusted}$ 2015
CCOPMM (Victoria)	≥ 20 weeks' gestation[a]	or, where gestation is unknown	birthweight 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	11.4	9.6	10.4	9.0
ABS	Birthweight of ≥ 400 g	or, where birthweight 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	10.3	9.5	9.7	8.8
NPDC 1[b]	Birthweight 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	12.0	11.5	10.9	10.3
NPDC 2[b]	Birthweight 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 NPDC1	11.7	11.4	10.8	10.2

a. Where a perinatal death is diagnosed unexpectedly ≥ 20 weeks' gestation (with no prior ultrasound or clinical evidence of definite heartbeat at or beyond 20 w), a minimum birthweight of 150 gm applies.

b. Calculated according to National Perinatal Data Collection (NPDC) definitions using data from the VPDC.

Table 5: PMR_{Crude} by maternal state or territory of usual residence, ABS 2008–2014

Usual residence of mother	2008	2009	2010	2011	2012	2013	2014
New South Wales	7.8	7.9	7.6	8.0	7.5	**8.1**	8.2
Victoria	**7.9**	**8.9**	**8.0**	**8.1**	**7.7**	**8.2**	**10.7**
Queensland	9.9	10.4	10.5	9.1	10.0	9.1	10.0
South Australia	6.5	6.2	6.1	6.0	5.9	6.1	8.8
Western Australia	8.1	8.8	8.0	9.7	8.4	7.5	8.8
Tasmania	9.1	10.6	10.9	10.1	10.1	9.5	13.7
Northern Territory	7.8	14.8	12.5	12.8	9.4	14.4	13.8
Australian Capital Territory	6.4	7.0	16.7	7.2	10.0	7.0	11.3
Australia	**8.2**	**8.8**	**8.6**	**8.4**	**8.2**	**8.2**	**9.5**

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

Data prior to 2014

1: Table 13.1 Fetal, neonatal and perinatal deaths, Australia, 2004–2013.

2: Table 13.4 Perinatal deaths by state or territory of usual residence of mother, 2004–2013

2014 data

AIHW 2016. Australia's mothers and babies 2014—in brief. Perinatal statistics series no. 32. Cat. no. PER 87. Canberra: AIHW. Table 4.2 from Additional material, accessed December 9 2016 from http://www.aihw.gov.au/publication-detail/?id=60129557656&tab=2

Note:

The published PMR in this table differ from that previously published for CCOPMM Annual Reports, due to the ongoing revisions at ABS and CCOPMM.

Table 6: PMR_{Crude} by state or territory of death, AIHW 2008–2014

State or territory reporting the death	2008	2009	2010	2011	2012	2013	2014
New South Wales	8.7	8.6	8.2	8.5	8.1	8.0	7.7
Victoria	**12.7**	**13.8**	**13.3**	**12.9**	**11.5**	**12.5**	**11.7**
Queensland	9.6	11.0	10.4	9.7	10.1	9.5	9.7
South Australia	9.2	10.0	9.1	10.3	8.9	9.0	8.9
Western Australia	10.1	9.3	8.1	9.5	8.4	7.8	8.5
Tasmania	10.8	10.7	10.1	8.2	10.8	9.8	12.2
Northern Territory	14.0	14.0	15.3	11.2	9.2	18.2	12.8
Australian Capital Territory	11.2	15.1	12.9	13.0	11.2	9.1	12.6
Australia	**10.2**	**9.8**	**9.3**	**9.9**	**9.6**	**9.7**	**9.6**

References:

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.

AIHW 2015. Australia's mothers and babies 2013— supplementary tables. Perinatal statistics series no. 31. Cat. no. PER 72. Canberra: AIHW.

2014 data AIHW 2016. Australia's mothers and babies 2014—in brief. Perinatal statistics series no. 32. Cat. no. PER 87. Canberra: AIHW. Table 4.1 from Additional material, accessed December 9 2016 from http://www.aihw.gov.au/publication-detail/?id=60129557656&tab=2

Table 7: PMR_{500} in Victoria 2005–2015 (birthweight ≥ 500 g)

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Number											
Total births (birthweight ≥ 500 g)	66,226	69,421	71,981	72,100	72,706	74,000	73,628	78,000	77,906	78,729	78,867
Live births	65,948	69,155	71,677	71,774	72,360	73,641	73,273	77,618	77,505	78,338	78,515
Stillbirths	278	266	304	326	346	359	355	382	401	391	352
Neonatal deaths	159	157	148	149	143	152	143	121	156	142	129
Perinatal deaths	437	423	452	475	489	511	498	503	557	533	481
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	5.0	4.5
Neonatal	2.4	2.3	2.1	2.1	2.0	2.1	2.0	1.6	2.0	1.8	1.6
Perinatal	6.6	6.1	6.3	6.6	6.7	6.9	6.8	6.4	7.1	6.8	6.1

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

Figure 2: PMR_{500} in Victoria 2000–2015

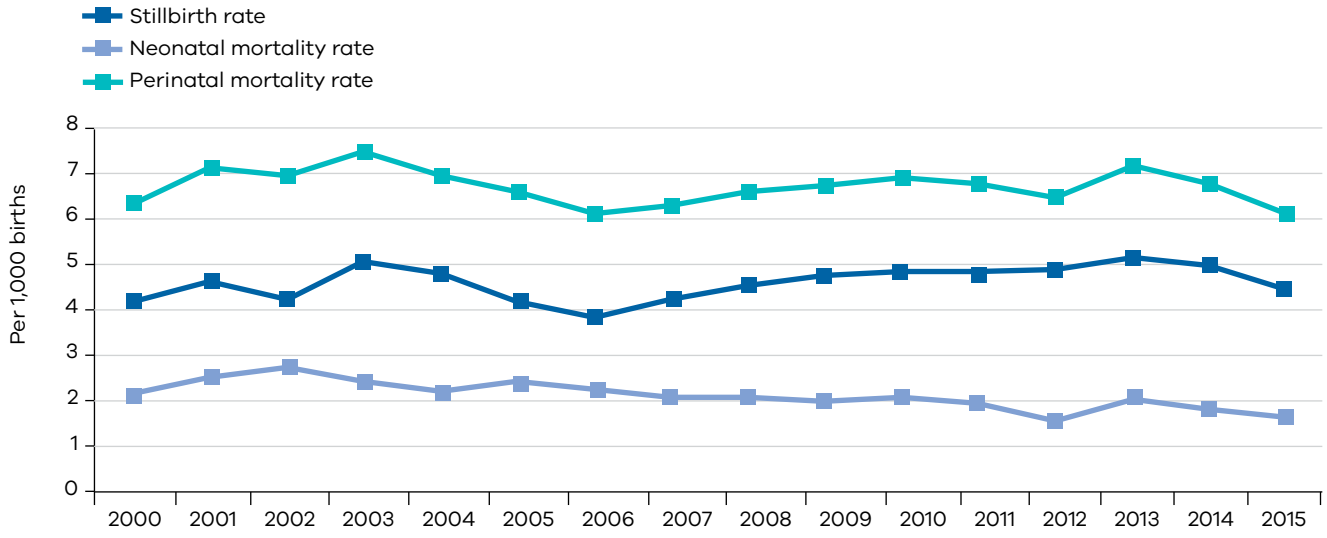

Table 8: PMR_{500} in Victoria 2000–2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Stillbirth rate	4.2	4.6	4.2	5.0	4.8	4.2	3.8	4.2	4.5	4.8	4.9	4.8	4.9	5.1	5.0	4.5
Neonatal mortality rate	2.2	2.5	2.7	2.4	2.2	2.4	2.3	2.1	2.1	2.0	2.1	2.0	1.6	2.0	1.8	1.6
Perinatal mortality rate	6.4	7.1	6.9	7.5	7.0	6.6	6.1	6.3	6.6	6.7	6.9	6.8	6.4	7.1	6.8	6.1

Table 9: $PMR_{1,000}$ for international comparison, Victoria 2000–2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Stillbirth rate[a]	2.9	3.1	2.4	3	2.6	2.8	2.5	2.6	3	2.8	3.2	2.8	2.8	2.7	2.7	2.2
Early neonatal mortality rate[b]	0.9	1	0.8	0.9	0.8	0.8	0.8	0.8	0.7	1.1	0.9	0.8	0.6	0.6	0.7	0.7
Perinatal mortality rate[a]	3.8	4.1	3.2	3.9	3.3	3.6	3.3	3.4	4	3.9	4.0	3.6	3.4	3.3	3.4	2.9

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

b. Neonatal death rates were calculated using live births as the denominator. This category is for international comparison, and only includes early neonatal deaths (0–6 days) not all neonatal deaths (0–27 days). It includes all perinatal deaths, including terminations of pregnancy.

Figure 3: Trends in $PMR_{1,000}$ for international comparison, Victoria 1975 to 2015

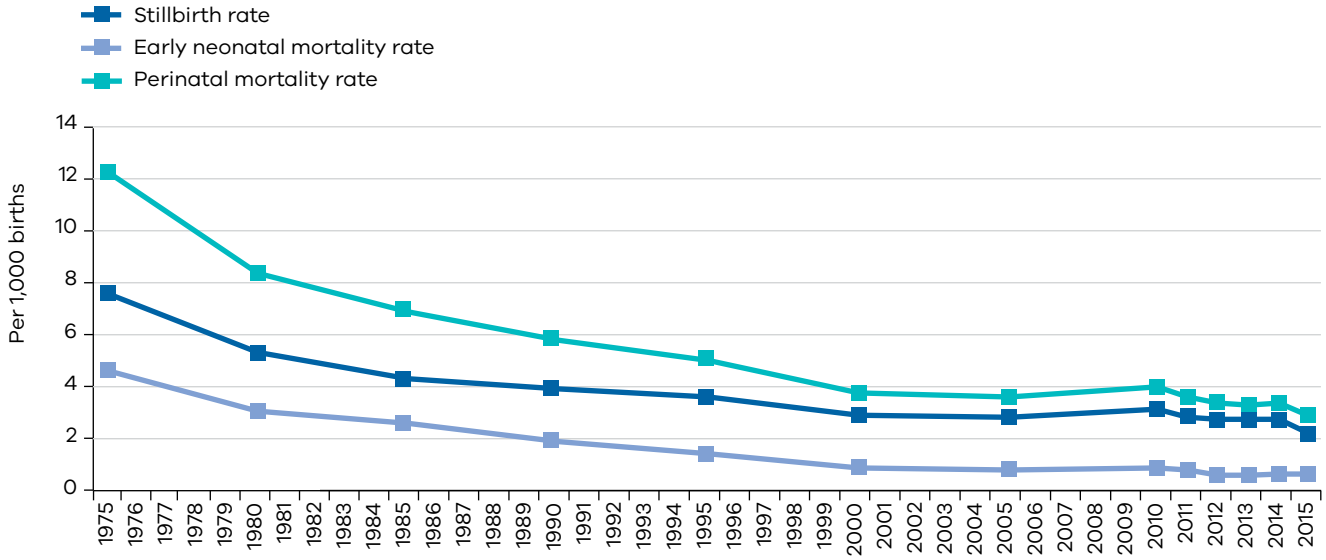

Table 10: Trends in $PMR_{1,000}$ for international comparison, Victoria, 1975 to 2015

	1975	1980	1985	1990	1995	2000	2005	2010	2011	2012	2013	2014	2015
Stillbirth rate	7.6	5.3	4.3	3.9	3.6	2.9	2.8	3.2	2.8	2.8	2.7	2.7	2.2
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	0.7	0.7
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	3.4	2.9

Table 11a: Gestational age and $PMR_{Adjusted}$, Victoria 2014

Gestational age	Total births[a]		Stillbirths				Live births[b]		Neonatal deaths			Perinatal deaths			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	177	0.2	119	22.6	672.3	1.5	58	0.1	58	25.2	1,000.0	177	23.4	1,000.0	0	0.0
22–23 weeks	162	0.2	95	18.1	586.4	1.2	67	0.1	59	25.7	880.6	154	20.4	950.6	8	11.9
24–25 weeks	163	0.2	53	10.1	325.2	0.7	110	0.1	24	10.4	218.2	77	10.2	472.4	86	78.2
26–27 weeks	163	0.2	32	6.1	196.3	0.4	131	0.2	9	3.9	68.7	41	5.4	251.5	122	93.1
28–31 weeks	662	0.8	60	11.4	90.6	0.8	602	0.8	20	8.7	33.2	80	10.6	120.8	582	96.7
32–36 weeks	5,407	6.8	83	15.8	15.4	1.1	5,324	6.8	16	7.0	3.0	99	13.1	18.3	5,308	99.7
37–41 weeks	71,509	90.6	83	15.8	1.2	1.1	71,426	91.1	44	19.1	0.6	127	16.8	1.8	71,382	99.9
> 41 weeks	576	0.7	1	0.2	1.7	1.4	575	0.7	0	0.0	0.0	1	0.1	1.7	575	100.0
Not known	144	0.2	0	0.0	0.0	0.0	144	0.2	0	0.0	0.0	0	0.0	0.0	144	100.0
Total	78,963	100.0	526	100.0	6.7	N/A	78,437	100.0	230	100.0	2.9	756	100.0	9.6	78,207	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 as the denominator 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) as the denominator, and is expressed as deaths per 1,000 total births at or beyond that gestation.
e. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births at that gestation
f. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births at that gestation.

N/A – not applicable

Table 11b: Gestational age and $PMR_{Adjusted}$, Victoria 2015

Gestational age	Total births[a]		Stillbirths				Live births[b]		Neonatal deaths			Perinatal deaths			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	171	0.2	129	24.5	754.4	1.6	42	0.1	42	22.2	1,000.0	171	23.9	1,000.0	0	0.0
22–23 weeks	174	0.2	120	22.8	689.7	1.5	54	0.1	48	25.4	888.9	168	23.5	965.5	6	11.1
24–25 weeks	122	0.2	40	7.6	327.9	0.5	82	0.1	16	8.5	195.1	56	7.8	459.0	66	80.5
26–27 weeks	172	0.2	43	8.2	250.0	0.5	129	0.2	7	3.7	54.3	50	7.0	290.7	122	94.6
28–31 weeks	610	0.8	51	9.7	83.6	0.6	559	0.7	13	6.9	23.3	64	9.0	104.9	546	97.7
32–36 weeks	5,557	7.0	65	12.4	11.7	0.8	5,492	7.0	25	13.2	4.6	90	12.6	16.2	5,467	99.5
37–41 weeks	71,976	90.9	78	14.8	1.1	1.1	71,898	91.4	38	20.1	0.5	116	16.2	1.6	71,860	99.9
>41 weeks	373	0.5	0	0.0	0.0	0.0	373	0.5	0	0.0	0.0	0	0.0	0.0	373	100.0
Not known	8	0.0	0	0.0	0.0	0.0	8	0.0	0	0.0	0.0	0	0.0	0.0	8	100.0
Total	79,163	100.0	526	100.0	6.6	N/A	78,637	100.0	189	100.0	2.4	715	100.0	9.0	78,448	99.8

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 as the denominator 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) as the denominator, and is expressed as deaths per 1,000 total births at or beyond that gestation.
e. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births at that gestation
f. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births at that gestation.

N/A – not applicable

Table 12a: Birthweight and $PMR_{Adjusted}$, Victoria 2014

	Total births[a]		Stillbirths			Live births[b]		Neonatal deaths			Perinatal deaths			Live births surviving beyond neonatal period at each weight category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
<500 g	292	0.4	193	36.7	661.0	99	0.1	88	38.3	888.9	281	37.2	962.3	11	11.1
500–999 g	418	0.5	119	22.6	284.7	299	0.4	60	26.1	200.7	179	23.7	428.2	239	79.9
1,000–1,499 g	524	0.7	49	9.3	93.5	475	0.6	16	7.0	33.7	65	8.6	124.0	459	96.6
1,500–1,999 g	1,098	1.4	28	5.3	25.5	1,070	1.4	8	3.5	7.5	36	4.8	32.8	1,062	99.3
2,000–2,499 g	3,205	4.1	33	6.3	10.3	3,172	4.0	13	5.7	4.1	46	6.1	14.4	3,159	99.6
2,500–2,999 g	12,441	15.8	33	6.3	2.7	12,408	15.8	13	5.7	1.0	46	6.1	3.7	12,395	99.9
3,000–3,499 g	28,977	36.7	45	8.6	1.6	28,932	36.9	18	7.8	0.6	63	8.3	2.2	28,914	99.9
3,500–3,999 g	23,279	29.5	16	3.0	0.7	23,263	29.7	7	3.0	0.3	23	3.0	1.0	23,256	100.0
>4,000 g	8,656	11.0	7	1.3	0.8	8,649	11.0	6	2.6	0.7	13	1.7	1.5	8,643	99.9
Not known	73	0.1	3	0.6	41.1	70	0.1	1	0.4	0.1	4	0.5	54.8	69	98.6
Total	78,963	100.0	526	100.0	6.7	78,437	100.0	230	100.0	2.9	756	100.0	9.6	78,207	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 as the denominator and is expressed as deaths per 1,000 total births of that birthweight category.
d. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 total births of that birthweight category.
e. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births of that birthweight category.

Table 12b: Birthweight and $PMR_{Adjusted}$, Victoria 2015

	Total births[a]		Stillbirths			Live births[b]		Neonatal deaths			Perinatal deaths			Live births surviving beyond neonatal period at each weight category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
<500 g	324	0.4	202	38.4	623.5	122	0.2	60	31.7	491.8	262	36.6	808.6	62	50.8
500–999 g	409	0.5	149	28.3	364.3	260	0.3	54	28.6	207.7	203	28.4	496.3	206	79.2
1,000–1,499 g	471	0.6	36	6.8	76.4	435	0.6	9	4.8	20.7	45	6.3	95.5	426	97.9
1,500–1,999 g	1,017	1.3	23	4.4	22.6	994	1.3	11	5.8	11.1	34	4.8	33.4	983	98.9
2,000–2,499 g	3,324	4.2	31	5.9	9.3	3,293	4.2	17	9.0	5.2	48	6.7	14.4	3,276	99.5
2,500–2,999 g	12,738	16.1	38	7.2	3.0	12,700	16.2	13	6.9	1.0	51	7.1	4.0	12,687	99.9
3,000–3,499 g	28,847	36.4	24	4.6	0.8	28,823	36.7	11	5.8	0.4	35	4.9	1.2	28,812	100.0
3,500–3,999 g	23,701	29.9	17	3.2	0.7	23,684	30.2	10	4.3	0.4	27	3.8	1.1	23,674	100.0
> 4,000 g	8,332	10.5	6	1.1	0.7	8,326	10.6	4	2.1	0.5	10	1.4	1.2	8,322	100.0
Total	79,163	100.0	526	100.0	6.6	78,637	100.0	189	100.0	2.4	715	100.0	9.0	78,448	99.8

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 as the denominator and is expressed as deaths per 1,000 total births of that birthweight category.
d. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 total births of that birthweight category.
e. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births of that birthweight category.

Table 13a: $PMR_{Adjusted}$ in singleton and multiple births, Victoria 2014

	Total births[a]		Stillbirths			Live births[b]		Neonatal deaths			Perinatal deaths			Live births surviving beyond neonatal period at each plurality category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
Singleton births	76,542	96.9	470	89.4	6.1	76,072	97.0	176	76.5	2.3	646	85.4	8.4	75,896	99.8
Twin births	2,364	3.0	54	10.3	22.8	2,310	2.9	45	19.6	19.5	99	13.1	41.9	2,265	98.1
Triplet births	57	0.1	2	0.4	35.1	55	0.1	9	3.9	163.6	11	1.5	193.0	46	83.6
Quadruplets	0	0.0	0	0.0	0.0	0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
(Multiples beyond twin)	*57*	*0.1*	*2*	*0.4*	*35.1*	*55*	*0.1*	*9*	*3.9*	*163.6*	*11*	*1.5*	*193.0*	*46*	*83.6*
(All multiple births)	*2,421*	*3.1*	*56*	*10.6*	*23.1*	*2,365*	*3.0*	*54*	*23.5*	*22.8*	*110*	*14.6*	*45.4*	*2,311*	*97.7*
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	78,963	100.0	526	100.0	6.7	78,437	100.0	230	100.0	2.9	756	100.0	9.6	78,207	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 as the denominator, and expressed as deaths per 1,000 total births of that plurality
d. Neonatal mortality rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births of that plurality.
e. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births of that plurality.

Table 13b: $PMR_{Adjusted}$ in singleton and multiple births, Victoria 2015

	Total births[a]		Stillbirths			Live births[b]		Neonatal deaths			Perinatal deaths			Live births surviving beyond neonatal period at each plurality category	
	n	%	n	%	rate[c]	n	%	n	%	rate[d]	n	%	rate[e]	n	%
Singleton births	76,870	97.1	482	91.6	6.3	76,388	97.1	162	85.7	2.1	644	90.1	8.4	76,226	99.8
Twin births	2,230	2.8	40	7.6	17.9	2,190	2.8	26	13.8	11.9	66	9.2	29.6	2,164	98.8
Triplet births	63	0.1	4	0.8	63.5	59	0.1	1	0.5	16.9	5	0.7	79.4	58	98.3
Quadruplets	0	0.0	0	0.0	0.0	0	0.0	0	0.0	0.0	0	0.0	0.0	0	0.0
(Multiples beyond twin)	*63*	*0.1*	*4*	*0.8*	*63.5*	*59*	*0.1*	*1*	*0.5*	*16.9*	*5*	*0.7*	*79.4*	*58*	*98.3*
(All multiple births)	*2,293*	*2.9*	*44*	*8.4*	*19.2*	*2,249*	*2.9*	*27*	*14.3*	*12.0*	*71*	*9.9*	*31.0*	*2,222*	*98.8*
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	79,163	100.0	526	100.0	6.6	78,637	100.0	189	100.0	2.4	715	100.0	9.0	78,448	99.8

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 as the denominator, and expressed as deaths per 1,000 total births of that plurality
d. Neonatal mortality rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births of that plurality.
e. Perinatal death rate is calculated using total births as the denominator, and is expressed as deaths per 1,000 total births of that plurality.

Table 14: Stillbirth, neonatal death and $PMR_{Adjusted}$ by plurality, Victoria 2007 to 2015

	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	NA	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
2014	470	6.1	54	22.8	2	35.1	526	6.7
2015	482	6.3	40	17.9	4	63.5	526	6.6
Neonatal deaths								
2007	196	2.8	43	17.6	2	42.6	241	3.4
2008	173	2.5	42	18.0	0	NA	215	3.0
2009	185	2.6	41	17.0	0	NA	226	3.1
2010	194	2.7	36	16.0	5	686.3	235	3.2
2011	184	2.6	39	17.6	0	NA	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
2014	176	2.3	45	19.5	9	163.6	230	2.9
2015	162	2.1	26	11.9	1	16.9	189	2.4
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	NA	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
2014	646	8.4	99	41.9	11	193.0	756	9.6
2015	644	8.4	66	29.6	5	79.4	715	9.0

Source of adjusted total births denominator data: VPDC

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

Table 15a: Perinatal mortality (adjusted) by maternal place of birth, Victoria 2014

	Live births	Stillbirths	Neonatal deaths	Perinatal deaths	% of all Perinatal deaths	PMR by maternal place of birth
Southern And Eastern Europe	1523	7	3	10	1.3	6.5
Americas	1039	4	1	5	0.7	4.8
North-East Asia	4106	21	10	31	4.1	7.5
South-East Asia	4877	28	13	41	5.4	8.4
Australia	50329	324	151	475	62.8	9.4
Southern and Central Asia	7319	61	19	80	10.6	10.8
North Africa and the Middle East	2637	24	7	31	4.1	11.6
North-West Europe	2253	20	8	28	3.7	12.3
Sub-Saharan Africa	1616	15	7	22	2.9	13.5
Oceania and Antarctica (Excl Australia)	2183	17	8	25	3.3	11.4
Missing	*555*	*5*	*3*	*8*	*1.1*	*14.3*
Total	78,437	526	230	756	100.0	9.6

Table 15b: Perinatal mortality (adjusted) by maternal place of birth, Victoria 2015

	Live births	Stillbirths	Neonatal deaths	Perinatal deaths	% of all Perinatal deaths	PMR by maternal place of birth
North-East Asia	3712	8	9	17	2.4	4.6
Americas	1110	4	2	6	0.8	5.4
North-West Europe	2290	11	6	17	2.4	7.4
North Africa and the Middle East	2762	13	8	21	2.9	7.6
South-East Asia	5064	27	15	42	5.9	8.2
Australia	50002	339	110	449	62.8	8.9
Southern and Eastern Europe	1437	11	4	15	2.1	10.4
Southern and Central Asia	7838	68	19	87	12.2	11.0
Oceania and Antarctica (Excl Australia)	2202	20	6	26	3.6	11.7
Sub-Saharan Africa	1686	18	7	25	3.5	14.7
Missing	534	7	3	10	1.4	18.5
Total	**78,637**	**526**	**189**	**715**	**100.0**	**9.0**

Table 16: Aboriginal and non-Aboriginal perinatal morality (adjusted), by triennia, Victoria 2001–2015

	Total births			Live births			Stillbirths		Neonatal deaths (NND)		Stillbirth rate[a]			Neonatal mortality rate[b]			Perinatal mortality rate[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	1559	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	1546	40	642	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	1539	36	648	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)
2012–2014	234,000	230,977	3,023	232,421	229,431	2,990	1546	33	652	19	6.7	10.9	1.6 (1.2–2.3)	2.8	6.4	2.2 (1.4–3.5)	9.5	17.2	1.8 (1.4–2.4)
2013–2015	235,174	231,944	3,230	233,598	230,391	3,207	1553	23	631	21	6.7	7.1	1.1 (0.7–1.6)	2.7	6.5	2.4 (1.4–3.5)	9.4	13.6	1.4 (1.1–1.9)

Notes:

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

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

Births in which Aboriginality was unknown are excluded from this table

Rolling triennia are used in this table

a. Stillbirth and perinatal mortality rates are calculated using adjusted total births as the denominator, and expressed as deaths per 1,000 adjusted total births.

b. Neonatal death rate is calculated using live births as the denominator, and is expressed as deaths per 1,000 live births.

Figure 4: $PMR_{Adjusted}$ by Aboriginal status, by triennia, Victoria 2001–2015

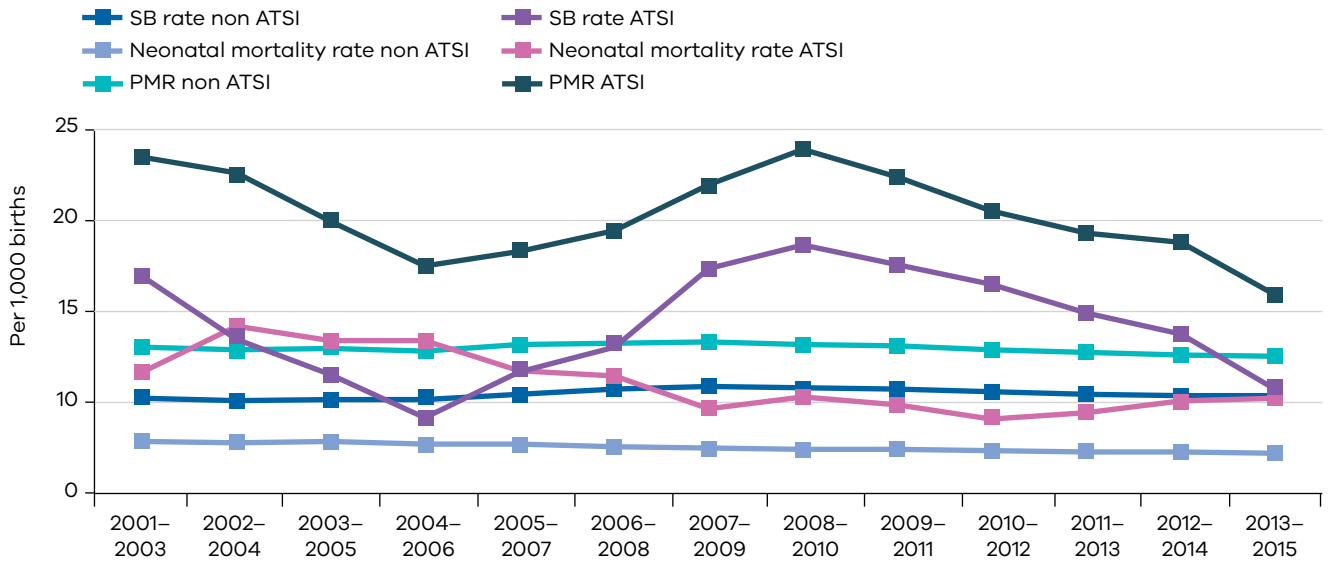

Table 17: $PMR_{Adjusted}$ by Aboriginal status, by triennia, Victoria 2001–2015

	SB rate non ATSI	Neonatal mortality rate non ATSI	PMR non ATSI	SB rate ATSI	Neonatal mortality rate ATSI	PMR ATSI
2001–2003	6.5	3.5	10.0	14.9	8.4	23.1
2002–2004	6.4	3.5	9.9	10.6	11.5	22.0
2003–2005	6.4	3.5	9.9	8.2	10.5	18.6
2004–2006	6.5	3.4	9.8	5.2	10.5	15.6
2005–2007	6.8	3.4	10.2	8.3	8.4	16.6
2006–2008	7.1	3.2	10.3	10.0	8.1	18.0
2007–2009	7.3	3.1	10.4	15.4	5.8	21.2
2008–2010	7.3	3.0	10.3	17.1	6.6	23.6
2009–2011	7.2	3.0	10.2	15.7	6.1	21.7
2010–2012	7.0	2.9	9.8	14.4	5.1	19.4
2011–2013	6.8	2.9	9.7	12.3	5.6	17.8
2012–2014	6.7	2.8	9.5	10.9	6.4	17.2
2013–2015	6.7	2.7	9.4	7.1	6.5	13.6

Table 18a: Perinatal deaths by PSANZ PDC major categories and type, Victoria 2014

	Stillbirths			Stillbirth (adjusted)			Neonatal deaths			Total perinatal deaths			Total perinatal deaths (adjusted)		
Cause of death PSANZ PDC	n	%	Rate[c]	n	%	Rate[e]	n	%	Rate[c]	n	%	Rate[c]	n	%	Rate[e]
1. Congenital abnormality[a]	170	25.3	2.1	170	32.3	2.2	76	32.9	1.0	246	27.2	3.1	246	32.5	3.1
2. Infection	22	3.3	0.3	22	4.2	0.3	13	5.6	0.2	35	3.9	0.4	35	4.6	0.4
3. Hypertension	12	1.8	0.2	12	2.3	0.2	2	0.9	0.0	14	1.6	0.2	14	1.9	0.2
4. Antepartum haemorrhage	47	7.0	0.6	47	8.9	0.6	21	9.1	0.3	68	7.5	0.9	68	9.0	0.9
5. Maternal conditions[b]	169	25.1	2.1	23	4.4	0.3	7	3.0	0.1	176	19.5	2.2	29	3.8	0.4
6. Specific perinatal conditions[d]	33	4.9	0.4	33	6.3	0.4	23	10.0	0.3	56	6.2	0.7	56	7.4	0.7
7. Hypoxic peripartum death	13	1.9	0.2	13	2.5	0.2	17	7.4	0.2	30	3.3	0.4	30	4.0	0.4
8. Fetal growth restriction (FGR)	46	6.8	0.6	46	8.7	0.6	4	1.7	0.1	50	5.5	0.6	50	6.6	0.6
9. Spontaneous preterm	40	6.0	0.5	40	7.6	0.5	64	27.7	0.8	104	11.5	1.3	104	13.8	1.3
10. Unexplained antepartum death	120	17.9	1.5	120	22.8	1.5	0	0.0	0.0	120	13.3	1.5	120	15.9	1.5
11. No obstetric antecedent	0	0.0	0.0	0	0.0	0.0	4	1.7	0.1	4	0.4	0.1	4	0.5	0.1
Total	672	100	8.5	526	100.0	6.7	231	100.0	2.9	903	100.0	11.4	756	100.0	9.6

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 live births and adjusted stillbirths and neonatal deaths (not including terminations of pregnancy for maternal psychosocial indications) as the denominator.

Table 18b: Perinatal deaths by PSANZ PDC major categories and type, Victoria 2015

	Stillbirths			Stillbirth (adjusted)			Neonatal deaths			Total perinatal deaths			Total perinatal deaths (adjusted)		
Cause of death PSANZ PDC	n	%	Rate[b]	n	%	Rate[d]	n	%	Rate[b]	n	%	Rate[b]	n	%	Rate[d]
1. Congenital abnormality[a]	208	32.9	2.6	208	39.5	2.6	66	34.9	0.8	274	33.3	3.5	274	38.3	3.5
2. Infection	26	4.1	0.3	26	4.9	0.3	12	6.3	0.2	38	4.6	0.5	38	5.3	0.5
3. Hypertension	14	2.2	0.2	14	2.7	0.2	2	1.1	0.0	16	1.9	0.2	16	2.2	0.2
4. Antepartum haemorrhage	25	3.9	0.3	25	4.8	0.3	22	11.6	0.3	47	5.7	0.6	47	6.6	0.6
5. Maternal conditions[c]	116	18.3	1.5	9	1.7	0.1	1	0.5	0.0	117	14.2	1.5	10	1.4	0.1
6. Specific perinatal conditions[d]	43	6.8	0.5	43	8.2	0.5	17	9.0	0.2	60	7.3	0.8	60	8.4	0.8
7. Hypoxic peripartum death	6	0.9	0.1	6	1.1	0.1	11	5.8	0.1	17	2.1	0.2	17	2.4	0.2
8. Fetal growth restriction (FGR)	48	7.6	0.6	48	9.1	0.6	0	0.0	0.0	48	5.8	0.6	48	6.7	0.6
9. Spontaneous preterm	54	8.5	0.7	54	10.3	0.7	49	25.9	0.6	103	12.5	1.3	103	14.4	1.3
10. Unexplained antepartum death	93	14.7	1.2	93	17.7	1.2	0	0.0	0.0	93	11.3	1.2	93	13.0	1.2
11. No obstetric antecedent	0	0.0	0.0	0	0.0	0.0	9	4.8	0.1	9	1.1	0.1	9	1.3	0.1
Total	633	100.0	8.0	526	100.0	6.7	189	100.0	2.4	822	100.0	10.4	715	100.0	9.0

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 live births and adjusted stillbirths and neonatal deaths (not including terminations of pregnancy for maternal psychosocial. indications) as the denominator.

Figure 5a: Causes of perinatal death (%), PSANZ PDC, Victoria 2014

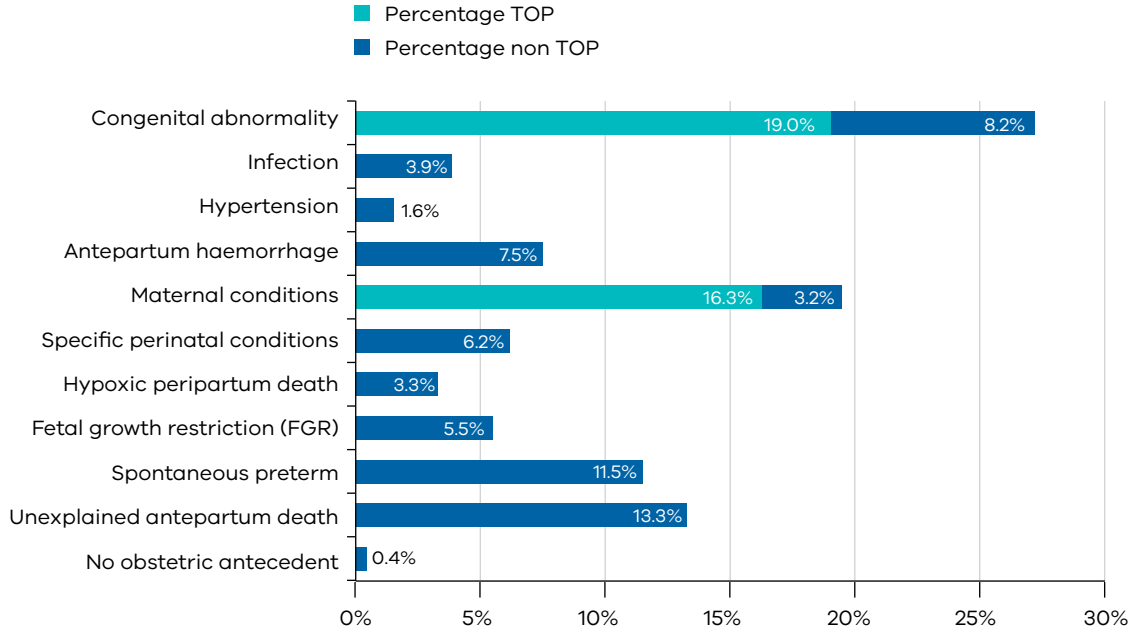

Figure 5b: Causes of perinatal death (%), PSANZ PDC, Victoria 2015

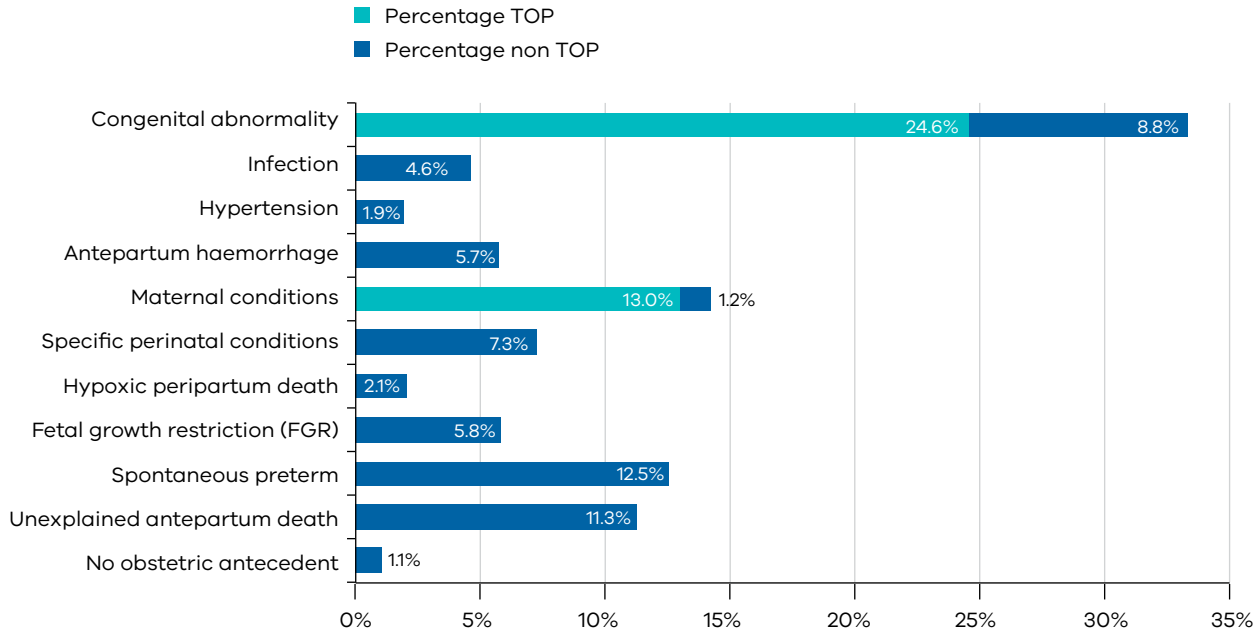

Figure 6a: Causes of stillbirth (%), PSANZ PDC, Victoria 2014

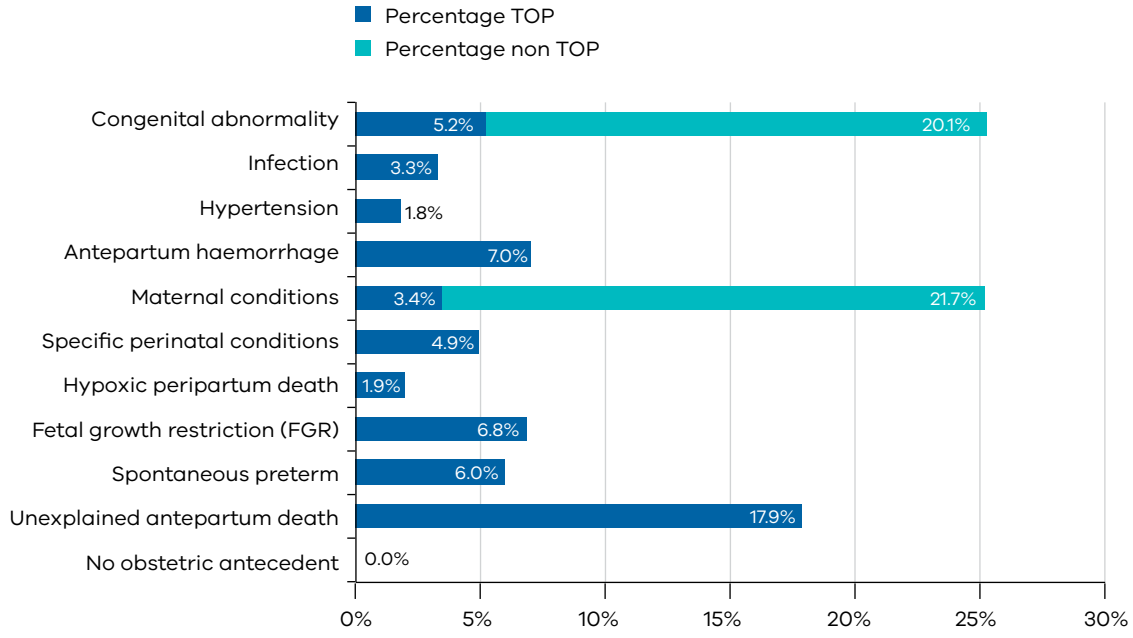

Figure 6b: Causes of stillbirth (%), PSANZ PDC, Victoria 2015

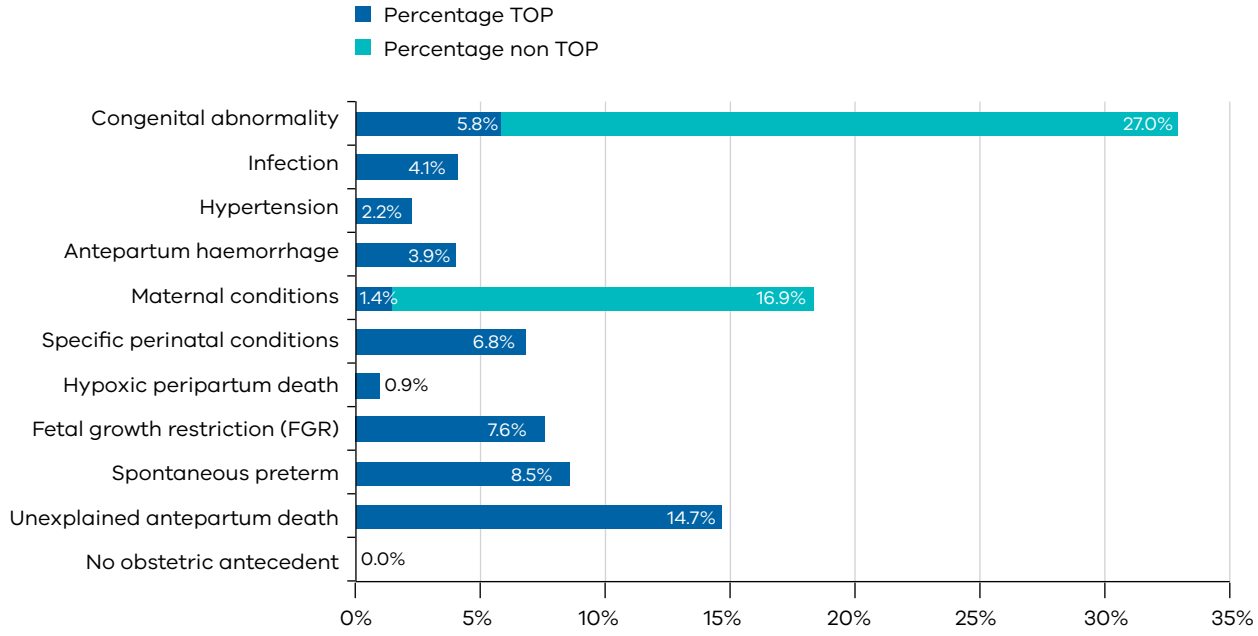

Figure 7a: Causes of neonatal death (%), PSANZ PDC, Victoria 2014

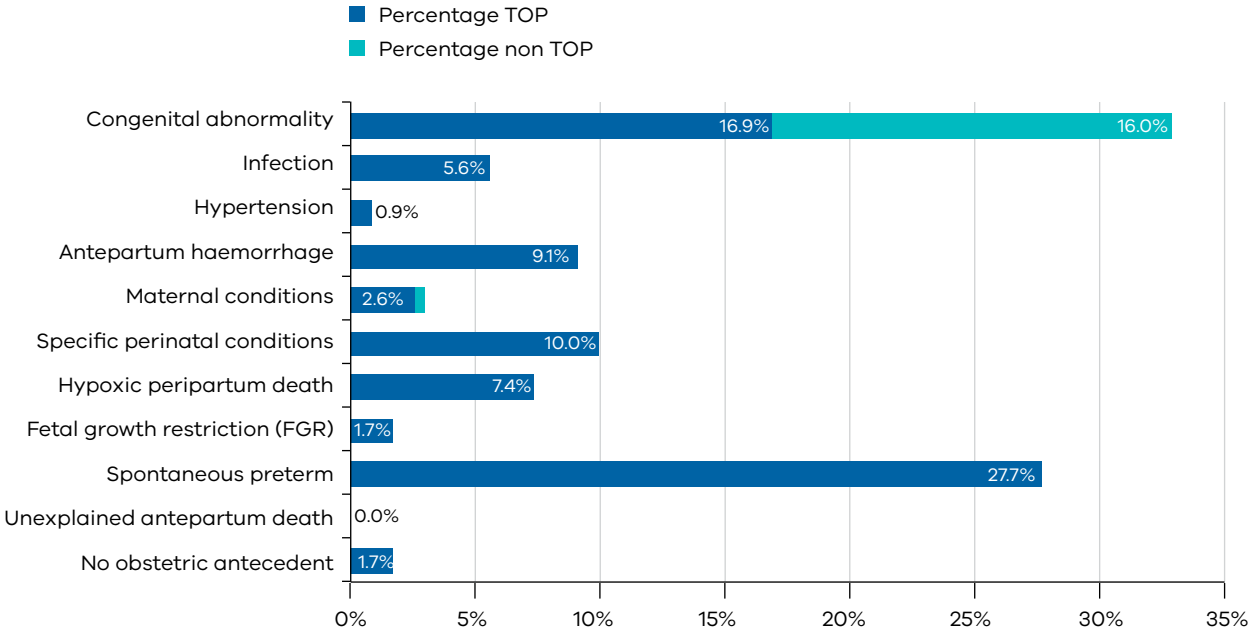

Figure 7b: Causes of neonatal death (%), PSANZ PDC, Victoria 2015

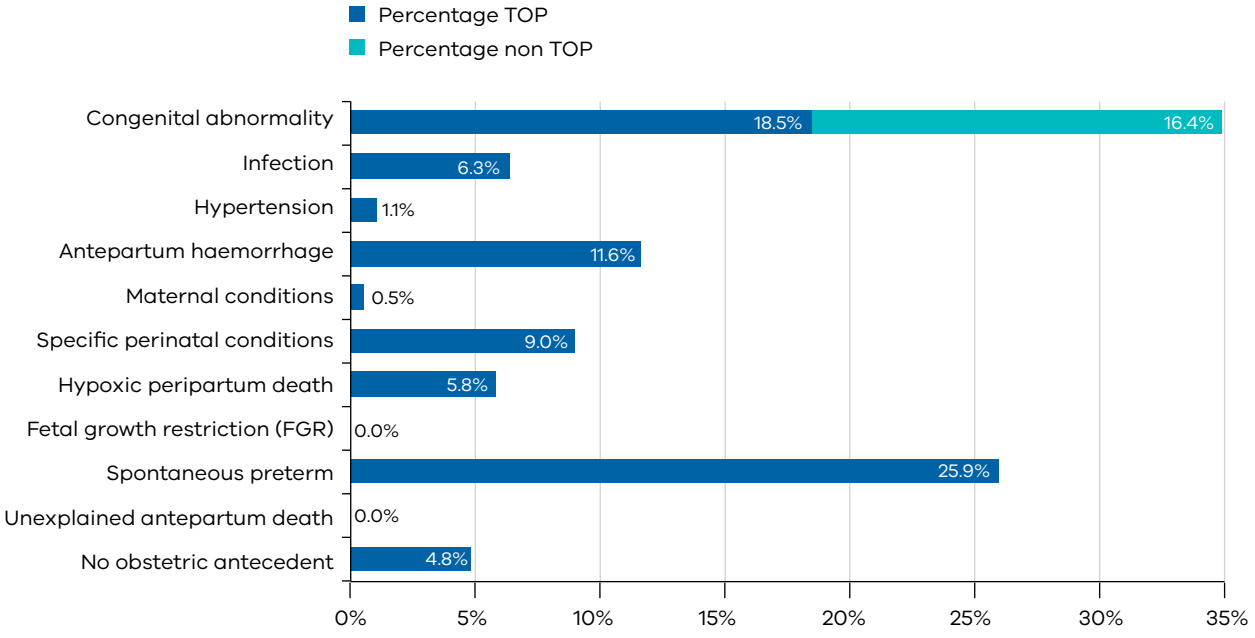

Table 19a: Perinatal deaths by PSANZ PDC expanded categories and type, Victoria 2014

	Stillbirths (Fetal death)		Neonatal death		Total	
PSANZ PDC	**n**	**%**	**n**	**%**	**n**	**%**
1. Congenital Abnormality	**170**	**25.3**	**76**	**32.9**	**246**	**27.2**
1.1 Central nervous system abnormalities	3	0.4	7	3.0	10	1.1
TOP Central nervous system abnormalities	43	6.4	8	3.5	51	5.6
1.2 Cardiovascular system	5	0.7	11	4.8	16	1.8
TOP Cardiovascular system	11	1.6	13	5.6	24	2.7
1.3 Urinary Tract	0	0.0	2	0.9	2	0.2
TOP Urinary Tract	8	1.2	3	1.3	11	1.2
1.4 Gastrointestinal	0	0.0	0	0.0	0	0.0
TOP Gastrointestinal	4	0.6	0	0.0	4	0.4
1.5 Chromosomal	17	2.5	7	3.0	24	2.7
TOP Chromosomal	39	5.8	7	3.0	46	5.1
1.6 Metabolic	0	0.0	1	0.4	1	0.1
TOP Metabolic	0	0.0	0	0.0	0	0.0
1.7 Multiple	4	0.6	1	0.4	5	0.6
TOP Multiple	18	2.7	2	0.9	20	2.2
1.8 Other congenital abnormality	0	0.0	0	0.0	0	0.0
TOP Other congenital abnormality	1	0.1	0	0.0	1	0.1
1.81 Musculoskeletal	2	0.3	5	2.2	7	0.8
TOP Musculoskeletal	7	1.0	2	0.9	9	1.0
1.82 Respiratory	1	0.1	1	0.4	2	0.2
TOP Respiratory	0	0.0	0	0.0	0	0.0
1.83 Diaphragmatic hernia	0	0.0	2	0.9	2	0.2
TOP Diaphragmatic hernia	2	0.3	1	0.4	3	0.3
1.84 Haematological	0	0.0	1	0.4	1	0.1
Haematological (termination)	0	0.0	0	0.0	0	0.0
1.85 Tumours	1	0.1	1	0.4	2	0.2
TOP Tumours	1	0.1	1	0.4	2	0.2
1.88 Other specified congenital abnormality	2	0.3	0	0.0	2	0.2
TOP Other specified congenital abnormality	1	0.1	0	0.0	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
2. Infection	**22**	**3.3**	**13**	**5.6**	**35**	**3.9**
2.11 Group B Streptococcus	2	0.3	3	1.3	5	0.6
2.12 E coli	7	1.0	1	0.4	8	0.9
2.13 Listeria	0	0.0	1	0.4	1	0.1
2.18 Other bacterial	6	0.9	1	0.4	7	0.8
2.19 Unspecified bacterial	2	0.3	0	0.0	2	0.2
2.2 Perinatal infection						
2.21 Perinatal infection (Viral) – Cytomegalovirus	2	0.3	0	0.0	2	0.2
2.22 Parvovirus	0	0.0	0	0.0	0	0.0
2.24 Rubella	0	0.0	0	0.0	0	0.0

PSANZ PDC	Stillbirths (Fetal death) n	Stillbirths (Fetal death) %	Neonatal death n	Neonatal death %	Total n	Total %
2.28 Other viral	0	0.0	1	0.4	1	0.1
2.29 Unspecified viral	0	0.0	0	0.0	0	0.0
2.3 Protozoal e.g. toxoplasma	1	0.1	0	0.0	1	0.1
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	2	0.3	6	2.6	8	0.9
3. Hypertension	**12**	**1.8**	**2**	**0.9**	**14**	**1.6**
3.1 Chronic hypertension: essential	0	0.0	0	0.0	0	0.0
3.2 Chronic hypertension: secondary e.g. renal disease	0	0.0	0	0.0	0	0.0
3.3 Chronic hypertension: unspecified	0	0.0	0	0.0	0	0.0
3.4 Gestational Hypertension	0	0.0	0	0.0	0	0.0
3.5 Pre-eclampsia	10	1.5	2	0.9	12	1.3
3.51 Pre-eclampsia with evidence thrombophilia	1	0.1	0	0.0	1	0.1
3.6 Pre-eclampsia superimposed on chronic hypertension	1	0.1	0	0.0	1	0.1
3.9 Unspecified hypertension	0	0.0	0	0.0	0	0.0
4. Antepartum Haemorrhage	**47**	**7.0**	**21**	**9.1**	**68**	**7.5**
4.1 Placental abruption	38	5.7	19	8.2	57	6.3
4.11 Placental abruption with laboratory evidence of Thrombophilia	2	0.3	1	0.4	3	0.3
4.2 Placenta praevia	1	0.1	0	0.0	1	0.1
4.3 Vasa Praevia	0	0.0	1	0.4	1	0.1
4.8 Other APH	0	0.0	0	0.0	0	0.0
4.9 APH of unknown origin	6	0.9	0	0.0	6	0.7
5. Maternal Conditions	**169**	**25.1**	**7**	**3.0**	**176**	**19.5**
5.1 TOP maternal psychosocial indications	146	21.7	1	0.4	147	16.3
5.2 Diabetes/gestational diabetes	12	1.8	0	0.0	12	1.3
5.3 Maternal injury		0.0	0	0.0	0	0.0
5.31 Maternal injury (accidental)	1	0.1	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	2	0.3	0	0.0	2	0.2
5.5 Antiphospholipid syndrome	3	0.4	1	0.4	4	0.4
5.6 Obstetric cholestasis	2	0.3	0	0.0	2	0.2
5.8 Other specified maternal conditions	3	0.4	5	2.2	8	0.9
6. Specific Perinatal Conditions	**33**	**4.9**	**23**	**10.0**	**56**	**6.2**
6.1 Twin-twin transfusion	7	1.0	11	4.8	18	2.0
6.2 Fetomaternal haemorrhage	3	0.4	2	0.9	5	0.6
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)	1	0.1	0	0.0	1	0.1
6.38 Antepartum cord complications (Other)	5	0.7	0	0.0	5	0.6

PSANZ PDC	Stillbirths (Fetal death) n	Stillbirths (Fetal death) %	Neonatal death n	Neonatal death %	Total n	Total %
6.39 Antepartum cord complications (Unspecified)	0	0.0	0	0.0	0	0.0
6.4 Uterine abnormalities	9	1.3	5	2.2	14	1.6
6.5 Birth trauma	0	0.0	1	0.4	1	0.1
6.61 Alloimmune disease: Rhesus	1	0.1	0	0.0	1	0.1
6.7 Idiopathic hydrops	2	0.3	4	1.7	6	0.7
6.8 Other specific perinatal conditions	0	0.0	0	0.0	0	0.0
6.81 Rupture of membranes after amniocentesis	0	0.0	0	0.0	0	0.0
6.82 TOP for suspected but not confirmed CA	0	0.0	0	0.0	0	0.0
6.88 Other	5	0.7	0	0.0	5	0.6
6.89 Unspecified	0	0.0	0	0.0	0	0.0
7. Hypoxic Peripartum Death	**13**	**1.9**	**17**	**7.4**	**30**	**3.3**
7.1 Uterine rupture	2	0.3	1	0.4	3	0.3
7.12 Cord prolapse	0	0.0	2	0.9	2	0.2
7.13 Shoulder dystocia	0	0.0	1		1	0.1
7.18 Other intrapartum complication	1	0.1	2	0.9	3	0.3
7.2 No intrapartum complication (evidence of non-reassuring fetal status)	9	1.3	10	4.3	19	2.1
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	1	0.1	1	0.4	2	0.2
8. Fetal Growth Restriction (FGR)	**46**	**6.8**	**4**	**1.7**	**50**	**5.5**
8.1 Evidence of uteroplacental insufficiency	31	4.6	2	0.9	33	3.7
8.2. With chronic villitis	2	0.3	0	0.0	2	0.2
8.3 No placental pathology	11	1.6	0	0.0	11	1.2
8.4 No examination of placenta	0	0.0	1	0.4	1	0.1
8.8 Other specified placental pathology	1	0.1	0	0.0	1	0.1
8.9 Unspecified or not known whether placenta examined	1	0.1	1	0.4	2	0.2
9. Spontaneous Preterm	**40**	**6.0**	**64**	**27.7**	**104**	**11.5**
9.10 Spontaneous preterm with intact membranes or membrane rupture <24hrs before delivery	0	0.0	0	0.0	0	0.0
9.11 Chorioamnionitis (placental histology)	4	0.6	16	6.9	20	2.2
9.12 No chorioamnionitis (placental histology)	1	0.1	16	6.9	17	1.9
9.13 With clinical evidence of chorioamnionitis, no examination of placenta	2	0.3	1	0.4	3	0.3
9.17 No clinical signs of chorioamnionitis, no examination of placenta	4	0.6	6	2.6	10	1.1
9.19 Unspecified or not known whether placenta examined	0	0.0	0	0.0	0	0.0
9.20 Spontaneous preterm with intact membranes or membrane rupture <24hrs before delivery	0	0.0	0	0.0	0	0.0
9.21 Chorioamnionitis (placental histology)	12	1.8	13	5.6	25	2.8
9.22 No chorioamnionitis (placental histology)	2	0.3	8	3.5	10	1.1
9.23 With clinical evidence of chorioamnionitis, no examination of placenta	2	0.3	0	0.0	2	0.2

PSANZ PDC	Stillbirths (Fetal death) n	Stillbirths (Fetal death) %	Neonatal death n	Neonatal death %	Total n	Total %
9.27 No clinical signs of chorioamnionitis, no examination of placenta	9	1.3	0	0.0	9	1.0
9.29 Unspecified or not known whether placenta examined	2	0.3	1	0.4	3	0.3
9.31 Chorioamnionitis (placental histology)	1	0.1	2	0.9	3	0.3
9.32 No chorioamnionitis (placental histology)	1	0.1	1	0.4	2	0.2
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	0	0.0	0	0.0	0	0.0
10. Unexplained Antepartum Death	**120**	**17.9**	**0**	**0**	**120**	**13.3**
10.1 Evidence of uteroplacental insufficiency	12	1.8	0	0	12	1.3
10.2 With chronic villitis	3	0.4	0	0	3	0.3
10.3 No placental pathology	93	13.8	0	0	93	10.3
10.4 No examination of placenta	5	0.7	0	0	5	0.6
10.8 Other specified placental pathology	1	0.1	0	0	1	0.1
10.9 Unspecified or not known whether placenta examined	6	0.9	0	0	6	0.7
11. No Obstetric Antecedent	**0**	**0.0**	**4**	**1.7**	**4**	**0.4**
11.2 Postnatally acquired infection	0	0.0	2	0.9	2	0.2
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	0	0.0	0	0.0
11.2 No obstetric antecedent – Postnatally acquired infection	0	0.0	0	0.0	0	0.0
11.9 No obstetric precedent – Unknown/ undetermined	0	0.0	1	0.4	1	0.1
11.92 No obstetric antecedent – Unknown/ undetermined (Other unknown/undetermined)	0	0.0	1	0.4	1	0.1
Total	672	100	231	100	903	100

Table 19b: Perinatal deaths by PSANZ PDC expanded categories and type, Victoria 2015

	Stillbirths (Fetal death)		Neonatal death		Total	
PSANZ PDC	**n**	**%**	**n**	**%**	**n**	**%**
1. Congenital Abnormality	**208**	**32.9**	**66**	**34.9**	**274**	**33.3**
1.1 Central nervous system abnormalities	4	0.6	12	6.3	16	1.9
TOP Central nervous system abnormalities	53	8.4	8	4.2	61	7.4
1.2 Cardiovascular system	2	0.3	7	3.7	9	1.1
TOP Cardiovascular system	29	4.6	4	2.1	33	4.0
1.3 Urinary Tract	0	0.0	2	1.1	2	0.2
TOP Urinary Tract	9	1.4	3	1.6	12	1.5
1.4 Gastrointestinal	2	0.3	0	0.0	2	0.2
TOP Gastrointestinal	1	0.2	1	0.5	2	0.2
1.5 Chromosomal	19	3.0	5	2.6	24	2.9
TOP Chromosomal	35	5.5	6	3.2	41	5.0
1.6 Metabolic	0	0.0	0	0.0	0	0.0
TOP Metabolic	0	0.0	0	0.0	0	0.0
1.7 Multiple	8	1.3	4	2.1	12	1.5
TOP Multiple	23	3.6	5	2.6	28	3.4
1.8 Other congenital abnormality	0	0.0	0	0.0	0	0.0
TOP Other congenital abnormality	0	0.0	0	0.0	0	0.0
1.81 Musculoskeletal	0	0.0	3	1.6	3	0.4
TOP Musculoskeletal	14	2.2	3	1.6	17	2.1
1.82 Respiratory	0	0.0	0	0.0	0	0.0
TOP Respiratory	2	0.3	0	0.0	2	0.2
1.83 Diaphragmatic hernia	0	0.0	0	0.0	0	0.0
TOP Diaphragmatic hernia	4	0.6	0	0.0	4	0.5
1.84 Haematological	0	0.0	1	0.5	1	0.1
Haematological (termination)	0	0.0	0	0.0	0	0.0
1.85 Tumours	2	0.3	1	0.5	3	0.4
TOP Tumours	1	0.2	0	0.0	1	0.1
1.88 Other specified congenital abnormality	0	0.0	0	0.0	0	0.0
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
TOP Other specified congenital abnormality		0.0		0.0	0	0.0
2. Infection	**26**	**4.1**	**12**	**6.3**	**38**	**4.6**
2.11 Group B Streptococcus	7	1.1	3	1.6	10	1.2
2.12 E coli	6	0.9	0	0.0	6	0.7
2.13 Listeria	0	0.0	0	0.0	0	0.0
2.18 Other bacterial	4	0.6	1	0.5	5	0.6
2.19 Unspecified bacterial	2	0.3	1	0.5	3	0.4
2.2 Perinatal infection	0	0.0	0	0.0	0	0.0
2.21 Perinatal infection (Viral) – Cytomegalovirus	3	0.5	0	0.0	3	0.4
2.22 Parvovirus	0	0.0	0	0.0	0	0.0
2.24 Rubella	0	0.0	0	0.0	0	0.0

	Stillbirths (Fetal death)		Neonatal death		Total	
PSANZ PDC	**n**	**%**	**n**	**%**	**n**	**%**
2.28 Other viral	0	0.0	0	0.0	0	0.0
2.29 Unspecified viral	1	0.2	0	0.0	1	0.1
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 specified organism	0	0.0	0	0.0	0	0.0
2.9 Other unspecified organism	3	0.5	7	3.7	10	1.2
3. Hypertension	**14**	**2.2**	**2**	**1.1**	**16**	**1.9**
3.1 Chronic hypertension: essential	1	0.2	0	0.0	1	0.1
3.2 Chronic hypertension: secondary e.g renal disease		0.0		0.0	0	0.0
3.3 Chronic hypertension: unspecified		0.0		0.0	0	0.0
3.4 Gestational Hypertension		0.0		0.0	0	0.0
3.5 Pre-eclampsia	10	1.6	2	1.1	12	1.5
3.51 Pre-eclampsia with evidence thrombophilia		0.0		0.0	0	0.0
3.6 Pre-eclampsia superimposed on chronic hypertension	2	0.3	0	0.0	2	0.2
3.61 Pre-eclampsia superimposed on chronic hypertension with laboratory eveidence of thrombophilia	1		0			
3.9 Unspecified hypertension		0.0		0.0	0	0.0
4. Antepartum Haemorrhage	**25**	**3.9**	**22**	**11.6**	**47**	**5.7**
4.1 Placental abruption	23	3.6	19	10.1	42	5.1
4.11 Placental abruption with laboratory evidence of Thrombophilia		0.0		0.0	0	0.0
4.2 Placenta praevia		0.0		0.0	0	0.0
4.3 Vasa Praevia	1	0.2	0	0.0	1	0.1
4.8 Other APH		0.0		0.0	0	0.0
4.9 APH of unknown origin	1	0.2	3	1.6	4	0.5
5. Maternal Conditions	**116**	**18.3**	**1**	**0.5**	**117**	**14.2**
5.1 TOP maternal psychosocial indications	107	16.9	0	0.0	107	13.0
5.2 Diabetes/gestational diabetes	5	0.8	0	0.0	5	0.6
5.3 Maternal injury		0.0		0.0	0	0.0
5.31 Maternal injury (accidental)		0.0		0.0	0	0.0
5.32 Maternal injury (non-accidental)		0.0		0.0	0	0.0
5.4 Maternal sepsis		0.0		0.0	0	0.0
5.5 Antiphospholipid syndrome	2	0.3	1	0.5	3	0.4
5.6 Obstetric cholestasis	1	0.2	0	0.0	1	0.1
5.8 Other specified maternal conditions	1	0.2	0	0.0	1	0.1
6. Specific Perinatal Conditions	**43**	**6.8**	**17**	**9.0**	**60**	**7.3**
6.1 Twin-twin transfusion	8	1.3	2	1.1	10	1.2
6.2 Fetomaternal haemorrhage	8	1.3	2	1.1	10	1.2
6.30 Antepartum cord complications		0.0		0.0	0	0.0
6.31 Antepartum cord complications (Cord haemorrhage)	3	0.5	0	0.0	3	0.4

	Stillbirths (Fetal death)		Neonatal death		Total	
PSANZ PDC	**n**	**%**	**n**	**%**	**n**	**%**
6.32 Antepartum cord complications (True knot with evidence of occlusion)	7	1.1	0	0.0	7	0.9
6.38 Antepartum cord complications (Other)	6	0.9	0	0.0	6	0.7
6.39 Antepartum cord complications (Unspecified)		0.0		0.0	0	0.0
6.4 Uterine abnormalities	5	0.8	7	3.7	12	1.5
6.5 Birth trauma	0	0.0	3	1.6	3	0.4
6.61 Alloimmune disease: Rhesus	2	0.3	0	0.0	2	0.2
6.7 Idiopathic hydrops	3	0.5	3	1.6	6	0.7
6.8 Other specific perinatal conditions		0.0		0.0	0	0.0
6.810 Rupture of membranes after amniocentesis		0.0		0.0	0	0.0
6.82 TOP for suspected but not confirmed CA		0.0		0.0	0	0.0
6.88 Other	1	0.2	0	0.0	1	0.1
6.89 Unspecified		0.0		0.0	0	0.0
7. Hypoxic Peripartum Death	**6**	**0.9**	**11**	**5.8**	**17**	**2.1**
7.10 Hypoxic peripartum death	0	0.0	1	0.5	1	0.1
7.11 Uterine rupture	0	0.0	2	1.1	2	0.2
7.12 Cord prolapse	1	0.2	0	0.0	1	0.1
7.13 Shoulder dystocia		0.0			0	0.0
7.18 Other intrapartum complication	0	0.0	1	0.5	1	0.1
7.2 No intrapartum complication (evidence of non-reassuring fetal status)	2	0.3	7	3.7	9	1.1
7.3 No intrapartum complication(no evidence of non-reassuring fetal status)	1	0.2	0	0.0	1	0.1
7.9 Unspecified hypoxic peripartum death	2	0.3	0	0.0	2	0.2
8. Fetal Growth Restriction (FGR)	**48**	**7.6**	**0**	**0.0**	**48**	**5.8**
8.1 Evidence of uteroplacental insufficiency	26	4.1	0	0.0	26	3.2
8.2. With chronic villitis	2	0.3	0	0.0	2	0.2
8.3 No placental pathology	12	1.9	0	0.0	12	1.5
8.4 No examination of placenta	3	0.5	0	0.0	3	0.4
8.8 Other specified placental pathology	2	0.3	0	0.0	2	0.2
8.9 Unspecified or not known whether placenta examined	3	0.5	0	0.0	3	0.4
9. Spontaneous Preterm	**54**	**8.5**	**49**	**25.9**	**103**	**12.5**
9.10 Spontaneous preterm with intact membranes or membrane rupture < 24hrs before delivery		0.0		0.0	0	0.0
9.11 Chorioamnionitis (placental histology)	9	1.4	9	4.8	18	2.2
9.12 No chorioamnionitis (placental histology)	8	1.3	5	2.6	13	1.6
9.13 With clinical evidence of chorioamnionitis, no examination of placenta	1	0.2	1	0.5	2	0.2
9.13 With clinical evidence of chorioamnionitis, no examination of placenta						
9.17 No clinical signs of chorioamnionitis, no examination of placenta	4	0.6	11	5.8	15	1.8
9.19 Unspecified or not known whether placenta examined	2	0.3	2	1.1	4	0.5

	Stillbirths (Fetal death)		Neonatal death		Total	
PSANZ PDC	**n**	**%**	**n**	**%**	**n**	**%**
9.20 Spontaneous preterm with intact membranes or membrane rupture < 24hrs before delivery		0.0		0.0	0	0.0
9.21 Chorioamnionitis (placental histology)	18	2.8	7	3.7	25	3.0
9.22 No chorioamnionitis (placental histology)	6	0.9	2	1.1	8	1.0
9.23 With clinical evidence of chorioamnionitis, no examination of placenta	1	0.2	6	3.2	7	0.9
9.27 No clinical signs of chorioamnionitis, no examination of placenta	3	0.5	1	0.5	4	0.5
9.29 Unspecified or not known whether placenta examined		0.0		0.0	0	0.0
9.31 Chorioamnionitis (placental histology)	1	0.2	1	0.5	2	0.2
9.32 No chorioamnionitis (placental histology)	0	0.0	2	1.1	2	0.2
9.33 With clinical evidence of chorioamnionitis, no examination of placenta	0	0.0	1	0.5	1	0.1
9.37 No clinical signs of chorioamnionitis, no examination of placenta	1	0.2	0	0.0	1	0.1
9.39 Unspecified or not known whether placenta examined	0	0.0	1	0.5	1	0.1
10. Unexplained Antepartum Death	**93**	**14.7**	**0**	**0**	**93**	**11.3**
10.1 Evidence of uteroplacental insufficiency	16	2.5	0	0	16	1.9
10.2 With chronic villitis	2	0.3	0	0	2	0.2
10.3 No placental pathology	59	9.3	0	0	59	7.2
10.4 No examination of placenta	8	1.3	0	0	8	1.0
10.8 Other specified placental pathology	5	0.8	0	0	5	0.6
10.9 Unspecified or not known whether placenta examined	3	0.5	0	0	3	0.4
11. No Obstetric Antecedent	**0**	**0.0**	**9**	**4.8**	**9**	**1.1**
11.0 No obstetric antecedent	0	0.0	4	2.1	4	0.5
11.2 Postnatally acquired infection	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	1	0.5	1	0.1
11.2 No obstetric antecedent – Postnatally acquired infection	0	0.0	2	1.1	2	0.2
11.9 No obstetric precedent – Unknown/ undetermined	0	0.0	0	0.0	0	0.0
11.92 No obstetric antecedent – Unknown/ undetermined (Other unknown/undetermined)	0	0.0	2	1.1	2	0.2
Total	633	100	189	100	822	100

Table 20a: Perinatal deaths (adjusted) in singleton and multiple births by cause (PSANZ PDC), Victoria 2014

PSANZ PDC	Singleton		Multiple		Total	
	n	%	n	%	n	%
1. Congenital abnormality	224	34.7	22	20.0	246	32.5
2. Infection	30	4.6	5	4.5	35	4.6
3. Hypertension	13	2.0	1	0.9	14	1.9
4. Antepartum haemorrhage	64	9.9	4	3.6	68	9.0
5. Maternal conditions	29	4.5	0	0.0	29	3.8
6. Specific perinatal conditions	32	5.0	24	21.8	56	7.4
7. Hypoxic peripartum death	27	4.2	3	2.7	30	4.0
8. Fetal growth restriction (FGR)	45	7.0	5	4.5	50	6.6
9. Spontaneous preterm	68	10.5	36	32.7	104	13.8
10. Unexplained antepartum death	110	17.0	10	9.1	120	15.9
11. No obstetric antecedent	4	0.6	0	0.0	4	0.5
Total	646	100.0	110	100.0	756	100.0

Table 20b: Perinatal deaths (adjusted) in singleton and multiple births by cause (PSANZ PDC), Victoria 2015

PSANZ PDC	Singleton		Multiple		Total	
	n	%	n	%	n	%
1. Congenital abnormality	263	40.8	11	15.5	274	38.3
2. Infection	33	5.1	5	7.0	38	5.3
3. Hypertension	16	2.5	0	0.0	16	2.2
4. Antepartum haemorrhage	43	6.7	4	5.6	47	6.6
5. Maternal conditions	10	1.6	0	0.0	10	1.4
6. Specific perinatal conditions	47	7.3	13	18.3	60	8.4
7. Hypoxic peripartum death	17	2.6	0	0.0	17	2.4
8. Fetal growth restriction (FGR)	46	7.1	2	2.8	48	6.7
9. Spontaneous preterm	73	11.3	30	42.3	103	14.4
10. Unexplained antepartum death	88	13.7	5	7.0	93	13.0
11. No obstetric antecedent	8	1.2	1	1.4	9	1.3
Total	644	100.0	71	100.0	715	100.0

Table 20c: Perinatal deaths (adjusted) by PSANZ PDC and Aboriginal status, Victoria 2003–2015

PSANZ PDC	ATSI			Non-Aboriginal			Total		
	Count	%	rate	Count	%	rate	Count	%	rate
1. Congenital abnormality	31	16.1	3.0	2,963	32.9	3.2	2,994	32.6	3.2
2. Infection	4	2.1	0.4	247	2.7	0.3	251	2.7	0.3
3. Hypertension	13	6.7	1.3	256	2.8	0.3	269	2.9	0.3
4. Antepartum haemorrhage	24	12.4	2.4	703	7.8	0.8	727	7.9	0.8
5. Maternal conditions	4	2.1	0.4	244	2.7	0.3	248	2.7	0.3
6. Specific perinatal conditions	13	6.7	1.3	777	8.6	0.8	790	8.6	0.8
7. Hypoxic peripartum death	4	2.1	0.4	263	2.9	0.3	267	2.9	0.3
8. Fetal growth restriction	15	7.8	1.5	591	6.6	0.6	606	6.6	0.6
9. Spontaneous preterm	54	28.0	5.3	1,507	16.7	1.6	1,561	17.0	1.7
10. Unexplained antepartum death	26	13.5	2.5	1,386	15.4	1.5	1,412	15.4	1.5
11. No obstetric antecedent	5	2.6	0.5	63	0.7	0.1	68	0.7	0.1
Total	193	100.0	18.9	9,000	100.0	9.7	9,193	100.0	9.8

This table excludes births and perinatal deaths in which Aboriginal status was unknown.
This table is based on data relating to Aboriginal status of infant (not mother) , and therefore may differ from other tables based on Aboriginal status of mother.

Table 21a: Perinatal deaths as a result of terminations of pregnancy, Victoria 2014

Cause of death PSANZ PDC	Stillbirths (Fetal death)	Neonatal death	Total
	n	n	n
Termination for suspected or confirmed congenital abnormality	135	37	172
Terminations for psychosocial indications	146	1	147
Total	281	38	319

Table 21b: Perinatal deaths as a result of terminations of pregnancy, Victoria 2015

Cause of death PSANZ PDC	Stillbirths (Fetal death)	Neonatal death	Total
	n	n	n
Termination for suspected or confirmed congenital abnormality	171	31	202
Terminations for psychosocial indications	107	0	107
Total	278	31	309

Table 22a: Perinatal deaths by PSANZ PDC and gestational age, Victoria 2014

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	164	27.6	28	35.0	26	26.0	28	21.9	246	27.2	246	32.5
2. Infection	20	3.4	5	6.3	2	2.0	8	6.3	35	3.9	35	4.6
3. Hypertension	9	1.5	2	2.5	2	2.0	1	0.8	14	1.6	14	1.9
4. Antepartum haemorrhage	45	7.6	7	8.8	11	11.0	5	3.9	68	7.5	68	9.0
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	10	1.7	2	2.5	11	11.0	6	4.7	29	3.2	29	3.8
5.1 Maternal conditions (terminations for psychosocial indications only)	146	24.5	0	0.0	1	1.0	0	0.0	147	16.3	NA	NA
6. Specific perinatal conditions	35	5.9	8	10.0	7	7.0	6	4.7	56	6.2	56	7.4
7. Hypoxic peripartum death	3	0.5	3	3.8	5	5.0	19	14.8	30	3.3	30	4.0
8. Fetal growth restriction	24	4.0	10	12.5	8	8.0	8	6.3	50	5.5	50	6.6
9. Spontaneous preterm	102	17.1	1	1.3	1	1.0	0	0.0	104	11.5	104	13.8
10. Unexplained antepartum death	37	6.2	14	17.5	25	25.0	44	34.4	120	13.3	120	15.9
11. No obstetric antecedent	0	0.0	0	0.0	1	1.0	3	2.3	4	0.4	4	0.5
Total	**595**	**100.0**	**80**	**100.0**	**100**	**100.0**	**128**	**100.0**	**903**	**100.0**	**756**	**100.0**

a. Total excluding PSANZ PDC 5.1 (terminations of pregnancy ≥ 20 weeks for psychosocial indications).

NA – not applicable

Table 22b: Perinatal deaths by PSANZ PDC and gestational age, Victoria 2015

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	204	37.0	17	26.6	32	35.6	21	18.1	274	33.3	274	38.3
2. Infection	26	4.7	1	1.6	4	4.4	7	6.0	38	4.6	38	5.3
3. Hypertension	6	1.1	6	9.4	4	4.4	0	0.0	16	1.9	16	2.2
4. Antepartum haemorrhage	25	4.5	5	7.8	8	8.9	9	7.8	47	5.7	47	6.6
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	5	0.9	0	0.0	2	2.2	3	2.6	10	1.2	10	1.4
5.1 Maternal conditions (terminations for psychosocial indications only)	107	19.4	0	0.0	0	0.0	0	0.0	107	13.0	NA	NA
6. Specific perinatal conditions	29	5.3	10	15.6	10	11.1	11	9.5	60	7.3	60	8.4
7. Hypoxic peripartum death	1	0.2	0	0.0	3	3.3	13	11.2	17	2.1	17	2.4
8. Fetal growth restriction	20	3.6	12	18.8	6	6.7	10	8.6	48	5.8	48	6.7
9. Spontaneous preterm	99	17.9	1	1.6	3	3.3	0	0.0	103	12.5	103	14.4
10. Unexplained antepartum death	30	5.4	12	18.8	17	18.9	34	29.3	93	11.3	93	13.0
11. No obstetric antecedent	0	0.0	0	0.0	1	1.1	8	6.9	9	1.1	9	1.3
Total	552	100.0	64	100.0	90	100.0	116	100.0	822	100.0	715	100.0

a. Total excluding PSANZ PDC 5.1 (terminations of pregnancy ≥ 20 weeks for psychosocial indications).

NA – not applicable

Figure 8a: Causes of perinatal death, PSANZ PDC, Victoria 2014

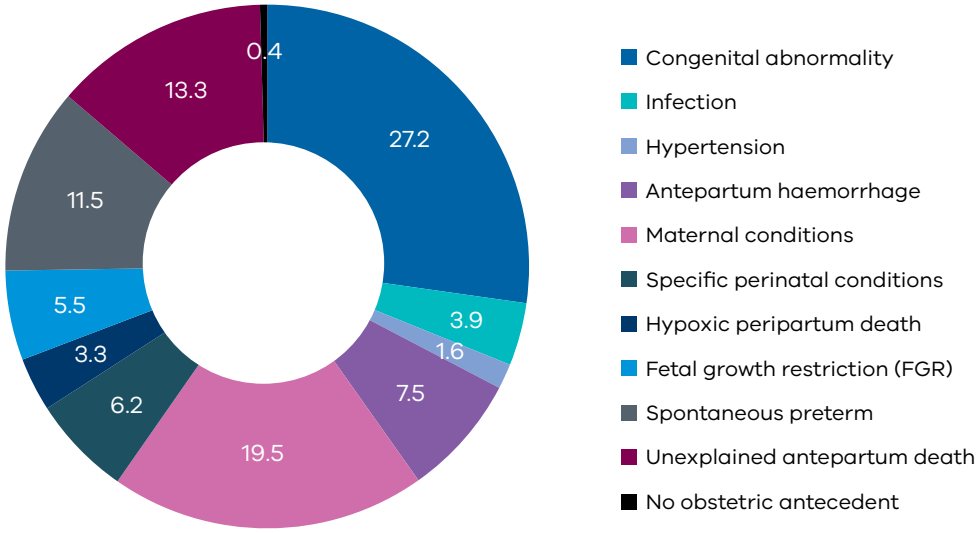

Figure 8b: Causes of perinatal death, PSANZ PDC, Victoria 2015

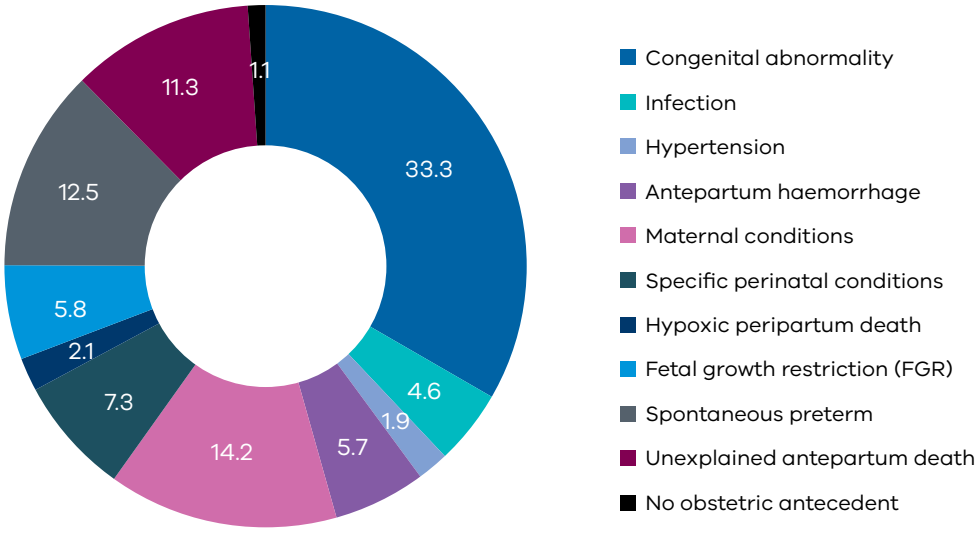

Figure 9a: Causes of perinatal death (adjusted), PSANZ PDC, Victoria 2014

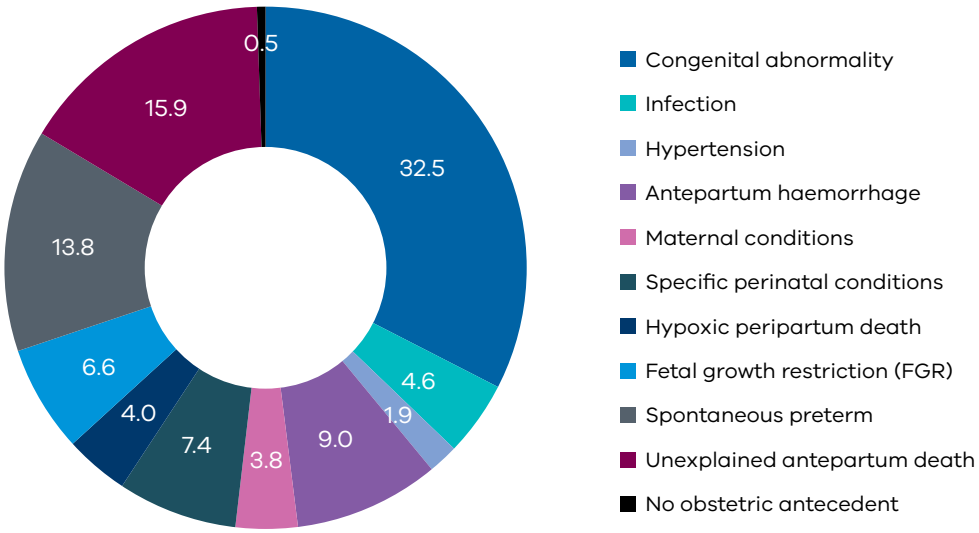

Figure 9b: Causes of perinatal death (adjusted), PSANZ PDC, Victoria 2015

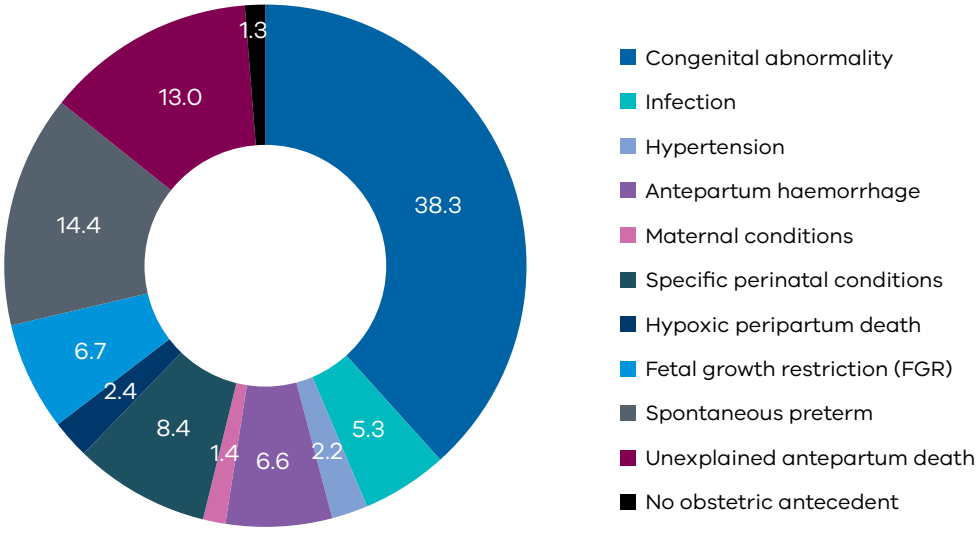

Table 23a: Stillbirths by PSANZ PDC and gestational age, Victoria 2014

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	124	27.9	21	35.0	17	20.2	8	9.5	170	25.3	170	32.3
2. Infection	11	2.5	4	6.7	2	2.4	5	6.0	22	3.3	22	4.2
3. Hypertension	7	1.6	2	3.3	2	2.4	1	1.2	12	1.8	12	2.3
4. Antepartum haemorrhage	27	6.1	5	8.3	11	13.1	4	4.8	47	7.0	47	8.9
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	8	1.8	0	0.0	11	13.1	4	4.8	23	3.4	23	4.4
5.1 Maternal conditions (terminations for psychosocial indications only)	145	32.7	0	0.0	1	1.2	0	0.0	146	21.7	NA	NA
6. Specific perinatal conditions	21	4.7	5	8.3	4	4.8	3	3.6	33	4.9	33	6.3
7. Hypoxic peripartum death	2	0.5	0	0.0	3	3.6	8	9.5	13	1.9	13	2.5
8. Fetal growth restriction	22	5.0	9	15.0	8	9.5	7	8.3	46	6.8	46	8.7
9. Spontaneous preterm	40	9.0	0	0.0	0	0.0	0	0.0	40	6.0	40	7.6
10. Unexplained antepartum death	37	8.3	14	23.3	25	29.8	44	52.4	120	17.9	120	22.8
Total	**444**	**100**	**60**	**100**	**84**	**100**	**84**	**100**	**672**	**100**	**526**	**100**

a. Total excluding PSANZ PDC 5.1 (terminations of pregnancy ≥ 20 weeks for psychosocial indications).
NA – not applicable

Table 23b: Stillbirths by PSANZ PDC and gestational age, Victoria 2015

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	172	39.2	11	21.6	16	24.6	9	11.5	208	32.9	208	39.5
2. Infection	17	3.9	0	0.0	4	6.2	5	6.4	26	4.1	26	4.9
3. Hypertension	5	1.1	5	9.8	4	6.2	0	0.0	14	2.2	14	2.7
4. Antepartum haemorrhage	11	2.5	3	5.9	5	7.7	6	7.7	25	3.9	25	4.8
5. Maternal conditions (excluding terminations of pregnancy for psychosocial indications)	4	0.9	0	0.0	2	3.1	3	3.8	9	1.4	9	1.7
5.1 Maternal conditions (terminations for psychosocial indications only)	107	24.4	0	0.0	0	0.0	0	0.0	107	16.9	NA	NA
6. Specific perinatal conditions	19	4.3	7	13.7	9	13.8	8	10.3	43	6.8	43	8.2
7. Hypoxic peripartum death	1	0.2	0	0.0	2	3.1	3	3.8	6	0.9	6	1.1
8. Fetal growth restriction	20	4.6	12	23.5	6	9.2	10	12.8	48	7.6	48	9.1
9. Spontaneous preterm	53	12.1	1	2.0	0	0.0	0	0.0	54	8.5	54	10.3
10. Unexplained antepartum death	30	6.8	12	23.5	17	26.2	34	43.6	93	14.7	93	17.7
Total	**439**	**100**	**51**	**100**	**65**	**100**	**78**	**100**	**633**	**100**	**526**	**100**

a. Total excluding PSANZ PDC 5.1 (terminations of pregnancy ≥ 20 weeks for psychosocial indications: 107 stillbirths).
NA – not applicable

Figure 10a: Causes of stillbirth, PSANZ PDC, Victoria 2014

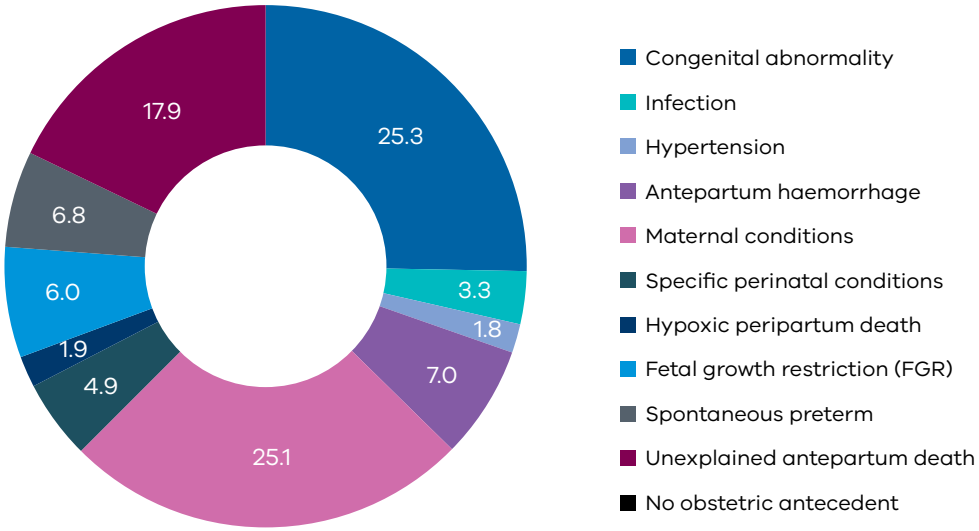

Figure 10b: Causes of stillbirth, PSANZ PDC, Victoria 2015

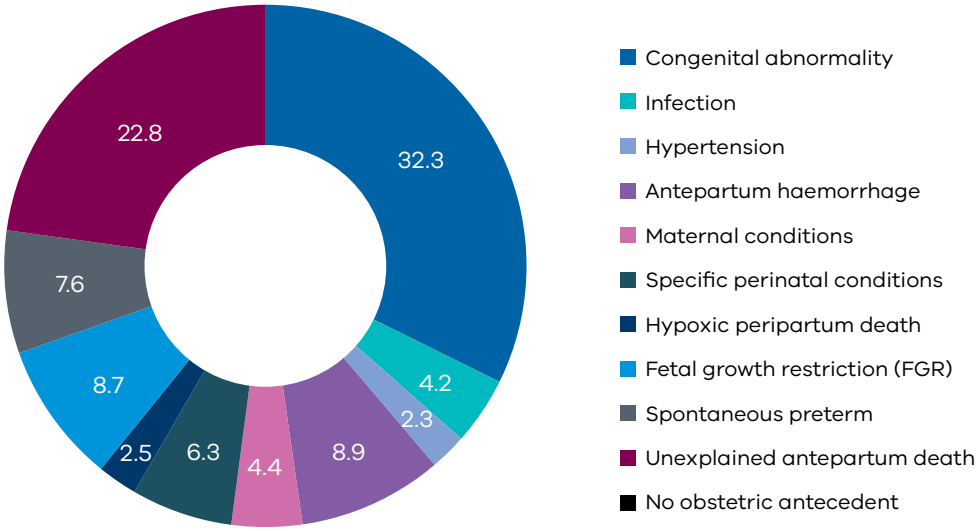

Figure 11a: Causes of stillbirth (adjusted), PSANZ PDC, Victoria 2014

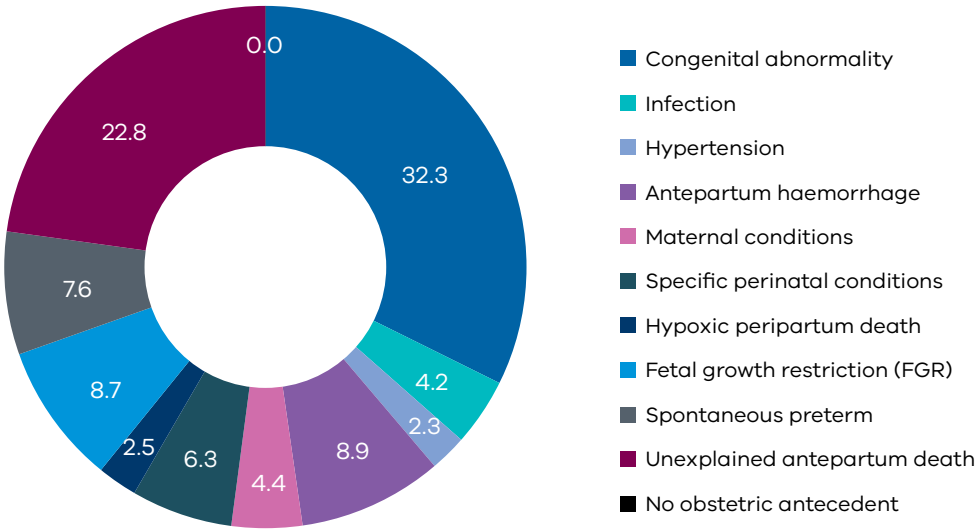

Figure 11b: Causes of stillbirth (adjusted), PSANZ PDC, Victoria 2015

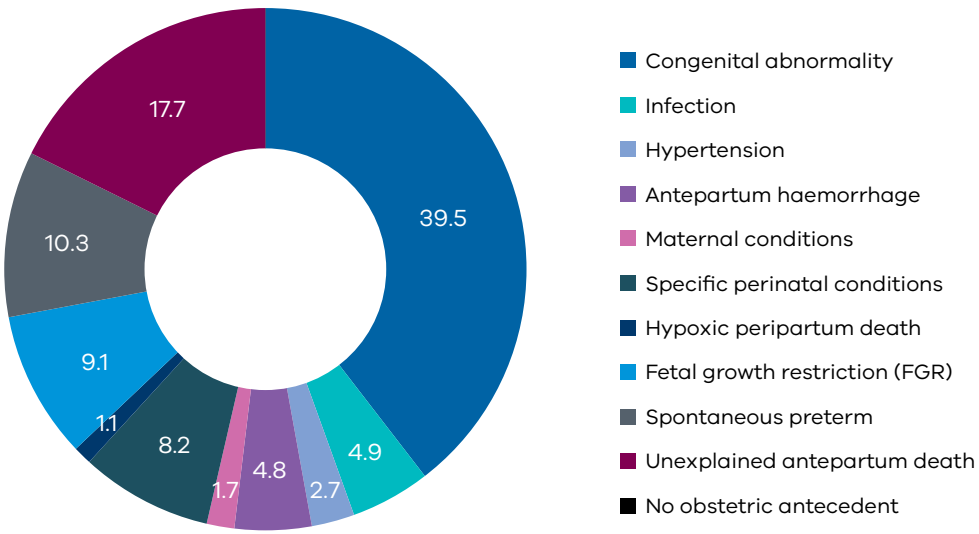

Table 24a: Neonatal deaths by PSANZ PDC and gestational age, Victoria 2014

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	40	26.5	7	35.0	9	56.3	20	45.5	76	32.9
2. Infection	9	6.0	1	5.0	0	0.0	3	6.8	13	5.6
3. Hypertension	2	1.3	0	0.0	0	0.0	0	0.0	2	0.9
4. Antepartum haemorrhage	18	11.9	2	10.0	0	0.0	1	2.3	21	9.1
5. Maternal conditions	3	2.0	2	10.0	0	0.0	2	4.5	7	3.0
6. Specific perinatal conditions	14	9.3	3	15.0	3	18.8	3	6.8	23	10.0
7. Hypoxic peripartum death	1	0.7	3	15.0	2	12.5	11	25.0	17	7.4
8. Fetal growth restriction	2	1.3	1	5.0	0	0.0	1	2.3	4	1.7
9. Spontaneous preterm	62	41.1	1	5.0	1	6.3	0	0.0	64	27.7
11. No obstetric antecedent	0	0.0	0	0.0	1	6.3	3	6.8	4	1.7
Total	151	100	20	100	16	100	44	100	231	100

Table 24b: Neonatal deaths by PSANZ PDC and gestational age, Victoria 2015

PSANZ PDC	20–27 weeks		28–31 weeks		32–36 weeks		37+ weeks		Total	
	n	%	n	%	n	%	n	%	n	%
1. Congenital abnormality	32	28.3	6	46.2	16	64.0	12	31.6	66	34.9
2. Infection	9	8.0	1	7.7	0	0.0	2	5.3	12	6.3
3. Hypertension	1	0.9	1	7.7	0	0.0	0	0.0	2	1.1
4. Antepartum haemorrhage	14	12.4	2	15.4	3	12.0	3	7.9	22	11.6
5. Maternal conditions	1	0.9	0	0.0	0	0.0	0	0.0	1	0.5
6. Specific perinatal conditions	10	8.8	3	23.1	1	4.0	3	7.9	17	9.0
7. Hypoxic peripartum death	0	0.0	0	0.0	1	4.0	10	26.3	11	5.8
8. Fetal growth restriction	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0
9. Spontaneous preterm	46	40.7	0	0.0	3	12.0	0	0.0	49	25.9
11. No obstetric antecedent	0	0.0	0	0.0	1	4.0	8	21.1	9	4.8
Total	113	100.0	13	100.0	25	100.0	38	100.0	189	100.0

Figure 12a: Causes of neonatal deaths, PSANZ PDC, Victoria 2014

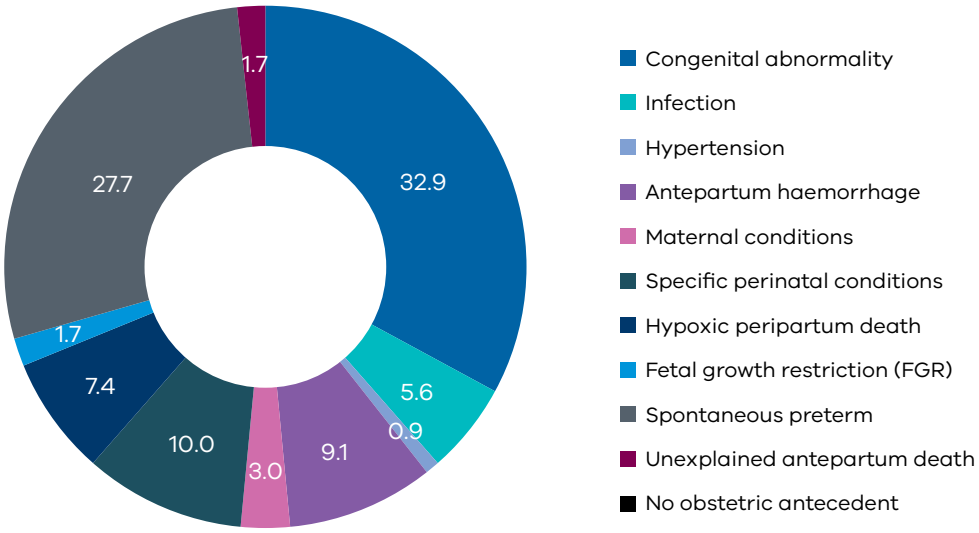

Figure 12b: Causes of neonatal deaths, PSANZ PDC, Victoria 2015

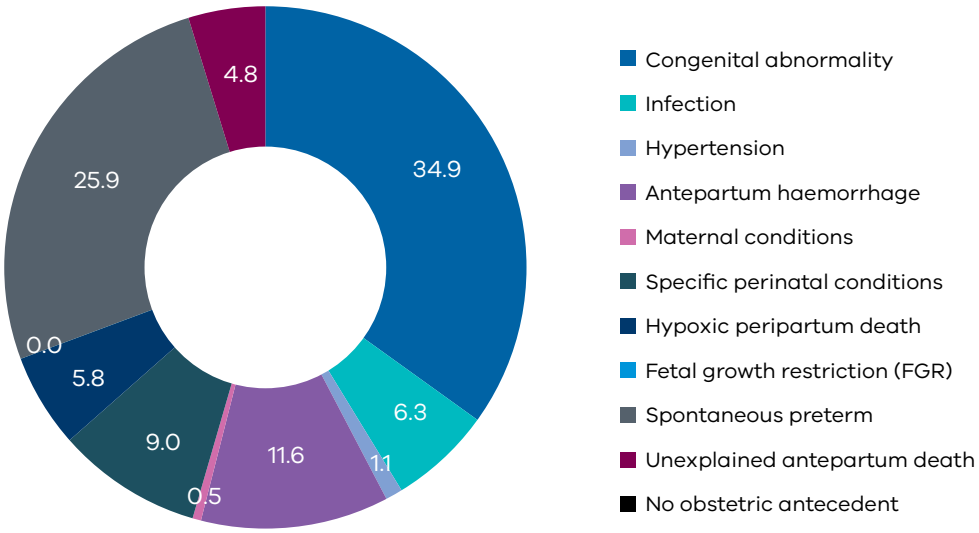

Table 25a: Neonatal deaths by PSANZ NDC and gestational age, Victoria 2014

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	40	26.5	7	35.0	9	56.3	20	45.5	76	32.9
2. Extreme prematurity	89	58.9	0	0.0	0	0.0	0	0.0	89	38.5
3. Cardio-respiratory disease	11	7.3	2	10.0	2	12.5	1	2.3	16	6.9
4. Infection	4	2.6	3	15.0	1	6.3	5	11.4	13	5.6
5. Neurological	5	3.3	7	35.0	3	18.8	15	34.1	30	13.0
6. Gastrointestinal	2	1.3	0	0.0	0	0.0	0	0.0	2	0.9
7. Other	0	0.0	1	5.0	1	6.3	3	6.8	5	2.2
Total	151	100	20	100	16	100	44	100	231	100

Table 25b: Neonatal deaths by PSANZ NDC and gestational age, Victoria 2015

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	32	28.3	6	46.2	16	64.0	12	31.6	66	34.9
2. Extreme prematurity	62	54.9	0	0.0	0	0.0	0	0.0	62	32.8
3. Cardio-respiratory disease	6	5.3	2	15.4	1	4.0	1	2.6	10	5.3
4. Infection	2	1.8	1	7.7	1	4.0	3	7.9	7	3.7
5. Neurological	9	8.0	3	23.1	4	16.0	17	44.7	33	17.5
6. Gastrointestinal	1	0.9	0	0.0	1	4.0	1	2.6	3	1.6
7. Other	1	0.9	1	7.7	2	8.0	4	10.5	8	4.2
Total	113	100	13	100	25	100	38	100.0	189	100

Table 25c: Neonatal deaths by PSANZ NDC, expanded categories and gestational age, Victoria 2014

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
1. Congenital abnormality	40	7	9	20	76
1 Congenital abnormality	0	1	0	0	1
1.1 Central nervous system	8	3	2	2	15
1.2 Cardiovascular system	13	1	2	8	24
1.3 Urinary Tract	3	0	0	1	4
1.5 Chromosomal	9	0	1	4	14
1.6 Metabolic	0	0	0	1	1
1.7 Multiple	2	0	1	0	3
1.81 Musculoskeletal	3	0	3	1	7
1.82 Respiratory	0	0	0	1	1
1.83 Diaphragmatic hernia	1	0	0	2	3
1.84 Haematological	0	1	0	0	1
1.85 Tumours	1	1	0	0	2

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
2. Extreme prematurity	**89**	**0**	**0**	**0**	**89**
2.10 Not resuscitated	85	0	0	0	**85**
2.20 Unsuccessful resuscitation	4	0	0	0	**4**
3. Cardio-respiratory disease	**11**	**2**	**2**	**1**	**16**
3.1 Hyaline membrane disease/Respiratory Distress Syndrome	7	0	0	0	7
3.2 Meconium aspiration syndrome	0	0	0	1	1
3.3 Primary persistent pulmonary hypertension	0	0	1	0	1
3.4 Pulmonary hypoplasia	2	1	0	0	3
3.6 Pulmonary haemorhhage	0	1	0	0	1
3.8 Other cardio-respiratory	2	0	1	0	3
4. Infection	**4**	**3**	**1**	**5**	**13**
4.11 Congenital bacterial	0	1	0	0	**1**
4.111 Group B Streptococcus	1	0	0	0	**1**
4.112 Bacterial – E coli	1	0	0	0	**1**
4.12 Acquired bacterial					
4.125 Other gram negative bacilli (other than E Coli)	0	2	0	0	**2**
4.127 Coagulase negative Staphylococcus	1	0	0	0	**1**
4.21 Congenital viral	0	0	0	1	**1**
4.228 Other specified viral	1	0	0	2	**3**
4.9 Unspecified organism	0	0	1	2	**3**
5. Neurological	**5**	**7**	**3**	**15**	**30**
5.1 Hypoxic ischaemic encephalopathy/perinatal asphyxia	1	3	2	14	20
5.2 Intracranial haemorrhage					
5.21 Intraventricular haemorrhage	4	2	1	0	7
5.23 Subarachnoid haemorrhage	0	0	0	1	1
5.28 Other intracranial haemorrhage	0	1	0	0	1
5.8 Other	0	1	0	0	1
6. Gastrointestinal	**2**	**0**	**0**	**0**	**2**
6.1 Necrotising enterocolitis	1	0	0	0	1
6.8 Other	1	0	0	0	1
7. Other	0	1	1	3	5
7.2 Multisystem failure	0	0	0	1	1
7.28 Other specified multisystem failure	0	1	0	0	1
7.92 Other – Unknown/undetermined (Other unknown/ undetermined)	0	0	1	2	3
Total	**151**	**20**	**16**	**44**	**231**

Table 25d: Neonatal deaths by PSANZ NDC, expanded categories and gestational age, Victoria 2015

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
1. Congenital abnormality	**32**	**6**	**16**	**12**	**66**
1.1 Central nervous system	8	1	6	5	20
1.2 Cardiovascular system	5	1	3	3	12
1.3 Urinary Tract	3	0	2	0	5
1.4 Gastrointestinal system	1	0	0	0	1
1.5 Chromosomal	6	0	3	2	11
1.6 Metabolic	0	0	0	0	0
1.7 Multiple	5	2	1	1	9
1.81 Musculoskeletal	3	1	1	0	5
1.82 Respiratory	0	0	0	0	0
1.83 Diaphragmatic hernia	0	0	0	0	0
1.84 Haematological	0	0	0	1	1
1.85 Tumours	0	1	0	0	1
1.88 Other specified congenital abnormality	1	0	0	0	1
2. Extreme prematurity	**62**	**0**	**0**	**0**	**62**
2.10 Not resuscitated	59	0	0	0	**59**
2.20 Unsuccessful resuscitation	3	0	0	0	**3**
3. Cardio-respiratory disease	**6**	**2**	**1**	**1**	**10**
3.1 Hyaline membrane disease/Respiratory Distress Syndrome	4	0	0	0	4
3.2 Meconium aspiration syndrome	0	0	0	0	0
3.3 Primary persistent pulmonary hypertension	0	0	0	1	1
3.4 Pulmonary hypoplasia	0	1	0	0	1
3.5 Chronic neonatal lung disease	1	0	0	0	1
3.6 Pulmonary haemorhhage	0	0	0	0	0
3.7 Pneumothorax	0	0	1	0	1
3.8 Other cardio-respiratory	1	1	0	0	2
4. Infection	**2**	**1**	**1**	**3**	**7**
4.11 Congenital bacterial					0
4.111 Group B Streptococcus	0	0	0	1	1
4.118 Other bacterial	1	0	0	0	1
4.12 Acquired bacterial					
4.121 Acquired bacterial – Group B Streptococcus	0	0	0	1	1
4.122 Acquired Bacterial – E coli	1	0	0	0	1
4.129 Unspecified bacterial	0	0	1	0	1
4.21 Congenital viral					
4.218 Other specified viral	0	1	0	0	1
4.22 Acquired viral					
4.223 Herpes Simplex Virus	0	0	0	1	1

PSANZ NDC	Gestational age				
	20–27 weeks	28–31 weeks	32–36 weeks	37+ weeks	Total
	n	n	n	n	n
5. Neurological	**9**	**3**	**4**	**17**	**33**
5.1 Hypoxic ischaemic encephalopathy/perinatal asphyxia	2	1	3	14	20
5.2 Intracranial haemorrhage					
5.21 Intraventricular haemorrhage	6	2	0	0	8
5.22 Subgaleal haemorrhage	0	0	0	2	2
5.28 Other intracranial haemorrhage	1	0	0	1	2
5.8 Other	0	0	1	0	1
6. Gastrointestinal	**1**	**0**	**1**	**1**	**3**
6.1 Necrotising enterocolitis	1	0	1	0	2
6.8 Other	0	0	0	1	1
7. Other	**1**	**1**	**2**	**4**	**8**
7.13 SIDS Category II Infant deaths that meet category I except for one or more features	0	0	1	0	1
7.210 Multisystem failure seoncdary to intrauterine growth restriction	1	0	0	0	1
7.310 Trauma (accidental)	0	0	1	1	2
7.920 Other – unknown/undetermined	0	1	0	3	4
Total	**113**	**13**	**25**	**38**	**189**

Table 26: Trends in maternal and infant characteristics relating to perinatal deaths (PND), Victoria 2007 to 2015 (%)

	Perinatal deaths not relating to termination of pregnancy for CA or MPI									Termination of pregnancy for suspected or confirmed CA									Termination of pregnancy for MPI								
	2007	2008	2009	2010	2011	2012	2013	2014	2015	2007	2008	2009	2010	2011	2012	2013	2014	2015	2007	2008	2009	2010	2011	2012	2013	2014	2015
	n = 568	n = 569	n = 583	n = 607	n = 550	n = 539	n = 595	n = 584	n = 513	n = 181	n = 150	n = 196	n = 175	n = 195	n = 198	n = 179	n = 172	n = 202	n = 164	n = 178	n = 214	n = 191	n = 183	n = 132	n = 179	n = 147	n = 107
	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%	%
Maternal age																											
< 20 years	5.8	4.9	6.1	5.1	5.6	2.8	6.6	4.3	3.3	2.2	2.0	2.0	2.3	2.6	2.0	0.6	0.6	1.0	38.4	36.5	26.6	28.8	31.7	25.8	21.8	18.4	16.8
20–24 years	13.3	14.4	13.8	13.3	12.2	12.4	12.3	11.0	13.1	12.7	13.3	7.6	12.0	8.2	9.1	5.6	9.3	7.4	29.3	30.9	32.7	31.4	25.7	28.0	31.8	32.7	41.1
25–29 years	25.3	25.8	24.2	25.7	25.3	24.5	25.5	23.6	25.7	25.4	32.0	21.9	26.9	27.7	26.8	22.9	23.8	23.8	15.2	12.4	19.6	19.4	21.9	17.4	14.5	19.7	15.0
30–34 years	28.3	14.4	24.1	28.3	28.9	32.1	26.9	33.7	31.4	26.0	26.0	42.3	31.4	30.3	33.3	37.4	36.6	39.6	5.5	9.0	9.3	11.0	12.0	13.6	16.2	15.0	15.0
35–39 years	21.9	25.8	23.9	19.8	22.2	20.8	22.4	20.9	21.8	28.7	21.3	23.5	21.7	25.6	20.7	24.6	19.8	24.3	6.1	4.5	7.5	6.3	4.4	8.3	11.7	8.2	8.4
≥40 years	5.3	6.7	7.9	7.1	5.5	7.4	6.4	5.5	4.1	5.0	5.3	2.0	5.1	5.6	8.1	8.9	9.3	4.0	2.4	3.4	4.2	2.1	4.3	6.0	2.8	6.1	3.7
Unknown	0.0	7.9	0.0	0.7	0.4	0.0	0.0	1	1.0	0.0	0.0	0.5	0.6	0.0	0.0	0.0	0.6	0.0	3.0	3.4	0.0	1.0	0.0	0.8	1.1	0.0	0.0
Place of residence																											
Victoria	97.5	97.7	95.3	98.2	96.5	96.7	96.1	96.4	97.1	94.5	95.3	87.8	92.0	90.8	96.0	98.3	99.4	95.5	35.4	37.1	46.3	48.7	45.9	48.5	43.6	46.3	60.7
Interstate	2.1	2.1	4.7	1.8	3.5	3.2	3.9	3.6	2.5	4.4	3.3	12.2	8.0	9.2	4.0	1.7	0.6	4.0	51.8	49.4	53.7	48.2	45.9	50.0	49.2	46.3	36.4
Overseas	0.4	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.4	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.5	10.4	11.2	0.0	3.1	8.2	1.5	7.3	7.5	2.8
Unknown	0.0	0.0	0.0	0.0	0.0	0.2	0.0	0.0	0.0	0.6	0.7	0.0	0.0	0.0	0.0	0.0	0.0	0.0	2.4	2.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Gestation																											
20–22 weeks	26.2	27.2	23.6	26.5	24.4	28.2	26.4	28.9	31.4	76.2	67.3	61.7	54.3	63.6	56.1	61.5	55.8	61.9	48.8	48.3	51.4	51.8	51.9	59.8	72.6	59.9	72.9
23–27 weeks	23.7	22.5	25.3	23.9	27.8	22.1	28.4	21.6	21.6	21.0	27.3	25.5	30.3	26.2	31.8	31.3	33.7	31.2	49.4	48.9	43.5	44.5	42.1	40.2	27.4	39.5	27.1
≥28 weeks	50.1	50.1	50.9	49.6	47.8	49.7	45.2	49.5	49.5	2.2	5.3	3.9	15.4	10.3	12.1	7.3	18.0	6.9	1.2	1.1	5.1	3.7	6.0	0.0	0.0	0.7	0.0
Unknown	0.0	0.2	0.2	0.0	0.0	0.0	0.0	0.0	0.0	0.6	0.0	8.6	0.0	0.0	0.0	0.0	0.0	0.0	0.6	1.7	0.0	0.0	0.0	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	46.9	52.2	51.0	52.0	49.5	54.3	55.9	52.0	56.4	48.8	52.0	43.0	53.0	45.6	43.5	41.0	31.8	33.5	43.5	40.2
Female	49.0	45.7	43.2	46.0	39.1	50.3	46.9	50.5	45.8	46.0	47.0	46.3	43.4	41.5	46.5	41.3	45.9	46.5	51.0	38.0	41.9	43.5	44.8	34.8	36.3	35.4	44.9
Indeterminate	0.0	0.0	1.9	2.3	2.2	2.6	1.3	2.1	1.9	2.0	1.0	1.0	2.3	2.6	1.0	2.3	4.7	1.5	0.0	0.0	1.4	8.4	10.9	28.8	28.5	21.1	15.0
Unknown	1.8	1.2	0.5	0.0	0.2	0.0	0.0	0.5	0.0	1.0	0.0	3.2	0.0	0.0	0.5	0.0	0.6	0.0	6.0	9.0	11.2	4.7	3.3	4.5	1.7	0.0	0.0

Table 27a: Time of fetal death in stillbirths (by gestational age), Victoria 2014

Gestation (weeks)	Prior to labour		During labour		Total	
	n	%	n	%	n	%
20–21	47	14.5	30	45.5	77	19.7
22–23	38	11.7	12	18.2	50	12.8
24–25	28	8.6	6	9.1	34	8.7
26–27	20	6.2	1	1.5	21	5.4
28–31	48	14.8	1	1.5	49	12.5
32–36	75	23.1	3	4.5	78	19.9
37+	69	21.2	13	19.7	82	21.0
Total	**325**	**100.0**	**66**	**100.0**	**391**	**100.0**

Terminations of pregnancy for suspected or confirmed congenital abnormality 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 27b: Time of fetal death in stillbirths (by gestational age), Victoria 2015

Gestation (weeks)	Prior to labour		During labour		Total	
	n	%	n	%	n	%
20–21	55	19.2	25	36.8	80	22.5
22–23	30	10.5	22	32.4	52	14.6
24–25	15	5.2	4	5.9	19	5.4
26–27	23	8.0	1	1.5	24	6.8
28–31	39	13.6	4	5.9	43	12.1
32–36	58	20.2	2	2.9	60	16.9
37+	67	23.3	10	14.7	77	21.7
Total	**287**	**100.0**	**68**	**100.0**	**355**	**100.0**

Terminations of pregnancy for suspected or confirmed congenital abnormality 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 28a: Age at time of death of neonates, Victoria 2014

Gestation (weeks)	Early neonatal death 0–6 days	Late neonatal death 7–27 days	Total
20–21	39	0	39
22–23	42	0	42
24–25	17	6	23
26–27	6	3	9
28–31	12	8	20
32–36	11	5	16
37+	27	17	44
Total	154	39	193
% of Total	79.8	20.2	100

Neonatal deaths that were a result of termination of pregnancy for maternal psychosocial indications or suspected or confirmed congenital abnormality are excluded from this table.

Table 28b: Age at time of death of neonates, Victoria 2015

Gestation (weeks)	Early neonatal death 0–6 days	Late neonatal death 7–27days	Total
20–21	30	0	30
22–23	29	1	30
24–25	11	5	16
26–27	4	2	6
28–31	10	3	13
32–36	15	10	25
37+	28	10	38
Total	127	31	158
% of Total	80.4	19.6	100.0

Neonatal deaths that were a result of termination of pregnancy for maternal psychosocial indications or suspected or confirmed congenital abnormality are excluded from this table.

Figure 13: Perinatal autopsy rates (adjusted), Victoria 2000–2015

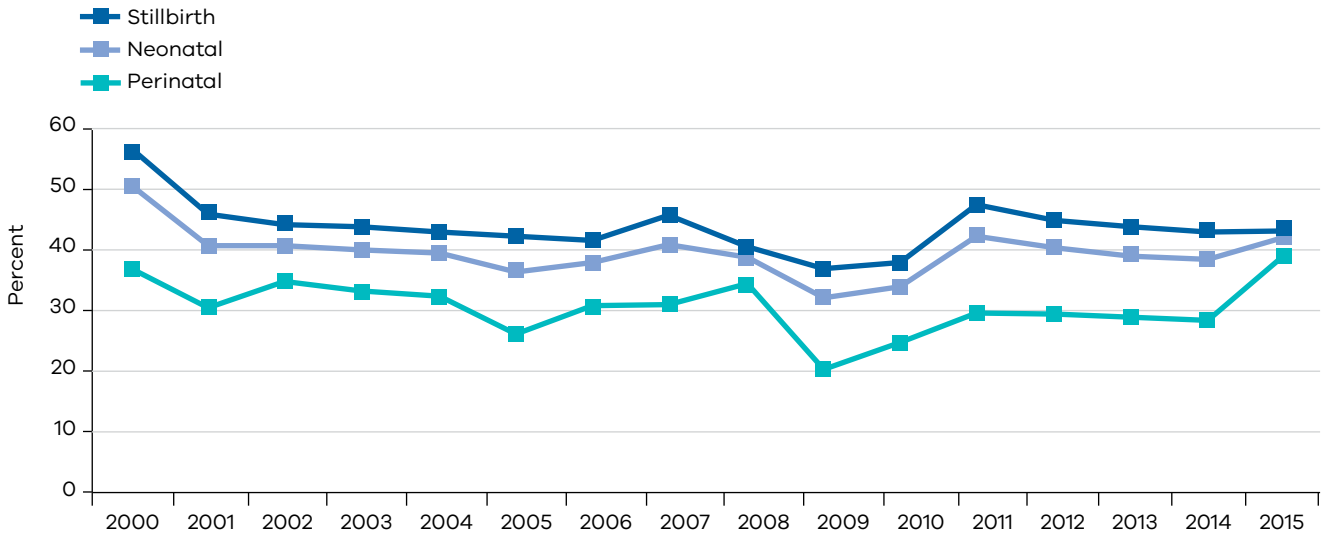

Table 29: Adjusted perinatal autopsy rates, Victoria 2000–2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Stillbirth (%)	56.6	45.9	44.2	43.8	42.9	42.2	41.6	45.7	40.5	36.9	37.9	47.5	44.8	43.8	42.9	43.2
Neonatal (%)	36.8	30.4	34.8	33.3	32.4	26.1	30.8	31.0	34.4	20.3	24.7	29.6	29.5	28.9	28.3	39.2
Perinatal (%)	50.5	40.6	40.7	40.0	39.4	36.4	37.9	40.9	38.7	32.1	33.9	42.2	40.4	39.0	38.5	42.1

Table 30a: Placental pathology, Victoria 2014

Placental pathology available	n	%
Yes	526	69.6
No	128	16.9
Missing/unknown	102	13.5
Total	**756**	**100.0**

Table 30b: Placental pathology, Victoria 2015

Placental pathology available	n	%
Yes	482	67.4
No	124	17.3
Missing/Unknown	109	15.2
Total	**715**	**100.0**

Table 31: Contributing factors in perinatal deaths (birthweight ≥ 500 g), Victoria 2012–2015

Suspected Contributing factor	Count of contributing factor identified				Total perinatal deaths	% of Total
	Stillbirths	% of stillbirth factors identified	Neonates	% of neonatal death factors identified		
Obstetric factors						
Antenatal care:	**49**	**26.9**	**14**	**9.9**	**63**	**19.5**
Delay or lack of consultation in high-risk pregnancy	12	6.6	5	3.5	17	5.3
Inadequate care of diabetic mother	18	9.9	0	0	18	5.6
Insufficient antenatal care	18	9.9	8	5.7	26	8
Cervical incompetence	1	0.5	0	0	1	0.3
No clinical evidence apparent	0	0	1	0.7	1	0.3
Inadequate management of:	**24**	**13.2**	**3**	**2.1**	**27**	**8.4**
Hypertension/PET/eclampsia	1	0.5	0	0	1	0.3
Multiple pregnancy	1	0.5	0	0	1	0.3
Growth-restricted fetus	15	8.2	2	1.4	17	5.3
Macrosomia	2	1.1	0	0	2	0.6
Inadequate management of Rh immunised mother	1	0.5	0	0	1	0.3
Prolonged pregnancy	1	0.5	0	0	1	0.3
Premature rupture of membranes	2	1.1	1	0.7	3	0.9
Cervical incompetence	1	0.5	0	0	1	0.3
Inadequate antenatal monitoring:	**25**	**13.7**	**11**	**7.8**	**36**	**11.1**
Clinical need for test apparent	8	4.4	3	2.1	11	3.4
Misinterpretation of or undue reliance on tests	17	9.3	8	5.7	25	7.7
Failure of transfer of patient						
PRM < 34 weeks	0	0	0	0	0	0
PET < 34 weeks	0	0	0	0	0	0
Factors relating to the pregnant woman, her family and her social situation	**49**	**26.9**	**18**	**12.8**	**67**	**20.7**
Inappropriate maternal drugs	5	2.7	7	5	12	3.7
Failure/delay in reporting decreased movements	13	7.1	1	0.7	14	4.3
Family neglect or ignorance	25	13.7	8	5.7	33	10.2
Maternal smoking	6	3.3	2	1.4	8	2.5
Intrapartum care:	**29**	**15.9**	**50**	**35.5**	**79**	**24.5**
Caesarean section too late	6	3.3	9	6.4	15	4.6
Failure to perform caesarean section	0	0	3	2.1	3	0.9
Failure to expedite delivery	13	7.1	16	11.3	29	9
Inadequate intrapartum monitoring	8	4.4	16	11.3	24	7.4
Surgical induction too late	1	0.5	2	1.4	3	0.9
Unsuitable hospital for delivery	0	0	3	2.1	3	0.9
Forceps delivery	1	0.5	1	0.7	2	0.6

Suspected Contributing factor	Count of contributing factor identified				Total perinatal deaths	% of Total
	Stillbirths	% of stillbirth factors identified	Neonates	% of neonatal death factors identified		
Inadequate intrapartum management of:	**6**	**3.3**	**10**	**7.1**	**16**	**5**
Sepsis	1	0.5	1	0.7	2	0.6
Breech/other malpresentation	0	0	1	0.7	1	0.3
Obstructed labour	0	0	3	2.1	3	0.9
Fetal distress	1	0.5	2	1.4	3	0.9
Other maternal factor (includes poor compliance)	4	2.2	1	0.7	5	1.5
Haemorrhage	0	0	2	1.4	2	0.6
Paediatric factors[a]:						
Delay in recognition/treatment of:			**23**	**16.3**	**23**	**7.1**
Delay or lack of consultation			9	6.4	9	2.8
Delay/difficulties/failure to transfer infant			4	2.8	4	1.2
Family neglect or ignorance			5	3.5	5	1.5
Malformation			2	1.4	2	0.6
Sepsis			3	2.1	3	0.9
Inadequate:			**9**	**6.4**	**9**	**2.8**
Paediatric management			4	2.8	4	1.2
Resuscitation			4	2.8	4	1.2
Nursery care			1	0.7	1	0.3
Inadequate management of:			**3**	**2.1**	**3**	**0.9**
Haemorrhage			3	2.1	3	0.9
Total number of preventable factors identified	**182**	**100**	**141**	**100**	**323**	**100**
Total number of cases	**109**		**59**		**168**	

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 birthweight ≥ 400 g.

For national statistics, CCOPMM also reports on perinatal deaths of infants with a birthweight of ≥ 500 g or, if the birthweight 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 birthweight, or where birthweight is unavailable, the corresponding gestational age (28 weeks) or body length (35 cm crown-heel) are included in the perinatal mortality ratio.

Appendix 7: Post-neonatal infant, child and adolescent deaths in Victoria 2014 and 2015

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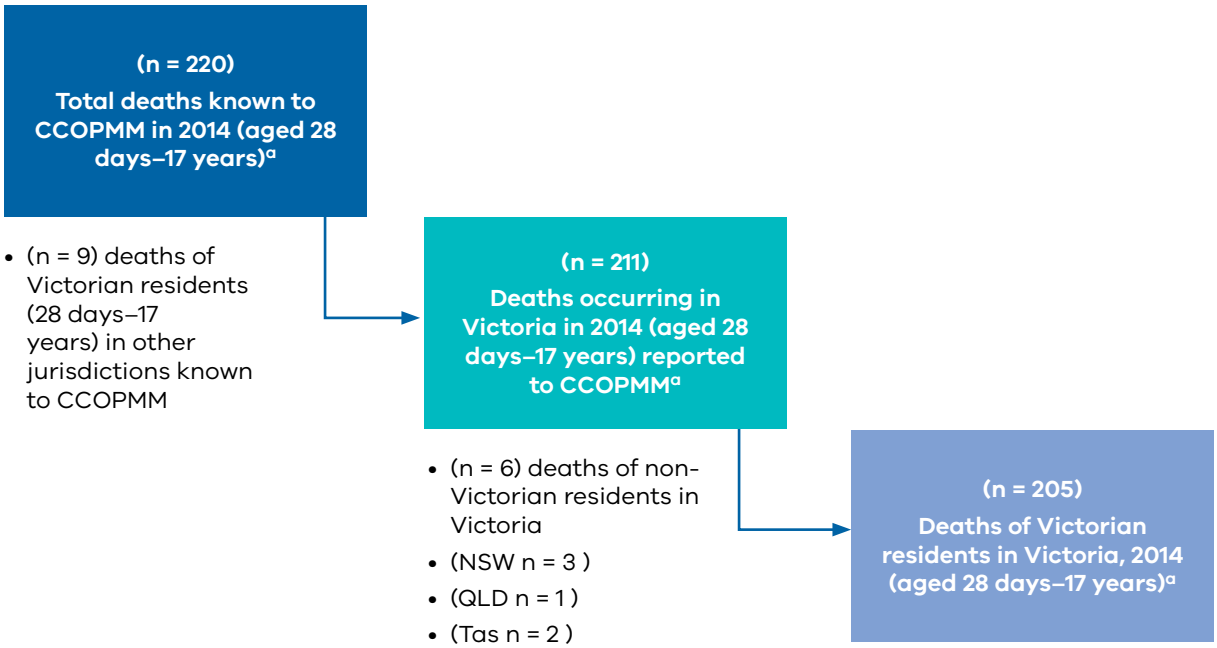
Figure 1a: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2014[a]



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

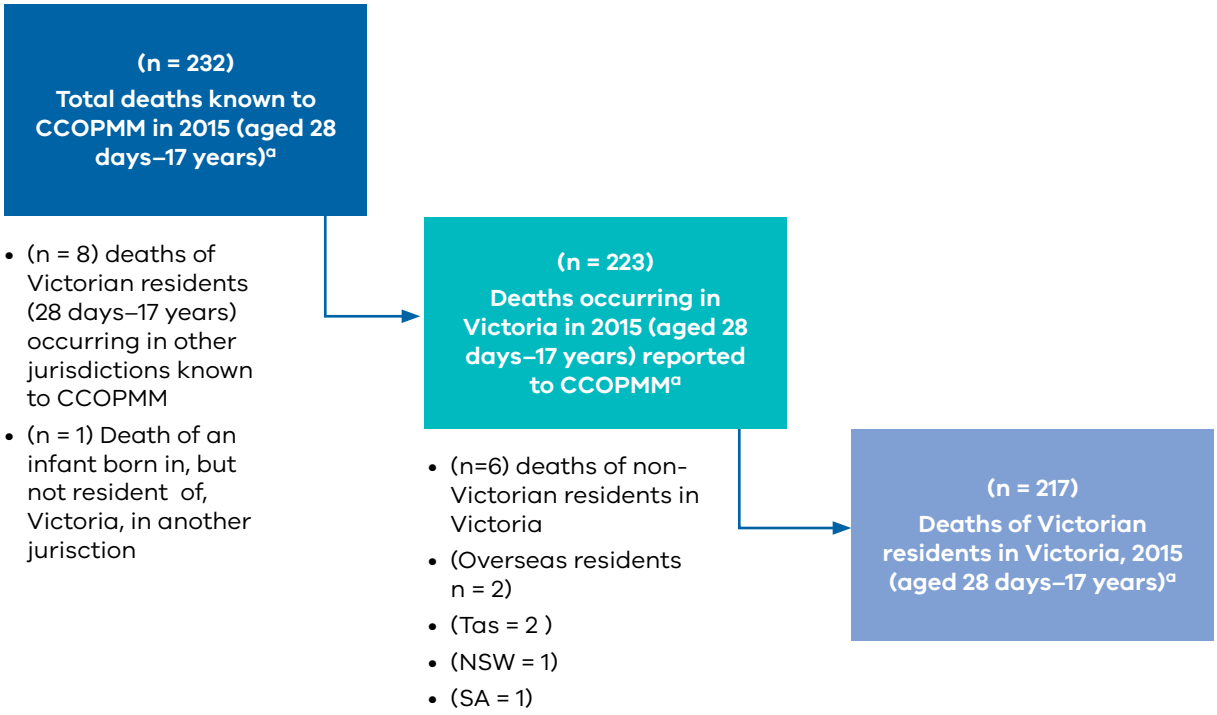
There were 9 deaths of Victorian residents in other jurisdictions (overseas 3 and interstate 6). The cause of death was other transport accident (5), drowning (1) , malignancy (1), asphyxiation (1) and diseases and morbid conditions (1). The age groups of these children were 28-364 days (1), 1-4 years (1), 5-9 years (4), 10-14 years (2) and 15-17 years (1).

There were 6 deaths in Victoria of post-neonatal infants and children not resident in Victoria. The causes of death were motor vehicle accident (2), malignancy (1), infection (1), other acquired illness (1) and intentional self-harm (1). The place of residence was listed as NSW (3), Tasmania (2) and QLD (1).

Aboriginal status: Where Aboriginal status was known, fewer than 10 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 were congenital anomaly, SIDS, infection, other conditions determined at birth and undetermined.

Data on Victorian residents dying in other jurisdictions received from:
ACT – Child and Young People Death Review Committee
NSW – NSW Ombudsman
NT – NT Child Deaths Review and Prevention Committee
QLD – Queensland Family and Child Commission
SA – SA Child Death and Serious Injury Review Committee
TAS – Council on Obstetric and Paediatric Mortality and Morbidity

Figure 1b: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2015[a]



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

There were 8 deaths of Victorian residents in other jurisdictions (overseas 2 and interstate 6). The cause of death was congenital anomaly (3), other injury (3), transport related (1) and undetermined (1). The age groups of these children were 28-364 days (1), 1-4 years (4), 10-14 years (1) and 15-17 years (2).

There was one death of an infant, born in Victoria (to non-Victorian resident parents), resident in another state, who is known to have died interstate (NSW).

There were 6 deaths in Victoria of post-neonatal infants and children not resident in Victoria. The causes of death were motor vehicle accident (2), malignancy (1), infection (1), other acquired illness (1) and intentional self-harm (1). The place of residence was listed as overseas residents (2), Tasmania (2) NSW (1) and SA (1).

Aboriginal status: Where Aboriginal status was known, fewer than 10 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 were congenital anomaly, SIDS and intentional self-harm.

Data on Victorian residents dying in other jurisdictions received from:
ACT – Child and Young People Death Review Committee
NSW – NSW Ombudsman
NT – NT Child Deaths Review and Prevention Committee
QLD – Queensland Family and Child Commission
SA – SA Child Death and Serious Injury Review Committee
Tas – Council on Obstetric and Paediatric Mortality and Morbidity

Rates of death by age and gender

Table 1a: Infant, child and adolescent deaths (0–17 years), age at death by gender, Victoria 2014

Age at death	Females		Males		Total	
	n	%	n	%	n	%
Under 1 year						
Less than 28 days	112	*56.0*	81	*40.9*	193	*48.5*
≥ 28 days to < 1 year	28	*14.0*	44	*22.2*	72	*18.1*
Subtotal 0–1 year	***140***	***70.0***	***125***	***63.1***	***265***	***66.6***
1 to 4 years	20	*10.0*	25	*12.6*	45	*11.3*
Subtotal 0–4 years	***160***	***80.0***	***150***	***75.8***	***310***	***77.9***
5 to 9 years	15	*7.5*	13	*6.6*	28	*7.0*
10 to 14 years	11	*5.5*	12	*6.1*	23	*5.8*
15 to 17 years	14	*7.0*	23	*11.6*	37	*9.3*
Subtotal 1–17 years	***60***	***30.0***	***73***	***36.9***	***133***	***33.4***
Total: 0–17 years[a]	**200**	**100.0**	**198**	**100.0**	**398**	**100.0**

a. This table excludes:
- Live births < 20 w gestation, or, if gestation unknown, < 400 gm
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (N = 1)
- Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication
- Post-neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (N = 6)
- Victorian resident children dying out of Victoria (N = 9).

Table 1b: Infant, child and adolescent deaths (0–17 years), age at death by gender, Victoria 2015

Age at death	Females		Males		Total	
	n	%	n	%	n	%
Under 1 year						
Less than 28 days	69	42.9	89	41.6	158	42.1
≥ 28 days to < 1 year	29	18.0	33	15.4	62	16.5
Subtotal 0–1 year	***98***	***60.9***	***122***	***57.0***	***220***	***58.7***
1–4 years	22	13.7	26	12.1	48	12.8
Subtotal 0–4 years	***120***	***74.5***	***148***	***69.2***	***268***	***71.5***
5–9 years	8	5.0	8	3.7	16	4.3
10–14 years	17	10.6	18	8.4	35	9.3
15–17 years	16	9.9	40	18.7	56	14.9
Subtotal 1–17 years	***63***	***39.1***	***92***	***43.0***	***155***	***41.3***
Total: 0–17 years[a]	**161**	**100.0**	**214**	**100.0**	**375**	**100.0**

a. This table excludes:
- Live births < 20 w gestation, or, if gestation unknown, < 400 gm
- 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 = 6)
- Victorian resident children dying out of Victoria (N = 8)
- One infant, born in Victoria but resident elsewhere, dying interstate.

Table 2a: Infant, child and adolescent deaths (0–17 years), death rates for age group by gender, Victoria 2014

Age category	Females		Males		Total	
	n	Rate per 100,000a	n	Rate per 100,000[a]	n	Rate per 100,000[a]
Less than 28 days	112	300.2	81	206.9	193	252.4
≥ 28 days to < 1 year	28	75.0	44	112.4	72	94.2
Subtotal 0–1 year	*140*	*375.2*	*125*	*319.3*	*265*	*346.6*
1 to 4 years	20	13.7	25	16.2	45	15.0
Subtotal 0–4 years	*160*	*87.4*	*150*	*77.6*	*310*	*82.3*
5 to 9 years	15	8.6	13	7.1	28	7.8
10 to 14 years	11	6.7	12	7.0	23	6.8
15 to 17 years	14	13.9	23	21.5	37	17.8
Subtotal 1–17 years	*60*	*10.3*	*73*	*11.8*	*133*	*11.1*
Total: 0–17 years	200	32.1	198	30.2	398	31.1

Notes: Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

This table excludes:

- Live births < 20 w gestation, or, if gestation unknown, < 400 gm
- Neonates where birth occurred interstate or overseas, with death occurring in Victoria (N = 1)
- Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication
- Post-neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (N = 6)
- Victorian resident children dying elsewhere (N = 9).

Table 2b: Infant, child and adolescent deaths (0–17 years), death rates for age group by gender, Victoria 2015

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	69	195.7	89	239.1	158	218.0
≥ 28 days to < 1 year	29	*82.3*	33	*88.6*	62	*85.5*
Subtotal 0–1 year	*98*	*278.0*	*122*	*327.7*	*220*	*303.5*
1 to 4 years	22	14.8	26	16.5	48	15.7
Subtotal 0–4 years	*120*	*65.3*	*148*	*76.1*	*268*	*70.9*
5 to 9 years	8	4.5	8	4.3	16	4.4
10 to 14 years	17	10.3	18	10.3	35	10.3
15 to 17 years	16	15.7	40	37.5	56	26.9
Subtotal 1–17 years	*63*	*10.6*	*92*	*14.7*	*155*	*12.7*
Total: 0–17 years	161	25.6	214	32.2	375	29.0

Notes: Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

This table excludes:

- Live births < 20 w gestation, or, if gestation unknown, < 400 gm
- 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 = 6)
- Victorian resident children dying elsewhere (N = 8)
- One infant, born in Victoria but resident elsewhere, dying interstate.

Infant mortality rate

Table 3: Neonatal, post-neonatal and infant mortality rates, Victoria 2000–2015 (by calendar year of birth)

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Live births[a]	62,127	61,670	62,658	62,987	63,047	65,996	69,187	71,728	71,811	724,32	73,731	73,349	77,659	77,566	78,400	78,606
Neonatal deaths[a]	154	169	197	196	172	207	185	189	183	184	211	183	157	198	193	158
Post-neonatal infant deaths	73	86	78	60	75	87	88	87	84	54	95	56	54	77	67	78
Total infant deaths[b]	227	255	275	256	247	294	273	276	267	238	306	239	211	275	260	236
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	2.5	2.0
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	0.9	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	3.3	3.0

a. The following are excluded:
- Live births and neonatal deaths from terminations of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication
- Births occurring interstate or overseas, with death occurring in Victoria (neonates N = 1 in 2014, 0 in 2015) post-neonatal infants (N = 4 in 2014, N = 2 in 2015)
- Deaths of Victorian-born infants occurring in other jurisdictions not reported to CCOPMM.

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 2014: There were 66 post-neonatal infants born in Victoria in 2014 who died in Victoria. Forty-nine of these infants died in 2014, and 17 died in 2015. In addition, one infant born in Victoria in 2014 died overseas in 2015.

For 2015: There were 77 post-neonatal infants born in Victoria in 2015 who died in Victoria. Forty-four of these infants died in 2015 and 33 died in 2016. In addition, one infant born in Victoria in 2015 (but whose mother's usual place of residence was interstate) died interstate in 2015.

Figure 2: Neonatal, post-neonatal infant and infant mortality rates, Victoria 2000–2015

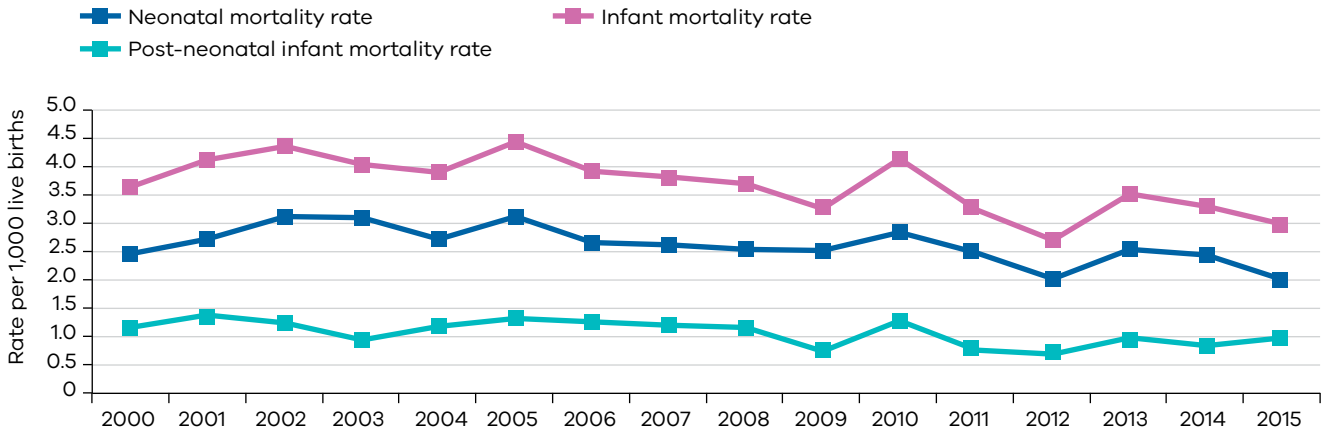


Table 4: Infant mortality rates (per 1,000 live births) of 34 OECD countries[a,b], 1960–2015

		1960	1970	1980	1990	2000	2005	2010	2011	2012	2013	2014	2015
1	Luxembourg	..	19.3	11.2	7.3	3.9	2.8	1.9	1.8	1.6	1.6	1.6	1.5
2	Iceland	17.5	12.8	7.8	5.1	3.1	2.4	1.9	1.8	1.7	1.6	1.6	1.6
3	Finland	21.9	13.2	7.2	5.5	3.5	3.1	2.5	2.4	2.2	2.1	2	1.9
4	Japan	30.4	13.4	7.4	4.6	3.3	2.7	2.4	2.3	2.2	2.1	2.1	2.0
5	Norway	18.4	13.1	8.2	7	4	3.2	2.6	2.5	2.3	2.3	2.2	2.0
6	Slovenia	..	..	..	8.8	4.5	3.5	2.7	2.6	2.4	2.3	2.2	2.1
7	Estonia	..	..	22.4	16.5	8.8	5.8	3.6	3.2	2.9	2.7	2.5	2.3
8	Sweden	16.3	11.3	7.2	5.8	3.4	3	2.5	2.4	2.4	2.4	2.4	2.4
9	Czech Republic	..	..	..	12.7	5.6	4.4	3.4	3.2	3.2	3	2.9	2.8
10	Austria	37.3	25	13.9	8	4.6	4	3.6	3.4	3.3	3.2	3	2.9
11	Korea, Rep.	80.2	41.4	12.3	6.1	5.2	4.8	3.5	3.4	3.3	3.2	3	2.9
12	Italy	44.2	29.7	14.3	8.3	4.7	3.7	3.4	3.3	3.2	3.1	3	2.9
13	Denmark	21.3	13.9	8.3	7.3	4.6	4.1	3.3	3.2	3.2	3.1	3	2.9
14	Portugal	84.6	55.4	22.8	11.5	5.5	3.7	3.1	3.1	3.1	3.1	3	3.0
15	Ireland	30.4	19	12	7.7	5.9	4.4	3.5	3.4	3.4	3.2	3.1	3.0
16	Australia	20.3	17.8	10.8	7.6	5.1	4.8	4.1	3.8	3.6	3.4	3.2	3.0
	Victoria[b]					3.7	4.5	4.2	3.3	2.7	3.5	3.3	3.0
17	Germany	..	22.1	12.6	7	4.4	3.9	3.5	3.4	3.3	3.3	3.2	3.1
18	Netherlands	16.4	12.6	8.8	6.8	5.1	4.5	3.7	3.6	3.5	3.3	3.3	3.2
19	Israel	..	..	15.3	9.7	5.6	4.5	3.7	3.5	3.4	3.3	3.3	3.2
20	Belgium	29.5	20.6	12.2	8.3	4.8	4.1	3.6	3.5	3.5	3.4	3.4	3.3
21	Switzerland	21.6	15	8.4	6.7	4.6	4.3	3.9	3.8	3.7	3.6	3.5	3.4
22	Spain	47.7	25.5	15.3	9.3	5.4	4.8	3.9	3.8	3.7	3.7	3.6	3.5
23	France	23.7	15.1	10.2	7.4	4.4	3.8	3.5	3.5	3.5	3.6	3.6	3.5
24	United Kingdom	22.9	18	12	7.9	5.6	5.1	4.4	4.2	4.1	3.9	3.7	3.5
25	Greece	48.3	33.7	21.3	11.3	6.9	4.8	4.1	4	3.9	3.8	3.7	3.6
26	Canada	27.8	18.5	10.3	6.8	5.2	5.3	4.9	4.7	4.7	4.6	4.4	4.3
27	Poland	57.8	32.2	21	15.1	8.1	6.6	5	4.7	4.6	4.5	4.5	4.5
28	New Zealand	22.6	16.9	12.7	9.2	6.1	5.4	5.1	5	4.9	4.9	4.8	4.7
29	Hungary	53.4	39	23.8	16.9	9.7	7.2	5.7	5.5	5.4	5.4	5.3	5.3
30	United States	25.9	19.9	12.6	9.4	7.1	6.8	6.3	6.1	6.1	5.9	5.7	5.6
31	Slovak Republic	..	..	..	15.6	10.2	8.4	7	6.8	6.5	6.3	6.1	5.8
	OECD members	48.5	38.7	26.6	17.0	10.7	8.6	7.2	6.9	6.6	6.4	6.1	5.9
32	Chile	127.6	67.6	28.2	16	9.2	7.7	7.6	7.5	7.4	7.3	7.2	7.0
33	Mexico	..	77.5	56.1	37.1	21.6	16.7	14.4	13.8	13.1	12.5	11.9	11.3
34	Turkey	166	126.2	90.2	55.8	32.1	23.2	16.4	15.3	14.2	13.2	12.3	11.6

a. Selected data (ranked by 2015 value), taken from data series SP.DYN.IMRT.IN.
Data from database: World Development Indicators. Last updated: 11/17/2016.
http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#advancedDownloadOptions Accessed December 13, 2016.

b. This table includes the measured IMR for Victoria.

Under 5 mortality rate

Table 5: Under 5 mortality rate (U5MR), Victoria, 2000–2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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	78,400	78,606
Neonatal deaths[a]	154	169	197	196	172	207	185	189	183	184	211	183	157	198	193	158
Post-neonatal infant deaths[b]	89	73	86	67	75	82	84	86	84	64	93	60	67	67	72	62
1–4 year deaths	52	45	62	62	40	44	35	47	47	50	49	49	55	33	45	48
Total 0–4 deaths	295	287	345	325	287	333	304	322	314	298	353	292	279	298	310	268
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	4.0	3.4

The U5MR refers to deaths of children 0-4 years (per 1,000 live births) occurring in the index year.

a. The following are excluded:

- Live births and neonatal deaths from terminations of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication
- Neonates or infants where birth occurred interstate or overseas, with death occurring in Victoria
- Post-neonatal infants and children not normally resident in Victoria, dying in Victoria
- Deaths of Victorian residents 0-4 years, known to have occurred outside Victoria.

Note that the post-neonatal infant numbers are different to those tables and calculations for infant mortality rate (Figure 2 and Table 3). For the U5MR calculation, post-neonatal infant deaths ***occurring in the index year*** are counted. For the infant mortality rate, post-neonatal infant deaths ***occurring in infants born in the index year*** are counted, regardless of when they occurred.

Figure 3: Under 5 mortality rate (U5MR), Victoria, 2000–2015

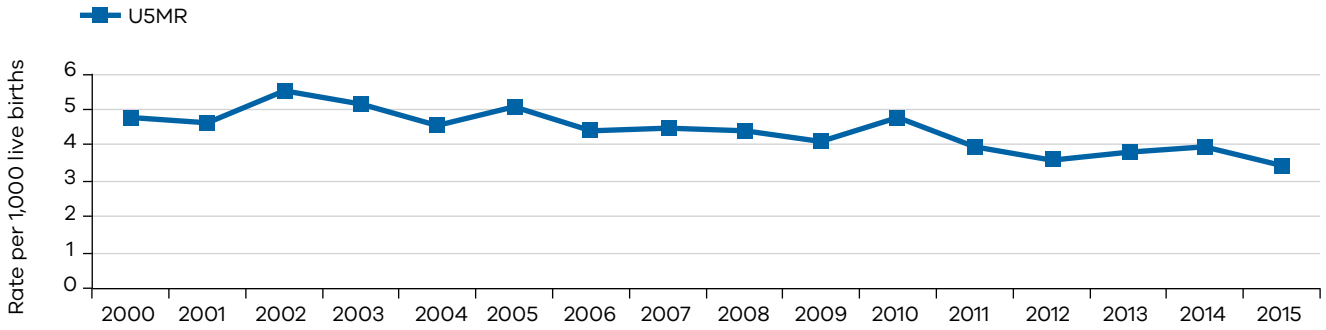


Table 6: Under 5 mortality rate (probability of dying by age 5 per 1,000 live births), of 34 OECD countries, 1960–2015[a,b]

Rank	Country Name	1960	1970	1980	1990	2000	2005	2010		2012	2013	2014	2015
1	Luxembourg	..	22.4	13.3	8.8	4.8	3.5	2.4		2.1	2	2	1.9
2	Iceland	21.4	15.8	9.8	6.4	4	3.1	2.4		2.2	2.1	2.1	2
3	Finland	26.8	16.1	8.7	6.7	4.3	3.8	3		2.7	2.6	2.4	2.3
4	Norway	22.6	16.2	10.1	8.7	4.9	4	3.2		3	2.8	2.7	2.6
5	Slovenia	..	..	..	10.4	5.5	4.3	3.3		3	2.8	2.7	2.6
6	Japan	39.7	17.5	9.9	6.3	4.5	3.7	3.2		3	2.9	2.8	2.7
7	Estonia	..	..	27.1	20.2	11	7.3	4.6		3.8	3.5	3.2	2.9
8	Sweden	19.6	13.4	8.5	6.9	4.1	3.6	3.1		3	3	3	3
9	Czech Republic	..	..	..	14.6	6.6	5.2	4.1		3.8	3.7	3.5	3.4
10	Korea, Rep.	112.9	52.8	14.3	7.1	6.1	5.6	4.1		3.8	3.7	3.6	3.4
	Victoria[b]					**4.7**	**5**	**4.8**		**3.6**	**3.8**	**4.0**	**3.4**
11	Italy	52	33.6	16.1	9.7	5.5	4.4	4		3.8	3.7	3.6	3.5
12	Denmark	25	16.6	10	8.9	5.6	4.9	4		3.8	3.7	3.6	3.5
13	Austria	42.8	29.1	16.3	9.5	5.5	4.9	4.4		4	3.9	3.7	3.5
14	Ireland	35.3	22.2	14.3	9.2	7.1	5.2	4.2		4	3.8	3.7	3.6
15	Portugal	114.6	68.2	27.6	14.7	7.2	4.7	3.9		3.8	3.8	3.7	3.6
16	Germany	..	25.7	15	8.5	5.4	4.7	4.2		4	3.9	3.8	3.7
17	Netherlands	20.8	15.8	10.9	8.3	6.2	5.4	4.4		4.2	4	3.9	3.8
18	**Australia**	**24.9**	**21.4**	**13**	**9.2**	**6.2**	**5.7**	**4.8**		**4.3**	**4.1**	**3.9**	**3.8**
19	Switzerland	26.5	18.4	10.4	8.2	5.6	5.1	4.5		4.3	4.2	4	3.9
20	Israel	..	..	18	11.6	6.9	5.6	4.6		4.3	4.2	4.1	4
21	Spain	55.6	29.2	17.8	11	6.5	5.7	4.6		4.4	4.3	4.2	4.1
22	Belgium	33.9	23.9	14.5	10	5.8	5	4.5		4.3	4.3	4.2	4.1
23	United Kingdom	26.6	21	14.1	9.3	6.6	6	5.2		4.8	4.6	4.4	4.2
24	France	28.5	18.2	12.4	9	5.4	4.6	4.3		4.3	4.4	4.4	4.3
25	Greece	55.8	37.6	23.5	12.6	7.8	5.5	4.7		4.7	4.7	4.6	4.6
26	Canada	32.6	22	12.5	8.3	6.2	6.1	5.6		5.3	5.2	5	4.9
27	Poland	64.7	36.3	23.9	17.3	9.3	7.6	5.8		5.3	5.2	5.2	5.2
28	New Zealand	27.9	20.8	15.6	11.2	7.4	6.6	6.2		6	5.9	5.8	5.7
29	Hungary	58.9	42.7	26.2	19.1	11.2	8.3	6.6		6.3	6.2	6.1	5.9
30	United States	30.1	23.3	15	11.2	8.4	8	7.4		7.1	6.9	6.7	6.5
	OECD members	63.5	51.2	34.9	21.4	12.9	10.2	8.4		7.8	7.5	7.2	6.9
31	Slovak Republic	..	..	..	17.7	11.7	9.9	8.4		7.9	7.7	7.5	7.3
32	Chile	157.3	79.6	33.2	19.1	10.9	9.1	8.8		8.6	8.4	8.3	8.1
33	Mexico	..	108.6	75.1	46.6	25.6	19.5	16.8		15.3	14.5	13.8	13.2
34	Turkey	249	186.9	128.7	74.5	39.6	27.7	19.1		16.5	15.4	14.3	13.5

a. Selected data (ranked by 2015 value), taken from data series SH.DYN.MORT.
Data from database: World Development Indicators. Last updated: 11/17/2016.
http://databank.worldbank.org/data/reports.aspx?source=world-development-indicators#advancedDownloadOptions
Accessed December 13, 2016.

b. This table includes the measured U5MR for Victoria.

Table 7: Neonatal, post-neonatal, infant and under-5 mortality rates, Victoria 2000–2015

	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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	2.5	2.0
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	0.9	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	3.3	3.0
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	4.0	3.4

Note: For the U5MR calculation, post-neonatal infant 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.

Figure 4: Neonatal, post-neonatal, infant and under-5 mortality rates, Victoria 2000–2015

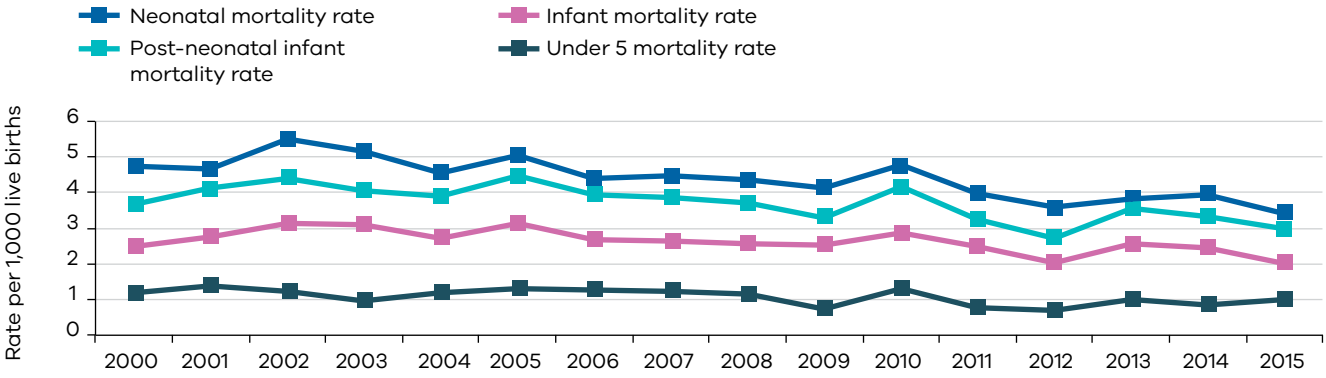
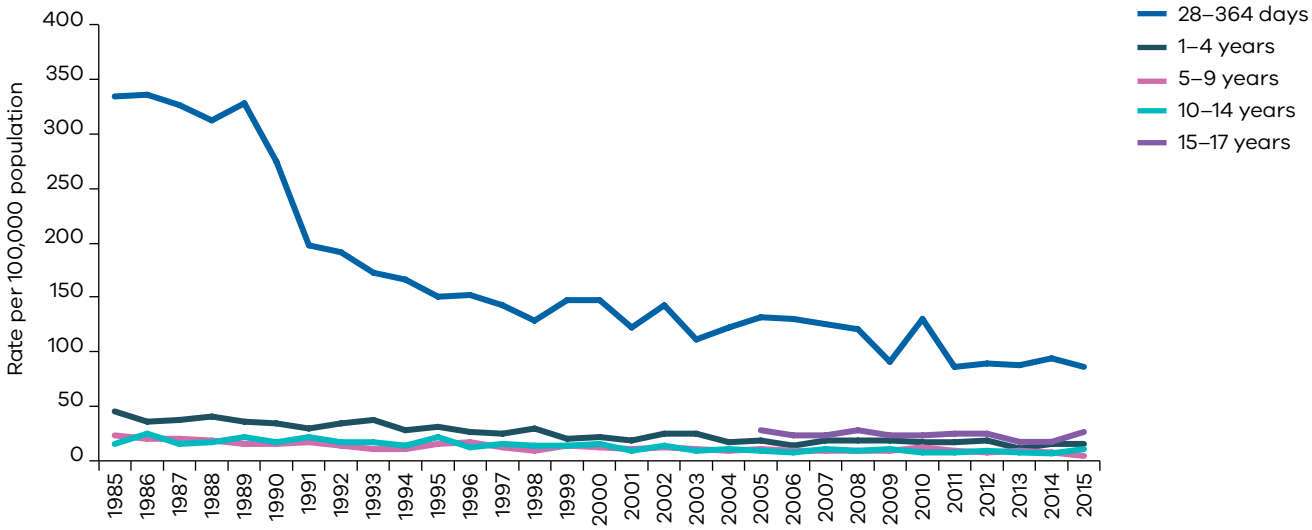


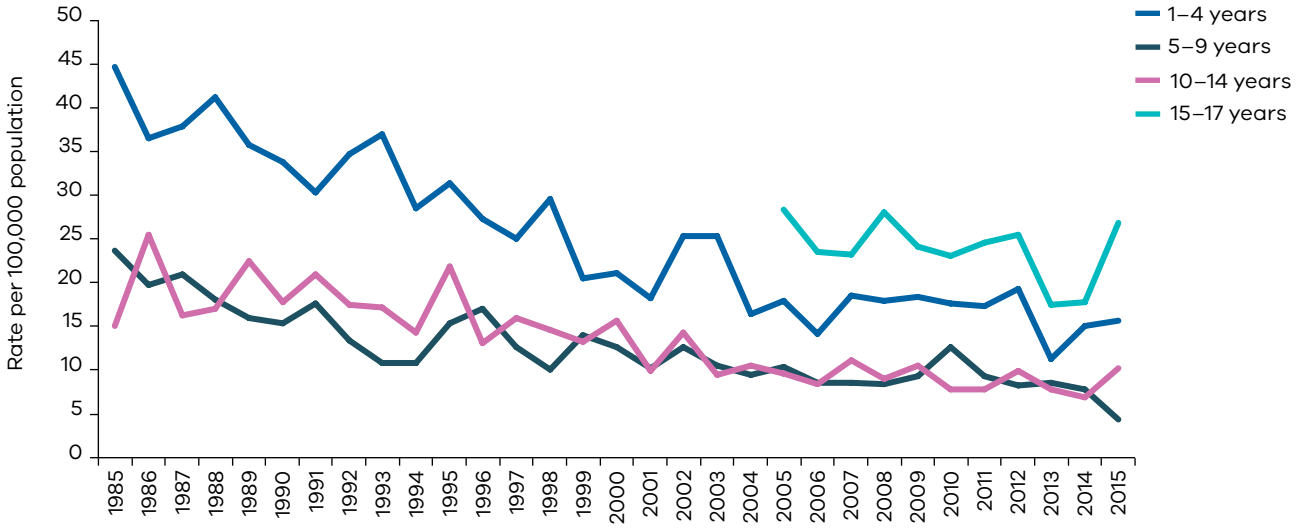
Figure 5a: Rates of death by age group, Victoria, 1985–2015[a,b]



a. 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.
Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

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

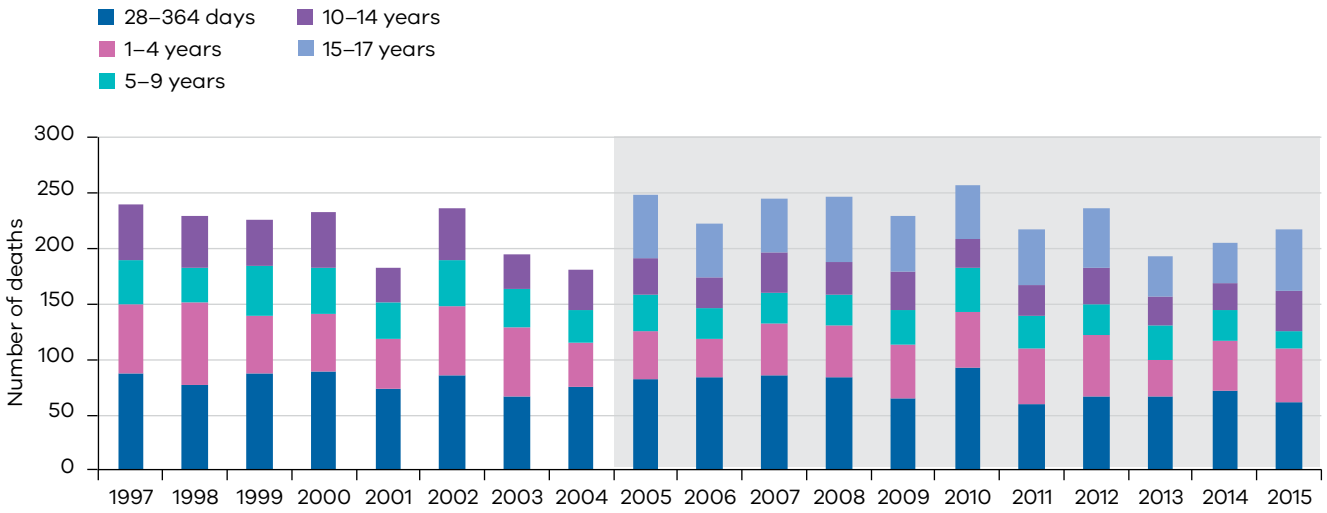
Figure 5b: Rates of death by age group, (excluding 28–364 days) Victoria 1985–2015[a,b]



a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

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

Figure 6: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997–2015[a]



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

Table 8: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
28–364 days	87	77	88	89	73	86	67	75	82	84	86	84	64	93	60	67	67	72	62
1–4 years	63	74	51	52	45	62	62	40	44	35	47	47	50	49	49	55	33	45	48
5–9 years	40	32	45	41	33	41	34	30	33	27	27	27	30	41	31	28	30	28	16
10–14 years	50	46	42	50	32	47	31	35	32	28	37	30	35	26	26	33	26	23	35
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	37	56
Total	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**248**	**222**	**245**	**246**	**229**	**257**	**217**	**236**	**192**	**205**	**217**

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

Most common causes of death by age group

Table 9: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2014

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	28	38.9	36.6
2	Infection	12	16.7	15.7
3	Prematurity	10	13.9	13.1
4	Sudden infant death syndrome (SIDS II)	9	12.5	11.8
5	Undetermined	6	8.3	7.8
6	Malignancy	2	2.8	2.6
6	Other acquired disease	2	2.8	2.6
8	Motor vehicle accident	1	1.4	1.3
8	Drowning	1	1.4	1.3
8	Asphyxiation	1	1.4	1.3
Total		72	100.0	94.2

Notes:

– 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 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

– This table excludes one death of a Victorian resident aged 28–364 days known to have died interstate from diseases and morbid conditions.

– This table excludes deaths of non-Victorian residents aged 28–364 days occurring in Victoria.

Table 10: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2015

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	25	40.3	34.5
2	Prematurity	11	17.7	15.2
2	Sudden infant death syndrome (SIDS IB, SIDS II)	11	17.7	15.2
4	Infection	7	11.3	9.7
5	Undetermined	4	6.5	5.5
6	Intentional trauma (inflicted by other)	2	3.2	2.8
7	Drowning	1	1.6	1.4
7	Malignancy	1	1.6	1.4
Total		62	100.0	85.5

Notes:

– 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 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

– This table excludes the death of a Victorian resident aged 28–364 days known to have occurred overseas from a congenital anomaly.

– This table excludes the death of a Victorian born (but interstate resident) post-neonatal infant who died interstate from unknown cause.

– This table excludes deaths of non-Victorian residents aged 28–364 days occurring in Victoria.

Table 11: Rank cause of death, children aged 1 to 4 years, Victoria 2014

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	13	28.9	4.3
2	Infection	6	13.3	2.0
3	Motor vehicle accident	5	11.1	1.7
3	Malignancy	5	11.1	1.7
5	Drowning	4	8.9	1.3
5	Intentional trauma (inflicted by other)	4	8.9	1.3
7	Other acquired disease	3	6.7	1.0
8	Fire	2	4.4	0.7
8	Undetermined	2	4.4	0.7
10	Prematurity	1	2.2	0.3
	Total	**45**	**100.0**	**15.0**

Notes:

- Denominator includes all Victorian resident children aged 1 to 4 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.
- This table excludes one death of a Victorian resident aged 1–4 years known to have died interstate from a transport accident.
- This table excludes deaths of non-Victorian residents aged 1–4 years occurring in Victoria.

Table 12: Rank cause of death, children aged 1 to 4 years, Victoria 2015

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	17	35.4	5.6
2	Malignancy	6	12.5	2.0
2	Intentional trauma (inflicted by other)	6	12.5	2.0
4	Infection	5	10.4	1.6
5	Other unintentional injury	3	6.3	1.0
5	Other acquired disease	3	6.3	1.0
5	Undetermined	3	6.3	1.0
8	Drowning	2	4.2	0.7
9	Prematurity	1	2.1	0.3
9	Motor vehicle accident	1	2.1	0.3
9	Asphyxiation	1	2.1	0.3
	Total	**48**	**100.0**	**15.7**

Notes:

- Denominator includes all Victorian resident children aged 1 to 4 years.Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016
- This table excludes four Victorian residents aged 1–4 years known to have died interstate (3) or overseas (1), from congenital anomaly (2) and injury (2).
- This table excludes deaths of non-Victorian residents aged 1–4 years occurring in Victoria.

Table 13: Rank cause of death, children aged 5 to 9 years, Victoria 2014

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Malignancy	10	35.7	2.8
2	Congenital anomaly	6	21.4	1.7
3	Motor vehicle accident	5	17.9	1.4
4	Prematurity	1	3.6	0.3
4	Other conditions determined at birth	1	3.6	0.3
4	Drowning	1	3.6	0.3
4	Asphyxiation	1	3.6	0.3
4	Infection	1	3.6	0.3
4	Other acquired disease	1	3.6	0.3
4	Undetermined	1	3.6	0.3
	Total	**28**	**100.0**	**7.8**

Notes:

– Denominator includes all Victorian resident children 5 to 9 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

– This table excludes four deaths of Victorian residents aged 5–9 years known to have died interstate (three) and overseas (one) from transport injury (2), drowning (1) and malignancy (1).

– This table excludes deaths of non-Victorian residents aged 5–9 years occurring in Victoria.

Table 14: Rank cause of death, children aged 5 to 9 years, Victoria 2015

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Malignancy	8	50.0	2.2
2	Congenital anomaly	3	18.8	0.8
2	Motor vehicle accident	3	18.8	0.8
4	Other acquired disease	2	12.5	0.5
	Total	**16**	**100.0**	**4.4**

Notes:

– Denominator includes all Victorian resident children 5 to 9 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

– This table excludes deaths of non-Victorian residents aged 5–9 years occurring in Victoria.

Table 15: Rank of cause of death, children aged 10 to 14 years, Victoria 2014

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Malignancy	7	30.4	2.1
2	Motor vehicle accident	5	21.7	1.5
3	Congenital anomaly	3	13.0	0.9
4	Birth hypoxia/asphyxia	1	4.3	0.3
4	Prematurity	1	4.3	0.3
4	Fire	1	4.3	0.3
4	Other unintentional injury	1	4.3	0.3
4	Other acquired disease	1	4.3	0.3
4	Undetermined	1	4.3	0.3
4	Intentional trauma (inflicted by other)	1	4.3	0.3
4	Intentional self-harm	1	4.3	0.3
Total		23	100.0	6.8

Notes:

- Denominator includes all Victorian resident children 10 to 14 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.
- This table excludes two deaths of Victorian residents aged 10–14 years known to have died overseas from transport injury.
- This table excludes deaths of non-Victorian residents aged 10–14 years occurring in Victoria.

Table 16: Rank of cause of death, children aged 10 to 14 years, Victoria 2015

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Congenital anomaly	12	34.3	3.5
2	Malignancy	10	28.6	2.9
3	Intentional self-harm	5	14.3	1.5
4	Other acquired disease	4	11.4	1.2
5	Birth hypoxia/asphyxia	2	5.7	0.6
6	Motor vehicle accident	1	2.9	0.3
6	Intentional trauma (inflicted by other)	1	2.9	0.3
Total		35	100.0	10.3

Notes:

- Denominator includes all Victorian resident children 10 to 14 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016
- This table excludes one death of a Victorian resident aged 10–14 years known to have died interstate from injury.
- This table excludes deaths of non-Victorian residents aged 10–14 years occurring in Victoria.

Table 17: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2014

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Intentional self-harm	16	43.2	7.7
2	Congenital anomaly	6	16.2	2.9
3	Motor vehicle accident	5	13.5	2.4
3	Malignancy	5	13.5	2.4
5	Other acquired disease	2	5.4	1.0
6	Other conditions determined at birth	1	2.7	0.5
6	Train	1	2.7	0.5
6	Other unintentional injury	1	2.7	0.5
Total		37	100.0	17.8

Notes:

- Denominator includes all Victorian resident adolescents aged 15 to 17 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.
- This table excludes the death of a Victorian resident aged 15–17 years known to have died interstate from other injury.
- This table excludes deaths of non-Victorian residents aged 15–17 years occurring in Victoria.

Table 18: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2015

Rank	Cause of death	n	%	Rate per 100,000[a]
1	Motor vehicle accident	16	28.6	7.7
2	Intentional self-harm	14	25.0	6.7
3	Other acquired disease	7	12.5	3.4
4	Malignancy	6	10.7	2.9
5	Congenital anomaly	4	7.1	1.9
6	Undetermined	3	5.4	1.4
7	Other unintentional injury	2	3.6	1.0
7	Intentional trauma (inflicted by other)	2	3.6	1.0
9	Other conditions determined at birth	1	1.8	0.5
9	Infection	1	1.8	0.5
Total		56	100.0	26.9

Notes:

- Denominator includes all Victorian resident adolescents aged 15 to 17 years. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.
- This table excludes two deaths of Victorian residents aged 15–17 years known to have died interstate from transport-related injury (1) and undetermined cause (1).
- This table excludes deaths of non-Victorian residents aged 15–17 years occurring in Victoria.

Causes of death by age group

Table 19: Cause of death by age group, 28 days to 17 years, Victoria 2014

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	0	0	0	1	0	1	0.5
Congenital anomaly	28	13	6	3	6	56	27.3
Prematurity	10	1	1	1	0	13	6.3
Other	0	0	1	0	1	2	1.0
Subtotal	***38***	***14***	***8***	***5***	***7***	***72***	***35.1***
Sudden infant death syndrome/ USID[a]							
Category 1A SIDS	0	0	0	0	0	0	0.0
Category 1B SIDS	0	0	0	0	0	0	0.0
Category II SIDS	9	0	0	0	0	9	4.4
Unclassified sudden infant death	0	0	0	0	0	0	0.0
Subtotal	***9***	***0***	***0***	***0***	***0***	***9***	***4.4***
Unintentional injury							
Motor vehicle accident	1	5	5	5	5	21	10.2
Drowning	1	4	1	0	0	6	2.9
Fire	0	2	0	1	0	3	1.5
Asphyxiation	1	0	1	0	0	2	1.0
Train	0	0	0	0	1	1	0.5
Other	0	0	0	1	1	2	1.0
Subtotal	***3***	***11***	***7***	***7***	***7***	***35***	***17.1***
Acquired disease							
Infection	12	6	1	0	0	19	9.3
Malignancy	2	5	10	7	5	29	14.1
Other	2	3	1	1	2	9	4.4
Subtotal	***16***	***14***	***12***	***8***	***7***	***57***	***27.8***
Undetermined							
Undetermined	6	2	1	1	0	10	4.9
Subtotal	***6***	***2***	***1***	***1***	***0***	***10***	***4.9***
Intentional injury							
Intentional trauma (inflicted by other)	0	4	0	1	0	5	2.4
Suicide	0	0	0	1	16	17	8.3
Subtotal	***0***	***4***	***0***	***2***	***16***	***22***	***10.7***
Total	**72**	**45**	**28**	**23**	**37**	**205**	**100**

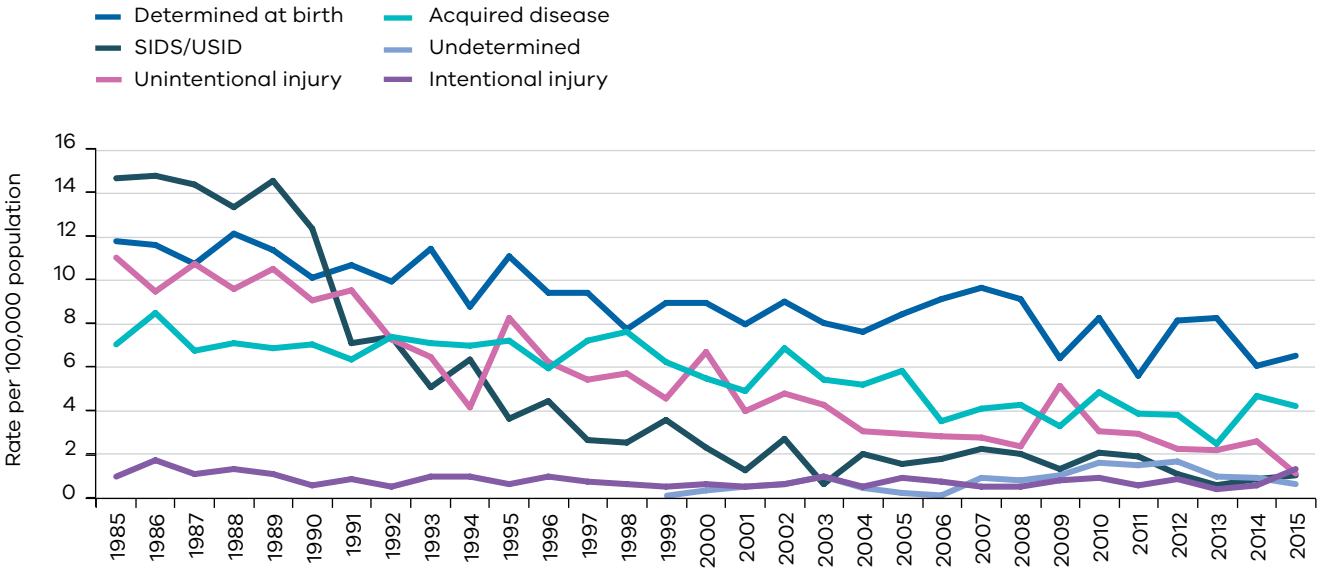
a. The classification of SIDS/USID is detailed in Appendix 1.

Table 20: Cause of death by age group, 28 days to 17 years, Victoria 2015

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	0	0	0	2	0	2	0.9
Congenital anomaly	25	17	3	12	4	61	28.1
Prematurity	11	1	0	0	0	12	5.5
Other	0	0	0	0	1	1	0.5
Subtotal	*36*	*18*	*3*	*14*	*5*	*76*	*35.0*
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	0.5
Category II SIDS	10	0	0	0	0	10	4.6
Unclassified sudden infant death	0	0	0	0	0	0	0.0
Subtotal	*11*	*0*	*0*	*0*	*0*	*11*	*5.1*
Unintentional injury							
Motor vehicle accident	0	1	3	1	16	21	9.7
Drowning	1	2	0	0	0	3	1.4
Fire	0	0	0	0	0	0	0.0
Asphyxiation	0	1	0	0	0	1	0.5
Train	0	0	0	0	0	0	0.0
Other	0	3	0	0	2	5	2.3
Subtotal	*1*	*7*	*3*	*1*	*18*	*30*	*13.8*
Acquired disease							
Infection	7	5	0	0	1	13	6.0
Malignancy	1	6	8	10	6	31	14.3
Other	0	3	2	4	7	16	7.4
Subtotal	*8*	*14*	*10*	*14*	*14*	*60*	*27.6*
Undetermined							
Undetermined	4	3	0	0	3	10	4.6
Subtotal	*4*	*3*	*0*	*0*	*3*	*10*	*4.6*
Intentional injury							
Intentional trauma (inflicted by other)	2	6	0	1	2	11	5.1
Suicide	0	0	0	5	14	19	8.8
Subtotal	*2*	*6*	*0*	*6*	*16*	*30*	*13.8*
Total	**62**	**48**	**16**	**35**	**56**	**217**	**100**

The classification of SIDS/USID is detailed in Appendix 1.

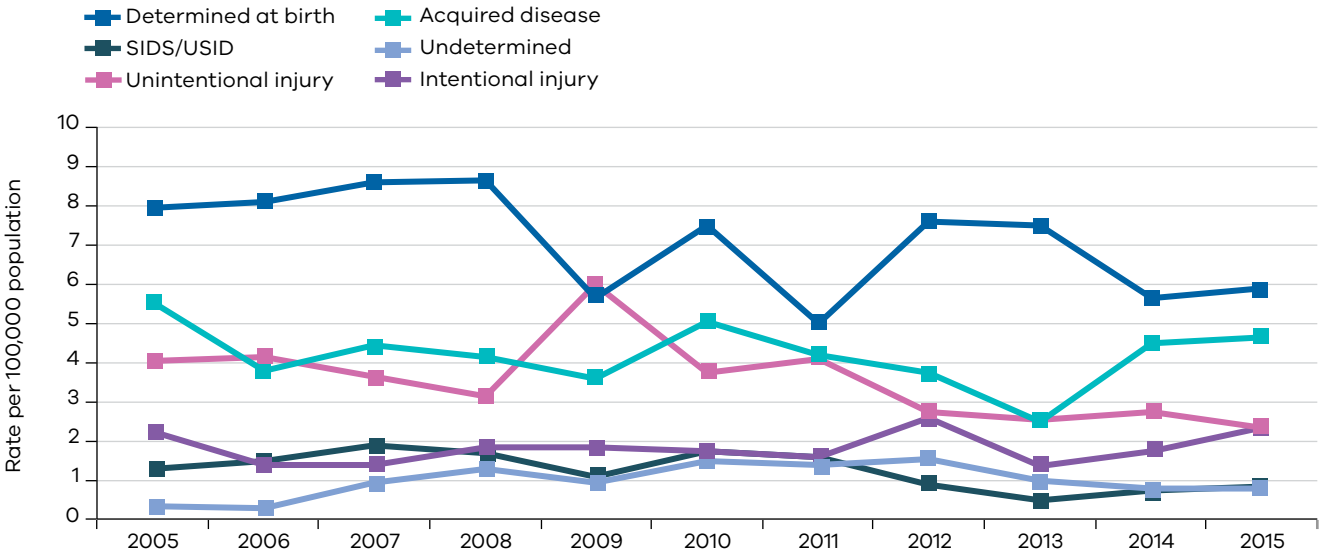
Figure 7a: Rates of major cause of death of post-neonatal infants and children 28 days to 14 years, 1985 to 2015[a,b]



a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

b. Denominator includes all Victorian residents 0 to 14 years of age; while the numerator includes only those aged 28 days to 14 years.

Figure 7b: Rates of major cause of death of post-neonatal infants and children 28 days to 17 years, 2005 to 2015[a,b]



a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

b. Denominator includes all Victorian residents 0 to 17 years of age; while the numerator includes only those aged 28 days to 17 years. CCOPMM commenced reporting in the 15-17 year age group in 2015.

Figure 8a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997–2015

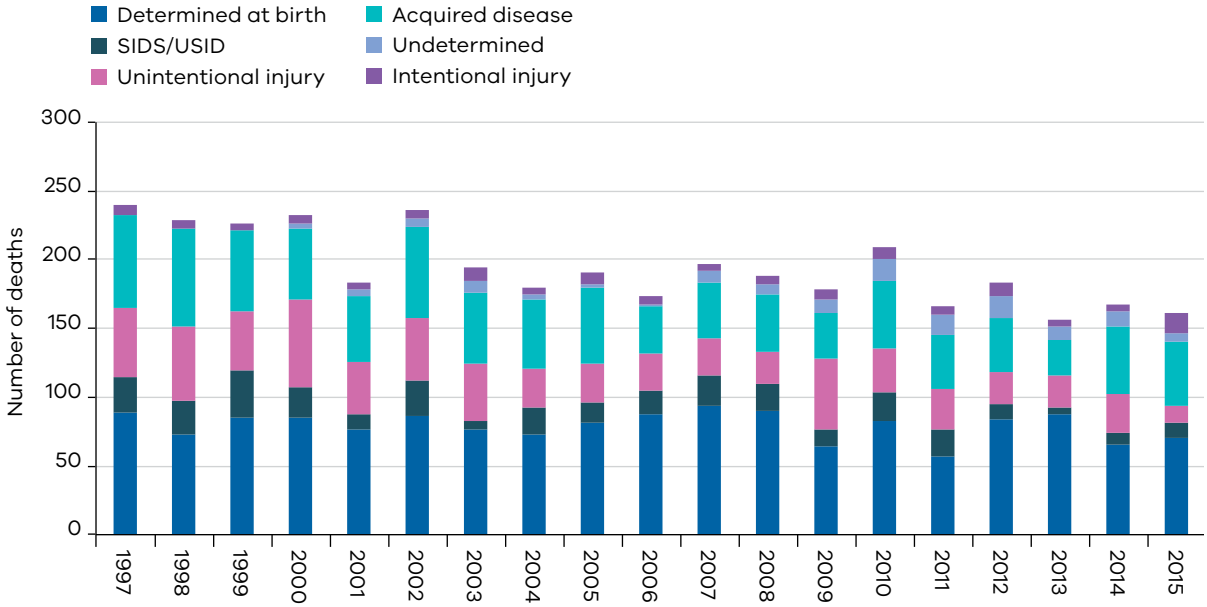


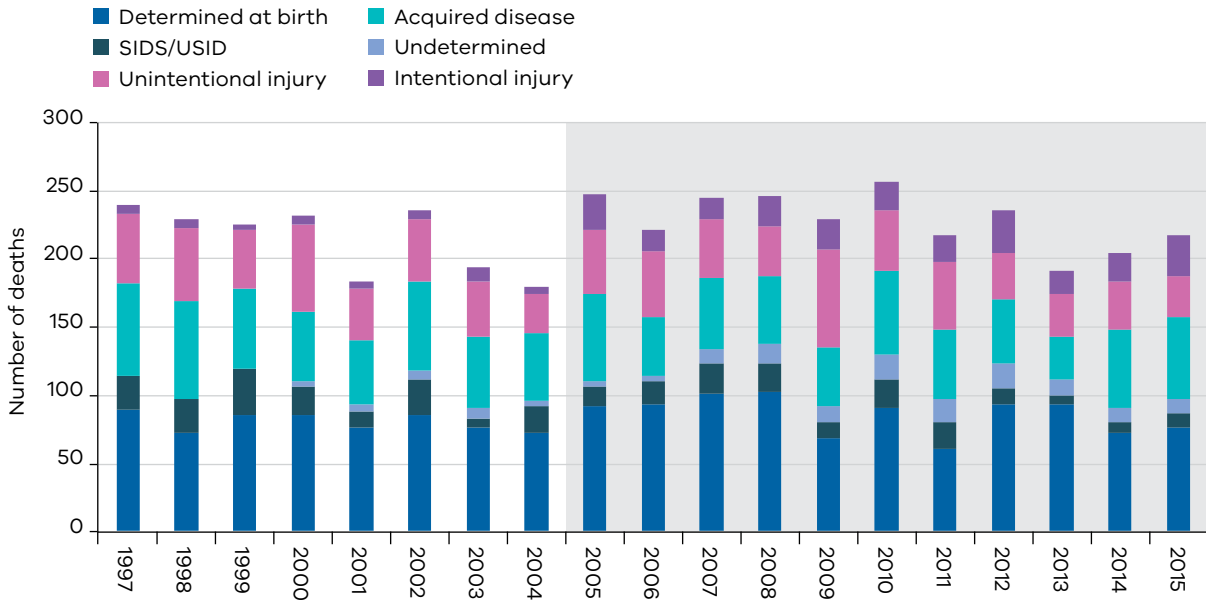
Table 21: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Determined at birth	89	73	85	85	76	86	77	73	81	88	94	90	64	83	57	84	87	65	71
SIDS/ USID[a]	25	24	34	22	12	26	6	19	15	17	22	20	13	21	19	11	6	9	11
Unintentional injury	51	54	43	64	38	46	41	29	28	27	27	23	51	31	30	23	23	28	12
Acquired disease	68	72	59	52	47	66	52	50	56	34	40	42	33	49	39	39	26	50	46
Undetermined[b]	N/A	N/A	0	3	5	6	8	4	2	1	9	7	10	16	15	17	10	10	7
Intentional injury	7	6	5	6	5	6	10	5	9	7	5	6	8	9	6	9	4	6	14
Total cases	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**191**	**174**	**197**	**188**	**179**	**209**	**166**	**183**	**156**	**168**	**161**

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'.

Figure 8b: Post-neonatal infant, child and adolescent deaths[a,b] by major cause, Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Table 22: Post-neonatal infant, child and adolescent deaths[a,b] by major cause, Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Determined at birth	89	73	85	85	76	86	77	73	92	94	101	103	68	91	61	94	94	72	76
SIDS/USID[c]	25	24	34	22	12	26	6	19	15	17	22	20	13	21	19	11	6	9	11
Unintentional injury	51	54	43	64	38	46	41	29	47	48	43	37	72	45	50	34	32	35	30
Acquired disease	68	72	59	52	47	66	52	50	64	44	52	49	43	61	51	46	31	57	60
Undetermined[d]	0	0	0	3	5	6	8	4	4	3	11	15	11	18	17	19	12	10	10
Intentional injury	7	6	5	6	5	6	10	5	26	16	16	22	22	21	19	32	17	22	30
Total cases	**240**	**229**	**226**	**232**	**183**	**236**	**194**	**180**	**248**	**222**	**245**	**246**	**229**	**257**	**217**	**236**	**192**	**205**	**217**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 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'.

Deaths from conditions determined at birth

Figure 9a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

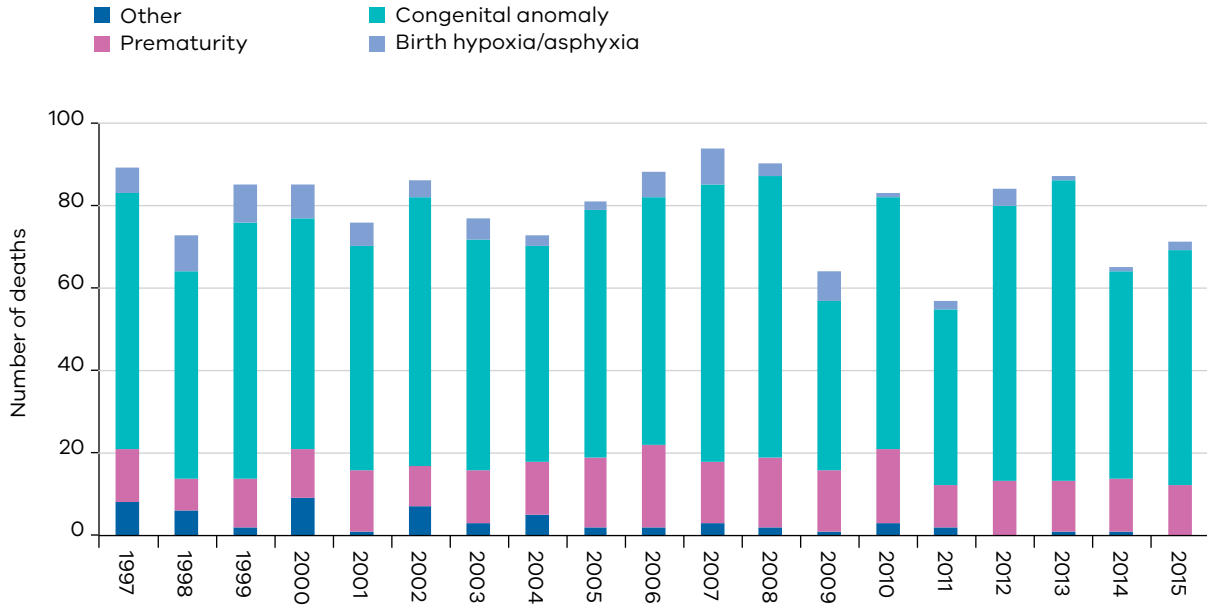
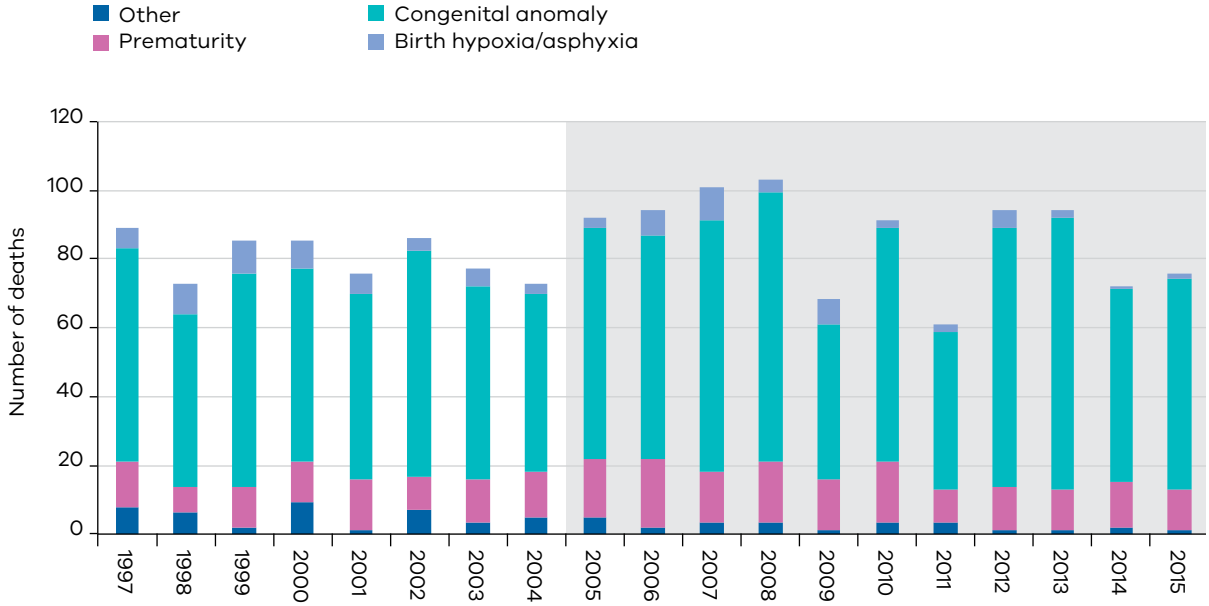


Table 23: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Birth hypoxia/ asphyxia	6	9	9	8	6	4	5	3	2	6	9	3	7	1	2	4	1	1	2
Congenital anomaly	62	50	62	56	54	65	56	52	60	60	67	68	41	61	43	67	73	50	57
Prematurity	13	8	12	12	15	10	13	13	17	20	15	17	15	18	10	13	12	13	12
Other	8	6	2	9	1	7	3	5	2	2	3	2	1	3	2	0	1	1	0
Total cases	**89**	**73**	**85**	**85**	**76**	**86**	**77**	**73**	**81**	**88**	**94**	**90**	**64**	**83**	**57**	**84**	**87**	**65**	**71**

Figure 9b: Causes of death determined at birth: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children and adolescents aged 28 days to 17 years.

Table 24: Causes of death determined at birth: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Birth hypoxia/ asphyxia	6	9	9	8	6	4	5	3	3	7	10	4	7	2	2	5	2	1	2
Congenital anomaly	62	50	62	56	54	65	56	52	67	65	73	78	45	68	46	75	79	56	61
Prematurity	13	8	12	12	15	10	13	13	17	20	15	18	15	18	10	13	12	13	12
Other	8	6	2	9	1	7	3	5	5	2	3	3	1	3	3	1	1	2	1
Total cases	**89**	**73**	**85**	**85**	**76**	**86**	**77**	**73**	**92**	**94**	**101**	**103**	**68**	**91**	**61**	**94**	**94**	**72**	**76**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children and adolescents aged 28 days to 17 years.

Table 25: Deaths from conditions determined at birth by age group, Victoria, 2014

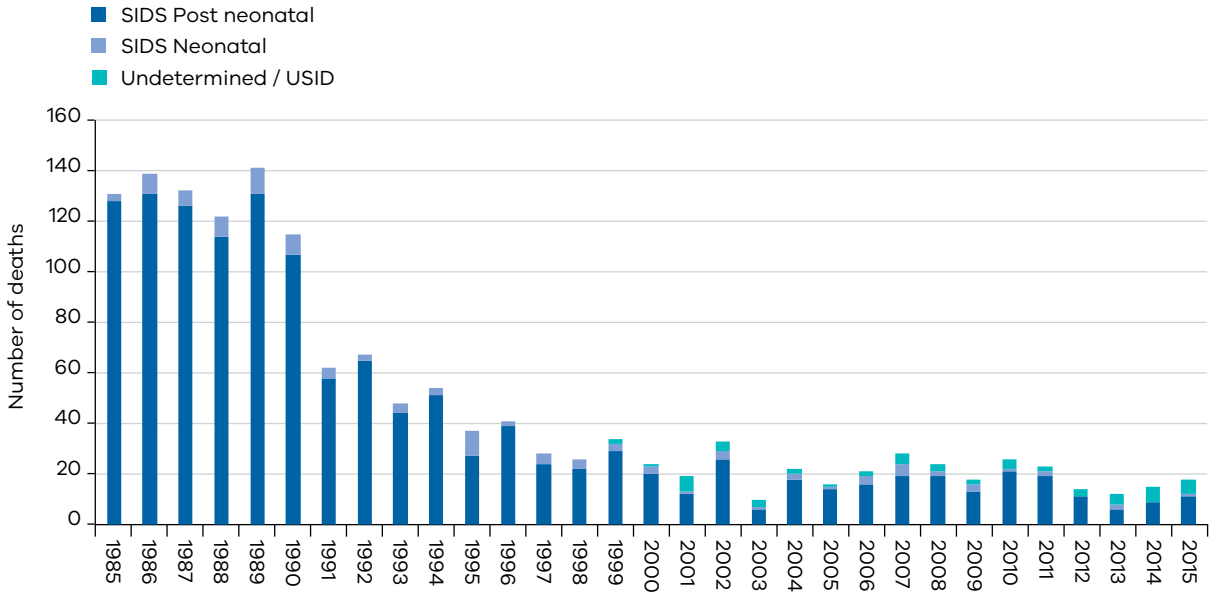
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Birth asphyxia/hypoxia	0	0	0	1	0	1
Congenital anomaly	28	13	6	3	6	56
Prematurity	10	1	1	1	0	13
Other	0	0	1	0	1	2
Total	38	14	8	5	7	72

Table 26: Deaths from conditions determined at birth by age group, Victoria, 2015

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Birth asphyxia/hypoxia	0	0	0	2	0	2
Congenital anomaly	25	17	3	12	4	61
Prematurity	11	1	0	0	0	12
Other	0	0	0	0	1	1
Total	36	18	3	14	5	76

Sudden unexpected deaths in infants (SUDI)

Figure 10: Unexplained sudden unexpected death in infants, Victoria 1985–2015[a,b]



a. SIDS categories 2A/2B/2C/2D until 2003 and since 2004 SIDS 1A/1B/II.

b. This figure has 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.

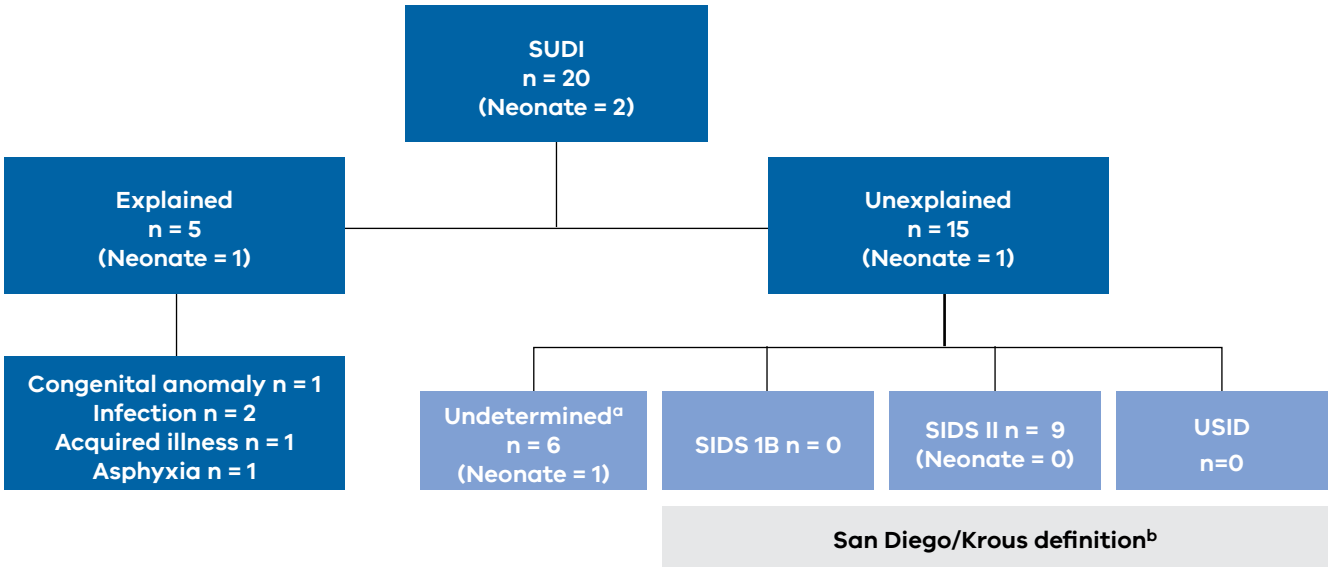
Table 27: Unexplained sudden unexpected death in infants, Victoria 1985-2015[a,b]

	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	2014	2015
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	9	11
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	0	1
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	6	6
Total	**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**	**15**	**18**

a. SIDS categories 2A/2B/2C/2D until 2003 and since 2004 SIDS 1A/1B/II.

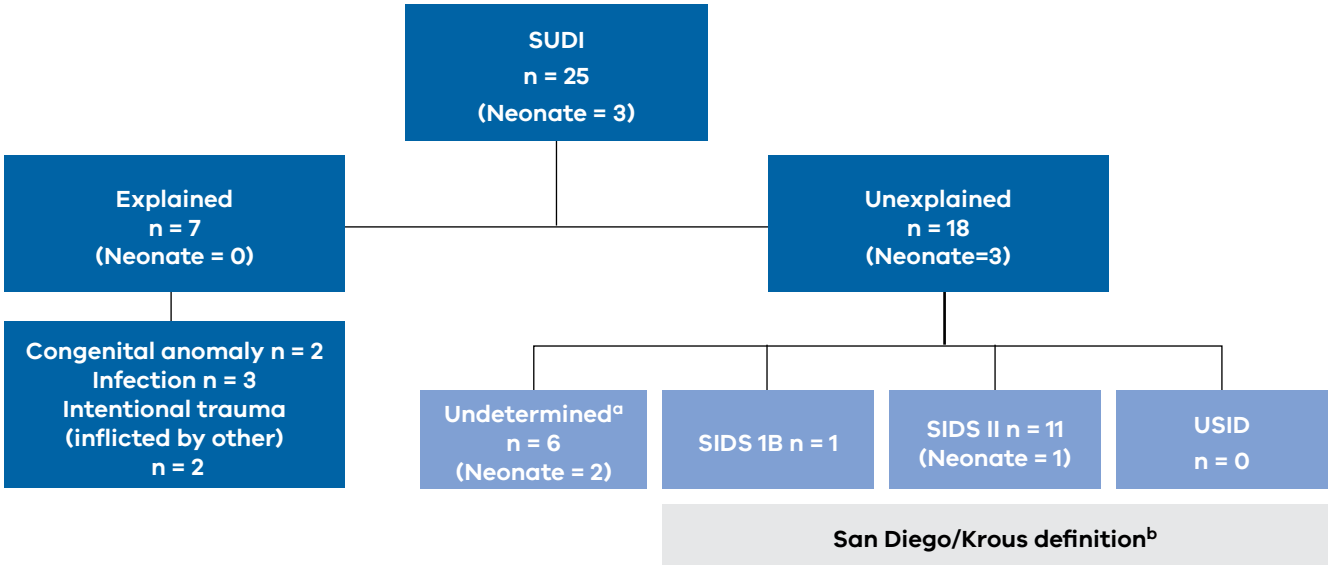
b. This table has been amended to include USID/Undetermined SUDI cases as a separate category from 1999. From 2004–2007 unclassified sudden infant death (USID) was previously included in the SIDS categories in this figure, but is now listed in the undetermined category. Prior to 1999, USID equivalent cases were classified as 'undetermined', and are not included in this amended figure.

Figure 11a: Sudden unexpected deaths of infants, Victoria 2014



a. See Table 52
b. See Appendix 1 for full definition

Figure 11b: Sudden unexpected deaths of infants, Victoria 2015



a. See Table 53
b. See Appendix 1 for full definition

Table 28: SUDI[a,b] deaths: cause of death, Victoria 2004–2015

		2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
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	0	1
R95	Sudden infant death syndrome (category SIDS II)	16	13	18	22	20	16	20	21	10	6	9	11
	Undetermined[b]/ undetermined sudden infant death	2	1	2	4	3	2	4	2	3	4	6	6
Explained deaths													
Congenital anomaly/ genetic condition		2	1	1	1	1	1	0	0	0	0	1	2
Asphyxiation		1	1	3	2	0	0	0	0	0	2	1	0
Infection		5	5	1	1	0	1	0	0	0	0	2	3
Intentional injury		0	2	0	0	0	0	0	0	0	0	0	2
Acquired illness		0	0	0	0	0	0	0	0	0	0	1	0
Aspiration pneumonia		0	1	0	0	0	0	0	0	0	0	0	0
Intestinal ischaemia		0	0	1	0	0	0	0	0	0	0	0	0
Complications of prematurity		0	0	0	1	0	0	0	0	0	0	0	0
Total		30	26	27	33	25	20	26	23	14	14	20	25

a. See Appendix 1 for full definition

b. See Tables 52 and 53

Table 29: Selected features of the (n = 20) infants categorised as SIDS II[a], Victoria 2014 and 2015

SIDS II features[a]	n	% of cases (N = 20)
Prematurity	6	30
Age ≤ 21 days	1	5
Age ≥ 9 months	1	5
History of similar death among siblings, close relatives or infants in care of same caregiver	0	0
Neonatal or perinatal conditions which had resolved by the time of death	4	20
Mechanical asphyxia or suffocation caused by overlaying not determined with certainty (as co-sleeping or unsafe sleeping environment)	18	90
Marked inflammatory changes not sufficient to be unequivocal causes of death	8	40
Abnormal growth or development not thought to have contributed to death	4	20
Total	42	N/A

a. Infants can have more than one feature

N/A – not applicable

Table 30: Selected features of the (n = 33) unexplained SUDI deaths, 2014 and 2015[a]

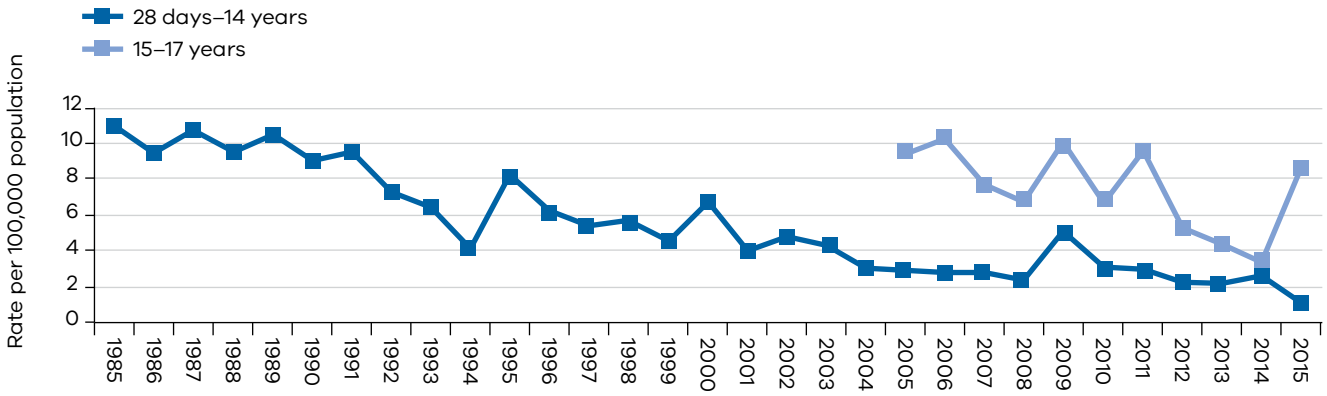
		Females	Males	Total	
		n	n	n	%
Sex and age at death	< 21 days	1	2	3	9.1
	21 days to < 1 month	1	0	1	3.0
	1 month	5	5	10	30.3
	2 months	3	1	4	12.1
	3 months	1	1	2	6.1
	4 months	2	3	5	15.2
	5 months	0	1	1	3.0
	≥ 6 months	3	4	7	21.2
	Total	**16**	**17**	**33**	**100**
		n	**%**		
Gestational age	Preterm < 37	7	21.2		
	Term	26	78.8		
	Total	**33**	**100**		
Birthweight	< 2500 g	5	15.2		
	≥ 2500 gm	27	81.8		
	Unknown[b]	1	3.0		
	Total	**33**	**100**		
Mother's age at delivery (years)	15–19	4	12.1		
	20–24	8	24.2		
	25–29	6	18.2		
	≥ 30 years	14	42.4		
	Unknown[b]	1	3.0		
	Total	**33**	**100**		
Position when placed to sleep	Prone	3	9.1		
	Side	6	18.2		
	Supine	12	36.4		
	Being held	3	9.1		
	Not adequately described	9	27.3		
	Total	**33**	**100**		
Co-sleeping	Yes	16	48.5		
	No	17	51.5		
	Total	**33**	**100**		
Co-sleeping site	Couch/chair	4	25.0		
	Adult bed	10	62.5		
	Other type of bed	2	12.5		
	Total	**16**	**100**		
Non co-sleeping bed[c]	Cot	5	29.4		
	Bassinette	4	23.5		
	Portable cot	1	5.9		
	Adult bed	6	35.3		
	Other type of bed	1	5.9		
	Total	**17**	**100**		

		Females	Males
		n	%
Position when found	Prone	10	30.3
	Not adequately described	23	69.7
	Total	**33**	**100**
DHHS region	Metropolitan	22	66.7
	Non-metropolitan	11	33.3
	Total	**33**	**100**
Season of death	**Spring**	**10**	**30.3**
	Summer	6	18.2
	Autumn	10	30.3
	Winter	7	21.2
	Total	**33**	**100**

a. The 2014 (n = 15) unexplained SUDI deaths are coded as: SIDS 1A (n = 0), IB (n = 0), SIDS II (n = 9), USID (n = 0) and Undetermined (n = 6).
The 2015 (n = 18) unexplained SUDI deaths are coded as: SIDS 1A (n = 0), IB (n = 1), SIDS II (n = 11), USID (n = 0) and Undetermined (n = 6).
b. Unknown mother's age and weight for baby as the birth occurred interstate resulting in birth details not being available.
c. Sleeping site may not have been safe according to recommendations, all adult beds are considered unsafe sleep environments.

Deaths from unintentional injury

Figure 12: Rates of unintentional injury deaths by age group, Victoria 1985–2015[a]

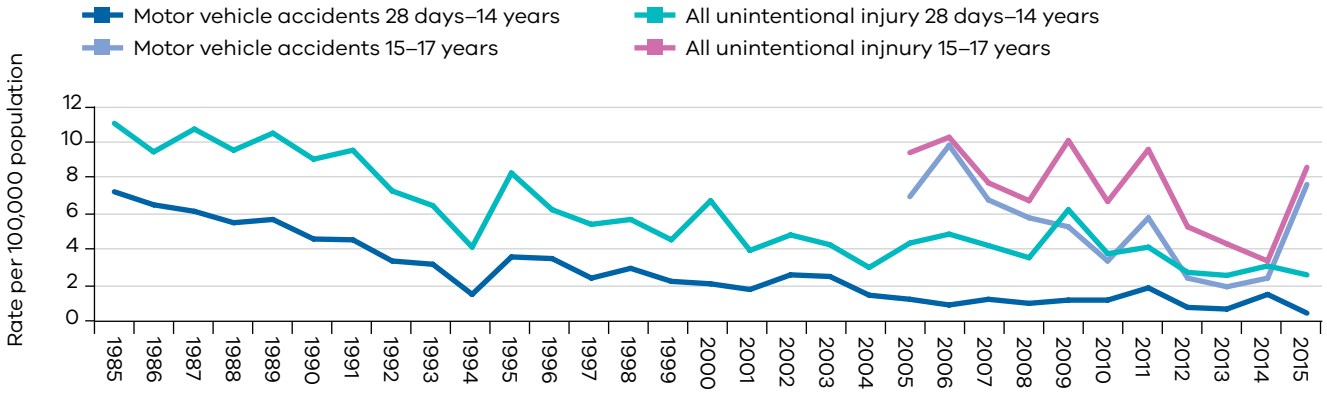


a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Notes:

- For 28 days–14 years the denominator includes all Victorian resident infants 0–14 years of age; while the numerator includes only children aged 28 days–14 years.
- CCOPMM commenced reporting in the 15–17 year age group in 2005.

Figure 13: Rates of motor vehicle accidents and all unintentional injury deaths by age group, Victoria 1985–2015[a]

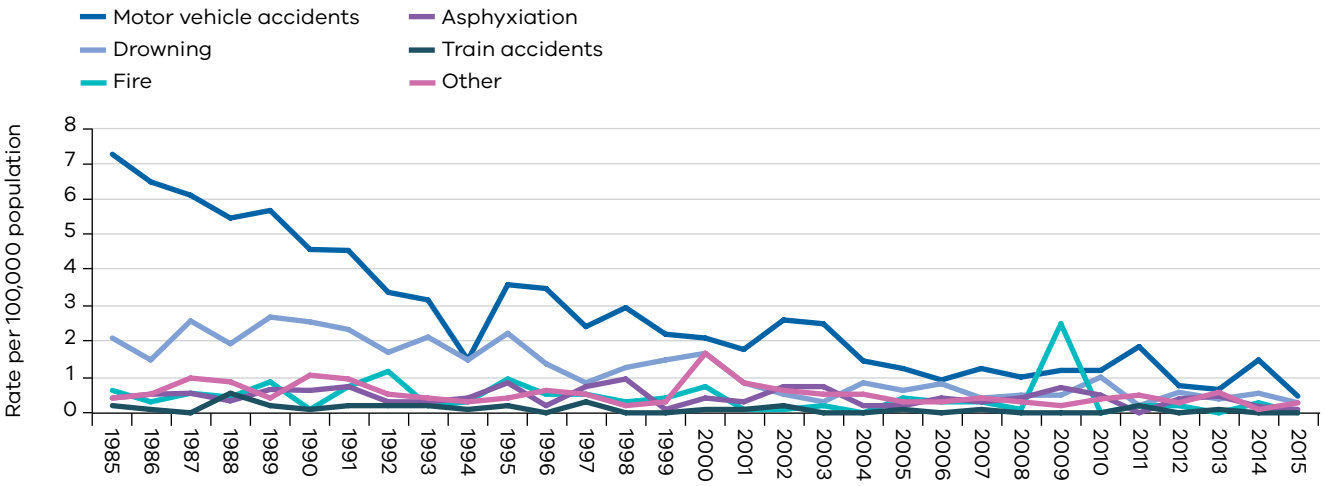


a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Notes:

- For 28 days–14 years the denominator includes all Victorian resident infants 0–14 years of age; while the numerator includes only children aged 28 days–14 years.
- CCOPMM commenced reporting in the 15–17 year age group in 2005.

Figure 14: Rates of unintentional injury deaths, 28 days to 14 years, Victoria 1985–2015[a]

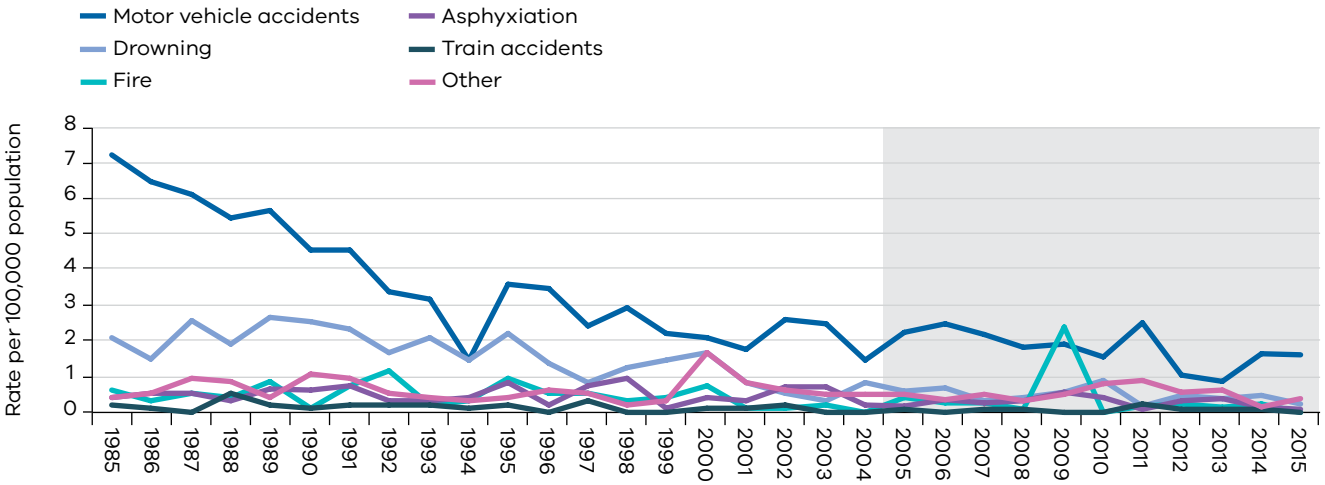


a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Notes:

- For 28 days–14 years the denominator includes all Victorian resident infants 0–14 years of age; while the numerator includes only children aged 28 days–14 years.
- The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

Figure 15: Rates of unintentional injury deaths, Victoria 1985–2015[a]

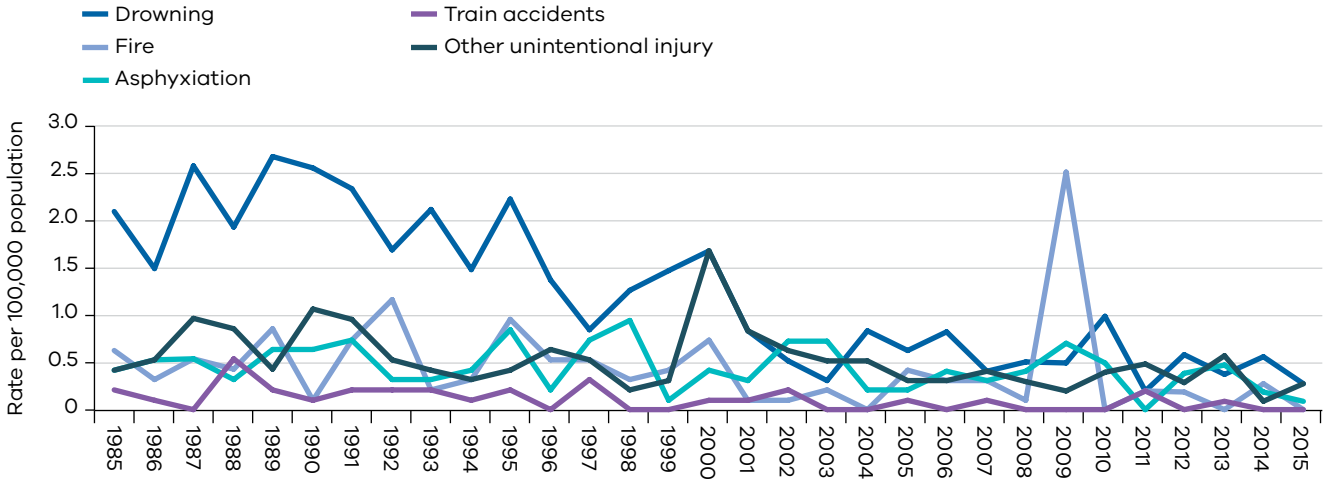


a Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Notes:

- For 1985–2004, the denominator includes all Victorian resident children 0–14 years of age; while the numerator includes only children aged 28 days–14 years.
- For 2005 onwards, the denominator includes all Victorian resident children 0–17 years of age; while the numerator includes only children aged 28 days–17 years.
- The spike in fire-related deaths in 2009 relates to the Victorian bushfires of February 2009.

Figure 16: Rates of unintentional injury deaths (excluding motor vehicle accidents), 28 days to 14 years, Victoria 1985–2015[a]

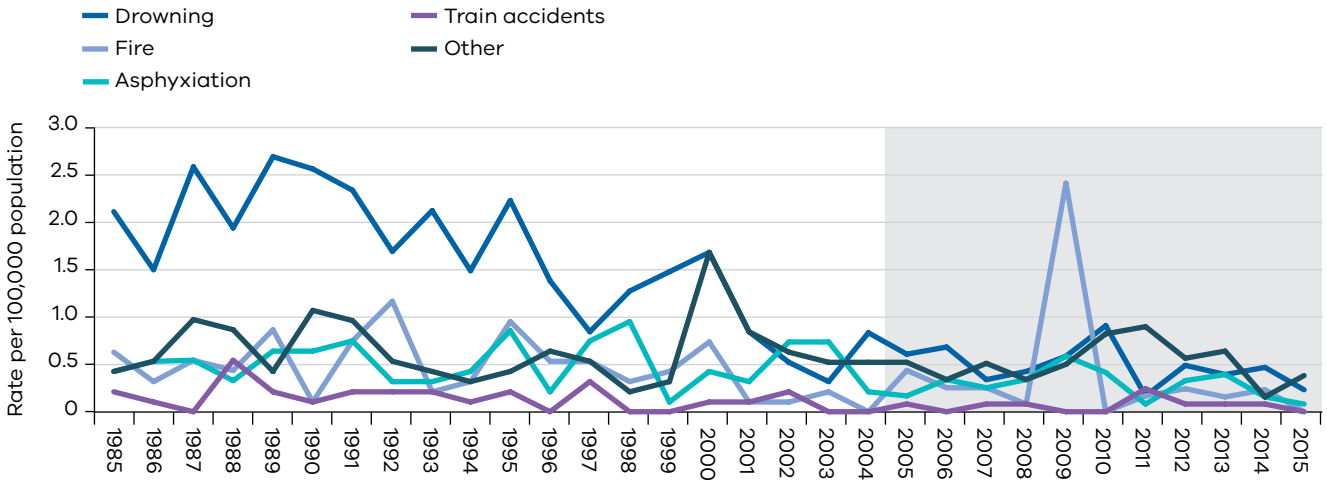


a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

Note:

– For 0–14 years, the denominator includes all Victorian resident children 0–14 years of age; while the numerator includes only children aged 28 days–14 years.

Figure 17: Rates of unintentional injury deaths (excluding motor vehicle accidents), Victoria 1985–2015[a]



a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016

Notes:

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

– For 1985–2004, the denominator includes all Victorian resident children 0–14 years of age; while the numerator includes only children aged 28 days–14 years.

– For 2005 onwards, the denominator includes all Victorian resident children 0–17 years of age; while the numerator includes only children aged 28 days–17 years.

Figure 18a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

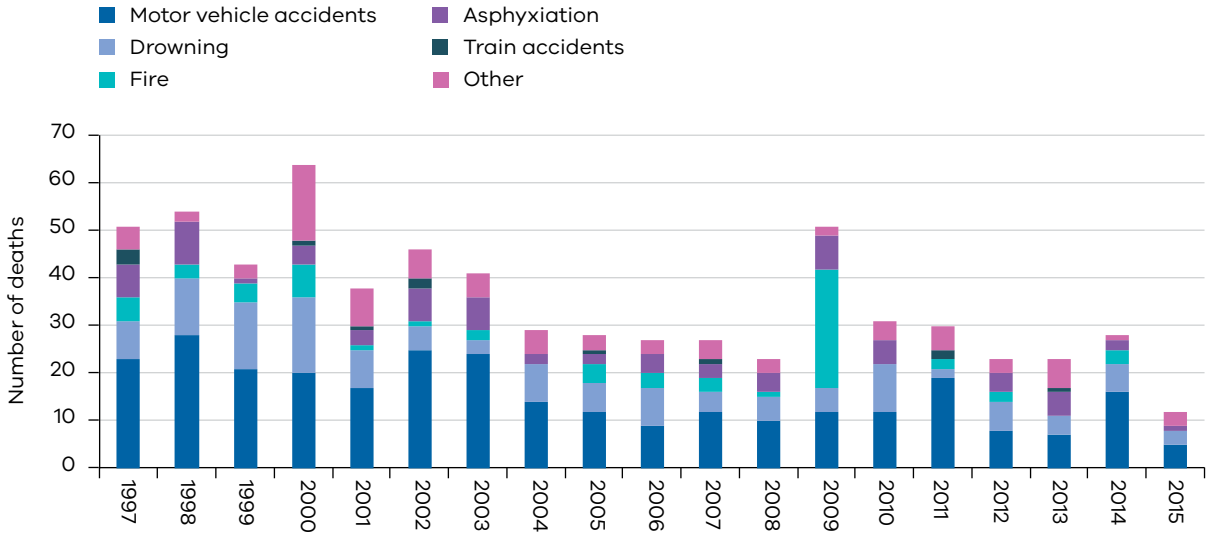
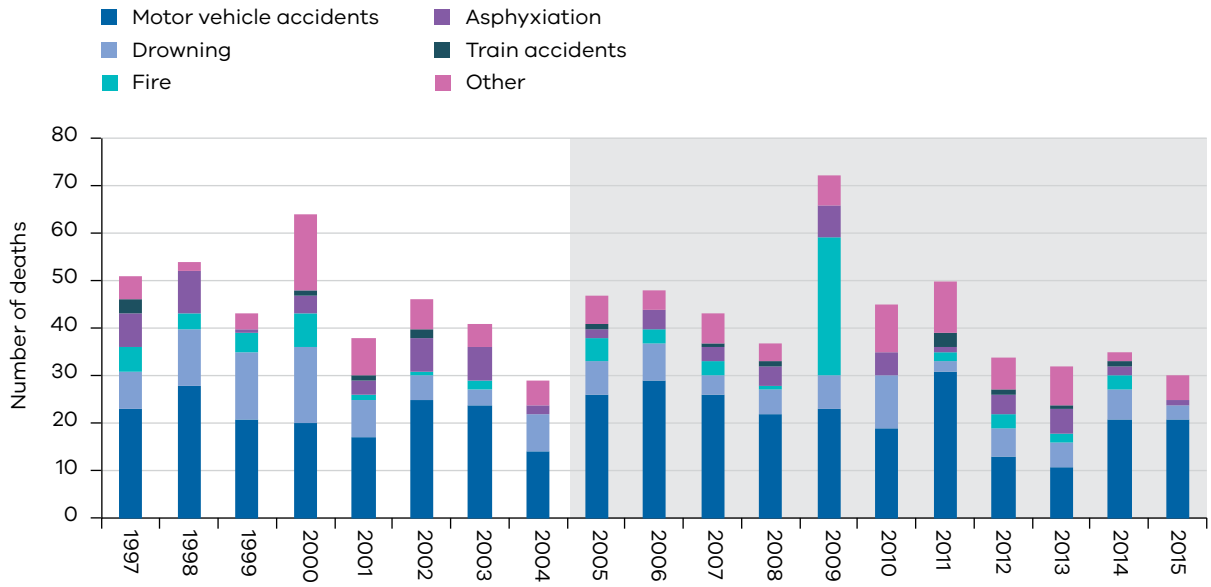


Table 31: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Motor vehicle accidents	23	28	21	20	17	25	24	14	12	9	12	10	12	12	19	8	7	16	5
Drowning	8	12	14	16	8	5	3	8	6	8	4	5	5	10	2	6	4	6	3
Fire	5	3	4	7	1	1	2	0	4	3	3	1	25	0	2	2	0	3	0
Asphyxiation	7	9	1	4	3	7	7	2	2	4	3	4	7	5	0	4	5	2	1
Train accidents	3	0	0	1	1	2	0	0	1	0	1	0	0	0	2	0	1	0	0
Other	5	2	3	16	8	6	5	5	3	3	4	3	2	4	5	3	6	1	3
Total	**51**	**54**	**43**	**64**	**38**	**46**	**41**	**29**	**28**	**27**	**27**	**23**	**51**	**31**	**30**	**23**	**23**	**28**	**12**

Figure 18b: Unintentional injury deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Table 32: Unintentional injury deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Motor vehicle accidents	23	28	21	20	17	25	24	14	26	29	26	22	23	19	31	13	11	21	21
Drowning	8	12	14	16	8	5	3	8	7	8	4	5	7	11	2	6	5	6	3
Fire	5	3	4	7	1	1	2	0	5	3	3	1	29	0	2	3	2	3	0
Asphyxiation	7	9	1	4	3	7	7	2	2	4	3	4	7	5	1	4	5	2	1
Train accidents	3	0	0	1	1	2	0	0	1	0	1	1	0	0	3	1	1	1	0
Other	5	2	3	16	8	6	5	5	6	4	6	4	6	10	11	7	8	2	5
Total	**51**	**54**	**43**	**64**	**38**	**46**	**41**	**29**	**47**	**48**	**43**	**37**	**72**	**45**	**50**	**34**	**32**	**35**	**30**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Figure 19a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

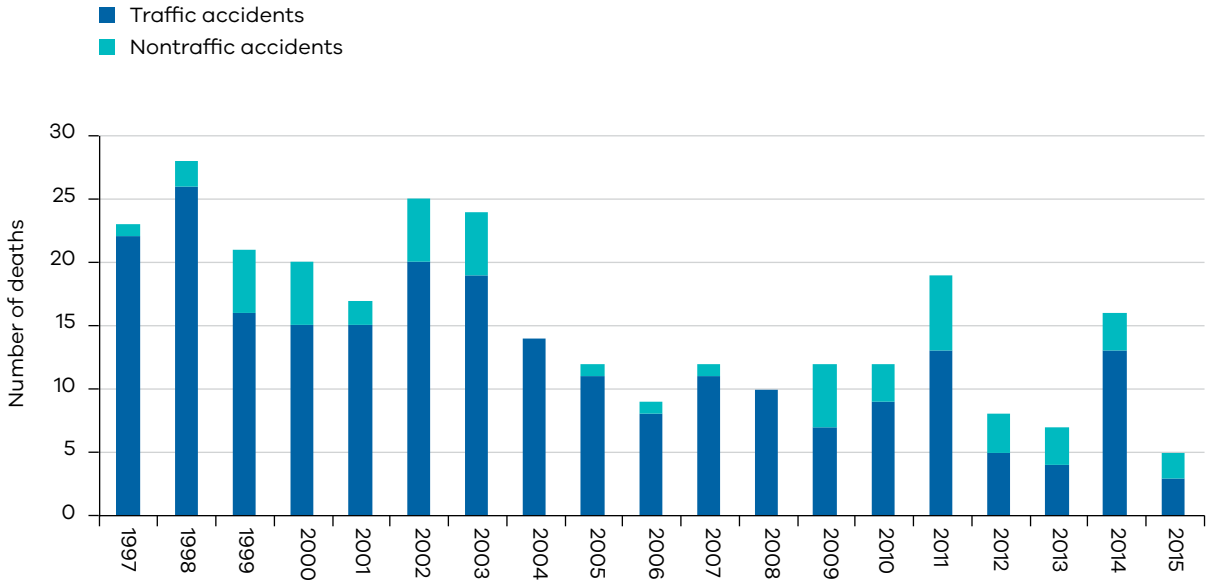
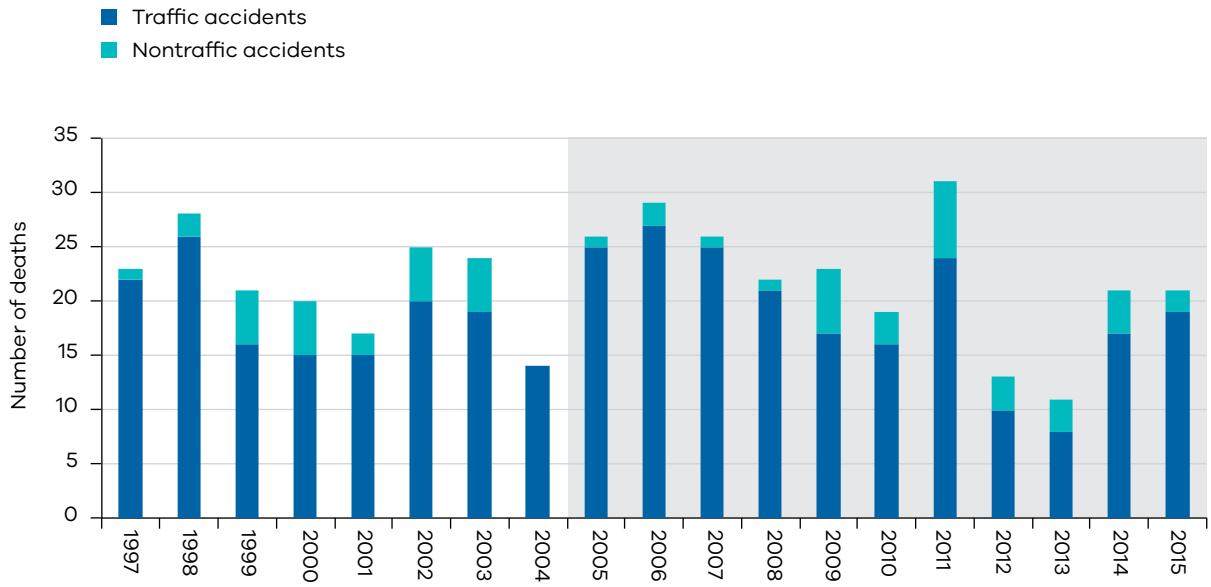


Table 33: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Traffic accidents[a]	22	26	16	15	15	20	19	14	11	8	11	10	7	9	13	5	4	13	3
Non-traffic accidents[a]	1	2	5	5	2	5	5	0	1	1	1	0	5	3	6	3	3	3	2
Total	**23**	**28**	**21**	**20**	**17**	**25**	**24**	**14**	**12**	**9**	**12**	**10**	**12**	**12**	**19**	**8**	**7**	**16**	**5**

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 19b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.

b. 2005–2015 children aged 28 days to 17 years.

Table 34: Motor vehicle accident fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Traffic accidents[c]	22	26	16	15	15	20	19	14	25	27	25	21	17	16	24	10	8	17	19
Non-traffic accidents[c]	1	2	5	5	2	5	5	0	1	2	1	1	6	3	7	3	3	4	2
Total	**23**	**28**	**21**	**20**	**17**	**25**	**24**	**14**	**26**	**29**	**26**	**22**	**23**	**19**	**31**	**13**	**11**	**21**	**21**

a. 1997–2004 children aged 28 days to 14 years.

b. 2005–2015 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 35: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2014

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Passenger in motor vehicle	0	3	3	4	3	13
Driver of motor vehicle	0	0	0	0	1	1
Pedestrian	1	2	2	0	0	5
Motorcycle/trailbike rider	0	0	0	1	0	1
Forklift driver	0	0	0	0	1	1
Total	**1**	**5**	**5**	**5**	**5**	**21**

Table 36: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2015

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Passenger in motor vehicle	0	1	2	1	11	15
Driver of motor vehicle	0	0	0	0	1	1
Pedestrian	0	0	1	0	4	5
Total	**0**	**1**	**3**	**1**	**16**	**21**

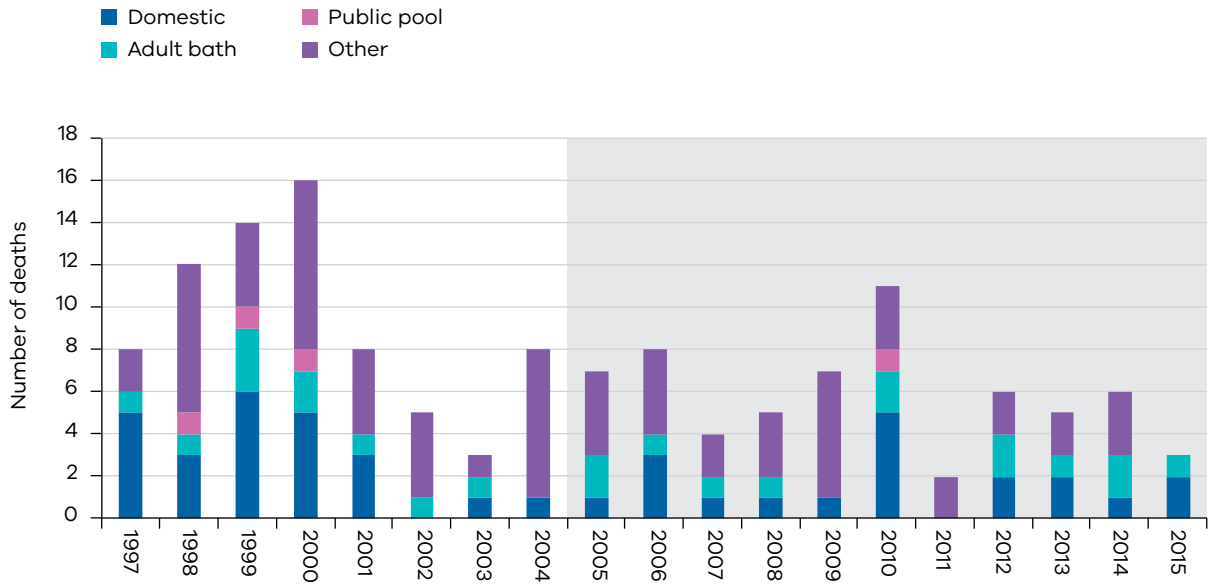
Table 37: Location of drowning fatalities by age group, Victoria 2014

	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	1	0	0	0	1
Sea	0	1	0	0	0	1
Drain	0	1	0	0	0	1
Lake	0	0	1	0	0	1
Total	**1**	**4**	**1**	**0**	**0**	**6**

Table 38: Location of drowning fatalities by age group, Victoria 2015

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Spa bath	1	0	0	0	0	1
Domestic pool	0	2	0	0	0	2
Total	**1**	**2**	**0**	**0**	**0**	**3**

Figure 20: Drowning fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Table 39: Drowning fatalities: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Domestic pool[c]	5	3	6	5	3	0	1	1	1	3	1	1	1	5	0	2	2	1	2
Adult bath	1	1	3	2	1	1	1	0	2	1	1	1	0	2	0	2	1	2	1
Public pool	0	1	1	1	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0
Other[d]	2	7	4	8	4	4	1	7	4	4	2	3	6	3	2	2	2	3	0
Total	**8**	**12**	**14**	**16**	**8**	**5**	**3**	**8**	**7**	**8**	**4**	**5**	**7**	**11**	**2**	**6**	**5**	**6**	**3**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 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 40: Fire fatalities by age group, Victoria 2014

	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
House fire	0	2	0	1	0	3
Total	**0**	**2**	**0**	**1**	**0**	**3**

Table 41: Fire fatalities by age group, Victoria 2015

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

Table 42: Deaths from asphyxiation, train and other types of injury, by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Asphyxiation						
Suffocation	0	0	1	0	0	1
Smothered (co-sleeping)	1	0	0	0	0	1
Train						
Train deaths	0	0	0	0	1	1
Other injury type						
Boating accident	0	0	0	1	0	1
Head injury – fall	0	0	0	0	1	1
Total	1	0	1	1	2	5

Table 43: Deaths from asphyxiation, train and other types of injury, by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Asphyxiation						
Crush injury	0	1	0	0	0	1
Train						
Train deaths	0	0	0	0	0	0
Other injury type						
Heat stroke	0	1	0	0	0	1
Head injuries	0	0	0	0	2	2
Haemorrhage – ingestion of foreign body	0	1	0	0	0	1
Complications following infusion	0	1	0	0	0	1
Total	0	4	0	0	2	6

Deaths from acquired disease and undetermined deaths

Figure 21: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997–2015

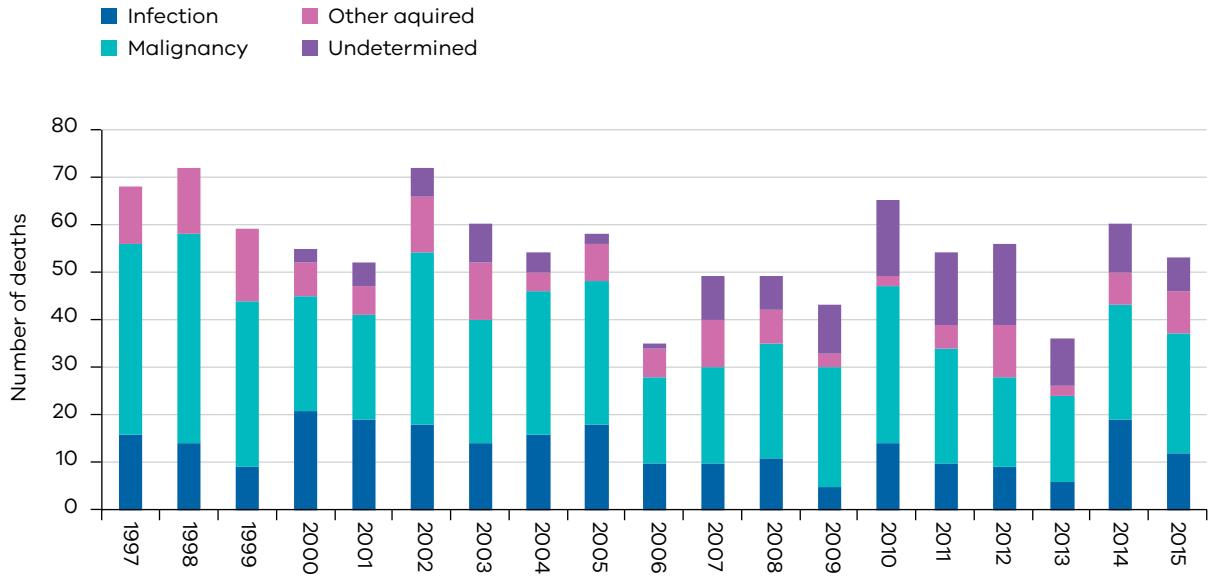


Table 44: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997–2015

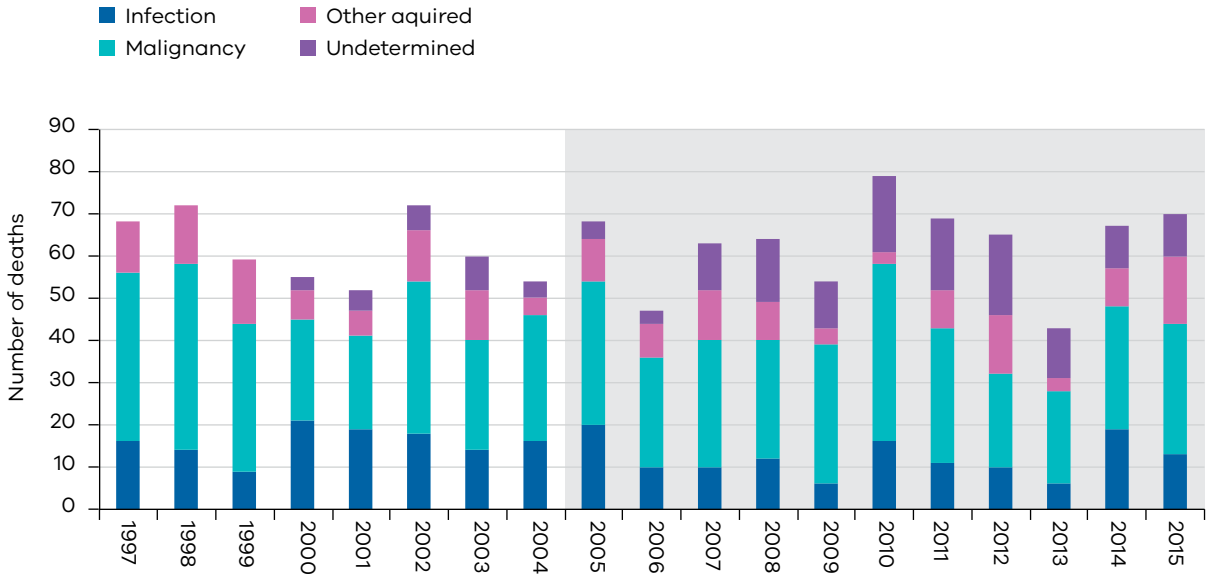
	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Infection	16	14	9	21	19	18	14	16	18	10	10	11	5	14	10	9	6	19	12
Malignancy	40	44	35	24	22	36	26	30	30	18	20	24	25	33	24	19	18	24	25
Other acquired[a]	12	14	15	7	6	12	12	4	8	6	10	7	3	2	5	11	2	7	9
Undetermined[b]	N/A	N/A	0	3	5	6	8	4	2	1	9	7	10	16	15	17	10	10	7
Total	**68**	**72**	**59**	**55**	**52**	**72**	**60**	**54**	**58**	**35**	**49**	**49**	**43**	**65**	**54**	**56**	**36**	**60**	**53**

a. Other acquired category: this category is summarised in Tables 50 and 51.

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.

N/A – not applicable

Figure 22: Acquired disease deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Table 45: Acquired disease deaths: post-neonatal infants, children and adolescents[a,b], Victoria 1997–2015.

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Infection	16	14	9	21	19	18	14	16	20	10	10	12	6	16	11	10	6	19	13
Malignancy	40	44	35	24	22	36	26	30	34	26	30	28	33	42	32	22	22	29	31
Other acquired[c]	12	14	15	7	6	12	12	4	10	8	12	9	4	3	9	14	3	9	16
Undetermined[d]	N/A	N/A	0	3	5	6	8	4	4	3	11	15	11	18	17	19	12	10	10
Total	**68**	**72**	**59**	**55**	**52**	**72**	**60**	**54**	**68**	**47**	**63**	**64**	**54**	**79**	**69**	**65**	**43**	**67**	**70**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children and adolescents ages 28 days to 17 years.
c. Other acquired category. This category is summarised in Tables 50 and 51.
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'.
N/A – not applicable

Table 46: Deaths from infection by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Viral myocarditis	2	2	0	0	0	4
Meningococcal meningitis	1	0	0	0	0	1
Pneumococcal meningitis	1	0	0	0	0	1
Bacterial meningitis (no organism detected)	0	0	1	0	0	1
Enteroviral meningoencephalitis	1	0	0	0	0	1
Enteroviral encephalitis	1	0	0	0	0	1
Septicaemia, unspecified	1	0	0	0	0	1
Septicaemia due to *Staphylococcus aureus*	1	1	0	0	0	2
Septicaemia due to *Streptococcus, Group A*	0	1	0	0	0	1
Influenza with other respiratory manifestations	1	0	0	0	0	1
Pneumonia due to *Haemophilus influenzae*	0	1	0	0	0	1
Bronchopneumonia	1	0	0	0	0	1
Urinary tract infection	1	0	0	0	0	1
Gastroenteritis	1	1	0	0	0	2
Total	**12**	**6**	**1**	**0**	**0**	**19**

Table 47: Deaths from infection by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Meningoencephalitis due to *Human Herpes Virus 6*	1	0	0	0	0	1
Meningoencephalitis due to *Parechovirus*	1	0	0	0	0	1
Encephalitis to due *Herpes Simplex Virus Type 1*	1	0	0	0	0	1
Septicaemia due to *Escherichia coli*	1	1	0	0	0	2
Septicaemia due to *Streptococcus, Group A*	0	1	0	0	0	1
Pneumonia due to *Haemophilus influenzae*	0	1	0	0	0	1
Pneumonia due to other streptococci	0	1	0	0	0	1
Pneumonia, organism unspecified	1	0	0	0	0	1
Interstitial pneumonitis	1	0	0	0	0	1
Acute bronchiolitis	1	0	0	0	0	1
Lower respiratory tract infection	0	1	0	0	0	1
Infective endocarditis	0	0	0	0	1	1
Total	**7**	**5**	**0**	**0**	**1**	**13**

Table 48: Deaths from malignancy by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Nervous system						
Neoplasm of brain stem	0	3	2	0	1	6
Neoplasm of brain, unspecified	0	0	1	0	0	1
Neoplasm of cerebellum	0	0	1	0	0	1
Neoplasm of frontal lobe	0	0	0	1	0	1
Neoplasm of optic nerve	0	0	1	0	0	1
Neoplasm of peripheral nerves and autonomic nervous system	0	0	0	1	0	1
Neoplasm of the pineal gland	0	1	0	0	1	2
Lymphoma						
Large cell (diffuse) non-Hodgkin's lymphoma	0	0	0	0	1	1
Hodgkin's disease, unspecified	0	0	0	1	0	1
Hepatoblastoma	0	0	1	0	1	2
Leukaemia						
Acute lymphoid leukaemia	0	0	0	2	0	2
Acute myeloid leukaemia	1	0	1	1	0	3
Other						
Neoplasm of anterior mediastinum	1	0	0	0	0	1
Neoplasm of accessory sinus	0	0	1	0	0	1
Neoplasm of adrenal gland	0	1	1	0	0	2
Neoplasm of kidney	0	0	1	0	0	1
Neoplasm of thorax	0	0	0	0	1	1
Unknown primary, secondary neoplasm of liver	0	0	0	1	0	1
Total	**2**	**5**	**10**	**7**	**5**	**29**

Table 49: Deaths from malignancy by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Central nervous system						
Neoplasm of brain stem	0	2	1	3	1	7
Neoplasm of brain	0	0	1	0	1	2
Neoplasm of the pituitary fossa	0	0	1	0	0	1
Leukaemia						
Acute lymphoblastic leukaemia	0	0	4	1	2	7
Acute myeloid leukaemia	0	2	0	0	0	2
Prolymphocytic leukaemia	0	0	0	1	0	1
Other						
Neoplasm of anterior mediastinum	1	0	0	0	1	2
Neoplasm of adrenal gland, unspecified	0	0	0	1	0	1
Neoplasm of orbit	0	1	0	0	0	1
Neoplasm of retroperitoneum	0	0	0	1	0	1
Neoplasm of craniofacial bones	0	0	0	1	0	1
Neoplasm of heart	0	0	0	1	0	1
Neoplasm of scapula and long bones of upper limb	0	0	0	0	1	1
Neoplasm of long bones of lower limb	0	0	1	1	0	2
Neoplasm of liver and intrahepatic bile ducts	0	1	0	0	0	1
Total	**1**	**6**	**8**	**10**	**6**	**31**

Table 50: Deaths from other acquired disease by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Anaphylaxis	0	0	0	0	1	1
Asthma	0	0	1	0	1	2
Epilepsy	0	1	0	0	0	1
Cardiomyopathy	1	1	0	0	0	2
Kawasaki disease	1	0	0	0	0	1
Haemolytic-uraemic syndrome	0	1	0	0	0	1
Portal vein thrombosis	0	0	0	1	0	1
Total	**2**	**3**	**1**	**1**	**2**	**9**

Table 51: Deaths from other acquired disease by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Anaphylaxis	0	0	0	1	0	1
Malignant hyperthermia due to anaesthesia	0	0	0	1	0	1
Haemophagocytic syndrome, infection-associated	0	1	0	0	0	1
Juvenile dermatomyositis	0	1	0	0	0	1
Grave's Disease	0	0	0	0	1	1
Diabetes mellitus with ketoacidosis	0	0	0	0	1	1
Primary adrenocortical insufficiency	0	0	0	1	0	1
Hypoxic ischaemic injury from seizure	0	0	0	0	1	1
Primary pulmonary hypertension	0	0	0	0	1	1
Portal vein thrombosis and pulmonary hypertension	0	0	0	1	0	1
Chronic renal failure	0	0	1	0	0	1
Acute appendicitis with generalized peritonitis	0	0	0	0	1	1
Acute peritonitis	0	0	0	0	2	2
Intussusception	0	0	1	0	0	1
Acute and subacute hepatic failure	0	1	0	0	0	1
Total	**0**	**3**	**2**	**4**	**7**	**16**

Table 52: Deaths from unascertained cause by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Undetermined (autopsy performed)	5	2	1	1	0	9
Undetermined (no autopsy performed)	1	0	0	0	0	1
Total	**6**	**2**	**1**	**1**	**0**	**10**

Table 53: Deaths from unascertained cause by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Undetermined (autopsy performed)	3	1	0	0	2	6
Undetermined (no autopsy performed)	1	2	0	0	1	4
Total	**4**	**3**	**0**	**0**	**3**	**10**

Deaths from intentional trauma and intentional self-harm

Figure 23a: Intentional trauma (inflicted by other) and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

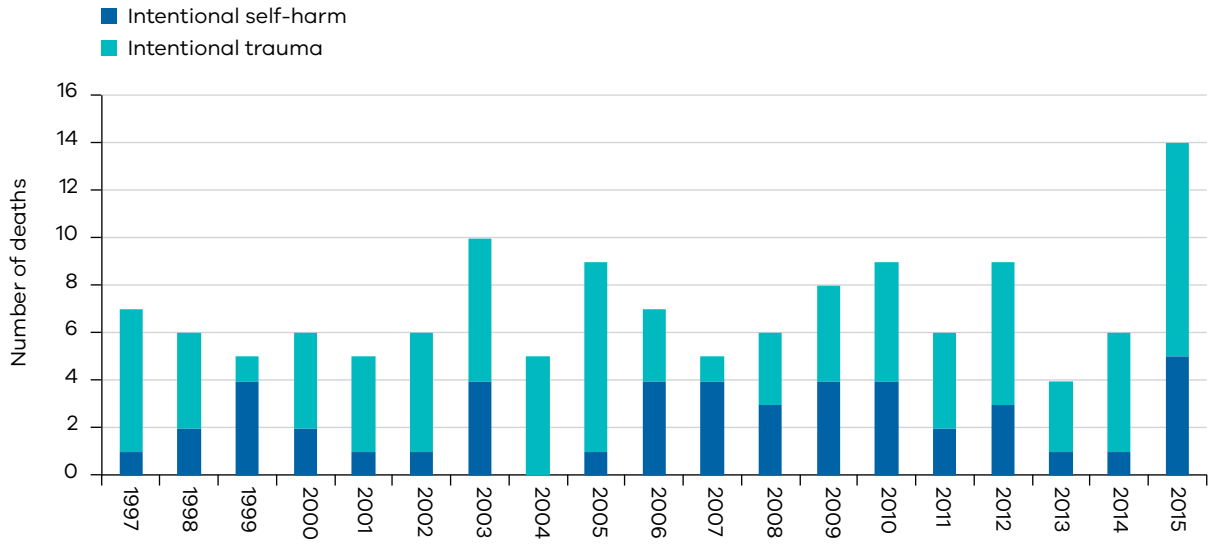
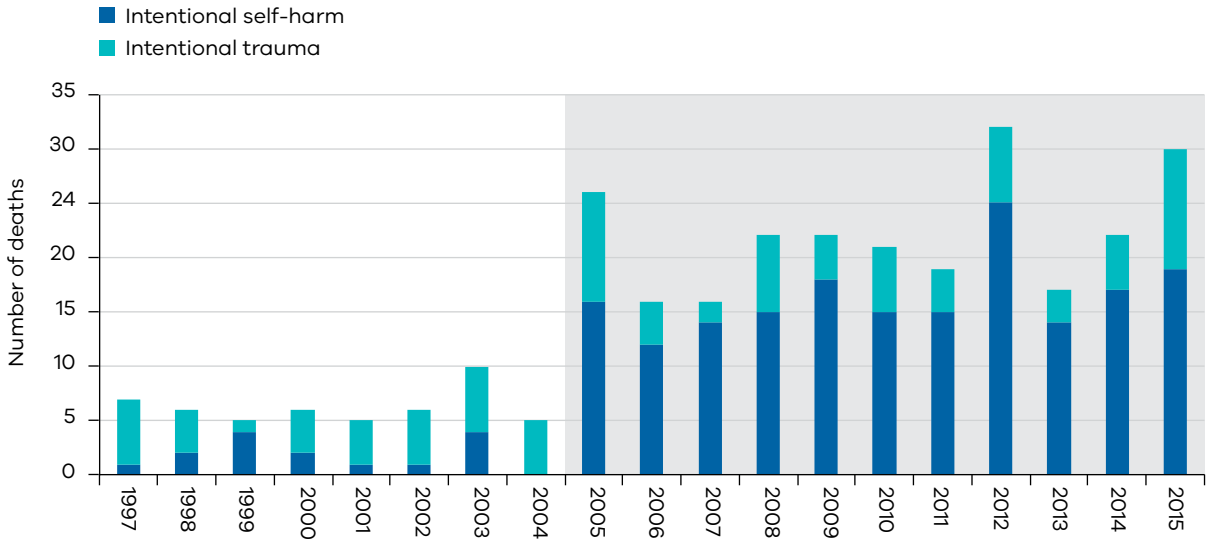


Table 54: Intentional trauma (inflicted by other) and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intentional trauma	6	4	1	4	4	5	6	5	8	3	1	3	4	5	4	6	3	5	9
Intentional self-harm	1	2	4	2	1	1	4	0	1	4	4	3	4	4	2	3	1	1	5
Total	**7**	**6**	**5**	**6**	**5**	**6**	**10**	**5**	**9**	**7**	**5**	**6**	**8**	**9**	**6**	**9**	**4**	**6**	**14**

Figure 23b: Intentional trauma (inflicted by other) and intentional self-harm deaths: post-neonatal infants, children and adolescents,[a,b] Victoria 1997–2015



a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children aged 28 days to 17 years.

Table 55: Intentional trauma (inflicted by other) and intentional self-harm deaths: post-neonatal infants, children and adolescents,[a,b] Victoria 1997–2015

	1997	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Intentional trauma	6	4	1	4	4	5	6	5	10	4	2	7	4	6	4	7	3	5	11
Intentional self-harm	1	2	4	2	1	1	4	0	16	12	14	15	18	15	15	25	14	17	19
Total	**7**	**6**	**5**	**6**	**5**	**6**	**10**	**5**	**26**	**16**	**16**	**22**	**22**	**21**	**19**	**32**	**17**	**22**	**30**

a. 1997–2004 children aged 28 days to 14 years.
b. 2005–2015 children and adolescents aged 28 days to 17 years.

Table 56: Deaths from intentional trauma (inflicted by other) by age group, Victoria 2014

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Skull fracture	0	1	0	1	0	2
Head injury	0	1	0	0	0	1
Suffocation	0	2	0	0	0	2
Total	**0**	**4**	**0**	**1**	**0**	**5**

Table 57: Deaths from intentional trauma (inflicted by other) by age group, Victoria 2015

	Age group					
	28–364 days	1–4 years	5–9 years	10–14 years	15–17 years	Total
Head injury	2	1	0	0	0	3
Multiple trauma	0	0	0	0	1	1
Trauma to lung	0	1	0	0	1	2
Trauma to liver	0	1	0	0	0	1
Asphyxiation	0	0	0	1	0	1
Drowning	0	3	0	0	0	3
Total	**2**	**6**	**0**	**1**	**2**	**11**

Table 58: Deaths from intentional self-harm: age at death by gender, Victoria 2014

Age at death	Females	Males	Total
13 years	0	0	0
14 years	1	0	1
15 years	0	3	3
16 years	3	5	8
17 years	2	3	5
Total	**6**	**11**	**17**
Rate[a] 13 to 17 years	**3.6**	**6.3**	**5.0**
Rate[a] 15 to 17 years	**5.0**	**10.3**	**7.7**

a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Rates expressed per 100,000 population aged 13–17 years or 15–17 years.

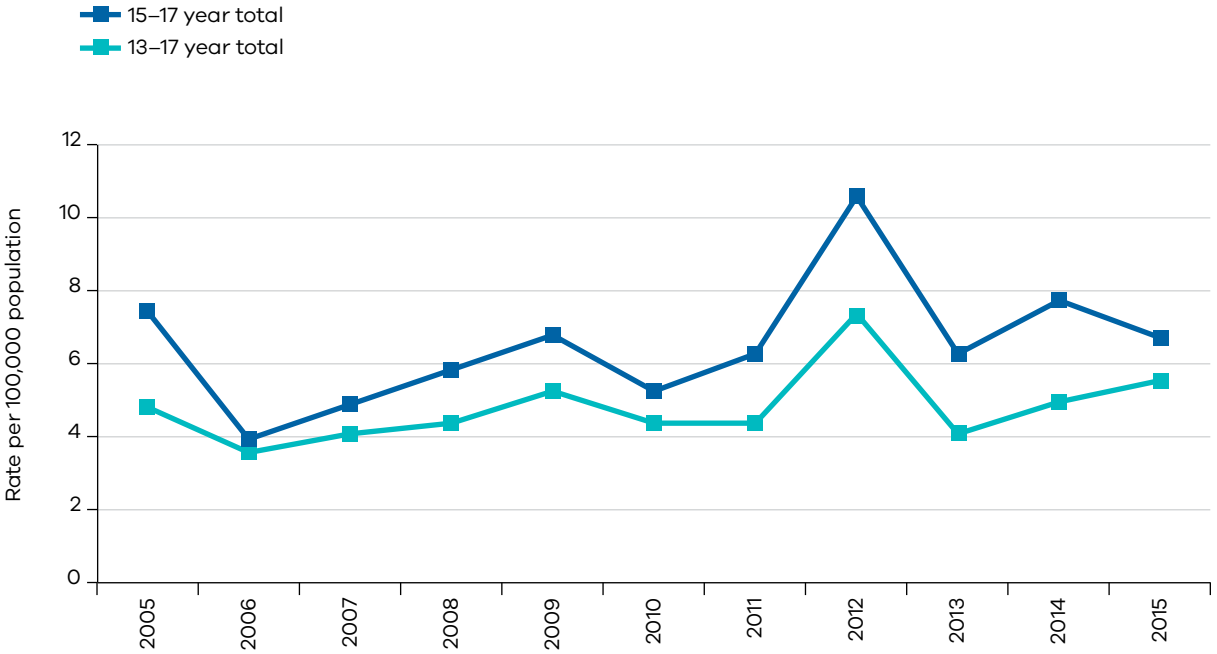
Table 59: Deaths from intentional self-harm: age at death by gender, Victoria 2015

Age at death	Females	Males	Total
13 years	1	1	2
14 years	1	2	3
15 years	2	2	4
16 years	2	4	6
17 years	0	4	4
Total	**6**	**13**	**19**
Rate[a] 13 to 17 years	**3.6**	**7.4**	**5.5**
Rate[a] 15 to 17 years	**3.9**	**9.4**	**6.7**

a. Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.

Rates expressed per 100,000 population aged 13–17 years or 15–17 years.

Figure 24: Trends in intentional self-harm rates in adolescents, Victoria 2005–2015



Notes:

- Note that in 2011, one 12 year old is included in the rate of intentional self-harm for the 13–17 year age group. Excluding this case decreases the intentional self-harm rate in the 13–17 year age group from 4.4 to 4.1 /100,000.
- Slight differences across the rates are noted from previously published annual reports as population denominators used to generate this data have been updated.
- Denominators were obtained from Australian Bureau of Statistics 2016, Australian Demographic Statistics, September 2015. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 24 March 2016.