|  |
| --- |
| Child and adolescent deaths |
| Victoria’s Mothers, Babies and Children 2016 |

7. Child and Adolescent deaths

# 7. Child and adolescent deaths

Table of contents

[7. Child and adolescent deaths 1](#_Toc506385995)

[Figure 7.1: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2016a 4](#_Toc506385996)

[Table 7.1a: Infant, child and adolescent deaths (0-17 years), age at death by gender, Victoria 2016 6](#_Toc506385997)

[Table 7.1b: Infant, child and adolescent deaths (0-17 years), age at death by gender, Victoria 2016 7](#_Toc506385998)

[Table 7.2: Infant, child and adolescent deaths (0-17 years), death rates for age group by gender, Victoria 2016 8](#_Toc506385999)

[Table 7.3: Neonatal, post-neonatal and infant mortality rates, Victoria 2000-2016 (by calendar year of birth) 9](#_Toc506386000)

[Figure 7.2: Neonatal, post-neonatal and infant mortality rates, Victoria 2000-2016 (by calendar year of birth) 11](#_Toc506386001)

[Table 7.4: Infant mortality rates (per 1,000 live births) of 34 OECD countriesab, 1960-2016 12](#_Toc506386002)

[Table 7.5: Under 5 mortality rate (U5MR), Victoria, 2000-2016 14](#_Toc506386003)

[Figure 7.3: Under 5 mortality rate (U5MR), Victoria, 2000-2016 15](#_Toc506386004)

[Table 7.6: Under 5 mortality rate (probability of dying by age 5 per 1,000 live births), of 34 OECD countries, 1960-2016ab 16](#_Toc506386005)

[Table 7.7: Neonatal, post-neonatal infant, infant and under-5 mortality rates, Victoria 2000-2016 18](#_Toc506386006)

[Figure 7.4a: Neonatal, post-neonatal infant, infant and under-5 mortality rates, Victoria 2000-2016 18](#_Toc506386007)

[Figure 7.4b: Infant and under-5 mortality rates, Victoria 2000-2016 19](#_Toc506386008)

[Figure 7.5a: Rates of death by age group, Victoria, 1985 - 2016ab 20](#_Toc506386009)

[Figure 7.5b: Rates of death by age group, (excluding 28-364 days) Victoria 1985 - 2016ab 21](#_Toc506386010)

[Figure 7.6: Rates of death by age group, Victoria, 2000 - 2016ab 22](#_Toc506386011)

[Table 7.8: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997 - 2016a 23](#_Toc506386012)

[Figure 7.7: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997 - 2016a 24](#_Toc506386013)

[Table 7.9: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2016 25](#_Toc506386014)

[Table 7.10: Rank cause of death, children aged 1 to 4 years, Victoria 2016 26](#_Toc506386015)

[Table 7.11: Rank cause of death, children aged 5 to 9 years, Victoria 2016 27](#_Toc506386016)

[Table 7.12: Rank of cause of death, children aged 10 to 14 years, Victoria 2016 28](#_Toc506386017)

[Table 7.13: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2016 29](#_Toc506386018)

[Table 7.14: Cause of death by age group, 28 days to 17 years, Victoria 2016 30](#_Toc506386019)

[Figure 7.8a: Rates of major cause of death of post-neonatal infants and children 28 days to 14 years, 1985 to 2016a 32](#_Toc506386020)

[Figure 7.8b: Rates of major cause of death of post-neonatal infants and children 28 days to 17 years, 2005 to 2016a 33](#_Toc506386021)

[Table 7.15a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997 – 2016 34](#_Toc506386022)

[Figure 7.9a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997 – 2016 35](#_Toc506386023)

[Table 7.15b: Post-neonatal infant, child and adolescent deathsab by major cause, Victoria 1997 – 2016 36](#_Toc506386024)

[Figure 7.9b: Post-neonatal infant, child and adolescent deaths by major cause, Victoria 1997 – 2016 37](#_Toc506386025)

[Table 7.16a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016 38](#_Toc506386026)

[Figure 7.10a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997 - 2016 39](#_Toc506386027)

[Table 7.16b: Causes of death determined at birth: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 40](#_Toc506386028)

[Figure 7.10b: Causes of death determined at birth: post-neonatal infants, children and adolescents, Victoria 1997-2016 41](#_Toc506386029)

[Table 7.17a: Deaths from conditions determined at birth by age group, Victoria, 2016 42](#_Toc506386030)

[Table 7.17b: Deaths from congenital anomaly by age group, Victoria 2016 43](#_Toc506386031)

[Table 7.18: Unexplained sudden unexpected death in infants, Victoria 1985-2016ab 46](#_Toc506386032)

[Figure 7.11: Unexplained sudden unexpected death in infants, Victoria 1985-2016ab 47](#_Toc506386033)

[Table 7.19: Rate of unexplained sudden unexpected deaths in infants (SUDI) per 1,000 live births, Victoria, 1985-2016 48](#_Toc506386034)

[Figure 7.12: Rate of unexplained sudden unexpected deaths in infants (SUDI) per 1,000 live births, Victoria, 1985-2016 49](#_Toc506386035)

[Figure 7.13: Sudden unexpected deaths of infants, Victoria 2016 50](#_Toc506386036)

[Table 7.20: SUDIa deaths: cause of death, Victoria 2004-2016 51](#_Toc506386037)

[Table 7.21: Selected features of the (n=14) infants categorised as SIDS IIa, Victoria 2016 52](#_Toc506386038)

[Table 7.22: Selected features of the (n=23) SUDI deaths, Victoria 2016a 53](#_Toc506386039)

[Figure 7.14: Rates of unintentional injury deaths by age group, Victoria 1985-2016a 57](#_Toc506386040)

[Figure 7.15a: Rates of unintentional injury deaths, 28 days to 14 years, Victoria 1985 - 2016a 58](#_Toc506386041)

[Figure 7.15b: Rates of unintentional injury deaths (excluding motor vehicle accidents), 28 days to 14 years, Victoria 1985-2016a 59](#_Toc506386042)

[Figure 7.15c: Rates of unintentional injury deaths, Victoria 1985 - 2016a 60](#_Toc506386043)

[Figure 7.15d: Rates of unintentional injury deaths (excluding motor vehicle accidents), Victoria 1985-2016a 61](#_Toc506386044)

[Table 7.23a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016 62](#_Toc506386045)

[Figure 7.16a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016 63](#_Toc506386046)

[Table 7.23b: Unintentional injury deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 64](#_Toc506386047)

[Figure 7.16b: Unintentional injury deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 65](#_Toc506386048)

[Figure 7.17a: Rates of motor vehicle accidents by age group, Victoria 1985 – 2016 66](#_Toc506386049)

[Figure 7.17b: Rates of motor vehicle accidents and all unintentional injury deaths by age group, Victoria 1985-2016a 67](#_Toc506386050)

[Table 7.24a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016a 68](#_Toc506386051)

[Figure 7.18a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016 68](#_Toc506386052)

[Table 7.24b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescentsab, Victoria 1997-2016c 69](#_Toc506386053)

[Figure 7.18b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescents, Victoria 1997-2016 70](#_Toc506386054)

[Table 7.25: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2016 71](#_Toc506386055)

[Table 7.26: Drowning fatalities: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 72](#_Toc506386056)

[Figure 7.19: Drowning fatalities: post-neonatal infants, children and adolescents, Victoria 1997-2016 73](#_Toc506386057)

[Table 7.27: Location of drowning fatalities by age group, Victoria 2016 73](#_Toc506386058)

[Table 7.28: Deaths from fire, asphyxiation, train and other types of injury, by age group, Victoria 2016 74](#_Toc506386059)

[Table 7.29a: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997-2016 75](#_Toc506386060)

[Figure 7.20a: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997-2016 76](#_Toc506386061)

[Table 7.29b: Acquired disease deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 77](#_Toc506386062)

[Figure 7.20b: Acquired disease deaths: post-neonatal infants, children and adolescents, Victoria 1997-2016 78](#_Toc506386063)

[Table 7.30: Deaths from infection by age group, Victoria 2016 79](#_Toc506386064)

[Table 7.31: Deaths from malignancy by age group, Victoria 2016 80](#_Toc506386065)

[Table 7.32: Deaths from other acquired disease by age group, Victoria 2016 81](#_Toc506386066)

[Table 7.33: Deaths from unascertained cause (undetermined) by age group, Victoria 2016 81](#_Toc506386067)

[Table 7.34a: Intentional trauma and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016 82](#_Toc506386068)

[Figure 7.21a: Intentional trauma and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016 82](#_Toc506386069)

[Table 7.34b: Intentional trauma and intentional self-harm deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016 83](#_Toc506386070)

[Figure 7.21b: Intentional trauma and intentional self-harm deaths: post-neonatal infants, children and adolescents, Victoria 1997-2016 83](#_Toc506386071)

[Table 7.35: Deaths from intentional trauma (inflicted by other) by age group, Victoria 2016 84](#_Toc506386072)

[Table 7.36: Deaths from intentional self-harm (including suicide) by age at death and gender, Victoria 2016 84](#_Toc506386073)

[Figure 7.22: Rates of intentional self-harm (including suicide) in adolescents, Victoria 2005-2016a 86](#_Toc506386074)

## Figure 7.1: Cases included in the review of post-neonatal infant, child and adolescent deaths in 2016a

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

Notes:

There were two deaths of Victorian residents in other jurisdictions (interstate).

The causes of death were motor vehicle accident (1) and other unintentional injury (1)

The age group of these adolescents was 15-17 years (2).

There were eight deaths in Victoria of post-neonatal infants and children not resident in Victoria.

The age groups of these children were 28-364 days (2), 1-4 years (3) and 15-17 years (3).

The causes of death were congenital anomaly (3), suicide (2), motor vehicle accident (1), infection (1) and other acquired illness (1).

The place of residence was listed as NSW (3), Tasmania (2), QLD (1), SA (1) and NT (1).

For neonates and post-neonatal infants born in Victoria to mothers not usually resident of Victoria, the place of residence of the infant is considered to be Victoria if the infant was born in, and did not ever leave, Victoria prior to death.

Aboriginal

Of the 214 deaths occurring in Victoria in 2016, 14 post neonatal infants, children and adolescents were identified as Aboriginal, or were identified as having at least one parent who was Aboriginal.

The causes of death in these infants and children was congenital anomaly (5), SIDS (2), intentionally inflicted injury (2), prematurity (1) , drowning (1), infection (1) , malignancy (1) and suicide (1).

Data on Victorian residents dying in other jurisdictions received from:

ACT - ACT Children 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

## Table 7.1a: Infant, child and adolescent deaths (0-17 years), age at death by gender, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age at death | Females | | Males | | Total | |
| n | %b | n | %c | n | %d |
| Under 1 year | | | | | | |
| Less than 28 days | 75 | *52.4* | 104 | *43.0* | 179 | *46.5* |
| ≥ 28 days to < 1 year | 26 | *18.2* | 49 | *20.2* | 75 | *19.5* |
| *Subtotal 0- 1 year* | *101* | *70.6* | *153* | *63.2* | *254* | *66.0* |
| 1 to 4 years | 15 | *10.5* | 25 | *10.3* | 40 | *10.4* |
| *Subtotal 0 - 4 years* | 116 | *81.1* | 178 | *73.6* | 294 | *76.4* |
| 5 to 9 years | 9 | *6.3* | 19 | *7.9* | 28 | *7.3* |
| 10 to 14 years | 6 | *4.2* | 15 | *6.2* | 21 | *5.5* |
| 15 to 17 years | 12 | *8.4* | 30 | *12.4* | 42 | *10.9* |
| *Subtotal 1 - 17 years* | *42* | *29.4* | *89* | *36.8* | *131* | *34.0* |
| Total: 0 - 17 yearsa | 143 | *100.0* | 242 | *100.0* | 385 | *100.0* |

a This table excludes:

Live births < 20 w gestation, or, if gestation unknown, < 400 gm

Neonates where birth occurred in Victoria, with death occurring interstate (N=1).

Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication (N=33).

Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (N=8)

Victorian resident children dying out of Victoria (N=2).

There were 2 deaths of Victorian residents in other jurisdictions (interstate).

The causes of death were motor vehicle accident (1) and other unintentional injury (1).

The age group of these adolescents was 15-17 years (2).

b Percentages represent percentage of all female deaths (N=143).

c Percentages represent percentage of all male deaths (N=242)

d Percentages represent percentage of all deaths (N=385).

For 2016: The neonatal death total corresponds to (M) in Appendix 3, with one death occurring out of Victoria.

## Table 7.1b: Infant, child and adolescent deaths (0-17 years), age at death by gender, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age at death | Females | | Males | | Total | |
| n | %b | n | %c | n | %d |
| Under 1 year | | | | | | |
| Less than 28 days | 75 | *41.9* | 104 | *58.1* | 179 | *100.0* |
| ≥ 28 days to < 1 year | 26 | *34.7* | 49 | *65.3* | 75 | *100.0* |
| *Subtotal 0- 1 year* | *101* | *39.8* | *153* | *60.2* | *254* | *100.0* |
| 1 to 4 years | 15 | *37.5* | 25 | *62.5* | 40 | *100.0* |
| *Subtotal 0 - 4 years* | *116* | *39.5* | *178* | *60.5* | *294* | *100.0* |
| 5 to 9 years | 9 | *32.1* | 19 | *67.9* | 28 | *100.0* |
| 10 to 14 years | 6 | *28.6* | 15 | *71.4* | 21 | *100.0* |
| 15 to 17 years | 12 | *28.6* | 30 | *71.4* | 42 | *100.0* |
| *Subtotal 1 - 17 years* | *42* | *32.1* | *89* | *67.9* | *131* | *100.0* |
| Total: 0 - 17 yearsa | 143 | 37.1 | 242 | 62.9 | 385 | 100.0 |

a This table excludes:

Live births < 20 w gestation, or, if gestation unknown, < 400 gm.

Neonates where birth occurred in Victoria, with death occurring interstate (N=1).

Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication (N=33).

Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (N=8)

Victorian resident children dying out of Victoria (N=2).

There were 2 deaths of Victorian residents in other jurisdictions (interstate).

The causes of death were motor vehicle accident (1) and other unintentional injury (1).

The age group of these adolescents was 15-17 years (2).

b Percentages represent percentage of female deaths in that age group.

c Percentages represent percentage of male deaths in that age group.

d Percentages represent total percentage of deaths in that age group.

For 2016: The neonatal death total corresponds to (M) in Appendix 3, with one death occurring out of Victoria.

## Table 7.2: Infant, child and adolescent deaths (0-17 years), death rates for age group by gender, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Age category | Females |  | Males |  | Total |  |
|  | n | Rate per 100,000a | n | Rate per 100,000a | n | Rate per 100,000a |
| Less than 28 days | 75 | *186.7* | 104 | *245.0* | 179 | *216.7* |
| ≥ 28 days to < 1 year | 26 | *64.7* | 49 | *115.4* | 75 | *90.8* |
| ***Subtotal 0 - 1 year*** | ***101*** | ***251.5*** | ***153*** | ***360.5*** | ***254*** | ***307.5*** |
| 1 to 4 years | 15 | 9.8 | 25 | 15.5 | 40 | 12.7 |
| ***Subtotal 0 - 4 years*** | ***116*** | ***60.1*** | ***178*** | ***87.4*** | ***294*** | ***74.1*** |
| 5 to 9 years | 9 | 5.0 | 19 | 9.9 | 28 | 7.5 |
| 10 to 14 years | 6 | 3.5 | 15 | 8.4 | 21 | 6.0 |
| 15 to 17 years | 12 | 11.6 | 30 | 27.9 | 42 | 19.9 |
| ***Subtotal 1 - 17 years*** | ***42*** | ***6.9*** | ***89*** | ***13.9*** | ***131*** | ***10.5*** |
| **Total: 0 - 17 years b** | **143** | **22.1** | **242** | **35.5** | **385** | ***29.0*** |

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017.

For the age groups <28 days and 28-364 days, the denominator is the total age group 0-364 days. Rates are calculated per relevant age group, not the total age group 0-17 years.

b This table excludes:

Live births < 20 w gestation, or, if gestation unknown, < 400 gm.

Neonates where birth occurred in Victoria, with death occurring interstate (N=1) .

Neonatal deaths following termination of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication (N=33).

Post neonatal infants, children and adolescents not resident of Victoria, dying in Victoria (N=8).

Victorian resident children dying out of Victoria (N=2).

There were 2 deaths of Victorian residents in other jurisdictions (interstate).

The causes of death were motor vehicle accident (1) and other unintentional injury (1).

The age group of these adolescents was 15-17 years (2).

For 2016: The neonatal death total corresponds to (M) in Appendix 3, with one death occurring out of Victoria

## Table 7.3: Neonatal, post-neonatal and infant mortality rates, Victoria 2000-2016 (by calendar year of birth)

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Live birthsa | 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 | 80,200 |
| Neonatal deathsa | 154 | 169 | 197 | 196 | 172 | 207 | 185 | 189 | 183 | 184 | 211 | 183 | 157 | 198 | 193 | 158 | 180 |
| Post-neonatal infant deaths | 73 | 86 | 78 | 60 | 75 | 87 | 88 | 87 | 84 | 54 | 95 | 56 | 54 | 77 | 67 | 78 | 60 |
| Total infant deathsb | 227 | 255 | 275 | 256 | 247 | 294 | 273 | 276 | 267 | 238 | 306 | 239 | 211 | 275 | 260 | 236 | 240 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mortality rate per 1,000 live births | **2000** | **2001** | **2002** | **2003** | **2004** | **2005** | **2006** | **2007** | **2008** | **2009** | **2010** | **2011** | **2012** | **2013** | **2014** | **2015** | **2016** |
| 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 | 2.2 |
| 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 | 0.7 |
| 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 | 3.0 |

See notes over

a The following are excluded:

Live births < 20 w gestation, or, if gestation unknown, < 400 gm

Live births and neonatal deaths from terminations of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication (N=33 in 2016

Births occurring interstate or overseas, with death occurring in Victoria (neonates N=0 in 2016) post neonatal infants (N=3 in 2016). Deaths of Victorian-born infants occurring in other jurisdictions not reported to CCOPMM.

b The deaths in all categories (neonatal, post-neonatal infant and total infant deaths), and the corresponding rates, refer to all those who died who were born in the index year in Victoria, regardless of whether they died in the index year or the following year, or where the infant's mother's usual place of usual residence was.

For 2016:

There were 60 post neonatal infants born in Victoria in 2016 who died in Victoria. Forty of these infants died in 2016, and 20 died in 2017 (reported to CCOPMM as at July 31 2017). Final figures of post neonatal infant deaths of infants born in 2016 will be provided in the 2017 Annual Report.

One neonate born in Victoria in 2016 died interstate in 2016 and is included in the figures above.

For 2016: The neonatal death total corresponds to (M) in Appendix 3

The post-neonatal infant death total corresponds to (Y) in Appendix 3

The live birth total corresponds to (E) in Appendix 3

This data is presented in Figure 7.2

## Figure 7.2: Neonatal, post-neonatal and infant mortality rates, Victoria 2000-2016 (by calendar year of birth)

This data is taken from Table 7.3

## Table 7.4: Infant mortality rates (per 1,000 live births) of 34 OECD countriesab, 1960-2016

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1960 | 1970 | 1980 | 1990 | 2000 | 2005 | 2010 | 2015 | 2016 |
| Iceland | 17.5 | 12.8 | 7.8 | 5.1 | 3.1 | 2.4 | 1.9 | 1.6 | 1.6 |
| Luxembourg | .. | 19.3 | 11.2 | 7.3 | 3.9 | 2.8 | 1.9 | 1.5 | 1.7 |
| Finland | 21.9 | 13.2 | 7.2 | 5.5 | 3.5 | 3.1 | 2.5 | 1.9 | 1.8 |
| Japan | 30.4 | 13.4 | 7.4 | 4.6 | 3.3 | 2.7 | 2.4 | 2.0 | 1.9 |
| Slovenia | .. | .. | .. | 8.8 | 4.5 | 3.5 | 2.7 | 2.1 | 1.9 |
| Norway | 18.4 | 13.1 | 8.2 | 7 | 4 | 3.2 | 2.6 | 2.0 | 2.2 |
| Sweden | 16.3 | 11.3 | 7.2 | 5.8 | 3.4 | 3 | 2.5 | 2.4 | 2.2 |
| Estonia | .. | .. | 22.4 | 16.5 | 8.8 | 5.8 | 3.6 | 2.3 | 2.3 |
| Czech Republic | .. | .. | .. | 12.7 | 5.6 | 4.4 | 3.4 | 2.8 | 2.3 |
| Portugal | 84.6 | 55.4 | 22.8 | 11.5 | 5.5 | 3.7 | 3.1 | 3.0 | 2.4 |
| Spain | 47.7 | 25.5 | 15.3 | 9.3 | 5.4 | 4.8 | 3.9 | 3.5 | 2.6 |
| Italy | 44.2 | 29.7 | 14.3 | 8.3 | 4.7 | 3.7 | 3.4 | 2.9 | 2.7 |
| Korea, Rep. | 80.2 | 41.4 | 12.3 | 6.1 | 5.2 | 4.8 | 3.5 | 2.9 | 2.7 |
| Austria | 37.3 | 25 | 13.9 | 8 | 4.6 | 4 | 3.6 | 2.9 | 2.8 |
| Israel | .. | .. | 15.3 | 9.7 | 5.6 | 4.5 | 3.7 | 3.2 | 2.9 |
| Victoria c |  |  |  |  | 3.7 | 4.5 | 4.2 | 3.0 | 3.0 |
| Germany | .. | 22.1 | 12.6 | 7 | 4.4 | 3.9 | 3.5 | 3.1 | 3.0 |
| Australia | 20.3 | 17.8 | 10.8 | 7.6 | 5.1 | 4.8 | 4.1 | 3.0 | 3.2 |
| Netherlands | 16.4 | 12.6 | 8.8 | 6.8 | 5.1 | 4.5 | 3.7 | 3.2 | 3.2 |
| Belgium | 29.5 | 20.6 | 12.2 | 8.3 | 4.8 | 4.1 | 3.6 | 3.3 | 3.2 |
| France | 23.7 | 15.1 | 10.2 | 7.4 | 4.4 | 3.8 | 3.5 | 3.5 | 3.2 |
| Ireland | 30.4 | 19 | 12 | 7.7 | 5.9 | 4.4 | 3.5 | 3.0 | 3.3 |
| Greece | 48.3 | 33.7 | 21.3 | 11.3 | 6.9 | 4.8 | 4.1 | 3.6 | 3.3 |
| Switzerland | 21.6 | 15 | 8.4 | 6.7 | 4.6 | 4.3 | 3.9 | 3.4 | 3.4 |
| Denmark | 21.3 | 13.9 | 8.3 | 7.3 | 4.6 | 4.1 | 3.3 | 2.9 | 3.5 |
| Poland | 57.8 | 32.2 | 21 | 15.1 | 8.1 | 6.6 | 5 | 4.5 | 3.8 |
| United Kingdom | 22.9 | 18 | 12 | 7.9 | 5.6 | 5.1 | 4.4 | 3.5 | 3.9 |
| Canada | 27.8 | 18.5 | 10.3 | 6.8 | 5.2 | 5.3 | 4.9 | 4.3 | 4.6 |
| New Zealand | 22.6 | 16.9 | 12.7 | 9.2 | 6.1 | 5.4 | 5.1 | 4.7 | 4.7 |
| Hungary | 53.4 | 39 | 23.8 | 16.9 | 9.7 | 7.2 | 5.7 | 5.3 | 4.8 |
| Slovak Republic | .. | .. | .. | 15.6 | 10.2 | 8.4 | 7 | 5.8 | 5.0 |
| United States | 25.9 | 19.9 | 12.6 | 9.4 | 7.1 | 6.8 | 6.3 | 5.6 | 5.8 |
| Chile | 127.6 | 67.6 | 28.2 | 16 | 9.2 | 7.7 | 7.6 | 7.0 | 6.7 |
| Mexico | .. | 77.5 | 56.1 | 37.1 | 21.6 | 16.7 | 14.4 | 11.3 | 12.7 |
| Turkey | 166 | 126.2 | 90.2 | 55.8 | 32.1 | 23.2 | 16.4 | 11.6 | 12.9 |
| OECD members | 48.5 | 38.7 | 26.6 | 17.0 | 10.7 | 8.6 | 7.2 | 5.9 |  |

1950-2015 data 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.

2016 data taken from Table 1 from

GBD 2016 Mortality Collaborators. Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2017 Sep 16;390(10100):1084-1150. doi: 10.1016/S0140-6736(17)31833-0. Accessed October 10, 2017

a The definition of IMR is ' Infant mortality rate is the number of infants dying before reaching one year of age, per 1,000 live births in a given year'.

b Data in this table is ranked by 2016 figure

c This table includes the measured IMR for Victoria

## Table 7.5: Under 5 mortality rate (U5MR), Victoria, 2000-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| 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 | 77659 | 77566 | 78400 | 78606 | 80200 |
| Neonatal deaths a | 154 | 169 | 197 | 196 | 172 | 207 | 185 | 189 | 183 | 184 | 211 | 183 | 157 | 198 | 193 | 158 | 180 |
| Post-neonatal infant deaths b | 89 | 73 | 86 | 67 | 75 | 82 | 84 | 86 | 84 | 64 | 93 | 60 | 67 | 67 | 72 | 62 | 75 |
| 1-4 year deaths | 52 | 45 | 62 | 62 | 40 | 44 | 35 | 47 | 47 | 50 | 49 | 49 | 55 | 33 | 45 | 48 | 40 |
| Total 0-4 deaths | 295 | 287 | 345 | 325 | 287 | 333 | 304 | 322 | 314 | 298 | 353 | 292 | 279 | 298 | 310 | 268 | 295 |
| 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 | 3.7 |

The U5MR rates refer to deaths of children 0-4 years in Victoria of Victorian residents per 1,000 live births occurring in the index year.

a The following are excluded:

Live births < 20 w gestation, or, if gestation unknown, < 400 gm

Live births and neonatal deaths from terminations of pregnancy for suspected or confirmed congenital anomaly or maternal psychosocial indication (N=33 in 2016)

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.

Deaths of infants, born in Victoria, normally resident outside Victoria.

b Note that the post neonatal infant numbers are different to those tables and calculations for infant mortality rate (Figure 7.2 and Table 7.3). For the U5MR calculation, post neonatal infants deaths occurring in Victoria 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 or where they occurred.

For 2016: The neonatal death total corresponds to (M) in Appendix 3 The live birth total corresponds to (E) in Appendix 3

The data is presented in Figure 7.3.

## Figure 7.3: Under 5 mortality rate (U5MR), Victoria, 2000-2016

U5MR - Deaths of children 0-4 years per 1,000 live births in index year

Data taken from Table 7.5

## Table 7.6: Under 5 mortality rate (probability of dying by age 5 per 1,000 live births), of 34 OECD countries, 1960-2016ab

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | | | | | | | | |
| Country Name | 1960 | 1970 | 1980 | 1990 | 2000 | 2005 | 2010 | 2015 | 2016 |
| Luxembourg | .. | 22.4 | 13.3 | 8.8 | 4.8 | 3.5 | 2.4 | 1.9 | 2.2 |
| Iceland | 21.4 | 15.8 | 9.8 | 6.4 | 4.0 | 3.1 | 2.4 | 2.0 | 2.2 |
| Finland | 26.8 | 16.1 | 8.7 | 6.7 | 4.3 | 3.8 | 3.0 | 2.3 | 2.2 |
| Slovenia | .. | .. | .. | 10.4 | 5.5 | 4.3 | 3.3 | 2.6 | 2.4 |
| Japan | 39.7 | 17.5 | 9.9 | 6.3 | 4.5 | 3.7 | 3.2 | 2.7 | 2.6 |
| Sweden | 19.6 | 13.4 | 8.5 | 6.9 | 4.1 | 3.6 | 3.1 | 3.0 | 2.6 |
| Norway | 22.6 | 16.2 | 10.1 | 8.7 | 4.9 | 4.0 | 3.2 | 2.6 | 2.7 |
| Czech Republic | .. | .. | .. | 14.6 | 6.6 | 5.2 | 4.1 | 3.4 | 2.8 |
| Estonia | .. | .. | 27.1 | 20.2 | 11 | 7.3 | 4.6 | 2.9 | 3.1 |
| Portugal | 114.6 | 68.2 | 27.6 | 14.7 | 7.2 | 4.7 | 3.9 | 3.6 | 3.1 |
| Italy | 52.0 | 33.6 | 16.1 | 9.7 | 5.5 | 4.4 | 4.0 | 3.5 | 3.2 |
| Spain | 55.6 | 29.2 | 17.8 | 11.0 | 6.5 | 5.7 | 4.6 | 4.1 | 3.3 |
| Austria | 42.8 | 29.1 | 16.3 | 9.5 | 5.5 | 4.9 | 4.4 | 3.5 | 3.4 |
| Korea, Rep. | 112.9 | 52.8 | 14.3 | 7.1 | 6.1 | 5.6 | 4.1 | 3.4 | 3.5 |
| Germany | .. | 25.7 | 15.0 | 8.5 | 5.4 | 4.7 | 4.2 | 3.7 | 3.6 |
| Israel | .. | .. | 18.0 | 11.6 | 6.9 | 5.6 | 4.6 | 4.0 | 3.6 |
| Victoria c |  |  |  |  | 4.7 | 5.0 | 4.8 | 3.4 | 3.7 |
| Netherlands | 20.8 | 15.8 | 10.9 | 8.3 | 6.2 | 5.4 | 4.4 | 3.8 | 3.8 |
| France | 28.5 | 18.2 | 12.4 | 9.0 | 5.4 | 4.6 | 4.3 | 4.3 | 3.8 |
| Ireland | 35.3 | 22.2 | 14.3 | 9.2 | 7.1 | 5.2 | 4.2 | 3.6 | 3.9 |
| Australia | 24.9 | 21.4 | 13.0 | 9.2 | 6.2 | 5.7 | 4.8 | 3.8 | 3.9 |
| Switzerland | 26.5 | 18.4 | 10.4 | 8.2 | 5.6 | 5.1 | 4.5 | 3.9 | 3.9 |
| Belgium | 33.9 | 23.9 | 14.5 | 10.0 | 5.8 | 5.0 | 4.5 | 4.1 | 3.9 |
| Greece | 55.8 | 37.6 | 23.5 | 12.6 | 7.8 | 5.5 | 4.7 | 4.6 | 3.9 |
| Denmark | 25.0 | 16.6 | 10.0 | 8.9 | 5.6 | 4.9 | 4.0 | 3.5 | 4.1 |
| Poland | 64.7 | 36.3 | 23.9 | 17.3 | 9.3 | 7.6 | 5.8 | 5.2 | 4.5 |
| United Kingdom | 26.6 | 21.0 | 14.1 | 9.3 | 6.6 | 6.0 | 5.2 | 4.2 | 4.6 |
| Canada | 32.6 | 22.0 | 12.5 | 8.3 | 6.2 | 6.1 | 5.6 | 4.9 | 5.4 |
| New Zealand | 27.9 | 20.8 | 15.6 | 11.2 | 7.4 | 6.6 | 6.2 | 5.7 | 5.6 |
| Hungary | 58.9 | 42.7 | 26.2 | 19.1 | 11.2 | 8.3 | 6.6 | 5.9 | 5.6 |
| Slovak Republic | .. | .. | .. | 17.7 | 11.7 | 9.9 | 8.4 | 7.3 | 6.1 |
| United States | 30.1 | 23.3 | 15.0 | 11.2 | 8.4 | 8.0 | 7.4 | 6.5 | 6.8 |
| Chile | 157.3 | 79.6 | 33.2 | 19.1 | 10.9 | 9.1 | 8.8 | 8.1 | 7.8 |
| Mexico | .. | 108.6 | 75.1 | 46.6 | 25.6 | 19.5 | 16.8 | 13.2 | 15.5 |
| Turkey | 249.0 | 186.9 | 128.7 | 74.5 | 39.6 | 27.7 | 19.1 | 13.5 | 15.7 |
| OECD members | 63.5 | 51.2 | 34.9 | 21.4 | 12.9 | 10.2 | 8.4 | 6.9 |  |
|  | | | | | | | | | |

1960-2015 data 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.

2016 data taken from Table 1 from

GBD 2016 Mortality Collaborators. Global, regional, and national under-5 mortality, adult mortality, age-specific mortality, and life expectancy, 1970-2016: a systematic analysis for the Global Burden of Disease Study 2016. Lancet. 2017 Sep 16;390(10100):1084-1150. doi: 10.1016/S0140-6736(17)31833-0. Accessed October 10, 2017

a The definition of U5MR is 'Under-five mortality rate is the probability per 1,000 that a newborn baby will die before reaching age five, if subject to age-specific mortality rates of the specified year.' For Victoria however, this table includes the measured U5MR of deaths per 1,000 live births in the index year.

b Data in this table is ranked by 2016 figure.

c This table includes the measured U5MR for Victoria.

## Table 7.7: Neonatal, post-neonatal infant, infant and under-5 mortality rates, Victoria 2000-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| 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 | 2.2 |
| 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 | 0.7 |
| 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 | 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 | 3.7 |

## Figure 7.4a: Neonatal, post-neonatal infant, infant and under-5 mortality rates, Victoria 2000-2016

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. The data is taken from Table 7.7.

## Figure 7.4b: Infant and under-5 mortality rates, Victoria 2000-2016

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.

The data is taken from Table 7.7

## Figure 7.5a: Rates of death by age group, Victoria, 1985 - 2016ab

Rates are expressed per 100,000 population of the specific age group

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 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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

## Figure 7.5b: Rates of death by age group, (excluding 28-364 days) Victoria 1985 - 2016ab

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

Rates are expressed per 100,000 population of the specific age group

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

## Figure 7.6: Rates of death by age group, Victoria, 2000 - 2016ab

a Rates are expressed per 100,000 population of the specific age group.

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 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017.

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

## Table 7.8: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997 - 2016a

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1999 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013b | 2014 | 2015 | 2016 |
| 28-364 days | 87 | 77 | 88 | 89 | 73 | 86 | 67 | 75 | 82 | 84 | 86 | 84 | 64 | 93 | 60 | 67 | 67 | 72 | 62 | 75 |
| 1-4 years | 63 | 74 | 51 | 52 | 45 | 62 | 62 | 40 | 44 | 35 | 47 | 47 | 50 | 49 | 49 | 55 | 33 | 45 | 48 | 40 |
| 5-9 years | 40 | 32 | 45 | 41 | 33 | 41 | 34 | 30 | 33 | 27 | 27 | 27 | 30 | 41 | 31 | 28 | 31 | 28 | 16 | 28 |
| 10-14 years | 50 | 46 | 42 | 50 | 32 | 47 | 31 | 35 | 32 | 28 | 37 | 30 | 35 | 26 | 26 | 33 | 26 | 23 | 35 | 21 |
| 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 | 42 |
| Total | 240 | 229 | 226 | 232 | 183 | 236 | 194 | 180 | 248 | 222 | 245 | 246 | 229 | 257 | 217 | 236 | 193 | 205 | 217 | 206 |

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

b A new case in the 5-9 age group occurring in 2013 was reported to CCOPMM in 2016, taking the deaths in the 5-9 year age group to 31 and the total deaths to 193 in 2013.

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

The data is presented in Figure 7.7

## Figure 7.7: Post-neonatal infant, child and adolescent deaths by age group, Victoria 1997 - 2016a

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

The data is taken from Table 7.8

## Table 7.9: Rank cause of death, post-neonatal infants (28 to 364 days), Victoria 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Cause of death | n | *%* | Rate per 100,000a |
| 1 | Congenital anomaly | 35 | *46.7* | 42.4 |
| 2 | Sudden infant death syndrome (SIDS II) | 14 | *18.7* | 16.9 |
| 3 | Prematurity | 7 | *9.3* | 8.5 |
| 4 | Infection | 4 | *5.3* | 4.8 |
| 4 | Undetermined | 4 | *5.3* | 4.8 |
| 4 | Intentionally inflicted injury | 4 | *5.3* | 4.8 |
| 7 | Birth hypoxia/asphyxia | 2 | *2.7* | 2.4 |
| 7 | Asphyxiation | 2 | *2.7* | 2.4 |
| 9 | Other unintentional injury | 1 | *1.3* | 1.2 |
| 9 | Malignancy | 1 | *1.3* | 1.2 |
| 9 | Other acquired disease | 1 | *1.3* | 1.2 |
|  | Total | 75 | *100.0* | 90.8 |

a Rates are expressed per 100,000 population of the specific age group.

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 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

This table excludes deaths of Victorian residents aged 28-364 days dying out of Victoria.

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

## Table 7.10: Rank cause of death, children aged 1 to 4 years, Victoria 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Cause of death | n | *%* | Rate per  100,000a |
| 1 | Congenital anomaly | 17 | *42.5* | 5.4 |
| 2 | Malignancy | 5 | *12.5* | 1.6 |
| 2 | Undetermined | 5 | *12.5* | 1.6 |
| 4 | Drowning | 4 | *10.0* | 1.3 |
| 5 | Motor vehicle accident | 2 | *5.0* | 0.6 |
| 5 | Intentionally inflicted injury | 2 | *5.0* | 0.6 |
| 7 | Prematurity | 1 | *2.5* | 0.3 |
| 7 | Fire | 1 | *2.5* | 0.3 |
| 7 | Other unintentional injury | 1 | *2.5* | 0.3 |
| 7 | Infection | 1 | *2.5* | 0.3 |
| 7 | Other acquired disease | 1 | *2.5* | 0.3 |
|  | Total | 40 | *100.0* | 12.7 |

a Rates are expressed per 100,000 population of the specific age group.

Denominator includes all Victorian resident children aged 1 to 4 years.

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

This table excludes deaths of Victorian residents aged 1-4 years dying out of Victoria.

This table excludes deaths of non-Victorian residents aged 1-4 years occurring in Victoria.

## Table 7.11: Rank cause of death, children aged 5 to 9 years, Victoria 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Cause of death | n | *%* | Rate per 100,000a |
| 1 | Malignancy | 12 | *42.9* | 3.2 |
| 2 | Congenital anomaly | 7 | *25.0* | 1.9 |
| 3 | Other unintentional injury | 2 | *7.1* | 0.5 |
| 3 | Undetermined | 2 | *7.1* | 0.5 |
| 5 | Other conditions determined at birth | 1 | *3.6* | 0.3 |
| 5 | Motor vehicle accident | 1 | *3.6* | 0.3 |
| 5 | Drowning | 1 | *3.6* | 0.3 |
| 5 | Infection | 1 | *3.6* | 0.3 |
| 5 | Other acquired disease | 1 | *3.6* | 0.3 |
|  | Total | 28 | *100.0* | 7.5 |

a Rates are expressed per 100,000 population of the specific age group.

Denominator includes all Victorian resident children 5 to 9 years.

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

This table excludes deaths of Victorian residents aged 5-9 years dying out of Victoria.

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

## Table 7.12: Rank of cause of death, children aged 10 to 14 years, Victoria 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Cause of death | n | *%* | Rate per 100,000a |
| 1 | Malignancy | 7 | *33.3* | 2.0 |
| 2 | Other acquired disease | 3 | *14.3* | 0.9 |
| 3 | Congenital anomaly | 2 | *9.5* | 0.6 |
| 3 | Other conditions determined at birth | 2 | *9.5* | 0.6 |
| 3 | Other unintentional injury | 2 | *9.5* | 0.6 |
| 3 | Intentional self-harm (including suicide) | 2 | *9.5* | 0.6 |
| 7 | Motor vehicle accident | 1 | *4.8* | 0.3 |
| 7 | Drowning | 1 | *4.8* | 0.3 |
| 7 | Undetermined | 1 | *4.8* | 0.3 |
|  | Total | 21 | *100.0* | 6.0 |

a Rates are expressed per 100,000 population of the specific age group.

Denominator includes all Victorian resident children 10 to 14 years.

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

This table excludes deaths of Victorian residents aged 10-14 years dying out of Victoria.

This table excludes deaths of non-Victorian residents aged 10-14 years occurring in Victoria.

## Table 7.13: Rank of cause of death, adolescents aged 15 to 17 years, Victoria 2016

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Rank | Cause of death | n | *%* | Rate per 100,000a |
| 1 | Intentional self-harm (including suicide) | 16 | *38.1* | 7.6 |
| 2 | Motor vehicle accident | 9 | *21.4* | 4.3 |
| 3 | Congenital anomaly | 5 | *11.9* | 2.4 |
| 3 | Undetermined | 5 | *11.9* | 2.4 |
| 5 | Other acquired disease | 3 | *7.1* | 1.4 |
| 6 | Other unintentional injury | 2 | *4.8* | 0.9 |
| 6 | Other conditions determined at birth | 1 | *2.4* | 0.5 |
| 6 | Drowning | 1 | *2.4* | 0.5 |
|  | Total | 42 | *100.0* | 19.9 |

a Rates are expressed per 100,000 population of the specific age group

Denominator includes all Victorian resident adolescents aged 15 to 17 years.

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

This table excludes the death of two Victorian residents aged 15-17 years known to have died interstate from motor vehicle accident and other injury.

This table excludes deaths of non-Victorian residents aged 15-17 years occurring in Victoria.

## Table 7.14: Cause of death by age group, 28 days to 17 years, Victoria 2016

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| 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 | 2 | 0 | 0 | 0 | 0 | 2 | *1.0* |
| Congenital anomaly | 35 | 17 | 7 | 2 | 5 | 66 | *32.0* |
| Prematurity | 7 | 1 | 0 | 0 | 0 | 8 | *3.9* |
| Other | 0 | 0 | 1 | 2 | 1 | 4 | *1.9* |
| Subtotal | 44 | 18 | 8 | 4 | 6 | 80 | 38.8 |
| Sudden infant death syndrome/ USIDa | | | | | | | |
| 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 | 14 | 0 | 0 | 0 | 0 | 14 | *6.8* |
| Unclassified sudden infant death | 0 | 0 | 0 | 0 | 0 | 0 | *0.0* |
| Subtotal | 14 | 0 | 0 | 0 | 0 | 14 | 6.8 |
| Unintentional injury | | | | | | | |
| Motor vehicle accident | 0 | 2 | 1 | 1 | 9 | 13 | *6.3* |
| Drowning | 0 | 4 | 1 | 1 | 1 | 7 | *3.4* |
| Fire | 0 | 1 | 0 | 0 | 0 | 1 | *0.5* |
| Asphyxiation | 2 | 0 | 0 | 0 | 0 | 2 | *1.0* |
| Train | 0 | 0 | 0 | 0 | 0 | 0 | *0.0* |
| Other | 1 | 1 | 2 | 2 | 2 | 8 | *3.9* |
| Subtotal | 3 | 8 | 4 | 4 | 12 | 31 | 15.0 |
| Acquired disease | | | | | | | |
| Infection | 4 | 1 | 1 | 0 | 0 | 6 | *2.9* |
| Malignancy | 1 | 5 | 12 | 7 | 0 | 25 | *12.1* |
| Other | 1 | 1 | 1 | 3 | 3 | 9 | *4.4* |
| Subtotal | 6 | 7 | 14 | 10 | 3 | 40 | 19.4 |
| Undetermined | | | | | | |  |
| Undetermined | 4 | 5 | 2 | 1 | 5 | 17 | *8.3* |
| Subtotal | 4 | 5 | 2 | 1 | 5 | 17 | 8.3 |
| Intentional injury | | | | | | | |
| Intentionally inflicted injury | 4 | 2 | 0 | 0 | 0 | 6 | *2.9* |
| Suicide | 0 | 0 | 0 | 2 | 16 | 18 | *8.7* |
| Subtotal | 4 | 2 | 0 | 2 | 16 | 24 | 11.7 |
| Total | 75 | 40 | 28 | 21 | 42 | 206 | 100 |

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

## Figure 7.8a: Rates of major cause of death of post-neonatal infants and children 28 days to 14 years, 1985 to 2016a

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

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

## Figure 7.8b: Rates of major cause of death of post-neonatal infants and children 28 days to 17 years, 2005 to 2016a

a Denominator includes all Victorian residents 0 to 17 years of age; while the numerator includes only those aged 28 days to 17 years.

Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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

## Table 7.15a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997 – 2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 c | 2014 | 2015 | 2016 |
| Determined at birth | 89 | 73 | 85 | 85 | 76 | 86 | 77 | 73 | 81 | 88 | 94 | 90 | 64 | 83 | 57 | 84 | 87 | 65 | 71 | 74 |
| SIDS / USID a | 25 | 24 | 34 | 22 | 12 | 26 | 6 | 19 | 15 | 17 | 22 | 20 | 13 | 21 | 19 | 11 | 6 | 9 | 11 | 14 |
| Unintentional injury | 51 | 54 | 43 | 64 | 38 | 46 | 41 | 29 | 28 | 27 | 27 | 23 | 51 | 31 | 30 | 23 | 23 | 28 | 12 | 19 |
| Acquired disease | 68 | 72 | 59 | 52 | 47 | 66 | 52 | 50 | 56 | 34 | 40 | 42 | 33 | 49 | 39 | 39 | 27 | 50 | 46 | 37 |
| Undetermined b | N/A | N/A | 0 | 3 | 5 | 6 | 8 | 4 | 2 | 1 | 9 | 7 | 10 | 16 | 15 | 17 | 10 | 10 | 7 | 12 |
| Intentional injury | 7 | 6 | 5 | 6 | 5 | 6 | 10 | 5 | 9 | 7 | 5 | 6 | 8 | 9 | 6 | 9 | 4 | 6 | 14 | 8 |
| Total | 240 | 229 | 226 | 232 | 183 | 236 | 194 | 180 | 191 | 174 | 197 | 188 | 179 | 209 | 166 | 183 | 157 | 168 | 161 | 164 |

a SIDS/USID (Sudden Unexpected Death Syndrome and Unclassified Sudden Infant Death) represent all infants who die suddenly and unexpectedly and for whom no cause is determined at autopsy. It includes, prior to 2004, all SIDS infants. Since 2004, this category includes infants classified to SIDS 1A, SIDS 1B, SIDS II and USID. Prior to 2004, USID equivalent infants were classified as 'Undetermined'.

b In reports prior to 2002 where a cause of death was not identified or has been classified as unascertained, it was included in 'Acquired Disease', under subcategory 'Other Acquired'. Since the 2002 annual report (incorporating data since 1999) these deaths have been classified under the category 'Undetermined'.

c A new case in the 5-9 year age group occurring in 2013 was reported to CCOPMM in 2016, taking the deaths in the 5-9 year age group to 31 and the total deaths in the 28 day - 14 year age group to 157 in 2013.

The data is presented in Figure 7.9a

## Figure 7.9a: Post-neonatal infant and child deaths (28 days to 14 years) by major cause, Victoria 1997 – 2016

The data is taken from Table 7.15a

## Table 7.15b: Post-neonatal infant, child and adolescent deathsab by major cause, Victoria 1997 – 2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 e | 2014 | 2015 | 2016 |
| Determined at birth | 89 | 73 | 85 | 85 | 76 | 86 | 77 | 73 | 92 | 94 | 101 | 103 | 68 | 91 | 61 | 94 | 94 | 72 | 76 | 80 |
| SIDS / USID c | 25 | 24 | 34 | 22 | 12 | 26 | 6 | 19 | 15 | 17 | 22 | 20 | 13 | 21 | 19 | 11 | 6 | 9 | 11 | 14 |
| Unintentional injury | 51 | 54 | 43 | 64 | 38 | 46 | 41 | 29 | 47 | 48 | 43 | 37 | 72 | 45 | 50 | 34 | 32 | 35 | 30 | 31 |
| Acquired disease | 68 | 72 | 59 | 52 | 47 | 66 | 52 | 50 | 64 | 44 | 52 | 49 | 43 | 61 | 51 | 46 | 32 | 57 | 60 | 40 |
| Undetermined d | 0 | 0 | 0 | 3 | 5 | 6 | 8 | 4 | 4 | 3 | 11 | 15 | 11 | 18 | 17 | 19 | 12 | 10 | 10 | 17 |
| Intentional injury | 7 | 6 | 5 | 6 | 5 | 6 | 10 | 5 | 26 | 16 | 16 | 22 | 22 | 21 | 19 | 32 | 17 | 22 | 30 | 24 |
| Total cases | 240 | 229 | 226 | 232 | 183 | 236 | 194 | 180 | 248 | 222 | 245 | 246 | 229 | 257 | 217 | 236 | 193 | 205 | 217 | 206 |

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 children aged 28 days to 17 years

c SIDS/USID (Sudden Unexpected Death Syndrome and Unclassified Sudden Infant Death) represent all infants who die suddenly and unexpectedly and for whom no cause is determined at autopsy. It includes, prior to 2004, all SIDS infants. Since 2004, this category includes infants classified to SIDS 1A, SIDS 1B, SIDS II and USID. Prior to 2004, USID equivalent infants were classified as 'Undetermined'.

d In reports prior to 2002 where a cause of death was not identified or has been classified as unascertained, it was included in 'Acquired Disease', under subcategory 'Other Acquired'. Since the 2002 annual report (incorporating data since 1999) these deaths have been classified under the category 'Undetermined’.

e A new case in the 5-9 year age group occurring in 2013 was reported to CCOPMM in 2016, taking the deaths in the 5-9 year age group to 31 and the total deaths in the 28 day - 17 year age group to 193 in 2013.

The data is presented in Figure 7.9b.

## Figure 7.9b: Post-neonatal infant, child and adolescent deaths by major cause, Victoria 1997 – 2016

The data is taken from Table 7.15b

## Table 7.16a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Birth hypoxia / asphyxia | 6 | 9 | 9 | 8 | 6 | 4 | 5 | 3 | 2 | 6 | 9 | 3 | 7 | 1 | 2 | 4 | 1 | 1 | 2 | 2 |
| Congenital anomaly | 62 | 50 | 62 | 56 | 54 | 65 | 56 | 52 | 60 | 60 | 67 | 68 | 41 | 61 | 43 | 67 | 73 | 50 | 57 | 61 |
| Prematurity | 13 | 8 | 12 | 12 | 15 | 10 | 13 | 13 | 17 | 20 | 15 | 17 | 15 | 18 | 10 | 13 | 12 | 13 | 12 | 8 |
| Other | 8 | 6 | 2 | 9 | 1 | 7 | 3 | 5 | 2 | 2 | 3 | 2 | 1 | 3 | 2 | 0 | 1 | 1 | 0 | 3 |
| Total cases | 89 | 73 | 85 | 85 | 76 | 86 | 77 | 73 | 81 | 88 | 94 | 90 | 64 | 83 | 57 | 84 | 87 | 65 | 71 | 74 |

The data is presented in Figure 7.10a

## Figure 7.10a: Causes of death determined at birth: post-neonatal infants and children (28 days to 14 years), Victoria 1997 - 2016

The data is taken from Table 7.16a

## Table 7.16b: Causes of death determined at birth: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Birth hypoxia / asphyxia | 6 | 9 | 9 | 8 | 6 | 4 | 5 | 3 | 3 | 7 | 10 | 4 | 7 | 2 | 2 | 5 | 2 | 1 | 2 | 2 |
| Congenital anomaly | 62 | 50 | 62 | 56 | 54 | 65 | 56 | 52 | 67 | 65 | 73 | 78 | 45 | 68 | 46 | 75 | 79 | 56 | 61 | 66 |
| Prematurity | 13 | 8 | 12 | 12 | 15 | 10 | 13 | 13 | 17 | 20 | 15 | 18 | 15 | 18 | 10 | 13 | 12 | 13 | 12 | 8 |
| Other | 8 | 6 | 2 | 9 | 1 | 7 | 3 | 5 | 5 | 2 | 3 | 3 | 1 | 3 | 3 | 1 | 1 | 2 | 1 | 4 |
| Total cases | 89 | 73 | 85 | 85 | 76 | 86 | 77 | 73 | 92 | 94 | 101 | 103 | 68 | 91 | 61 | 94 | 94 | 72 | 76 | 80 |

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

b 2005 - 2016 children and adolescents aged 28 days to 17 years.

The data is presented in Figure 7.10b

## Figure 7.10b: Causes of death determined at birth: post-neonatal infants, children and adolescents, Victoria 1997-2016

The data is taken from Table 7.16b

## Table 7.17a: Deaths from conditions determined at birth by age group, Victoria, 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Birth asphyxia/hypoxia | 2 | 0 | 0 | 0 | 0 | 2 |
| Congenital anomaly | 35 | 17 | 7 | 2 | 5 | 66 |
| Prematurity | 7 | 1 | 0 | 0 | 0 | 8 |
| Other | 0 | 0 | 1 | 2 | 1 | 4 |
| Total | 44 | 18 | 8 | 4 | 6 | 80 |

Note: Deaths from congenital anomaly are detailed in Table 7.17b

## Table 7.17b: Deaths from congenital anomaly by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Type of congenital anomaly | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Cardiovascular | | | | | | 16 |
| Hypoplastic left heart syndrome | 3 | 1 | 0 | 0 | 0 | **4** |
| Mitral stenosis and atresia | 1 | 0 | 0 | 0 | 0 | **1** |
| Congenital heart disease (unspecified) | 2 | 0 | 0 | 0 | 0 | **2** |
| Complex congenital heart disease | 2 | 0 | 0 | 0 | 0 | **2** |
| Pulmonary valve atresia | 1 | 0 | 0 | 0 | 0 | **1** |
| Malformation of coronary vessels | 0 | 0 | 1 | 0 | 0 | **1** |
| Wolff Parkinson White syndrome | 0 | 0 | 0 | 0 | 1 | **1** |
| Scimitar syndrome | 1 | 0 | 0 | 0 | 0 | **1** |
| Stenosis and atresia of aortic valve | 1 | 0 | 0 | 0 | 0 | **1** |
| Tetralogy of Fallot | 0 | 0 | 0 | 1 | 0 | **1** |
| Total anomalous pulmonary venous connection | 1 | 0 | 0 | 0 | 0 | **1** |
| Arteriovenous malformation (AVM) | | | | | | 1 |
| Arteriovenous malformation of cerebral vessels | 0 | 1 | 0 | 0 | 0 | **1** |
| Gastrointestinal including liver | | | | | | 1 |
| Atresia of oesophagus without fistula | 1 | 0 | 0 | 0 | 0 | **1** |
| Respiratory including diaphragm | | | | | | 1 |
| Congenital diaphragmatic hernia | 1 | 0 | 0 | 0 | 0 | **1** |
| Central nervous system - structural | | | | | | 7 |
| Microcephaly | 1 | 0 | 0 | 0 | 0 | **1** |
| Reduction anomalies of cerebellum | 0 | 1 | 0 | 0 | 0 | **1** |
| Severe bilateral hydrocephalus | 1 | 0 | 0 | 0 | 0 | **1** |
| Lumbar spina bifida without hydrocephalus | 1 | 0 | 0 | 0 | 0 | **1** |
| Macrocephaly (with mild ventriculomegaly) | 0 | 1 | 0 | 0 | 0 | **1** |
| Semilobar holoprosencephaly | 0 | 1 | 0 | 0 | 0 | **1** |
| Septo-optic dysplasia | 0 | 1 | 0 | 0 | 0 | **1** |
| Central nervous system - severe and/or degenerative disease | | | | | | 5 |
| Neurodegenerative disorder (undiagnosed) | 0 | 1 | 1 | **0** | 0 | **2** |
| GM 2 Gangliosidosis | 0 | 1 | 0 | 0 | 0 | **1** |
| Peroxisomal D-bifunctional protein deficiency | 1 | 0 | 0 | 0 | 0 | **1** |
| Type of congenital anomaly | 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Pelizaeus-Merzbacher disease | 0 | 0 | 1 | 0 | 0 | **1** |
| Neuromuscular disorder | | | | | | 8 |
| Arthrogryposis | 1 | 0 | 0 | 0 | 0 | **1** |
| X-linked myotubular myopathy | 1 | 0 | 0 | 0 | 0 | **1** |
| Muscular dystrophy | 0 | 0 | 0 | 1 | 1 | **2** |
| Myotonic disorders | 1 | 0 | 0 | 0 | 0 | **1** |
| Spinal muscular atrophy type 1 | 2 | 1 | 0 | 0 | 0 | **3** |
| Mitochondrial disorder | | | | | | 4 |
| Leigh disease | 0 | 0 | 1 | 0 | 0 | **1** |
| Mitochondrial metabolism disorder, unspecified | 1 | 2 | 0 | 0 | 0 | **3** |
| Metabolic | | | | | | 8 |
| Adenlyosuccinate lyase deficiency | 0 | 0 | 1 | 0 | 0 | **1** |
| D-2-hydroxyglutaric aciduria | 1 | 0 | 0 | 0 | 0 | **1** |
| Molybdenum cofactor deficiency type b | 0 | 1 | 0 | 0 | 0 | **1** |
| Pompe disease | 0 | 1 | 0 | 0 | 0 | **1** |
| Disorders of urea cycle metabolism | 1 | 0 | 0 | 0 | 0 | **1** |
| Other disorder of glycoprotein metabolism | 0 | 0 | 0 | 0 | 1 | **1** |
| Undiagnosed metabolic disorder | 1 | 0 | 1 | 0 | 0 | **2** |
| Chromosomal anomalies including trisomies and monosomies | | | | | | 2 |
| Duplications with other complex rearrangements | 1 | 0 | 0 | 0 | 0 | **1** |
| Trisomy 18 | 0 | 1 | 0 | 0 | 0 | **1** |
| Other syndromes and rare genetic disorders | | | | | | 11 |
| Aicardi-Goutieres syndrome | 0 | 1 | 0 | 0 | 0 | **1** |
| Cornelia De Lange syndrome | 0 | 0 | 0 | 0 | 1 | **1** |
| VACTERL Association | 1 | 0 | 0 | 0 | 0 | **1** |
| Costello syndrome | 1 | 0 | 0 | 0 | 0 | **1** |
| Enteropathy (Ipex) | 0 | 0 | 1 | 0 | 0 | **1** |
| Granulomatous disease | 0 | 0 | 0 | 0 | 1 | **1** |
| Marfan Syndrome | 1 | 0 | 0 | 0 | 0 | **1** |
| Rubenstein Taybi Syndrome | 1 | 0 | 0 | 0 | 0 | **1** |
| Ciliopathy with features of Joubert and Jeune | 0 | 1 | 0 | 0 | 0 | **1** |
| Schimke's immunosseous dysplasia | 0 | 1 | 0 | 0 | 0 | **1** |
| Severe combined immunodeficiency | 1 | 0 | 0 | 0 | 0 | **1** |
| Other malformations including multiple system malformation | | | | | | 2 |
| Exomphalos | 1 | 0 | 0 | 0 | 0 | **1** |
| Multiple abnormalities, unspecified | 1 | 0 | 0 | 0 | 0 | **1** |
| Total | 35 | 17 | 7 | 2 | 5 | 66 |

## Table 7.18: Unexplained sudden unexpected death in infants, Victoria 1985-2016ab

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
| SIDS Post neonatal | 128 | 131 | 126 | 114 | 131 | 107 | 58 | 65 | 44 | 51 | 27 | 39 | 24 | 22 | 29 | 20 |
| SIDS Neonatal | 3 | 8 | 6 | 8 | 10 | 8 | 4 | 2 | 4 | 3 | 10 | 2 | 4 | 4 | 3 | 3 |
| Undetermined / USID | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 1 |
| Total | 131 | 139 | 132 | 122 | 141 | 115 | 62 | 67 | 48 | 54 | 37 | 41 | 28 | 26 | 34 | 24 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014c | 2015 | 2016 |
| SIDS Post neonatal | 12 | 26 | 6 | 18 | 14 | 16 | 19 | 19 | 13 | 21 | 19 | 11 | 6 | 9 | 11 | 14 |
| SIDS Neonatal | 1 | 3 | 1 | 2 | 1 | 3 | 5 | 2 | 3 | 1 | 2 | 0 | 2 | 0 | 1 | 0 |
| Undetermined / USID | 6 | 4 | 3 | 2 | 1 | 2 | 4 | 3 | 2 | 4 | 2 | 3 | 4 | 7 | 6 | 5 |
| Total | 19 | 33 | 10 | 22 | 16 | 21 | 28 | 24 | 18 | 26 | 23 | 14 | 12 | 16 | 18 | 19 |

SIDS - Sudden infant death syndrome

USID - Unclassified sudden infant death

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

b This table and Figure 7.11 have 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 the figure, but is now listed in the undetermined category. Prior to 1999, USID equivalent cases were classified as 'undetermined', and are not included in this amended figure.

c A neonatal death in 2014 has been reclassified as Undetermined / USID (PSANZ NDC 7.92 from PSANZ NDC 5.1), increasing the Undetermined / USID total to 7 and the total to 16.

The data is presented in Figure 7.11

## Figure 7.11: Unexplained sudden unexpected death in infants, Victoria 1985-2016ab

The data is taken from Table 7.18

## Table 7.19: Rate of unexplained sudden unexpected deaths in infants (SUDI) per 1,000 live births, Victoria, 1985-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1985 | 1986 | 1987 | 1988 | 1989 | 1990 | 1991 | 1992 | 1993 | 1994 | 1995 | 1996 | 1997 | 1998 | 1999 | 2000 |
| Live births | 60,776 | 60,683 | 61,090 | 63,126 | 63,694 | 66,350 | 64,632 | 65,815 | 64,284 | 64,376 | 63,214 | 62,429 | 61,815 | 61,634 | 62,149 | 62,127 |
| SUDI cases | 131 | 139 | 132 | 122 | 141 | 115 | 62 | 67 | 48 | 54 | 37 | 41 | 28 | 26 | 34 | 24 |
| Unexplained SUDI rate | 2.16 | 2.29 | 2.16 | 1.93 | 2.21 | 1.73 | 0.96 | 1.02 | 0.75 | 0.84 | 0.59 | 0.66 | 0.45 | 0.42 | 0.55 | 0.39 |

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Live births | 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 | 80,200 |
| SUDI cases | 19 | 33 | 10 | 22 | 16 | 21 | 28 | 24 | 18 | 26 | 23 | 14 | 12 | 16 | 18 | 19 |
| Unexplained SUDI rate | 0.31 | 0.53 | 0.16 | 0.35 | 0.24 | 0.30 | 0.39 | 0.33 | 0.25 | 0.35 | 0.31 | 0.18 | 0.15 | 0.20 | 0.23 | 0.24 |

Rate per 1,000 live births (excluding all terminations of pregnancy)

Live birth total for 2016 is from Appendix 3 (E)

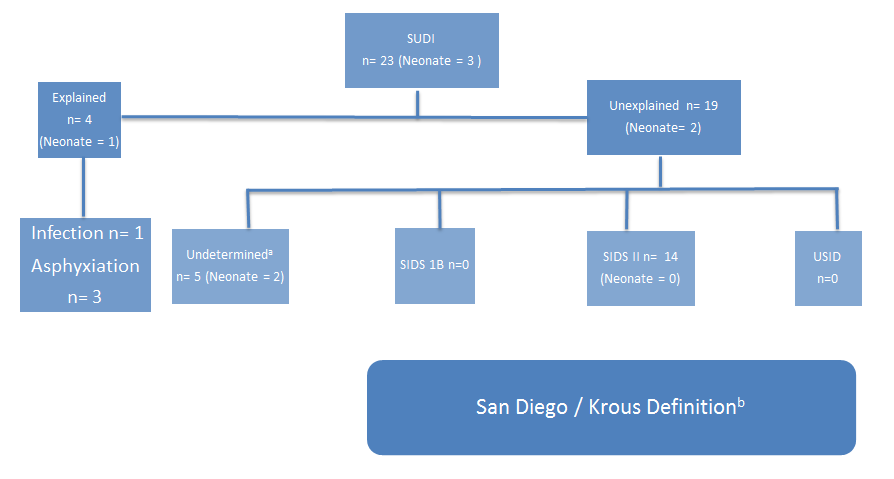
The data is presented in Figure 7.12

## Figure 7.12: Rate of unexplained sudden unexpected deaths in infants (SUDI) per 1,000 live births, Victoria, 1985-2016

Rate per 1,000 live births (excluding all terminations of pregnancy)

The data is taken from Table 7.19

## Figure 7.13: Sudden unexpected deaths of infants, Victoria 2016



a See Table .7.33 detailing Unascertained / Undetermined deaths

b See Appendix 1 for full definition

## Table 7.20: SUDIa deaths: cause of death, Victoria 2004-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014c | 2015 | 2016 |
| 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 | 0 |
| R95 | Sudden infant death syndrome (category SIDS II) | 16 | 13 | 18 | 22 | 20 | 16 | 20 | 21 | 10 | 6 | 9 | 11 | 14 |
| R96 / R99 | Undeterminedb / Undetermined sudden infant death | 2 | 1 | 2 | 4 | 3 | 2 | 4 | 2 | 3 | 4 | 7 | 6 | 5 |
| *Subtotal unexplained deaths* | | *22* | *16* | *21* | *28* | *24* | *18* | *26* | *23* | *14* | *12* | *16* | *18* | *19* |
| Explained deaths | | | | | | | | | | | | | | |
|  | Congenital anomaly / genetic condition | 2 | 1 | 1 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 1 | 2 | 0 |
|  | Asphyxiation | 1 | 1 | 3 | 2 | 0 | 0 | 0 | 0 | 0 | 2 | 1 | 0 | 3 |
|  | Infection | 5 | 5 | 1 | 1 | 0 | 1 | 0 | 0 | 0 | 0 | 2 | 3 | 1 |
|  | Intentional injury | 0 | 2 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 2 | 0 |
|  | Acquired illness | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 |
|  | Aspiration pneumonia | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Intestinal ischaemia | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
|  | Complications of prematurity | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| *Subtotal explained deaths* |  | *8* | *10* | *6* | *5* | *1* | *2* | *0* | *0* | *0* | *2* | *5* | *7* | *4* |
| Total | | 30 | 26 | 27 | 33 | 25 | 20 | 26 | 23 | 14 | 14 | 21 | 25 | 23 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

a See Appendix 1 for full definition

b See Table .7.33 detailing Unascertained / Undetermined deaths

c A neonatal death in 2014 has been reclassified as Undetermined / USID (PSANZ NDC 7.92 from PSANZ NDC 5.1), increasing the Undetermined / USID total to 7 and the total to 16

## Table 7.21: Selected features of the (n=14) infants categorised as SIDS IIa, Victoria 2016

|  |  |  |
| --- | --- | --- |
| SIDS II featuresa | n | *% of cases (N=14)* |
| Prematurity | 5 | *36* |
| Age ≤ 21 days | 0 | *0* |
| Age ≥ 9 months | 0 | *0* |
| History of similar death among siblings, close relatives or infants in care of same caregiver | 1 | *7* |
| Neonatal or perinatal conditions (eg resulting from preterm birth) which had resolved by the time of death | 6 | *43* |
| Mechanical asphyxia or suffocation caused by overlaying not determined with certainty (as co-sleeping **or** unsafe sleeping environment) | 10 | *71* |
| Marked inflammatory changes not sufficient to be unequivocal causes of death | 0 | *0* |
| Abnormal growth or development not thought to have contributed to death | 1 | *7* |
| Total | 23 | *N/A* |

a Infants can have more than one feature

N/A - not applicable

## Table 7.22: Selected features of the (n=23) SUDI deaths, Victoria 2016a

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
|  | | Females | Males | Total | |
| n | n | n | *%* |
| Sex and age at death | < 21 days | 1 | 1 | 2 | *8.7* |
| 21 days to < 1 month | 0 | 1 | 1 | *4.3* |
| 1 month | 1 | 3 | 4 | *17.4* |
| 2 months | 2 | 2 | 4 | *17.4* |
| 3 months | 1 | 2 | 3 | *13.0* |
| 4 months | 3 | 2 | 5 | *21.7* |
| 5 months | 0 | 2 | 2 | *8.7* |
| ≥ 6 months | 2 | 0 | 2 | *8.7* |
| Total | 10 | 13 | 23 | *100.0* |
|  |  |  |  |  |  |
|  | |  |  | n | *%* |
| Gestational age | Preterm < 37 |  |  | 9 | *39.1* |
| Term |  |  | 14 | *60.9* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Birth weight | <2500 g |  |  | 4 | *17.4* |
| ≥ 2500 g |  |  | 19 | *82.6* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Aboriginal | Infant Aboriginal |  |  | 2 | *8.7* |
| Infant not Aboriginal |  |  | 20 | *87.0* |
| Unknownb |  |  | 1 | *4.3* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Mother smoker during pregnancy | Yes, but ceased by 20 w |  |  | 1 | *4.3* |
| Yes, continued after 20 w |  |  | 6 | *26.1* |
| Yes, but unknown if continued after 20 w |  |  | 2 | *8.7* |
| No |  |  | 13 | *56.5* |
| Unknownb |  |  | 1 | *4.3* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Mother's age at infant's birth (years) | 15-19 |  |  | 0 | *0.0* |
| 20-24 |  |  | 4 | *17.4* |
| 25-29 |  |  | 5 | *21.7* |
| ≥30 years |  |  | 13 | *56.5* |
| Unknownb |  |  | 1 | *4.3* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
|  |  |  |  |  |  |
|  |  |  |  | n | *%* |
| Current feeding | Breast |  |  | 4 | *17.4* |
| Breast and formula |  |  | 5 | *21.7* |
| Formula |  |  | 7 | *30.4* |
| Unknown |  |  | 7 | *30.4* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Family referred to child protection services (already known to or referred following infant's death) | Yes |  |  | 13 | 56.5 |
| No |  |  | 6 | 26.1 |
| Unknown |  |  | 4 | 17.4 |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Position when placed to sleep | Prone |  |  | 7 | *30.4* |
| Side |  |  | 2 | *8.7* |
| Supine |  |  | 10 | *43.5* |
| Other |  |  | 2 | *8.7* |
| Not adequately described |  |  | 2 | *8.7* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Co-sleeping | Yes |  |  | 10 | *43.5* |
| No |  |  | 13 | *56.5* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Co-sleeping site | Couch |  |  | 4 | *40.0* |
| Adult bed |  |  | 6 | *60.0* |
| Total |  |  | 10 | *100.0* |
|  |  |  |  |  |  |
| Co-sleeping adult(s) affected by sedating drugs or alcohol | Yes |  |  | 3 | *30.0* |
| No / not stated |  |  | 7 | *70.0* |
| Total |  |  | 10 | *100.0* |
|  |  |  |  |  |  |
| Non co-sleeping sitec | Cot |  |  | 5 | *38.5* |
| Bassinette |  |  | 3 | *23.1* |
| Baby hammock |  |  | 1 | *7.7* |
| Adult bed |  |  | 2 | *15.4* |
| Mother's arms |  |  | 1 | *7.7* |
| Couch |  |  | 1 | *7.7* |
| Total |  |  | 13 | *100.0* |
|  |  |  |  |  |  |
| Position when found | Prone |  |  | 7 | *30.4* |
| Supine |  |  | 10 | *43.5* |
| Side |  |  | 2 | *8.7* |
| Not adequately described |  |  | 2 | *8.7* |
| Other |  |  | 2 | *8.7* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
|  |  |  |  | n | *%* |
| DHS region | Metropolitan |  |  | 12 | *52.2* |
| Non-metropolitan |  |  | 11 | *47.8* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Season of death | Spring |  |  | 5 | *21.7* |
| Summer |  |  | 3 | *13.0* |
| Autumn |  |  | 9 | *39.1* |
| Winter |  |  | 6 | *26.1* |
| Total |  |  | 23 | *100.0* |
|  |  |  |  |  |  |
| Toxicology findings of illicit drugs or methadone metabolites | In infant's blood and hair |  |  | 3 | *13.0* |
| In infant's hair |  |  | 2 | *8.7* |
| Not detected |  |  | 18 | *78.3* |
| Total |  |  | 23 | *100.0* |

a The 23 SUDI deaths are coded as: SIDS 1A (n=0), IB (n=0), SIDS II (n=14), USID (n=0), Undetermined (n=5) and Explained causes (n=4)

b Unknown mother's age and weight for baby born interstate resulting in birth details not being available

c Sleeping site may not have been safe according to recommendations.

## Figure 7.14: Rates of unintentional injury deaths by age group, Victoria 1985-2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

Rates are expressed per 100,000 population of the age group.

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

For 0 -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.

## Figure 7.15a: Rates of unintentional injury deaths, 28 days to 14 years, Victoria 1985 - 2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016.Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017.

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.

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

## Figure 7.15b: Rates of unintentional injury deaths (excluding motor vehicle accidents), 28 days to 14 years, Victoria 1985-2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016

Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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

For post-neonatal infants, the denominator includes all Victorian resident infants 0-364 days of age; while the numerator includes only post-neonatal infants aged 28-364 days.

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

## Figure 7.15c: Rates of unintentional injury deaths, Victoria 1985 - 2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016..Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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 in February 2009.

## Figure 7.15d: Rates of unintentional injury deaths (excluding motor vehicle accidents), Victoria 1985-2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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.

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

## Table 7.23a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Motor vehicle accidents | 23 | 28 | 21 | 20 | 17 | 25 | 24 | 14 | 12 | 9 | 12 | 10 | 12 | 12 | 19 | 8 | 7 | 16 | 5 | 4 |
| Drowning | 8 | 12 | 14 | 16 | 8 | 5 | 3 | 8 | 6 | 8 | 4 | 5 | 5 | 10 | 2 | 6 | 4 | 6 | 3 | 6 |
| Fire | 5 | 3 | 4 | 7 | 1 | 1 | 2 | 0 | 4 | 3 | 3 | 1 | 25 | 0 | 2 | 2 | 0 | 3 | 0 | 1 |
| Asphyxiation | 7 | 9 | 1 | 4 | 3 | 7 | 7 | 2 | 2 | 4 | 3 | 4 | 7 | 5 | 0 | 4 | 5 | 2 | 1 | 2 |
| Train accidents | 3 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 0 | 0 | 0 | 2 | 0 | 1 | 0 | 0 | 0 |
| Other | 5 | 2 | 3 | 16 | 8 | 6 | 5 | 5 | 3 | 3 | 4 | 3 | 2 | 4 | 5 | 3 | 6 | 1 | 3 | 6 |
| Total | 51 | 54 | 43 | 64 | 38 | 46 | 41 | 29 | 28 | 27 | 27 | 23 | 51 | 31 | 30 | 23 | 23 | 28 | 12 | 19 |

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

The data is presented in Figure 7.16a

## Figure 7.16a: Unintentional injury deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997 – 2016

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

The data is taken from Table 7.23a

## Table 7.23b: Unintentional injury deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Motor vehicle accidents | 23 | 28 | 21 | 20 | 17 | 25 | 24 | 14 | 26 | 29 | 26 | 22 | 23 | 19 | 31 | 13 | 11 | 21 | 21 | 13 |
| Drowning | 8 | 12 | 14 | 16 | 8 | 5 | 3 | 8 | 7 | 8 | 4 | 5 | 7 | 11 | 2 | 6 | 5 | 6 | 3 | 7 |
| Fire | 5 | 3 | 4 | 7 | 1 | 1 | 2 | 0 | 5 | 3 | 3 | 1 | 29 | 0 | 2 | 3 | 2 | 3 | 0 | 1 |
| Asphyxiation | 7 | 9 | 1 | 4 | 3 | 7 | 7 | 2 | 2 | 4 | 3 | 4 | 7 | 5 | 1 | 4 | 5 | 2 | 1 | 2 |
| Train accidents | 3 | 0 | 0 | 1 | 1 | 2 | 0 | 0 | 1 | 0 | 1 | 1 | 0 | 0 | 3 | 1 | 1 | 1 | 0 | 0 |
| Other | 5 | 2 | 3 | 16 | 8 | 6 | 5 | 5 | 6 | 4 | 6 | 4 | 6 | 10 | 11 | 7 | 8 | 2 | 5 | 8 |
| Total | 51 | 54 | 43 | 64 | 38 | 46 | 41 | 29 | 47 | 48 | 43 | 37 | 72 | 45 | 50 | 34 | 32 | 35 | 30 | 31 |

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

The data is presented in Figure 7.16b.

## Figure 7.16b: Unintentional injury deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 children aged 28 days to 17 years

The data is taken from Table7.23b

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

## Figure 7.17a: Rates of motor vehicle accidents by age group, Victoria 1985 – 2016

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

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

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.

Rates expressed per 100,000 population of the specified age group.

## Figure 7.17b: Rates of motor vehicle accidents and all unintentional injury deaths by age group, Victoria 1985-2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017.

For 28 days - 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.

Rates expressed per 100,000 population of the specified age group.

## **Table 7.24a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997**-2016a

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Traffic accidents | 22 | 26 | 16 | 15 | 15 | 20 | 19 | 14 | 11 | 8 | 11 | 10 | 7 | 9 | 13 | 5 | 4 | 13 | 3 | 2 |
| Non-traffic accidents | 1 | 2 | 5 | 5 | 2 | 5 | 5 | 0 | 1 | 1 | 1 | 0 | 5 | 3 | 6 | 3 | 3 | 3 | 2 | 2 |
| Total | 23 | 28 | 21 | 20 | 17 | 25 | 24 | 14 | 12 | 9 | 12 | 10 | 12 | 12 | 19 | 8 | 7 | 16 | 5 | 4 |

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).

The data is presented in Figure 7.18a

## Figure 7.18a: Motor vehicle accident fatalities: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016

## Table 7.24b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescentsab, Victoria 1997-2016c

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Traffic accidents | 22 | 26 | 16 | 15 | 15 | 20 | 19 | 14 | 25 | 27 | 25 | 21 | 17 | 16 | 24 | 10 | 8 | 17 | 19 | 11 |
| Non-traffic accidents | 1 | 2 | 5 | 5 | 2 | 5 | 5 | 0 | 1 | 2 | 1 | 1 | 6 | 3 | 7 | 3 | 3 | 4 | 2 | 2 |
| Total | 23 | 28 | 21 | 20 | 17 | 25 | 24 | 14 | 26 | 29 | 26 | 22 | 23 | 19 | 31 | 13 | 11 | 21 | 21 | 13 |

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 children 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)

The data is presented in Figure 7.18b

## Figure 7.18b: Motor vehicle accident fatalities: post-neonatal infants, children and adolescents, Victoria 1997-2016

## Table 7.25: Mode of travel in motor vehicle accident fatalities by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Passenger in motor vehicle | 0 | 1 | 1 | 0 | 4 | 6 |
| Driver of motor vehicle | 0 | 0 | 0 | 0 | 3 | 3 |
| Pedestrian | 0 | 1 | 0 | 0 | 2 | 3 |
| Driver of off-road vehicle | 0 | 0 | 0 | 1 | 0 | 1 |
| Total | 0 | 2 | 1 | 1 | 9 | 13 |

## Table 7.26: Drowning fatalities: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Domestic poolc | 5 | 3 | 6 | 5 | 3 | 0 | 1 | 1 | 1 | 3 | 1 | 1 | 1 | 5 | 0 | 2 | 2 | 1 | 2 | 1 |
| Adult bath | 1 | 1 | 3 | 2 | 1 | 1 | 1 | 0 | 2 | 1 | 1 | 1 | 0 | 2 | 0 | 2 | 1 | 2 | 1 | 2 |
| Public pool | 0 | 1 | 1 | 1 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 1 | 0 | 0 | 0 | 0 | 0 | 0 |
| Otherd | 2 | 7 | 4 | 8 | 4 | 4 | 1 | 7 | 4 | 4 | 2 | 3 | 6 | 3 | 2 | 2 | 2 | 3 | 0 | 4 |
| Total | 8 | 12 | 14 | 16 | 8 | 5 | 3 | 8 | 7 | 8 | 4 | 5 | 7 | 11 | 2 | 6 | 5 | 6 | 3 | 7 |

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 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

The data is presented in Figure 7.19

Figure 7.19: Drowning fatalities: post-neonatal infants, children and adolescents, Victoria 1997-2016

## Table 7.27: Location of drowning fatalities by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Bath tub | 0 | 1 | 1 | 0 | 0 | 2 |
| Shower | 0 | 0 | 0 | 0 | 1 | 1 |
| Sea | 0 | 0 | 0 | 1 | 0 | 1 |
| Pond | 0 | 1 | 0 | 0 | 0 | 1 |
| River | 0 | 1 | 0 | 0 | 0 | 1 |
| Domestic pool | 0 | 1 | 0 | 0 | 0 | 1 |
| Total | 0 | 4 | 1 | 1 | 1 | 7 |
|  |  |  |  |  |  |  |

## Table 7.28: Deaths from fire, asphyxiation, train and other types of injury, by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Fire | | | | | | |
| House fire | 0 | 1 | 0 | 0 | 0 | 1 |
|  |  |  |  |  |  |  |
| Asphyxiation | | | | | | |
| Asphyxiation (co-sleeping) | 1 | 0 | 0 | 0 | 0 | 1 |
| Asphyxiation (unsafe sleep site) | 1 | 0 | 0 | 0 | 0 | 1 |
|  |  |  |  |  |  |  |
| Train | 0 | 0 | 0 | 0 | 0 | 0 |
|  |  |  |  |  |  |  |
| Other injury type | | | | | | |
| Heat stroke (car) | 1 | 0 | 0 | 0 | 0 | 1 |
| Post-surgery complications | 0 | 0 | 1 | 0 | 0 | 1 |
| Drug overdose (unintentional) | 0 | 0 | 0 | 2 | 2 | 4 |
| Head injury | 0 | 1 | 1 | 0 | 0 | 2 |
| Total | 3 | 2 | 2 | 2 | 2 | 11 |

## Table 7.29a: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013c | 2014 | 2015 | 2016 |
| Infection | 16 | 14 | 9 | 21 | 19 | 18 | 14 | 16 | 18 | 10 | 10 | 11 | 5 | 14 | 10 | 9 | 6 | 19 | 12 | 6 |
| Malignancy | 40 | 44 | 35 | 24 | 22 | 36 | 26 | 30 | 30 | 18 | 20 | 24 | 25 | 33 | 24 | 19 | 19 | 24 | 25 | 25 |
| Other acquireda | 12 | 14 | 15 | 7 | 6 | 12 | 12 | 4 | 8 | 6 | 10 | 7 | 3 | 2 | 5 | 11 | 2 | 7 | 9 | 6 |
| Undeterminedb | N/A | N/A | 0 | 3 | 5 | 6 | 8 | 4 | 2 | 1 | 9 | 7 | 10 | 16 | 15 | 17 | 10 | 10 | 7 | 12 |
| Total | 68 | 72 | 59 | 55 | 52 | 72 | 60 | 54 | 58 | 35 | 49 | 49 | 43 | 65 | 54 | 56 | 37 | 60 | 53 | 49 |

a Other acquired category: this category is summarised in Table 8.31.

b Undetermined category: in reports prior to 2002 (backdated to 1999), where a cause of death was not identified or had been classified as 'unascertained/undetermined' it was included in the 'other acquired' category.

c A case of malignancy has been added to 2013, bringing the malignancy total to 19 and the total Acquired disease and Undetermined deaths to 37 in 2013.

N/A - not applicable

The data is presented in Figure 7.20a

## Figure 7.20a: Acquired disease and undetermined deaths: post-neonatal infants and children (28 days to 14 years) Victoria 1997-2016

## Table 7.29b: Acquired disease deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013e | 2014 | 2015 | 2016 |
| Infection | 16 | 14 | 9 | 21 | 19 | 18 | 14 | 16 | 20 | 10 | 10 | 12 | 6 | 16 | 11 | 10 | 6 | 19 | 13 | 6 |
| Malignancy | 40 | 44 | 35 | 24 | 22 | 36 | 26 | 30 | 34 | 26 | 30 | 28 | 33 | 42 | 32 | 22 | 23 | 29 | 31 | 25 |
| Other acquiredc | 12 | 14 | 15 | 7 | 6 | 12 | 12 | 4 | 10 | 8 | 12 | 9 | 4 | 3 | 9 | 14 | 3 | 9 | 16 | 9 |
| Undeterminedd | N/A | N/A | 0 | 3 | 5 | 6 | 8 | 4 | 4 | 3 | 11 | 15 | 11 | 18 | 17 | 19 | 12 | 10 | 10 | 17 |
| Total | 68 | 72 | 59 | 55 | 52 | 72 | 60 | 54 | 68 | 47 | 63 | 64 | 54 | 79 | 69 | 65 | 44 | 67 | 70 | 57 |

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 children and adolescents ages 28 days to 17 years

c Other acquired category. This category is summarised in Table 8.31

d Undetermined category. In reports prior to 2002 (backdated to 1999), where a cause of death was not identified or had been classified as 'unascertained/undetermined' it was included in 'other acquired'.

e A case of malignancy has been added to 2013, bringing the malignancy total to 23 and the total Acquired disease and Undetermined deaths to 44 in 2013

N/A - not applicable. The data is presented in Figure 7.20b

## Figure 7.20b: Acquired disease deaths: post-neonatal infants, children and adolescents, Victoria 1997-2016

## Table 7.30: Deaths from infection by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Viral myocarditis | 1 | 0 | 0 | 0 | 0 | **1** |
| Whooping cough (*Bordetella pertussis*) | 1 | 0 | 0 | 0 | 0 | **1** |
| System inflammatory response syndrome of infectious origin with organ failure | 1 | 0 | 0 | 0 | 0 | **1** |
| Pneumonia due to *Klebsiella pneumoniae* | 1 | 0 | 0 | 0 | 0 | **1** |
| Bronchopneumonia, unspecified | 0 | 0 | 1 | 0 | 0 | **1** |
| Septicaemia due to *Streptococcus, Group A* | 0 | 1 | 0 | 0 | 0 | **1** |
| Total | 4 | 1 | 1 | 0 | 0 | 6 |

## Table 7.31: Deaths from malignancy by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | 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 | 0 | 4 | 2 | 0 | 6 |
| Neoplasm of spinal cord | 0 | 0 | 0 | 1 | 0 | 1 |
| Neoplasm of cerebrum | 0 | 0 | 3 | 0 | 0 | 3 |
| Neoplasm of frontal lobe | 0 | 1 | 1 | 0 | 0 | 2 |
| Neoplasm of temporal lobe | 0 | 1 | 0 | 0 | 0 | 1 |
| Neoplasm of the pineal gland | 1 | 0 | 0 | 0 | 0 | 1 |
| Leukaemia | | | | | | |
| Acute lymphoblastic leukaemia | 0 | 1 | 1 | 0 | 0 | 2 |
| Acute myeloid leukaemia | 0 | 1 | 0 | 0 | 0 | 1 |
| Other | | | | | | |
| Neoplasm of connective and soft tissue of trunk, unspecified | 0 | 1 | 0 | 0 | 0 | 1 |
| Overlapping lesion of digestive system | 0 | 0 | 0 | 1 | 0 | 1 |
| Neoplasm of long bones of lower limb | 0 | 0 | 1 | 1 | 0 | 2 |
| Neoplasm of adrenal gland | 0 | 0 | 1 | 1 | 0 | 2 |
| Overlapping lesion of other and ill-defined sites | 0 | 0 | 0 | 1 | 0 | 1 |
| Other specified carcinomas of liver | 0 | 0 | 1 | 0 | 0 | 1 |
| Total | 1 | 5 | 12 | 7 | 0 | 25 |

## Table 7.32: Deaths from other acquired disease by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Malnutrition | 0 | 1 | 0 | 0 | 0 | **1** |
| Diabetes mellitus with other specified complications | 0 | 0 | 0 | 1 | 0 | **1** |
| Asthma | 0 | 0 | 1 | 2 | 1 | **4** |
| Idiopathic aplastic anaemia | 0 | 0 | 0 | 0 | 1 | **1** |
| Acute myocarditis, unspecified | 1 | 0 | 0 | 0 | 0 | **1** |
| Cardiomyopathy, unspecified | 0 | 0 | 0 | 0 | 1 | **1** |
| Total | 1 | 1 | 1 | 3 | 3 | 9 |

## Table 7.33: Deaths from unascertained cause (undetermined) by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Undetermined (autopsy performed) | 2 | 5 | 1 | 0 | 5 | **13** |
| Undetermined (autopsy not performed) | 2 | 0 | 0 | 1 | 0 | **3** |
| Undetermined (partial autopsy performed) | 0 | 0 | 1 | 0 | 0 | **1** |
| Total | 4 | 5 | 2 | 1 | 5 | 17 |

## Table 7.34a: Intentional trauma and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Intentional trauma | 6 | 4 | 1 | 4 | 4 | 5 | 6 | 5 | 8 | 3 | 1 | 3 | 4 | 5 | 4 | 6 | 3 | 5 | 9 | 6 |
| Intentional self-harm | 1 | 2 | 4 | 2 | 1 | 1 | 4 | 0 | 1 | 4 | 4 | 3 | 4 | 4 | 2 | 3 | 1 | 1 | 5 | 2 |
| Total | 7 | 6 | 5 | 6 | 5 | 6 | 10 | 5 | 9 | 7 | 5 | 6 | 8 | 9 | 6 | 9 | 4 | 6 | 14 | 8 |

The data is presented in Figure 7.21a

## Figure 7.21a: Intentional trauma and intentional self-harm deaths: post-neonatal infants and children (28 days to 14 years), Victoria 1997-2016

## Table 7.34b: Intentional trauma and intentional self-harm deaths: post-neonatal infants, children and adolescentsab, Victoria 1997-2016

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | 1997 | 1998 | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 |
| Intentional trauma | 6 | 4 | 1 | 4 | 4 | 5 | 6 | 5 | 10 | 4 | 2 | 7 | 4 | 6 | 4 | 7 | 3 | 5 | 11 | 6 |
| Intentional self-harm | 1 | 2 | 4 | 2 | 1 | 1 | 4 | 0 | 16 | 12 | 14 | 15 | 18 | 15 | 15 | 25 | 14 | 17 | 19 | 18 |
| Total | 7 | 6 | 5 | 6 | 5 | 6 | 10 | 5 | 26 | 16 | 16 | 22 | 22 | 21 | 19 | 32 | 17 | 22 | 30 | 24 |

a 1997-2004 children aged 28 days to 14 years

b 2005-2016 children and adolescents aged 28 days to 17 years

The data is presented in Figure 7.21b

## Figure 7.21b: Intentional trauma and intentional self-harm deaths: post-neonatal infants, children and adolescents, Victoria 1997-2016

## Table 7.35: Deaths from intentional trauma (inflicted by other) by age group, Victoria 2016

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | Age group | | | | | |
| 28-364 days | 1-4 years | 5-9 years | 10-14 years | 15-17 years | Total |
| Skull fracture | 0 | 1 | 0 | 0 | 0 | **1** |
| Head injury | 3 | 0 | 0 | 0 | 0 | **3** |
| Drowning | 0 | 1 | 0 | 0 | 0 | **1** |
| Hypovolaemic shock | 1 | 0 | 0 | 0 | 0 | **1** |
| Total | 4 | 2 | 0 | 0 | 0 | 6 |

## Table 7.36: Deaths from intentional self-harm (including suicide) by age at death and gender, Victoria 2016

|  |  |  |  |
| --- | --- | --- | --- |
| Age at death | Females | Males | Total |
| 12 years | 0 | 1 | **1** |
| 13 years | 0 | 1 | **1** |
| 14 years | 0 | 0 | **0** |
| 15 years | 0 | 0 | **0** |
| 16 years | 1 | 3 | **4** |
| 17 years | 2 | 10 | **12** |
| Total | 3 | 15 | 18 |
| Ratea 13 to 17 years | 1.8 | 8.5 | 5.2 |
| Ratea 15 to 17 years | 2.9 | 12.1 | 7.6 |

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016. Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

Rates expressed as per 100,000 population of specified age group.

Note that in 2016, one 12 year old male is included in the rate of intentional self-harm 13-17 year age group. Excluding this case decreases the intentional self-harm rate in the male 13-17 year age group from 8.5 to 7.9/100,000.

Excluding this case decreases the intentional self-harm rate in the total 13-17 year age group from 5.2 to 4.9/100,000.

The measured rate for the male 12-17 age group is 7.0/100,000 male population aged 12-17 years

The measured rate for the total 12-17 age group is 4.3/100,000 total population aged 12-17 years

## Figure 7.22: Rates of intentional self-harm (including suicide) in adolescents, Victoria 2005-2016a

a Denominators were obtained from Australian Bureau of Statistics 2017, Australian Demographic Statistics, September 2016 Table 52: Estimated Resident Population by Single Year of Age, Victoria, cat. no. 3101.0, Commonwealth Government of Australia, Canberra. Issue 23 March 2017

Rates are expressed per 100,000 of the specified age group

Note that in 2011, one 12 year old is included in the rate of intentional self-harm deaths in 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 population aged 13-17.

Note that in 2016, one 12 year old is included in the rate of intentional self-harm deaths in the 13-17 year age group. Excluding this case decreases the intentional self-harm rate in the 13-17 year age group from 5.2 to 4.9 /100,000 population aged 13-17.

Slight differences across the rates are noted from previously published annual reports as population denominators used to generate this data have been updated.

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