NSW Child Death Review Team

Child Deaths in NSW 2022 and 2023

Biennial Report to Parliament

Ombudsman New South Wales

A report by the NSW Ombudsman on behalf of the Child Death Review Team (**CDRT**) to Parliament under section 34G of the *Community Services (Complaints, Reviews and Monitoring) Act 1993*.

Contents

Acknowledgements

The death of a child is a tragedy and we wish to convey our sincere condolences to their families, friends, kin, carers and communities.

It is our foremost responsibility to learn from these children's deaths and to use that knowledge to make a difference.

CAUTION

This report contains information about the deaths of children.

Some people may find parts of this chapter confronting or distressing.

If you need help or support, please contact:

Lifeline	13 11 14
Beyond Blue	1300 22 4636
Kids Helpline	1800 55 1800

Aboriginal and Torres Strait Islander readers should be aware that this section includes information about deceased children.

The Ombudsman utilises the Mindframe guidelines[1] on responsible, accurate and safe suicide and self-harm reporting.

Acknowledgement of Country

The NSW Child Death Review Team (**CDRT**) acknowledge the traditional custodians of the lands and waters across NSW, their cultural and spiritual customs and practices, and celebrate the diversity of First Nations people throughout NSW.

We pay respect to all First Nations Elders past, present and emerging, and to the children of today who are the Elders of the future.

Other acknowledgements

The CDRT thanks each member and expert adviser for their contributions, expert advice and support, including those members and expert advisers who departed the CDRT prior to September 2025.

We acknowledge the contribution of Monica Wolf, former Chief Deputy Ombudsman and Community Services Commissioner, to the work of the CDRT. Ms Wolf held leadership roles at the NSW Ombudsman since the Ombudsman became Convenor of the CDRT in 2011, until her departure in June 2025, and was a member of the CDRT from 2021 until 2025. Her commitment to the CDRT and its purpose are commended.

We thank the Ombudsman staff who manage the day-to-day work of our death review functions. This report is the result of their dedication and hard work in maintaining the NSW Register of Child Deaths.

We wish to acknowledge our NSW Ombudsman colleague and friend Pamela Rowley, who sadly passed away in November 2024, and was dedicated to the work of supporting the CDRT since 2011.

1 Mindframe, 'Mindframe guidelines', *Communicating about suicide* (Web Page, 2023) **https://mindframe.org.au/suicide/communicating-about-suicide/mindframe-guidelines**

NSW Child Death Review Team

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5 November 2025

The Hon Ben Franklin MLC
President
Legislative Council
Parliament House
Sydney NSW 2000

The Hon Greg Piper MP
Speaker
Legislative Assembly
Parliament House
Sydney NSW 2000

Dear Mr President and Mr Speaker

As Convenor of the NSW Child Death Review Team (CDRT), I present the *Child Deaths in NSW 2022 and 2023 Biennial Report* to Parliament.

This report is made under section 34G of the *Community Services (Complaints, Reviews and Monitoring) Act 1993*. It concerns the deaths of 885 children who died in NSW in 2022 and 2023.

I recommend that this report be made public immediately.

Yours sincerely

Paul Miller
Convenor, NSW Child Death Review Team
NSW Ombudsman

Foreword

The NSW Child Death Review Team (CDRT) seeks to better understand the circumstances of the deaths of children, and to use that knowledge to help prevent and reduce the risk of deaths in the future.

This report concerns the 885 children who died in NSW in calendar years 2022 and 2023. The report also includes information about longer term trends in child mortality in this state.

It is good that we are able to report that infant and child mortality rates in NSW are generally continuing to decline. The infant (under 1 year) death rate is 33% lower in 2023 than it was 15 years ago in 2009 and for children aged 1–17 years, the rate is 20% lower. This decline has occurred across most causes of death – including deaths from natural causes and deaths due to external causes such as transport, drowning and other unintentional injury-related causes.

However, there has been little change in the mortality rate for homicide deaths over the 15-years and, in contrast to the overall decline in infant and child mortality rates, the rate of suicide has increased over the 15-year period. Despite a recent decline in the suicide mortality rate since 2022, it remains the leading cause of death for young people aged 15–17 years. The rate of transport-related deaths has also been rising since 2019. Transport-related deaths were the leading cause of deaths due to injury in 2022 and 2023.

There continue to be significant inequalities in mortality for some children. Consistent with previous reports, children from Aboriginal and Torres Strait Islander families, those living in regional and remote areas, and those living in the most socio-economically disadvantaged areas are generally at higher risk of death than their peers.

Infants and children with a child protection history are also over-represented in the deaths of children in NSW. Infants with a child protection history made up 17% of deaths in the 15-year period 2009–2023 and for children aged 1–17, the proportion was considerably higher at 31% over the 15 years and reaching a peak of 44% in 2023.

The report makes recommendations in relation to infants and children being left unattended in vehicles (**Chapter 3 – All external causes**) and suicide prevention (**Chapter 6 – Suicide**), including in response to the *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* report, a 3-year study into the suicide deaths of Aboriginal and Torres Strait Islander children and young people the CDRT tabled on 5 November 2025.

Chapters 9–11 provide an in-depth examination of three key focus areas: **Deaths due to asthma**, **School connectedness and suicide prevention** and **Methamphetamine detection in infant deaths**. They each highlight current research and recommend further research and prevention activities.

The death of each child is a devastating loss. We want every child to have a safe and healthy childhood, and each death has a profound impact on the families and communities around them. I extend my sincere condolences on behalf of the CDRT to the families, friends, carers, kin and communities of the infants, children, and young people whose deaths are considered in this report.

I trust the information in these reports will be considered and applied to inform both the ongoing work of the CDRT, and others, in reducing the risk of deaths of children in future. It is our foremost responsibility that, in reviewing these deaths, we learn from them and use that knowledge to make a difference.

Paul Miller

Convenor
NSW Child Death Review Team
NSW Ombudsman

Executive summary

This report concerns the deaths of the 885 children who died in New South Wales (NSW) in 2022 and 2023.

It examines underlying factors that may have contributed to preventable deaths, and provides information about trends in child mortality over time.

In some sections we have identified specific actions and made associated recommendations with a view to preventing or reducing the deaths of children in NSW in future.

Overview of child deaths

All children 0–17 years

Infant and child mortality rates in NSW continue to decline overall.

During the 15-year period 2009–2023, infant and child mortality rates declined – infant mortality decreased by 33% from 3.6 to 2.5 deaths per 1,000 live births, and child (ages 1–17) mortality declined by 20% from 14.2 to 11.3 deaths per 100,000 children. These declines are broadly consistent with trends across Australia and are evident in both natural and most, but not all, external causes of death.

However, there are inequalities in mortality between some infants and children. Despite the overall decline and positive evidence of improvements in some areas, certain groups of infants and children continue to be over-represented in deaths in NSW, including:

- male children
- Aboriginal and Torres Strait Islander children
- children living in regional and remote areas of the state, and those from the most disadvantaged areas.
- young people aged 15–17 years
- children with a child protection history.

Trends in child mortality

Infants (children aged less than 1 year)

In 2022 and 2023, 471 infants died (53% of all child deaths).

Most infant deaths were due to natural causes (395 of 471, 84%) and occurred in the first month of life (320 of 471, 68%). The leading cause of death for infants was perinatal conditions (including prematurity).

Over the 15 years from 2009 to 2023, Aboriginal and Torres Strait Islander infants have had a higher mortality rate than non-Indigenous infants.

There has been a narrowing of the gap in the mortality rates between infants living in the least and most disadvantaged areas, due to a decline in the rate for infants living in the most disadvantaged areas.

Children aged 1–17 years

In 2022 and 2023, 414 children aged 1-17 years died (47% of all child deaths).

Over half (237, 57%) of these children died from natural causes. The leading cause of death for children aged 1–9 years was cancer. For children and young people aged 10–17 years, the leading cause was transport followed by suicide.

Over the 15 years from 2009 to 2023, the mortality rate was higher for Aboriginal and Torres Strait Islander children, children living in regional and remote areas, those living in the most disadvantaged areas and male children. The mortality rate for young people aged 15–17 years was higher than the rate for any other age groups aged 1–15.

While there has been an overall decline in mortality for children aged 1–17, this decline is mostly due to an improvement in the mortality rate for children aged under 10 years. Improvements were also evident for females, non-Indigenous children, those residing in major cities and those from the most disadvantaged areas.

All children
0–17 years

Causes of death

All natural causes

In 2022 and 2023, 632 children died from natural causes in NSW. Over half (63%, 395) of these deaths were infants under 1, with most (320) of the infants aged 0-4 weeks. The main causes of death are perinatal conditions (including prematurity) and congenital abnormalities or disorders.

For children aged 1–17, cancers, congenital abnormalities, diseases of the nervous system and respiratory illness account for most natural cause deaths.

Over the 15 years from 2009 to 2023, the mortality rate for natural causes declined by 37% for infants and 21% for children aged 1-17 years. During this 15-year period, Aboriginal and Torres Strait Islander children, those from the areas of greatest socio-economic disadvantage and male children had higher rates of natural cause mortality.

In 2022 and 2023, 9 children died due to sepsis, a 3-fold increase from 2020 and 2021.

All external causes (injury-related deaths)

In 2022 and 2023, 172 children died from external causes in NSW, almost 1-in-5 (19%) of all child deaths. Most of these deaths (112, 65%) were unintentional (accidental) injuries, while others (60, 35%) were due to suicide or homicide. In the 2-year period, transport was the leading cause of death of children from injury. The external cause mortality rate declined by 25% overall from 2009 to 2023.

Young people aged 15–17 years have the highest rate of external cause mortality of any age group. Other groups with higher injury-related mortality rates include Aboriginal and Torres Strait Islander children, those living in regional and remote areas of the state, those living in the most disadvantaged areas and males.

Suicide is the only external cause of death that has increased over the 15-year period.

Transport

In 2022 and 2023, 69 children died in transport-related incidents. Of these children, 59% were passengers, 26% were drivers, and 14% were pedestrians. Transport fatalities were the leading external cause of death in the 2 years.

Over the 15 years from 2009 to 2023, the transport mortality rate declined by 20%, but since 2019 the rate has been rising.

Some groups of children continue to be over-represented in transport-related fatalities, including males, young people aged 15–17 years, Aboriginal and Torres Strait Islander children, those living in regional and remote areas, and those from the most disadvantaged areas of the state. Children with a child protection history are also over-represented.

Unsafe driver behaviour, such as speeding, drug and alcohol use and reckless driving, were key contributing factors in the transport-related deaths of children in 2022 and 2023. Of the children who died in transport-related incidents, 80% had 2 or more of these factors present in combination with inexperience.

In 2022 and 2023, 13 children aged 14–17 years who died in transport-related incidents were not wearing seatbelts at the time of the incident.

Drowning

In 2022 and 2023, 14 children drowned in NSW, including 8 children aged under 5 years.

The mortality rate for drowning has declined by 58% over the 15 years from 2009 to 2023, with this reduction mostly due to a decline in the rate of drowning among children aged under 5 years.

Location of drowning varies by age. Over the 15 years from 2009 to 2023, children under 5 most frequently drowned in private swimming pools, bathtubs and natural inland bodies of water. Older children and young people aged 5–17 years most frequently drowned in coastal locations and natural inland bodies of water.

In 2022 and 2023, inadequate supervision and swimming ability were identified as factors contributing to the drowning deaths of children. The non-use of safety devices such as a lifejacket was a factor in the deaths of 2 children.

Suicide

In 2022 and 2023, 49 children and young people aged 10-17 years died by suicide in NSW. Unlike other causes of death where the rates have declined, over the 15-year period the mortality rate for suicide increased by 11%. This increase was particularly evident between 2010 until 2015. From 2022 onwards, the rate has declined to pre-2015 levels, decreasing by 23% from a peak in 2019.

No single factor or combination of factors can predict suicide. However, there are a range of recognised factors associated with suicide risk, including proximal events, individual factors, family and relationship breakdown, school-related challenges, and self-harm behaviours. The more risk factors a young person has in their life, the greater their risk of suicide. In 2022 and 2023, 98% of the children and young people who died by suicide had at least 1 risk factor or behaviour and 43% had 10 or more factors.

Some groups of children continue to be over-represented in suicide deaths including those aged 15–17 years, Aboriginal and Torres Strait Islander children, those living in the areas of greatest socioeconomic disadvantage, those from regional and remote areas and those with a child protection history. Over the 15 years from 2009–2023, mortality rates for children aged 10–14 have increased and in the most recent 5 years, there has been a narrowing of the gap between the rates for males and females.

Homicide

In 2022 and 2023, 11 children died from assault-related injuries. Over half (6) of these deaths were children aged 13–17 years who were killed by unrelated individuals in the context of peer violence; 5 deaths were children killed in the context of familial abuse. There has been little change in the rate of homicide deaths over the 15 years.

The circumstances of child homicide vary depending on the age and sex of the child. Over the 15-years from 2009 to 2023, most child homicide occurred within families, except for young people aged 15–17, where deaths were mostly associated with peer-related violence. For younger children, deaths of males and females were similar, while for older cohorts, males made up an increasing number of homicide related deaths.

Sudden Unexpected Death in Infancy (SUDI)

In 2022 and 2023, 66 infant deaths were classified as sudden and unexpected. Following investigation, cause of death was determined for 9 infants, remained unexplained (the investigation was not able to determine cause of death) for 35 deaths, or were not yet finalised (22 deaths).

Other than those infants whose deaths were determined to be due to natural causes (7), the majority (97%) of infants who died had been exposed to at least one modifiable sleep environment factor such as loose/soft bedding and co-sleeping (intentionally or not) with a parent or carer. Over half (53%) were exposed to at least one family factor, such as exposure to tobacco smoke.

Some groups are over-represented in SUDI, including Aboriginal and Torres Strait Islander families, and those living in the most socio-economically disadvantaged areas of the state. Families with a child protection history are also over-represented, making up 52% of the deaths of infants classified as SUDI in 2022 and 2023.

Recommendations

The following list includes all recommendations made in this report.

1

All external causes

NSW Health provide information and resources about the significant risk of children being left in vehicles in any circumstance, as well as the risk of fatal distraction for parents and carers, in both the Baby Bundle bag, a free initiative by NSW Health to provide new parents in NSW with practical information and products to support their baby's health and development, and to child and family health services. The information and resources should include but not be limited to:

a) Information about the significant risk of children being left in cars in any circumstance.
b) Information about fatal distraction and the risks of exhaustion, stress and a change in routine.
c) Information about strategies parents and carers can use to minimise the risk of fatal distraction such as creating a routine and developing cues to remind them to check the back seat of their vehicle.
d) A key tag lanyard (or other similar product), as is currently available for free on the SCHN website.

Suicide

2

The Mental Health Commission (as well as the Aboriginal Suicide Prevention Council and the Suicide Prevention Council, when advising the Commission) consider the findings of the *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* report, including for the purpose of:

a) Preparing and implementing Statewide suicide prevention plans under the *Suicide Prevention Act 2025*, and
b) Ensuring the Statewide Aboriginal suicide prevention plan is aligned with the needs and cultural frameworks of Aboriginal people.

3

Noting the increasing rate of death by suicide for children younger than 15 years, and for female children their rates of self-harm, the NSW Government ensure that the Statewide suicide prevention plan and Statewide Aboriginal suicide prevention plan under the *Suicide Prevention Act 2025*, and any new mental health initiatives, contain measures focused specifically on children younger than 15 years and targeted toward addressing risk factors (including individual and societal).

Suicide
Continued

4

Noting the increasing rate of death by suicide for children younger than 15 years, and for female children their rates of self-harm, the Australian Government ensure that any actions and initiatives that support the *National Suicide Prevention Strategy 2025–2035*, and any new mental health initiatives aimed at children and young people, contain measures focused specifically on children younger than 15 years and targeted toward addressing risk factors (including individual and societal).

School connectedness and suicide prevention

5

The NSW Department of Education, the Association of Independent Schools of NSW, and Catholic Schools NSW conduct joint research to better understand and respond to school disconnection as a suicide and other related risk factor. This research may consider other current research and existing evidence and should involve those with lived or living experience of school disconnection and/or youth suicide.

Methamphetamine detection in infant deaths

6

Prior to the completion of the NSW Health evaluation of the substance use in pregnancy and parenting services (**SUPPS**), and in consultation with the NSW Health Centre for Alcohol and Other Drugs (**CAOD**), DCJ should review and make necessary amendments to its own internal guidance (such as the Alcohol and Other Drugs Practice Kit) about working with pregnant women and parents using methamphetamines in response to the 2024 NSW Health SUPPS Guidance.

7

Following completion of the NSW Health evaluation of the substance use in pregnancy and parenting services (**SUPPS**), DCJ and NSW Health jointly commission expert research into pre- and post-natal health and community services for pregnant women and parents using methamphetamines. This research should involve those with lived or living experience of methamphetamine use. The research should identify:

a) Any practice and service gaps, and
b) Opportunities to improve collaboration and information sharing within and between relevant agencies.

Monitoring previous recommendations

We continue to monitor agency progress in implementing some of our earlier recommendations.

NSW Child Death Review Team Annual Reports for 2023–24 and 2024–25 provide detailed information about the progress agencies have reported to us since our last biennial report was published in November 2023 in relation to CDRT recommendations.

The most recent of these annual reports was tabled in the NSW Parliament on 30 October 2025. These reports can be accessed here: **cdrt.ombo.nsw.gov.au**.

Introduction

This report by the NSW Ombudsman on behalf of the Child Death Review Team (**CDRT**) comprises an analysis of the deaths of all children in New South Wales (**NSW**) during 2022 and 2023 – under Part 5A of the *Community Services (Complaints, Reviews and Monitoring) Act 1993* (**CS CRAMA**).

About this report

This report concerns the deaths of 885 children that occurred in NSW in 2022 and 2023 and examines how these deaths relate to trends in child deaths over time.

To understand these trends and patterns, the 885 deaths in the two-year period are considered within the wider context of the 7,653 deaths of children in NSW over the 15-year period, 2009–2023.

Structure

This report is presented in the following order:

1. An overview of all infant and child deaths in NSW during the two-year period (**Chapter 1**).
2. Detailed information about primary reporting categories by cause of death, including natural and external causes (**Chapters 2–7**).
3. Discussion and data about infant deaths classified as SUDI (**Chapter 8**).
4. Discussion of emerging themes and issues (**Chapters 9–11**).
5. Appendices – detailed background information, including about:
   a. NSW Child Death Review Team (CDRT) and NSW Ombudsman child death review functions
   b. Technical notes relating to the methodology applied in producing this report, and
   c. Supplementary data and other explanatory information.

Key terms and definitions

A comprehensive list of terms and acronyms used in this report can be found in the Glossary (see **Appendix 1**).

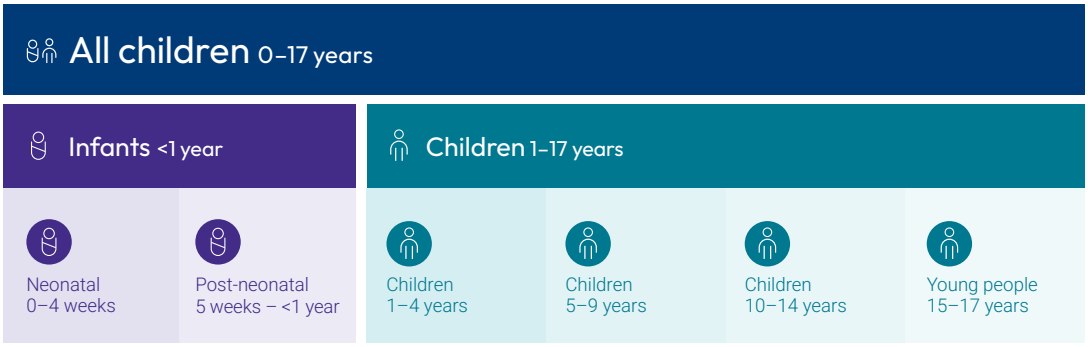
Aboriginal and Torres Strait Islander peoples

In this report, we use the term 'Aboriginal and Torres Strait Islander', except where making direct comparisons, in which case the terms 'Indigenous' and 'non-Indigenous' are used.

Age groupings

In this report, we refer to specific age groups where relevant, as outlined below.

Unless an age group is specified, 'children' refers to those aged 0–17 years.



Sex

In this report, children have been categorised according to the sex recorded by Births, Deaths and Marriages (**BDM**) on their death certificate. It is acknowledged that children may identify as a gender alternative to the sex recorded on their death certificate and that this therefore may not be an accurate representation of the gender with which each child identifies. Discussion of the gender identity of certain children who died is included in this report where appropriate.

Data considerations

Child death statistics can fluctuate from year to year, mostly due to small numbers in some subgroups (for example, individual age groups or small cohorts). Year-on-year changes in numbers and rates should therefore be interpreted with caution and be considered in the context of trend data where possible. Caution in relation to smaller numbers is particularly relevant for **Chapter 5 (Drowning)** and **Chapter 7 (Homicide)**.

To assist readability, differences and changes over time highlighted in this report such as a decline, increase, or change means it was statistically significant, unless otherwise stated. Similarly, references to there being no change or improvement over time means there has been no statistically significant change or improvement.

Percentages and mortality rates throughout this report have been rounded to 1 decimal place for mortality rates and whole numbers for percentages.

1 Overview

1

Section summary

Overview

In 2022–2023

885 deaths of children

INFANTS UNDER 1
53% (471)

CHILDREN 1–17
47% (414)

2022 2023 2-year period

NATURAL CAUSES (632) 71%

EXTERNAL CAUSES (172) 19%

Pending (44) 5%

Undetermined (37) 4%[2]

The 5 leading causes were:

1.	Perinatal conditions	26%
2.	Congenital conditions	8%
3.	Cancers	9%
4.	Transport	8%
5.	Suicide	6%

2009 2023 15-year period

Mortality rate reduced for

INFANTS UNDER 1 ↓33%

CHILDREN 1–17 ↓20%

CHILDREN AGED 0–17
Rates were on average higher for:

- Children in the most disadvantaged areas
- Aboriginal and Torres Strait Islander children
- Children living in regional and remote areas
- Male children

Key observations

Children with a child protection history are over-represented in the deaths of children in NSW. In the 15-year period 2009–23, on average children with a child protection history made up:

62% of homicide deaths

48% of transport deaths

45% of suicide deaths

47% of the deaths of infants classified as Sudden Unexpected Death in Infancy (**SUDI**)

2 Percentages do not total 100% due to rounding.

1.1 Background

This chapter provides an overview of the 885 deaths of infants and children aged 0–17 years who died in NSW in 2022 and 2023: 467 in 2022 and 418 in 2023. It also provides information about trends in infant and child mortality over time.

The deaths of 38 of the 885 children (22 in 2022 and 16 in 2023) were reviewable by the NSW Ombudsman (7 infants and 31 children aged 1–17 years) because they died as a result of abuse (11) or neglect (7), in suspicious circumstances (4), or were in care (17).[3]

The Ombudsman's biennial report of reviewable deaths of children in NSW in 2022 and 2023, to be tabled in late November 2025, provides more detailed information about the Ombudsman's activities and work in relation to 'reviewable' deaths.

In the following sections, demographic information is provided about infants aged under 1 year separately to children aged 1–17, reflecting key differences between these groups. Subsequent discussion focuses on causes of death (leading and multiple) within the context of trends over the past 15 years.

Of the 471 infant deaths, 66 were classified as SUDI. **Chapter 9** provides more detailed information about SUDI deaths.

CAUTION

This chapter contains content about suicide and self-harm.

Some people may find parts of this chapter confronting or distressing.

If you need help or support, please contact:

Lifeline	13 11 14
Beyond Blue	1300 22 4636
Kids Helpline	1800 55 1800

Aboriginal and Torres Strait Islander readers should be aware that this section includes information about deceased children.

The Ombudsman utilises the Mindframe guidelines on responsible, accurate and safe suicide and self-harm reporting.

3 1 child in care died in circumstances of neglect.

Figure 1 provides an overview of the deaths included within the 2-year reporting period, by cause.[4]

Figure 1
Overview of deaths
2022–2023

4 'Pending' refers to those deaths where the coronial investigation was not finalised at the time of writing; 'undetermined' refers to those deaths where the Coroner was unable to determine a cause of death despite investigation; 'other unintentional injury' includes threats to breathing, exposure to fire, exposure to excessive force, poisoning, fall and exposure to extremes of nature.

1.2 Trends

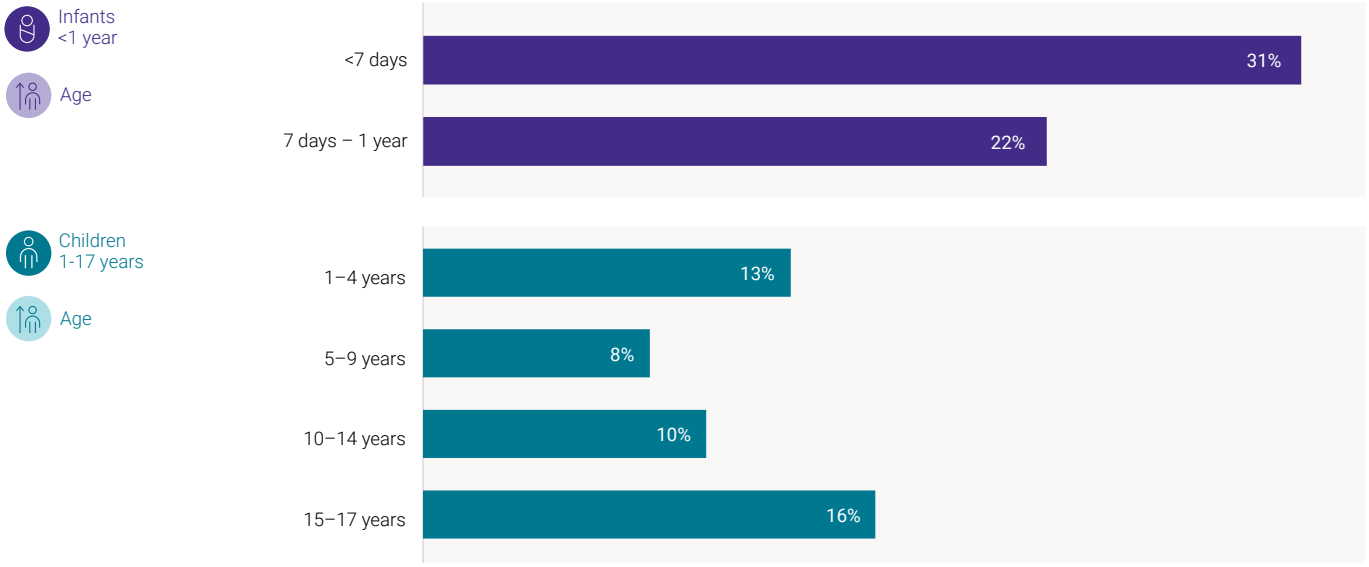
1.2.1 Deaths in 2022 and 2023

In 2022 and 2023, 885 children died in NSW, with an average rate of mortality over the 2-year period of 25 per 100,000 children.

Of these:

- Infants aged under 1 comprised 471 (246 in 2022 and 225 in 2023) or 53%. This corresponded to an infant mortality rate of 2.5 deaths per 1,000 live births.
- Children aged 1–17 comprised 414 (221 in 2022 and 193 in 2023) or 47%. This corresponded to a child mortality rate of 12.2 deaths per 100,000 children.
- In the 2-year period, 31% (272) were infants aged under 7 days (0–6 days).

Figure 2
Proportion of child deaths by age group
2022–2023



1.2.2 15-year trend

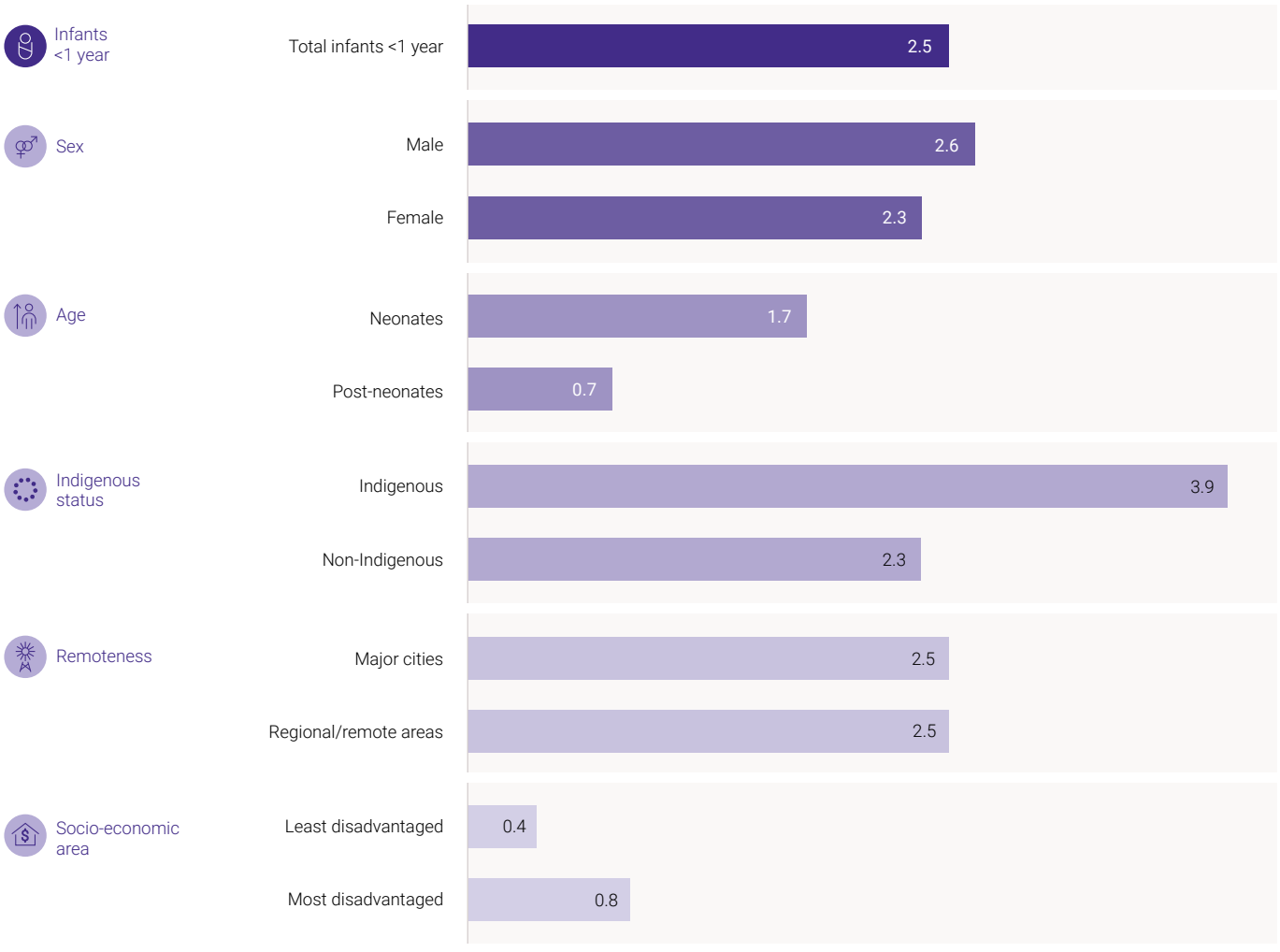
Over the 15-year period 2009–2023:

- The mortality rate for infants declined by 33% from 3.6 deaths per 1,000 live births in 2009 to 2.5 in 2023.
- The mortality rate for children aged 1–17 years declined by 20% from 14.2 deaths per 100,000 in 2009 to 11.3 in 2023. This is mostly attributed to a reduction in the mortality rates of children aged 1–4 years (see **Section 1.3**).

1.3 Demographics: 2022–2023

1.3.1 Infants

Figure 3
Mortality rates due to all causes, infants aged <1 year
Deaths per 1,000 live births, 2022–2023

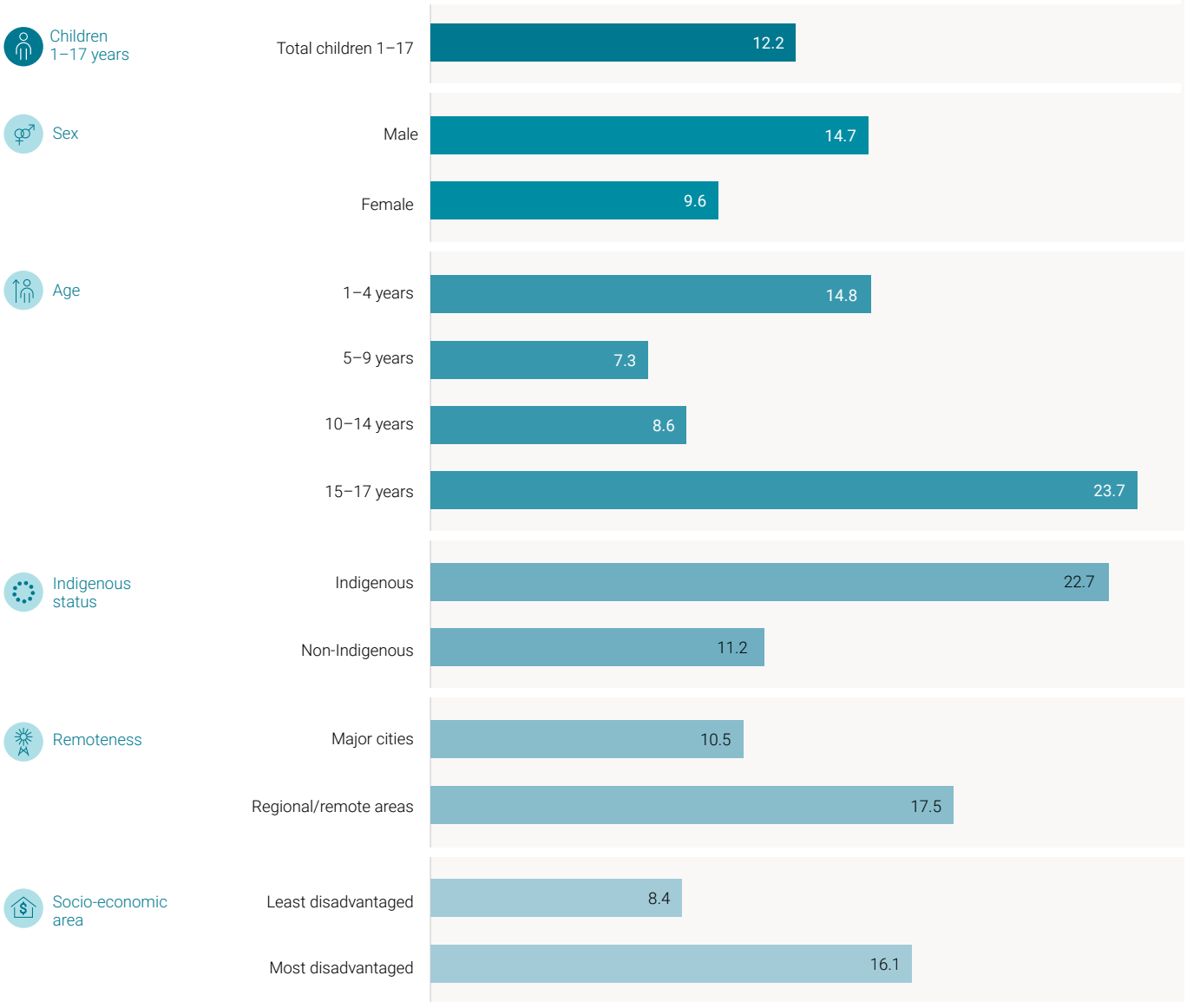


In 2022–2023, the infant mortality rate was:

- 1.1 times higher for males than for females
- 2.4 times higher for neonates (0–4 weeks) than for post-neonates (5 weeks to <1 year)
- 1.7 times higher for Indigenous infants than for non-Indigenous infants
- similar for those in major cities and regional and remote areas
- 2 times higher for those from the areas of most socio-economic disadvantage than for those from the least disadvantaged areas.

1.3.2 Children 1-17 years

Figure 4
Mortality rates due to all causes, children 1–17 years
Deaths per 100,000 children, 2022–2023



In 2022–2023, the mortality rate for children aged 1–17 years was:

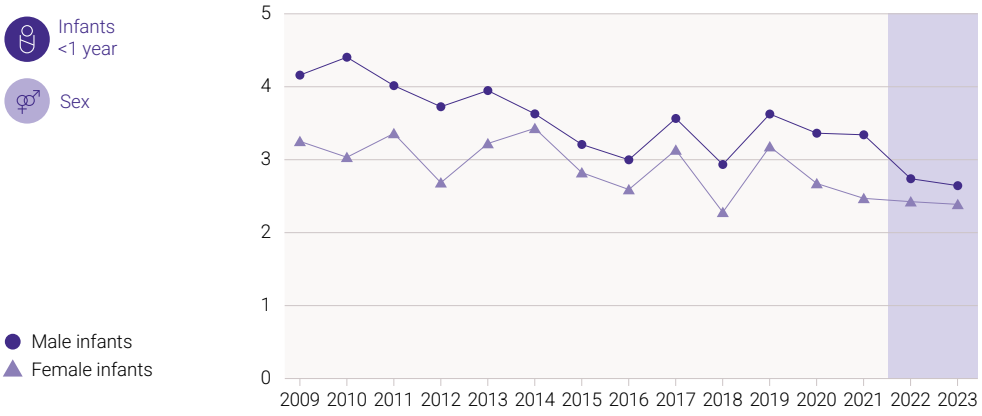
- 1.5 times higher for males than for females
- 2 times higher for Indigenous children than for non-Indigenous children
- 1.7 times higher for children in regional and remote areas than for those in major cities
- 1.9 times higher for children from the areas of most socio-economic disadvantage than for those from the least disadvantaged areas
- higher for young people aged 15–17 than for all other age groups (1.6 times than for children aged 1–4 years; 3.3 times than for children aged 5–9 years; 2.8 times than for children aged 10–14 years)

1.4 Demographics: 15-year findings

1.4.1 Infants

Figure 5 illustrates the infant mortality rates across the demographic groups over the 15-year period 2009–2023.

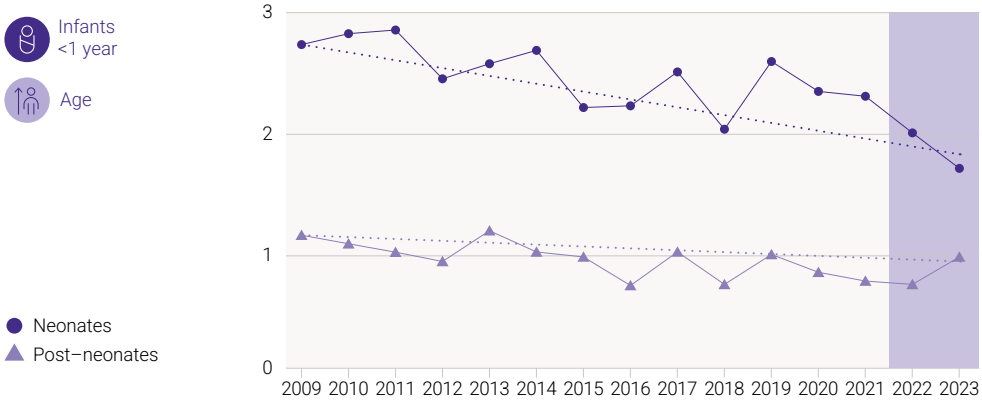
Figure 5a
Infant mortality rates by sex
Rate per 1,000, 2009–2023



Sex

The rate declined for both male and female infants. The rate for male infants was 1.2 times higher than for females.

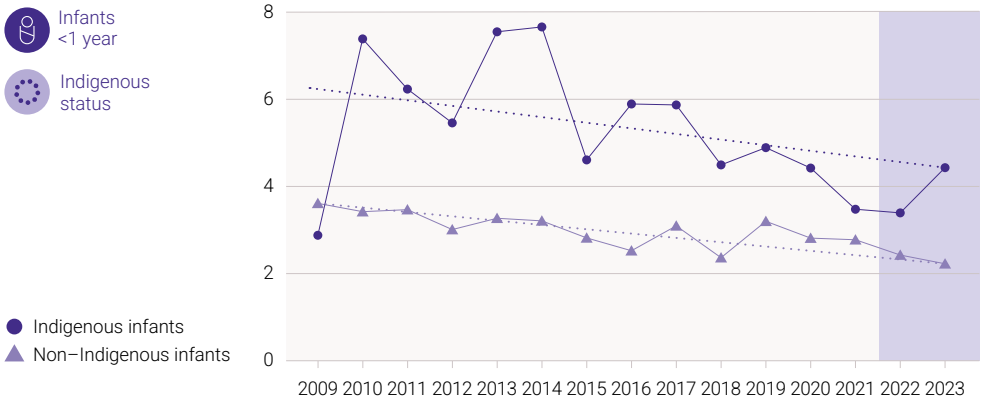
Figure 5b
Infant mortality rates by age
Rate per 1,000, 2009–2023



Age

The rate declined for both neonates and post-neonates and the gap between the two decreased. The rate for neonates was 2.7 times higher than for post-neonates.

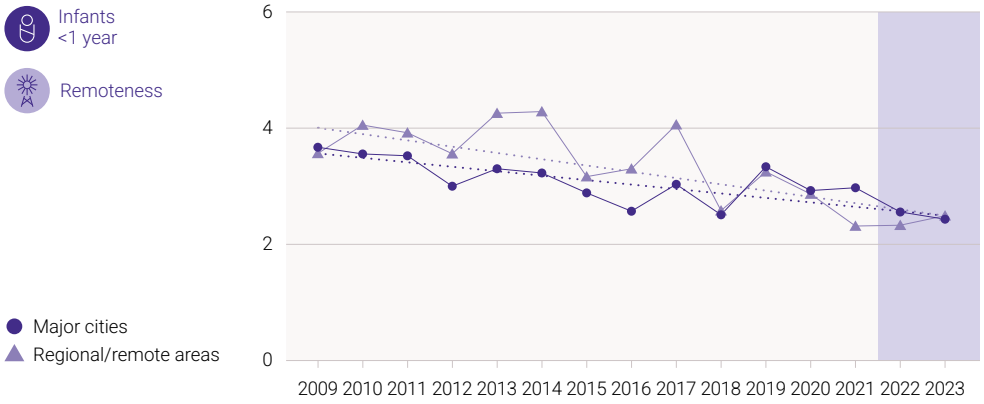
Figure 5c
Infant mortality rates by Indigenous status
Rate per 1,000, 2009–2023



Indigenous status

The rate for Indigenous infants did not change overall, despite some variation from year to year, while the rate for non-Indigenous infants decreased. The rate was 1.8 times higher for Indigenous infants than non-Indigenous infants.

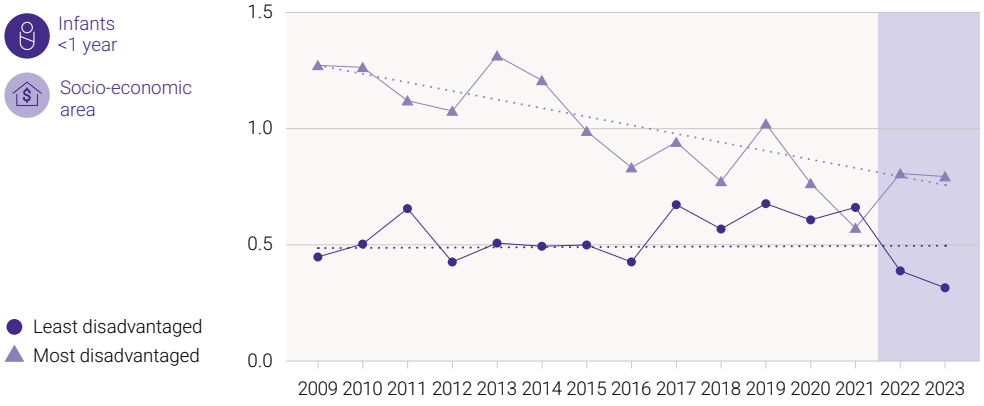
Figure 5d
Infant mortality rates by remoteness
Rate per 1,000, 2009–2023



Remoteness

The rate declined for infants living in both major cities and regional and remote areas and the gap between the two decreased.

Figure 5e
Infant mortality rates by socio-economic area
Rate per 1,000, 2009–2023



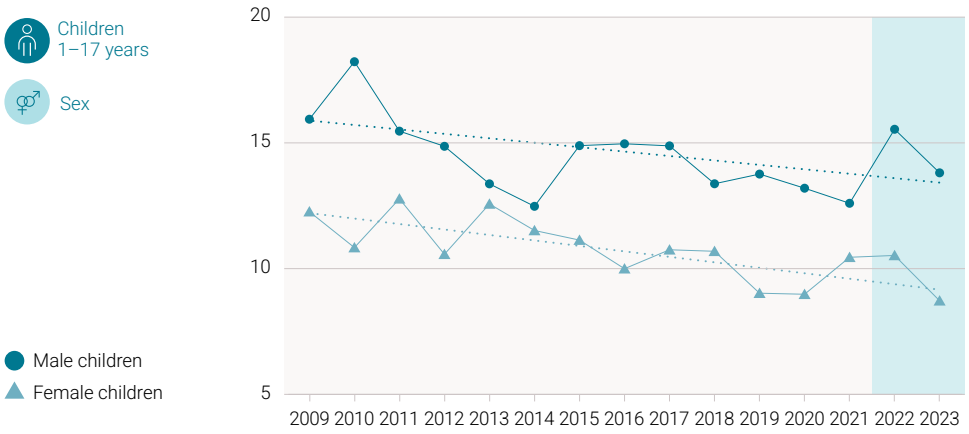
Socio-economic areas

The rate for infants from the areas of most socio-economic disadvantage declined, while the rate for those from the least disadvantaged areas did not change overall. There was a narrowing of the gap between the rates among infants from areas of the most and least socio-economic disadvantage. The rate was 1.9 times higher for infants from the areas of greatest socio-economic disadvantage.

1.4.2 Children 1–17 years

Figure 6 illustrates the mortality rates for children aged 1–17 years across the demographic groups over the 15-year period 2009–2023.

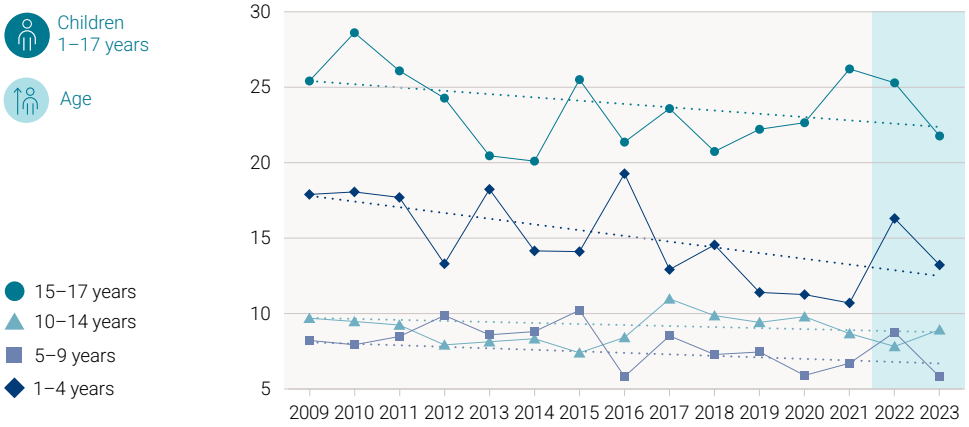
Figure 6a
Children aged 1–17 mortality rates by sex
Rate per 100,000, 2009–2023



Sex

The rate has declined for female children. For male children the rate remained similar and was 1.4 times higher than the rate for females.

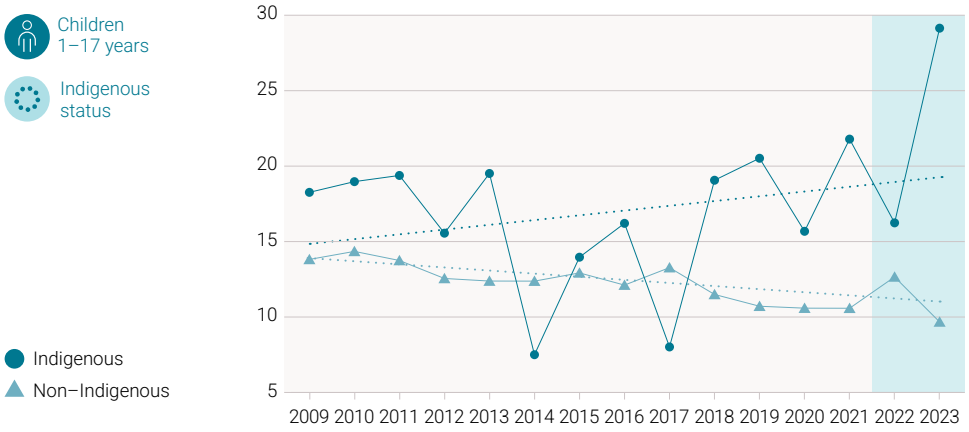
Figure 6b
Children aged 1–17 mortality rates by age
Rate per 100,000, 2009–2023



Age

The rate for children aged 1–4 and 5–9 years has declined. For children aged 10–14 and 15–17 years, the rate remained similar. The rate was higher for young people aged 15–17 years than for all other age groups.

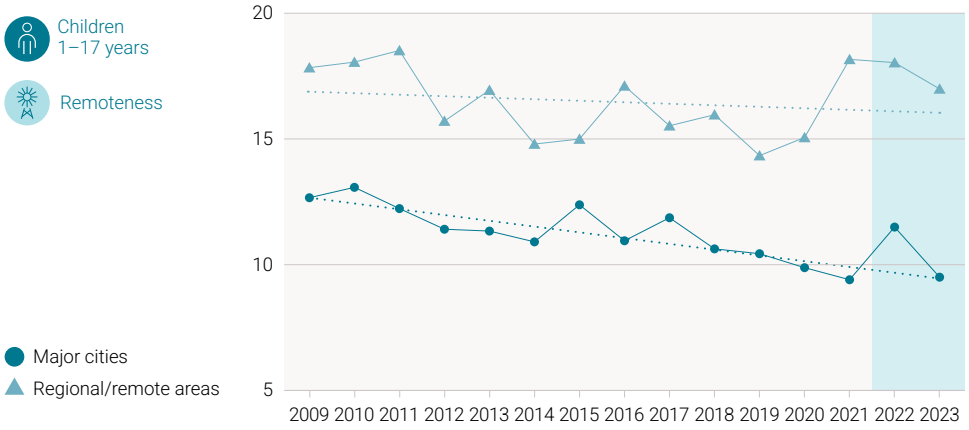
Figure 6c
Children aged 1–17 mortality rates by Indigenous status
Rate per 100,000, 2009–2023



Indigenous status

The rate for Indigenous children has remained similar while the rate for non-Indigenous children has declined. The rate for Indigenous children was 1.4 times higher than for non-Indigenous children.

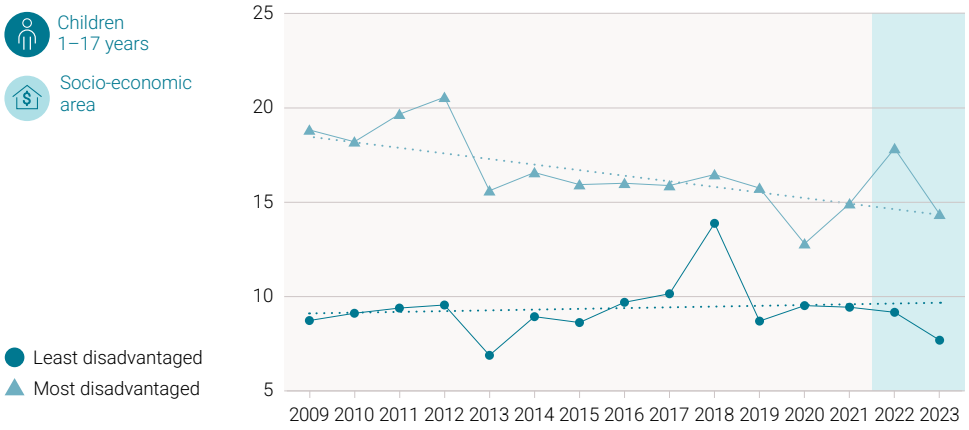
Figure 6d
Children aged 1–17 mortality rates by remoteness
Rate per 100,000, 2009–2023



Remoteness

The rate for children from major cities has declined while the rate for children from regional and remote areas has not changed. The rate was 1.5 times higher for children living in regional and remote areas than for those living in major cities.

Figure 6e
Children aged 1–17 mortality rates by socio-economic area
Rate per 100,000, 2009–2023



Socio-economic areas

The rate for children from the areas of greatest socio-economic disadvantage has declined, while the rate for children from the areas of least disadvantage has not changed overall. There was a narrowing of the gap between the rates for children from the areas of greatest and least disadvantage. The rate for children from the areas of greatest disadvantage was 1.8 times higher.

1.5 Causes of death

In 2022 and 2023:

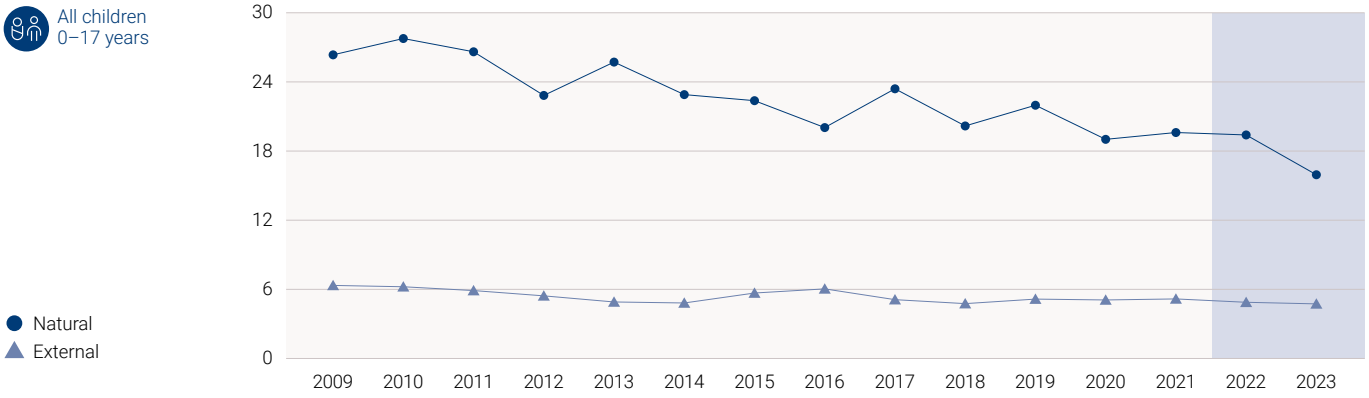
- Deaths due to **natural causes** comprised 632 (71%), corresponding to a rate of 17.7 deaths per 100,000 children aged 0–17.
- Deaths due to **external causes** comprised 172 (19%), corresponding to a rate of 4.8 deaths per 100,000 children aged 0–17.
- Deaths that were **undetermined** (that is, the Coroner was unable to determine a cause of death despite investigation, including full autopsy) comprised 37 (4%).
- Deaths that were **pending** (that is, a coronial investigation was not finalised at the time of writing this report) comprised 44 (5%).

Between 2009 and 2023:

- The rate for natural causes declined by 40% from 26.4 deaths per 100,000 children aged 0–17 in 2009 to 16.0 in 2023.
- The rate for external causes declined by 25% from 6.6 deaths per 100,000 children aged 0–17 in 2009 to 4.7 in 2023.

Over the 15-year period, 6% of all deaths (487 of 7,653) were finalised by the Coroner with an undetermined cause of death – an average of 33 deaths each year. Most of these undetermined deaths (89%, 433 of 487) were infants, and most were further classified as Sudden Unexpected Death in Infancy (87%, 425 of 487) – **Chapter 8** discusses deaths classified as SUDI in detail.

Figure 7
Mortality rate, children 0–17 years, natural causes and external causes
Rate per 100,000, 2009–2023



1.5.1 Leading causes

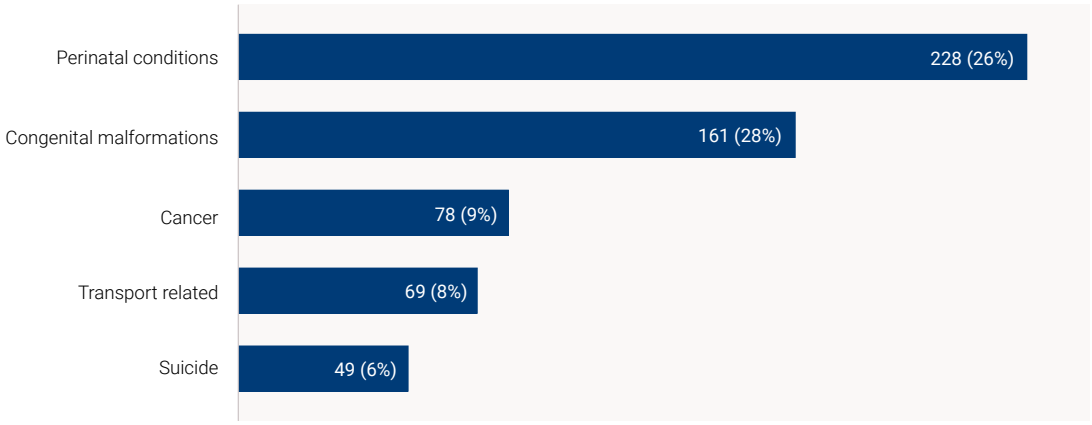
The 5 leading causes of death for children aged 0–17 in 2022 and 2023 are shown in Figure 8.

These 5 leading causes have generally remained the same or similar over time, although with different rankings.

Tables 1 to 3 below provide more information about changes in leading causes over time. They compare the 5 leading causes over the 15-year period 2009–2023, in 5-year blocks, by age, sex and Aboriginal and Torres Strait Islander status.

Figure 8
Leading underlying causes of death for children 0–17 years
Number of deaths, 2022–2023[5]

All children 0–17 years



5 Perinatal conditions refers to conditions arising in the perinatal period; congenital refers to congenital malformations, deformations and chromosomal anomalies; cancer refers to neoplasms such as leukaemia and malignant brain or soft tissue tumours.

Age

Table 1
Top 5 leading causes of death for children 0–17 years by age group and year
NSW, 2009–2023[6]

Infants <1 year

Infants <1 year

2009–2013	2014–2018	2019–2023
1 Perinatal	1 Perinatal	1 Perinatal
2 Congenital	2 Congenital	2 Congenital
3 Accidental threats to breathing	3 Accidental threats to breathing	3 Endocrine
4 Nervous	4 Nervous	4 Nervous
5 Circulatory	5 Respiratory	5 Accidental threats to breathing

Children 1–4 years

Children 1–4 years

2009–2013	2014–2018	2019–2023
1 Cancer	1 Cancer	1 Cancer
2 Congenital	2 Respiratory	2 Congenital
3 Drowning	3 Congenital/Transport	3 Infectious
4 Nervous	4 Nervous	4 Transport
5 Endocrine	5 Endocrine	5 Drowning/Respiratory

Children 5–9 years

Children 5–9 years

2009–2013	2014–2018	2019–2023
1 Cancer	1 Cancer	1 Cancer
2 Transport	2 Transport	2 Transport
3 Nervous	3 Nervous	3 Respiratory
4 Congenital	4 Endocrine	4 Nervous
5 Circulatory	5 Congenital	5 Congenital

Children 10–14 years

Children 10–14 years

2009–2013	2014–2018	2019–2023
1 Cancer	1 Cancer	1 Transport
2 Nervous	2 Suicide	2 Cancer
3 Transport	3 Transport	3 Suicide
4 Congenital	4 Nervous	4 Nervous
5 Circulatory	5 Respiratory	5 Respiratory/Congenital

Young people 15–17 years

Young people 15–17 years

2009–2013	2014–2018	2019–2023
1 Transport	1 Suicide	1 Suicide
2 Suicide	2 Transport	2 Transport
3 Cancer	3 Cancer	3 Cancer
4 Nervous	4 Nervous	4 Nervous
5 Endocrine	5 Respiratory	5 Congenital

6 'Nervous' refers to diseases of the nervous system such as encephalitis, myelitis, and cerebral palsy; 'endocrine' refers to endocrine, nutritional and metabolic diseases such as diabetes mellitus and cystic fibrosis.

- For infants, threats to breathing (such as accidental suffocation or strangulations) were the only external cause among the 5 leading causes of death.
- For children aged 1–4 years, infectious diseases were the 3rd leading cause in 2019–2023, attributed to an increase in sepsis deaths in the 2022–23 reporting period. This is discussed further in **Chapter 2** on natural causes.
- From age 5–9 years, external cause deaths appear higher in the leading cause rankings. By age 15–17 years, transport and suicide make up the 1st and 2nd leading cause across each of the 5-year blocks.
- For children aged 10–14 years, transport was the leading cause of death in 2019–2023, an increase from the 3rd leading cause in 2014–2018 and 2009–2013.
- For children aged 15–17 years, suicide was the leading cause of death over the last 10 years, followed by transport.

Sex

Table 2
Top 5 leading causes of death for children 0–17 years by sex and year
NSW, 2009–2023[7]

All children 0–17 years

	2009–2013	2014–2018	2019–2023
Male			
1	Perinatal	Perinatal	Perinatal
2	Congenital	Congenital	Congenital
3	Transport	Cancer	Cancer
4	Cancer	Transport	Transport
5	Nervous	Suicide	Suicide
Female			
1	Perinatal	Perinatal	Perinatal
2	Congenital	Congenital	Congenital
3	Cancer	Cancer	Cancer
4	Nervous	Transport/Nervous	Suicide
5	Transport	Respiratory	Transport

Male

Female

- The leading causes were similar for males and females, except suicide which ranked higher for females in 2019–2023, diseases of the nervous system which ranked higher for females from 2009–2018, and transport which ranked higher for males in 2009–2013.
- From 2014, the 3 leading causes for both males and females were all natural causes.
- For both males and females, suicide has ranked among the 5 leading causes of death from 2014 onwards. In the previous period, 2009–2013, transport was the only external cause of death among the 5 leading causes.

7 Ibid.

Indigenous status

Table 3
Top 5 leading causes of death for children 0–17 years by Aboriginal and Torres Strait Islander status and year
NSW, 2009–2023[8]

All children 0–17 years

Indigenous

Non-Indigenous

	2009–2013	2014–2018	2019–2023
Indigenous			
1	Perinatal	Perinatal	Perinatal
2	Congenital	Congenital	Congenital
3	Transport	Transport/Suicide	Transport
4	Suicide	Cancer/Respiratory	Cancer
5	Nervous/Drowning	Nervous	Suicide
Non-Indigenous			
1	Perinatal	Perinatal	Perinatal
2	Congenital	Congenital	Congenital
3	Cancer	Cancer	Cancer
4	Transport	Nervous	Suicide
5	Nervous	Transport	Transport

- Leading causes of death for both Indigenous and non-Indigenous children have consistently been perinatal conditions, followed by congenital anomalies.
- An external cause, suicide or transport was the 3rd leading cause for Indigenous children throughout the 15 years.

8 Ibid.

1.5.2 Multiple causes

'Multiple causes' of death refers to all diseases or injuries reported on a death certificate. Analyses of multiple cause data provide a more complete representation of all diseases and conditions that caused death.[9]

Types of causes recorded on death certificates and coronial determinations include:

- **Underlying cause of death** – the disease or injury which started the chain of events leading to death, or the circumstances of the accident or violence that produced the fatal injury. Each death has a single underlying cause. **Underlying cause of death is the primary basis for analysis in this report.**
- **Associated causes of death** – those, other than the underlying cause, that were instrumental in causing death. They encompass conditions that significantly contributed to the death and may include (if it is not otherwise the underlying cause of death):
  - **Immediate (or direct) cause** – the condition that occurred immediately before death or closest to the time of death.
  - **Antecedent causes** – any disease or condition which gave rise to another disease or condition in the morbid train of events leading to death.
  - **Other significant conditions** – those that contributed to the death, but which did not bring about the underlying cause, including significant pre-existing conditions.

Between 2009-2023:

- Almost three-quarters (74%) of deaths due to natural causes had, in addition to the underlying cause of death, 1 or more associated causes of death. This is largely reflective of perinatal conditions and congenital anomalies:
  - Of deaths due to perinatal conditions, 74% had at least 1 additional perinatal condition as an associated cause.
  - For deaths due to congenital anomalies – 39% had at least one additional congenital anomaly as an associated cause; 46% had at least 1 perinatal condition as an associated cause.
- Almost all deaths due to external causes (98%) had 1 or more associated causes of death, most commonly head injuries.

9 'Multiple Causes of Death' in 'Deaths in Australia', *Australian Institute of Health and Welfare* (Web Page, 2025) **https://www.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/multiple-causes-of-death**.

Table 4 shows examples of associated and underlying causes of death.

Table 4
Select associated and underlying causes of death in children aged 0–17
2009–2023

All children 0–17 years

Associated cause	Underlying cause
P04–P08 Disorders related to length of gestation and fetal growth	**P00–P04** 78% of deaths due to maternal factors or complications of pregnancy
	P50–P61 75% of deaths due to haemorrhagic and haematological disorders of fetus and newborn
	P35–P39 67% of deaths due to infections specific to the perinatal period
	P20–P29 67% of deaths due to respiratory and cardiovascular disorders specific to the perinatal period
S00–S09 Head injuries	**W00–W19** 76% of deaths due to falls
	V01–V99 67% of deaths due to transport injuries
	X85–X99 16% of deaths due to assault
A41 Sepsis	**C91** 6% of deaths due to lymphoid leukaemia
A00–B99 Infectious disease	**D50–D89** 35% of deaths due to diseases of blood, blood-forming organisms and certain disorders of the immune system
	J00–J99 19% of deaths due to respiratory disease
	C00–D48 9% of deaths due to cancer
G40–G47 Episodic and paroxysmal disorders such as epilepsy	**G80–G83** 24% of deaths due to cerebral palsy and other paralytic syndromes
	J09–J18 7% of deaths due to influenza and pneumonia
J09–J18 Influenza and pneumonia	**G80–G83** 21% of deaths due to cerebral palsy and other paralytic syndromes
	E70–E90 12% of deaths due to metabolic disorders

1.6 Children with a child protection history

1.6.1 Background

Child protection system in NSW – context and approach

The Department of Communities and Justice (**DCJ**) is the lead agency for statutory child protection in NSW. The NSW system for preventing and responding to child protection risk factors and concerns also includes other government agencies, such as NSW Health, the Department of Education, NSW Police Force and non-government organisations who provide services and support for children, young people and their families with the aim of preventing or minimising harm. These services include prenatal care, home visiting and counselling, breakfast programs, diversionary sentencing options for young people, respite for parents of children with disabilities, and housing and youth support activities.

The Child Death Review Team (**CDRT**) defines a child as having a 'child protection history' if a report about the safety, welfare or wellbeing of that child and/or their sibling was made to DCJ's Child Protection HelpLine (**HelpLine**) or to a Child Wellbeing Unit (**CWU**) within the 3 years before their death.

It should be noted this definition of 'child protection history' may be different to legislative definitions used elsewhere, such as in the DCJ child death review process and the coronial system. For example, the term 'known to DCJ'[10] which is used in respect of DCJ child death reviews, includes any child who was in out-of-home care at the time of their death, even if no report was made within the 3 years before death. (Noting that the death of any child in care is reviewable by the Ombudsman as a 'reviewable death'.)

1.6.2 Child protection history for deaths in 2022 and 2023

Consistent with previous biennial reports, infants and children with a child protection history are over-represented in child deaths in 2022 and 2023.

Of the 885 children who died in NSW in 2022 and 2023, 28% (252) had a child protection history. Of these children, 80% (202) were from families where a report had been 'screened in' by the HelpLine as being a report of 'suspected risk of significant harm (**ROSH**)', 13% (32) were screened in as non-ROSH, and 7% (18) had been reported to a CWU and not further reported to the HelpLine.

By comparison, the proportion of all children in NSW who were reported at ROSH over the same period is estimated at 13%.[11]

10 Section 172A of the *Children and Young Persons (Care and Protection) Act 1998*.

11 Estimates are based on publicly available data on the number of children and young people involved in ROSH reports by financial year, divided by the Australian Bureau of Statistics (ABS) estimated resident population of children in NSW. Estimates should be interpreted with caution: 'Child and Young Person Concern Reports', 'Annual Statistical Report 2022–2023', *Department of Communities and Justice 2023* (Web Page) **https://public.tableau.com/app/profile/dcj.statistics/viz/ASR2022-23summarydashboardtextversion/MainPage** and 'National, State and Territory Population Tables', *Australian Bureau of Statistics* (Web Page, 18 September 2025) **https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/latest-release**.

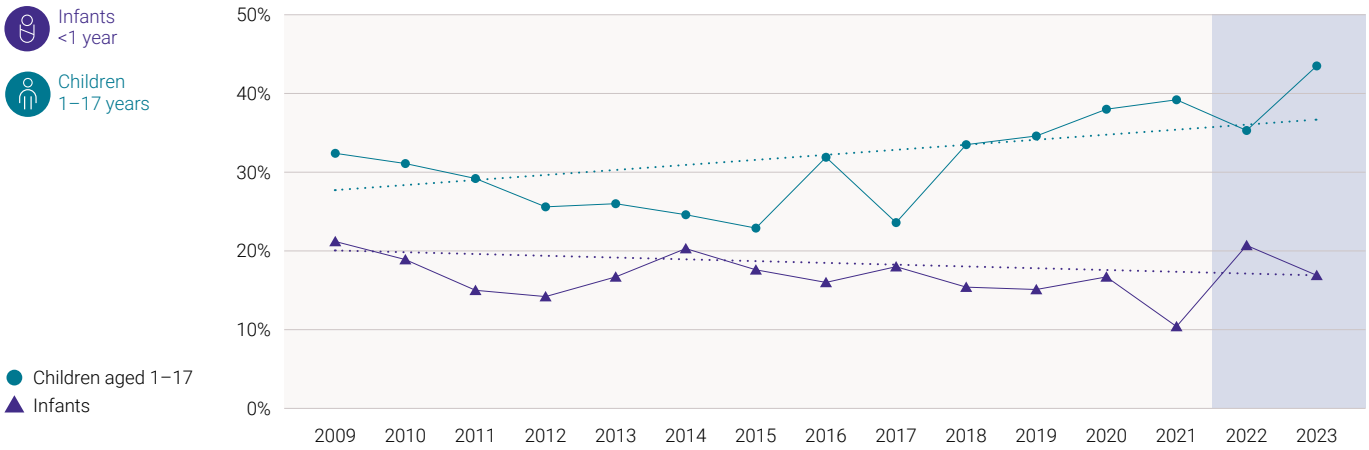
1.6.3 Trends: 2009-2023

In 2009, the NSW Government raised the threshold for reporting of child protections concerns from 'at risk of harm' to 'at risk of significant harm'. The change, which came into effect on 24 January 2010, was aimed at streamlining the reporting of child protection concerns and focusing resources on those cases where intervention by a statutory authority was necessary. The CDRT acknowledges that the following discussion includes data from 2009, where the reporting threshold for child protection concerns was 'at risk of harm'.

For deaths of children between 2009–2023:

- The proportion of infants with a child protection history decreased from 21% in 2009 to 17% in 2023. The proportion has remained mostly consistent over the 15-year period, except for a 15-year low of 10% in 2021.
- For children aged 1–17 years, the proportion of those with a child protection history increased from 32% in 2009 to 44% in 2023. The proportion was decreasing consistently from 2009 and then began to increase in 2016 and again in 2018 before reaching its highest over the 15-year period in 2023 at 44%.

Figure 9
Infant and child deaths with a child protection history, proportion
Percentage of deaths, 2009–2023



1.6.4 Child protection history by reporting category or classification: 2022–2023

Table 5 shows the proportion of children with a child protection history (and the proportion where a report was 'screened in' by DCJ as 'suspected ROSH') who died in 2022 and 2023, by reporting category and SUDI classification. While the reported concerns were not always directly relevant to the circumstances of a child's death, for many of the children who died the reported history included a range of adverse childhood experiences.

Research shows that adverse childhood experiences (**ACEs**), such as childhood abuse and neglect, experiences of family violence, and parental factors such as mental illness and substance use can lead to physical and mental health issues and/or social and behavioural problems in childhood or later in adulthood.[12]

Understanding the role of ACEs in longer-term outcomes is crucial to early identification and intervention and targeting resources to those who are most vulnerable.

In 2022 and 2023, suicide was the reporting category with the highest proportion of children with a child protection history (57%) and natural cause was the reporting category with the lowest proportion (20%).

Table 5a
Proportion of children with child protection history by reporting category
2022-2023

All children 0–17 years

Reporting Category	% with CPH	% ROSH
Suicide	57%	41%
Homicide	55%	36%
Transport	48%	38%
Other unintentional external	45%	31%
Drowning	36%	29%
Natural cause	20%	16%

Table 5b
Proportion of children with child protection history by SUDI classification
2022-2023

All children 0–17 years

Classification	% with CPH	% ROSH
SUDI	52%	50%

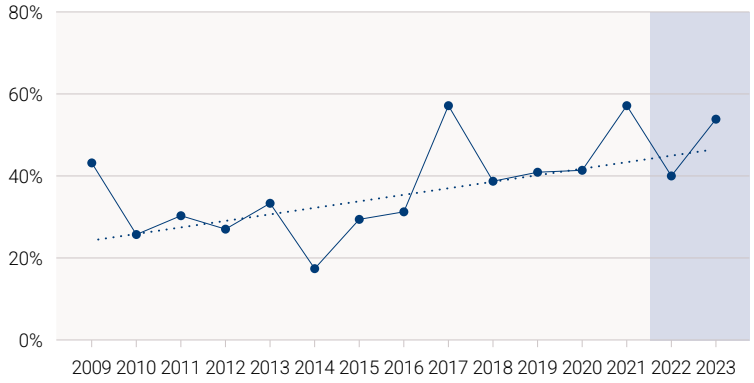
12 'Adverse Childhood Experiences (ACEs): Summary of Evidence and Impacts', *Emerging Minds and Australia National University* (Web Page, 2025) **https://emergingminds.com.au/resources/adverse-childhood-experiences-aces-summary-of-evidence-and-impacts/**.

1.6.5 Child protection history by reporting category or classification: 15-year trends

Figures 10–13 show the proportion of children with a child protection history by the 3 reporting categories with the highest proportion, and by SUDI classification, over the 15 years from 2009 to 2023.

Figure 10
Transport deaths with child protection history, proportion
Percentage of deaths, 2009–2023

All children 0–17 years

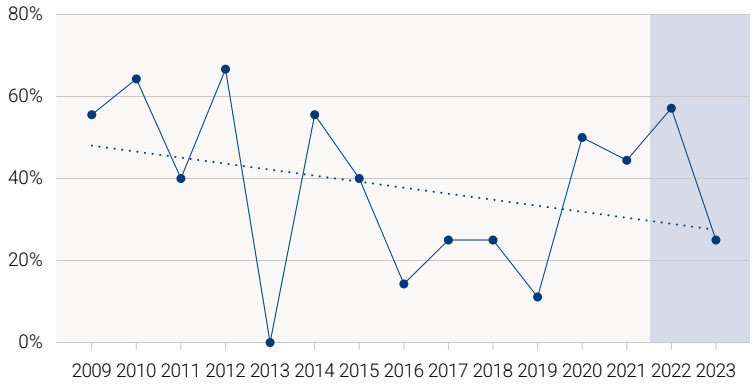


Transport

The average proportion over the 15 years for children who died in transport incidents and had a child protection history was **34%**.

Figure 11
Homicide deaths with child protection history, proportion
Percentage of deaths, 2009–2023

All children 0–17 years

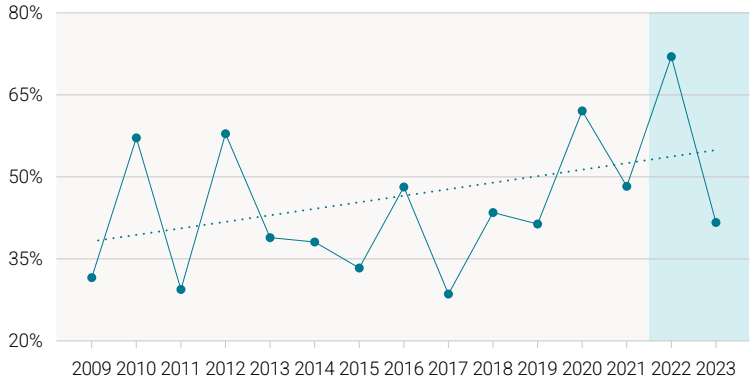


Homicide

The average proportion over the 15 years for children who died by homicide and had a child protection history was **38%**.

Figure 12
Suicide deaths with child protection history, proportion
Percentage of deaths, 2009–2023

Children 10–17 years

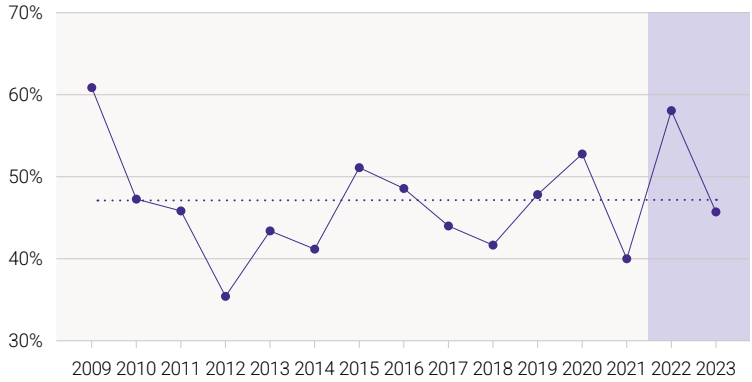


Suicide

The average proportion over the 15 years for children (10–17 years) who died by suicide and had a child protection history was **45%**.

Figure 13
SUDI deaths with child protection history
Percentage of deaths, 2009–2023

Infants <1 year



SUDI

The average proportion over the 15 years for infants whose deaths were classified as SUDI and had a child protection history was **47%**.

1.7 Observations and discussion

1.7.1 Infant and child mortality rates in NSW have declined overall

During the 15-year period 2009–2023, infant and child mortality rates declined – infant mortality decreased by 33%, and child mortality (ages 1–17) by 20%. These declines are broadly consistent with trends across Australia and are evident in both natural and external causes of death.

Among infants, the decline was mostly due to improvements for neonates in relation to death from natural causes. Improvements were evident for both males and females, non-Indigenous infants, those living in both major cities and regional and remote areas, and those from the areas of most socio-economic disadvantage.

For children aged 1–17, the decline was mostly due to a reduction in the mortality rate for young children aged 1–4 and 5–9 years. Improvements were also evident for females, non-Indigenous children, those residing in major cities and those from the most disadvantaged areas.

1.7.2 Some groups of infants and children are over-represented

Despite the overall decline, certain groups of infants and children continue to be over-represented in deaths in NSW.

Aboriginal and Torres Strait Islander children are over-represented in deaths in NSW, accounting for 16% of infant deaths (compared to 9% of births) and 18% of child deaths (compared to 8% of the child population) in 2022 and 2023. The Australian Government's National Agreement on Closing the Gap 2020 provides a national framework to raise the proportion of Aboriginal and Torres Strait Islander babies with a healthy birthweight from 88.8% in 2017 (baseline) to 91% by 2031 (Outcome 2), on the basis that children born within a healthy weight range have a lower risk of dying and are less prone to ill-health in childhood.[13] The latest data in the Commonwealth Closing the Gap Annual Report for 2025 indicates an increase in the proportion of Aboriginal and Torres Strait Islander babies born at a healthy birthweight but that the target of 91% is not on track to be met.

In 2022, 89.2% of Aboriginal and Torres Strait Islander children were of healthy birthweight, down from 89.6% in 2021 but up from the 2017 baseline. The increase was driven by changes in other jurisdictions (Victoria, Queensland, South Australia, Tasmania and the Australian Capital Territory), with little change in NSW.[14]

Higher rates of mortality were also observed across all children aged 0–17 for males, those in regional and remote areas and those from the most disadvantaged areas. Young people aged 15–17 and children with a child protection history are also over-represented in deaths. Inequalities between certain groups of children have persisted over time, and this is in keeping with previous observations made in biennial child death reports about childhood mortality in NSW.[15]

13 'National Agreement on Closing the Gap', *Joint Council on Closing the Gap* (Web Page, July 2020) **https://www.closingthegap.gov.au/national-agreement/national-agreement-closing-the-gap**.

14 Productivity Commission, *Closing the Gap, Annual Data Compilation Report* (Report, 30 July 2025) **https://www.pc.gov.au/closing-the-gap-data/annual-data-report**.

15 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2020 and 2021* (Report, 27 November 2023) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2020-and-2021**.

1.7.3 Homebirths and freebirths

The Australian Institute of Health and Welfare reports that in 2023 only 0.7% of Australian births occurred at home. Most births (97%) took place in hospitals, with a small number being born elsewhere such as birthing centres (1.5%), or in other settings, such as on the way to hospital (0.7%).[16] It was further reported there had been a slight increase in the number of home births from 0.3% in 2019, to 0.7% in 2023.

In 2022 and 2023, a total of 13 neonates who died[17] were born at home in NSW.

- 8 were unplanned births that occurred between 21 and 28-weeks' gestation
- 3 were planned births at home under medical supervision, of which 2 were under the supervision of a registered midwife.
- 2 were 'freebirths' with a birthing support person or doula present. (A freebirth is defined as a planned homebirth that the parents arrange to be intentionally unattended by any registered midwife or obstetrically trained or registered professional.[18])

Risks and/or complications were identified by medical professionals in the months and weeks prior to the birth for 3 of the 4 infants born under the supervision of a midwife or with a birthing support person or doula present. These included restricted foetal growth, multiple pregnancies, the position of the infant prior to birth, limited antenatal care and/or other maternal risks.[19]

The CDRT acknowledges the significant difference between a planned homebirth under the care of a registered midwife and often but not always linked to a NSW Health maternity unit home birth program, and a freebirth where a deliberate decision is made to birth without a registered health professional in attendance.

A NSW Parliament Select Committee report on birth trauma, tabled in May 2024,[20] noted that a hospital setting is not always the preferred birthing environment for all women and that limited access to publicly funded home birthing services may impact the decision of some women to freebirth at home in circumstances that carry additional risks. The committee recommended the NSW Government 'investigate expanding publicly funded homebirth services to all NSW Local Health Districts'. The NSW Government supported the recommendation and in August 2024 advised that NSW Health would continue to investigate opportunities to expand homebirth services through the Nursing and Midwifery Office.[21]

16 'Australia's Mothers and Babies', Australian Institute of Health and Welfare (Web Page, 31 July 2025) **https://www.aihw.gov.au/reports/mothers-babies/australias-mothers-babies/contents/labour-and-birth/place-of-birth**.

17 10 infants died from natural causes; in 3 cases, at the time of writing, the final cause of death was pending coronial outcomes.

18 Melanie K Jackson, Virginia Schmied and Hannah G Dahlen, 'Birthing Outside the System: The Motivation Behind the Choice to Freebirth or Have a Homebirth with Risk Factors in Australia' (2020) 20 *BMC Pregnancy Childbirth* 254 **https://doi.org/10.1186/s12884-020-02944-6**.

19 In March 2025, 2 persons were charged with offences relating to the death of 1 infant. One person was an unregistered midwife and the other held no medical qualifications.

20 Select Committee on Birth Trauma, Parliament of New South Wales, Birth Trauma (Report, May 2024) **https://www.parliament.nsw.gov.au/lcdocs/inquiries/2965/FINAL%20Birth%20Trauma%20Report%20-%2029%20April%202024.pdf**.

21 NSW Government, NSW Government Response, Inquiry into Birth Trauma (Response, 29 August 2024). **https://www.parliament.nsw.gov.au/lcdocs/inquiries/2965/Government%20response%20-%20Select%20Committee%20on%20Birth%20Trauma%20-%20Report%20No%201%20-%20Birth%20trauma.pdf**.

2 Natural causes of death

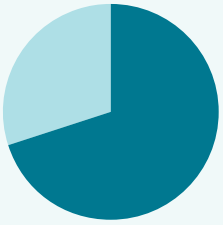
2

Section summary

All natural causes

In 2022-2023

632 children died due to natural causes



71%
of all deaths of children in NSW

2-year period

The leading natural causes of death were:

FOR INFANTS UNDER 1

1.	Perinatal conditions	56%
2.	Congenital anomalies	32%

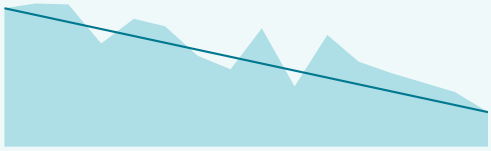
FOR CHILDREN 1-17

1.	Cancers	32%
2.	Congenital anomalies	14%
3.	Diseases of the nervous system	11%
3.	Respiratory illness	11%

15-year period

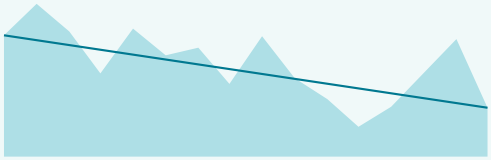
The rate for natural cause deaths for children aged 0-17 has decreased over the 15 years

FOR INFANTS UNDER 1 ↓37%



2009 2023

FOR CHILDREN 1-17 ↓21%



2009 2023

Key observations

Over the 15-years, among all children 0–17 rates were higher for:

- Male children
- Aboriginal and Torres Strait Islander children
- Children living in areas of greatest socio-economic disadvantage

2.1 Background

This chapter considers the 632 children who died due to natural causes in 2022 and 2023; 346 in 2022 and 286 in 2023. Of the children who died due to natural causes, 395 (63%) were infants under 1 year. The deaths of 9 children were reviewable by the Ombudsman because the children were living in care at the time of their death.

The main classifications and associated codes from the International Classification of Diseases, Tenth Revision (**ICD-10**) for natural cause death for children include:

P00-P96
Certain conditions originating in the perinatal period.

Q00-Q99
Congenital malformations, deformations, and chromosomal abnormalities.

A00-B99
Certain infectious diseases such as viral meningitis, meningococcal infection, and other bacterial diseases.

C00-D48
Neoplasms (or cancers) such as leukaemia and malignant brain or soft tissue tumours.

J00-J99
Diseases of the respiratory system such as influenza and pneumonia.

G00-G99
Diseases of the nervous system such as encephalitis, myelitis and cerebral palsy.

E00-E89
Endocrine, nutritional, and metabolic diseases such as diabetes mellitus and cystic fibrosis.

2.2 Trends

2.2.1 Deaths in 2022 and 2023

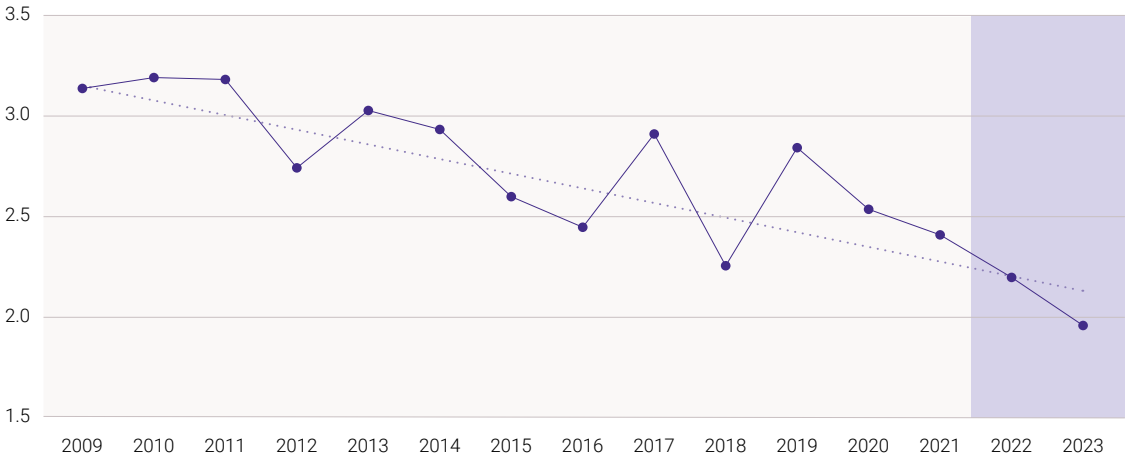
The 632 deaths of children in 2022 and 2023 due to natural causes represent 71% of all deaths in the period:

- Of these, 63% were infants <1 year (395) – an Infant Mortality Rate (**IMR**) of 2.1 deaths per 1,000 live births.
- Of these, 37% were children aged 1–17 years (237) – a mortality rate of 7 deaths per 100,000 children.

2.2.2 15-year trend

Figure 14a
Natural cause deaths for infants <1 year
Rate per 1,000, 2009–2023

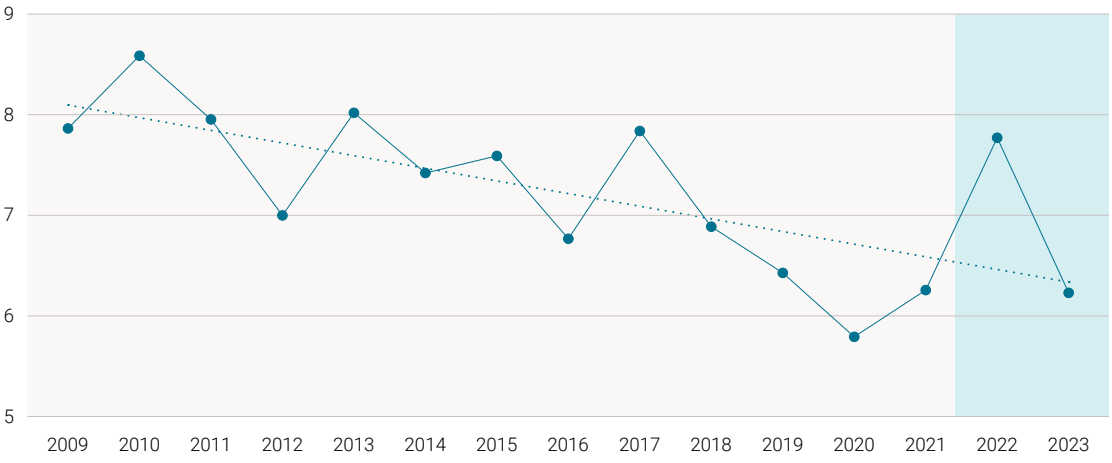
Infants <1 year



Over the past 15 years, the IMR for natural causes has reduced by 37% and was the lowest over the 15-year period in 2023 at a rate of 2 deaths per 1,000 infants.

Figure 14b
Natural cause deaths children 1–17 years
Rate per 100,000, 2009–2023

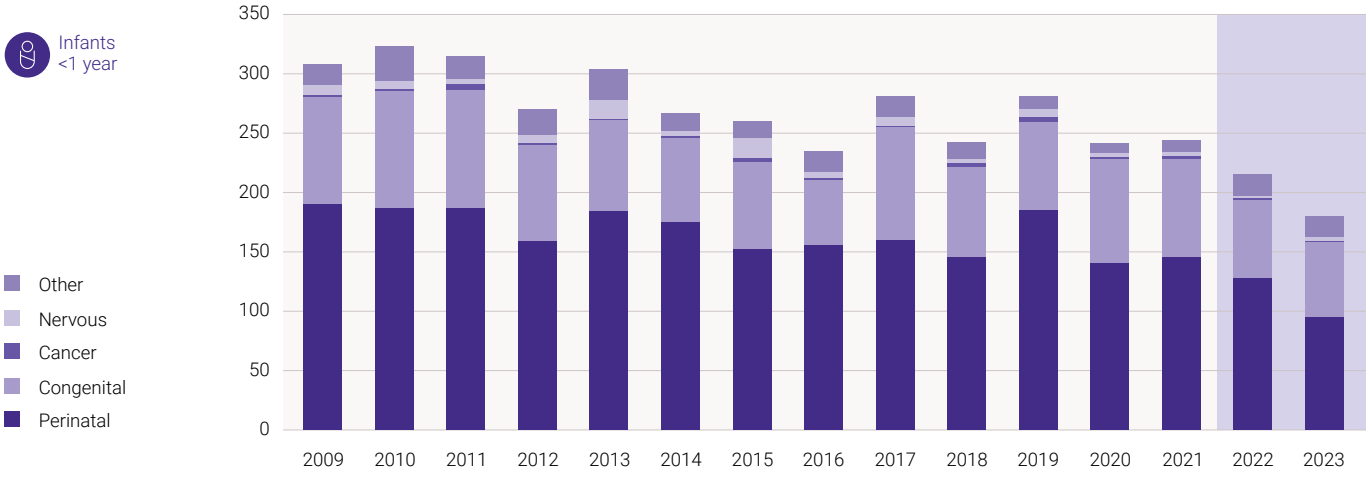
Children 1–17 years



For children aged 1–17 years, the mortality rate has reduced by 21% over the 15 years.

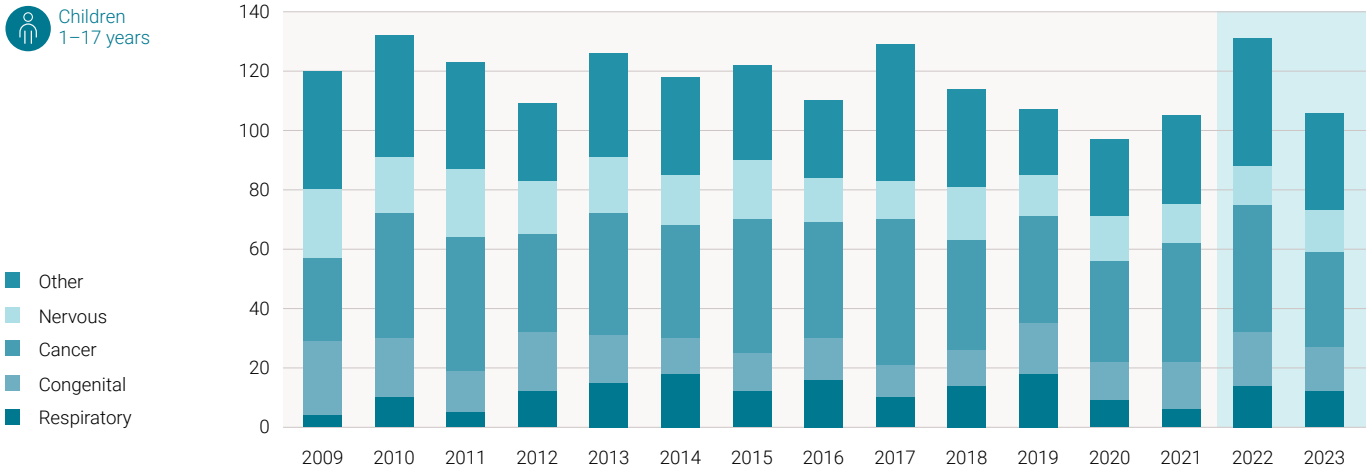
2.3 Main causes of death: 2009–2023

Figure 15a
Leading causes of death for infants <1 year[22]
Counts, 2009–2023



Over the 15 years from 2009 to 2023, the leading causes of death for infants <1 year of age were perinatal conditions followed by congenital anomalies.

Figure 15b
Leading causes of death for children 1-17 years[23]
Counts, 2009–2023

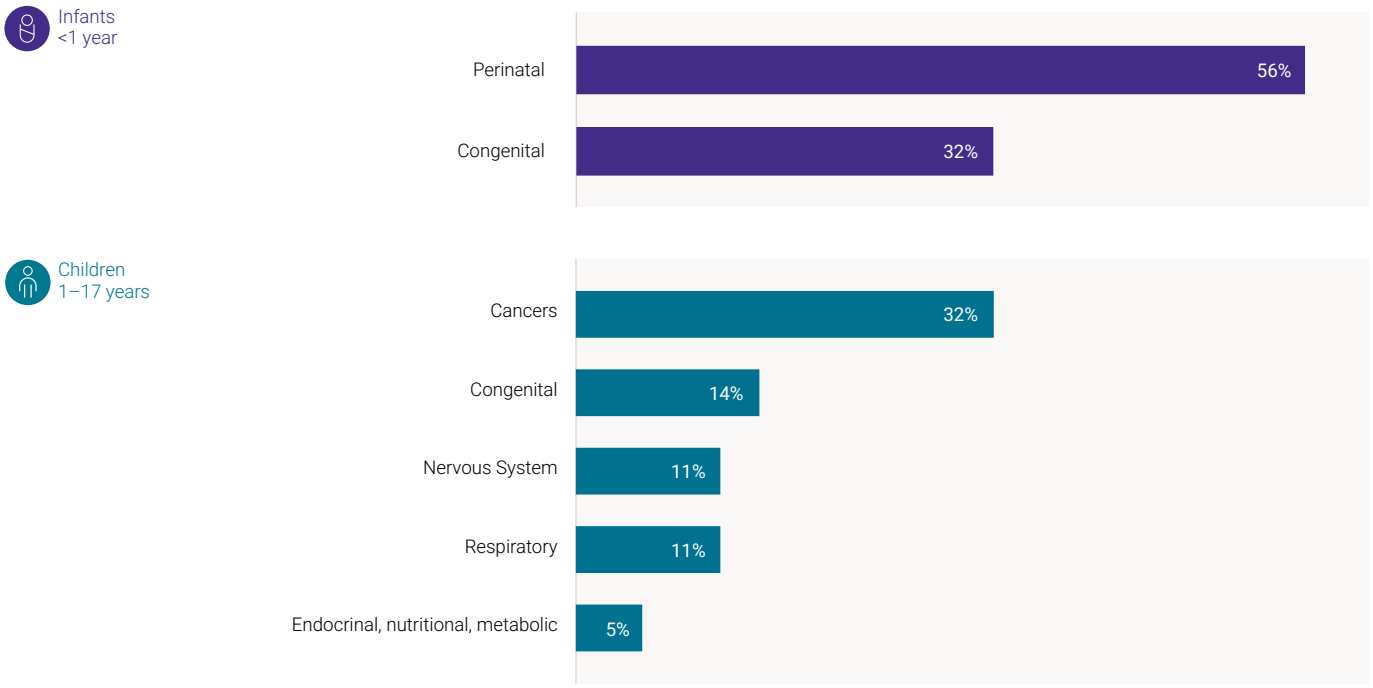


For children aged 1–17 years the leading causes were cancers (neoplasms) followed by nervous system diseases.

22 'Other' includes certain infectious diseases; diseases of the respiratory system; endocrine, nutritional and metabolic diseases; and all other types of natural causes. 18 infant cases were not coded at the time of writing and have been included in 'other'.
23 'Other' includes certain infectious diseases; certain conditions originating in the perinatal period; endocrine, nutritional and metabolic diseases; and all other types of natural causes. 18 children cases were not coded at the time of writing and have been included in 'other'.

2.4 Key findings: 2022–2023

Figure 16
Leading natural causes, infants <1 year and children 1–17 years
Proportions, 2022–2023



2.4.1 Infants

For the 395 infants who died of natural causes in 2022 and 2023, 2 causes accounted for the large majority (89%) of infant deaths:

Perinatal conditions[24]

56% of infants who died from natural causes. Conditions such as complications of pregnancy (21%), prematurity (13%), respiratory and cardiovascular disorders (10%) and haemorrhagic and haematological disorders (5%).

Congenital and chromosomal abnormalities[25]

32% of infants who died from natural causes. In 2022 and 2023, the three most common were malformations of the circulatory system (10%), followed by malformations of the nervous system (6%), and malformations of the musculoskeletal system (5%).

24 Conditions that originate during pregnancy or up to 28 completed days after birth. Although the conditions originate during the perinatal period, they can result in death in later life.

25 Abnormalities that are present from birth including anatomical defects such as congenital heart malformations and neural tube defects, and disorders with development consequences such as Down Syndrome and cerebral palsy.

2.4.2 Children 1–17

For the 237 children aged 1–17 who died of natural causes in 2022 and 2023, cancer was the leading cause of death (32% of natural cause deaths in this age group).

For most children with cancer who die, the cause of death is the disease itself. In about 5–10% of cases, the cause of death is primarily due to treatment toxicity – a complication of the intensive therapy for cancer.

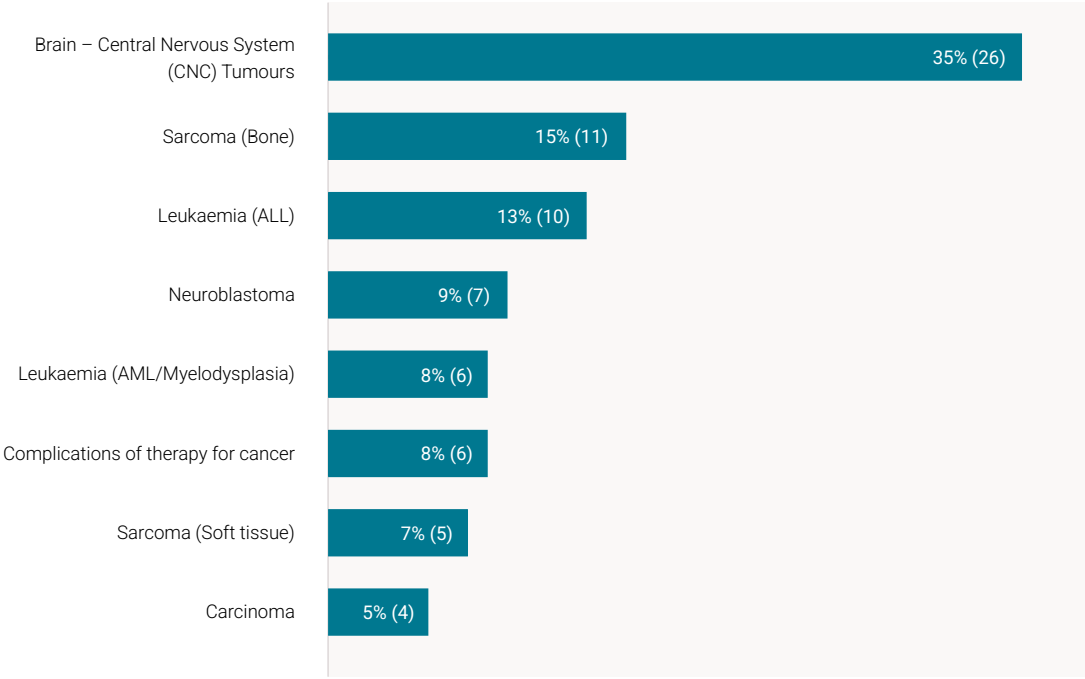
Figures 17 and 18 show the types of cancer as a proportion of the total of all deaths of children 1–17 from cancer in 2022 and 2023, including those children who died because of complications of therapy for cancer.

Other leading causes of death for children 1–17 included:

- **congenital abnormalities** (14% of children who died from natural causes)
- **diseases of the nervous system** (11% of children who died from natural causes)
- **respiratory illness** (11% of children who died from natural causes)
- **certain infectious and parasitic diseases**[26] (11% of children who died from natural causes)
- **endocrine, nutritional and metabolic conditions** (5% of children who died from natural causes)
- **diseases of the circulatory system** (5% of children who died from natural causes)
- **other natural causes**[27] (11% of children who died from natural causes).

Figure 17
Type of cancer by proportion of all deaths from cancer, children 1–17 years
2022–2023

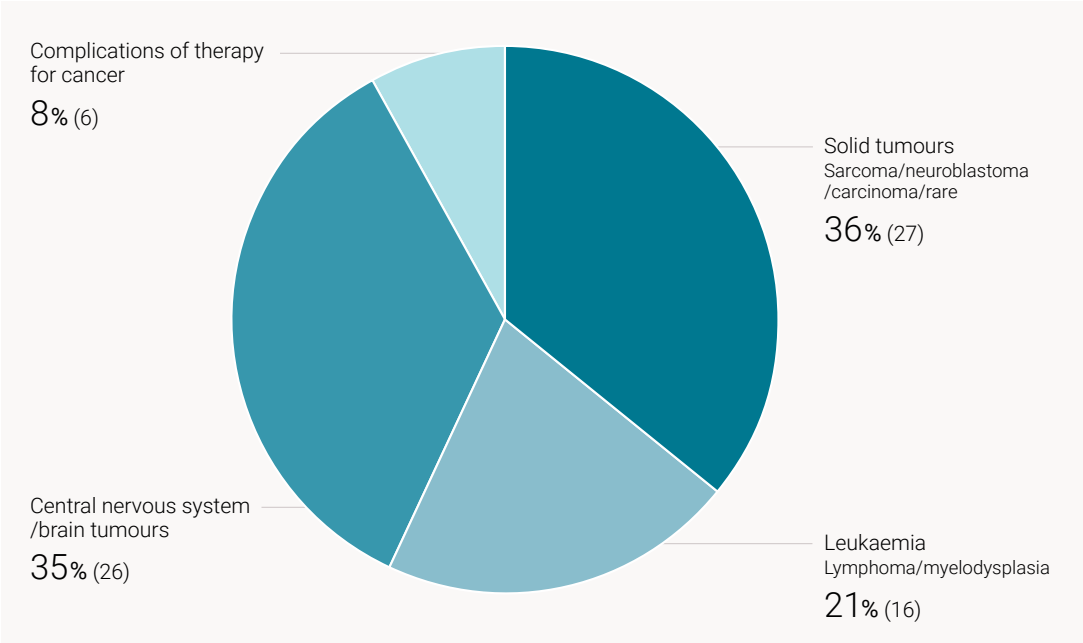
Children 1–17 years



26 Including deaths due to COVID-19 and coded under the ICD Chapter 'Codes for special purposes'.
27 Including 18 cases not coded at the time of writing.

Figure 18
Type of cancer by proportion of all deaths from cancer, children 1–17 years
2022–2023

Children
1–17 years

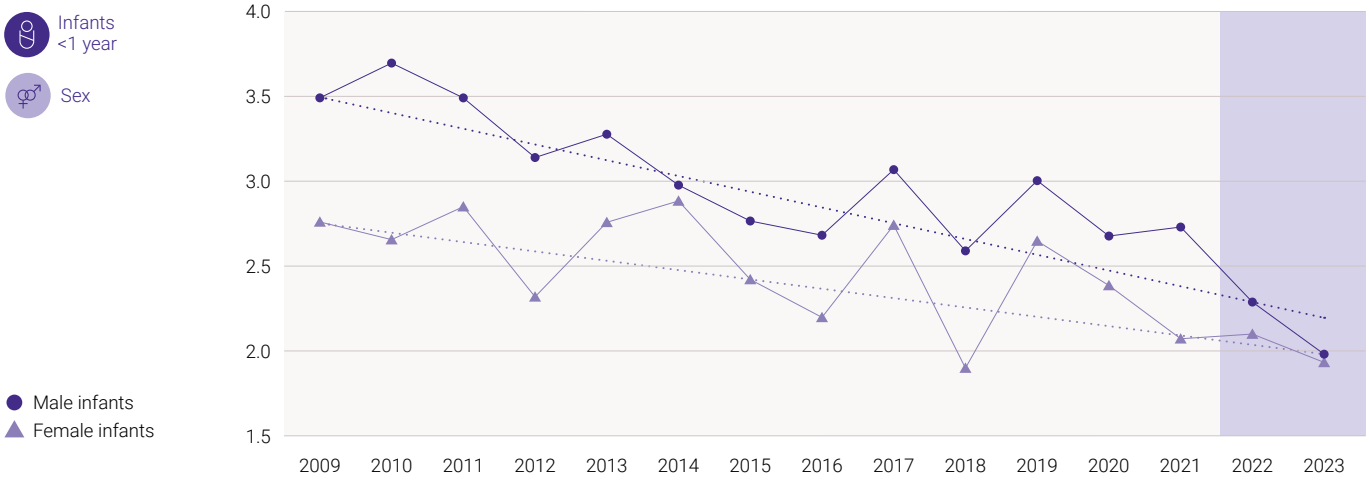


2.5 Demographics: 15-year findings

Key demographic findings for the 15-year period 2009–2023 are presented below. Age groupings for infants are neonates (birth to <28 days) and post-neonates (>28 days to 1 year).

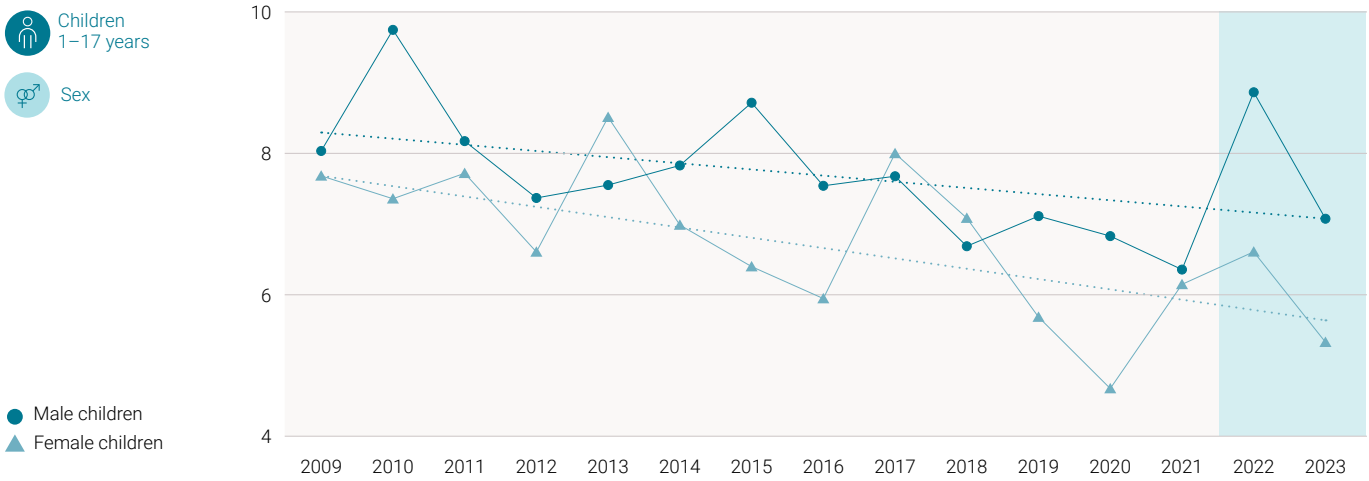
2.5.1 Sex

Figure 19
Natural cause infant mortality rates by sex
Rate per 1,000, 2009–2023



The IMR for both males and females has decreased. The IMR for males was higher than females. The gap between male and female infants has gradually narrowed over the 15-year period. In the 2-year period 2022–2023, the rates for males and females were similar in each year.

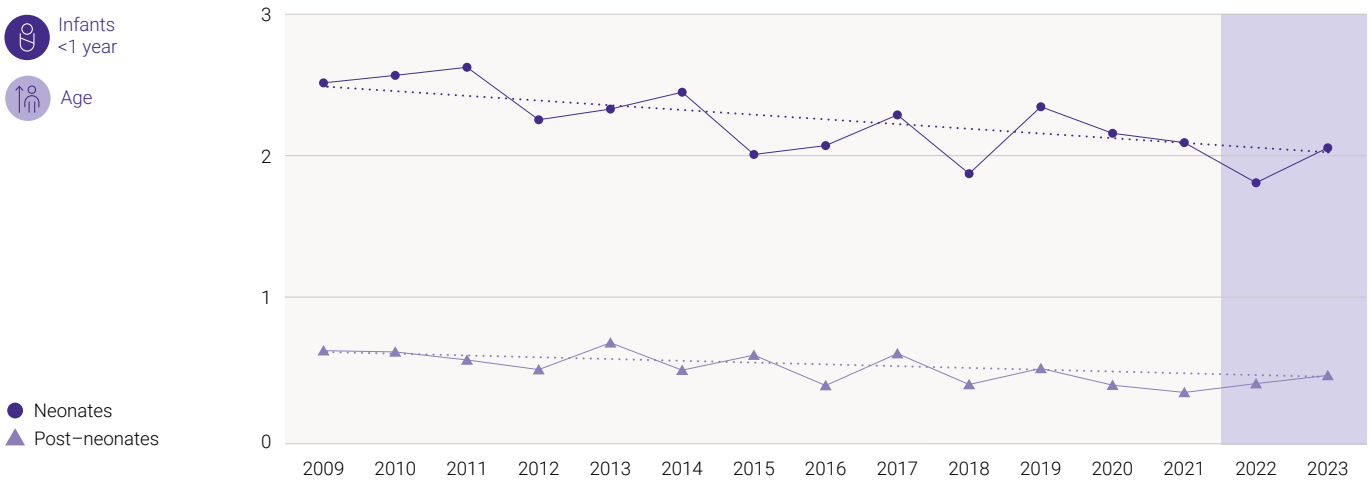
Figure 20
Natural cause child mortality rates by sex
Rate per 100,000, 2009–2023



Over the 15-year period, for children 1–17, the mortality rate for females decreased while the rate for males did not change overall. The mortality rate for males was generally higher than that for females.

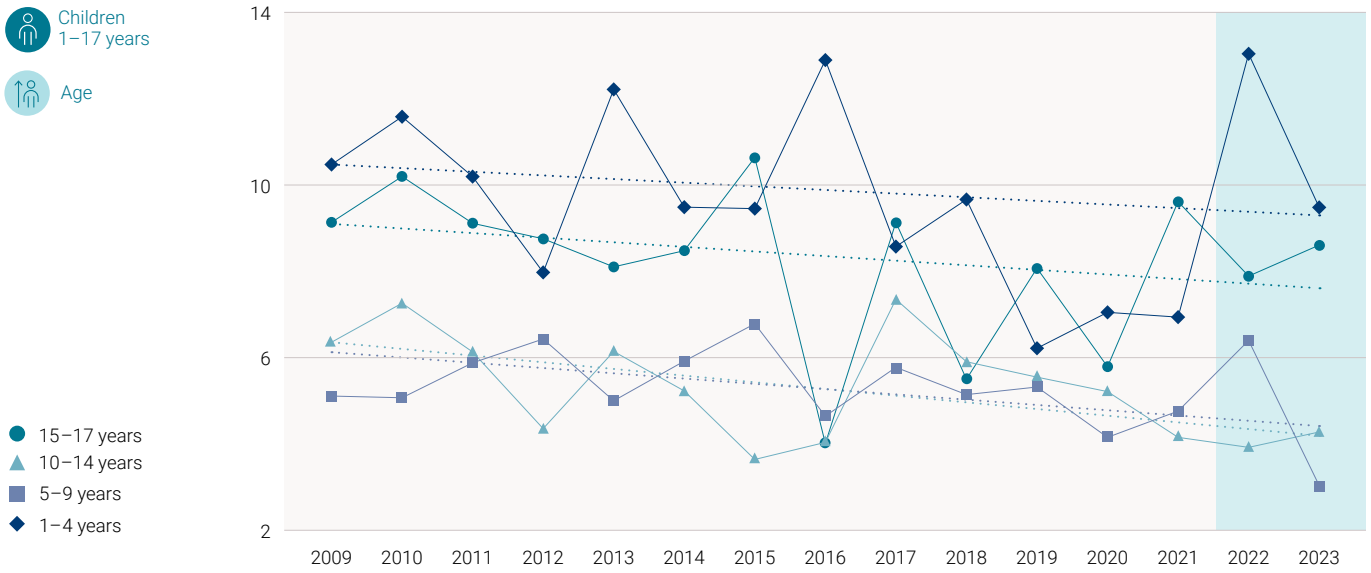
2.5.2 Age

Figure 21
Natural cause infant mortality rates for neonates and post-neonates
Rate per 1,000, 2009–2023



Over the 15-year period, the IMR for both neonates and post-neonates decreased, with the rate for neonates being 4.5 times higher on average throughout the period. The gap between the IMR for neonates and post-neonates decreased over the 15-year period.

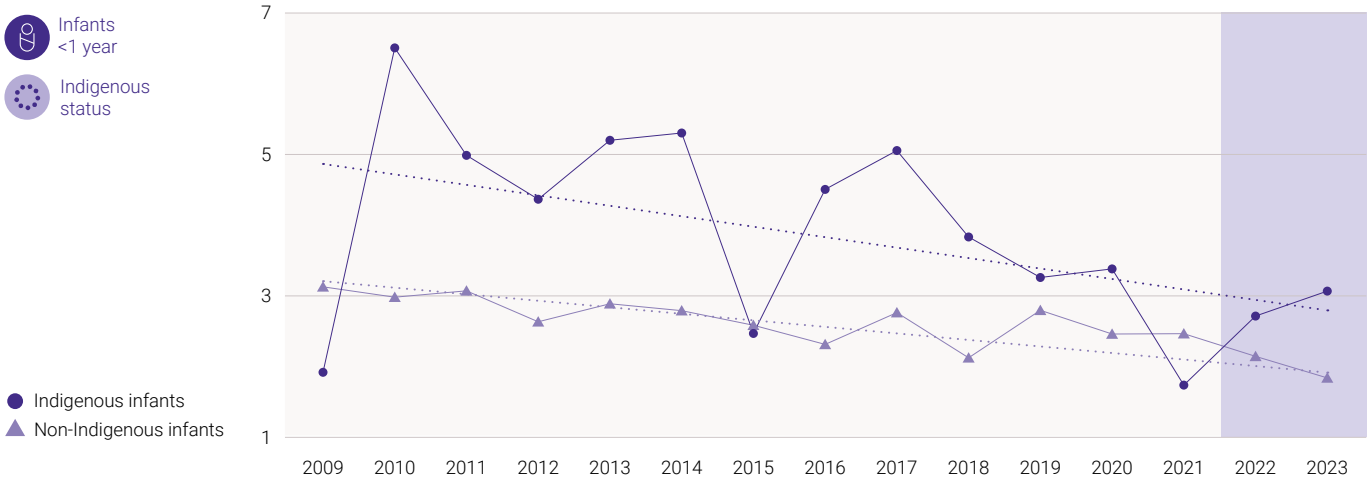
Figure 22
Natural cause child mortality rates by age
Rate per 100,000, 2009–2023



Over the 15-year period, for children aged 1–17, the mortality rate was higher for those aged 1–4 years and 15–17 years than for the other age groups.

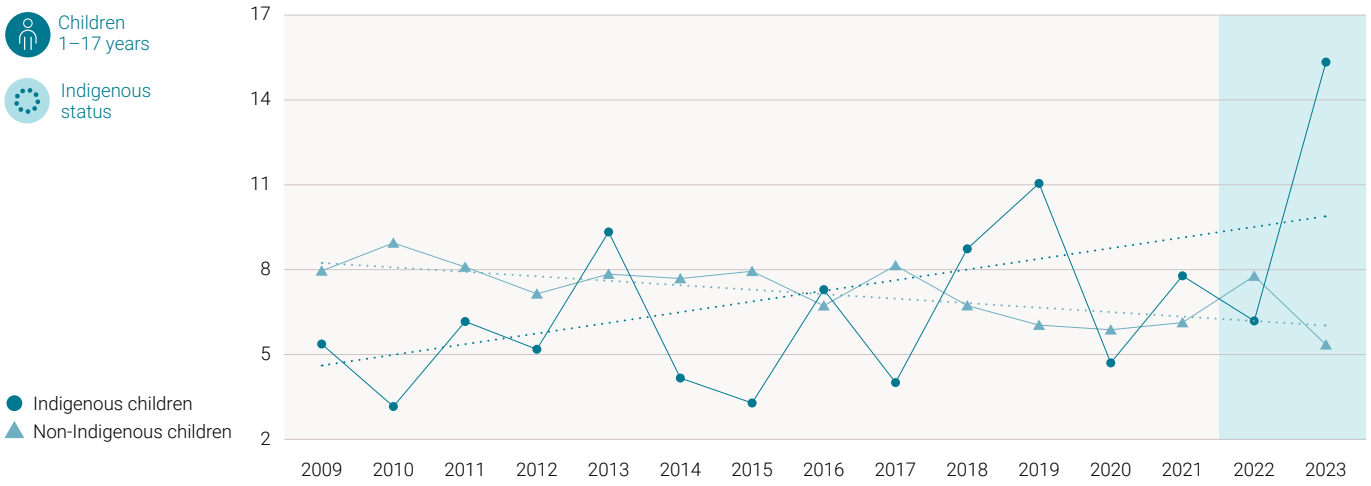
2.5.3 Indigenous status

Figure 23
Natural cause infant mortality rates by Indigenous status
Rate per 1,000, 2009–2023



Over the past 15-years, the IMR for non-Indigenous infants decreased, while the rate for Indigenous infants did not change overall. The IMR for Indigenous infants has been typically higher than for non-Indigenous infants.

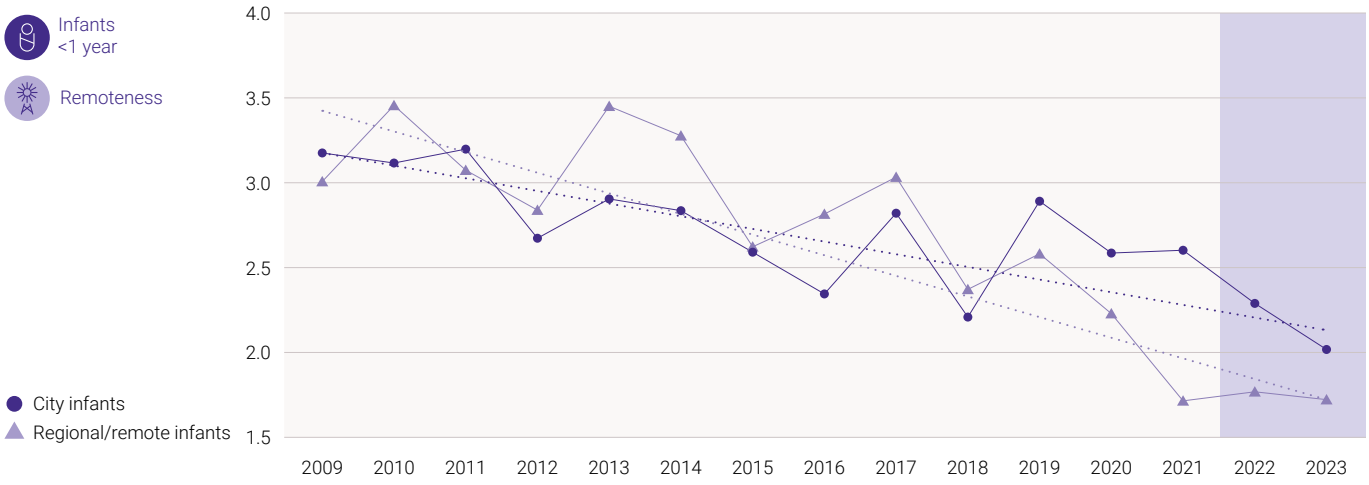
Figure 24
Natural cause child mortality rates by Indigenous status
Rate per 100,000, 2009–2023



Over the 15-year period, the rates for Indigenous children 1–17 increased, while the rates for non-Indigenous children decreased. Despite some variation between the rates from year to year, the gap between the rates for Indigenous and non-Indigenous children has increased overall.

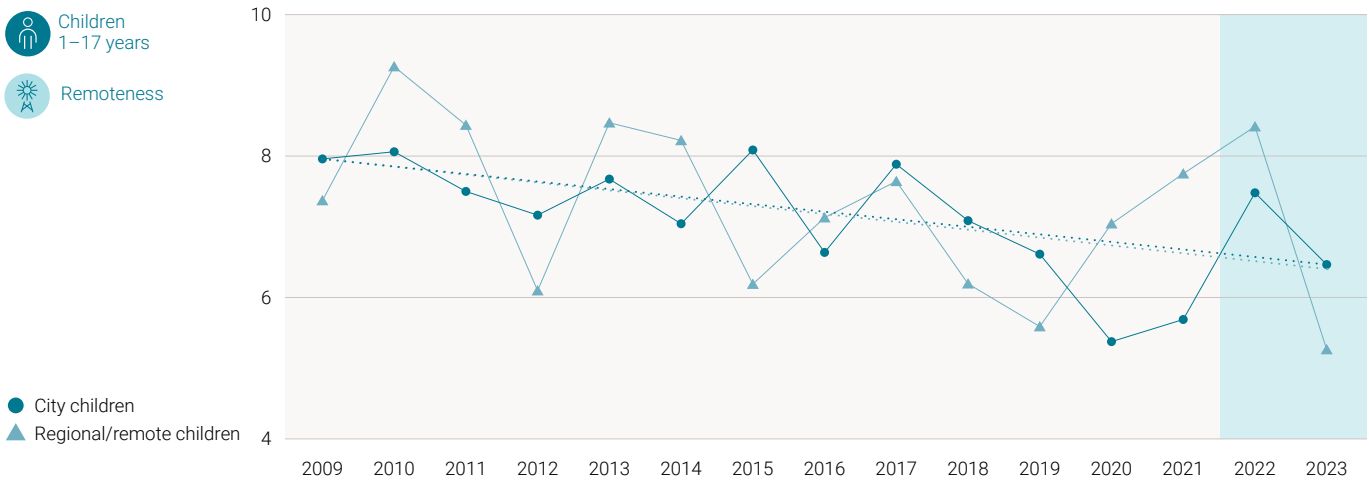
2.5.4 Remoteness

Figure 25
Natural cause infant mortality rates by remoteness
Rate per 1,000, 2009–2023



The IMR for infants in both cities and regional/remote areas decreased over the 15 years. On average, the IMR was similar between the 2 over the 15-year period. Over the most recent 5-year period, the IMR was on average higher for infants in major cities.

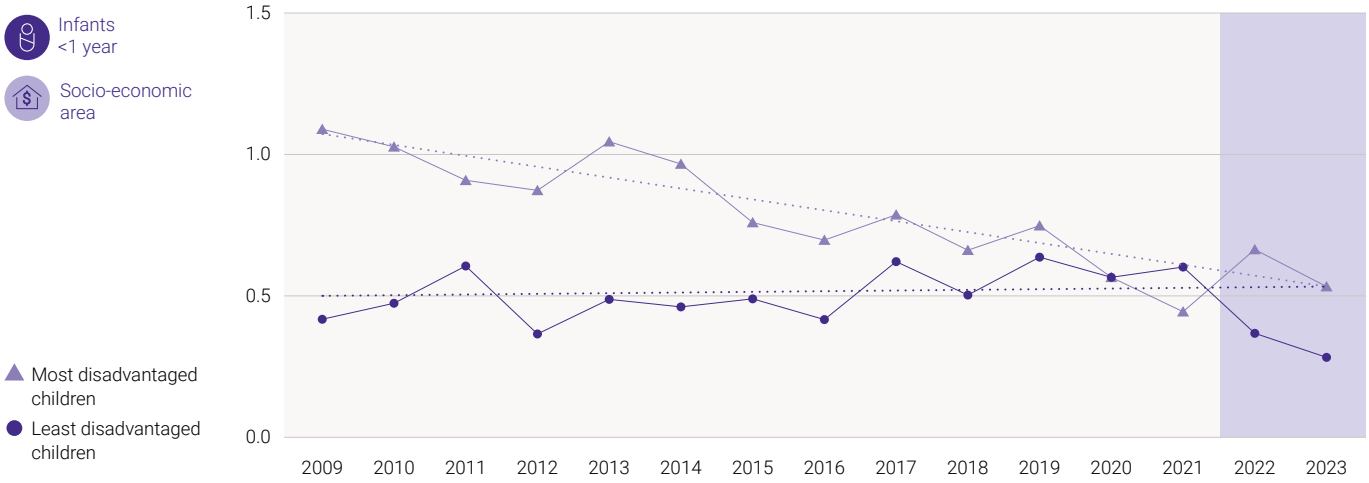
Figure 26
Natural cause child mortality rates by remoteness
Rate per 100,000, 2009–2023



Over the 15-year period, the mortality rate for children aged 1–17 living in major cities decreased. Despite variation from year to year, on average over the 15 years, the mortality rate for children aged 1–17 living in regional and remote areas did not change.

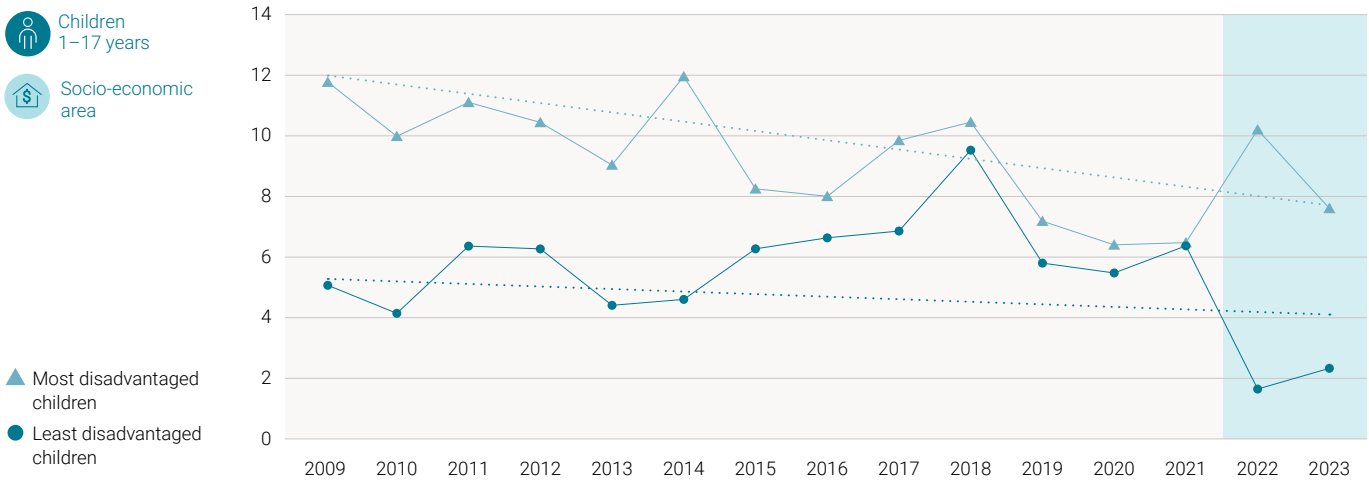
2.5.5 Socio-economic areas

Figure 27
Natural cause infant mortality rates by socio-economic area
Rate per 1,000, 2009–2023



There has been a decrease in the IMR for infants living in the most disadvantaged areas. The gap between infants living in both the most and least disadvantaged areas has decreased over the 15-year period.

Figure 28
Natural cause child mortality rates by socio-economic area
Rate per 100,000, 2009–2023



Over the 15-year period, for children aged 1–17 years from the areas of greatest socio-economic disadvantage, the mortality rate has decreased; however, it has been consistently higher than the rate for children in the least disadvantaged areas.

2.6 Observations on select diseases and conditions

2.6.1 COVID-19

In 2022 and 2023, 6 children died from COVID-19 infection; 3 aged 0–2 years and 3 aged 13–17 years. In 2 cases, the child had either a significant other chronic or life-limiting health condition.

Currently in Australia, COVID-19 vaccination is recommended for all people aged 18 years and older. It is also recommended for children aged 6 months to less than 18 years with medical conditions that may increase their risk of severe disease or death from COVID-19.[28] Of the children who died from COVID-19 infection, 2 had received 1 or more COVID-19 vaccines, and 4 had not been vaccinated.[29]

2.6.2 Vaccine-preventable diseases

The Child Death Review Team (**CDRT**) acknowledges that the term 'vaccine-preventable' refers to the significant reduction of risk of contracting a particular disease following immunisation, and that risk from these diseases can vary based on factors such as the age and immune response of individuals and circulating virus strains.

Immunisation has successfully reduced the number of child deaths from infectious diseases. The National Immunisation Program (**NIP**) provides funded vaccination to protect against 16 infectious diseases for eligible children and state and territory health departments also fund some additional vaccines. Table 6 lists the vaccine preventable diseases included in the NSW Immunisation Schedule.

Table 6
Vaccine preventable infectious diseases in the current NSW Immunisation Schedule

Current NSW Immunisation Schedule vaccines For all infants and children Updated February 2025		Additional vaccines Available for Aboriginal children, at risk groups, and adolescents
• Chickenpox (varicella) • Diphtheria • Haemophilus influenzae type b (Hib) • Hepatitis B • Influenza (flu)[30] • Measles • Meningococcal ACWY	• Mumps • Pertussis (whooping cough) • Pneumococcal • Rotavirus • Rubella • Tetanus	• Meningococcal B (Aboriginal and Torres Strait Islander children) • Human papillomavirus (Year 7)

28 'COVID-19 Vaccine Advice and Recommendations', *Australian Government Department of Health, Disability and Ageing* (Web Page, 8 September 2025) https://www.health.gov.au/our-work/covid-19-vaccines/getting-your-vaccination.
29 1 child aged 2 months; 2 children aged 2 years; 1 child aged 13 years.
30 Recommended for children aged >6 months to <5 years.

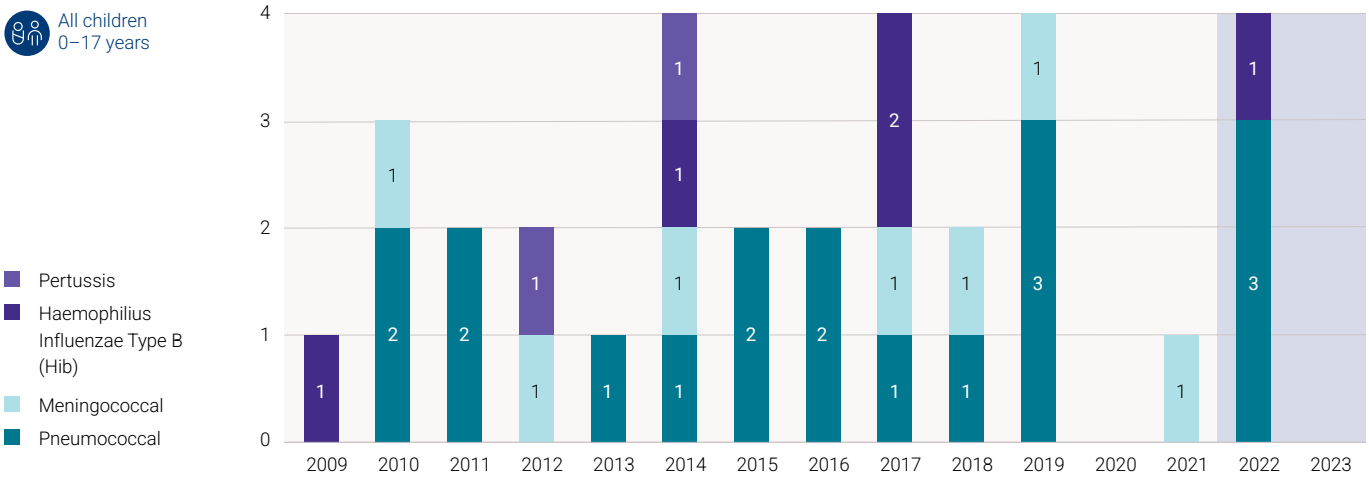
In 2022 and 2023, the deaths of 4 children[31] were related to a vaccine-preventable disease listed on the NSW Immunisation Schedule, with 3 cases of pneumococcal sepsis and 1 case of pneumonia due to haemophilus influenzae. Of the 4 children who died from a vaccine preventable disease, all had received vaccinations appropriate for their age, as per the NSW Immunisation Schedule.

Over the past 15 years, 2009–2023, 32 children aged 0–17 years died from vaccine preventable diseases listed on the immunisation schedule (an average of approximately 2 deaths each year).[32] The most common vaccine-preventable disease that caused death was pneumococcal (18) including sepsis due to streptococcus pneumoniae (8), pneumonia due to streptococcus pneumoniae (5) and pneumococcal meningitis (5).

However, not all these deaths were necessarily preventable. For example, in some cases the child was too young to be immunised, the child was not eligible to receive the vaccine under the NIP, or there was insufficient information about the disease sub-type to determine if there was an available vaccine.

Data from the Australian Government[34] reports that to September 2024, the rolling annualised percentage of all children, aged 5 years, who were 'fully immunised'[35] in NSW was 93.90%. Sustained high immunisation plays a crucial role in keeping mortality rates from vaccine preventable disease low and is a strong indicator of public health success.

Figure 29
Immunisation mortality
Counts, 2009–2023[33]



31 Deaths from influenza were not included, as it is a 'recommended' vaccine on the NSW Immunisation Schedule.
32 Does not include deaths from influenza, as it is a 'recommended' vaccine on the NSW Immunisation Schedule.
33 Other diseases that do not appear in this chart – rotavirus, tetanus, diphtheria, poliomyelitis, varicella, measles, mumps, rubella and hepatitis B – are absent because there were no child deaths from these diseases recorded in the NSW Register of Child Deaths during the 15-year period.
34 'Current Coverage Data Tables for All Children', *Department of Health, Disability and Ageing* (Web Page, 27 August 2025) **https://www.health.gov.au/topics/immunisation/immunisation-data/childhood-immunisation-coverage/current-coverage-data-tables-for-all-children**.
35 To be considered fully immunised a child should have completed the number and type of vaccinations listed in the National Health and Medical Research Council (NHMRC) standard childhood vaccination schedule: Edward D O'Brien, Greg A Sam and Cathy Mead, 'Methodology for Measuring Australia's Childhood Immunisation Coverage' (1998) 22(3) *Communicable Diseases Intelligence* 36 **https://www1.health.gov.au/internet/main/publishing.nsf/Content/cda-pubs-cdi-1998-cdi2203-cdi2203b.htm**.

2.6.3 Sepsis

Sepsis is a life-threatening condition marked by severe organ dysfunction.[36] It is the immune system's response to an infection, which causes the body to attack its own tissues and organs, and can occur in response to any bacterial, viral or fungal infection acquired in a community or healthcare setting.[37]

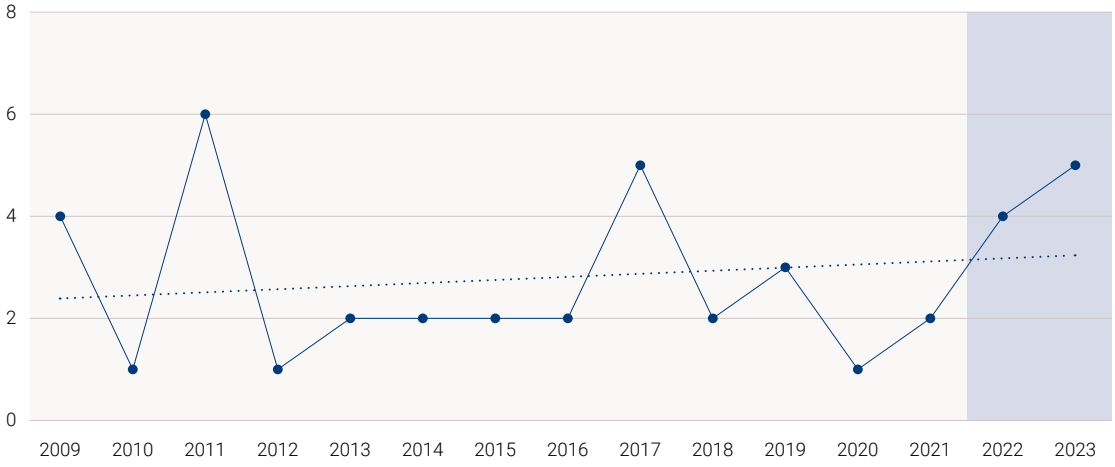
In 2022 and 2023, 9 children died where sepsis was recorded as the underlying cause of death.[38] This is a 3-fold increase from 3 in 2020–2021. For a further 11 children, sepsis was indicated on the death certificate as either a direct or antecedent cause – a disease or condition that is a consequence of the underlying cause. For 3 children, sepsis was listed on the death certificate as an 'other significant condition' that contributed to, but did not cause, the death.

Of the 9 children who died from sepsis in 2022 and 2023, 6[39] died from sepsis due to streptococcus group A (**iGAS**). iGAS is a severe disease that includes septicaemia, meningitis and pneumonia. It may also cause other serious illness such as toxic shock syndrome and necrotising fasciitis.[40] An increase in iGAS cases was reported in the Northern Hemisphere from late 2022, with a similar increase noted in referrals to the Newborn and Paediatric Emergency Transport service (**NETS NSW**).[41]

Over the 15-year period, 2009 to 2023, 42 children were identified as having died from sepsis in NSW.

Figure 30
Sepsis mortality
Counts, 2009–2023

All children
0–17 years



36 World Health Organization, Global Report on the Epidemiology and Burden of Sepsis: Current Evidence, Identifying Gaps and Future Directions (Report, 2020) https://www.who.int/publications/i/item/9789240010789.

37 'Sepsis Kills Program', *Australian Commission on Safety and Quality in Health Care* (Web Page) https://www.cec.health.nsw.gov.au/keep-patients-safe/sepsis/program.

38 Excludes 3 cases where sepsis was related to a vaccine preventable disease.

39 This figure does not include the death of a 2-year old. An inquest into this child's death is part heard before the NSW Coroner. The Coroner has heard expert evidence that iGAS was the cause of death. The listed underlying cause of death was sepsis unspecified.

40 NSW Health, 'Invasive Group A Streptococcal Disease', *NSW Health* (Web Page, 27 September 2024) https://www.health.nsw.gov.au/Infectious/diseases/Pages/igas.aspx.

41 Laura Scerri et al, An Australian Paediatric Retrieval Service Riding the Wave of Invasive Group A Streptococcal Disease from 2022 to 2024 (2025) 61(7) *Journal of Paediatrics and Child Health* 1128 https://onlinelibrary.wiley.com/doi/10.1111/jpc.70093?af=R.

Sepsis accounts for 12% of all Paediatric Intensive Care Unit (**PICU**) admissions in Australia. The initial presentation of a child with sepsis can be non-specific or falsely reassuring. A less serious diagnosis, such as a mild viral illness, is often more likely and easily applied. Timely recognition and management of sepsis in children remains a significant challenge to clinicians and healthcare systems.[42]

For 15 children who died from sepsis-related illness in 2022 and 2023:[43]

- 8 children presented with symptoms that were initially diagnosed as a minor viral illness. 2 of the 8 were commenced on the sepsis treatment pathway prior to their death. In 2 cases, post-death clinical investigations confirmed there were missed opportunities to diagnose and treat sepsis earlier.
- 4 children were unwell in the days prior to attending hospital and rapidly deteriorated before intervention could be effective.
- 5 children were commenced on the sepsis pathway; however, treatment failed to alter the progression of the infection.
- 3 children had other medical conditions that compromised their immunity.
- 4 children died within 48 hours of admission to PICU.

In February 2025, the NSW Government announced it would hold a roundtable on strengthening the 'REACH' (**Recognise, Engage, Act, Call, Help**) program.[44] While not specific to any particular illness, the 'REACH' program is a system that helps patients, carer/s, and families to escalate their concerns with staff about worrying changes in a patient's condition,[45] and is relevant in the recognition and management of sepsis.

In May 2025, NSW Health advised us that the Clinical Excellence Commission had undertaken a literature review and statewide survey on the 'REACH' program, resulting in an update to the NSW Standard Paediatric Observation Charts to incorporate a proactive parental engagement tool. Mandatory education for NSW Health staff on deteriorating patients had also been updated to incorporate the tool. The tool, to be on every paediatric and neonatal observation chart in emergency department and inpatient units, was implemented in March 2025 in the first Local Health District, with statewide implementation to occur by October 2025.

The CDRT will continue to monitor deaths associated with sepsis in the context of several cases currently being reviewed by the NSW Coroner and work underway at NSW Health in relation to the recognition and treatment of sepsis, including improvements to the 'REACH' program.

42 The Communiqués, 'Case – Asplenia – Think Sepsis' (2022) 7(2) *Future Leaders Communique* 4 **https://cef77ced-16d7-47a2-9d3b-6e1e004d120d.usrfiles.com/ugd/cef77c_7f4e5cf349ad4a2b91ed9630381ed340.pdf**.

43 This includes the deaths of 9 children where sepsis was the underlying cause of death, 3 cases where sepsis was a direct or antecedent cause of death, and 3 cases where sepsis was related to a vaccine-preventable disease.

44 Prompted by the 2024 death of a 2-year-old child at Northern Beaches Hospital where the parents felt their concerns about their child's deteriorating condition were not properly addressed.

45 'REACH', *Clinical Excellence Commission* (Web Page) **https://www.cec.health.nsw.gov.au/keep-patients-safe/REACH**.

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External causes of death

3

External causes of death

All external causes

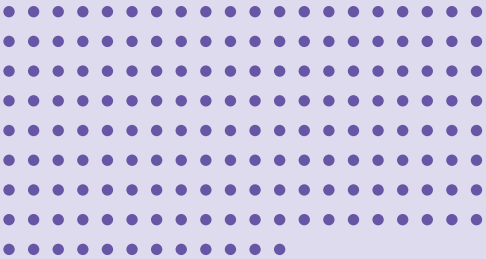
3

All external causes

Section summary

IN 2022-2023

172 deaths due to external causes



2022 2023 2-year period

The leading types of external cause deaths were:

1. Transport-related 40%
2. Suicide 28%
3. Drowning 8%
4. Accidental threats to breathing 8%
5. Homicide 6%

2009 2023 15-year period

EXTERNAL CAUSE MORTALITY RATE SINCE 2009 ↓25%

The rates were higher for:

- Male children
- Young people aged 15–17 years, followed by infants
- Aboriginal and Torres Strait Islander children
- Children in regional and remote areas
- Children in the areas of most disadvantage

Key observations

Different types of external cause deaths are associated with certain risk factors such as:

TRANSPORT DEATHS

- Driver inexperience
- Speeding
- Alcohol and drug use
- Non-use of restraints

DROWNING DEATHS

- Supervision
- Swimming ability

ACCIDENTAL DEATHS

- Supervision
- Risk-taking
- Access to hazards

3.1 Background

This chapter provides an overview of the external cause (injury) deaths of 172 children aged 0–17 years who died in NSW in 2022 and 2023: 87 in 2022 and 85 in 2023.

External cause deaths include unintentional or accidental causes of fatal injury (such as drownings, falls, being struck by an object and choking), as well as intentional or non-accidental causes of fatal injury (suicide and homicide).

More detail about the main causes of fatal injury is included in subsequent chapters:

- **Chapter 4 – Transport**
- **Chapter 5 – Drowning**
- **Chapter 6 – Suicide**
- **Chapter 7 – Homicide**.

Information about other external causes of death (such as fires, threats to breathing and poisoning) – referred to as 'other unintentional injuries' – is discussed in **Section 3.5**.

The deaths of 23 of the 172 children who died from external causes were reviewable by the Ombudsman, including children who died from injuries sustained because of abuse or neglect, or that occurred in suspicious circumstances, and/or who were living in care at the time they died.

3.2 Trends

3.2.1 Deaths in 2022 and 2023

In 2022 and 2023, 172 children died from external causes, with an average rate of mortality over the 2 years of 4.8 per 100,000.

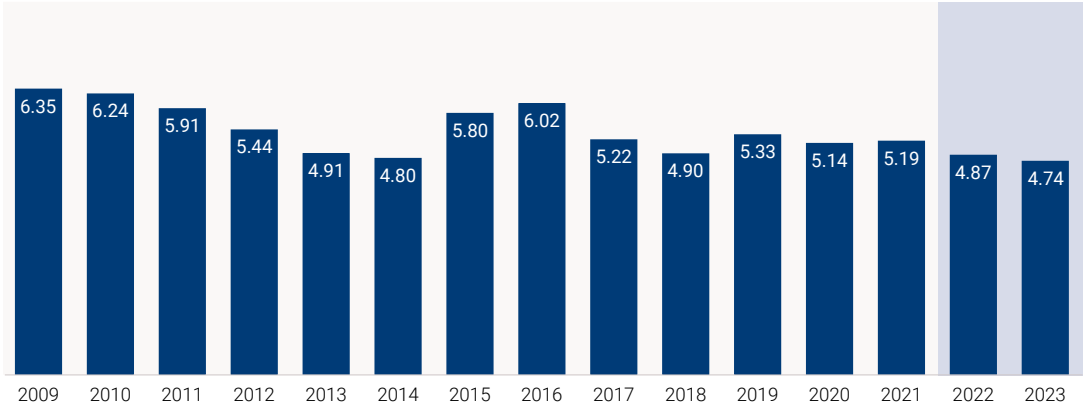
Of these deaths:

- those due to unintentional injuries – 65% (112), corresponding to a rate of 3.1 deaths per 100,000 children
- those due to intentional injuries (suicide and homicide) – 35% (60), corresponding to a rate of 1.7 deaths per 100,000 children.

3.2.2 15-year trend

Figure 31
External cause of deaths of children, rate
Rate per 100,000, 2009–2023

All children 0–17 years

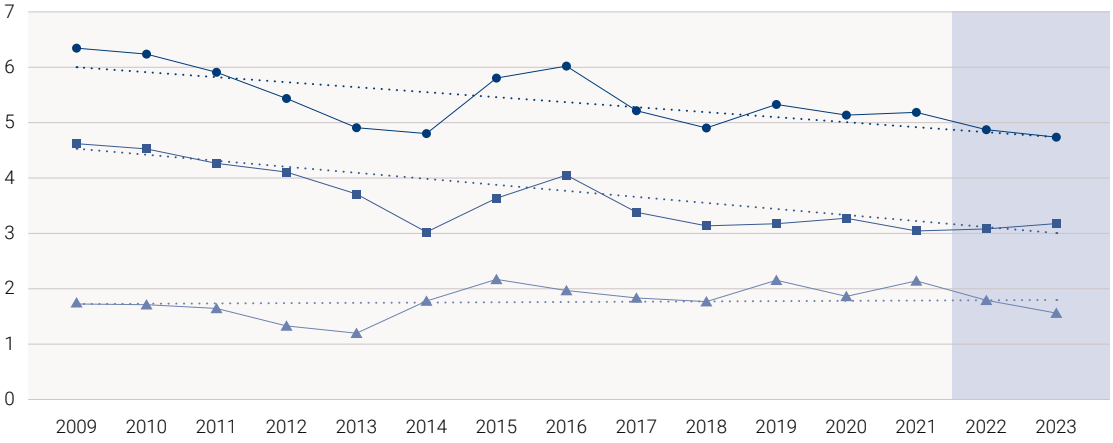


Over the past 15 years:

- A total of 1,374 children aged 0–17 years died from all external (injury) causes.
- The rate for all external cause deaths reduced by 25%, from 6.4 in 2009 to 4.7 in 2023.
- Unintentional injuries accounted for 67% (919) of external cause deaths, and intentional injuries accounted for 33% (455) of external cause deaths.
- The rate of external and unintentional external cause deaths has decreased while the rate of intentional external cause deaths has remained relatively stable. The gap between intentional and unintentional external cause deaths has decreased.

Figure 32
Type of external cause mortality, rate, children 0–17
Rate per 100,000, 2009–2023

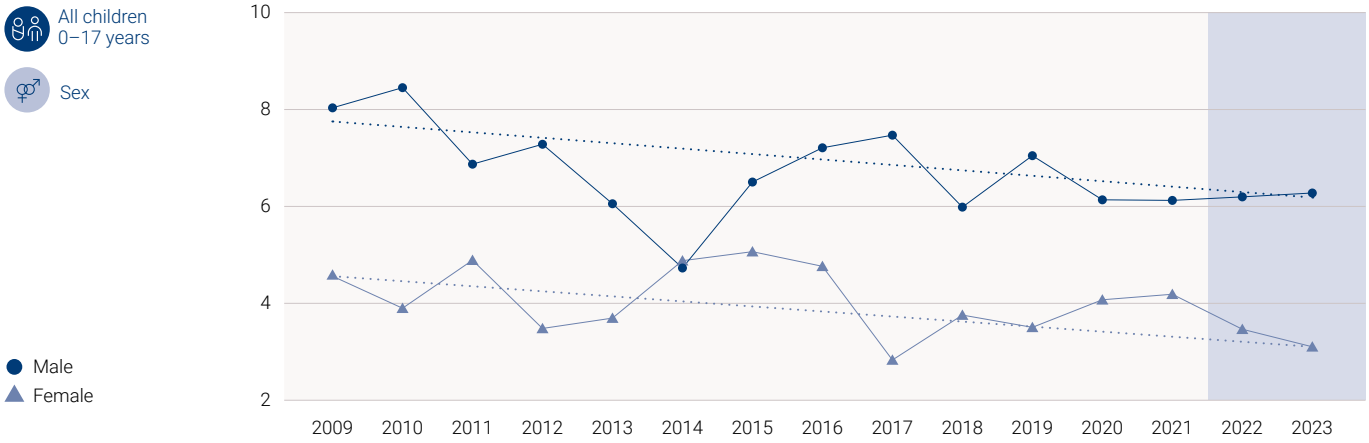
All children 0–17 years



3.3 Demographics: 15-year findings

3.3.1 Sex

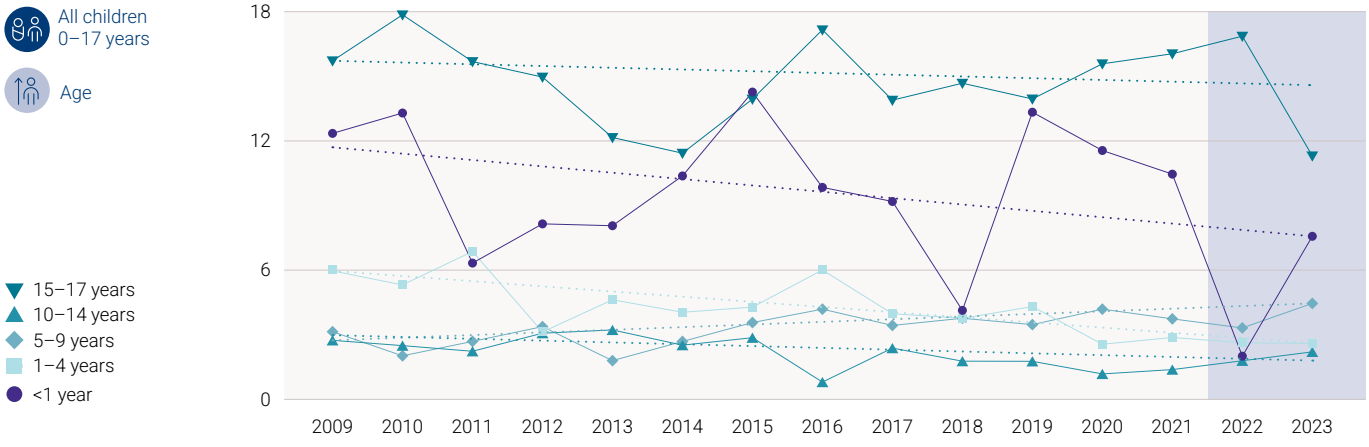
Figure 33
External cause mortality rate by sex
Rate per 100,000, 2009–2023



The rates for both male and female children have decreased over the 15-year period. Overall, the rate was 1.7 times higher for males.

3.3.2 Age

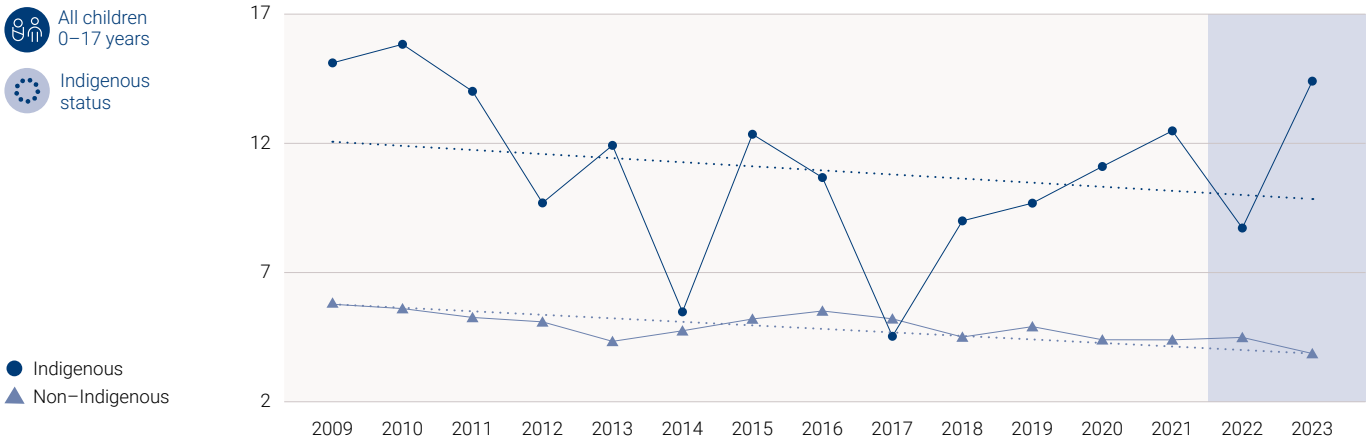
Figure 34
External cause mortality rate by age
Rate per 100,000, 2009–2023



Over the 15-year period, the rate was higher for young people aged 15–17 years than for all the other groups. Infants aged <1 year had the next highest rate in comparison with the other age groups. Children aged 10–14 years were the only age group where the rate increased over the 15-year period.

3.3.3 Indigenous status

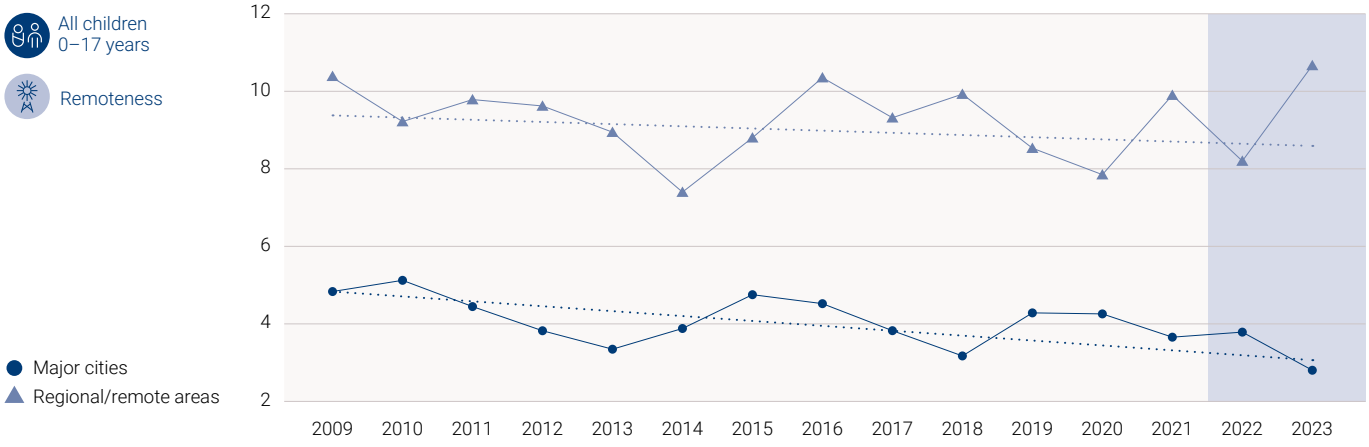
Figure 35
External cause mortality rate by Indigenous status
Rate per 100,000, 2009–2023



Over the 15-year period, the rate for non-Indigenous children has decreased. For Indigenous children, despite considerable variation from year to year, the rate has not changed overall and was 2.3 times higher on average than for non-Indigenous children.

3.3.4 Remoteness

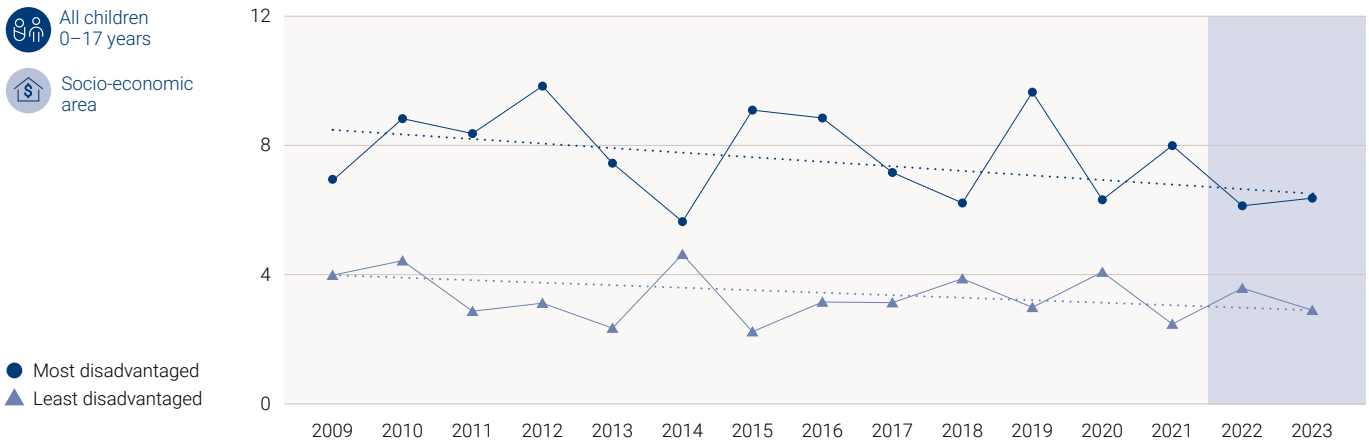
Figure 36
External cause mortality rate by remoteness
Rate per 100,000, 2009–2023



Over the 15-year period, the rate for children living in major cities has decreased. On average, the rate was 2.3 times higher for children living in regional and remote areas compared to children living in major cities.

3.3.5 Socio-economic areas

Figure 37
External cause mortality rate by socio-economic area
Rate per 100,000, 2009–2023



Over the 15-year period, despite some variation, the rate for children living in both the least and the most disadvantaged areas did not change overall. The rate for children living in the areas of most socio-economic disadvantage was 2.3 times higher on average than for those living in the areas of least socio-economic disadvantage.

3.4 Causes of death

3.4.1 Deaths in 2022–2023

In 2022–2023, 172 children aged 0–17 died in NSW from external causes, including:

1. **Transport** – 69 (40% of external cause deaths; 61% of unintentional injury deaths)
2. **Suicide** – 49 (28% of external cause deaths; 82% of intentional injury deaths)
3. **Drowning** – 14 (8% of external cause deaths; 13% of unintentional injury deaths)
4. **Accidental threats to breathing** – 13 (8% of external cause deaths; 12% of unintentional injury deaths)
5. **Homicide** – 11 (6% of external cause deaths; 18% of intentional injury deaths)
6. **Falls** – 4 (2% of external cause deaths; 4% of unintentional injury deaths)
7. **Poisoning** – 4 (2% of external cause deaths; 4% of unintentional injury deaths)
8. **Exposure to force** – 3 (2% of external cause deaths; 3% of unintentional injury deaths)
9. **Exposure to smoke, fire or flames** – 2 (1% of external cause deaths; 2% of unintentional injury deaths)
10. **Exposure to extremes of nature** – 2 (1% of external cause deaths; 1% of unintentional injury deaths)
11. **Nutrition related** – 1 (1% of external cause deaths; 1% of unintentional injury deaths).

Causes by demographics

In 2022–2023, 172 children aged 0–17 died in NSW from external causes, including:

Infants
The mortality rate for other unintentional injuries was higher for infants than older age groups. This was mostly due to infant deaths from threats to breathing such as accidental suffocation or strangulation.

Young people aged 15–17
The mortality rate for suicide and transport-related injuries was highest among young people aged 15–17.

Male children
The mortality rates for suicide, transport-related injuries and drowning were higher for males than for females.

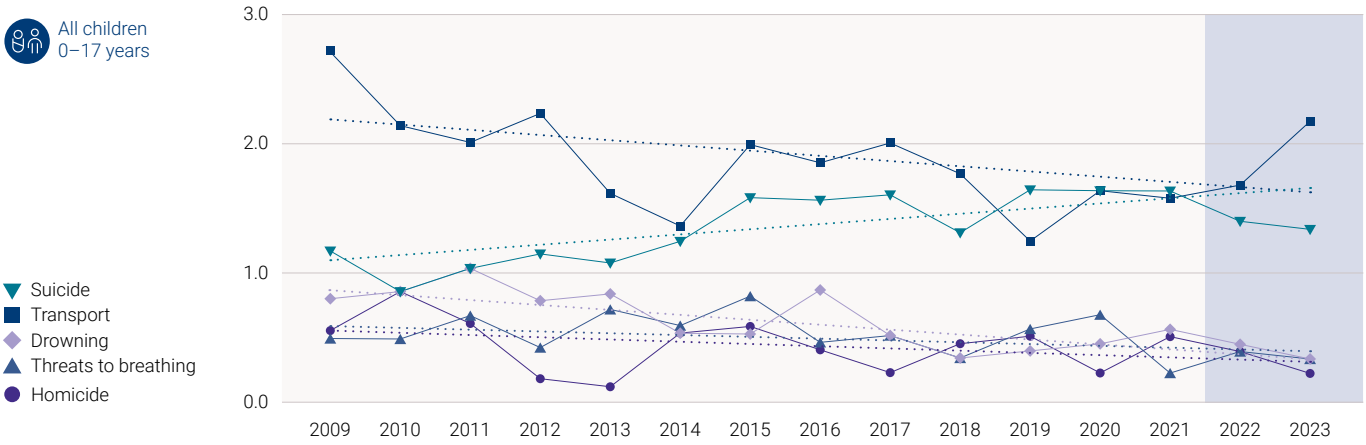
Aboriginal and Torres Strait Islander children
The mortality rates for suicide, transport-related injuries and other unintentional injuries were higher for Indigenous children than for non-Indigenous children.

Regional and remote areas
The mortality rates for suicide, transport-related injuries and other unintentional injuries were higher for those in regional and remote areas than for those in major cities.

Most disadvantaged areas
The mortality rates for suicide, transport-related injuries, drowning and other unintentional injuries were higher for children in the most disadvantaged areas than for those in the least disadvantaged areas.

3.4.2 Deaths in 2009–2023

Figure 38
Five leading external causes of death for children aged 0–17
Rate per 100,000, 2009–2023



Of the 5 leading causes of death, the rates for transport and drowning have both decreased while the rates for homicide and threats to breathing have not changed overall. Suicide is the only external cause where the rate has increased over the 15 years. Transport was the leading external cause of death over the 15-year period.

3.5 Other unintentional injury

The primary external cause reporting categories – transport, drowning, suicide and homicide – are considered in detail in the respective chapters that follow. The discussion below focuses on other unintentional external cause deaths, such as those due to fires, falls, poisoning and being struck by an object or force.

3.5.1 Nature of other unintentional injury deaths in 2022 and 2023

In 2022 and 2023, 29 children died due to other unintentional injury including:

- 13 children who died due to threats to breathing – 6 children suffocated in various circumstances including sleep related incidents (3) and being trapped in a confined space (2); 5 children choked on food (3) or small objects (2); and 2 children experienced unintended hanging or strangulation.
- 4 children who died from poisoning – all were aged 14–17 years and died from overdoses on prescription medication (1) or illicit drugs (1), or inhalants (2).
- 4 children who fell in a range of circumstances including while playing sport (1), sitting on a chair (1) or engaging in other more dangerous activities such as walking on a rock ledge (1) or climbing (1). 1 young person, aged 15–17 years, was intoxicated at the time of the fall.
- 3 children who were exposed to excessive force – 2 children died in separate incidents involving dog attacks; 1 child was struck by an object.
- 2 children who were unintentionally exposed to fire – 1 child died in a residential house fire and 1 child died in other circumstances at home.
- 2 children who were exposed to extremes of nature – 1 child, exposed to excessive heat, was unintentionally left in a vehicle for a lengthy period and 1 child was caught in a landslide.
- 1 child who died in circumstances related to nutrition.

3.5.2 Factors in other unintentional injury-related deaths

Risk factors associated with injury-related deaths vary according to the child's age and developmental stage, as well as the specific environment and/or type of hazard.

Common risks associated with unintentional injury include:

- lack of adequate or active supervision
- lack of knowledge, disregard or misjudgement of a hazard
- unrestricted access to a hazard
- product faults or failures.

For children under 5 years, particular risks include lack of supervision and access to hazards. For older children and teenagers, other factors become evident including increasing engagement in the physical environment, lack of experience in assessing danger and reckless or risk-taking behaviour, including alcohol and illicit drug use.

Supervision and access to hazards

In 2022 and 2023, supervision and/or access to hazards were identified as factors in 28% (8) of the deaths of children due to other unintentional injury, including accidental strangulation or suffocation (4), exposure to force (2), choking (1) and exposure to excessive heat (1). Over half (5) were younger children aged between 2 and 5 years; 3 children were aged 7–10 years.

Reckless or risk-taking behaviour

In 2022 and 2023, reckless or risk-taking behaviour was evident in 55% (6 of 11) of deaths of children aged 10–17 years due to other unintentional injury. This included the deaths of 4 children due to accidental overdose and 2 children who fell from height.

3.6 Observations and discussion

3.6.1 Injury related deaths are higher for certain groups of children

There are differences between certain groups of children in the rates of injury-related deaths despite an overall decline. In 2022 and 2023, rates of injury related deaths over the 15 years from 2009–2023 were higher for males, infants and young people aged 15–17 years, Aboriginal and Torres Strait Islander children, children in regional and remote areas and those from the areas of most socio-economic disadvantage.

3.6.2 Leaving children unattended in a vehicle can be fatal

Leaving children unattended in a car, even for a short time, is extremely dangerous and can have serious consequences. Children are more susceptible to heatstroke and dehydration than adults, and the interior temperature of a car can rise rapidly, even on a mild day. There is no safe amount of time to leave a child unattended in a vehicle.[46]

Incidents where children are left unattended in cars can be unintentional. This includes where parents or carers unknowingly leave a child in a car, a phenomenon known as 'fatal distraction'.

Fatal distraction occurs where there is a short-term memory failure, owing to extreme exhaustion, stress or a change in routine. When the short-term memory is compromised or a parent or carer is distracted, the habitual memory system can take over allowing a parent or carer to continue their daily activity according to their usual routine, forgetting their child is in the car. The risk of 'fatal distraction' can be increased if a child has fallen asleep in the car, as there are fewer 'cues' to trigger short-term memory recall.[47]

Strategies for preventing fatal distraction include:

- Parents and carers creating a routine and developing cues that remind them to check the back seat of their vehicle such as placing an essential item on the backseat or using a key tag reminder.
- Communication between parents, carers and childcare providers about drop-off and pick-up of children.
- Integrating technology in vehicles, such as Child Presence Detection (**CPD**) systems, to alert drivers to movement in the rear seat after a vehicle has been locked.

46 'Safety Around Cars', NSW Health, *The Sydney Children's Hospitals Network* (Web Page) **https://www.schn.health.nsw.gov.au/kids-health-hub/safety-and-injury-prevention/cars**.

47 Victorian Government, Health and Human Services, *Fatal Distraction: Factsheet for Early Childhood Development Professionals* (Fact Sheet, December 2019) **https://www.vgls.vic.gov.au/client/en_AU/search/asset/1299106/0**.

In the 15-year period, 2009 to 2023, 6 children died in NSW after being left unattended or found unsupervised in vehicles.[48]

Of these 6 children, 5 were not intentionally left in a vehicle, with 2 of these 5 deaths occurring in circumstances of 'fatal distraction'. While deaths of children in these circumstances are rare, they are highly preventable.

Publicly available information and safety messaging in NSW is mostly aimed at the dangers of leaving children in vehicles in any circumstance or targeted to early childhood professionals. Kidsafe NSW provides information about the dangers of leaving children in a vehicle without supervision for any length of time.[49]

The NSW Department of Education (Early Childhood Education and Care) 'Look Before You Lock' campaign is a safety resource aimed at minimising the risk of early childhood education and care services leaving children alone in vehicles and contains resources for providers to share on their own platforms as well as material for communication with families and communities.[50]

The Sydney Children's Hospitals Network (**SCHN**) currently provides information about the danger of leaving children unattended in cars, as well as the risk of fatal distraction for parents and carers. A key tag lanyard, to remind parents and carers to check the back seat each time they take their keys out of the ignition, can be ordered free from the SCHN website.[51]

Recommendation

Public awareness is crucial to the prevention of fatal distraction. The Child Death Review Team therefore recommends:

1

NSW Health provide information and resources about the significant risk of children being left in vehicles in any circumstance, as well as the risk of fatal distraction for parents and carers, in both the Baby Bundle bag, a free initiative by NSW Health to provide new parents in NSW with practical information and products to support their baby's health and development, and to child and family health services. The information and resources should include but not be limited to:

a) Information about the significant risk of children being left in cars in any circumstance.
b) Information about fatal distraction and the risks of exhaustion, stress and a change in routine.
c) Information about strategies parents and carers can use to minimise the risk of fatal distraction such as creating a routine and developing cues to remind them to check the back seat of their vehicle.
d) A key tag lanyard (or other similar product), as is currently available for free on the SCHN website.

48 One child was intentionally left in a vehicle for up to 1 hour; 2 children accessed unlocked parked vehicles unsupervised; 1 child was left to play in a parked vehicle and became trapped.
49 'Kids Unattended in Cars', *Kidsafe NSW* (Web Page) **https://www.kidsafensw.org/safety/road-safety/kids-unattended-in-cars/**.
50 NSW Department of Education, *Look Before You Lock: Toolkit* (Toolkit) **https://education.nsw.gov.au/content/dam/main-education/early-childhood-education/operating-an-early-childhood-education-service/media/Look_Before_You_Lock_Toolkit.pdf**.
51 'Safety Around Cars', NSW Health, *The Sydney Children's Hospitals Network* (Web Page, 2 April 2025) **https://www.schn.health.nsw.gov.au/kids-health-hub/safety-and-injury-prevention/cars**.

4

External causes of death

Transport

4 Transport

Section summary

IN 2022–2023

69 transport-related child deaths

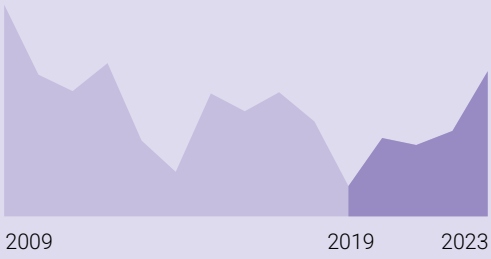
2022 2023 2-year period

Of the 69 children who died:

Travelling in motor vehicles as passengers or drivers	67%
Pedestrians	14%
Motorcycle riders	7%
Light aircraft passengers	6%
Other types of vehicles as passengers or drivers including a quad bike, e-scooter, e-bike and side-by-side vehicle	6%

2009 2023 15-year period

TRANSPORT-RELATED MORTALITY RATE SINCE 2009 ↓20%



However, the rate of transport-related mortality has been rising since 2019

Key observations

2-YEAR PERIOD 2022–2023

59% of at fault drivers/riders were **inexperienced**. Most (22 of the 23) of the inexperienced at fault drivers/riders were **under 25 years of age**.

The most common risk factors identified in transport related deaths were:

1. Speeding 51%
2. Non-use or incorrect use of restraints and helmets 28%
3. Drug and/or alcohol use 20%

45% of children were travelling in vehicles that were 10 years or older.

15-YEAR PERIOD 2009–2023

The largest proportion of deaths (by role) occurred in **drivers aged 15–17 years**.

Males are overrepresented (**66%** of all transport deaths) and particularly for **drivers aged 15–17 years**.

Around three-quarters (**77%**) of the pedestrian deaths of young children **aged 1–4 years** were low-speed run-over incidents.

4.1 Background

This chapter considers the deaths of 69 children in transport-related incidents in NSW in 2022 and 2023: 30 in 2022 and 39 in 2023.

It includes the deaths of children who were vehicle occupants (drivers and passengers); pedestrians; motorcycle, quad bike and all-terrain vehicles riders (drivers) and passengers; and children who died due to injuries from other transport crashes on land, in water or in the air.

The term 'vehicle' broadly includes cars, motorcycles, and other vehicles such as trucks and vans. For our analysis, we have grouped vehicles as follows:

- cars – including sedans, hatchbacks, station wagons, sports utility vehicles (**SUVs**), vans/lightweight pick-up trucks and utility vehicles (utes)
- motorcycles, including dirt bikes
- trucks and other heavy transport vehicles
- others – including buses, side-by-sides (Utility Task Vehicles), quad bikes, pedal cycles, electric personal vehicles (**EPVs**) (such as electric bicycles and electric scooters),[52] trains/trams and other vehicles.

The term 'driver' includes those controlling vehicles, including motorcycles, quad bikes, EPVs, pedal cycles and other all-terrain vehicles.

The chapter includes the deaths of 6 children that were reviewable by the Ombudsman as the child died in circumstances of neglect (4) and/or was living in care (3) at the time of their death.[53]

4.2 Trends

4.2.1 Deaths in 2022 and 2023

In 2022 and 2023, 69 children died in transport-related incidents, with an average rate of mortality over the 2 years of 1.9 per 100,000 children.

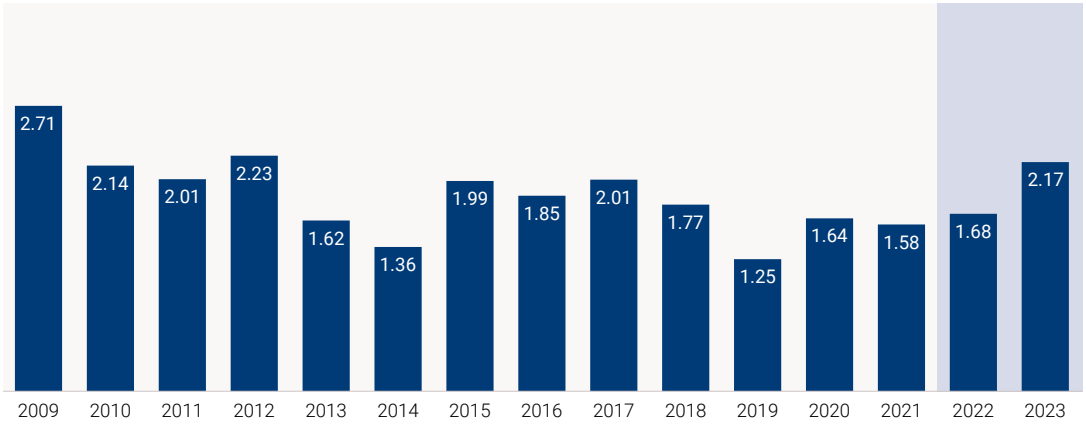
52 A battery-powered device designed for individual transportation that includes a range of options like e-bikes, e-scooters, electric skateboards and other devices designed to support impaired mobility, such as electric wheelchairs and mobility scooters typically designed for short distances and speeds that do not exceed 25 km per hour.

53 In 1 instance, the child died in circumstances of neglect and was also a 'child in care'.

4.2.2 15-year trend

Figure 39
Transport deaths of children, rate
Rate per 100,000, 2009–2023

All children
0–17 years



Over the past 15 years, the rate of transport-related deaths reduced by 20%, from 2.7 in 2009 to 2.2 in 2023. Between 2009 and 2014, the rate decreased; however, since 2019, the rate has been rising.

4.3 Demographics: 15-year findings

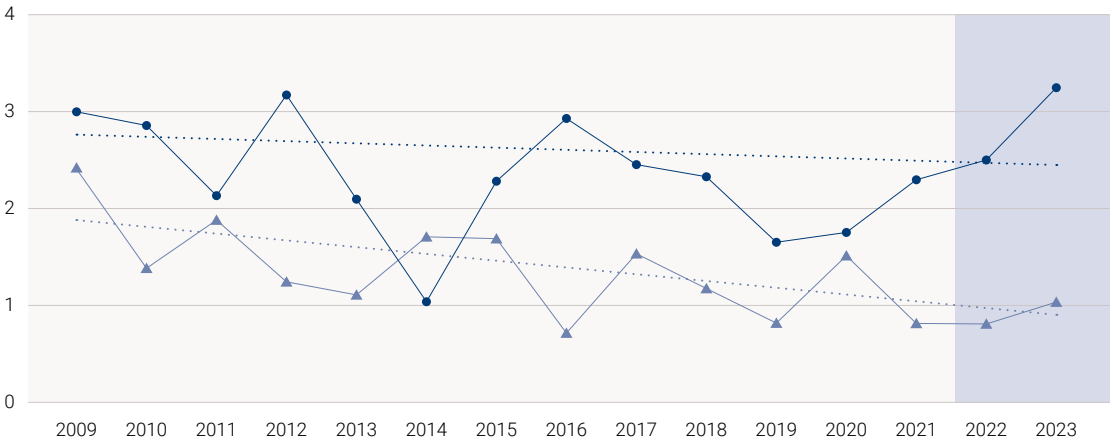
Among the demographic groups over the 15-year period:

- Males had higher rates of mortality overall compared to females.
- Young people aged 15–17 years had consistently higher rates of mortality.
- Aboriginal and Torres Strait Islander children had higher rates of mortality overall than non-Indigenous children.
- The rates for children living in regional and remote areas, and those from the areas of greatest socio-economic disadvantage, were higher.

4.3.1 Sex

Figure 40
Transport mortality rates by sex
Rate per 100,000, 2009–2023

All children 0–17 years
Sex



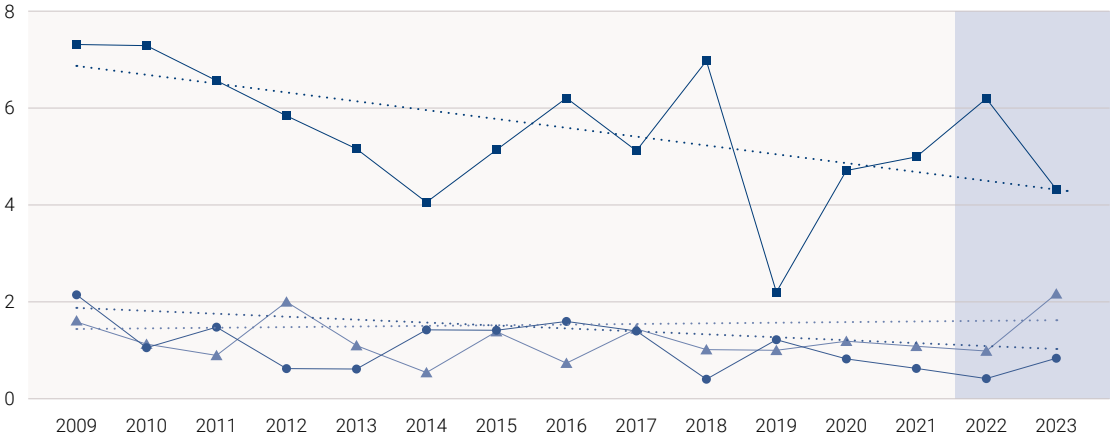
Male
Female

Despite variation in the rate from year to year, there has been no change in the rate for males over the 15-year period, while the rate for females has decreased. Overall, the rate was 1.8 times higher on average for males.

4.3.2 Age

Figure 41
Transport mortality rates by age
Rate per 100,000, 2009–2023

All children 0–17 years
Age

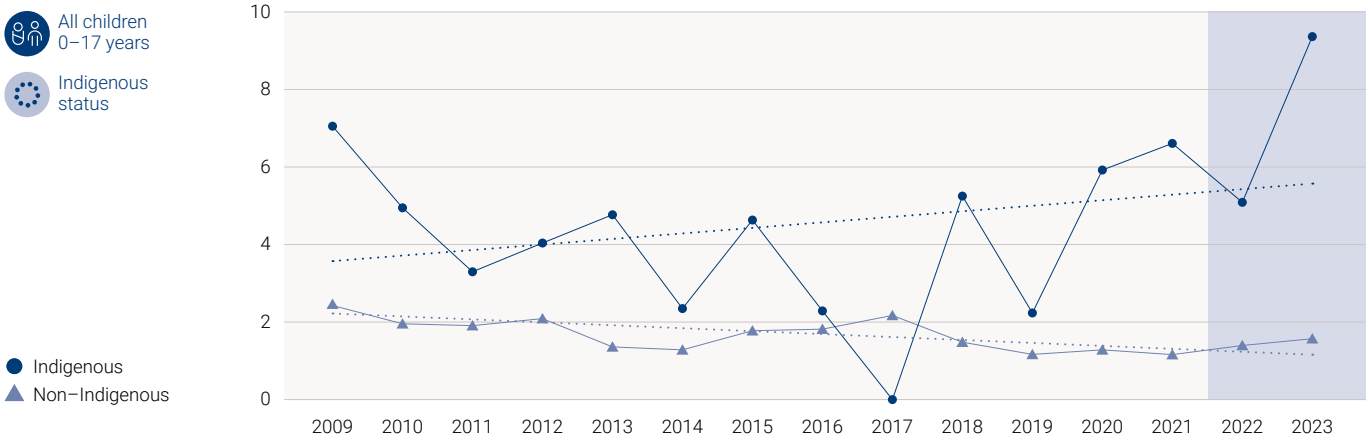


15–17 years
5–14 years
Less than 5 years

Over the 15 years, the rate for children aged 15–17 years was consistently higher (5 times) than the rates for the other age groups, despite an overall reduction. The rate for children less than 5 years of age decreased, while the rate for children aged 5–14 years remained relatively stable.

4.3.2 Indigenous status

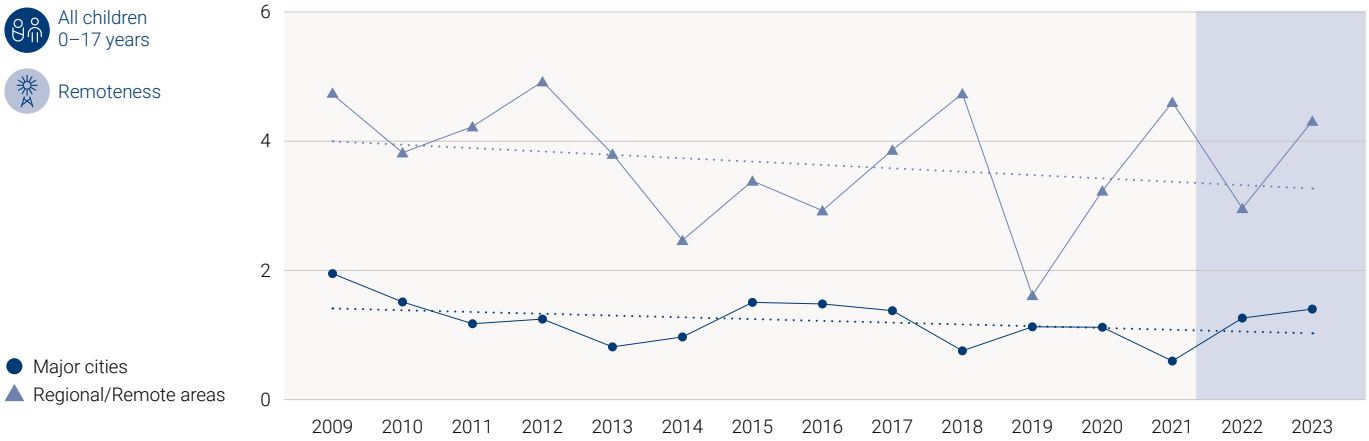
Figure 42
Transport mortality rates by Indigenous status
Rate per 100,000, 2009–2023



Over the 15-year period, the rate for Aboriginal and Torres Strait Islander children varied from year to year with no change overall and was on average 2.7 times higher than the rate for non-Indigenous children. The rate for non-Indigenous children has decreased over the 15 years.

4.3.4 Remoteness

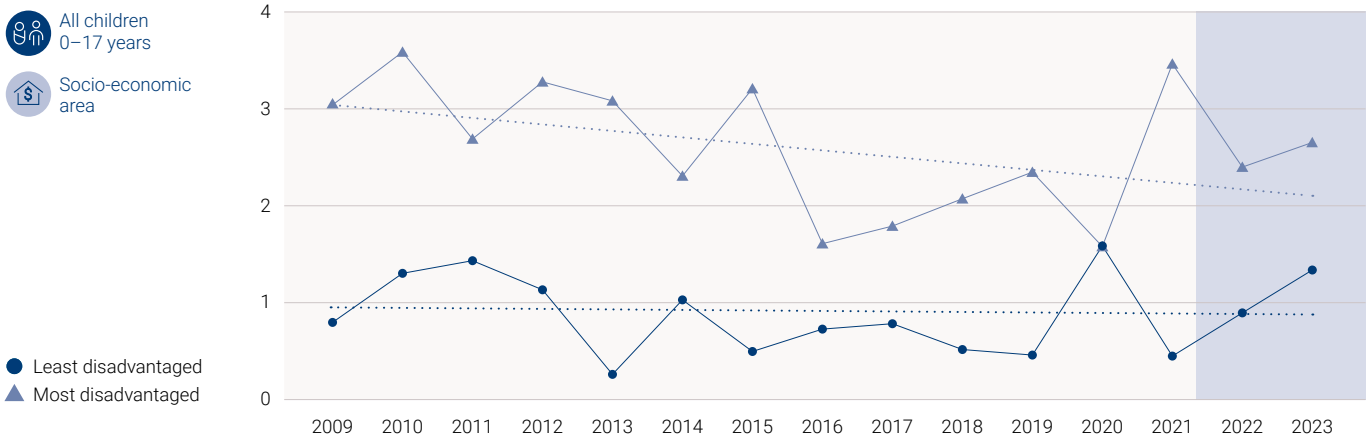
Figure 43
Transport mortality rates by remoteness
Rate per 100,000, 2009–2023



Over the 15 years, the rate for children living in regional and remote areas varied from year to year with no change overall and was 3 times higher on average than the rate for children living in major cities.

4.3.5 Socio-economic areas

Figure 44
Transport mortality rates by socio-economic area
Rate per 100,000, 2009–2023



Over the 15 years, on average, the rate for children living in the most disadvantaged areas was 3 times higher than the rate for those living in the least disadvantaged areas.

4.4 Nature of transport related incidents

4.4.1 Overview of incidents in 2022 and 2023

In 2022 and 2023, 69 children died in 55 transport-related incidents. 9 incidents involved multiple child fatalities (23 children).[54]

Travelling in or on a vehicle

The majority (59) of the 69 fatalities were children travelling in or on a vehicle (45 incidents):

- There were 41 children who were passengers – 36 in motor vehicles, 4 in light aircraft and 1 in a side-by-side vehicle.
- There were 18 children were in control of a vehicle – 10 driving on-road motor vehicles and 2 riding on-road motorcycles, 4 riding off-road motor vehicles (3 on dirt bikes and 1 on a quad bike), 1 riding a personal e-scooter[55] and 1 riding an e-bike.

In 18 incidents, the vehicle the child was travelling in or on collided with a stationary object. In 17 incidents 2 vehicles crashed, including an incident involving a child riding a personal e-scooter and an incident involving a child riding an e-bike. In 6 incidents, the vehicle rolled over. Other incidents involved light aircraft (2), a vehicle swept into floodwater (1) and a child struck by a vehicle after falling from a motorcycle.

Pedestrians

10 children were pedestrians who died after being struck by a vehicle. These included 3 pedestrians who were struck by a vehicle traveling below 10 km per hour[56] and 1 pedestrian who was struck by a tram while attempting to climb between carriages.

In 21 incidents, the driver of the vehicle was related to the child who died, and in most cases, this was a parent. In 8 incidents, the child was a peer/friend of the driver. Most drivers (7) involved in pedestrian incidents were not known to the child.

54 The CDRT only requests information about the deceased child. Therefore detailed information about adult fatalities and injuries that occurred in crashes where a child died is not available.

55 In NSW, privately owned e-scooters can only be used on private property. They cannot be used on roads or road-related areas, including footpaths, shared paths, cycle ways and cycle paths. See 'E-scooters', NSW Government (Web Page) https://www.transport.nsw.gov.au/roadsafety/road-users/e-scooters.

56 Pedestrian deaths when a child is struck by a vehicle traveling below 10km/hour are classified as 'low-speed, run-over' incidents.

4.4.2 Location of incidents

In 2022 and 2023, 47 transport-related incidents occurred on roadways, including public roads (41 incidents) and road-related areas (6 incidents).[57]

In 6 incidents the location was an off-road area such as a paddock or driveway, and 2 incidents were light aircraft that crashed on land.

Most children (59) died from injuries caused by roadway incidents, and 6 children died from injuries caused by off-road incidents. 4 children died from injuries caused by light aircraft crashes.

Table 7
Location of transport-related incidents
2022–2023

All children
0–17 years

Location of incident	Number of incidents	Number of children
Roadway – public road	41	48
Roadway – road-related area	6	11
Off-road area	6	6
Airspace	2	4
TOTAL	55	69

57 A 'road related area' is any of the following: an area that divides a road; a footpath or nature strip adjacent to a road; an area that is not a road and that is open to the public and designated for use by cyclists or animals; an area that is not a road and that is open to or used by the public for driving, riding or parking vehicles. See s 13 of the Road Rules 2014 (What is a road related area) https://legislation.nsw.gov.au/view/html/inforce/current/sl-2014-0758#sec.13.

4.4.3 Type of vehicles involved in incidents

Road vehicles

In the 2-year period, three-quarters (41; 75%) of transport-related incidents involved cars, including standard sized cars such as sedans/hatchbacks and station wagons (22) and larger sized cars such as SUVS, utes, and vans (19).[58]

Larger vehicles, including trucks (2) and a bus, were involved in 3 incidents. 2 of the incidents involved pedestrians.

3 incidents involved motorcycles registered for road use.

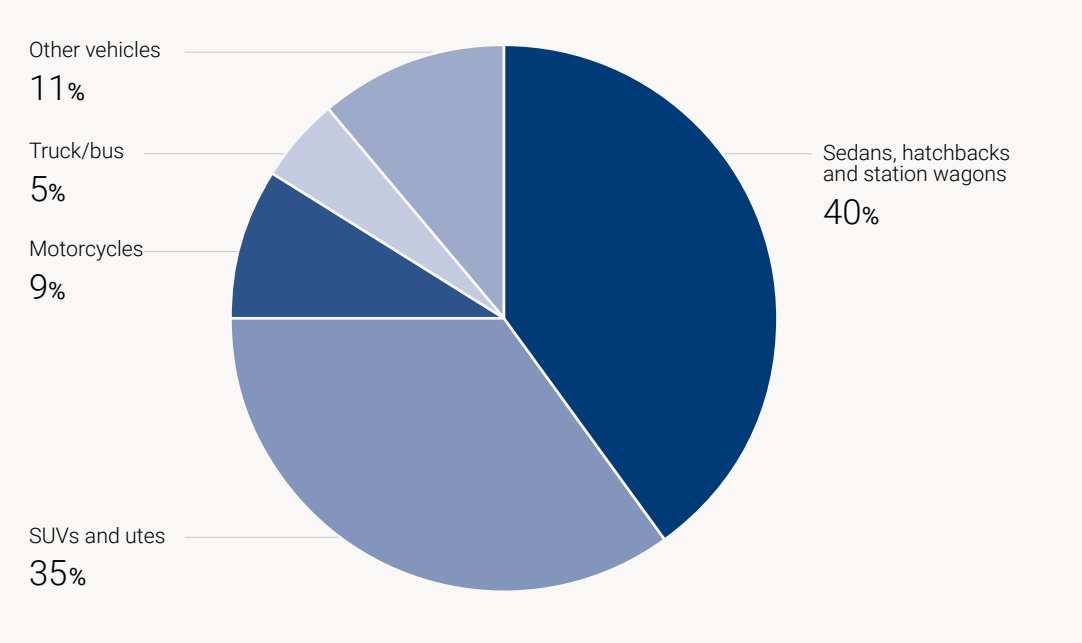
Off-road and other vehicles

Off-road vehicles involved in transport-related incidents include:

- off-road trail bikes (2), including a trail bike that was being used on a public road
- a quad bike, a side-by-side vehicle and a ride-on mower.

Other vehicles involved in incidents include EPVs (an e-scooter and an e-bike), a tram and light aircraft (2).

Figure 45
Type of vehicle involved in transport-related incidents, proportion
2022–2023



58 Some incidents involved more than one vehicle. Vehicles include the vehicle in which the deceased child was travelling, or was struck by, and, where applicable, other vehicles involved in the incident (for example, a vehicle that was at fault).

4.4.4 Pedestrian deaths

In the 2-year period, 10 children died in pedestrian incidents.

Many (6) of the pedestrian deaths involved larger vehicles (SUVs, trucks, bus, utes and a tram). The incidents occurred in various locations, including public roads (4), footpaths (2), private property (3) and a shared tram/pedestrian area (1).

The children fatally injured in pedestrian incidents were aged 1–17 years, with most (7) under 14 years. 3 deaths involved children travelling from school after the end of the school day.

The deaths of 3 pedestrians were classified as 'lowspeed, run-over' incidents – when a child is struck by a vehicle travelling below 10km/hour. The 3 children were aged between 1 and 3 years and all 3 incidents occurred on private property including backyards (2) and a driveway (1).

Risk factors in pedestrian deaths

Police deemed 2 drivers to be at fault for the deaths of 2 pedestrians in 2022 and 2023. In both incidents, the driver's vehicle left a public road and struck the child on a footpath. Criminal proceedings resulted in the conviction of both drivers in relation to dangerous (1) or negligent (1) driving.

Inadequate supervision was identified as a factor in half (5) of the pedestrian deaths, with 3 deaths occurring in the context of a low-speed vehicle run-over and 2 during a road crossing.[59] The children involved in these incidents were aged 1–5 years.

4.4.5 Young driver deaths

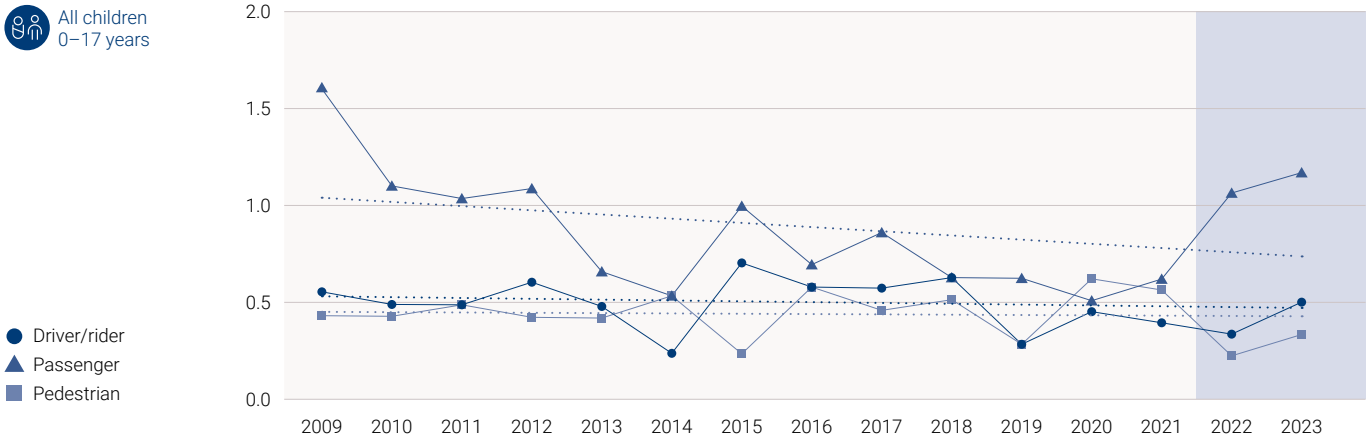
In 2022 and 2023, 23% (16) of the children who died were driving motor vehicles, including cars (10), motorcycles (5) and a quad bike:

- 14 were children aged 15–17 years; 2 were aged 13–14 years.
- 14 were males and 2 were females.
- Most incidents (14) occurred on public roads. 2 incidents occurred on private property.
- Unsafe driver behaviour was identified in 69% (11) of incidents involving young drivers who died. This is discussed further in **Section 4.5**.
- Road or environmental factors, such as potholes, uneven surfaces, rain and fog were evident in 3 incidents.

59 Adequacy of supervision is determined on a case-by-case basis, depending on the circumstances of the fatal incident, the age, developmental stage/capability of the child who died, and information about the supervisor/s.

4.4.6 15-year trends in transport-related incidents

Figure 46
Transport-related deaths of children aged 0–17 by role
Rate per 100,000, 2009–2023

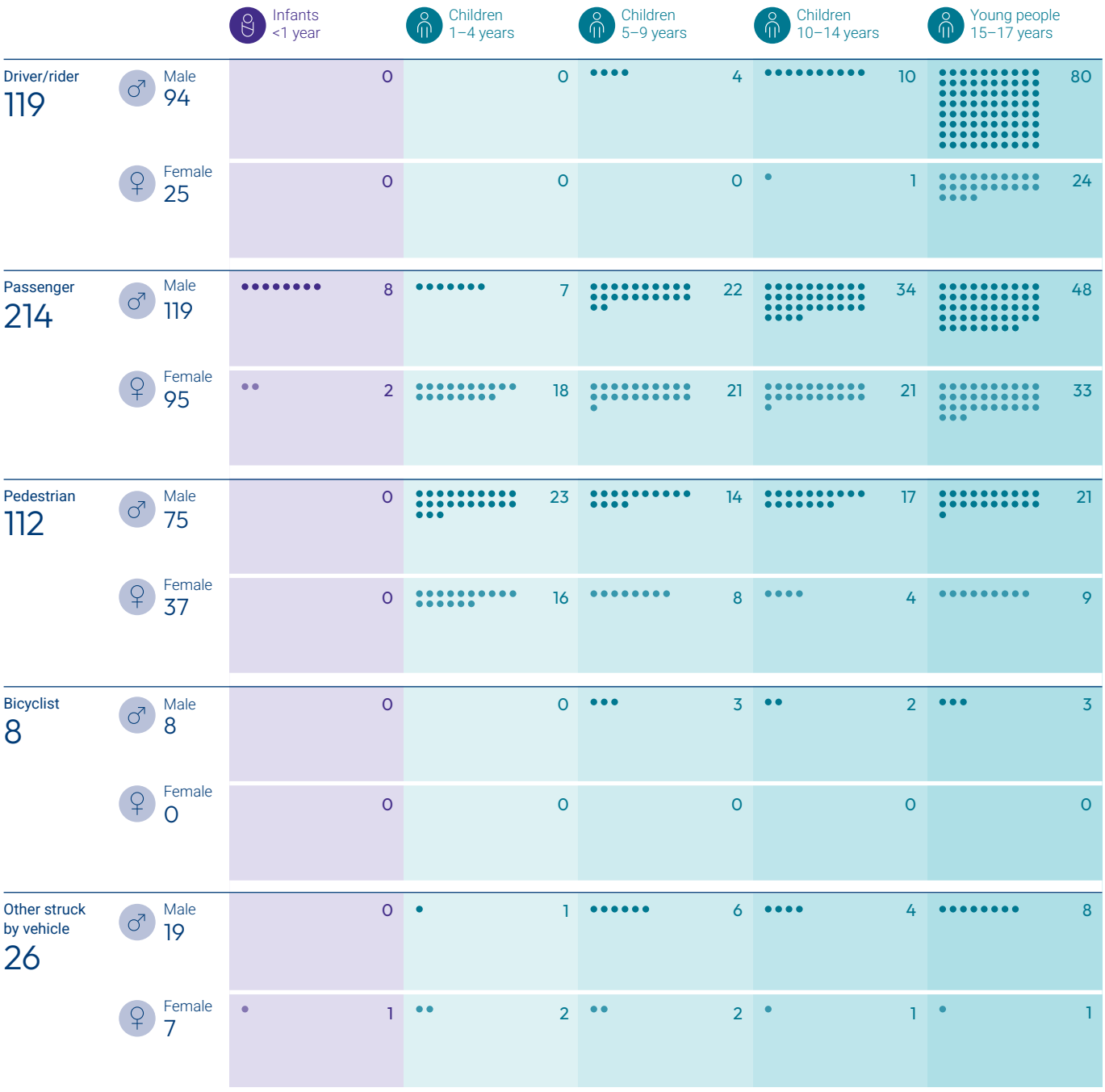


Over the 15 years, 2009 to 2023 (Figure 46), the rate of:

- Driver deaths remained similar.
- Pedestrian deaths remained similar.
- Passenger deaths decreased in the 6-year period from 2009 to 2014, with an increase from 2020 after a relatively stable period between 2015 and 2019.

One-third (33%) of pedestrian deaths over the 15-year period were low-speed, run-over incidents.

Figure 47
Number of transport-related deaths by role, gender and age
2009–2023



Over the last 15 years (Figure 47):

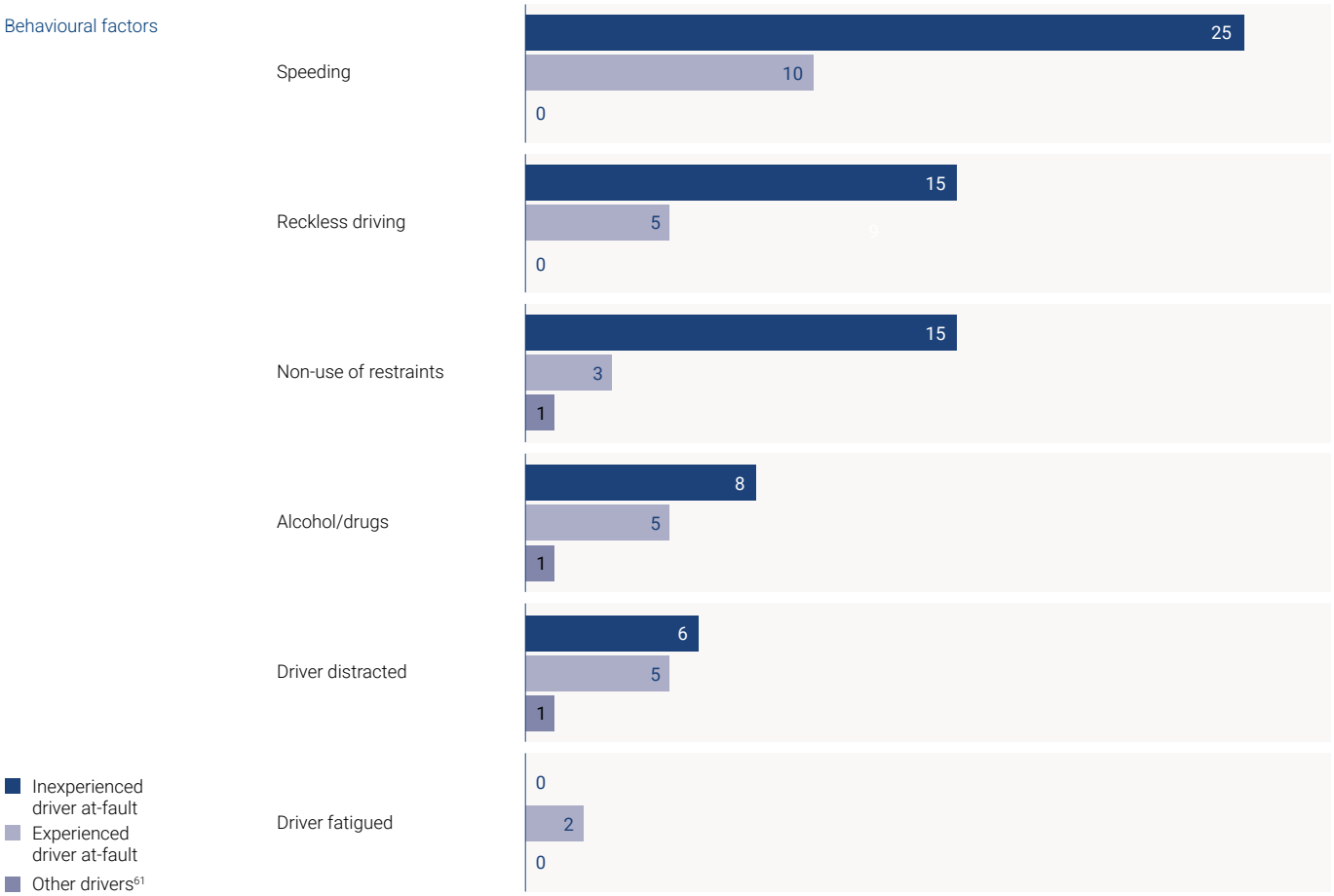
- The largest proportion of deaths occurred in drivers aged 15–17 years (22%, 104 of 479 transport related deaths in the 15-year period).
- Males are overrepresented (66% of all transport deaths) and particularly for drivers aged 15–17 years (77%, 80 of 104 deaths of drivers aged 15–17 years were male).
- Around three-quarters (77%) of the pedestrian deaths of young children aged 1–4 years (30 of 39 pedestrian deaths in the 15-year period) were low-speed, run-over incidents.

4.5 Factors

The most common factors present in transport-related incidents in 2022 and 2023 were driver inexperience[60] and unsafe driver behaviour such as speeding, reckless driving, drink driving, drug driving, not using a restraint or not using it properly, and children travelling in older vehicles.

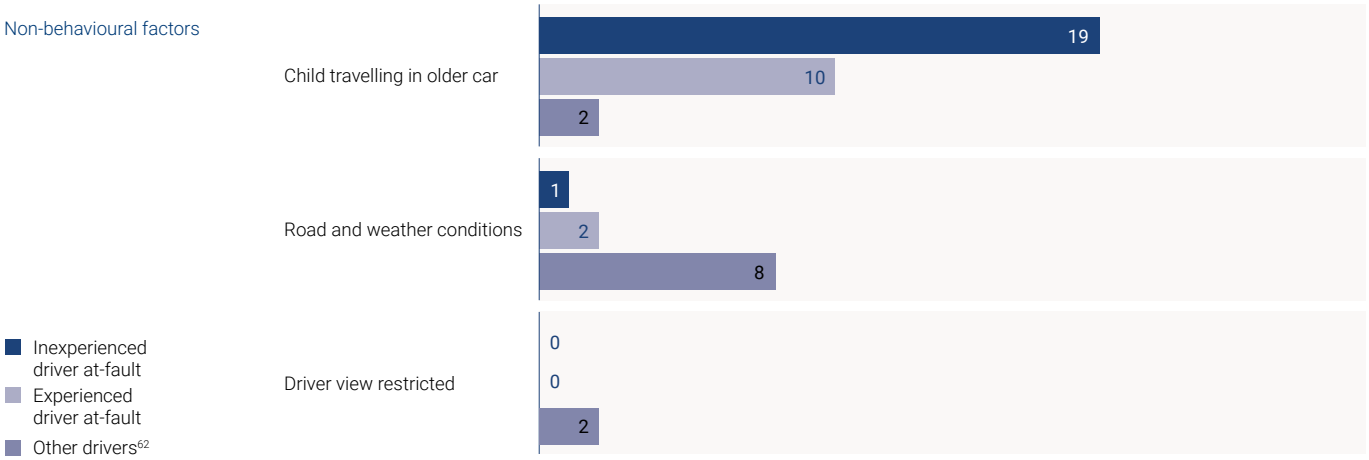
Figure 48a and 48b summarise the number of factors identified in the 69 transport-related deaths of children in 2022 and 2023.

Figure 48a
Behavioural factors in all transport-related deaths by driver type
Counts, 2022–2023



60 Those who either had a provisional licence or a learner's permit or were never licensed.
61 Other drivers include drivers that police determined were not at fault, and drivers in incidents that are still under investigation.

Figure 48b
Non-behavioural factors in all transport-related deaths by driver type
Counts, 2022–2023



Factors in combination

Inexperienced drivers can lack the judgement needed to anticipate and react to hazards on the road, particularly when inexperience occurs in combination with other factors such as speeding or alcohol and/or illicit drug use. For 26 of the 30 children (87%) who died in incidents involving an inexperienced driver, there was a combination of 2 or more factors present. This was most commonly speeding and reckless driving (15), for example, speeding coupled with weaving between lanes and straddling the centre dividing line. For 15 children who died where inexperience, speeding and reckless driving were factors in combination, 13 children were in older vehicles (10 years or older) and 7 were not using a restraint. In the transport-related deaths of 5 children, there was evidence of 5 factors in combination.

Restraints

Of the 69 children who died, 28% (19) were either not using a restraint or helmet at the time of the incident or were using a restraint incorrectly. The majority (13) were children aged 14–17 years who were not wearing seatbelts. 2 children aged between 4 and 5 years were in restraints that had not been fitted or used correctly.

Children in older cars

Since 2013, the Child Death Review Team (**CDRT**) has observed that most transport vehicle crash child deaths involved older, less safe vehicles. In the 2-year period, almost three-quarters (31 of 43; 72%) of the children who were car drivers or passengers were travelling in vehicles that were aged 10 years or older. The majority (19 of 31; 61%) of the drivers of the older vehicles were young, inexperienced drivers.

Older vehicles tend to be less safe and carry a greater risk of injury, which may be exacerbated for young, inexperienced drivers. Used Car Safety Ratings (**UCSRs**) and Australasian New Car Assessment Program (**ANCAP SAFETY**) ratings are available online for many vehicles. As ANCAP SAFETY ratings and UCSRs are specific to the year in which the vehicle is purchased, they can be used to inform purchasing decisions.

62 Ibid.

4.6 At-fault drivers

In relation to the deaths of 51 children in 2022 and 2023, police determined 39 drivers involved in 39 separate incidents were at fault. All incidents involving an at-fault driver occurred on a public road or road-related area. The majority (43; 84%) of the children who died were travelling in or on the at-fault vehicle.

Inexperienced drivers

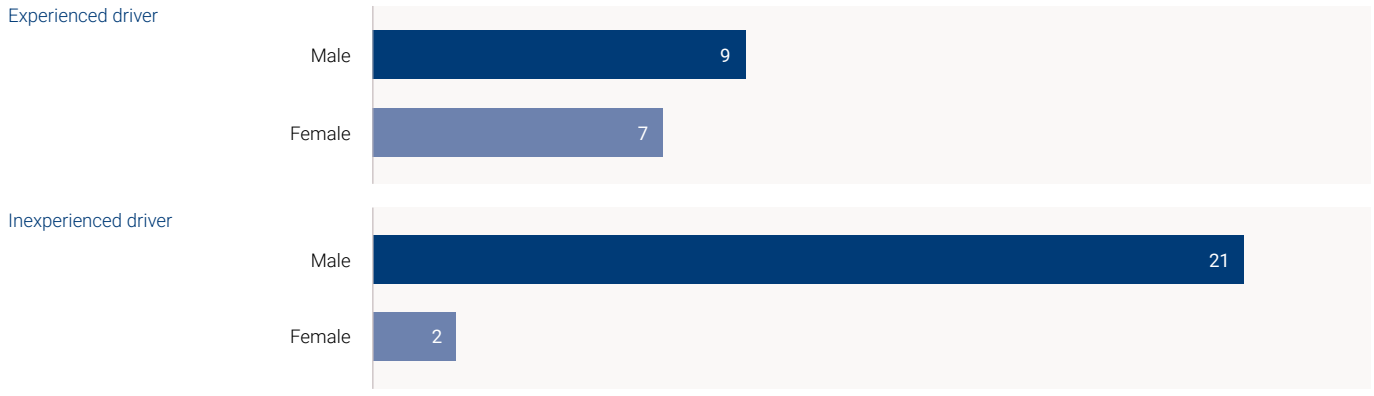
Transport for NSW (**TfNSW**) reports that young drivers make up only about 15% of all license holders but represent almost a quarter of annual road fatalities and that young novice drivers in their first 12 months of unsupervised driving are 8 times more likely to be involved in a casualty crash.[63]

More than half (23; 59%) of the drivers who were at fault were considered inexperienced drivers, defined as those who either had a provisional licence or a learner's permit, or were never licensed. Of the 23 inexperienced drivers:

- 9 drivers had a provisional licence. 1 provisional licence holder was driving a high-performance vehicle they were not authorised to drive.[64]
- 1 driver previously held a provisional license that had expired.
- 4 drivers had a learner's permit – 2 were riding motorcycles and 2 were unsupervised learner drivers.
- 8 drivers had never held a licence to drive.
- The licence status for one 17-year-old driver is not known.

All except 1 of the inexperienced drivers were under 25 years of age, including 15 young people aged 15–17 years. Most (21; 91%) inexperienced at-fault drivers were male.

Figure 49
Number of at-fault drivers by experience and sex
2022–2023



63 Transport for NSW, *2026 Road Safety Action Plan* (Action Plan, April 2022) https://www.transport.nsw.gov.au/system/files/media/documents/2024/crs_2026_road_safety_action_plan.pdf

64 'Prohibited Vehicles for P Plate Drivers', *NSW Government* (Web Page) https://www.nsw.gov.au/driving-boating-and-transport/driver-and-rider-licences/driver-licences/p1-and-p2-prohibited-vehicles.

Experienced drivers

Many (16; 41%) of the drivers who police determined to be at fault were experienced, fully licensed drivers. The age of the drivers ranged from 21 to 90 years. 9 (56%) experienced at-fault drivers were male and 7 (44%) were female.

Relationship between at-fault driver and the deceased child

The relationship between the at-fault driver and the child who died was:

- 12 young people were themselves the at-fault driver – 8 young people driving cars and 4 young people riding motorcycles.
- 10 at fault drivers were a family member, including a parent, sibling or cousin.
- 8 at-fault drivers were a peer, a friend or another person known to the child.
- 9 at-fault drivers were another road user not known to the child.

Criminal investigation

All surviving at-fault drivers (21) were charged with serious driving offences. The charges include aggravated dangerous driving occasioning death, dangerous driving occasioning death, negligent driving and manslaughter.

In the 2-year period, 8 children who died were travelling in or on stolen vehicles, in 6 separate incidents. In all incidents, the drivers were unlicensed children or young people aged 15–18 years.

4.7 Related research and other work

4.7.1 Child restraints and seatbelts

In November 2024, the CDRT reported on a study completed by the George Institute for Global Health (**George Institute**) in response to a recommendation made by the CDRT in 2019, that TfNSW undertakes a study of child restraint practices in NSW, with a focus on areas of socio-economic disadvantage and areas outside of major cities.[65]

The George Institute study,[66] completed in 2024, compared its findings with previous observations of child restraint practices recorded in 2008, prior to the introduction of legislation mandating age-appropriate child restraint use for children up to age 7.

The study found:

- There was a substantial increase in age-appropriate restraint use (98% of children using age-appropriate restraints compared to 48.8% in 2008) but no improvement in rates of correct use.
- There was no significant difference in restraint practices among children living in different geographical areas of NSW.
- There was a significant difference in restraint practices across different areas of relative socio-economic disadvantage indicating an urgent need for targeted action to improve restraint practices in these areas.

65 NSW Ombudsman, NSW Child Death Review Team Annual Report 2023–2024 (Annual Report, 2024) **https://www.ombo.nsw.gov.au/reports/annual-report/nsw-child-death-review-team-annual-report-2023-24**.

66 The George Institute for Global Health, *Child Restraint Practices in NSW* (Report, 30 July 2024) **https://www.transport.nsw.gov.au/system/files/media/documents/2024/crs_child_restraint_practices_NSW.pdf**.

In December 2024, TfNSW advised us of actions it had taken in response to the study's findings.

These actions included:

- making the George Institute report publicly available on the TfNSW website
- supporting the National Transport Commission's (**NTC**) review of the child restraint rules within the Australian Roads Rules, planned to commence in early 2025
- promoting the correct use of child restraints via community education campaigns and using data from the study to target areas of most socio-economic disadvantage
- developing resources for early childhood services, schools and families to support the correct use of child restraints as part of the NSW Road Safety Education Program and using elements of the 'Buckle Up Safely' program to support these initiatives
- collaborating with Aboriginal Medical Services to engage local Aboriginal communities in awareness raising of the need to correctly fit and use child restraints including access to a free child restraint for eligible participants, proper installation through a local authorised fitter and accredited training for staff at Aboriginal community health services to correctly fit child car seats
- providing in principle support to Revenue NSW to scope a statewide fine diversion program for child restraint offences in partnership with NSW Police
- engaging in the Child Restraint Evaluation Program (**CREP**) with other partners to provide consumers with information to help them choose and use child car seats safely and correctly
- authorising appropriate establishments to conduct inspections and installation of child restraints and providing support for local councils via the Local Government Road Safety Program (**LGRSP**) to hold free child restraint fitting days or provide fitting vouchers in local communities, mostly on the eastern seaboard
- providing additional support to councils that are not part of the LGRSP or those without a local government road safety officer
- providing funding to KidSafe NSW to provide nationally recognised child car seat training to family intervention support services and community transport providers at a subsidised rate.

In 2022 and 2023, the deaths of 3 children aged under 12 years were related to incorrect or non-use of restraints where a child was in a motor vehicle (excluding motorcycles and other vehicles) as a driver or passenger. The children were travelling incorrectly restrained (1)[67] or the restraint was not properly installed (2). These deaths are potentially preventable.

Noting the range of programs and activities currently underway and the NTC review of the Australian Roads Rules relating to child restraints, the CDRT will continue to monitor this issue.

67 The child was seated in the front seat of a vehicle with an adult seat belt when there were rear seats available.

4.7.2 Young drivers in regional areas

TfNSW also report that young people living in regional areas face higher risks on the road as they often spend more time on the road, drive longer distances and travel on higher speed roads, and that 43% of cars driven by young drivers in fatal crashes are more than 15 years old.[68] In 2022 and 2023, just over half (12) the incidents involving inexperienced, at-fault drivers occurred in regional locations and involved unsafe driver behaviour such as speeding (7), non-use of restraints (6), driving recklessly (4), and alcohol or illicit drug use (3). Of these 12 children, 6 were travelling in vehicles older than 10 years.

The NSW Government is currently considering a program, Safer Cars for Country Kids, aiming to help get young drivers in regional NSW into newer and safer vehicles by providing a subsidy when they trade in their older, less safe vehicle.[69]

In May 2025, the NSW Government announced an inquiry into interventions to reduce road trauma in regional NSW caused by speeding, fatigue, drink and drug driving.[70] In July 2025, the CDRT wrote to the Chair of the Joint Standing Committee on Road Safety providing information relevant to the Inquiry's Terms of Reference including data on regional NSW-specific factors and measures to reduce road trauma.

For the submission, the CDRT reviewed data on transport-related incidents over the 6-year period 2018 to 2023 and found that around 60% (90) of the transport-related deaths of children aged 0–17 years took place in a regional or remote area of NSW. The submission noted:

- Many of these transport-related deaths involved unsafe driving behaviours including speeding (42%, 38), drug driving (17%, 15), illegal blood alcohol (14%, 13) and/or fatigue (12%, 11).[71]
- Of the 55 deaths where the age of the vehicle could be established, 78% (43) of the children died while travelling in vehicles aged 10 years or older as either drivers or passengers.

The CDRT will monitor the decision of the NSW Government in relation to the Safer Cars for Country Kids program and the outcomes of the Inquiry into interventions to reduce road trauma in regional NSW caused by speeding, fatigue, drink and drug driving.

4.8 Observations and discussion

4.8.1 The number of transport-related deaths has been rising since 2019

Over the past 15 years, the rate of transport-related deaths reduced by 20%; however, since 2019, the rate has been rising.

Transport-related deaths were the leading cause of deaths due to injury in 2022 and 2023 and the second leading cause of death for young people aged 15–17 years.

68 Safer Cars for Country Kids', *Transport for NSW* (Web Page) **https://www.transport.nsw.gov.au/roadsafety/young-drivers/safer-cars-for-country-kids**.
69 Ibid.
70 'Interventions to Reduce Road Trauma in Regional NSW Caused by Speeding, Fatigue, Drink and Drug Driving', *Joint Standing Committee on Road Safety, Parliament of NSW* (Web Page, May 2025) **https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=3102**.
71 More than 1 factor may have been present in a single death.

4.8.2 Safe use of electric personal vehicles

An electric personal vehicle (EPV) is a battery-powered device designed for individual transportation that includes a range of options like e-bikes, e-scooters, electric skateboards and other devices designed to support impaired mobility such as electric wheelchairs and mobility scooters. They are typically designed for short distances and speeds that do not exceed 25 km per hour.

Currently in NSW, e-bikes are permitted on public roads and paths under specific conditions, including power and speed limits and the use of approved bicycle helmets. E-scooters can only be used on private property. It is currently illegal in NSW to ride a privately owned e-scooter on public roads or footpaths, except in 2 designated trial locations in NSW.[72]

In 2022 and 2023, 2 young people died while riding EPVs: a 14-year-old riding an e-scooter illegally on a road, and a 17-year-old riding an e-bike on a road. The e-scooter rider was not wearing a helmet.

In June 2024, the Parliament of NSW established an inquiry into the use of e-scooters, e-bikes and related mobility options.[73] The inquiry considered the role of government in safe electric transportation, opportunities for regulatory reform to ensure safety for users and the community and the benefits of e-mobility devices such as sustainable and accessible transportation and reduced traffic congestion. A report, tabled in February 2025, made recommendations concerning the use and regulation of private and shared e-mobility devices including e-bikes and e-scooters as legitimate modes of transport.[74]

In response to the parliamentary inquiry's report, the CDRT wrote to the NSW Premier in April 2025, providing information about the safe and lawful use of EPVs, particularly for children. The CDRT noted retailers frequently placed the onus on the consumer to establish the lawfulness of the intended use of EPVs and there were inconsistencies in the accessibility and visibility of prompts to encourage consumers to check product regulations at the point of sale. The CDRT also noted the high rates of injuries for young people from the use of EPVs and e-scooters in particular. While there is limited publicly available NSW data on injuries arising from the use of EPVs, a Victorian analysis of emergency department presentations between 2016 to 2023 noted injury rates for both e-scooters and e-bikes increased during this time and were highest for those aged 15–24 years.[75]

The CDRT expressed its support for 5 of the recommendations in the parliamentary inquiry's report, including those about developing a comprehensive framework to support the use of EPVs, the collection of e-mobility device specific crash data, ensuring children have information and knowledge about safe use of EPVs and road rules, and mandating the need for retailers to provide advice about safety and lawful use.

The NSW Government tabled its response to the recommendations in May 2025, supporting 9 of the 34 recommendations in full and a further 13 in principle.[76] Of the recommendations highlighted by the CDRT in its correspondence, 4 were supported in full, and 1 recommendation, concerning a social media campaign targeted at young people, was supported in principle.

The CDRT will continue to monitor the deaths of children using EPVs.

72 In trial areas, riders must at least 16 years old.

73 'Use of E-scooters, E-bikes and Related Mobility Options', *Portfolio Committee No 6 – Transport and the Art, Parliament of NSW* (Web Page, June 2024) **https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=3052**.

74 Ibid.

75 Janneke Berecki-Gisolf and Jane Hayman, *Injuries Associated with E-scooters, E-bikes and Other E-micromobility Device: Analysis of Emergency Department Presentations and Deaths in Victoria, 2016 to 2023* (Report, Monash University, Hazard Edition 93, 2024) **https://bridges.monash.edu/articles/report/Injuries_associated_with_e-scooters_e-bikes_and_other_e-micromobility_devices_analysis_of_Emergency_Department_presentations_and_deaths_in_Victoria_2016_to_2023_Hazard_Edition_93_/27710193/2?file=50457603**.

76 NSW Government, *Parliamentary Inquiry into the Use of E-scooters, E-bikes and Related Mobility Options, Government Response* (Government Response, May 2025) **https://www.parliament.nsw.gov.au/lcdocs/inquiries/3052/Government%20response%20-%20Report%20No.%2025%20-%20Portfolio%20Committee%20No.%206%20-%20Transport%20and%20the%20Arts%20-%20Use%20of%20e-scooters%20e-bikes%20and%20related%20mobility%20options.pdf**.

5

External causes of death

Drowning

5 Drowning

Section summary

IN 2022–2023

14 deaths due to drowning

2022 2023 2-year period

Of the 14 children who drowned:

Limited or no swimming ability	11
Aged under 5 years	8
Supervision was a factor	10

AVERAGE MORTALITY RATE

0.39 per 100,000

2009 2023 15-year period

DEATHS DUE TO DROWNING DECREASED OVER THE 15 YEARS ↓58%

- Male children
- Children aged under 5 years
- Children living in regional and remote areas
- Children living in areas of most disadvantage

Key observations

CHILDREN <5 YEARS

Children aged under 5 years are at increased risk of drowning.

MALES ACROSS ALL AGE GROUPS

Males are overrepresented in drowning deaths across all age groups, with the over-representation increasing significantly for adolescents aged 15–17 years.

5.1 Background

This chapter examines the deaths of 14 children and young people aged 0–17 who drowned in NSW in 2022 and 2023; 8 in 2022 and 6 in 2023. It considers unintentional drowning deaths, including deaths associated with watercrafts where the issues identified relate to water safety. One death was reviewable by the Ombudsman as the child died in circumstances of neglect.

5.2 Trends

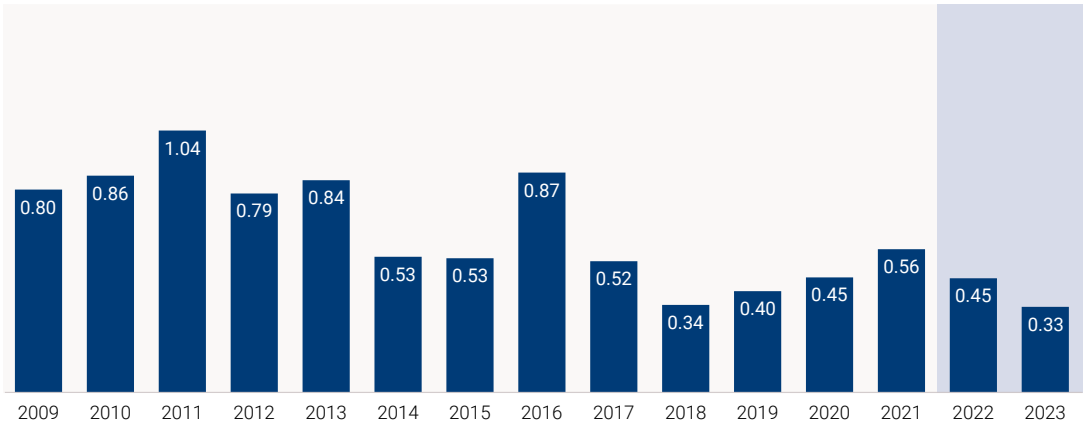
5.2.1 Deaths in 2022 and 2023

In 2022 and 2023, 14 children aged 0–17 drowned in NSW, with an average rate of mortality over the 2-year period of 0.4 per 100,000.

5.2.2 15-year trend

Figure 50
Drowning deaths of children aged 0–17, rate
Rate per 100,000, 2009–2023

All children 0–17 years



Over the 15 years from 2009 to 2023, the drowning rate reduced by 58%. In that period, 2023 had the lowest rate.

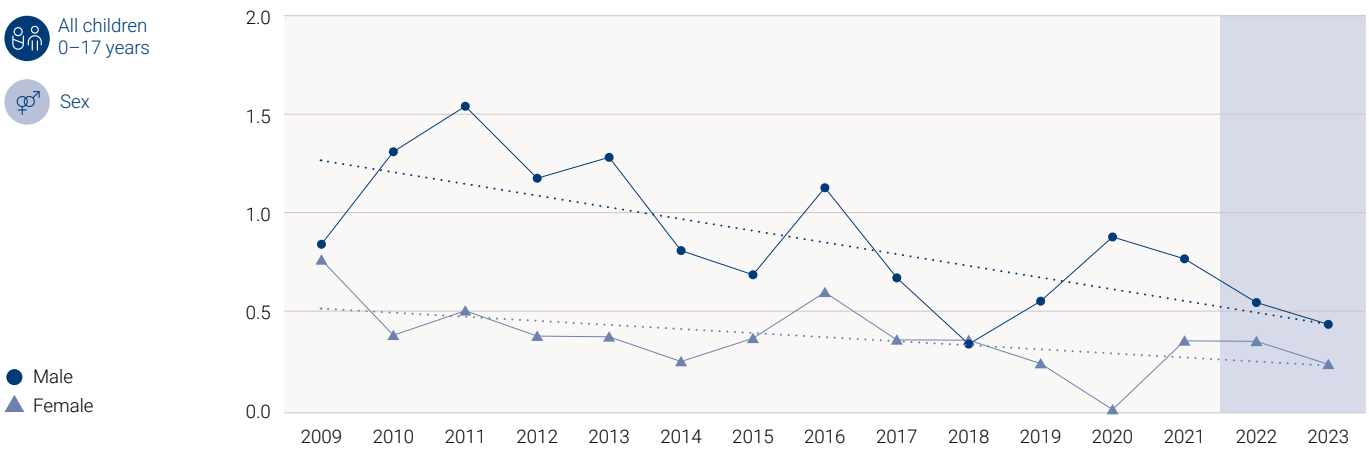
5.3 Demographics: 15-year findings

Over the 15-year period:

- More males drowned than females.
- The rate was higher for children aged under 5 years.
- The rate was higher for those living in regional and remote areas and those from the areas of greatest socio-economic disadvantage.

5.3.1 Sex

Figure 51
Drowning mortality rates by sex
Rate per 100,000, 2009–2023

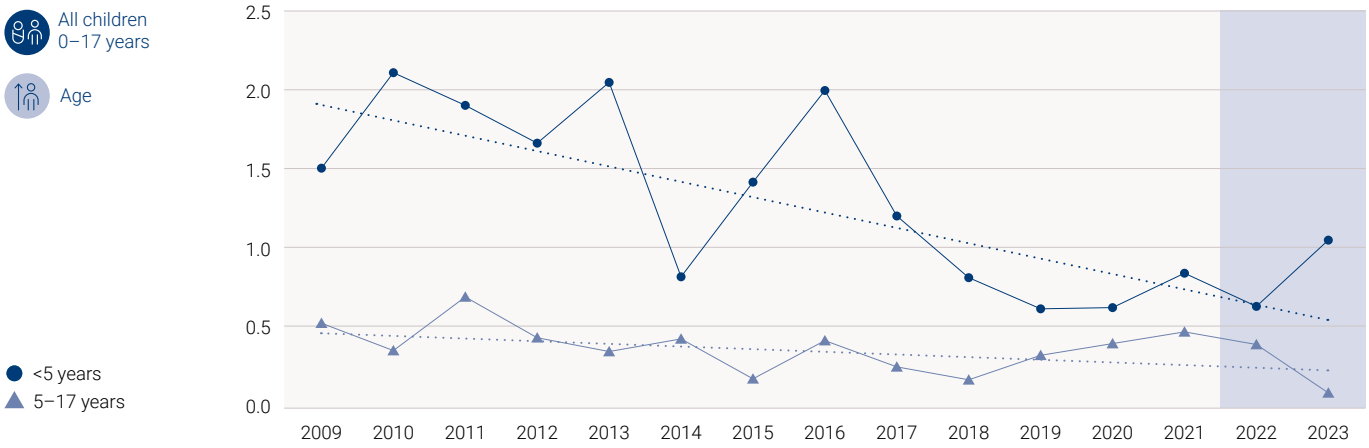


The rate for both male and female children has decreased over the 15-year period. On average, the rate was 2.4 times higher for males.

5.3.2 Age

Figure 52
Drowning mortality rates by age
Rate per 100,000, 2009–2023

All children 0–17 years
Age

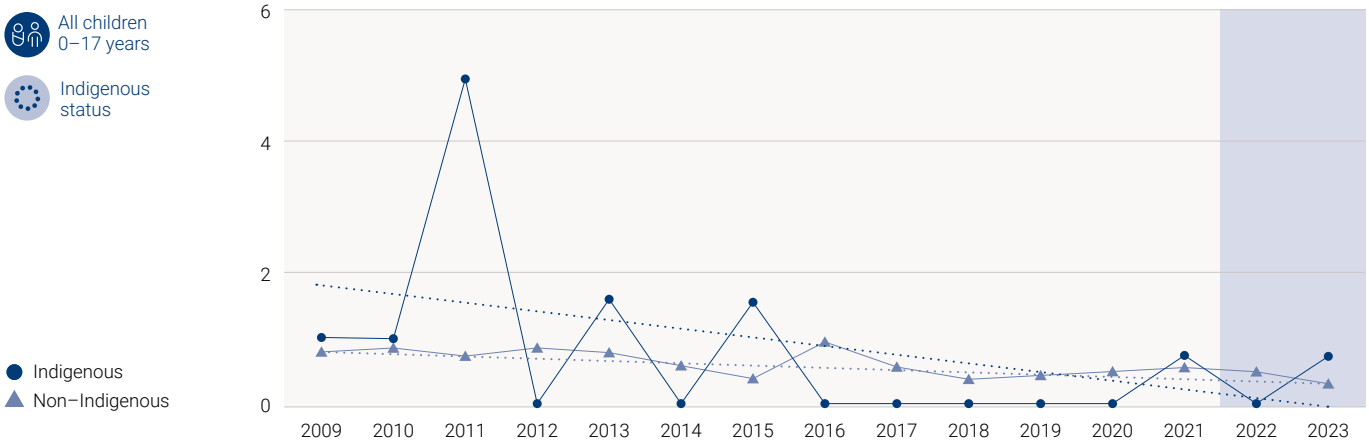


Over the 15-year period, the rate for children aged <5 years decreased; however, the rate was on average 3.6 times higher than for children aged 5–17 years. The rate for children aged 5–17 years has not changed overall.

5.3.3 Indigenous status

Figure 53
Drowning mortality rates by Indigenous status
Rate per 100,000, 2009–2023

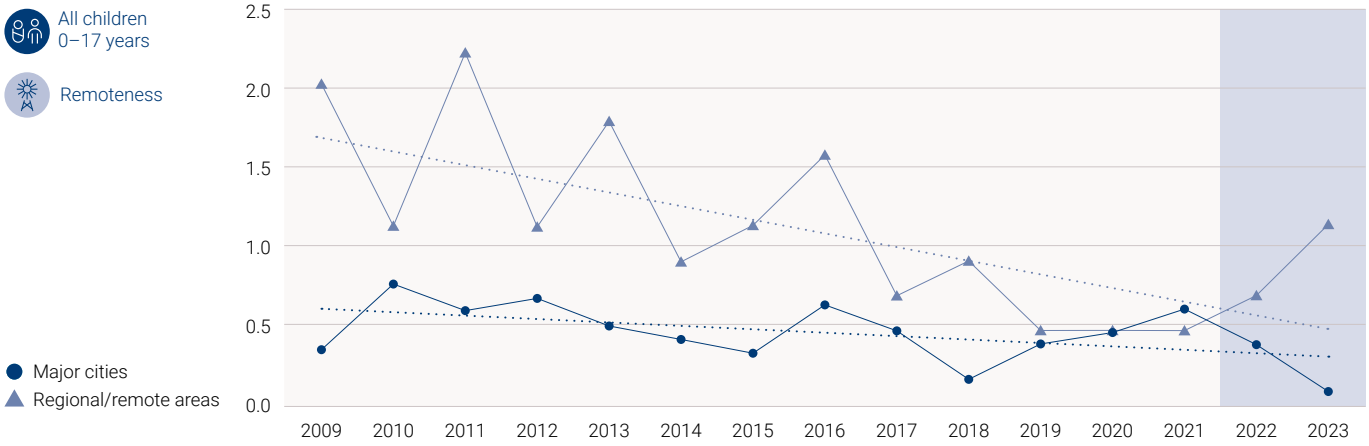
All children 0–17 years
Indigenous status



The rate for non-Indigenous children decreased over the 15 years. Despite some variation in the early part of the 15-year period, the rate for Indigenous children has not changed overall.

5.3.4 Remoteness

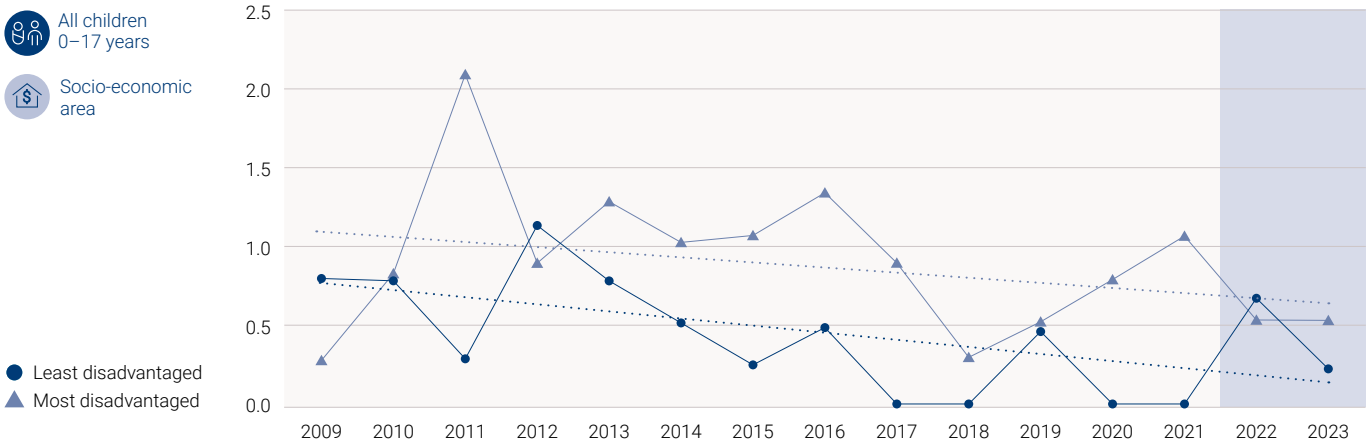
Figure 54
Drowning mortality rates by remoteness
Rate per 100,000, 2009–2023



Over the 15-year period, the rate for children living in regional and remote areas decreased, while the rate for children living in major cities did not change overall. The rate for children from regional and remote areas was 2.5 times higher on average than children living in major cities; however, the gap between children living in regional and remote areas and those living in major cities decreased.

5.3.5 Socio-economic areas

Figure 55
Drowning mortality rates by socio-economic area
Rate per 100,000, 2009–2023



The rate for children living in areas of least socio-economic disadvantage decreased over the 15 years. For those living in areas of greatest socio-economic disadvantage, the rate did not change significantly and was 2.1 times higher on average when compared to those living in the least disadvantaged areas.

5.4 Nature of drowning incidents

5.4.1 Location

In 2022 and 2023, the 14 drowning deaths occurred at various locations. 57% (8) were at an inland water location; 29% (4) were in a private pool; and 14% (2) occurred across coastal water locations.

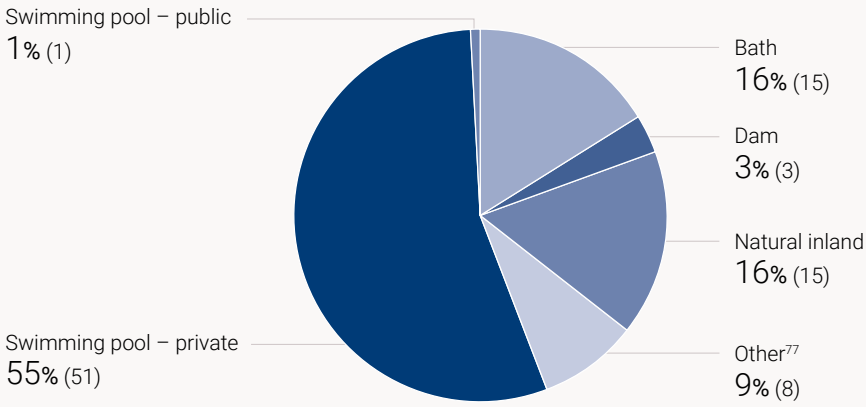
The location of drowning varies by age. In 2022 and 2023:

- **Children under 5** – 50% (4) drowned in private swimming pools and 50% (4) in other natural bodies of water such as inland rivers, creeks and lakes.
- **Children and young people aged 5–17** – 67% (4) drowned in natural bodies of water such as inland rivers, creeks and lakes and 33% (2) drowned in coastal water locations.

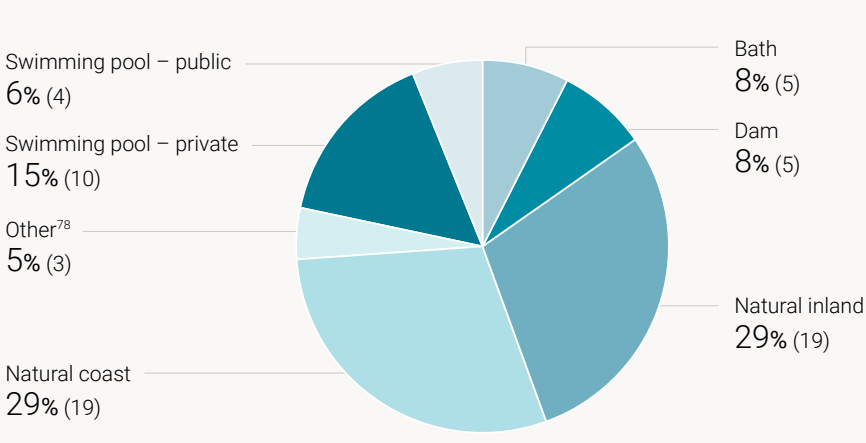
Over the 15 years 2009–2023, the most common location for drowning among children under 5 years of age was in private swimming pools and for those aged 5–17 years was coastal locations and natural inland locations (Figure 56).

Figure 56
Drowning deaths by location, number and proportion
2009–2023

93
Children <5 years



65
Children 5–17 years



77 'Other' includes locations such as stormwater drain, irrigation channel, canal, bucket/drum and fish pond.
78 Ibid.

5.5 Factors

5.5.1 Supervision

In 2022 and 2023, supervision was identified as a factor in 10 (71%) of the 14 children who drowned.

Of these 10 children:

- 8 children were aged under 5 years.
- 7 children accessed water after wandering off from various locations including 5 who were inside a home, 1 in a backyard and 1 in a public setting. 2 drowned in a portable swimming or wading pool that had no barrier; and 5 drowned in an inland waterway such as a river, creek or dam – 4 that were unfenced and 1 where the child gained access via a gap in a fence.
- 2 children, both aged under 5 years and with limited swimming ability, were in pools with other children and adults present.
- 1 child with unknown swimming ability drowned at an unpatrolled beach with other children and adults present.

5.5.2 Swimming ability

Swimming skills are critical in keeping children and young people safe in and around water, particularly for those aged over 10 years who are becoming more independent and likely to access water unsupervised.

Of the 14 children who drowned in 2022 and 2023, 11 had no or limited swimming ability (8 were aged under 5 years and 3 were aged 5–17 years). For a further 2 children aged 5–17 years, the child's swimming ability was either moderate or unknown. Only 1 of the children who drowned in 2022 and 2023 was considered a strong swimmer.

New Royal Life Saving Australia research reports that there has been a generational decline in swimming skills.[79] The report estimates up to 48% of Year 6 students cannot swim 50 metres and tread water for 2 minutes and that there is limited improvement in high school, with 39% of Year 10 students also unable to reach these benchmarks.

The report identifies a reduction in swimming programs provided at school; reduced participation in privately sourced swimming lessons, particularly for those from low socio-economic backgrounds and regional areas; and the closure of pools and cancellation of swimming lessons during the COVID-19 pandemic as factors in the reported decline.

79 Penny Larsen, Stacey Pidgeon and Justin Scarr, *Children's Swimming & Water Safety Skills: Teacher and Parent, Perceptions* (Report, Royal Life Saving Society, Sydney, 2025) https://www.royallifesaving.com.au/__data/assets/pdf_file/0010/89956/RLS_ChildrensWaterSafetySkills_Report25_V2.pdf.

5.5.3 Safety devices

In 2022 and 2023, the deaths of 2 children aged 5–17 years were potentially preventable had the child been using a personal flotation device, such as a lifejacket.

In 1 case, the wearing of a lifejacket was mandatory. In the other case, considered by the Victorian Coroner in November 2024 and discussed further at **Section 5.6.2**, the wearing of a life jacket was not mandatory due to the age of the young person, size of the vessel and the location.

Lifejackets greatly increase the likelihood of survival in the case of an emergency in open water environments. Royal Life Saving Australia recommends lifejackets should always be worn when boating, jet skiing or sailing; using other watercraft such as canoes and kayaks; and when fishing or rock fishing.[80]

5.6 Observations and discussion

5.6.1 Australian Water Safety Strategy 2030

The Australian Water Safety Council is a consultative forum comprising the major water safety and related government agencies and presents key water safety issues to governments, industry and the community.[81]

The Council's *Australian Water Safety Strategy 2030* (**the Strategy**)[82] outlines priority areas where Australia's peak water safety bodies, Royal Life Saving Australia and Surf Life Saving, along with other Council members can work together on national approaches to preventing drowning and promoting safe use of waterways and swimming pools.

The Strategy identifies children aged 0–4 years and young males aged 15–29 years as priority areas with the Strategy noting the following:

- **Children aged 0–4 years** have the highest fatal to non-fatal drowning ratio for any age group (8) and despite there being clear and effective prevention measures, young children continue to experience high rates of drowning.
- **Young males aged 15–29 years** are overrepresented in drowning statistics and early adoption of safe behaviours may have flow-on benefits into adulthood with high schools, universities and sporting clubs identified as an entry point for education opportunities.

Of the 158 children aged 0–17 years who drowned in NSW in the 15 years between 2009 and 2023:

- Those aged under 5 years comprised 59% (93).
- Males made up 72% of all drowning deaths and 95% of those aged 15–17 years.

In the context of higher rates of drowning for children aged 0–4 years and males aged 15–17 years in NSW, the Child Death Review Team (**CDRT**) supports the inclusion of both groups in the *Australian Water Safety Strategy 2030*.

80 'Lifejackets', *Royal Life Saving Australia* (Web Page) **https://www.royallifesaving.com.au/stay-safe-active/activities/boating-using-watercraft/lifejackets#:~:text=Even%20competent%20swimmers%20should%20wear,may%20be%20injured%20or%20unconscious**.

81 'About Us – Australian Water Safety Council', *Australian Water Safety Council* (Web Page) **https://www.watersafety.com.au/about-us/**.

82 Australian Water Safety Council, *Australian Water Safety Strategy 2030* (Strategy, 2021) **https://www.watersafety.com.au/wp-content/uploads/2024/07/AWS_Strategy2030_Web_7_24.pdf**.

5.6.2 Water safety and life jackets

In November 2024, the Victorian State Coroner considered the death of a 16-year-old male who drowned in a boating incident on the NSW/Victorian border. The State Coroner noted variations between NSW and Victorian mandates regarding life jackets and recommended the NSW Government consider mandating life jackets/personal flotation devices for all people on and/or operating a boat or other vessel.[83] In January 2025, Transport for NSW (**TfNSW**) advised the Victorian Coroner that the recommendation was under consideration as part of the NSW Government's *Maritime Safety Plan 2026* and would provide an update by the end of 2025.

Currently in NSW vessels must carry enough approved life jackets for the number of people on board. However, rules in relation to the wearing of life jackets vary:[84]

- Children aged under 12 years must wear a lifejacket on all vessels up to 4.8m long at all times and in open areas of all vessels up to 8m long when the vessel is underway.
- Adults (including children aged 12 years and over) must wear a lifejacket in certain circumstances dependent on the level of risk; the type of vessel; the location of the water the vessel is in; and the time of day.

In July 2025, the CDRT wrote to TfNSW expressing support for the recommendation by the Victorian Coroner and providing information to assist TfNSW as it considers the Victorian Coroner's recommendation in developing the Maritime Safety Plan 2026.

The information included advice about children who drowned and where the child was not wearing a life jacket between 2014 and 2023, including:

- 5 children who drowned after falling from a vessel in a range of circumstances (2 children aged 1–4 years, 1 child aged 5–9 years, 1 child aged 10–14 years, 1 child aged 15–17 years)
- 2 children (aged 10–16 years) who drowned while rock fishing.

The CDRT will monitor the development and outcome of the *Maritime Safety Plan 2026*.

83 Coroners Court of Victoria, 'Finding into Death without Inquest' (Coroner's Report, 2024) **https://www.coronerscourt.vic.gov.au/sites/default/files/COR%202023%20000603%20Form%2038%20-%20Finding%20into%20Death%20without%20Inquest.pdf**.

84 'When to Wear a Lifejacket', *NSW Government* (Web Page) **https://www.nsw.gov.au/driving-boating-and-transport/waterways-safety-and-rules/lifejackets-and-safety-equipment/when-to-wear-a-lifejacket**.

6

External causes of death

Suicide

6 Suicide

Section summary

IN 2022–2023

49 deaths due to suicide

2022 2023 2-year period

Of the 49 children who died by suicide:

Males	57%
Aged 15–17 years	76%
At least 1 individual risk factor	98%

AVERAGE MORTALITY RATE

3 per 100,000

2009 2023 15-year period

SUICIDE RATE SINCE 2009 ↑11%

The rates were higher for:

- Male children
- Young people aged 15–17
- Aboriginal and Torres Strait Islander children
- children living in the areas of greatest socio-economic disadvantage
- Children living in regional and remote areas

Key observations

15-YEAR PERIOD

Although the rates for young people aged **15–17 years** have been **consistently higher** over the 15 years, the rates for those aged **10–14 years** have **increased**.

10–12 YEAR OLDS

4 deaths in 2022–2023

SEX

In the most recent 5 years, the gap between the rates for males and females has **narrowed**.

REGIONAL AND REMOTE

Rates for young people living in **regional and remote** areas have remained **consistently higher** than for those in **major cities** and have **increased** over the 15-year period.

6.1 Background

This chapter considers the 49 children aged 10–17 who died by suicide in 2022 and 2023: 25 in 2022 and 24 in 2023. It includes 4 deaths that were reviewable by the Ombudsman, 3 of whom were children living in care at the time of their death.

It includes deaths where:

- A Coroner found that the cause and manner of death was self-harm with fatal intent.
- Police identified the death as suicide and the case remains open with the Coroner.
- The Coroner dispensed with an inquest and did not make a finding about the manner of death, but police identified the death as suicide and records examined provide evidence of self-harm with fatal intent.

Any classification of a child suicide is done on a case-by-case basis and requires an explicit assessment that a child voluntarily and deliberately intended to end their own life, as well as a judgement that a child had the capacity to properly formulate concepts of the finality of death.[85]

CAUTION

This chapter contains content about suicide and self-harm.

Some people may find parts of this chapter confronting or distressing.

If you need help or support, please contact

Lifeline on 13 11 14

Beyond Blue on 1300 22 4636

Kids Helpline on 1800 55 1800

Aboriginal and Torres Strait Islander readers should be aware that this section includes information about deceased children.

The Ombudsman utilises the Mindframe guidelines on responsible, accurate and safe suicide and self-harm reporting.

6.2 Trends

6.2.1 Deaths in 2022 and 2023

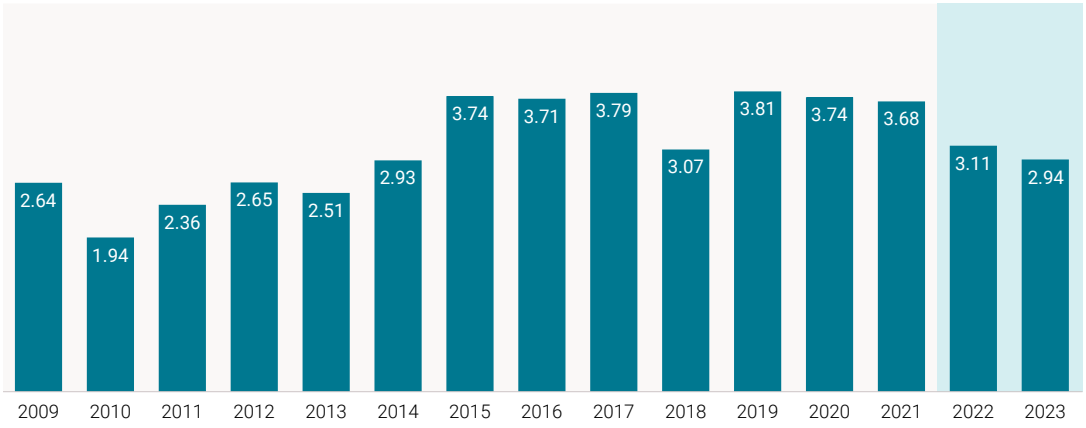
In 2022 and 2023, 49 children aged 10–17 years died by suicide, with an average rate of mortality over the 2 years of 3 per 100,000.

85 Stephanie Jowett, Belinda Carpenter and Gordon Tait, 'Determining a Suicide under Australian Law' (2018) 41(2) *University of New South Wales Law Journal* 355 https://www.unsw.edu.au/content/dam/pdfs/law/unsw-law-journal/2010-2019/Vol-No-41-2-Jowett-Carpenter-and-Tait-2018.pdf.

6.2.2 15-year trend

Figure 57
Suicide deaths of children aged 10–17 years
Rate per 100,000, 2009–2023

Children 10–17 years



Unlike other causes of death where the rates have declined, over the 15-year period, the mortality rate for suicide increased particularly between 2010 and 2015. From 2022 onwards, the rate has declined to pre-2015 levels, decreasing by 23% from a peak of 3.8 in 2019.

6.3 Demographics: 15-year findings

Over the 15-year period, the mortality rate for suicide has increased overall with an observed decline in the 5 years since 2019.

Among the demographic groups for deaths of children by suicide:

- Males had consistently higher rates compared to females; however, the rate for females has increased.
- While young people aged 15–17 years continue to make up the majority of deaths, the rate for 10–14-year-olds increased.
- The rate for Indigenous children was higher than for non-Indigenous children.
- Children living in regional and remote areas had higher rates compared to those living in major cities.

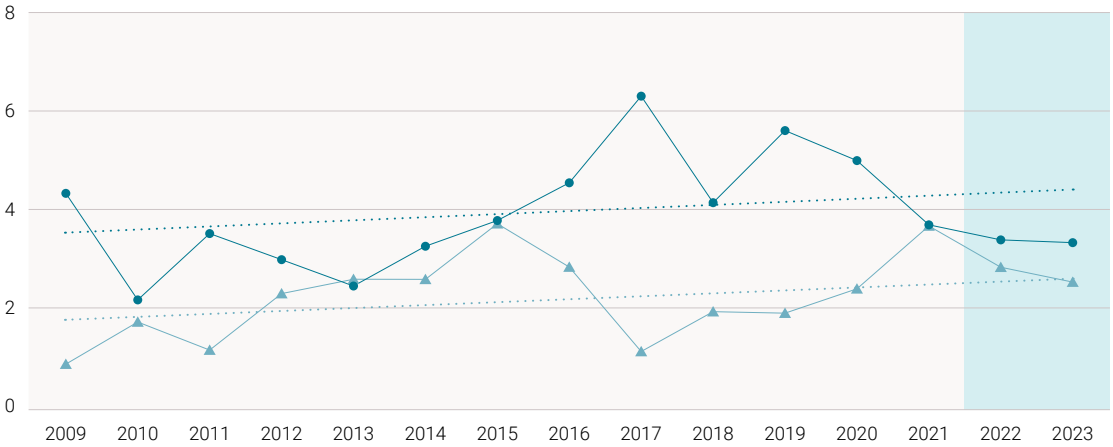
6.3.1 Sex

Figure 58
Suicide mortality rates by sex
Rate per 100,000, 2009–2023

Children 10–17 years

Sex

Male
Female



Over the 15-year period, the rate for males was consistently higher than for females. However, the rate for males has not changed overall, while the rate for females has increased. Since 2019, the rate for males has decreased and the gap between the rates for males and females has narrowed.

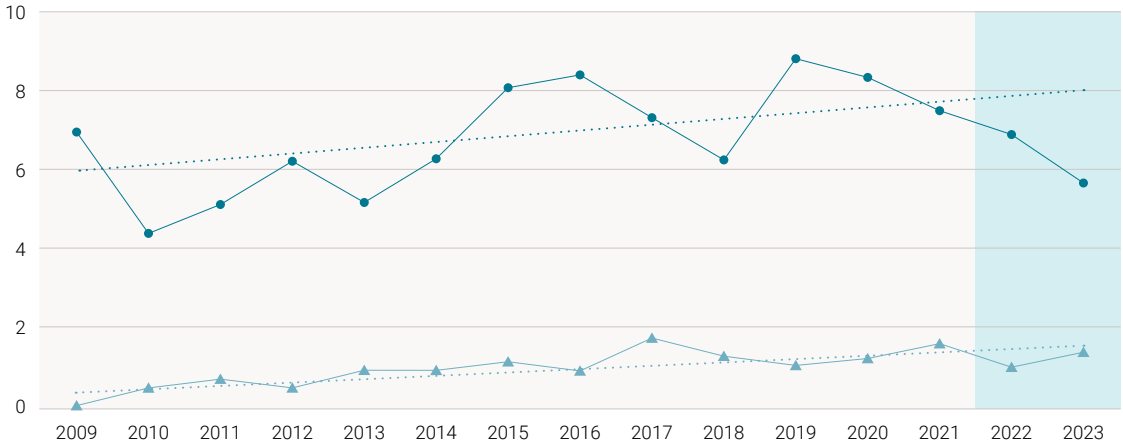
6.3.2 Age

Figure 59
Suicide mortality rates by age
Rate per 100,000, 2009–2023

Children 10–17 years

Age

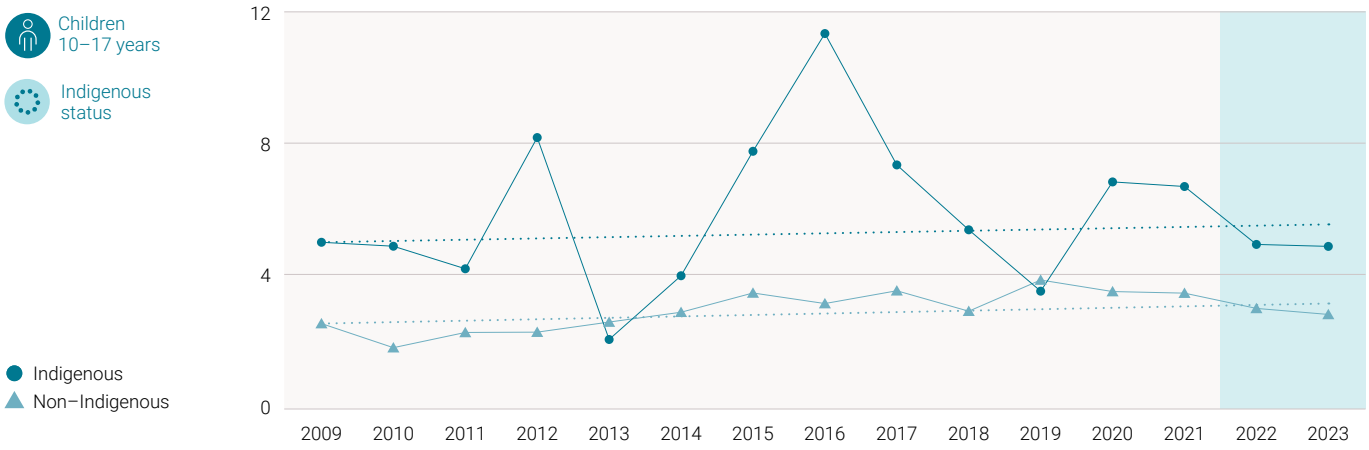
15–17 years
10–14 years



Over the 15-year period, the rate for 15–17-year-olds was consistently higher than for 10–14-year-olds. In this period, the rate for 10–14-year-olds has increased, while there has been no change in the rate for 15–17-year-olds overall. However, in the 5-year period since 2019, the rate for 15–17-year-olds has declined.

6.3.3 Indigenous status

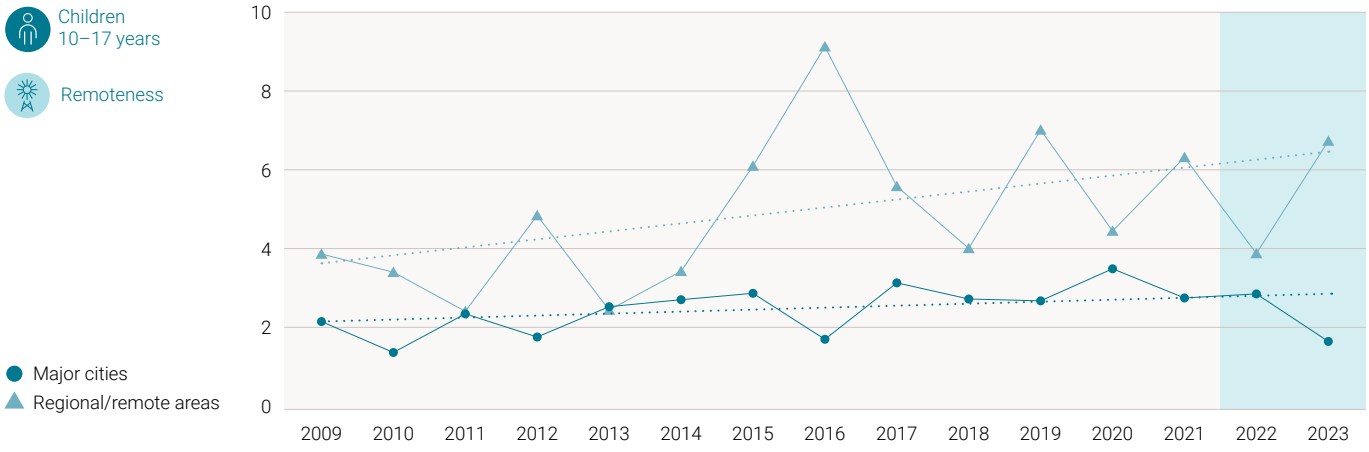
Figure 60
Suicide mortality rates by Indigenous status
Rate per 100,000, 2009–2023



The rate for Aboriginal and Torres Strait Islander children varied over the 15-year period, with little change overall. For non-Indigenous children, the rate increased. On average, the rate for Indigenous children was 2 times higher than for non-Indigenous children.

6.3.4 Remoteness

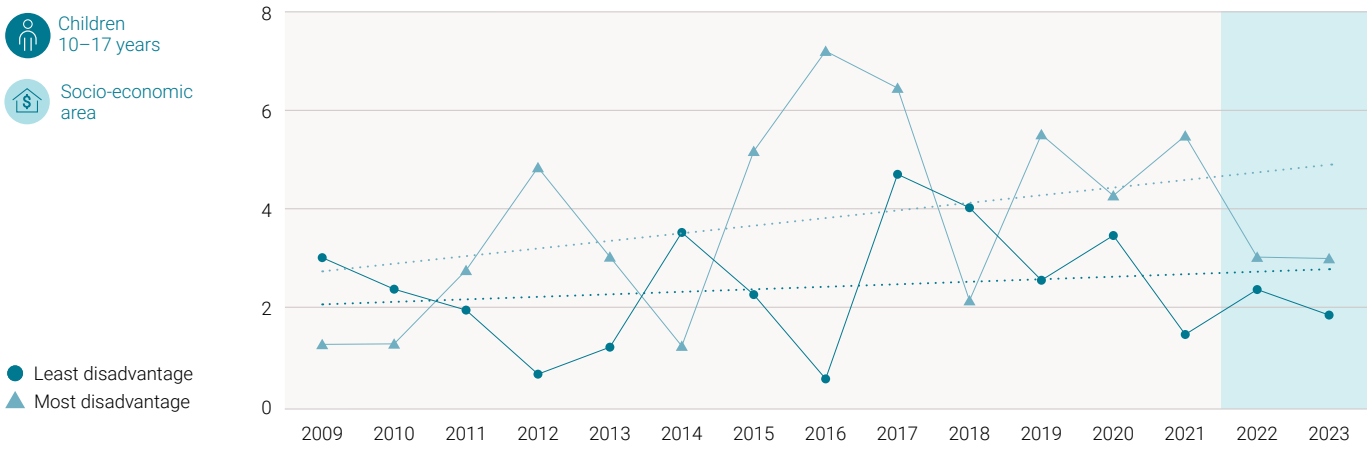
Figure 61
Suicide mortality rates by remoteness
Rate per 100,000, 2009–2023



Over the 15 years, the rate increased for those living in regional and remote areas. On average, the rate for children in regional and remote areas was 2 times higher compared to those in major cities.

6.3.5 Socio-economic areas

Figure 62
Suicide mortality rates by socio-economic area
Rate per 100,000, 2009–2023



Over the 15-year period, the rate varied with no change overall for children living in areas of both the least and most socio-economic disadvantage. The rate was 1.6 times higher for children living in the areas of most disadvantage.

6.4 Risk factors and behaviours

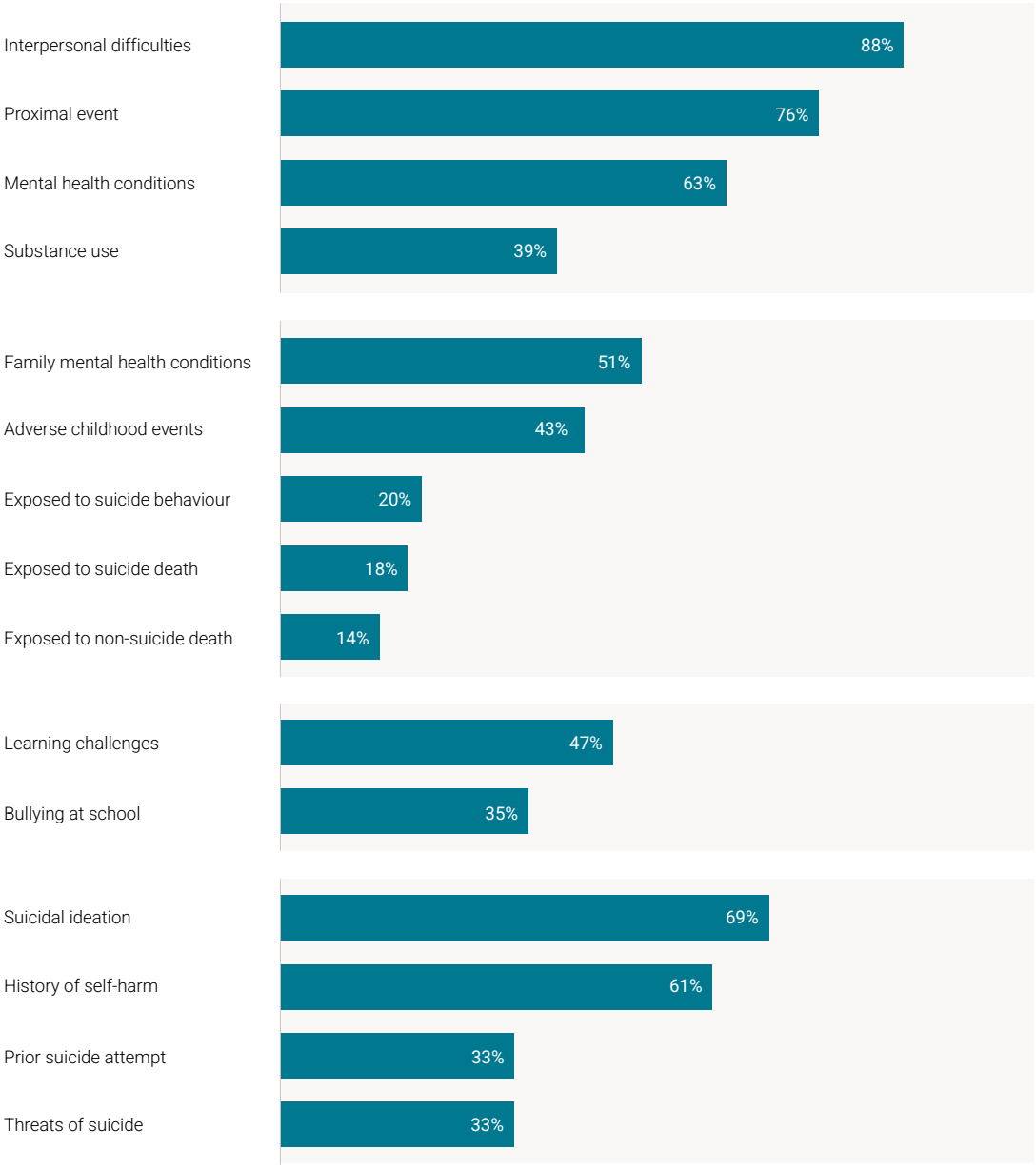
No single factor or combination of factors can predict suicide; however, there is a range of individual, family, school and behavioural factors that are associated with suicide risk.

Some risk factors are experienced by many young people – for example, family discord, school and peer-related problems, and substance use. The existence of risk factors does not mean young people will consider or attempt suicide. Protective factors such as strong family relationships, school and social connections, access to support and intervention, and personal resilience all reduce the likelihood of suicide.

The following sections focus on the factors identified for the 49 children who died by suicide in 2022 and 2023.

Children
10–17 years

Figure 63
Individual risk factors, proportion
2022–2023



IN 2022–2023

49 deaths occurred due to suicide

3 in 4
experienced a proximal event

76%
had at least 1 school-related factor

98%
had at least 1 risk factor

43%
had 10 or more risk factors

6.4.1 Proximal events

Among the 49 children who died by suicide in 2022 and 2023, 76% (37) experienced a proximal event such as a relationship breakdown, an altercation with a family member or peer, suspension/expulsion from school or cyberbullying/sextortion. Of these, 62% (23) experienced a proximal event that occurred within 1 week of their death. In many instances, the event occurred either the day of, or the day prior to, the child's death.

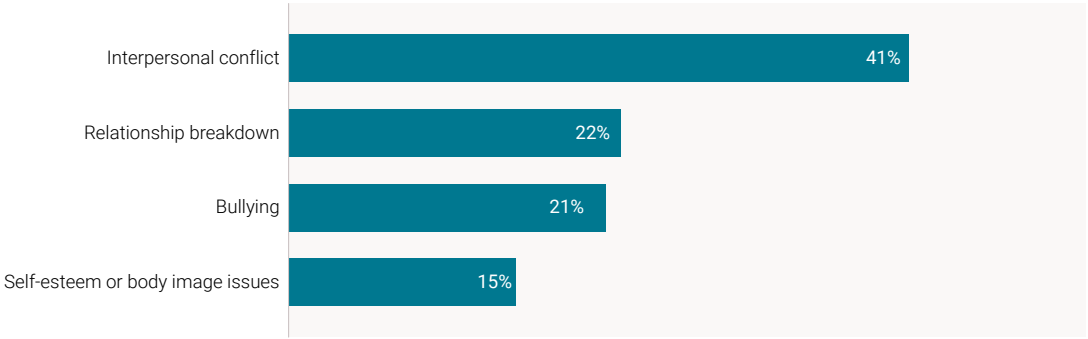
6.4.2 Individual factors

In 2022 and 2023, 98% (48) of children who died by suicide had at least 1 individual factor, for example, interpersonal difficulties, mental health conditions, substance misuse and/or issues associated with sexual orientation/gender identity. Of the young people with individual factors present, 41 had 2 or more individual factors and 10 young people had between 5 and 7 individual factors.

Interpersonal difficulties

Figure 64
Interpersonal difficulties, proportion
2022–2023

Children
10–17 years



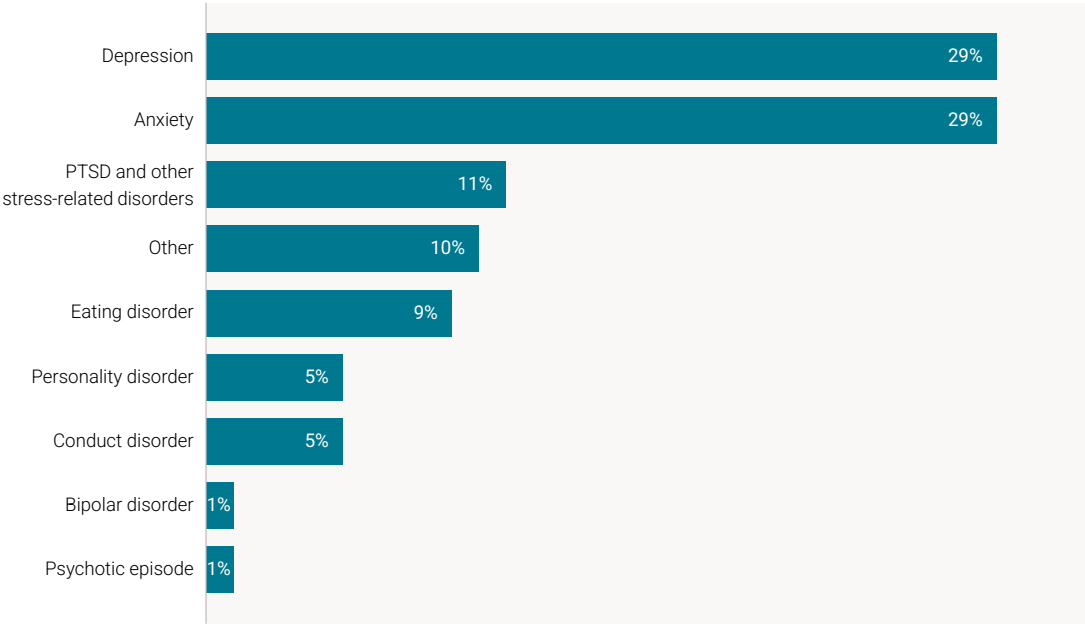
There were 43 (88%) children who were identified as having experienced interpersonal difficulties prior to their death. In the 2-year period, the most frequently identified interpersonal difficulties experienced included interpersonal conflict, relationship breakdown and bullying.

Mental health conditions

There were 31 (63%) children who had a diagnosed mental health condition. The most common conditions were equally anxiety and depression, with 19 of the children diagnosed with both conditions. Of the children, 29 had 2 or more diagnosed mental health conditions, with 15 children having 3 or more conditions.

Figure 65
Mental health conditions, proportion
2022–2023

Children
10–17 years



Substance use

Of the children, 39% (19) were identified as having used or misused substances such as alcohol and illicit drugs in the 12 months prior to their death.

The most frequently used illicit drug was cannabis (14), often in combination with alcohol. Of the children, 13 were identified as using 2 or more substances. Other substances used included prescription and over-the-counter medications, MDMA and inhalants.

Sexual orientation and gender identity

In records, 14% (7) of the children were identified as LGBTIQ+ – an inclusive term that refers to people who are lesbian, gay, bisexual, transgender, intersex, queer, asexual, and otherwise sexually or gender diverse.[86]

86 The CDRT is currently undertaking a preliminary review of suicide-related deaths, from 2018 to 2023, among young people aged 10–17 years who identified as LGBTIQ+.

6.4.3 Family or childhood trauma

Family factors that have been associated with suicide include family breakdown or poor family cohesion, family conflicts or violence, and adverse or traumatic events in childhood.[87] In 2022 and 2023, 67% (33) of children had at least 1 family-related factor.

Adverse childhood events

Figure 66
Adverse childhood events, proportion
2022–2023

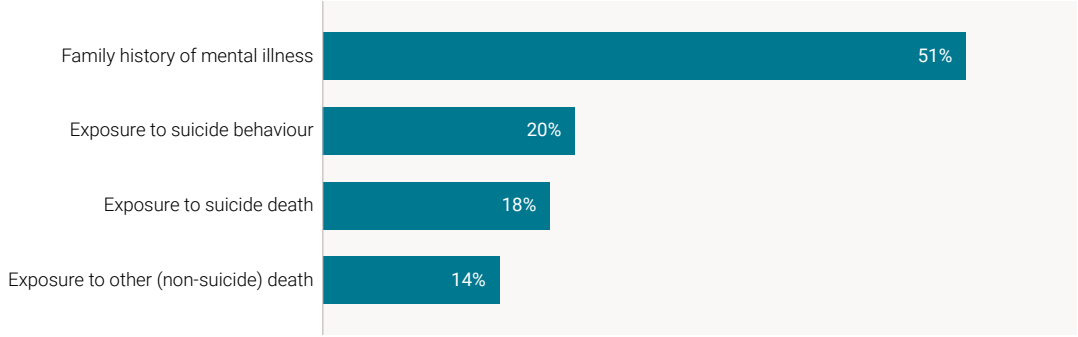
Children 10–17 years

There were 21 (43%) children who had a history of childhood trauma or abuse, including 1 or more of domestic violence, abuse or neglect, and other childhood trauma such as psychological harm arising from parental separation, unstable living arrangements, transience and homelessness, and parental substance misuse.

Other family and relationship factors

Figure 67
Other family and relationship factors, proportion
2022–2023

Children 10–17 years



Our reviews identified that several other family and relationship factors were evident for many of the children. Of those exposed to a suicide death, 6 were family members, 4 were friends/peers and 1 young person experienced the suicide death of both. For those exposed to suicide behaviour, 4 were family members and 8 were peers. Those exposed to a non-suicide death included 6 exposed to the death of a family member and 1 to the death of a friend or peer.

87 Patricia McNamara, 'Adolescent Suicide in Australia: Rates, Risk and Resilience' (2013) 18(3) *Clinical Child Psychology and Psychiatry* 351 https://pubmed.ncbi.nlm.nih.gov/23118313/.

6.4.4 School related

School-related factors include issues such as absenteeism, suspension or expulsion, learning challenges, and engagement difficulties. Our reviews of deaths in 2022 and 2023 identified that 76% (37) of the 49 children who died by suicide had at least 1 school-related factor.

The majority (42, 86%) of children who died by suicide were enrolled in school (39) or tertiary education such as TAFE (3).

7 children were either not enrolled in any form of education at the time of their death, or they were not attending school, and their enrolment status was unclear in the available records. This included a 17-year-old who was expelled from school a few days prior to their death.

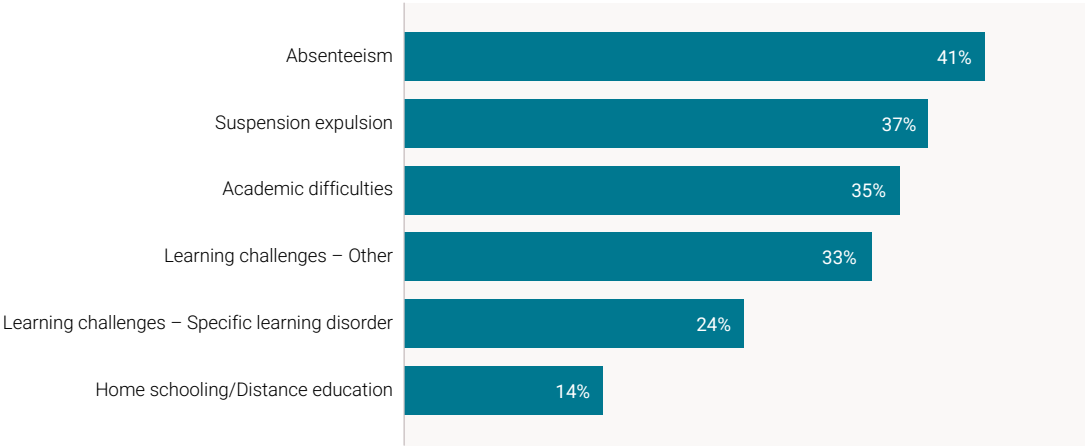
Absenteeism was the most common school-related factor (43%, 21). This included extended absences, both justified and unjustified, for periods of weeks and months, and 1 young person who had not attended school for up to a year prior to their death.

Absenteeism, in the context of a young person's connection with school, is considered in more detail in **Chapter 10** of this report, *School connectedness and suicide prevention*.

6 children (12%) were suspended from school within 12 months prior to their suicide and for 17 children (35%), bullying at school was evident. Bullying at school is considered in more detail in **Section 6.9**. Other school-related issues included learning challenges such as ADHD, dyslexia and receptive language issues.

Figure 68
School related issues, proportion
2022–2023

Children
10–17 years

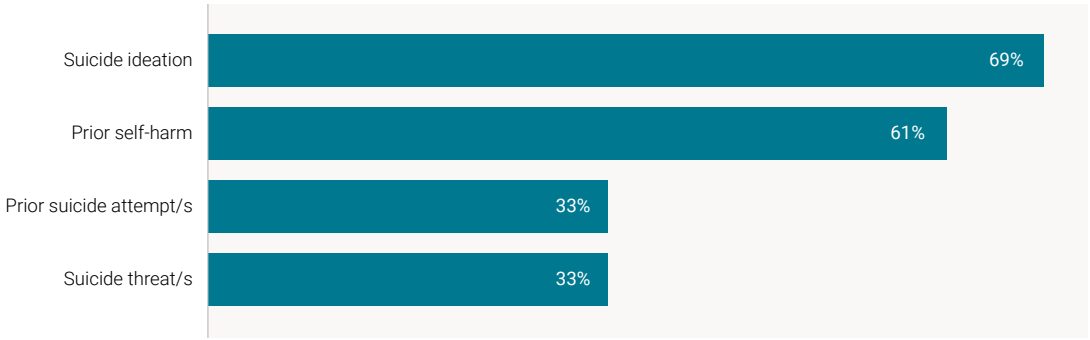


6.4.5 Suicide behaviours

Suicide behaviours include a range of behaviours including suicide attempts, threats of suicide, suicide ideation and other behaviours such as self-harm. Suicide ideation refers to the process of thinking about or planning suicide and the term 'self-harm' refers to people deliberately harming themselves with or without the intention to end their life.[88] While self-harm may occur without suicidal intent, those who have a pattern of self-harm have been found to have a higher risk of suicide.[89]

Figure 69
Suicide behaviours, proportion
2022–2023

Children
10–17 years



In 2022 and 2023, there was evidence of suicide behaviour among most children who died by suicide, with at least 1 suicide behaviour identified for 73% (36) of suicide deaths. Among the children, 65% (32) had a combination of 2 or more suicide behaviours.

88 Jane Pirkis et al, *Understanding Suicide and Self-harm,* (Research Paper, University of Melbourne, 20 December 2022) **https://www.mentalhealthcommission.gov.au/nspo/publications/understanding-suicide-and-self-harm**.

89 Alice Demesmaeker et al, 'Suicide Mortality After a Nonfatal Suicide Attempt: A Systematic Review and Meta-analysis' (2021) 56(6) *Australian & New Zealand Journal of Psychiatry* 603 **https://pubmed.ncbi.nlm.nih.gov/34465221/**.

6.5 At-risk status

In 2022 and 2023, 43% (21) of the 49 children who died by suicide were identified in the records of service providers, such as health, education, social services and private providers, as being at risk of suicide in the 12 months before their death.

Those identified as being at risk were mostly aged 14–17 years. The most common factors for those identified as at risk were suicide ideation (100%, 21), prior self-harm (86%, 18), interpersonal difficulties (95%, 20), mental illness (95%, 20), family history of mental illness (62%, 13), prior suicide attempt/s (62%, 13), childhood trauma (52%, 11) and suicide threats (52%, 11).

The most common factors for those not identified as at risk of suicide (28) were interpersonal difficulties (82%, 23), suicide ideation (46%, 13) and mental illness (39%, 11).

Figure 70
Factors for children identified at risk
2022–2023

Children
10–17 years

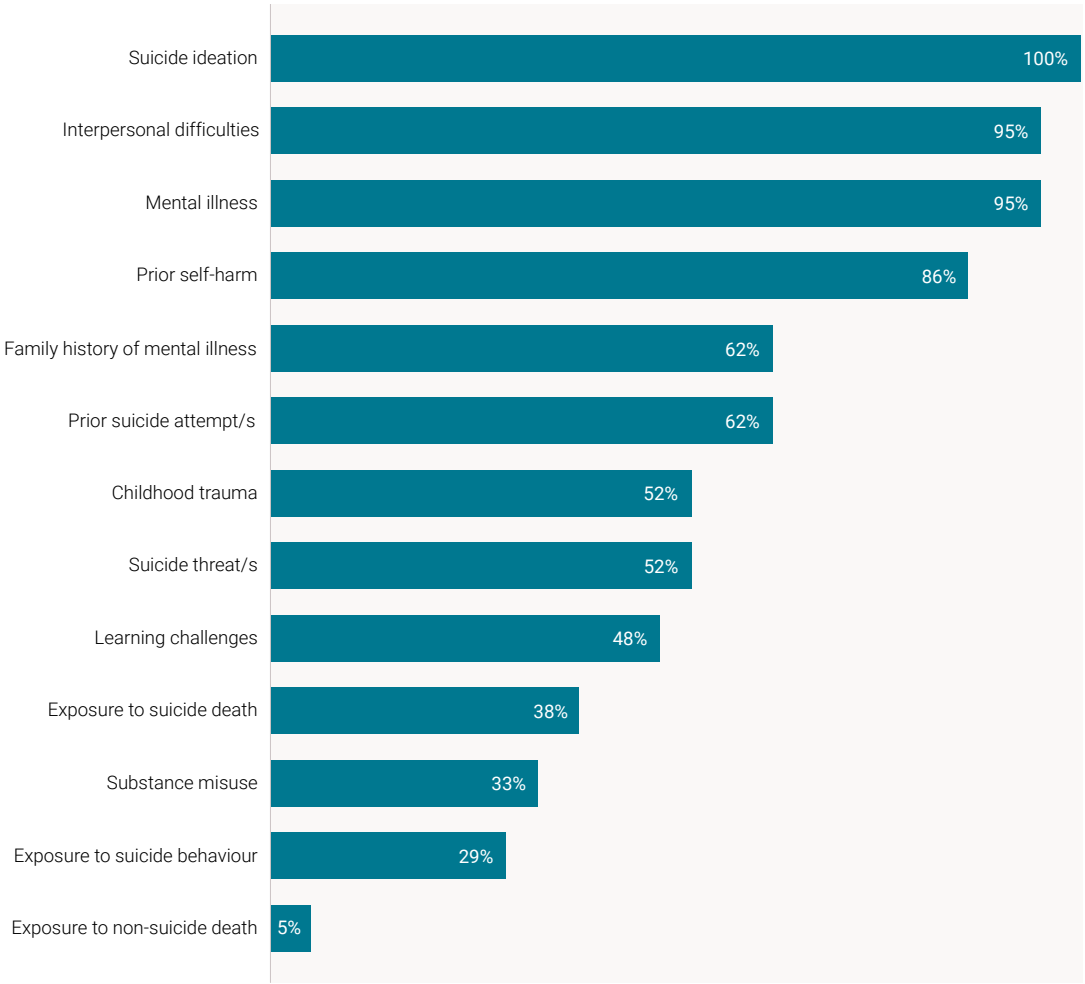
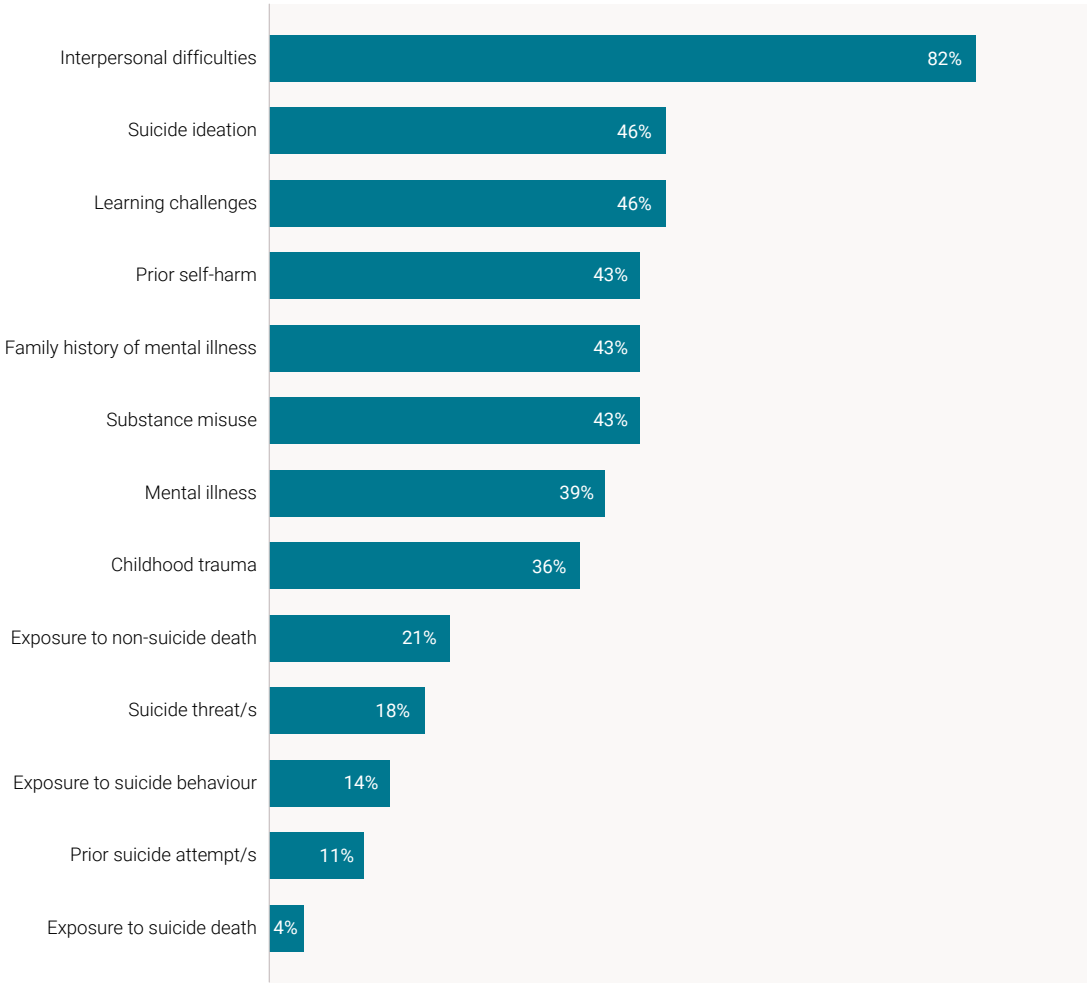


Figure 71
Factors for children not identified at risk
2022–2023

Children
10–17 years



Figures 70 and 71 show that many factors were similar for those identified as at risk of suicide to those not identified as at risk. The main differences between the 2 groups were the presence of suicide behaviours and mental health conditions, and the number with a complex combination of behaviours and factors.

For example, over half (62%) of children identified as being at risk had 10 or more factors present: all had expressed suicide ideation, and most had self-harmed, made a prior attempt or made threats. In addition, nearly all had a diagnosed mental health condition, and most were also experiencing interpersonal difficulties. By comparison, 29% (8) of children not identified as being at risk of suicide prior to their death had 10 or more factors.

6.6 Contact with services

Mental health services

Contact or engagement with mental services included:

- specialised public health services such as Child and Adolescent Mental Health Services (**CAMHS**), headspace, or an inpatient facility
- private practitioners such as a psychologist or psychiatrist following GP referral
- Emergency Department (**ED**) presentation
- general practitioners (**GPs**)
- counsellors and psychologists based at school or TAFE.

Of the 49 children who died by suicide in 2022 and 2023:

- There were 35 (71%) who had contact or engagement with mental health services within 12 months prior to death. Of these:
  - there were 12 who were engaged with a specialised public health service or private practitioner at the time of their death
  - those who were in contact or engaged with a combination of 2 or more services numbered 27.
- There were 14 (29%) who had no previous record of contact or engagement with mental health services.

GPs were the most common type of mental health support accessed by or provided to children within the 12-month period prior to their death (57%, 28). The other main types of services were specialised public mental health services (43%, 21), school-based counsellors and psychologists (31%, 15) and EDs (27%, 13). There were 22% (11) engaged with a private practitioner.

For the 21 children identified at risk of suicide, 95% (20) had contact with mental health services in the 12 months prior to their death, most commonly GPs (17), specialised public mental health services (14) and EDs (13). In comparison, 54% (13 of 28) of children not identified as at risk of suicide had contact with mental health services. In the group where risk was identified, children had more complex presentations, were more likely to engage in suicidal behaviour and almost all had contact with health services.

Other services

Most of the children who died by suicide in 2022 and 2023 had contact with agencies other than those related to mental health support:

- 20 (41%) were subject to a ROSH report made to the Department of Communities and Justice (**DCJ**) in the 3 years prior to their death, and for 12 of these, the reported risks were relevant to their mental health or risk of suicide. 10 (50%) of the children reported at ROSH received a face-to-face assessment in the 3 years prior to their death, including 2 children who were in care. 1 child had an open case plan at the time of their death.
- 7 (14%) had contact with NSW Police for a range of reasons including antisocial or offending behaviour (5), in relation to their mental health (2) or in connection with incidents of abuse perpetrated against them (1).
- 3 (6%) had contact with Youth Justice in relation to offences such as theft and assault.
- 42 (86%) were engaged in education including government and non-government schools and TAFE.

Open Child Death Review Team (**CDRT**) recommendation about mental health services for children and young people

The CDRT has previously observed that the identification of suicide risk must be supported by effective strategies to manage and contain risk to prevent suicide and that in NSW the demand for access to specialist mental health services for children and young people regularly outstrips the capacity to supply timely services.[90]

In June 2019, the CDRT recommended the NSW Government should include in any suicide prevention plan specific measures targeted to school-aged children and young people across the spectrum of need. This included the provision of targeted, sustained and intensive therapeutic support to young people at high risk – including strategies for reaching those who are hard to engage.[91]

In May and August 2025, NSW Health advised the CDRT about a range of activities and services aimed at improving sustained mental health support for children and young people and other work aimed at suicide prevention. While the continued endeavours of NSW Health to enhance child and adolescent mental health services and support young people at risk of suicide are encouraging, a gap analysis report on community mental health services conducted by the NSW Mental Health Minister[92] in December 2023, identified challenges for children and young people in accessing community mental health services and the increasing need and demand for the provision of mental health care for young people.[93] The CDRT is continuing to monitor this recommendation and reported on its progress in the CDRT's annual report, tabled in October 2025.

6.7 COVID-19 impacts

There was limited information in available records about the ongoing impact of the COVID-19 pandemic on the children who died by suicide in 2022 and 2023.

Our reviews identified that for 3 children impacts included social isolation being a trigger for mental health concerns and disengagement from education during and post COVID-19 lockdown periods.

There was no evidence of a direct causal link between the pandemic and the suicide death of any child.

90 NSW Child Death Review Team, *NSW Child Death Review Team Annual Report 2024-25* (Annual Report, 2025) **https://www.ombo.nsw.gov.au/reports/annual-report/nsw-child-death-review-team-annual-report-2024-25**.
91 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2020 and 2021* (Report, 2023) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2020-and-2021**.
92 The Hon Rose Jackson MLC.
93 NSW Ministry of Health, *NSW Community Mental Health Services Priority Issues Paper* (Paper, December 2023) **https://www.health.nsw.gov.au/mentalhealth/Documents/gap-analysis-report.pdf**.

6.8 Research and other initiatives

6.8.1 NSW Suicide Prevention Act 2025

The *Suicide Prevention Act 2025*[94] will commence on 1 December 2025. The Act provides for:

- a mandatory statewide suicide prevention plan and statewide Aboriginal suicide prevention plan, led by the Mental Health Commission
- requirements for every government department, including NSW Police, to develop a suicide prevention plan
- the establishment of 2 new advisory bodies, the NSW Suicide Prevention Council and the NSW Aboriginal Suicide Prevention Council, that include representatives with lived or living experience, of population groups disproportionately affected by suicide and those with professional or academic expertise
- a register of confirmed or suspected deaths of suicide, currently known as the NSW Suicide Monitoring System.

6.8.2 National Suicide Prevention Strategy 2025–2035

In February 2025, the National Suicide Prevention Office published the *National Suicide Prevention Strategy 2025–2035*[95] (**the Strategy**) to guide long-term, coordinated suicide prevention activities across Australia. The Strategy is a national approach to coordinating efforts in suicide prevention between Commonwealth and state and territory governments as well as across relevant portfolios.

The Strategy identifies younger people aged 15–24 years, among groups disproportionately affected by suicide, and refers to higher rates of self-harm hospitalisations and suicide attempts in young females. The Strategy notes that the disproportionate rates of suicide experienced by some cohorts are driven by inequities in social and economic circumstances, not inherent vulnerabilities. It focuses on addressing these underlying factors as well as ensuring the needs of specific groups are met.

The Strategy includes some recommended actions specific to addressing the underlying drivers that can lead to distress among children and young people. These include recommendations about service provision, education and prevention activities, access to services and increased support and aftercare along with actions to reduce the prevalence and impact of child abuse and neglect and family, domestic and sexual violence. The Strategy also references the importance of the *Early Years Strategy*[96] and recommends implementation of the *National Children's Mental Health and Wellbeing Strategy*.[97]

94 NSW Government, *Suicide Prevention Act 2025* (Commencement Proclamation, October 2025) **https://legislation.nsw.gov.au/view/pdf/asmade/sl-2025-582**.

95 National Suicide Prevention Office, *National Suicide Prevention Strategy 2025-2035*, (Strategy, January 2025) **https://www.mentalhealthcommission.gov.au/sites/default/files/2025-02/the-national-suicide-prevention-strategy.pdf**.

96 The Early Years Strategy is a 10-year national framework for the wellbeing of young children.

97 The National Children's Mental Health and Wellbeing Strategy outlines requirements for an effective system of care, including mental health and wellbeing, for children from birth to 12 years of age.

6.8.3 Holding Hope (Aboriginal and Torres Strait Islander suicide project)

As highlighted in this chapter, Aboriginal and Torres Strait Islander children are over-represented in suicide deaths of children aged 10–17 years. Over the 15-year period 2009–23, the NSW Register of Child Deaths recorded the deaths by suicide of 349 children, of whom 41 (12%) were identified as First Nations children.

In 2021, the CDRT commissioned the Ngarruwan Ngadju First People Health and Wellbeing Research Centre at the University of Wollongong to conduct research to identify opportunities for preventing and reducing the suicide deaths of Aboriginal and Torres Strait Islander children and young people.

The results of this 3-year study have been tabled in 2 separate reports (*Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales*[98] and *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales, Community Report*.[99]

EXTRACT

Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales

The overarching goal of this research was to identify opportunities for preventing the suicide deaths of Aboriginal and Torres Strait Islander children and young people in NSW. The research applied an Indigenist research approach across three research components: a case review of 43 deaths by suicide of Aboriginal and Torres Strait Islander young people over a ten-year period (2011–20); a review of recent relevant peer-reviewed and grey literature; and the implementation and analysis of data harvested from five regional consultation workshops.

A socioecological model provided an explanatory and integrative framework for the analysis of each of the components of the research, as a way of enhancing our understanding of the complexity of factors across the multiple domains that influence the lives of individual young people, and the interaction between these domains over time. This model highlights that Aboriginal and Torres Strait Islander children and young people are embedded within multiple domains that impact on their health and wellbeing. The socioecological model aligns well with an Indigenous worldview in recognising the multiple and intersecting influences on health and wellbeing. The model also supports a strengths-based approach that acknowledges historical and intergenerational trauma whilst reinforcing Indigenous self-determination and resilience.

Promoting a better understanding of the multiple factors that impact on the lives of First Nations young people can inform the development of multilayered interventions, programs and policy responses to this issue. In formulating a response to the complex issues raised in this report, governments need to take a holistic approach to preventing the death by suicide of young Aboriginal and Torres Strait Islander people. There is an urgent and pressing need for action that goes beyond the health sector. Government responses to frontline service delivery must include early intervention and prevention, throughcare and postvention. This requires a continuum of action from the precursors to crisis response, to throughcare and aftercare.

There is an emerging body of Indigenous-led research that demonstrates the need for an increase in suicide prevention programs that connect young Indigenous people to their culture and communities. For funded community-level programs to be successful, there is a need to build workforce capacity and to provide ongoing education and training opportunities, across metropolitan, rural and regional areas of NSW. The provision of culturally safe, trauma-informed and accessible training for Indigenous and non-Indigenous service providers as well as for Indigenous community members is also critical.

98 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* (Report to the NSW Child Death Review Team presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

99 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* (Community Report presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

EXTRACT

Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales

Continued

More than any other message, participants in our research stressed the desire for Aboriginal people and communities to be heard – for governments to listen to the ongoing and consistent calls for change from the Indigenous community. This message echoes decades of research and advocacy for systemic change to address the underlying disadvantage within Indigenous communities as a result of ongoing colonisation. We need to develop a deeper understanding of the complexities inherent in young Indigenous people's lives and to respond by providing service systems that are developmentally and culturally responsive and ensure that Aboriginal and Torres Strait Islander young people, families and communities are supported in times of distress. Fundamentally, there is an urgent need to act.

Holding Hope calls for urgent, strategic and coordinated action. The framework presented in the previous section offers a culturally grounded structure to interpret the research, integrate insights with past reports and recommendations, and elevate the voices of children and young people. It ensures that reforms are anchored in cultural wisdom, translated through effective service systems and resourced to support locally led solutions, that not only saves lives today but sustains the promise of empowering the next generation and a brighter tomorrow for our children and young people. What follows is a set of detailed recommendations each explicitly mapped to the framework developed to guide targeted, coordinated action.

The evidence is clear, the voices are insistent: it is time for urgent, sustained action.

The report makes 23 recommendations in four key domains: Governance and accountability; System reform and investment; Service design and delivery; Cultural wisdom and community healing.

Recommendation

In light of the findings of the Holding Hope report and the *Suicide Prevention Act 2025*, the CDRT recommends:

2

The Mental Health Commission (as well as the Aboriginal Suicide Prevention Council and the Suicide Prevention Council, when advising the Commission) consider the findings of the *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* report, including for the purpose of:

a) Preparing and implementing Statewide suicide prevention plans under the *Suicide Prevention Act 2025*, and
b) Ensuring the Statewide Aboriginal suicide prevention plan is aligned with the needs and cultural frameworks of Aboriginal people.

6.9 Observations and discussion

6.9.1 Children 10–14 years

Research indicates that some children may be able to understand the concept of suicide, and carry it out, from as early as the age of 8.[100] The *Kids Helpline Impact Report 2023*[101] describes suicide as the third highest issue raised by children and young people who contact the service with a 2.6% increase from 2022 in the number of children aged 10–14 years receiving counselling for self-injury or self-harm.

The NSW Register of Child Deaths does not hold any record of death by suicide of a child younger than 10 years (1996–2023). As discussed in this chapter, the rates for younger children aged 10–14 years have increased over time.

In October 2024, the CDRT wrote to the National Suicide Prevention Office and advised that between 1996 and 2023, 115 children aged less than 15 years died by suicide, including 31 (26%) in the most recent 5 years (2019–2023). This included 3 deaths of children aged 10 years, 5 deaths of children aged 11 years, 13 deaths of children aged 12 years, 29 deaths of children aged 13 years, and 65 deaths of children aged 14 years.

The CDRT suggested the *National Suicide Prevention Strategy 2025–2035* (**the Strategy**) 'acknowledge the risk of suicide in children younger than 15 and the specific needs of this group of children, as well as including a clear definition of "children" and young people'.

The CDRT acknowledges that the Strategy builds upon existing frameworks such as the *National Children's Mental Health and Wellbeing Strategy*, *National Strategy to Prevent and Respond to Child Sexual Abuse 2021–2030*, and *Safe and Supported: the National Framework for Protecting Australia's Children 2021–2031*, seeking to align numerous policy documents and see them implemented. While each of these important national strategy and policy initiatives are relevant to children, the CDRT notes the Strategy does not reference that children younger than 15 years die by suicide, as suggested by the CDRT in correspondence to the National Suicide Prevention Office. The *Strategic Framework for Suicide Prevention in NSW 2022–2027*[102] also makes no specific reference to children younger than 15 years. This is considered further in the recommendation below.

100 Kairi Kõlves and Diego,'Suicide Methods in Children and Adolescents' (2017) 26(2) *European Child & Adolescent Psychiatry* 155 **https://pubmed.ncbi.nlm.nih.gov/27194156/**.

101 Yourtown, *Kids Helpline Impact Report 2023* (Report, 2025) 8–9 **https://publications.yourtown.com.au/kids-helpline-impact-report-2023/page/8-9**.

102 Mental Health Commission of NSW, Shifting the Landscape for Suicide Prevention in NSW: A whole-of-government Strategic Framework for a whole-of-community response 2022-2027 (November 2022) **https://www.health.nsw.gov.au/mentalhealth/Pages/suicide-prevention-strategic-framework.aspx.**

6.9.2 Females have higher rates of intentional self-harm hospitalisation

The deaths of young people due to suicide in NSW sits within a broader context of hospitalisations due to intentional self-harm.

Information held by NSW Health in relation to intentional self-harm hospitalisations for children and young people aged 10–17 years is not directly comparable with data from the Register. However, NSW Health injury data[103] shows the rates of self-harm hospitalisations for children in NSW aged 10–14 years are approximately 59 times higher than suicide deaths in this age group.[104]

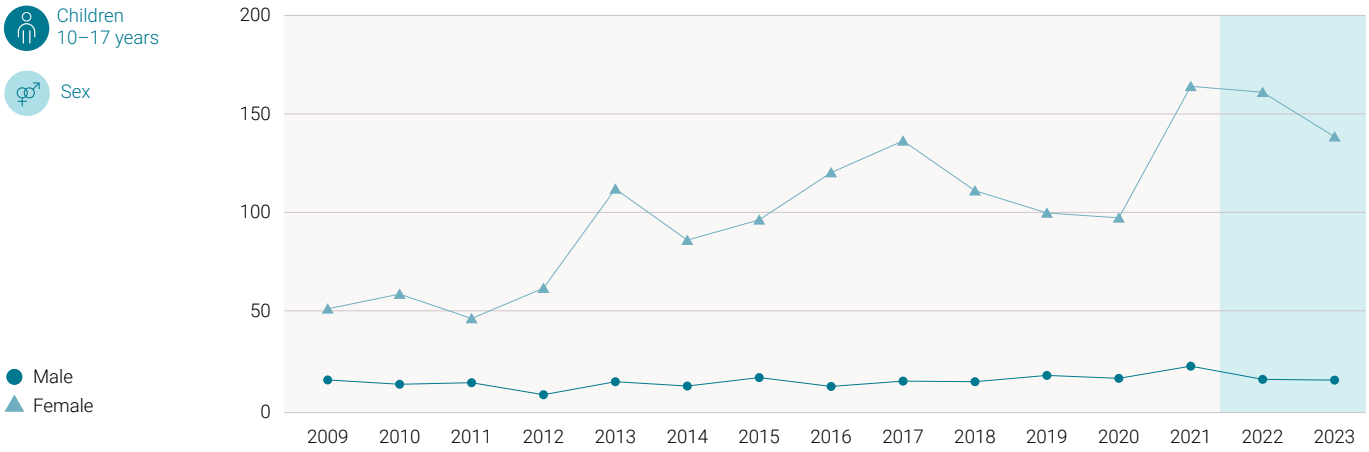
NSW Health reports that rates of self-harm hospitalisations are consistently higher for females across all age groupings.

For females in NSW aged 10–14 years, the rate of self-harm hospitalisation over the past 15 years is on average 7 times higher than the rate for males.

Baseline data from the Black Dog Institute's '*Future Proofing Study*' (February 2023),[105] noted that rates were higher for females across all mental health measures (depression, anxiety, psychological distress and suicide ideation) as well as for intentional self-harm.

As reported in this chapter, suicide rates for females aged 10–17 years have increased over the past 15 years and the gap in suicide rates for male and female young people has narrowed over the past 5 years.

Figure 72
NSW self-harm hospitalisations, 10–14 years, by sex
2009–2023



103 NSW Health data is for admitted patients. Emergency department data is not included. It is likely that the number of self-harm presentations to emergency departments is larger than the number admitted.
104 'Intentional Self-harm Hospitalisations by Sex for 10–14 Years', *Health Stats NSW* (Web Page) https://www.healthstats.nsw.gov.au/indicator?name=-men-sui-hos&location=NSW&view=Trend&measure=DSTRate&confidence=true&groups=Age%20(years),Sex&compare=Sex,Age%20(years)&filter=Sex,Females,Males&filter=Age%20(years),10-14%20years
105 Black Dog Institute, Future Proofing Summary (Summary, February 2023) https://www.blackdoginstitute.org.au/wp-content/uploads/2020/05/Future-Proofing-Summary.pdf..

Recommendations

The CDRT acknowledges that the *National Suicide Prevention Strategy 2025–2035* builds upon existing frameworks such as the *National Children's Mental Health and Wellbeing Strategy*, *National Strategy to Prevent and Respond to Child Sexual Abuse 2021–2030*, and *Safe and Supported: the National Framework for Protecting Australia's Children 2021–2031*, seeking to align numerous policy documents and see them implemented.

While each of these important national strategy and policy initiatives are relevant to children, the CDRT notes the Strategy does not specify the ages of the children and young people targeted in specific actions and does not reference that children younger than 15 years die by suicide, as suggested by the CDRT in correspondence to the National Suicide Prevention Office. The *Strategic Framework for Suicide Prevention in NSW 2022–2027* also makes no specific reference to children younger than 15 years. This is considered further in the recommendations below.

3

Noting the increasing rate of death by suicide for children younger than 15 years, and for female children their rates of self-harm, the NSW Government ensure that the Statewide suicide prevention plan and Statewide Aboriginal suicide prevention plan under the *Suicide Prevention Act 2025*, and any new mental health initiatives, contain measures focused specifically on children younger than 15 years and targeted toward addressing risk factors (including individual and societal).

4

Noting the increasing rate of death by suicide for children younger than 15 years, and for female children their rates of self-harm, the Australian Government ensure that any actions and initiatives that support the *National Suicide Prevention Strategy 2025–2035*, and any new mental health initiatives aimed at children and young people, contain measures focused specifically on children younger than 15 years and targeted toward addressing risk factors (including individual and societal).

6.9.3 Statewide approach to bullying in NSW

Since 2011, the CDRT has publicly reported on bullying as a factor in the suicide-related deaths of children and young people aged 10–17 years in NSW in its annual and biennial reports on child deaths.

In November 2024, the NSW Government announced the NSW Schools Advisory Council, including representatives from all education sectors, would be convened to begin work on a statewide approach to bullying to address common factors and ensure all schools in NSW respond to bullying consistently. In July 2025, the CDRT wrote to the Minister for Education[106] providing information to assist the Council as it considers the advice to be provided to schools across NSW.

The information provided related to the 159 suicide deaths of children and young people aged 10–17 years between 2018 and 2023, including that 30% of these young people were identified as having experienced bullying in the 12 months prior to their death. The CDRT advised the Council that of the young people who were identified as having experienced bullying:

- 29% experienced bullying proximal to their death (for some within the week prior).
- 22% left school or commenced distance education in response to their experience of bullying. In some circumstances the incoming school was unaware of the young person's history and experience of bullying and in many cases, bullying also occurred at the new school.
- 37% experienced chronic absence from school, in some cases for medical reasons, including deteriorating mental health, and in other cases without explanation. At times, this led to disengagement from school and peers, a decline in academic performance, and increased social isolation.
- Behavioural concerns including disruptive behaviour in classrooms, physical altercations with other students and other behavioural incidents were evident, with 20% of the young people subject to suspension and a small number identified as displaying bullying towards others.
- 27% had a diagnosed disability, most commonly autism spectrum disorder and attention deficit hyperactivity disorder. Other disabilities included learning disorders, social communication disorder and acquired brain injury. There was evidence in some instances that a young person's disability affected their social interactions at school.
- 18% identified as LGBTIQ+.
- For 6%, bullying involved students from different schools in the same local area, highlighting the need for a coordinated approach to information sharing and responding to incidents between schools, including across government and non-government schools.
- 14% were subject to bullying that occurred online, sometimes in combination with bullying that occurred at school. This also included instances where intimate images were shared or distributed.

The CDRT advised the Minister that it supports a statewide approach to bullying in NSW and considers this to be an opportunity for the Council to provide advice to schools across NSW about:

- best practice approaches to recording, reporting and responding to bullying
- managing transitions between schools for young people who have experienced bullying
- sharing information and responsibility when incidents occur across schools
- responding to online bullying, including raising awareness among schools, parents/carers and students of the eSafety Commissioner and its powers in relation to cyberbullying and online content
- understanding factors that may place a young person at greater risk of being bullied, along with factors that protect against poor mental health and improve outcomes overall.

106 The Hon (Prue) Prudence Car MP.

6.9.4 Sexual extortion

Sexual extortion or 'sextortion' is a form of online blackmail that involves a young person being tricked or coerced into sending sexual images of themselves to a third party who then threatens to share the images unless they comply with certain demands, typically a request for money. The Australian Centre to Counter Child Exploitation (**ACCCE**) reports a current global trend of offenders targeting adolescent males on social media.[107]

The *Kids Helpline Impact Report 2023*[108] reported contacts in relation to sextortion escalated to an average of 1 per day in December 2023 (from less than 5 per month prior to January 2021), noting those impacted were predominately males aged 15–18 years. In 2022 and 2023, the suicide deaths of 2 young people, both males aged 16 years, occurred within minutes or hours of an incident of sexual extortion. In 1 case, the young person had multiple risk factors including suicide behaviours, interpersonal issues and mental illness; in the other case, the young person had no other identified risk factors.

Sexual extortion of children and young people under 18 years of age is considered child sexual abuse and must be reported to the police. The Australian Federal Police have developed a program, ThinkUKnow,[109] providing information about recognising and reporting sexual extortion to the ACCCE, and the NSW Police Force also provides information about reporting and responding to sexual extortion.[110]

The Department of Education has advised the CDRT that they are actively engaged in ensuring students are safeguarded from online harm, including sextortion, via a range of initiatives that include:

- capacity building for staff across the department including Child Wellbeing Unit and school counselling personnel
- cross-education sector engagement with key partners such as the e-Safety Commissioner and headspace to increase prevention efforts and provide guidance to schools, young people and families
- support for schools in the management of incidents
- opportunities for students to learn about online safety and issues such as sextortion via the Personal Development, Health and Physical Education curriculum.

107 'Sextortion', *Australian Centre to Counter Child Exploitation* (Web Page) **https://www.accce.gov.au/sextortionhelp**.
108 Yourtown, *Kids Helpline Impact Report 2023* (Report, 2025) 12–13 **https://publications.yourtown.com.au/kids-helpline-impact-report-2023/page/12-13**.
109 Online Blackmail and Sexual Extortion Response Kit', *Australian Centre to Counter Child Exploitation and Australian Federal Police* (Web Page, 2023) **https://www.accce.gov.au/sites/default/files/2023-03/Online_blackmail_and_sexual_extortion_response_kit_March2023.pdf**.
110 NSW Police Force, *Sextortion and Image Based Abuse* (Fact Sheet, 2022) **https://www.police.nsw.gov.au/__data/assets/pdf_file/0004/862663/Asset_886888_Flyer_-_Sextortion_3.pdf#:~:text=NSW%20Police%20Force%20takes%20sexual,it%20is%20not%20your%20fault**.

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7

External causes of death

Homicide

7

Section summary

Homicide

IN 2022–2023

11 children died by homicide

2022 2023 2-year period

11 children aged 0–17 died:

MALE CHILDREN — 10 of 11

CHILDREN AGED 13–17 YEARS — 6

all of whom were males killed in circumstances of peer homicide.

AVERAGE MORTALITY RATE

0.31 per 100,000

2009 2023 15-year period

There has been little change in the rate of homicide deaths over the 15-year period, with variation between rates from year to year:

2010

A high of
↑0.86
per 100,000

14 deaths

2013

a low of
↓0.12
per 100,000

2 deaths

Key observations

PEER HOMICIDE — **2022–2023**

CHILDREN OVER 10 YEARS — 6 of 7

Victims and offenders in peer-related homicides often exhibit similar risk factors, including:

- Adverse childhood experiences
- School disconnection
- Risk-taking or antisocial behaviour
- Homelessness

FAMILIAL HOMICIDE — **2022–2023**

CHILDREN UNDER 10 YEARS — 4

CHILDREN OVER 10 YEARS — 1

These continue to be common factors in familial homicide:

- Mental health
- Drug and alcohol misuse
- A history of domestic and family violence

7.1 Background

This chapter examines the homicide deaths of 11 children aged 0–17 in NSW in 2022 and 2023; 7 in 2022 and 4 in 2023.

It includes all deaths classified by the Ombudsman as 'abuse' – defined as an act of violence by any person directly against a child or young person that causes injury or harm leading to death.

All deaths reported in this chapter are reviewable by the Ombudsman.

7.2 Trends

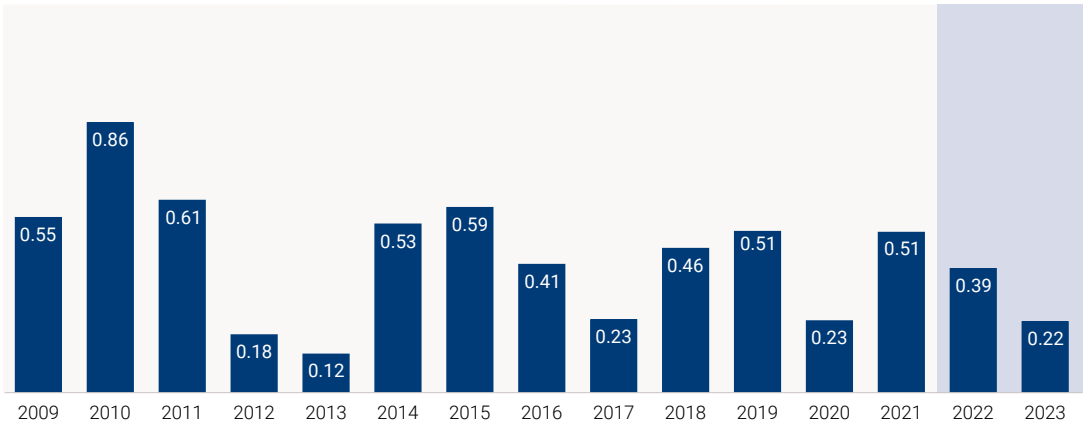
7.2.1 Deaths in 2022 and 2023

In 2022 and 2023, 11 children aged 0–17 years died by homicide, an average rate of mortality over the 2 years of 0.3 per 100,000.

7.2.2 15-year trend

Figure 73
Homicide deaths of children aged 0–17 years
Rate per 100,000, 2009–2023

All children 0–17 years



Despite considerable variation in the rate from year to year over the 15-year period, the rate of deaths due to homicide has remained relatively stable.

7.3 Demographics: 15-year findings

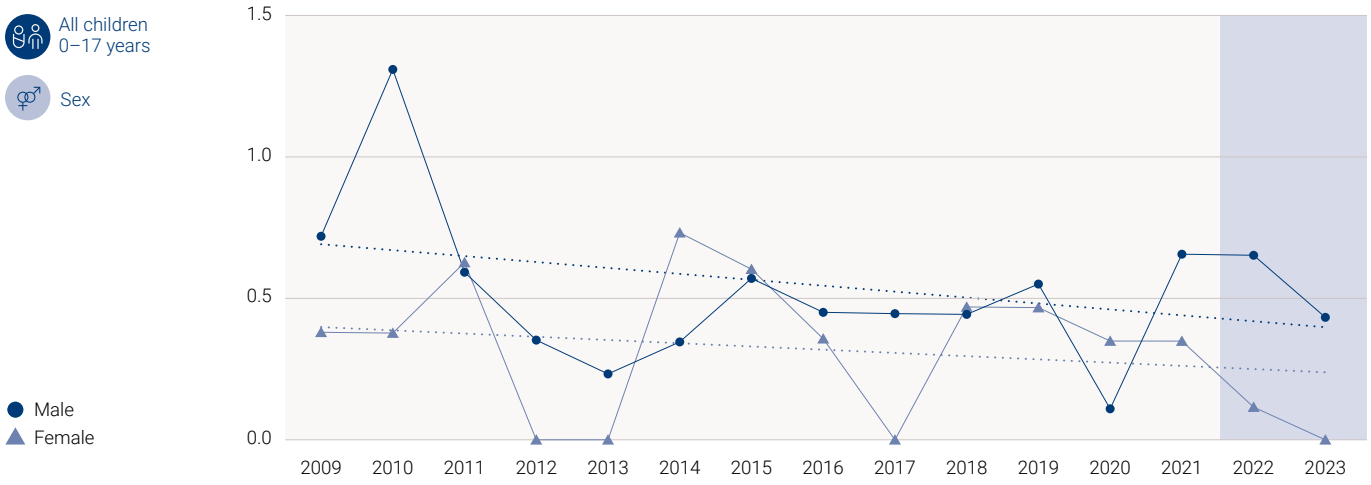
Over the past 15 years, the mortality rates for homicide have varied over time, with some years standing out as particularly low or high. While the overall average has remained steady, there is some disparity between and within certain demographic groups.

Over the 15 years

- Males had higher rates on average than females.
- Rates for infants have generally been higher than rates for older children.
- There is greater instability in the rates for Aboriginal and Torres Strait Islander children, and they have been typically higher than rates for non-Indigenous children.
- Rates are higher for children living in the areas of greatest socio-economic disadvantage.

7.3.1 Sex

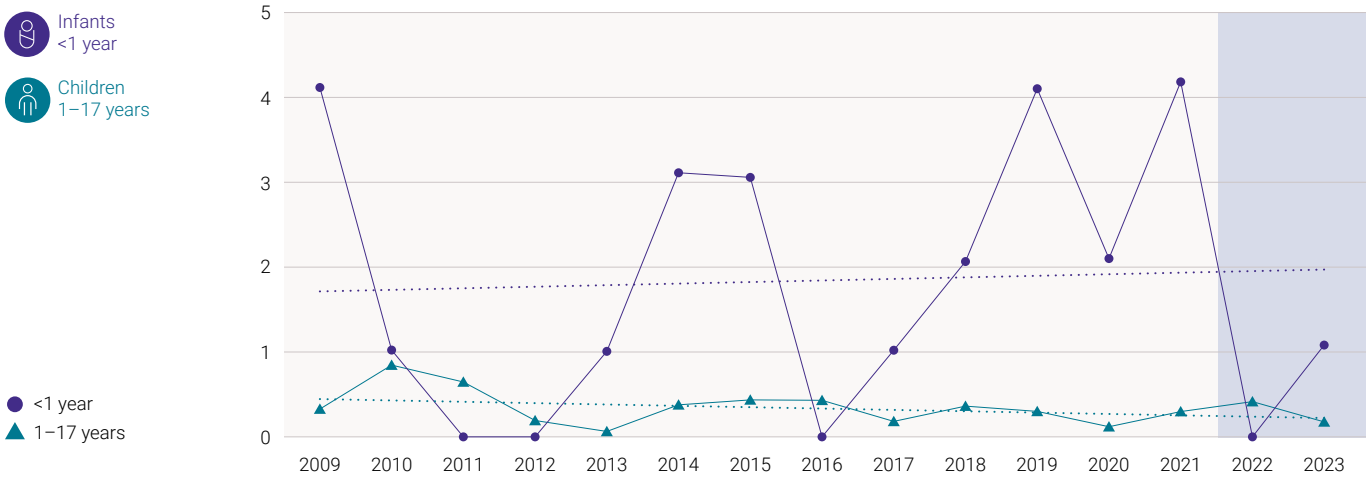
Figure 74
Homicide mortality rates by sex
Rate per 100,000, 2009–2023



Over the 15-year period, the rates for males were on average 1.6 times higher than the rates for females.

7.3.2 Age

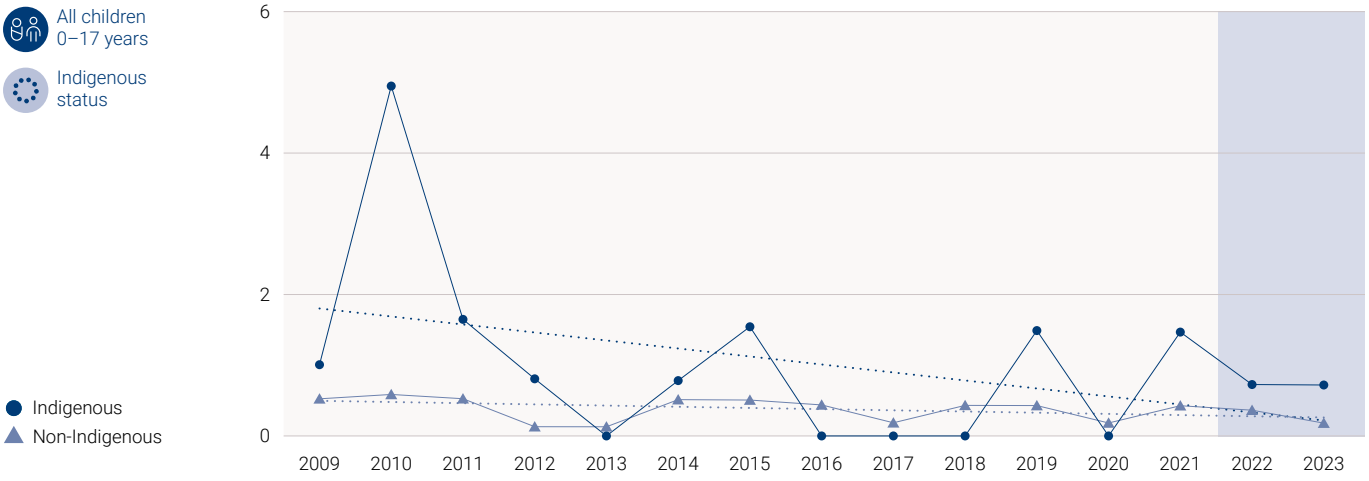
Figure 75
Homicide mortality rates by age
Rate per 100,000, 2009–2023



The rates were higher for infants than for children aged 1–17. Over the 15-year period there was little change in the rates for both infants and children overall.

7.3.3 Indigenous status

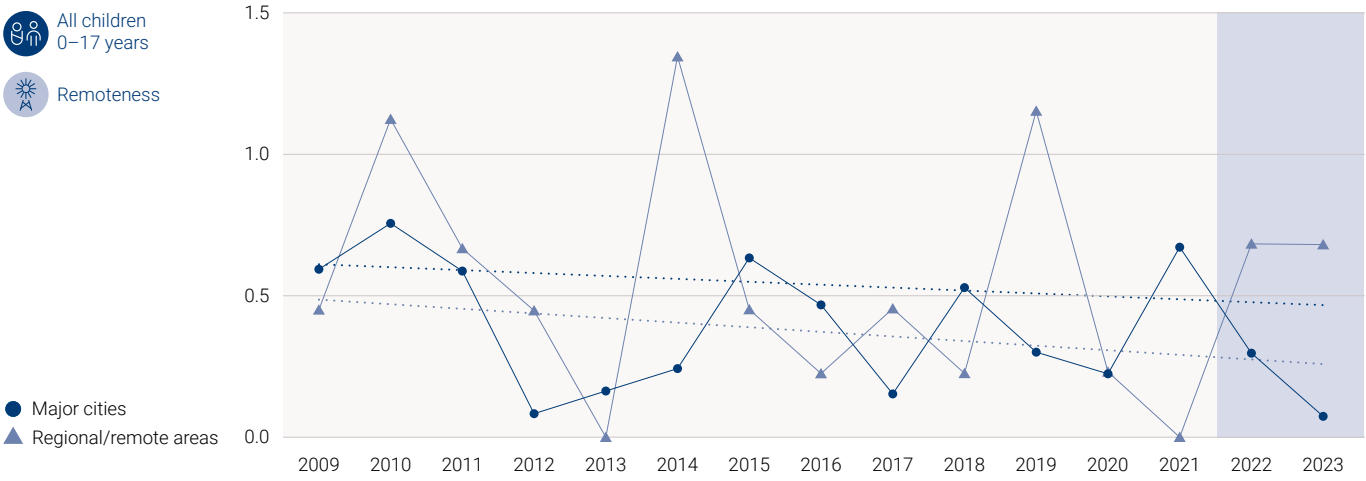
Figure 76
Homicide mortality rates by Indigenous status
Rate per 100,000, 2009–2023



Over the 15 years, the rates were higher for Aboriginal and Torres Strait Islander children. There was little change in the rates for both Indigenous and non-Indigenous children overall.

7.3.4 Remoteness

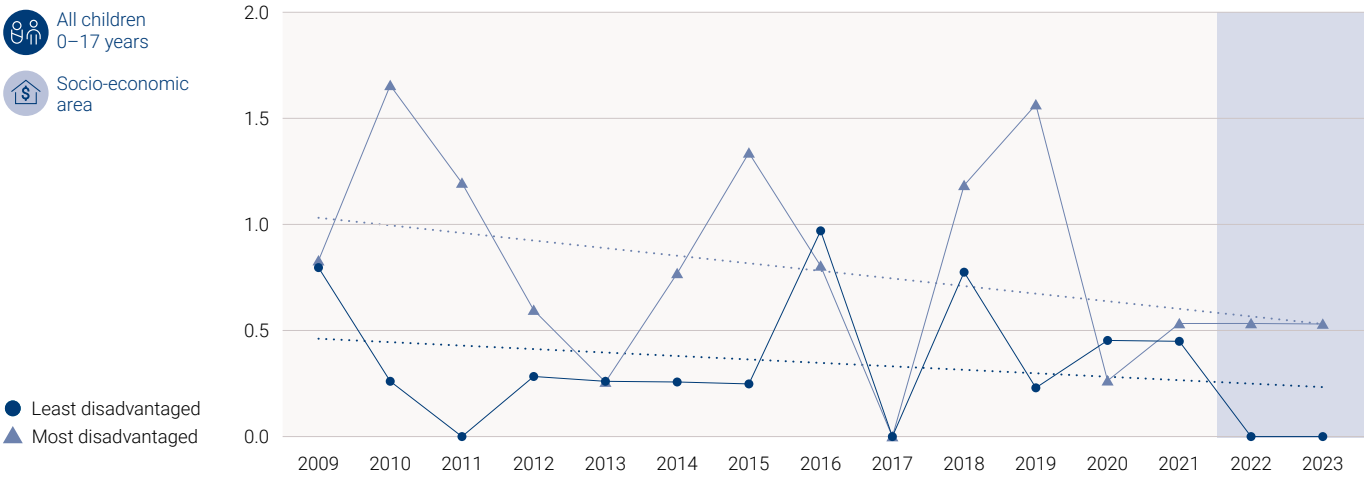
Figure 77
Homicide mortality rates by remoteness
Rate per 100,000, 2009–2023



In the 15-year period the rate varied but did not change overall for both children living in major cities and those living in regional and remote areas. Overall, there was no difference between the rates for those living in major cities and those living in regional and remote areas.

7.3.5 Socio-economic areas

Figure 78
Homicide mortality rates by socio-economic area
Rate per 100,000, 2009–2023



On average, the rate over the 15-year period has been higher for children living in areas of the most socio-economic disadvantage. Overall, the rates for those living in both the least and most disadvantaged areas have not changed.

7.4 Circumstances and persons causing harm

7.4.1 Circumstances of homicide deaths in 2022 and 2023

The 11 children died in 11 separate incidents:

- 6 children aged 13–17 years were killed by unrelated individuals in the context of peer violence.
- 5 children (3 aged under 5 years; 1 aged 9 years; and 1 aged 15 years) were killed in the context of familial abuse by a biological parent (3) or by a step-parent or partner of the child's parent (2).
- The 3 biological parents included 2 fathers and 1 mother. The step-parent and partner were both males.

Charges and convictions

At the time of writing, police investigations identified 18 males and 1 female responsible for, or allegedly responsible for, the deaths of 11 children.

In 3 cases, more than 1 person is implicated in the death. All 3 relate to instances of peer homicide.

Criminal charges against 8 individuals were finalised at the time of writing:

- **Convictions** – 4 individuals were convicted of offences including murder and manslaughter in relation to the deaths of 4 children.
- **Acquittals** – 2 young people had offences dismissed under the *Children (Criminal Proceedings) Act 1987*; 1 young person aged 13 years was found not guilty by reason of an inability to form criminal intent ('doli incapax').
- **Not criminally responsible** – murder charges for 1 person were finalised with a special verdict of 'act proven but not criminally responsible'. The offender was detained in a facility for treatment.

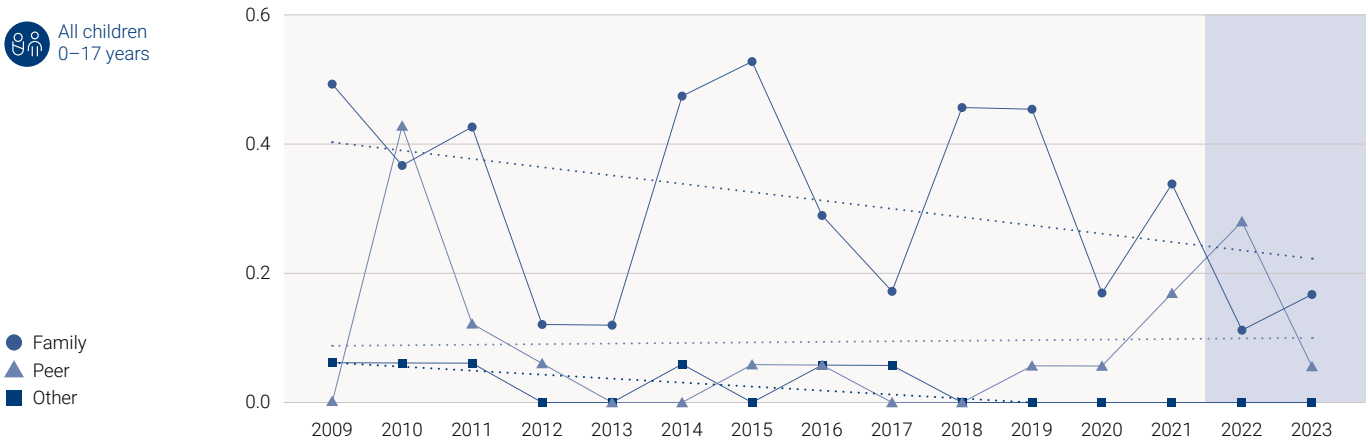
Criminal proceedings are still underway for 10 persons of interest in relation to the deaths of 5 children.

In 1 case, the person of interest died by suicide at the time of the offence, so the matter did not proceed to charges.

7.4.2 15-year trend in circumstances

Figure 79
Homicide mortality rates by type of circumstance
Rate per 100,000, 2009–2023[111]

All children 0–17 years

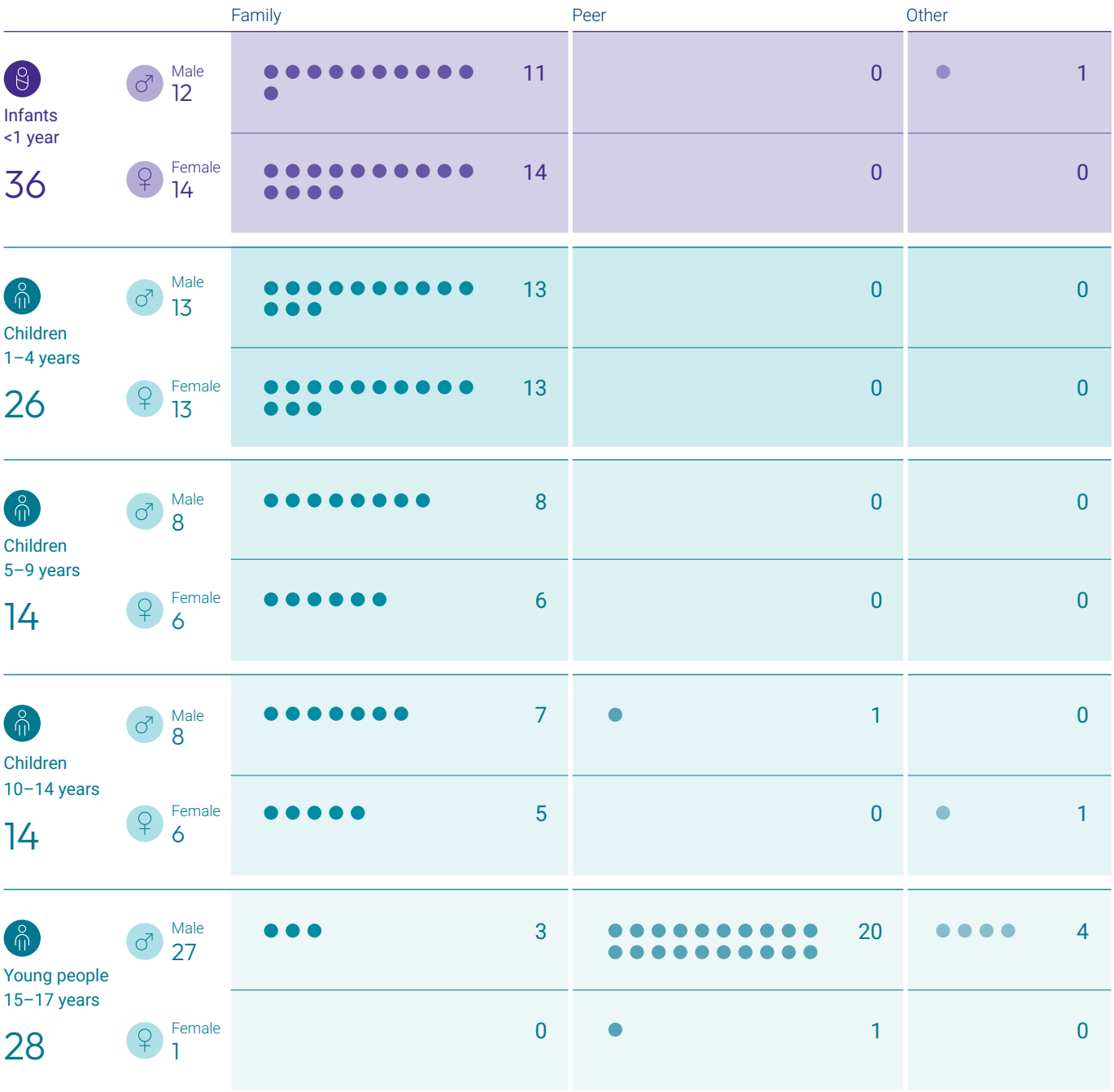


Overall, in the 15 years from 2009 to 2023, the mortality rates for child homicide that occurred in the context of familial abuse were higher than the rates for those that occurred in the context of peer violence.

On average over the 15-year period, deaths occurring in the context of familial abuse (80) were 3.5 times higher than those related to peer violence (22).

111 Other relationships with the child who died include persons who were not family members or peers, regardless of whether they were known to the child.

Figure 80
Homicide mortality rates by age, sex and type of circumstance
Rate per 100,000, 2009–2023[112]



Trends across the 15-year period show that:

- Most child homicide occurs within families, except for young people aged 15–17, where deaths are mostly associated with peer-related violence.
- For younger children, deaths of males and females are similar, with slightly higher numbers for female infants than male infants.
- In older cohorts, males make up an increasing number of homicide-related deaths, and for young people aged 15–17 years, males make up the overwhelming majority of deaths.

112 Other relationships with the child who died include persons who were not family members or peers, regardless of whether they were known to the child.

7.5 Risk factors

Understanding risk factors is important when considering effective prevention and early intervention strategies and identifying families who are most likely to benefit from additional support.

Familial homicide

Well-recognised risk factors associated with fatal assault in a familial context include parental mental illness, alcohol and drug abuse, and a history of domestic or other violence.

In the 5 cases of homicide that occurred in a familial context:

- Mental health concerns were identified for all 5 offenders or persons of interest. Conditions included psychosis (3), schizophrenia (2), depression (2), personality disorder (2) and anxiety (1). There were 3 individuals that had a diagnosis of 2 or more conditions. At the time of the incidents, 2 individuals were being treated or had recently been treated for their mental health; the remaining 3 had a history of diagnosed mental illness but were not being treated or had other undiagnosed mental illness at the time of the death.
- In 4 cases, offenders or persons of interest had a history of drug and/or alcohol abuse. In 2 cases individuals were known to be using illicit drugs at or around the time of the death, 1 of whom was receiving treatment for drug and alcohol misuse.
- In 3 cases, there was a recorded history of domestic and family violence, with 3 offenders or persons of interest having a recorded background of perpetrating domestic violence. In 1 case, an individual was subject to an Apprehended Domestic Violence Order (**ADVO**), unrelated to the family of the child who died.
- In 4 out of the 5 cases, 3 or more risk factors were identified as being present.

Other issues were identified for offenders or persons of interest, including a background of abuse or trauma, disability and criminal histories.

Peer homicide

The NSW Ombudsman previously conducted a 10-year review of adolescents aged 14–17, who died between 2002 and 2011 following incidents of violence with their peers. This review found that victims and offenders often have similar profiles, including engaging in risky or dangerous behaviour. In addition, more than one-third of the victims, and half of the offenders, had at some point been identified as vulnerable or 'at-risk' adolescents.[113]

Detailed discussion of the 6 cases of homicide that occurred in the context of peer violence in 2022 and 2023 is included in **Section 7.7**.

7.6 Response to families at risk

For the families of the 11 children who died in 2022 and 2023, prior involvement with government agencies included:

- 5 families were known to the Department of Communities and Justice (**DCJ**). For 3 families, reports of risk of significant harm (**ROSH**) had been made in the 3 years prior to the death and 2 families had an open case plan at the time of the death.
- 1 child was presented to an emergency department 5 days prior to their death with a serious injury (not the cause of their subsequent death).
- NSW Police were involved with 3 persons of interest in relation to domestic and family violence (2) and firearms licensing (1). 1 individual had an outstanding arrest warrant with interstate police relating to domestic violence and other offences.
- Corrective Services NSW were involved with 1 person of interest, who had been on supervised parole until 4 months prior to the death when the supervision was suspended.

113 NSW Ombudsman, *Report of Reviewable Deaths 2010 and 2011*, Volume 1: Child Deaths (Report, 2013) https://cmsassets.ombo.nsw.gov.au/assets/Reports/Reviewable-Deaths-Child-Death.pdf.

7.7 Discussion

7.7.1 Peer homicide

In the 4-year period from 2020 to 2023, there were 10 homicide deaths of children that occurred in the context of peer violence, with most (8) of the deaths occurring in 2021 and 2022. This compares to 3 such deaths in the 6-year period from 2014 to 2019.

Of the 10 cases in the 4-year period, the majority involved multiple offenders or persons of interest (5) or occurred in circumstances where there were multiple other young people present (3).

Half of the cases involved a fight between groups of young people. In 4 cases fights were planned, with 2 instigated by an offender or person of interest and 2 instigated by the child who died.

Previous conflict and rivalry existed between groups and/or individuals in 6 cases. This conflict included alleged gang affiliation, breaks in friendship groups and/or animosity relating to an intimate partner.

In the 2 cases involving a single offender, there had been minimal contact between the victim and offender prior to the incident.

All victims were aged 16–17 years, except 1 victim who was aged 13 years. All except 1 were male. All except 1 were stabbed.

Offenders ranged in age from 13 to 36 years. Only 1 case involved female offenders or persons of interest.

There were 6 deaths that occurred in the greater Sydney metropolitan area and 4 that occurred in regional areas. 3 occurred in periods of 'lockdown' during the COVID-19 pandemic, with 2 in Western Sydney and 1 occurring after the curfew was placed in 'LGA's of concern' (23 August 2021) restricting residents to their homes between 9 pm and 5 am.

Issues identified for both victims and offenders or persons of interest included:

- homelessness
- non-attendance and suspension at school
- adverse childhood experiences such as childhood abuse and neglect and experiences of domestic and family violence
- affiliation with gang type activities
- contact with police and juvenile justice.

In 6 cases the offenders or persons of interest had a child protection history with 1 living in an Out-of-Home-Care arrangement. Four of the victims had a child protection history.

In 5 cases the offenders or persons of interest included young people not enrolled at school or TAFE or engaged in employment. In 2 of those cases, the victims were also not enrolled in study or employed.

Offenders were charged in all 10 cases with offences including murder, manslaughter, grievous bodily harm, accessory after the fact and affray. In 7 matters, offenders were found guilty and given custodial sentences, except for 1 who was found not to be criminally responsible and referred to the Mental Health Review Tribunal. In 2 cases, offenders were acquitted.

Criminal outcomes are still pending for 11 persons of interest in connection with 3 deaths.

NSW Government response to youth crime

The NSW Government has recently announced a range of initiatives related to youth crime, particularly violent crime and crime in regional areas, which include:

- **A $26.2 million community safety and wellbeing package** (March 2024[114] that includes legislative reforms (such as amendments to the *Bail Act 2013* for young people aged 14–18 and charged with certain serious offences while on bail for the same offences; and a new offence in the *Crimes Act 1900* imposing additional penalties for offences relating to motor vehicle theft or break and enter where material is shared that advertises a person's involvement in those crimes), and various initiatives to support young people and improve community safety.
- **An inquiry into community safety in rural and regional communities** (March 2024)[115] whose terms of reference include addressing the drivers of youth crime in regional and rural NSW, how a whole of government approach can reduce drivers and root causes, and the availability of wraparound and diversionary services. An interim report,[116] tabled in May 2025, makes several recommendations relevant to young people and addresses the drivers of youth crime through early intervention. The final report is to be tabled by November 2025.
- **NSW Police Force operations** including Operation Foil[117] targeting knife-related crime (most recently in June 2025) and Operation Pivot targeting pro-active engagement of NSW Police with at-risk young people via anti-violence presentations in NSW schools.[118]
- **Other NSW law reform responses** including increased penalties for carrying a knife in a public place, the introduction of wanding powers in public areas and a law preventing the sale of knives to anyone under the age of 18 years.
- **A review of doli incapax[119] for young offenders under 14** following the release of a BOCSAR report[120] that identified a decline in the number of young people aged 10–13 years found guilty of a criminal offence in NSW and raised questions about the best way to support young people to reduce future criminal involvement. The review, released in October 2025, reported on the operation of, and legislative options for the presumption of doli incapax in NSW. The review made 7 recommendations about legislative amendments and additional police training and guidance on the operation of the presumption. The NSW Government is considering the recommendations.[121]

114 NSW Government, 'NSW Government takes Action to Make Communities Safer and Support Young People in Regions' (Media Release, 12 March 2024) **https://www.nsw.gov.au/media-releases/nsw-government-takes-action-to-make-communities-safer-and-support-young-people-regions#:~:text=The%20NSW%20Government%20has%20today,prevention%20programs%20for%20young%20people**.

115 'Community Safety in Regional and Rural Communities', *Parliament of New South Wales* (Web Page) **https://www.parliament.nsw.gov.au/committees/inquiries/Pages/inquiry-details.aspx?pk=3042#tab-termsofreference**.

116 Legislative Assembly Committee on Law and Safety, Parliament of NSW, *Community Safety in Regional and Rural Communities, Interim Report: Addressing the Drivers of Youth Crime Through Early Intervention* (Interim Report, May 2025) **https://www.parliament.nsw.gov.au/ladocs/inquiries/3042/Report%20-%20Community%20safety%20in%20regional%20and%20rural%20communities%20-%20interim%20report%20addressing%20the%20drivers%20of%20youth%20crime%20through%20early%20intervention.pdf**.

117 NSW Government, 'Operation Foil – 2-day Statewide Operation Targeting Knife Related Crime' (Media Release, 20 June 2023) **https://www.nsw.gov.au/media-releases/police-operation-against-knife-crime**.

118 NSW Police Force, *Youth Strategy 2023–2025* (Strategy, 2023) **https://www.police.nsw.gov.au/__data/assets/pdf_file/0010/616816/YouthStrategy_D17.pdf**.

119 A common law presumption in NSW that children between the ages of 10 and 14 do not sufficiently understand the difference between right and wrong to be held criminally responsible.

120 Jonathan Gu, 'Did a High Court Decision on Doli Incapax Shift Court Outcomes for 10-13 Year Olds?' (2025) 268 *Crime and Justice Bulletin* **https://bocsar.nsw.gov.au/documents/publications/cjb/cjb251-300/CJB268-Report-court-outcomes-on-doli-incapax.pdf**.

121 Release of review into doli incapax test for children under 14' *NSW Government* (Ministerial media release, October 2025) **https://www.nsw.gov.au/ministerial-releases/release-of-review-into-doli-incapax-test-for-children-under-14**.

NSW Sentencing Council report

In May 2024, the NSW Sentencing Council released its report ***Firearms, Knives and Other Weapons Offences***, which reviewed sentences for firearms, knives and other weapon offences and considered the recent reforms to penalties and new offences.[122]

The report found recent reforms, including increased maximum penalties and new offences of having custody of a knife and using or carrying a knife in a public place or school[123] could disproportionately impact disadvantaged people including children and young people, Aboriginal and Torres Strait Islander people and those experiencing disadvantage, all of whom are likely to receive harsher sentences under these reforms. The Sentencing Council found the reforms are unlikely to deter knife crime, particularly for children and young people given their lack of knowledge of specific penalties, their developing understanding of consequences, and the reasons they might choose to carry knives.[124]

The Sentencing Council described how support programs, access to housing and pathways to employment have shown to be more effective in reducing crime than punitive approaches such as increased sentences. The report acknowledged that children and young people who commit knife crime often have complex backgrounds, such as experiences of homelessness and mental illness[125]

The NSW Sentencing Council recommended the NSW Government should extend the availability of penalty notices to young people and develop a campaign, or add to an existing campaign, to draw attention to the fact that those who carry knives may be subject to a maximum penalty of 4 years' imprisonment (or as much as 14 years) for certain prohibited weapons.[126] It also stated, 'because of the underlying social drivers of knife crime, education programs should be accompanied by social support, programs in the community and positive interactions with the police'.[127]

The Child Death Review Team supports the recommendations of the NSW Sentencing Council relating to penalty notices for young people and education programs about sentences for knife crime.

122 NSW Sentencing Council, *Firearms, Knives and Other Weapons Offences* (Report, May 2024) **https://sentencingcouncil.nsw.gov.au/documents/our-work/firearms-knives-and-other-weapons/Report_Weapons_2024.pdf**.

123 Introduced into the *Crimes Act 1900* in 2023.

124 The most common reason people report carrying knives is to protect themselves or out of fear. The Children's Court raised that a large number of children who possess knives have genuine concerns about their safety following experiences of homelessness, instability and abuse: NSW Sentencing Council, Firearms, *Knives and Other Weapons Offences* (Report, May 2024) 68 **https://sentencingcouncil.nsw.gov.au/documents/our-work/firearms-knives-and-other-weapons/Report_Weapons_2024.pdf.**

125 NSW Sentencing Council, *Firearms, Knives and Other Weapons Offences* (Report, 2024) 84–85 **https://sentencingcouncil.nsw.gov.au/documents/our-work/firearms-knives-and-other-weapons/Report_Weapons_2024.pdf**.

126 NSW Sentencing Council, Firearms, *Knives and Other Weapons Offences* (Report, 2024) 82 **https://sentencingcouncil.nsw.gov.au/documents/our-work/firearms-knives-and-other-weapons/Report_Weapons_2024.pdf**.

127 NSW Sentencing Council, Firearms, *Knives and Other Weapons Offences* (Report, May 2024) 84 **https://sentencingcouncil.nsw.gov.au/documents/our-work/firearms-knives-and-other-weapons/Report_Weapons_2024.pdf**.

8 Deaths classified as SUDI

8

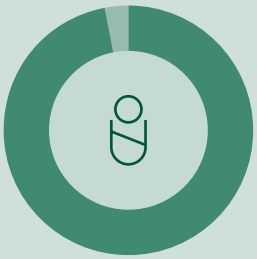
Sudden Unexpected Death in Infancy (SUDI)

Section summary

IN 2022–2023

66 deaths due to SUDI

2022 2023 2-year period



97% of infants whose deaths were classified as SUDI had at least 1 modifiable (behavioural) factor.

AVERAGE MORTALITY RATE

0.35 per 1,000 infants

2009 2023 15-year period

INFANT DEATHS THAT WERE CLASSIFIED AS SUDI	14%
SUDI RATE DECREASED	↓19%

The rate was higher for:

- Infants living in areas of greatest socio-economic disadvantage
- Aboriginal and Torres Strait Islander infants
- Infants living in regional and remote areas
- Male infants

Key observations

IDENTIFYING A CAUSE OF DEATH

Identifying a cause of death is critical to the prevention of SUDI. Over the 15 years there has been no change in the gap between the rate of explained and unexplained SUDI.

65% of SUDI remains unexplained after investigation

ENVIRONMENTAL FACTORS

Environmental factors, particularly those related to the **sleep environment** are key risks for SUDI.

In a shared sleep environment, these factors can increase the risk of SUDI:

- An infant's age
- Preterm birth
- A parent who is affected by alcohol, illicit substances or sedating medication

8.1 Background

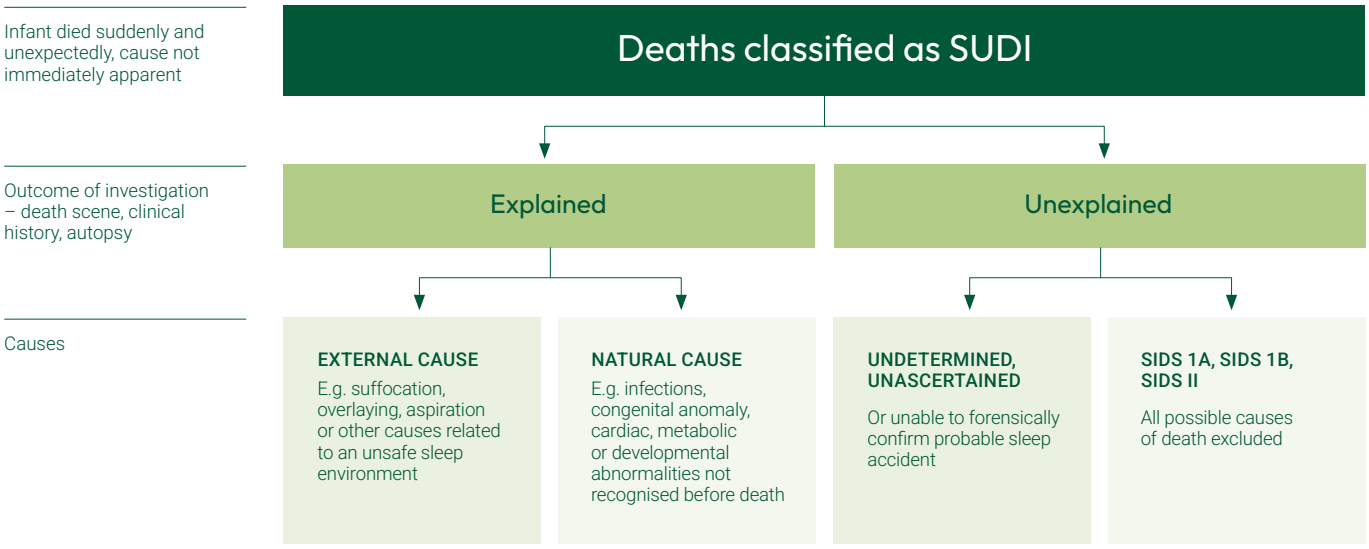
This chapter examines the deaths of 66 infants aged <1 year that were classified as SUDI in 2022 and 2023: 31 in 2022 and 35 in 2023. It includes the deaths of 2 infants that were reviewable by the Ombudsman, 1 who was living in care at the time of their death and 1 who died in circumstances of neglect.

SUDI is a classification term that refers to the sudden and unexpected death of an infant, typically during sleep or in a sleep-related environment, where the cause of death is not immediately apparent. It is a broad classification that includes:

- **explained SUDI**[128] – where a cause is later identified
- **unexplained SUDI** (including unascertained deaths and Sudden Infant Death Syndrome (**SIDS**))[129] – where no definitive cause can be found after investigation.

SUDI excludes deaths from known acute illnesses or obvious visible injuries such as in a transport incident. Investigation of SUDI in NSW includes death scene examination (by police), a medical history (by health practitioners), post-mortem examination (by forensic pathologist and coronial review.

Figure 81
Overview of SUDI classification



128 Explained SUDI may include infections, physiological or developmental abnormalities not recognised before death, and accidental threats to breathing such as overlying or suffocation. In rare cases, intentional injury may be identified.

129 SIDS is a term used to describe a subgroup of unexplained SUDI that share similar features, but where both death scene and pathological investigations fail to identify a cause of death. SIDS can only be applied if all requisite investigations have been undertaken to look for, and exclude, all known conditions that may lead to sudden and unexpected death.

8.2 Trends

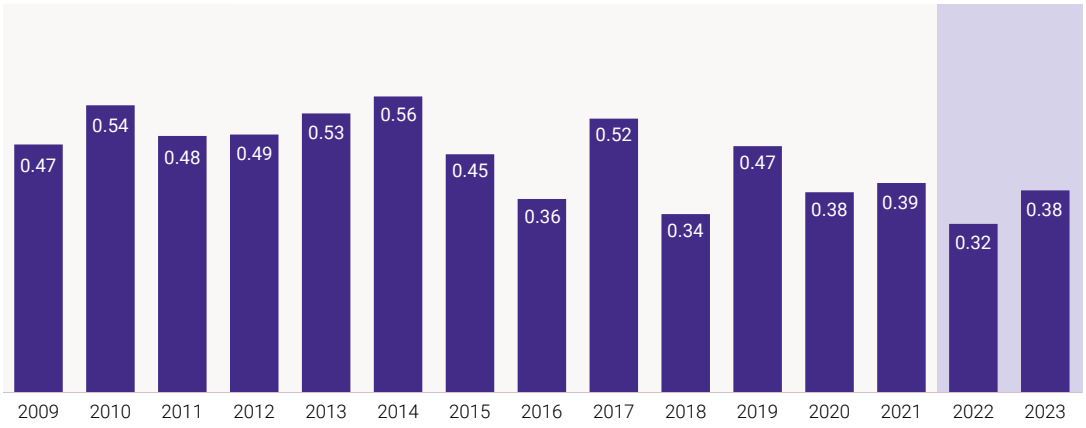
8.2.1 Deaths in 2022 and 2023

The deaths of 66 infants were classified as SUDI in NSW in 2022 and 2023, with an average infant mortality rate over the 2-year period of 0.4 per 1,000 infants.

8.2.2 15-year trend

Figure 82
SUDI deaths, infants <1 year
Rate per 1,000, 2009–2023

Infants <1 year



The infant mortality rate for SUDI decreased over the 15-year period. The lowest rate (0.3 deaths per 1,000) over the last 15 years was 2022.

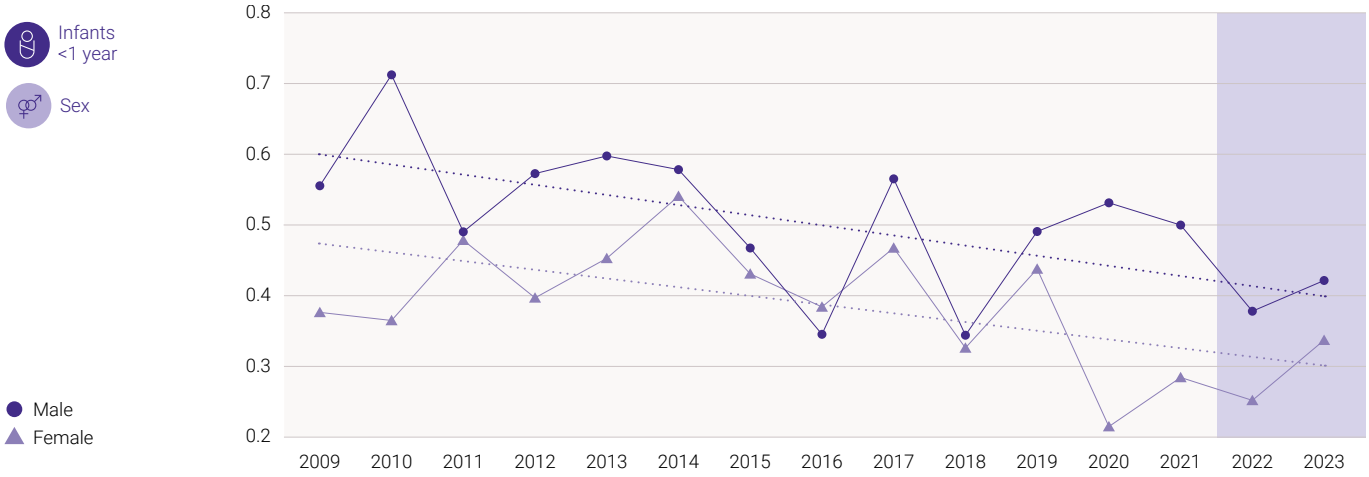
8.3 Demographics: 15-year findings

Over the 15 years:

- More male infant deaths were classified as SUDI than female.
- The infants whose deaths were classified as SUDI were predominantly post-neonates.
- More Aboriginal and Torres Strait Islander infant deaths were classified as SUDI than non-Indigenous infant deaths.
- The rate of SUDI was higher for those living in regional and remote areas and those from the areas of greatest socio-economic disadvantage.

8.3.1 Sex

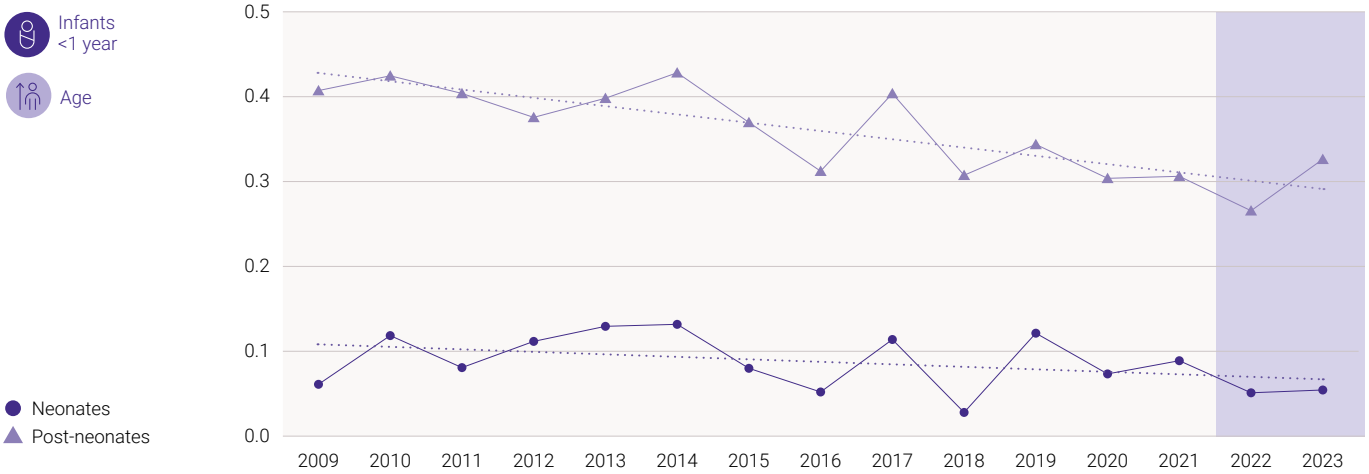
Figure 83
SUDI mortality rate by sex
Rate per 1,000, 2009–2023



Over the 15 years, the rate for both males and females decreased with males being 1.3 times higher on average overall. There was no change in the gap between males and females overall.

8.3.2 Age

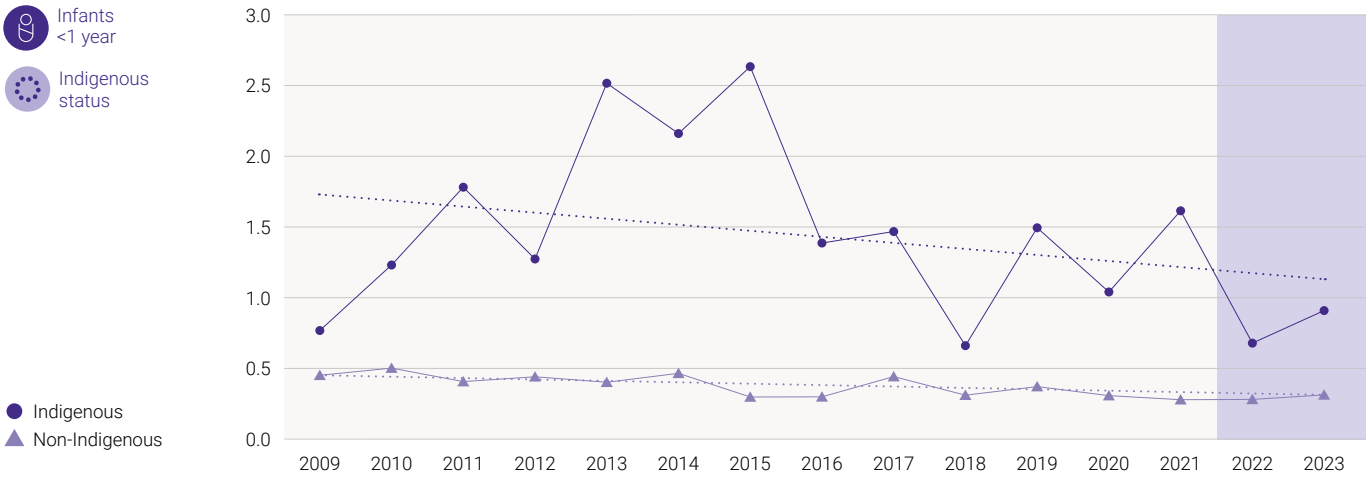
Figure 84
SUDI mortality rate by age
Rate per 1,000, 2009–2023



Over the 15-year period, the rate for neonates has not changed overall, while the rate for post-neonates has decreased. The rate for post-neonates was 4.2 times higher on average than for neonates.

8.3.3 Indigenous status

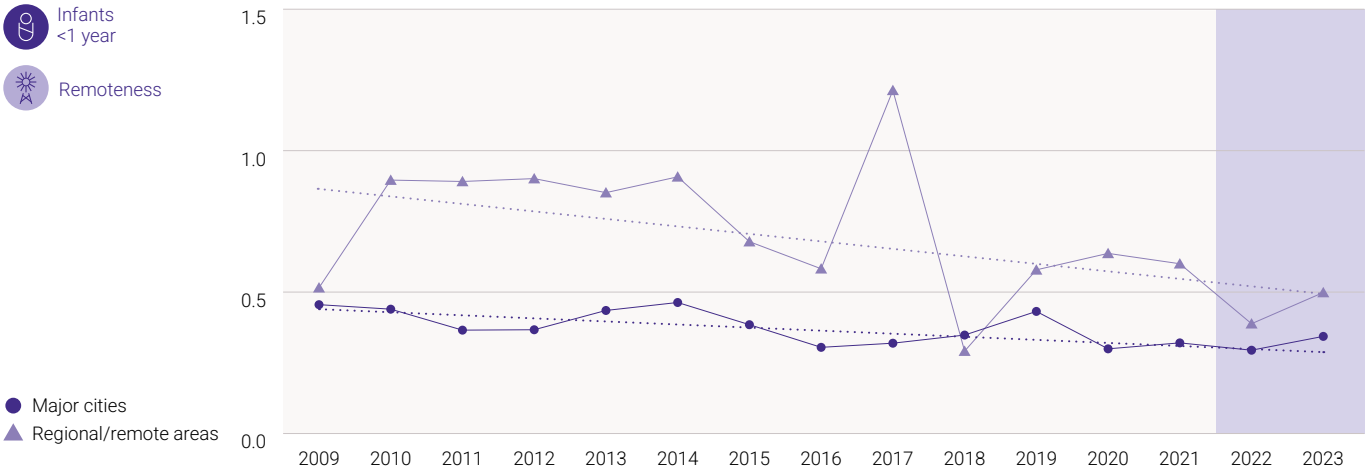
Figure 85
SUDI mortality rate by Indigenous status
Rate per 1,000, 2009–2023



Over the 15 years, the rate for Indigenous infants has varied from year to year with no significant change overall. The rate for Indigenous infants has, on average, been around 4 times higher.

8.3.4 Remoteness

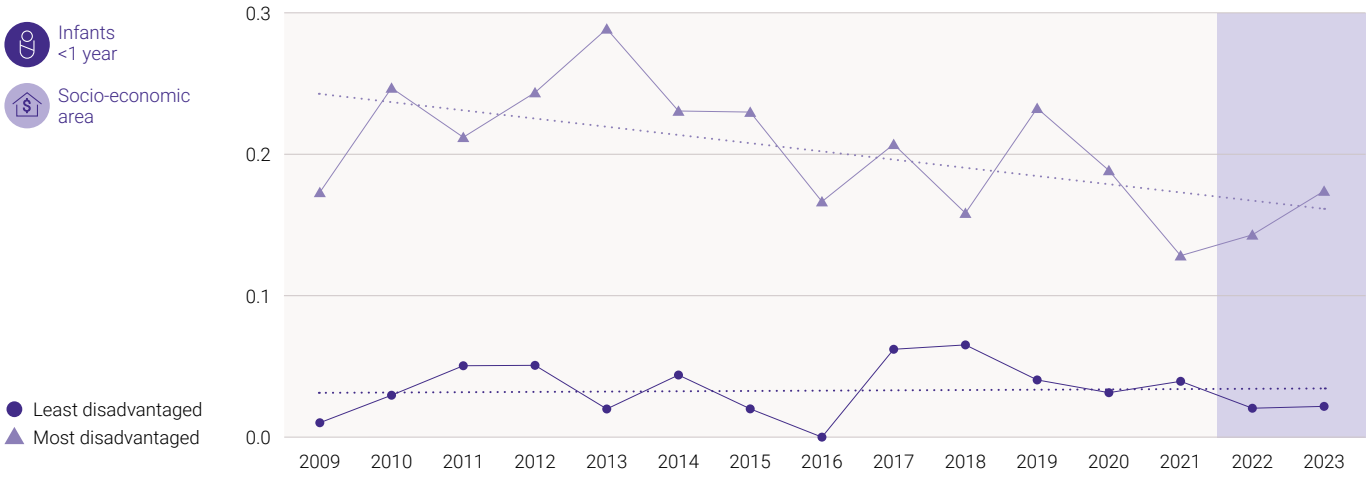
Figure 86
External cause mortality rate by remoteness
Rate per 1,000, 2009–2023



The rate for infants living in both major cities and regional/remote areas has decreased over the 15-year period. The rate for infants living in regional and remote areas was on average 2 times higher than the rate for those living in major cities over the 15 years.

8.3.5 Socio-economic areas

Figure 87
SUDI mortality rate by socio-economic area
Rate per 1,000, 2009–2023



Over the 15 years the rate reduced for infants living in areas of greatest socio-economic disadvantage, while there was little change in the rate for those living in areas of the least disadvantage. Although the gap between infants living in the most disadvantaged areas compared to those living in the least disadvantaged areas reduced, the rates for those from the most disadvantaged areas have been 6 times higher on average.

8.4 Outcome of investigations to determine cause of death

The proportions and rates for the outcomes of SUDI investigations in the most recent years should be considered as provisional only, as in 2022 and 2023, of the 66 infant deaths classified as SUDI:

- 14% (9) were **explained** following investigation (a cause of death was identified).[130]
- 53% (35) remained **unexplained** (investigation was not able to determine cause of death).[131]
- 33% (22) were **not finalised** (outcome pending).[132]

Over the 15-year period, 2009–2023, of the 655 infant deaths classified as SUDI:

- 29% (192) were **explained**.
- 65% (428) remained **unexplained**.
- 5% (35) were **not finalised**.[133]

130 Explained SUDI – where a definitive cause is identified through post-death investigation – may include infections, physiological or developmental abnormalities not recognised before death, accidental threats to breathing such as overlaying/suffocation in the context of an unsafe sleeping environment. In rare cases, intentional injury may be identified.
131 Unexplained SUDIs are those for which no definitive cause could be determined despite investigation and include unascertained deaths and those classified as SIDS. In many cases, evidence of disease in clinical findings or environmental risk factors are present but none can be identified as the definitive cause of death. Unexplained deaths classified as SUDI are coded R00–R99 in ICD-10-AM.
132 A significant number of investigations of the more recent deaths are yet to be finalised.
133 In some cases the investigation leading to criminal and coronial proceedings are finalised a number of years after the death.

Figure 88 shows the outcome of SUDI investigations by proportion (percentage) and Figure 89 by rate. Except for 2015 and 2016, the rate of unexplained deaths was higher than the rate for explained deaths and the gap between the two has not changed:

- Deaths due to **explained natural causes** declined by 46% from 0.04 per 1,000 births in 2009 to 0.02 per 1,000 births in 2023.
- Deaths due to **explained external causes** declined by 79% from 0.05 per 1,000 births in 2009 to 0.01 births per 1,000 in 2023.
- Deaths that were determined as **unexplained** declined by 54% from 0.38 per 1,000 births in 2009 to 0.17 per 1,000 births in 2023.

Consistent with previous reports, over the 15-year period 2009–2023, 65% of SUDI deaths in NSW remain unexplained despite investigation, including post-mortem examination.[134]

Figure 88
Proportion of deaths classified as SUDI by outcome of investigation
2009–2023[135]

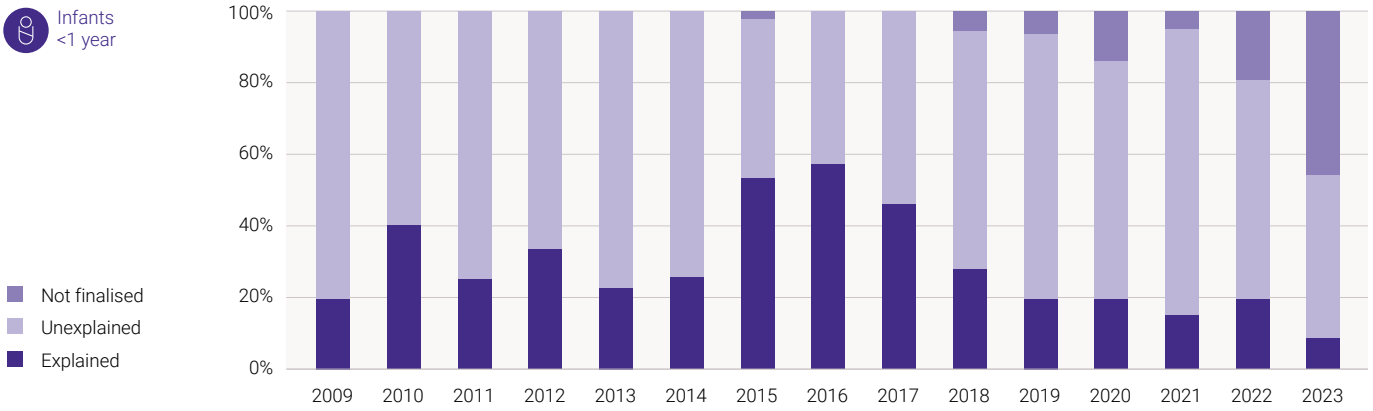
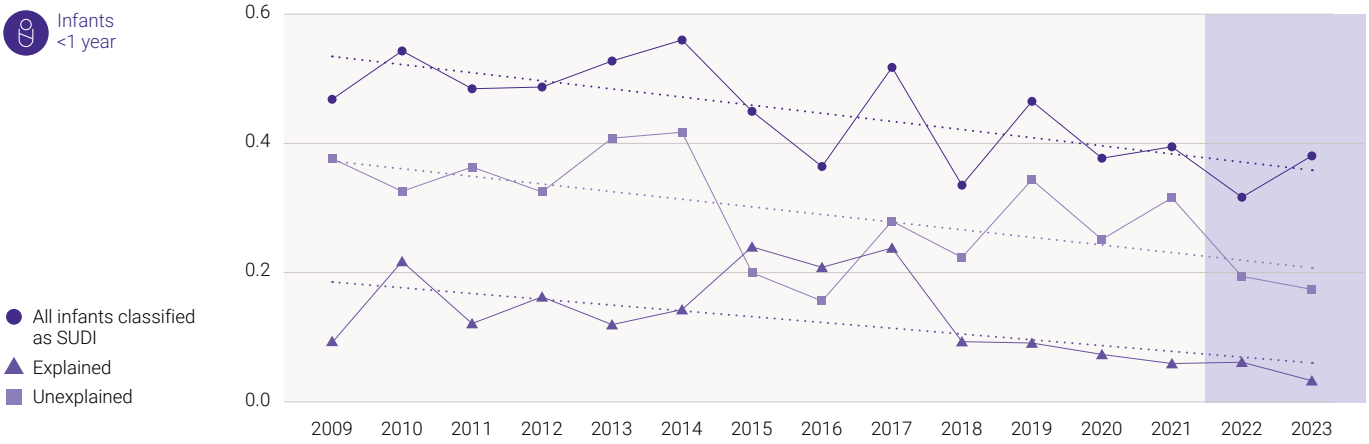


Figure 89
Rate of deaths classified as SUDI by outcome of investigation
Rate per 1,000, 2009–2023



134 These will include cases where genetic testing was conducted on family members post-death, as the outcome of these tests is not considered when establishing cause of death.

135 In some cases the investigation leading to criminal and coronial proceedings are finalised a number of years after the death.

8.4.1 Causes of death – explained SUDI

In 2022 and 2023, among the 44 finalised investigations, a cause of death was determined for 9 SUDI:

- **Diseases and morbid conditions:** congenital and chromosomal conditions (1), conditions arising in perinatal period (1), infectious and parasitic diseases (2), endocrine, nutritional and metabolic disorders (2), diseases of the digestive system (1)
- **Accidental threats to breathing:** Accidental suffocation and strangulation in bed (2).[136]

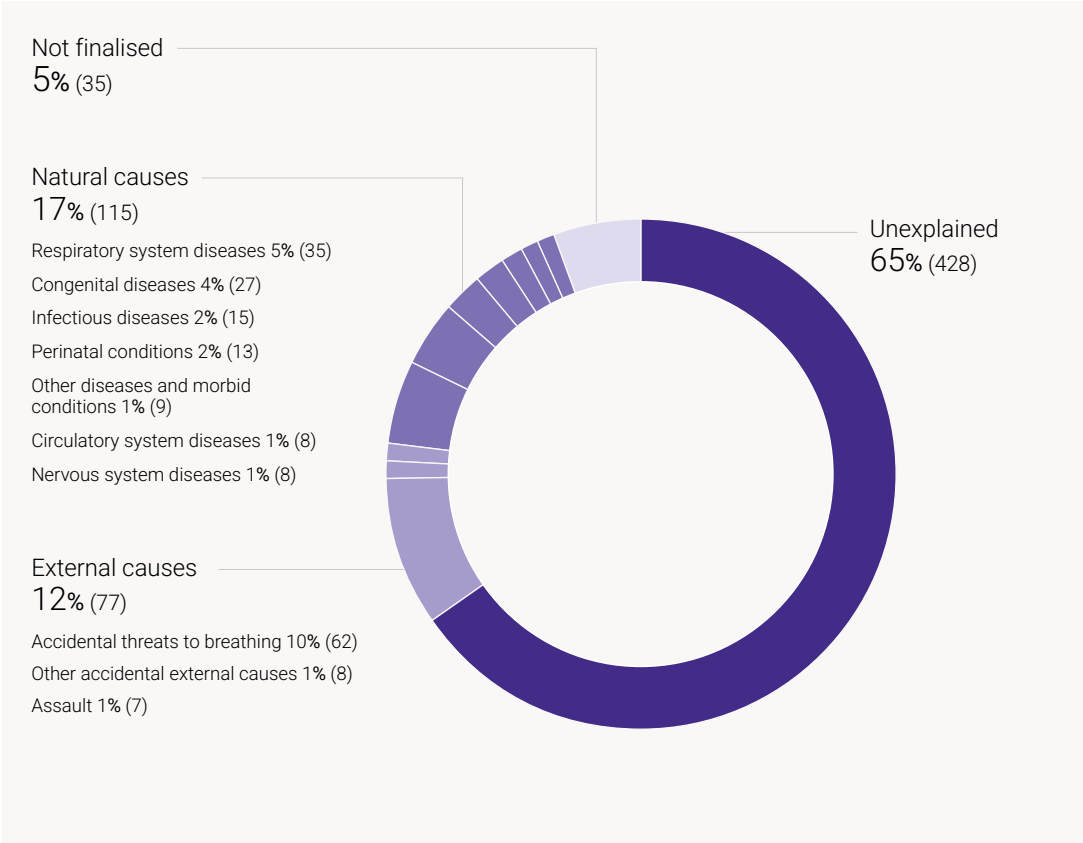
Over the 15-year period 2009–2023, and of the 655 deaths classified as SUDI, a cause of death was determined for 192 cases:

- **Natural causes** (115 – 60% of explained SUDI), including diseases of the respiratory system (35), congenital anomalies (27) and other conditions (53)
- **External causes** (77 – 40% of explained SUDI), the majority of which were accidental threats to breathing (62) in the context of unsafe sleeping.

Figure 90 provides additional detail about the nature of causes over the 15-year period and highlights that most infant deaths classified as SUDI in NSW remain unexplained despite investigation, including post-mortem examination.

Figure 90
Deaths classified as SUDI by cause
2009–2023

Infants <1 year



136 This includes while sleeping.

8.5 Factors

Research has consistently identified certain factors (modifiable and non-modifiable) associated with SUDI.[137] Table 8 lists the infant, sleep environment and family factors (parental and socio-demographic) associated with SUDI.

Table 8
Factors in SUDI

Infant factors	Sleep environment factors	Family factors
• Male • Aged 0–3 months at death • Low birthweight (<2500g) • Preterm birth (<37 weeks' gestation) • IUGR (Small for gestational age <10th percentile)[138] • Neonatal health problems at birth[139] • Preceding illness within 2 weeks of death[140]	• Prone (stomach down) or side sleeping • Sleeping in separate room to caregiver • Loose/soft item bedding (including pillow use) • Head covering and excess thermal insulation • Surface sharing (for example, sleeping together in bed, on a mattress or on a couch) • Co-sleeping in unsafe or hazardous circumstances – parents who smoke – parents affected by alcohol – parents affected by illicit substances – parents affected by sedating medications – Infant aged <4 months – Infant born preterm – infant born low birth weight – on couch or sofa	• Young maternal age • Poor perinatal care • In utero/post-natal exposure to tobacco smoking • Alcohol/substance use during pregnancy and after birth • Not breastfeeding • Social disadvantage

The Child Death Review Team (**CDRT**) has previously reported on multiple risk factors observed over many years in infants who die suddenly and unexpectedly, some of which are avoidable. This includes maternal, infant, environmental and socio-demographic factors and the over-representation of vulnerable families.[141]

Given the CDRT's focus on preventable deaths and the identification of factors that can be avoided, the discussion of infant, sleep environment and family factors below exclude the 7 SUDI cases in 2022 and 2023 where post-death investigations found that infants died from natural causes. The other 59 SUDI cases, including those where cause of death was determined as accidental suffocation and strangulation in bed (2), where investigations were unable to determine a cause of death (35) and where post-death investigations had not been finalised (22), are considered.

137 Jhodie R Duncan and Roger W Byard (eds), *SIDS Sudden Infant and Early Childhood Death: the Past, the Present and the Future*, (University of Adelaide Press, 2018) **https://www.adelaide.edu.au/press/ua/media/670/uap-sids-ebook.pdf**.

138 IUGR is when a fetus does not grow as expected for the stage of the mother's pregnancy and is a reliable indicator of fetal and/or newborn deterioration. IUGR is a clearly defined condition based on an estimated fetal weight of less than the 10th percentile for its gestational age. It should be noted that this definition is likely to be an underestimate of growth restriction.

139 Neonatal health problems at birth include conditions such as hypothermia, abdominal distention, respiratory distress treated with continuous positive airway pressure (CPAP), hypoglycaemia, jaundice requiring treatment and tachypnoea (fast laboured breathing), among others.

140 Preceding illness within 2 weeks of death is identified where there was clinical or microscopic evidence of infection diagnosed by a GP or other health professional, or demonstrated at autopsy, or where clear symptoms of illness were reported by a parent/carer.

141 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2020 and 2021* (Report, 2023) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2020-and-2021**.

8.5.1 Infant factors

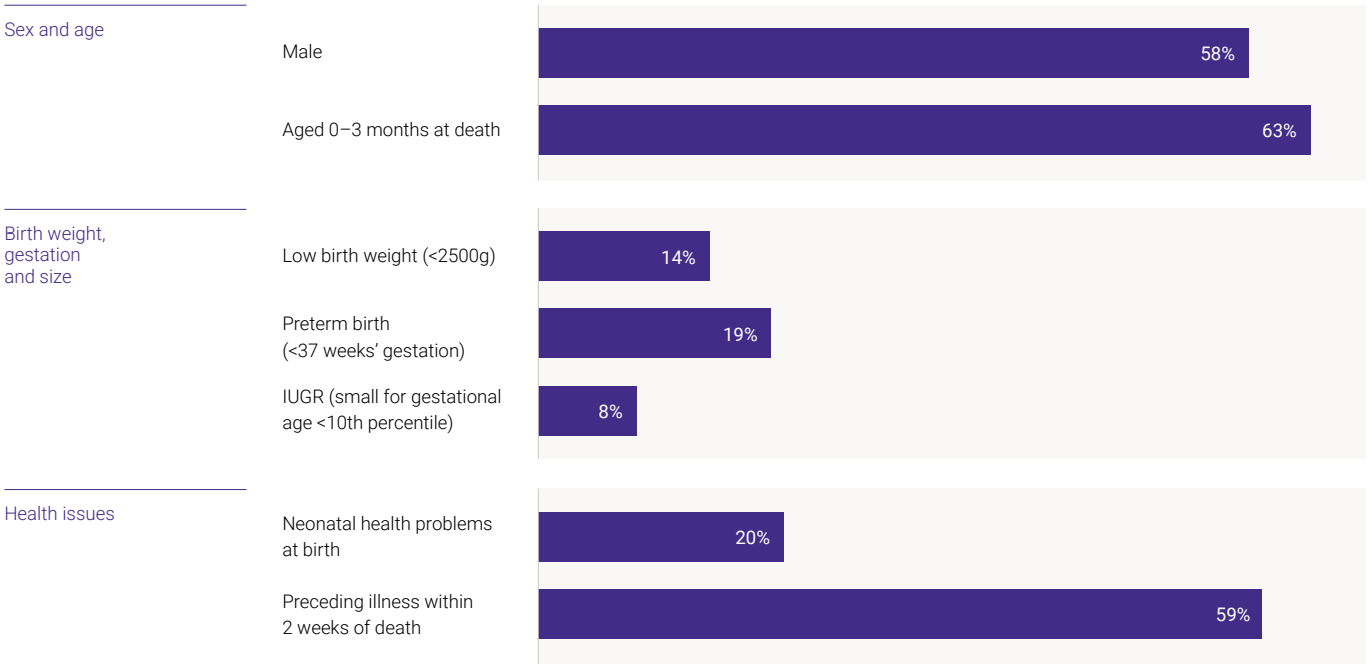
In 2022 and 2023, apart from sex and age, there was evidence of at least 1 other infant factor for 69% (41 of 59) of the infants whose deaths were classified as SUDI.

By comparison, for infants born in NSW in 2023:[142]

- 51.4% were male.
- 6.8% were of low birthweight.
- 7.4% were born prematurely (less than 37 weeks gestation).
- 10.6% were small for gestational age (**IUGR**).

Infants <1 year

Figure 91
Infant factors, proportion
2022–2023



142 'NSW Mother and Babies 2023', *NSW Health* (Web Page) https://www.health.nsw.gov.au/Reports/mothersbabies/2023/Pages/default.aspx.

8.5.2 Sleep environment factors

In 2022 and 2023, there was evidence of at least 1 modifiable (behavioural) factor for 97% (57 of 59) of infants whose deaths were classified as SUDI. In 51 cases, our analysis identified more than 1 factor (range 2–5). This is consistent with international research which has noted at least 1 modifiable factor is present in approximately 90% of all SIDS cases,[143] with very few cases reported when no modifiable factors are present.[144]

Sleep environment

Figure 92
Factors related to sleep environment
Count of 59, 2022–2023

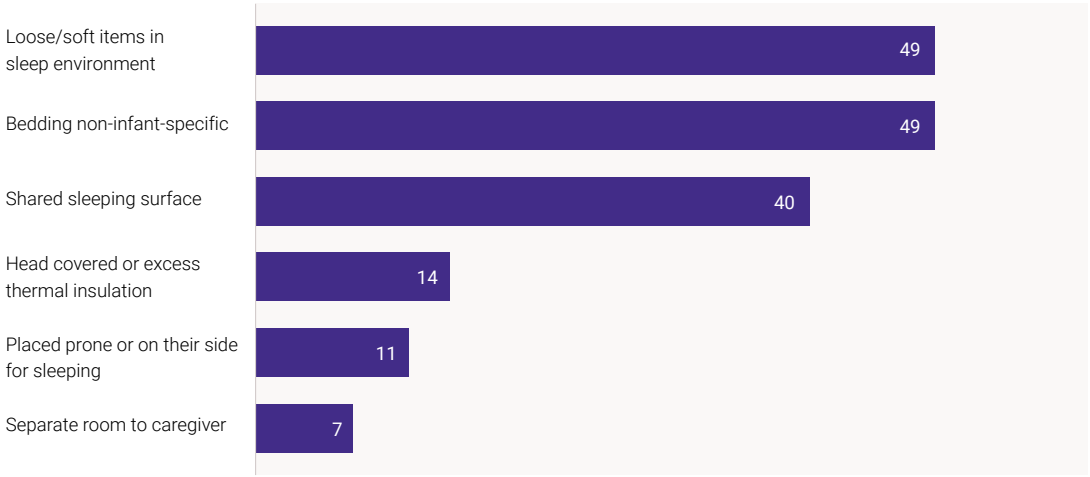


Figure 92 shows the number of infants with factors present related to their sleep environment.

143 While this research is referring specifically to cases of SIDS, it is also considered relevant in cases of SUDI.
144 Jhodie R Duncan and Roger W Byard (eds), *SIDS Sudden Infant and Early Childhood Death: the Past, the Present and the Future*, (University of Adelaide Press, 2018) **https://www.adelaide.edu.au/press/ua/media/670/uap-sids-ebook.pdf**.

Infants <1 year

Figure 93
Sleep circumstances, bedding not designed for infants, count of 49
Count of 49, 2022–2023

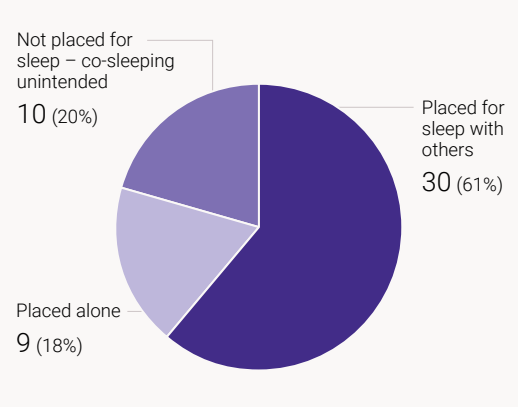
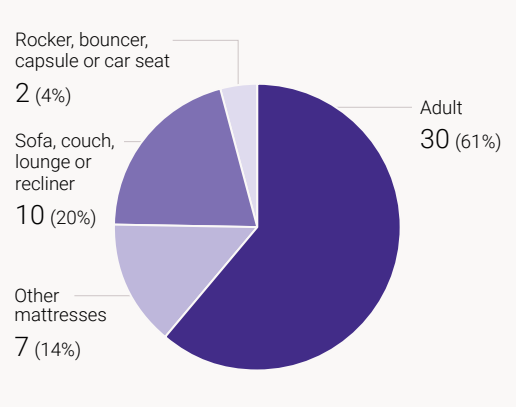


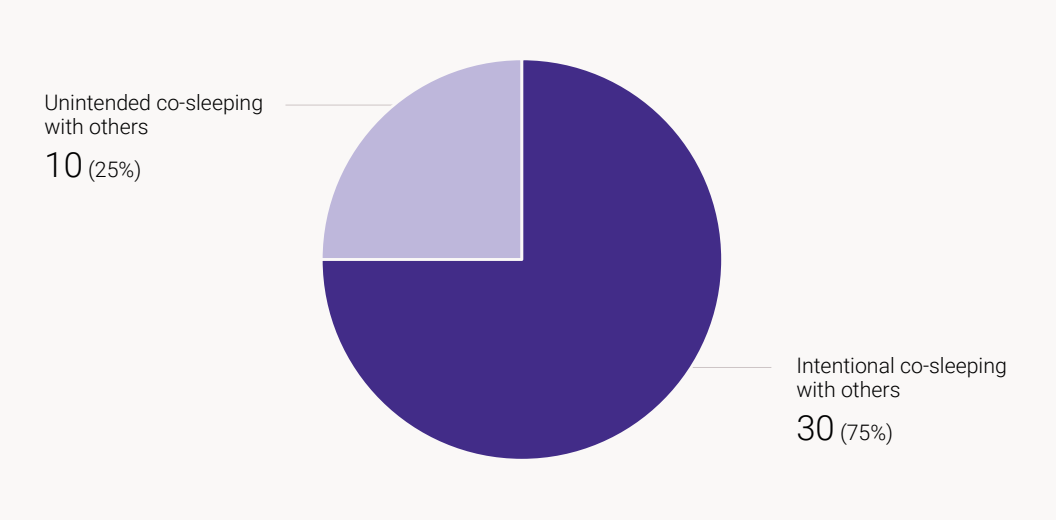
Figure 94
Non-infant specific bedding type
Count of 49, 2022–2023



For the 49 (83%) that were in bedding not designed for infants, Figure 93 describes their sleep circumstances and Figure 94 describes the type of non-infant specific bedding they were sleeping on.

Infants <1 year

Figure 95
Shared sleep surface
Count of 40, 2022–2023



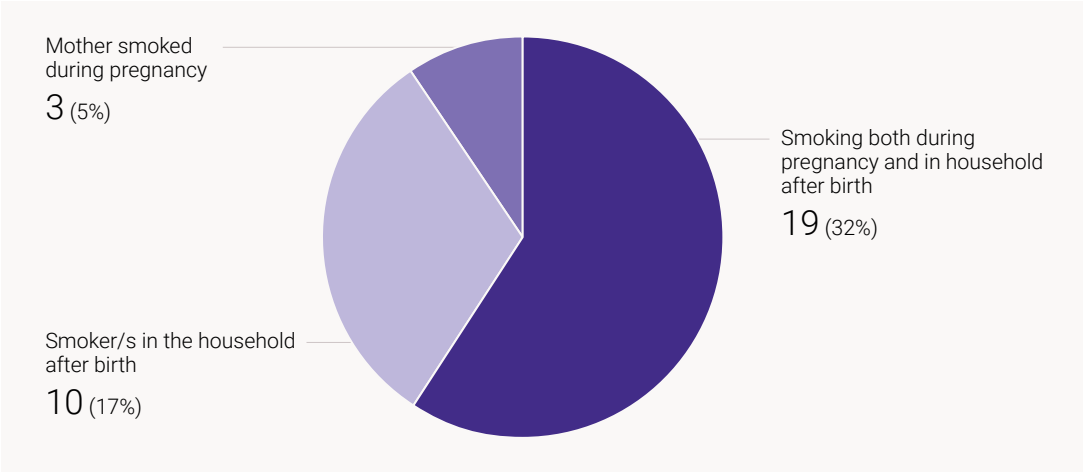
Of the 68% (40) that shared a sleeping surface, Figure 95 shows those where co-sleeping was intentional or unintentional.

8.5.3 Family factors

Family factors considered for the 59 infants who died in 2022 and 2023 included 54% (32) who were exposed to tobacco smoking (Figure 96) and 12% (7) where the mother was aged 20 years or younger.

Figure 96
Exposure to tobacco smoke
Count of 59, 2022–2023

Infants <1 year



8.6 Shared sleeping in hazardous circumstances

While shared sleeping is a demonstrated risk factor for SUDI, the risk increases when co-sleeping occurs in circumstances that are especially dangerous.

This includes sharing a sleep surface (intentionally or not):

- with a person who smokes
- with a person affected by alcohol, substances or other sedating medication
- when the infant is younger than 3–4 months of age
- when the infant was born preterm or of low birth weight
- when sleeping together with an infant on a couch or sofa.[145]

In the 2-year period, 68% (40) of the 59 infants whose deaths were classified as SUDI (excluding those where cause of death was not subsequently determined as due to natural causes) were sharing a sleep surface (intentionally or not) prior to their sudden and unexpected death.[146] Of these, 98% (39) were identified as sleeping in hazardous circumstances, including 73% (29) who were aged 0–3 months. The majority (29) were sharing a sleep surface in circumstances where there was an accumulation of 2 or more factors that were contraindications to co-sleeping.

145 Queensland Paediatric Quality Council on behalf of Queensland Child Death Review Board, *Sudden Unexpected Death in Infancy Among Vulnerable Families in Queensland* (Issues Paper, 2021) **https://www.qfcc.qld.gov.au/sites/default/files/2024-10/QFCC%20Sudden%20unexpected%20death%20in%20infancy%20among%20vulnerable%20families%20in%20Queensland%20%28SUDI%20report%29.pdf**.

146 This includes 2 cases where cause of death was determined as accidental suffocation and strangulation in bed and 22 where post-death investigations were not finalised.

8.7 Contact with services

The families of all of the 66 infants who died in 2022 and 2023 had contact with government and non-government agencies and public and private health services in the 12 months before the death:

- 34 infants were from families with a child protection history including 33 who were the subject of a ROSH report. 16 of these reports occurred in the prenatal period, and 5 resulted in a High-Risk Birth Alert (**HRBA**).[147] 16 infants had an open case plan[148] with DCJ at the time of their death.
- 10 families were referred to an early intervention service. 1 family completed the program, 4 families were accepted but did not complete the program, 1 family was accepted but did not engage with the service, and 4 families were accepted but the outcome was unknown.
- 7 families were engaged with family support services.
- Families engaged with a range of health services such as general practitioners (25), early childhood health services (12) and specialist practitioners (7).
- Other services families engaged with included social housing and homelessness services (2) and alcohol and other drug services (1).

Further and more detailed discussion of service provision to families of infants whose deaths were classified as SUDI is included in **Chapter 11** of this report, *Methamphetamine detection in infant deaths*.

147 High Risk Birth Alerts are issued by DCJ in situations where it is determined there may be ROSH to the unborn child after the child's birth. Such alerts are issued to relevant health providers to ensure that DCJ is advised of a birth where protective intervention may be required.

148 A case plan outlines steps and responsibilities to help meet children and young people's day-to-day and longer term placement and support needs. Case plans are closed when the child's safety, welfare and wellbeing are considered to be stable and no longer require ongoing intervention. This can be due to the case plan goals being achieved, a change in circumstances indicating a reduced need for intervention or the child's needs being met through other means.

8.8 Responses to SUDI

8.8.1 NSW Health SUDI Policy review

In August 2021, the CDRT reported that a medical history was available for 75 of the 80 SUDI deaths from the 2018–2019 period, with a paediatric interview being conducted in only a third of those cases, and 4 cases where the medical history was incomplete or inadequate.[149]

Against the background of limited observed increases in the number of SUDI medical histories being completed since the CDRT began monitoring the completion of SUDI medical histories in 2016, the CDRT recommended that NSW Health complete a detailed audit of compliance with the revised SUDI medical history protocol as outlined in its SUDI policy. As reported in the *NSW Child Death Review Team Annual Report 2023–24*,[150] the final audit results, provided by NSW Health in October 2023, found that compliance with the protocol was below expectations and the SUDI cross-agency working group agreed to review the Policy Directive.

While the recommendation was considered implemented, given the unique challenges in collecting an infant's medical history following a SUDI and the pending review of the Policy Directive, in October 2024 the CDRT recommended that:

NSW Health should review PD2019_035 *Management of Sudden Unexpected Death in Infancy,* having regard to the results of its audit of compliance with the revised SUDI medical history protocol completed in October 2023. As part of this review, NSW Health should consult with relevant stakeholders referred to in the Policy and the CDRT.

Of the 66 deaths classified as SUDI in 2022 and 2023, only 17 (26%) had a full medical history completed. A partial medical history was completed in 9 (14%) cases (the medical history was incomplete or missing some information or was inadequate) and in 40 (61%) cases, the medical history was not completed.[151]

The CDRT engaged with NSW Health on its review of the SUDI Policy and reported on its progress in the CDRT's 2024–25 annual report, tabled in October 2025. The recommendation was closed as it had been implemented.

149 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2018 and 2019* (Report, 2021) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2018-and-2019-incorporating-reviewable-deaths-of-children**.

150 NSW Child Death Review Team, *NSW Child Death Review Team Annual Report 2024-25* (Annual Report, 2025) **https://www.ombo.nsw.gov.au/reports/annual-report/nsw-child-death-review-team-annual-report-2024-25**.

151 In 5 cases, the family did not attend a hospital as the infant died at home and was taken directly to a morgue.

8.8.2 Safe sleeping and infant inclined products

The CDRT have previously reported on the need for infants to be placed for sleep in infant appropriate bedding and for the ongoing education and promotion of clear and consistent advice to families about safe sleep for infants.

The Australian Competition and Consumer Commission (**ACCC**) has identified infant sleep products as a product safety priority for 2024 and 2025 and has been working with industry partners and consumers since 2021 to address safety concerns associated with infant inclined sleep products such as bouncers, prams, hammocks, rockers and swings. In 2022, the CDRT provided the ACCC with information from the Register of Child Deaths to support this work.

In July 2024, new mandatory standards for infant sleep products were introduced.[152] A mandatory safety standard with design and construction requirements for all infant sleep products and a mandatory information standard requiring warnings and safety information for infant sleep products, including inclined non-sleep products that an infant may fall asleep in. The new mandatory standards must be complied with by 19 January 2026.

As part of this work, the ACCC also identified Aboriginal and Torres Strait Islander infants as over-represented in SUDI when infant inclined products are used. In a collaboration with Aboriginal and Torres Strait Islander medical and child health advocates, the ACCC developed an education campaign, 'Sleep Bub Safe', to support Aboriginal and Torres Strait Islander families and communities with safe sleep information about inclined products or sleep environments.[153]

The CDRT supports this important work.

152 'Infant Sleep Products Mandatory Standards'. Australian Competition and Consumer Commission Product Safety (Web Page) **https://www.productsafety.gov.au/business/search-mandatory-standards/infant-sleep-products-mandatory-standards**.

153 'Sleep Bub Safe', *Australian Competition and Consumer Commission Product Safety* (Web Page) **https://www.productsafety.gov.au/about-us/our-campaigns/sleep-bub-safe**.

8.9 Observations

8.9.1 Disadvantaged families remain over-represented

The CDRT has previously observed that certain groups of infants are over-represented in SUDI cases and has recommended SUDI prevention initiatives should target high-risk populations including Aboriginal and Torres Strait Islander infants, infants from the most disadvantaged socio-economic areas and infants with a child protection history.

As reported in this chapter, in 2022–2023 the rates for SUDI remain higher for Aboriginal and Torres Strait Islander infants (1.2 times higher than for non-Indigenous) and those from the most disadvantaged socio-economic areas (1.1 times higher than in the least disadvantaged areas in 2022–2023).

Families with a child protection history also remain over-represented (52% of the infants who died in 2022–2023). Table 5 in **Section 1.6.4** shows the proportion of children with a child protection history who died in 2022 and 2023.

8.9.2 Monitoring the number and rate of unexplained deaths

The CDRT has been monitoring the rate and proportion of explained and unexplained deaths since 2010 to identify any trends in the context of SUDI investigations and the completion of a full internal post-mortem examination.

In 2023,[154] the CDRT noted the need for ongoing monitoring as more investigations of deaths for the 4-year period 2018–2021 were finalised, noting an observed increase in the number of cases where a full internal post-mortem examination was not completed. A full internal post-mortem was completed in 91% of cases in 2018–2019, and 81% of cases in 2020–2021. In 2022–2023 79% of cases had a full internal post-mortem examination.

Identifying a cause of death is a crucial part of preventing SUDI. Against the background of the increasing number of deaths where a full post-mortem examination was not completed and NSW Health's review of the SUDI policy that is currently underway, the CDRT is continuing to monitor the number of unexplained deaths.

154 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2020 and 2021* (Report, 2023) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2020-and-2021**.

Emerging issues

9

Emerging issues

Deaths due to asthma

9.1 Background

Asthma describes sensitive airways that can become inflamed or swollen when exposed to triggers, making it harder to breathe. It is one of the most prevalent chronic diseases in Australia, affecting 2.8 million people (10.8 per cent of the population) including 474,700 children (0–17 years) in 2022.[155]

A study conducted by the University of New South Wales (UNSW) in 2024 found the average rate of childhood asthma across Statistical Areas Level 2[156] communities in Australia was 6.27 per cent.[157] In 2020, hospitalisation rates were higher for children aged 0–14 years (363 per 100,000 children) than for children 15 years and over (106 per 100,000 children).[158] In 2022–2023, asthma deaths accounted for 1.2 per cent of deaths of children in NSW.

There is no cure for asthma[159] and the fundamental causes of asthma are not completely understood. The strongest risk factors for developing asthma are a combination of genetic predisposition with environmental exposure to inhaled substances and particles that may provoke allergic reactions or irritate the airways. Triggers can include viral respiratory infections, allergens, tobacco smoke, air pollution, chemical irritants including gas appliances, emotions and mental health, certain medications, natural disasters and extreme weather changes.[160]

The National Asthma Council (**NAC**) *Australian Asthma Handbook*[161] (2022) recommends that every child with asthma should have their own written asthma action plan, which should be updated every 6 months.

Asthma action plans set out how to prevent and control asthma symptoms, including what to do when the individual's asthma escalates. A 2008 review of randomised controlled trials examining asthma action plans in children found that the use of written asthma action plans significantly reduces the rate of visits to acute care facilities, the number of school days missed and night-time waking, and improves symptoms.[162]

In 2022, the ABS reported that 2 in 3 (67.2%) children with asthma in Australia had a written action plan.[163]

155 Australian Bureau of Statistics, *Table 3.1 Long-term health conditions (a), by age - All persons, Estimate*, National Health Survey 2022 – Australia **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/national-health-survey/latest-release**.

156 Statistical Area Level 2 represent a community that interacts together socially and economically and are designed as the primary output region for the release of non-Census and Intercensal data (Australian Bureau of Statistics, web page 2016, Australian Statistical Geography Standard) **https://www.abs.gov.au/statistics/standards/australian-statistical-geography-standard-asgs-edition-3/jul2021-jun2026**.

157 Burke, K, University of New South Wales. *Childhood asthma hotspots largely in regional Australia, study finds* (Media release, 2024) **https://www.unsw.edu.au/newsroom/news/2024/09/Childhood-asthma-hotspots-largely-in-regional-Australia-study-finds**

158 'Asthma' *Australian Institute of Health and Welfare (AIHW)* (Web page, November 2024) **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma**; Harris, KM, Mapping inequality: 'Childhood asthma and environmental injustice, a case study of St Louis, Missouri.' Social Science Medicine. 2019 June; 230:91-110. **https://doi.org/10.1016/j.socscimed.2019.03.040**.

159 Sydney Children's Hospital Network, 'Asthma Factsheet' (Fact Sheet, 22 July 2025) **https://www.schn.health.nsw.gov.au/asthma-factsheet**.

160 'Chronic Respiratory Conditions: Asthma', *Australian Institute of Health and Welfare*, (Web Page, 27 November 2024) **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma**

161 Version 2.2 published April 2022.

162 Roger L Zemek, Sanjit Kaur Bhogal and Francine M Ducharme, 'Systematic Review of Randomized Controlled Trials Examining Written Action Plans in Children – What Is the Plan?' (2008) 163 *Arch Pediatr Adolesc Med* 157 **https://pubmed.ncbi.nlm.nih.gov/18250241/**.

163 'Asthma', *Australian Bureau of Statistics* (Web Page, 15 December 2023) **https://www.abs.gov.au/statistics/health/health-conditions-and-risks/asthma/2022**.

9.1.1 Data from the NSW Register of Child Deaths

In 2022 and 2023, 11 children died in NSW where asthma was directly related to the cause of death.

All the children had a pre-existing asthma diagnosis and experienced the sudden onset of asthma prior to death. A review of deaths over the 10-year period 2014 to 2023, identified 34 deaths in total: 4 in 2014-2015, 7 in 2016-2017, 5 in 2018–2019 and 7 in 2020–2021. The increase in the 2022 and 2023 reporting period follows an 8-year period of relatively stable case numbers.

An analysis of the deaths in 2022 and 2023 identified 3 key risk factors including absence of or outdated asthma action plans, insufficient engagement with medical professionals, and living in rural and regional areas (which typically exhibit higher asthma prevalence).

9.2 Discussion

9.2.1 Asthma action plans and engagement with general practitioners

Of the 11 children who died in 2022-2023, 7 children had an asthma action plan.[164] These plans had been updated between 1 day and 19 months prior to death.

Of the 7 children with asthma action plans, 4 children had their plans updated within the recommended 6-month timeframe. In 3 cases, children had asthma action plans that were not updated within the 6-month timeframe (plans written at 7, 10 and 19 months prior to death).

There was no evidence of an asthma action plan for 4 children. However, the children's medical records confirmed each child had a history of medical involvement related to their asthma and were utilising asthma medication.

In 2 of these cases, children had limited engagement with general practitioner (GP) services in the years preceding their death. This included a 17-year-old child who lived in a rural location and experienced ongoing difficulty accessing a GP, resulting in a lack of medical follow-up for approximately 5 years; and a 9-year-old child who had one appointment with their GP for the purpose of asthma follow-up in the 3 years preceding their death.

164 Roughly consistent with the national average in 2022 of 67.2%.

9.2.2 Regional, rural and remote cases

Of the 34 asthma deaths between 2014-2023, 11 (32%) were of children living in a rural or regional area.

A study of childhood asthma prevalence in Australia, conducted by UNSW in 2024, found 465 significant hotspots of asthma prevalence in Australia,[165] with hotspots largely found in regional and rural communities with greater socio-economic disadvantage and higher proportions of Indigenous Australians.[166] The study defined areas with higher rates as asthma hotspots if they were adjacent to another area where rates were also high.

Among the top 20 hotspots in Australia, 8 were in NSW and 5 of those in rural or regional areas:

- Mount Hutton/Windale (12.9%) (major city)
- Leeton (11.7%) (outer regional)
- West Wallsend/Barnsley and Killingworth (11.6%) (major city)
- Kurri Kurri/Abermain (11.6%) (major city)
- South Bathurst (11.5%) (inner regional)
- Cessnock Surrounds (11.2%) (inner regional)
- Wauchope (11.1%) (inner regional)
- East Dubbo (11.1%) (inner regional).

The study found that childhood asthma variation was geographically associated with area-level, socio-demographic features, such as social deprivation and Indigenous density. More than 60% of the hotspots were in socio-economically disadvantaged areas and a further 21% were in areas with a medium level of disadvantage.[167] Area-level environmental factors including pollen, dust, climate characteristics and household environments (mould, tobacco smoke and allergens) also play a role in the geographic variation of childhood asthma prevalence.[168]

In terms of healthcare access, expert asthma care is difficult to access in regional areas, as most specialist paediatric asthma services are based in metropolitan hospitals.[169] As well as specialist care, GPs are less available in rural locations. The study recommended 'implementing comprehensive asthma interventions that involve children, their parents or carers, the communities they live in, and the healthcare systems [to] potentially enhance health outcomes for Australian children with asthma'.[170]

165 Jahidur Rahman Khan et al, 'Social Deprivation and Spatial Clustering of Childhood Asthma in Australia' (2024) 9 *Global Health Research and Policy* 22 **https://doi.org/10.1186/s41256-024-00361-2**.

166 Kate Burke, 'Childhood Asthma Hotspots Largely in Regional Australia, Study Finds' (University of New South Wales, 11 September 2024) https://www.unsw.edu.au/newsroom/news/2024/09/Childhood-asthma-hotspots-largely-in-regional-Australia-study-finds>.

167 Kate Burke, 'Childhood Asthma Hotspots Largely in Regional Australia, Study Finds', *University of New South Wales – Newsroom* (Sydney, 11 September 2024) **https://www.unsw.edu.au/newsroom/news/2024/09/Childhood-asthma-hotspots-largely-in-regional-Australia-study-finds**.

168 Jahidur Rahman Khan et al, 'Social Deprivation and Spatial Clustering of Childhood Asthma in Australia' (2024) 9 *Global Health Research and Policy* 22 **https://ghrp.biomedcentral.com/articles/10.1186/s41256-024-00361-2**, noting the census did not collect data on these factors limiting the study's ability to investigate their impacts.

169 Kate Burke, 'Childhood Asthma Hotspots Largely in Regional Australia, Study Finds', *University of New South Wales – Newsroom* (Sydney, 11 September 2024) **https://www.unsw.edu.au/newsroom/news/2024/09/Childhood-asthma-hotspots-largely-in-regional-Australia-study-finds**.

170 Jahidur Rahman Khan et al, 'Social Deprivation and Spatial Clustering of Childhood Asthma in Australia' (2024) 9 *Global Health Research and Policy* 22 **https://ghrp.biomedcentral.com/articles/10.1186/s41256-024-00361-2**.

The 2024 hotspot study findings are supported by prior research indicating that childhood asthma is more prevalent in inner-regional areas than in major cities.[171] The literature suggests the overrepresentation of asthma in regional locations can be attributed to socio-economic factors, environmental features and limited access to specialist care.[172,173]

Among the asthma cases identified in 2022 and 2023, 4 of 11 children lived in a rural or regional area and 1 of these children was Aboriginal.[174] One child lived in a suburb identified as a hotspot.

9.2.3 Other identified factors

Other factors observed in the deaths that occurred in 2022 and 2023 included inadequate access to appropriate medication, vaping, changes in the weather and COVID-19 infection in the period preceding death.

9.2.4 COVID-19

The use of asthma health care was reduced in Australia during the pandemic, which may have led to a lower recorded estimate of the prevalence of asthma.[175]

Research suggests that the COVID-19 pandemic led to changes in clinical practice both in Australia and internationally at short notice, with less face-to-face interactions, increased use of Emergency Departments (**EDs**) for primary care, and a new reliance on technology to ensure continued access to care.

However, the specific role of COVID-19 in paediatric asthma care remains unclear and requires evaluation.[176]

171 The AIHW reports that in 2018, the rate of burden from asthma for the entire population was highest for people living in remote and very remote areas; however, based on the 2022 Australian Bureau of Statistics (ABS) National Health Survey, the AIHW reports there was little difference in the prevalence of asthma by remoteness or level of disadvantage: 'Chronic Respiratory Conditions: Asthma', *Australian Institute of Health and Welfare* (Web Page, 27 November 2024) **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma**.

172 Kate Burke, 'Childhood Asthma Hotspots Largely in Regional Australia, Study Finds', *University of New South Wales – Newsroom* (Sydney, 11 September 2024) **https://www.unsw.edu.au/newsroom/news/2024/09/Childhood-asthma-hotspots-largely-in-regional-Australia-study-finds**.

173 Jahidur Rahman Khan et al, 'Social Deprivation and Spatial Clustering of Childhood Asthma in Australia' (2024) 9 *Global Health Research and Policy* 22 **https://ghrp.biomedcentral.com/articles/10.1186/s41256-024-00361-2**.

174 According to the Australian Statistical Geography Standard Remoteness Structure, which has five remoteness areas: Major Cities, Inner regional, Outer Regional, Remote and Very Remote. See 'Health Workforce Locator', Australian Government, Department of Health, Disability and Ageing (Web Page, 22 September 2025) **https://www.health.gov.au/resources/apps-and-tools/health-workforce-locator/app?language=en**.

175 Jahidur Rahman Khan et al, 'Social Deprivation and Spatial Clustering of Childhood Asthma in Australia' (2024) 9 *Global Health Research and Policy* 22 **https://ghrp.biomedcentral.com/articles/10.1186/s41256-024-00361-2**, noting the census did not collect data on them limiting the study's ability to investigate their impacts.

176 Ryan Mackle et al, 'Asthma Care from Home: Study Protocol for an Effectiveness-implementation Evaluation of a Virtually Enabled Asthma Care Initiative in Children in Rural NSW' (2024) 19(6) *PLoS ONE* 1 **https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0304711** citing Katrien Eger et al, 'The Effect of the COVID-19 Pandemic on Severe Asthma Care in Europe: Will Care Change for Good?' (2022) *ERJ Open Res* 00065-2022 **https://publications.ersnet.org/content/erjor/8/2/00065-2022**.

9.2.5 Asthma trends

Recent research on asthma-related ED presentations, hospitalisations and deaths over the period 2012-2022 indicates that ED presentations and hospitalisations are decreasing, but rates of mortality remain relatively unchanged.

In November 2024, the Australian Institute of Health and Welfare (AIHW) released a report tracking progress (between 2017–18 and 2021–22) of the 10 national asthma indicators published in the 2018 *National Asthma Strategy*,[177] and an accompanying report about asthma in Australia.[178]

The accompanying report noted the mortality rates for asthma for all ages (including children and adults) between 2012 and 2022 have changed little, accounting for different population age structures over time.

Over the period the rate peaked at 1.6 in 2016 and was lowest at 1.1 in 2021, with the rate rising to 1.4 in 2022. The report noted a decrease in both asthma-related hospitalisations and ED presentations (from 2011–12 to 2021–22), again for all ages.

Of the 11 deaths in 2022 and 2023, 9 children were hospitalised during their lives due to asthma, ranging from 4 years to 1 day prior to death. There were no known hospitalisations for 3 children.

9.2.6 Integrated models of care

A September 2022 UNSW study noted asthma is the most common chronic respiratory condition of childhood and identified a number of challenges in paediatric asthma management including inadequate asthma education, failure to mitigate environmental triggers, a lack of coordinated health care and sub-optimal support in the community.[179]

The study assessed an integrated model of care, led by care coordinators and developed by a multidisciplinary team at Sydney Children's Hospital, Randwick aiming to reduce paediatric asthma ED presentations by 50%.

The model included a range of interventions to support follow-up care post-hospital presentation or admission and ongoing asthma management. The interventions included encouraging parents/carers to schedule follow-up visits with a GP, providing standard asthma resources to parents/carers, offering referrals to asthma education, sending a letter to the child's GP and coordinating asthma education webinars for GPs.

Further, for children included in the program who had been admitted to hospital, text messages were sent to parents/carers reminding them to follow up with the GP.

Of the 160 children enrolled in the program, the proportion of children requiring more than 1 ED presentation reduced by 42% at 6 months and 62% by 12 months. Similarly, for those requiring hospital admission, the proportion reduced by 48% at 6 months and 55% at 12 months. The study concluded that an integrated model of care, led by care coordinators and including asthma resources and education, can reduce asthma hospital presentations in children.

177 'Chronic Respiratory Conditions: National Asthma Indicators', Australian Institute of Health and Welfare (Web Page, 27 November 2024) **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/asthma-indicators**.

178 'Chronic Respiratory Conditions', Australian Institute of Health and Welfare (Web Page, 27 November 2024) **https://www.aihw.gov.au/reports/chronic-respiratory-conditions/chronic-respiratory-conditions/contents/asthma**.

179 Nusrat Homaira et al, 'Impact of Integrated Care Coordination on Pediatric Asthma Hospital Presentations' (2022) 10 *Frontiers in Pediatrics* 929819 **https://www.frontiersin.org/journals/pediatrics/articles/10.3389/fped.2022.929819/full**.

9.3 Monitoring research

A 2024 UNSW study protocol identified asthma as the leading source of unscheduled hospitalisation in Australian children, disparities in paediatric asthma care and inequitable access to comprehensive asthma management for children in rural and remote areas.[180]

The study proposes to examine the effectiveness of a comprehensive virtually-enabled asthma care initiative, the Asthma Care from Home Project, for children in rural NSW (Northern NSW, Southern NSW and Western NSW LHDs). It will evaluate a virtually-enabled model of care that includes standardisation of discharge care through provision of asthma discharge resources (including an individual asthma action plan), follow-up letters for GPs and schools/childcare, access to online asthma education for GPs and schools/childcare, post-discharge care coordination and virtual home visits. The study will include both an implementation and economic evaluation to provide insight into the sustainability of the model with an aim to improve access to asthma care for children in regional and remote areas.

The model of asthma care trialled in the 2024 UNSW study protocol seeks to address the three key risk factors identified in our analysis of the deaths in 2022 and 2023 – absent or outdated asthma action plans, insufficient engagement with GPs and living in regional or remote locations. The 2024 study utilises the learnings from the 2022 study regarding the effectiveness of comprehensive, coordinated asthma care, refines the scope and methodology (including virtual home visits, comparison groups and the evaluation of cost-effectiveness) and applies it to the group identified as experiencing the highest burden of care and mortality rates from asthma in Australia: children living in rural and remote settings. The Child Death Review Team (**CDRT**) is interested in the extent to which the study will evidence any reduction in potentially preventable asthma hospitalisation, and any specific improvement in addressing the risk factors identified during the reporting period.

The CDRT will monitor deaths of children related to asthma along with the findings of the study, including the impact of the model of care on these risk factors.

180 Ryan Mackle et al, 'Asthma Care from Home: Study Protocol for an Effectiveness-implementation Evaluation of a Virtually Enabled Asthma Care Initiative in Children in Rural NSW' (2024) 19(6) *PLoS ONE* 1 **https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0304711**.

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10

Emerging issues

School connectedness and suicide prevention

10.1 Background

The CDRT has observed a potential relationship between school connectedness and suicide risk. School connectedness is described broadly as school engagement, belonging, positive school relations and attitudes toward school, and engaging in meaningful activities in school.[181]

For young people (aged 10–17) who die by suicide, the Register of Child Deaths (**RCD**) in NSW collects data on some key factors associated with school connectedness. These include whether the young people were enrolled in school or another educational pathway, any regular absenteeism (including justified and unjustified absences) as well as experiences of bullying, adverse childhood experiences and records about their social and emotional wellbeing. The CDRT acknowledges that school connectedness is broader than school enrolment and attendance. There are also challenges when seeking to understand young people's school connectedness by reference only to a young person's education and other available records. Nonetheless, data from the RCD, other available research and a recent coronial inquest all highlight that absenteeism can be an important symptom of school disconnectedness and indicate a need for further research to understand how school connectedness can be a protective factor against suicide and other risks.

Evidence shows that social exclusion (which can take many forms) increases the risk of self-harm and suicidal ideation.[182] School disconnection is an important marker of social exclusion in young people. Schools are both a critical agency delivering education as well as an integral part of a child's social support system and community.

School attendance in NSW is compulsory for all children between the ages of six years and below the minimum school leaving age of 17 years.[183] The NSW Department of Education (**DoE**) website describes the relationship between school attendance and school connection.[184]

It states that attending school every day is important as regular attendance helps students develop a sense of belonging, develop and maintain friendships and peer support, be more engaged at school, progress with their learning, and be more aware of their career and life opportunities. It also notes that supporting positive school attendance is a shared responsibility with students, caregivers and the school all having a role to play.

In 2024, just under half of all NSW public school students were regularly absent from school, with 4 in 10 students missing on average at least 1 day of class every fortnight.[185] Public school students missed 9.7 million days of school in 2024, with 3 million unexplained absences.[186]

181 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* (Report to the NSW Child Death Review Team presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

182 Sophie Epstein et al, 'School Absenteeism as a Risk Factor for Self-harm and Suicidal Ideation in Children and Adolescents: A Systematic Review and Meta-analysis' (2020) 29(9) *Eur Child Adolesc Psychiatry* 1175 **https://pmc.ncbi.nlm.nih.gov/articles/PMC7116080/**.

183 Students may satisfy legislative requirements through Home Schooling or Distance Education, where physical attendance at school is not required.

184 'School Attendance – Information for Parents' NSW Department of Education (Web Page, 28 January 2025) **https://education.nsw.gov.au/schooling/parents-and-carers/going-to-school/school-attendance-information-for-parents**.

185 '2024 Semester 1 student attendance - fact sheet', NSW Department of Education (Fact sheet, January 2025) **https://data.nsw.gov.au/data/dataset/482afcba-cd0b-47da-ade9-6724a96cf943/resource/83b92b9a-821e-4e48-9ccc-1a6942597983/download/2024-government-school-attendance-fact-sheet.pdf**.

186 Ibid.

The CDRT reviews records relating to the suicide deaths of young people that can identify issues relating to school connectedness,[187] including:

- enrolment records
- attendance records
- school counsellor records
- behaviour/incident reports including suspensions or expulsions
- referral to the Home School Liaison Program (**HSLP**)[188]
- learning support plans
- communication between school personnel concerning the child
- communication between the school and the child's carer/s
- child protection and health records.[189]

These records can contain information identifying absenteeism as an issue, including one or more of the following circumstances:

- the young person's education was impacted by absenteeism
- proximal events (including bullying at school and suspension or expulsion) contributed to the child's absenteeism and were considered relevant to the circumstances of death
- attendance was noted as problematic, typically including unexplained absences, explanations not accepted by the principal, support plans to encourage attendance that did not result in improvement; and referrals to the HSLP
- the young person's attendance met the threshold for habitual non-attendance, defined as a minimum of 30 days absent within the past 100 school days.

The CDRT acknowledges that these records do not always provide a full picture detailing the reasons for all absenteeism, that a range of complex factors may underlie absenteeism (such as chronic illness or family adversity) and school connectedness is broader than absenteeism alone.

Absenteeism can often be a secondary outcome of primary concerns such as family factors, disability, bullying, and other proximal issues. As noted by the DOE on their website, there is a connection between school attendance and school connectedness and the CDRT recognises that absenteeism should be viewed as an indicator that connectedness and wellbeing at school require further investigation and support. Consequently, school attendance records can provide an important albeit indicative insight into a child's connection to school prior to their death.

The CDRT reported that in 2020–21, 44 of the 58 (41%) young people who died by suicide experienced at least 1 issue associated with school connectedness.[190] Of these 44 young people, 24 experienced school absenteeism.[191]

In the 2022–2023 reporting period, 21 of the 49 (43%) young people who died by suicide experienced at least one issue associated with school connectedness. All 21 young people experienced school absenteeism.

Of the 21 deaths in 2022–2023:

- The ages of the young people at the time of their death ranged from 11–17 years. Six were aged 17. Thirteen were aged 15–16 years. Two were 11–14 years.
- Ten young people had periods of explained absenteeism due to medical concerns including mental health.
- One death was reviewable as the young person was in care at the time of their death.
- Sixteen young people attended DoE schools at the time of their death or if not attending school, their last known school was a DoE school (two young people aged 17 were not enrolled at the time of their death). Five young people were attending an independent or interstate school at the time of their death.

187 In 2021–22 and 2022–23, these records were available for the 12 months prior to the child's death.

188 The HSLP provides schools with the opportunity to apply for additional support and targeted strategies to foster improved attendance for students at risk of disconnecting. The HSLP is detailed in **Section 10.2** below.

189 The CDRT acknowledge that a child's experience of school connectedness is often more complex than what is recorded in the RCD. Other information that may be relevant such as a young person's police records and information prior to the 12 months before the time of death are not routinely collected.

190 NSW Ombudsman, *Biennial Report of the Deaths of Children in New South Wales: 2020 and 2021* (Report, 2023) **https://www.ombo.nsw.gov.au/reports/reports-into-the-deaths-of-children/biennial-report-of-the-deaths-of-children-in-new-south-wales-2020-and-2021**.

191 According to the **DoE policy library** (**https://education.nsw.gov.au/policy-library/policies/pd-2005-0259-02**), a student is considered to have "unsatisfactory school attendance when they have frequent absences without explanation, and/or frequent absences that are explained, but the principal deems them unjustified". Since the launch of the **Every Day Matters campaign** in 2023 (**https://education.nsw.gov.au/news/latest-news/campaign-to-address-falling-attendance-numbers#:~:text=NSW%20public%20schools%20have%20a%20target%20of%20a,cent.%20Currently%2C%20NSW%20schools%20are%20below%20that%20target.**), NSW public schools have a target of a 95% attendance rate. The DOE have based this target on research showing students with an attendance rate below 90% are educationally at risk. In the 2022–2023 reporting period, the 21 young people who died by suicide who experienced school absenteeism attended school significantly below 90% of the time.

10.2 Discussion

10.2.1 Evidence indicates school disconnection is a suicide factor

A 2017 meta-analysis about school connectedness and suicide showed that students reporting school connectedness are significantly less likely to have suicidal thoughts or report making a suicide attempt.[192] The analysis states that students who report a connection to school experience positive school relationships, feel part of the school, see school as a safe environment and perceive the expectations at school as clear and fair.

A 2020 meta-analysis about absenteeism being a risk factor for self-harm and suicide also found school absenteeism is associated with both self-harm and suicidal ideation in children.[193]

In August 2023, the Federal Parliament's Education and Employment References Committee released its report on the inquiry into the national trend of school refusal and related matters. The report states that 'during the course of the inquiry, the committee heard that school refusal has a profound effect on young people's health and wellbeing, their sense of self-worth, their connection to friends and family, and their aspirations for life beyond school'.[194]

The Committee noted the term 'school refusal' may misrepresent a student's absence as a deliberate choice, noting a lack of consensus around preferred terminology.[195] The committee heard that many children and young people experienced significant mental health impacts due to school refusal. In some cases, parents reported signs of school refusal escalated to threats and behaviour of self-harm, and suicide ideation and attempts. The inquiry observed these impacts are not short-lived, with some evidence linking school disconnection to poorer life outcomes.

In June 2025, Independent Schools Australia (**ISA**)[196] published a paper titled *A Flexible Solution to Complex School Attendance Issues*.[197] The paper calls on the Australian Government to treat school absenteeism as a continuum that requires a flexible and innovative response with targeted support for students, families and schools. It also calls for a national discourse on school refusal including the lack of national definition of school refusal and factors contributing to absenteeism.

The 2025 Report on Aboriginal Youth Suicide, *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales*, highlights that school connectedness is a protective factor and school disconnection is a risk factor for youth suicide among Aboriginal and Torres Strait Islander young people. It states that school support is associated with decreased risk of for suicide-related behaviours and has been found to be the strongest protective factor against suicide in comparison to family support and community support.[198]

192 Marisa E Marraccini and Zoe MF Brier, 'School Connectedness and Suicidal Thoughts and Behaviors: A Systematic Meta-analysis' (2017) 32(1) *School Psychology Quarterly* 5 **https://doi.org/10.1037/spq0000192**.

193 Sophie Epstein et al, 'School Absenteeism as a Risk Factor for Self-harm and Suicidal Ideation in Children and Adolescents: A Systematic Review and Meta-analysis' (2020) 29(9) *Eur Child Adolesc Psychiatry* 1175 **https://doi.org/10.1007/s00787-019-01327-3**.

194 The Senate Education and Employment References Committee, Parliament of Australia, *The National Trend of School Refusal and Related Issues* (Report, August 2023) 117 **https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/SchoolRefusal/Report**.

195 Ibid.

196 ISA is the national peak body for Independent schooling in Australia.

197 Independent Schools Association, A Flexible Solution to Complex School Attendance Issues (Paper, June 2025) **https://isa.edu.au/wp-content/uploads/2025/06/Independent-Insights-June-2025-DIGITAL-FINAL.pdf**.

198 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales, p21* (Report to the NSW Child Death Review Team presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

10.2.2 Absenteeism and intersecting risk factors

Information from the Register of Child Deaths (**RCD**) indicates that the relationship between absenteeism from school and suicide risk differed for each young person and was significantly impacted by intersecting issues.

For example, in 2022–2023 there were young people who experienced prior to their death:

- chronic absenteeism (over several years) and/or continuous periods of absenteeism
- short and/or dispersed periods of absenteeism
- some justified/explained periods of absenteeism, including due to medical conditions, including mental health issues (for example, sick leave)
- absenteeism connected to other factors such as instability at home, bullying or learning difficulties (including neurodiversity)
- absenteeism evident prior to COVID-19, and who did not return to school following the statewide learning from home period.

The 2023 Federal Parliament inquiry into school refusal also noted that disability, especially neurodiversity, and mental health (such as anxiety) are clear individual risk factors for school refusal.[199]

199 The Senate Education and Employment References Committee, Parliament of Australia, *The National Trend of School Refusal and Related Issues* (Report, August 2023) **https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/SchoolRefusal/Report**.

10.2.3 Agency identification of and response to risk

A key challenge identified in the data was limited agency responses, or lack of responses, to student absenteeism and indications of school disconnection.

Of the 21 suicide deaths in NSW between 2022 and 2023 where the young person experienced chronic school absenteeism, 15 young people were not reported as being at risk of significant harm (**ROSH**) to the Department of Communities and Justice (**DCJ**). Five were 17 years old at the time of their death,[200] 3 were 16 years old, 4 were 15 years old, and 3 were between 11 and 14 years old. Seven of these 15 young people had some recorded explained absences due to medical concerns including (but not limited to) mental health concerns.

Of the 6 young people reported to DCJ for educational neglect,[201] 3 were reported in the 12 months before their death.[202] Two of the 3 were also referred to and accepted by the HSLP (see **Section 10.2.5** below).

Of the 6 young people who were reported, 4 were reported on multiple occasions. Some reports were screened-in as ROSH and others as non-ROSH. None received a response from DCJ.

The CDRT's initial review of the 21 suicide deaths indicates that for several young people, the factors associated with absenteeism required support beyond the control of the DoE and/or school.[203] For example, some young people were homeless or transient, or their whereabouts were unknown. In these situations, the school is both required to notify other agencies, and reliant on the involvement of those agencies. Further research into this cohort would be needed to fully understand the issues experienced by each young person.

Information available in the RCD shows inconsistent approaches to schools' responses to absenteeism including compliance with school policies and procedures, and/or referrals for additional support and/or to other agencies. There is also information showing that both intra-agency coordination and communication within schools and across DoE, as well as interagency coordination, was often lacking or inconsistent. These issues were also evident in the findings from the 2024 coronial inquest into Harmony's death.

200 While these 5 young people were 17 at the time of their death and were therefore unable to be reported to DCJ as at risk of educational neglect, all 5 experienced significant periods of absenteeism in the 3 years prior to their death (when reports of educational neglect could have made).

201 The NSW Department of Communities and Justice, *NSW Mandatory Reporter Guide* (Guide) **https://reporter.childstory.nsw.gov.au/s/mrg** has 'Education – Habitual Absence' as well as 'Education – Not Enrolled' listed as neglect concerns. They are defined as a child/young person of compulsory school age (6–16) who is not enrolled, or a child/young person of compulsory school age who is habitually absent.

202 Of the 3 young people who were not reported to DCJ in the 12 months prior to their death, one was 17 at the time of death.

203 As noted above, 16 of the 21 young people had been attending a DoE school with 5 young people attending an interstate or independent school.

10.2.4 Coronial inquest into the death of Harmony

In 2024, findings were handed down in the coronial inquest into the death of Harmony.[204] Harmony (aged 15) died by suicide in 2020 and she experienced many of the issues discussed above including chronic absenteeism over several years and significant instability at home.

The Coroner found that:

- Harmony experienced risk of significant harm outside of school including domestic and family violence.
- Harmony's school attendance records demonstrated significant unexplained absences, which were more frequent after periods of suspension (experienced multiple times).
- Despite experiencing concerning absenteeism from school in the years prior to her death, Harmony was not referred to the HSLP until 2019. At this time, Harmony had left the school area and could not be located. She remained disconnected from school at the time of her death.

In terms of school disconnection, the inquest focused on the need to improve DoE responses to:

- allegations of neglect, abuse and violence against Harmony
- the management of Harmony's truancy
- Harmony's access to the HSLP
- the impact of suspension on young people with a known history of family and domestic violence.

The DoE tendered the *Home School Liaison Draft Evaluation Report* to the Coroner, showing that only 14% of students with less than 50% attendance in Harmony's local area were allocated to the HSLP caseload. The Coroner accepted evidence that the HSLP was under-resourced and unable to prioritise students receiving 'help from other sources' (as described in the Coroner's findings).

The Coroner made five recommendations to the DoE focused on:

- prioritising the redesign of the HSLP as a matter of urgency
- reviewing the current suspension policy to address the needs of young people experiencing significant vulnerabilities
- using Harmony's experience as a case study for the training of DoE staff on the impact of suspensions on school connectedness.

The DoE is required to provide a public response to these recommendations in September 2025. The CDRT supports the recommendations and will monitor the DoE response to each.

204 Coroners Court of New South Wales, Inquest into the Death of Harmony (Coroner's Report, 3 March 2025) **https://coroners.nsw.gov.au/documents/findings/2025/Inquest_into_the_death_of_Harmony.pdf**.

10.2.5 DoE initiatives

Home School Liaison Program (**HSLP**)

The HSLP provides schools with the opportunity to apply for additional support and targeted strategies to foster improved attendance for students at risk of disconnecting. Some of the key roles of HSLP Officers are to monitor student attendance; collaborate with schools to review, develop and implement strategies to improve and promote attendance; and collaborate with relevant parties in the development of student attendance improvement plans.[205]

The CDRT's analysis of the role of the HSLP in the 2022–2023 suicide deaths is consistent with the coronial inquest findings into the death of Harmony. That is, the HSLP was often not accessed by the young person (6 of the 21 young people in this cohort accessed the HSLP). When the HSLP was involved, it was often when the young person was experiencing crisis (early intervention was lacking), and the education and behaviour support plans developed did not result in a sustained increase in the young person's school attendance.

School connectedness initiatives

The DoE is currently reviewing initiatives and interventions to inform 2025 campaign strategies to increase attendance. These initiatives include:

- The *NSW Plan for Public Education*,[206] which lists attendance as a success measure. The DoE has introduced 'School Improvement Measures' for attendance under School Excellence Plans where schools must develop an attendance target and work through a cycle of meeting those targets. In addition, the DoE has announced a system success measure to increase the average student attendance rate from 87.8% in 2023 to 88.8% in 2027.
- A suite of resources to support schools to better understand a student's sense of belonging at school including case study examples across various NSW public schools.[207]
- The Perfect Presence Pilot Program (**PPPP**) is an early intervention pilot program delivered by external providers, designed to assist students showing early signs of disconnection from school focusing on behavioural, cognitive and emotional student engagement. As of August 2023, the program had been delivered to 63 schools. Its recent evaluation made 24 recommendations to improve program eligibility, administration, the co-design of school specific programs, program outcomes, delivery, provider capacity and program expansion.[208]

205 NSW Department of Education, *Home School Liaison Officer 2022 Statement of Duties* (Statement of Duties, 2022) **https://education.nsw.gov.au/content/dam/main-education/cf/1648774804952/HSLO-Statement-of-Duties.pdf**.

206 'Our Plan for NSW Public Education', *NSW Department of Education* (Web Page, 11 August 2025) **https://education.nsw.gov.au/about-us/strategies-and-reports/plan-for-nsw-public-education**.

207 'Making Sense of Belonging', *NSW Department of Education* (Web Page, 11 February 2025) **https://education.nsw.gov.au/about-us/education-data-and-research/what-works-best/student-belonging/making-sense-of-belonging** and 'Sense of Belonging Research Series', *NSW Department of Education* (Web Page, 17 December 2024) **https://education.nsw.gov.au/about-us/education-data-and-research/cese/publications/case-studies/sense-of-belonging-research-series**.

208 NSW Department of Education, Perfect Presence Pilot Evaluation – Executive Summary (Executive Summary, October 2024) **https://education.nsw.gov.au/content/dam/main-education/en/home/public-schools/going-to-a-public-school/specialist-settings-in-nsw-public-schools/NSW_Education_specialist_settings.pdf**.

Alternative school settings

In NSW, alternative school settings are considered crucial for ensuring all students have access to quality education, including schools for specific purposes catering for students with behavioural or emotional disorders, schools in Youth Justice detention centres and hospital schools.[209] The Audit Office of NSW conducted a performance audit in 2025–2026 that assessed whether students who may experience difficulties in receiving an education in a mainstream classroom environment in NSW, or who choose not to be educated in a mainstream classroom environment, have access to quality education when in alternative educational settings.[210]

The audit found the DoE and NSW Education Standards Authority have not effectively supported eligible students to receive a quality education in alternative school settings and home schooling.

The CDRT acknowledges there are a range of other NSW Government initiatives and programs that seek to support students and their family's connectedness to school such as NSW School-Link.[211]

209 NSW Department of Education, *NSW Education Specialist Settings* (Guidance, March 2023) **https://education.nsw.gov.au/content/dam/main-education/en/home/public-schools/going-to-a-public-school/specialist-settings-in-nsw-public-schools/NSW_Education_specialist_settings.pdf**.

210 'Alternative School Settings and Home Schooling 2025–26', *Audit Office of New South Wales* (Web Page) **https://www.audit.nsw.gov.au/our-work/reports/alternative-school-settings-and-home-schooling**.

211 NSW Health, *NSW School-Link Initiative* (Factsheet) **https://www.health.nsw.gov.au/mentalhealth/resources/Factsheets/school-link.pdf**.

10.3 Observations

10.3.1 Limited understanding of school disconnection as a suicide risk factor

In 2023, the Australian Education Research Organisation was commissioned by Education Ministers to investigate student attendance in Australian schools.[212] Two literature reviews were conducted exploring approaches, programs and interventions that support school attendance and address student absence. These reviews did not focus on the relationship between school connectedness and suicide risk.

As the 2025 Report on Aboriginal Youth Suicide[213] highlights, agencies often stop working with young people disconnected from school, partly because disconnection is viewed by agencies as a young person's choice to resist support. The report states 'of considerable concern is the labelling of children and young people as disengaged from services and programs, where their failure to comply becomes regarded as the problem to be addressed rather than an unmet need'.[214] The report consulted with community members and frontline workers who 'strongly argued that disengagement needs to be seen as a risk factor for suicide'. The report discussed the particular importance of school connection as a 'mechanism of safety'.

As part of the inquest into Harmony's death, the Coroner received expert evidence from Professor Linda Graham, Director of the Centre for Inclusive Education at Queensland University of Technology (**QUT**). Professor Graham gave evidence about her research that identified the potential of school connectedness to be a strong protective factor particularly for children and young people who experience risk of significant harm at home.

Professor Graham highlighted that exclusionary discipline (namely school suspension) is a problematic practice and used disproportionately on students experiencing harm at home, students with disability and Indigenous students, exacerbating their long-term risks.[215]

The CDRT considers it critical that the school sector recognises that school disconnection may be linked to suicide risk, particularly when it reflects underlying issues like mental health, social isolation, bullying or instability at home. Prolonged or frequent absenteeism may also lead to academic challenges, which can create a sense of hopelessness for young people, social disconnection, and withdrawal from activities. The consequential impact of school disconnection on other recognised protective factors against suicide – such as social connection, community involvement and overall wellbeing – needs to be better understood and responded to with more targeted screening, support and intervention to prevent future suicide deaths.

212 'School Attendance', *Australian Education Research Organisation* (Web Page, 30 January 2025) **https://www.edresearch.edu.au/research/projects/school-attendance**.

213 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales* (Report to the NSW Child Death Review Team presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

214 *Holding Hope: Preventing Suicide among Aboriginal and Torres Strait Islander Young People in New South Wales, p XXV* (Report to the NSW Child Death Review Team presented to the Presiding Officers for tabling in NSW Parliament on 5 November 2025).

215 Coroners Court of New South Wales, *Inquest into the Death of Harmony* (Coroner's Report, 3 March 2025) **https://coroners.nsw.gov.au/documents/findings/2025/Inquest_into_the_death_of_Harmony.pdf**.

10.3.2 Understanding intersecting issues is critical

Further research is also required to better understand the complex issues experienced by children disconnected from school to best determine and identify suicide prevention opportunities including but not limited to:

- how to define school refusal, and factors influencing school refusal[216]
- the relationship between early signs of school disconnection and suicide risk
- the intersection between school disconnection as a risk factor for suicide and other critical vulnerabilities experienced by students such as broader social isolation, bullying, neurodiversity, and experiences of abuse and neglect at home.

The issue of school disconnection and other risks for young people needs to be understood more broadly by agencies. Data from the RCD highlights that social isolation and school disconnection were identified factors for young people in 8 transport-related deaths in the 2022–23 reporting period where there was evidence of risk-taking behaviour related to their deaths.

10.3.3 Need for better responses to school disconnection across all school sectors

While school disconnection and its relationship to suicide deaths is complex, the adequacy and effectiveness of agency responses to disconnection warrants examination.

Through additional research led by the education sector, there may be opportunities to:

- highlight the key reasons for absenteeism, and its relationship with other risk factors in suicide deaths[217]
- identify opportunities to improve intra-agency and inter-agency communication and exchange of information, including clarification of roles and responsibilities
- identify evidence-based strategies for screening suicide and other risks where school disconnection is observed.

Future research should consider the 2025 Independent Schools Association paper[218] as well as the 2023 Federal Parliament inquiry recommendations into school refusal[219] including the development of a nationally agreed definition of school refusal; early identification of school refusal; increasing the focus on student wellbeing; improving cross-sector collaboration; and the development of a national action plan on school refusal.

On 17 November 2024, the NSW Government announced that the NSW Schools Advisory Council will convene to work on a statewide approach to address bullying in NSW schools. A similar approach is recommended to work towards a statewide approach to identifying and responding to school disconnection as a suicide risk factor. While most of this cohort were attending public schools before or at the time of their death, some were attending independent schools, making a sector wide approach to this work necessary.

216 The NSW DoE has its own definition of '**school refusal**' (**https://education.nsw.gov.au/content/dam/main-education/en/home/student-wellbeing/attendance-matters---resources-for-schools/School_Refusal_Every_School_Day_Counts.pdf**); however, there is no nationally agreed definition.

217 Noting school disconnection is broader and not synonymous with absenteeism.

218 Independent Schools Association, A Flexible Solution to Complex School Attendance Issues (Paper, June 2025) **https://isa.edu.au/wp-content/uploads/2025/06/Independent-Insights-June-2025-DIGITAL-FINAL.pdf**.

219 The Senate Education and Employment References Committee, Parliament of Australia, *The National Trend of School Refusal and Related Issues* (Report, August 2023) **https://www.aph.gov.au/Parliamentary_Business/Committees/Senate/Education_and_Employment/SchoolRefusal/Report**.

Recommendation

In the context of the observations detailed, the CDRT recommends:

5

The NSW Department of Education, the Association of Independent Schools of NSW, and Catholic Schools NSW conduct joint research to better understand and respond to school disconnection as a suicide and other related risk factor. This research may consider other current research and existing evidence and should involve those with lived or living experience of school disconnection and/or youth suicide.

The CDRT does not prescribe the manner by which the NSW Department of Education, the Association of Independent Schools of NSW, and Catholic Schools NSW conduct this joint research.

11

Emerging issues

Methamphetamine detection in infant deaths

11.1 Background

Methamphetamine (also known as methylamphetamine) is a synthetic stimulant with a high addiction potential and serious health risks.[220] Relatively few Australians report using methamphetamines compared to other drugs; however, harms related to methamphetamine use are high in Australia.[221] The manufacture, supply, possession and use of methamphetamines are criminal offences in NSW. Crystal methamphetamine is also known as the drug 'ice'.

Data from the NSW Register of Child Deaths shows an increasing number of deaths of infants (that is, children under 1 year) where methamphetamine (indicative of crystal methamphetamine) was detected in toxicological analysis at the time of autopsy.[222]

In NSW, 12 infant deaths where methamphetamine was detected in toxicology results occurred in the 10-year period between 2014 and 2023. Three occurred in 2023. Eight occurred in the 5-year period between 2019 and 2023, twice as many as in the preceding 5-year period (2014–2018).[223]

A link between each infant's cause of death and methamphetamine exposure has not been established in 11 of these 12 cases. The CDRT acknowledges the considerable challenges for forensic pathologists in establishing the impact, connection or significance of parental methamphetamine use in infant deaths. These include that most clinical research is based on toxicology concentrations in adults, making the interpretation of drug detection in infants challenging.

The evidence available about the risks of methamphetamine exposure in utero and parental methamphetamine use for infants is explored below. Given the evidence is limited and the possible ways methamphetamine exposure contributes to infant death are hypothesised, the Child Death Review Team (**CDRT**) has assessed the need for further research in this area.[224] This assessment has considered the available information in relation to the circumstances of these deaths; reports from research, reviews, inquiries and other jurisdictions; and recommendations for further research in NSW.

Two other jurisdictions have also reported increases, though not only in infant deaths. In 2020, a South Australia study (**South Australian study**) showed increasing methamphetamine detection in cases of fatalities of children aged under 13 years.[225] Between January 2002 and December 2016, methamphetamine was detected in toxicology findings in seven coronial cases in the South Australian study. Six of the 7 deaths occurred between 2012 and 2016, showing an increase of children presenting to forensic autopsy who had detectable concentrations of methamphetamine.

220 Drabsch, T, '*Crystal Methamphetamine Use in New South Wales*', NSW Parliamentary Library Research Service (Briefing paper, 2006) **https://www.parliament.nsw.gov.au/researchpapers/Documents/crystal-methamphetamine-use-in-new-south-wales/CrystalMeth%20and%20Index.pdf**.

221 How many people use crystal methamphetamine' *Department of Health, Disability and Ageing* (Web page, 2025) **https://cracksintheice.org.au/how-many-people-use-ice**.

222 The methamphetamine detected in these infants was not indicative of parental prescribed stimulant treatment or dexamphetamine use.

223 Across the 2014–2023 period, NSW routinely used blood tests (excluding hair testing) to conduct post-mortem toxicology testing and conduct a routine panel of alcohol and drug screening for all infant post-mortem toxicology tests. During this 10-year period, there was no change to the screening method used on blood specimens by the Forensic Toxicology Laboratory (FTL) in coronial cases. The limit of detection of methylamphetamine in the screening method is 0.01 mg/L. In approximately January 2021, a new confirmatory and quantitative method for amphetamine type substances in blood was introduced using different technology where the limit of detection of methylamphetamine is 0.0005 mg/L and the limit of quantitation is 0.01 mg/L. This continues to be the method used for confirming and reporting a level for methylamphetamine by the FTL. The previous confirmatory and quantitative method had a limit of detection of methylamphetamine of 0.01 mg/L and a limit of quantitation of 0.02 mg/L. The current method can detect methylamphetamine at lower levels than the previous method. Notably, methamphetamines are also known to have a greater shelf life (the period during which the substance is known to remain in the blood) than other substances such as opioids.

224 Under s 34D(1)(f) of the *Community Services (Complaints, Reviews and Monitoring) Act 1993*, the CDRT has a function to identify areas requiring further research by the Team or other agencies or persons.

225 Michaela Kenneally and Roger W Byard, 'Increasing Methamphetamine Detection in Cases of Early Childhood Fatalities' (2020) 65(4) *Journal of Forensic Sciences* 1376 **https://doi.org/10.1111/1556-4029.14321**.

In 2024, a retrospective review of child deaths reported to the Victorian Coroner (**Victorian report**) reported the number of child deaths where a child aged 12 and under was exposed to methylamphetamine increased over the 10 years between 2011 and 2020.[226] Of these children, 12% were less than one day old at the time of death, 66% were infants (median age 47 days), and 22% were older than 1 year (median age 2.2 years).

Other reports have focused on identification of parental methamphetamine use in reviews of child deaths, rather than methamphetamine detection at autopsy. The Queensland Child Death Review Board reported on the risks for children caused by methamphetamine use by parents (**Queensland report**), released in 2024.[227]

The report noted the 'concerning rate' at which parental methamphetamine use was being identified in reviews of child deaths. The Queensland report states that parent methamphetamine use was present in almost one third of the 170 deaths reviewed from 1 July 2020 to 30 June 2023. These findings are related to all Queensland child deaths (not only infants under 1 year).

11.1.1 Infant deaths in NSW where methamphetamine was detected in autopsy findings

Of the 12 infant deaths in NSW where methamphetamine was detected in autopsy findings between 2014 and 2023:

- Five were identified as Aboriginal or Torres Strait Islander.
- The cause of death was established for four cases (1 natural cause due to extreme prematurity[228] and 3 external cause deaths – 2 due to asphyxiation and 1 due to complications of methylamphetamine exposure, with the infant exposed to a fatal range of methamphetamine in utero).
- The Coroner could not establish a cause and/or manner of death for 3 cases (all 3 deaths were categorised as Sudden Unexpected Deaths in Infancy (**SUDI**)).
- In some cases, the origin of infant exposure to methamphetamine could not be established. However, in at least 5 deaths it was the opinion of the forensic pathologist that transmission likely occurred through breastmilk and in two cases, the forensic pathologist concluded that transmission occurred in utero.
- The causes of death for 5 infants are pending the outcome of a coronial process (all 5 were categorised as SUDI).

Of the 9 deaths categorised as SUDI, 2 were reviewable by the NSW Ombudsman:

- One death occurred in circumstances of neglect (where the infant died of asphyxiation after being breast fed by a drug-affected parent and then put to sleep next to both drug affected parents on an unsafe surface). The infant's toxicology results were noted as an 'other significant condition'.
- One death occurred in circumstances suspicious of abuse. The NSW Police investigation concluded that the infant had been deliberately administered methamphetamine. Methamphetamine was detected in items seized from the infant's home including baby formula and infant medication. However, the significance of the presence of methamphetamine in the infant's toxicology could not be established when determining cause of death and the related criminal charges did not proceed.

226 Dylan Mantinieks et al, 'A Retrospective Review of Methylamphetamine Detected in Child Deaths Reported to the Victorian Coroner, Australia' (2024) 20 *Forensic Sci Med Pathol* 1261 **https://doi.org/10.1007/s12024-024-00778-8**.

227 Queensland Child Death Review Board, Risks for Children Caused by Methamphetamine Use by Parents (Report, 2024) **https://www.qfcc.qld.gov.au/sites/default/files/2024-05/CDRB%20Methamphetamine%20use%20by%20parents%20of%20children.pdf**.

228 The connection between the infant's toxicology results and prematurity experienced is unknown. The mother was incarcerated during pregnancy (she was released to community two weeks prior to giving birth) and was receiving prenatal care in custody.

11.2 Discussion

11.2.1 Risks during pregnancy and to infants

There is limited information about the effects of methamphetamine use during pregnancy or on newborns after pregnancy. The CDRT has considered the available information about the risks associated with methamphetamine use in pregnancy and on newborns.

The 2024 Victorian report found that the increase in methamphetamine detection in infant deaths is consistent with the greater supply of crystal methamphetamine detected in Australian communities. This increased supply was similarly noted in the 2020 NSW Special Commission of Inquiry into Crystal-methamphetamine and Other Amphetamine-type Stimulants (**Special Inquiry**).[229]

In September 2021, the Melbourne Royal Women's Hospital published a fact sheet about using amphetamines during pregnancy and breastfeeding, which details the risks associated with methamphetamine use in pregnancy including placental abruption, miscarriage, prematurity and still births, as well as growth and development issues for infants.[230] For breastfeeding mothers, it notes methamphetamine use may cause irritability and poor sleep patterns in infants, which may lead to co-sleeping occurring. NSW Health publishes consumer focused information related to alcohol and other drug use including limited information specific to use of methamphetamine during pregnancy and breastfeeding.[231]

The 2024 Queensland report details several risks for infants including that maternal methamphetamine use during pregnancy is associated with miscarriage and premature birth. It also refers to other associated risks including low birthweight, kidney or liver injury, perinatal brain malformation and other neurological symptoms shortly after birth, as well as evidence suggesting maternal methamphetamine use can increase the risk of sudden death in infancy.

Many of the risks referred to in these publications (such as growth and developmental issues, low birthweight, irritability and the increased likelihood of co-sleeping) were present in the 9 cases in NSW during 2022–2023 that were categorised as SUDI, as discussed at **Section 11.1.1**.

229 NSW Government, *Special Commission of Inquiry into the Drug 'Ice' (Ice Inquiry)* (Inquiry, 2020) **https://www.nsw.gov.au/departments-and-agencies/the-cabinet-office/resources/special-commissions-of-inquiry/drug-ice**.
230 Royal Women's Hospital, *Using Amphetamines During Pregnancy and Breastfeeding* (Fact Sheet, September 2021) **https://thewomens.r.worldssl.net/images/uploads/fact-sheets/Amphetamines-2021.pdf**.
231 'Methamphetamine' *NSW Health* (Web page) **https://yourroom.health.nsw.gov.au/a-z-of-drugs/Pages/methamphetamine.aspx**.

11.2.2 Infants reported at risk of significant harm

Nine of the infants who died were reported to the NSW Department of Communities and Justice (DCJ) as at risk of significant harm (ROSH) prior to their death.

Eight of these 9 infants were categorised as SUDI deaths. For 7 of these 9 infants, the concerns raised in the ROSH reports were related to methamphetamine use by the parent or parents either at the time of death or prior. Other concerns raised in ROSH reports included domestic violence, parental mental health and neglect. Most families reported were experiencing multiple vulnerabilities alongside parental methamphetamine use, such as homelessness and family violence.

In two deaths, records indicate NSW Health was aware of the mother's methamphetamine use[232] prior to the child's birth. In one death, there were no records referring the mother to a local substance use in pregnancy and parenting service (**SUPPS**).[233] In the other case, the mother was referred to a local alcohol and other drug (**AOD**) health service.

Two infants were identified as Aboriginal.

The DCJ Serious Case Review (**SCR**) unit reviewed all 9 child deaths. These reviews identified the following issues:

- The information DCJ held about maternal drug use was often limited.
- In 4 of the 9 cases reviewed by the SCR, there were no completed face-to-face assessments of the ROSH concerns for the family prior to the infant's death.
- In 5 cases, some ROSH reports were closed under competing priorities, while other reports resulted in face-to-face assessments. However, these assessments did not adequately consider cumulative harm in the context of parental drug use.
- ROSH reports did not always include relevant information known to services reporting harm, particularly the likelihood of maternal drug use.
- In at least 5 cases, there was evidence of a lack of information sharing about maternal methamphetamine use between services involved with the family including DCJ, NSW Health and general practitioners (**GPs**).
- In matters where the father or mother's partner was using violence, he was not included in the assessment process.
- Services struggled to work meaningfully with the families. Services were unable to engage parents due to their negative experiences or perceived negative past experiences with services. In one case, this impacted a mother's decision to birth at home against medical advice. Subsequently, the infant did not have contact with health services until presenting to the GP 2 days after birth and before their death at 4 days old.
- In 1 case, there was limited evidence to support sustained parental behaviour change, including inconsistent drug testing, following the infant's restoration to the care of their parents. Information sharing between the agency with case management and DCJ was also limited.
- Six of the 9 infants died in unsafe sleeping arrangements including unsafe sleeping surfaces and/or co-sleeping with a drug affected parent. The reviews also identified other SUDI risk factors for some of these infants. In 4 cases, the infant experienced prematurity or growth issues following birth. In at least 3 cases, the infant was also exposed to maternal cigarette smoke. Ongoing conversations with parents about safe sleeping and breastfeeding in the context of parental drug use were not evident.
- Where DCJ did not receive prenatal reports about the family, there was often limited or no time for DCJ to work with the parents prior to the infant's death.

232 In both cases the mother's methamphetamine use was current at the time of the report.

233 SUPPS provides specialised care and support for pregnant women and their children who are experiencing alcohol or other drug use. More detail about the program is at **Section 11.2.3** below.

These cases highlight the need for effective, targeted support which includes information sharing and collaboration between services. As discussed below, there are established pathways to share information when service providers have visibility of maternal drug use. However, these infant deaths indicate that information about maternal drug use is not always being shared between services or responded to in a coordinated way, particularly during the prenatal and antenatal period.

DCJ has advised they are currently developing two new "practice kits" focused on neglect and physical abuse in response to recommendations from internal child death reviews and coronial inquests. The new kits require inclusion of advice about assessment and planning, intra and interagency collaboration, sibling case coordination. Once completed, the new kits will complement the existing four practice kits currently available to DCJ staff focused on alcohol and other drugs, mental health, domestic violence, and child sexual abuse.

DCJ has also advised that the current prenatal casework policy is under review to improve how DCJ engages with expectant parents.

11.2.3 NSW Health Substance Use in Pregnancy and Parenting Service (SUPPS)

The NSW Health Centre for Alcohol and Other Drugs (**CAOD**) is leading the implementation of the 86 recommendations made by the 2020 Special Inquiry that were supported by government. One of the main initiatives is the expansion of evidence-based prevention, treatment, support and early intervention services for key priority populations, including the statewide expansion of SUPPS.[234]

SUPPS provides specialised care and support for pregnant women and their children who are experiencing AOD use. SUPPS is a public health service offered by most local health districts (**LHDs**) across NSW.[235]

In 2023, the initial 2020 Special Inquiry funding rounds for NSW Health boosted access to vital services by commissioning at least 19 new and 23 expanded NSW Health AOD services, including SUPPS services. As a result, most LHDs have some level of specialised support for pregnant women and their families (NSW Ministry of Health First 2000 Days Implementation Strategy, 2020–2025[236]). However, there is ongoing evidence of unmet need. Several recommendations of the Drug Summit 2024[237] focus on better supporting families impacted by substance use, with a specific focus on expanding specialised alcohol and other drugs support and treatment for pregnant women, parents and the first 2,000 days of their child's life, particularly where there is a risk of child removal.

In June 2025, the CAOD announced that, in collaboration with the Centre for Epidemiology and Evidence (**CEE**), it is progressing an evaluation of SUPPS.[238] Service and data mapping is underway to understand the core components of care to develop an evaluation plan aimed at better understanding the population of women in NSW who use AOD during pregnancy and/or after birth. It will explore the characteristics of SUPPS clients and consider service access and equity. The CAOD have advised that the final report of the evaluation is expected to be available in mid-2027.

234 NSW Government, *Special Commission of Inquiry into the Drug 'Ice' (Ice Inquiry)* (Inquiry, 2020) **https://www.nsw.gov.au/departments-and-agencies/the-cabinet-office/resources/special-commissions-of-inquiry/drug-ice**.

235 As part of the NSW 2016 Drug Package, funding was allocated to LHDs to expand access to SUPPS to enable broad availability of specialist multidisciplinary clinical care and support during pregnancy and parenting, for up to 2 years. As a result, most LHDs have some level of specialised support for pregnant women and their families: NSW Health, *First 2000 Days Implementation Strategy*, 2020–2025 (Strategy, 21 February 2021) **https://www.health.nsw.gov.au/kidsfamilies/programs/Pages/first-2000-days-implementation.aspx**.

236 NSW Health, 'First 2000 Days Implementation Strategy' (Information bulletin, 23 March 2021) **https://www1.health.nsw.gov.au/pds/ActivePDSDocuments/IB2021_011.pdf#:~:text=Summary%20The%20NSW%20Health%20First%202000%20Days%20Implementation,to%20assist%20them%20in%20developing%20their%20local%20plans**.

237 Tebutt, C and Brogden J, *'Report on the 2024 New South Wales Drug Summit'* (2024) **https://www.health.nsw.gov.au/aod/summit/Documents/2024-nsw-drug-summit-report.pdf**.

238 NSW Health, *Implementation Update – Response to the Special Commission of Inquiry into the Drug 'Ice'* (Update, June 2025) **https://www.health.nsw.gov.au/aod/Documents/sci-ice-inquiry-2025.pdf**.

11.2.4 Other NSW Health maternity initiatives

In March 2024, NSW Health announced the statewide implementation of Pregnancy Connect, which aims to improve the outcomes of pregnant women across NSW, including actively connecting women with the greatest risk of poor outcomes to antenatal care, both early and regularly.[239] It also includes enhancing referral pathways between maternity services and other services including EDs, sexual health, mental health and AOD services.

NSW Health have also advised that the Maternity State-wide Referral Criteria (**SRC**) for health professionals are under development.[240] SRCs are clinical decision-support tools to provide health professionals (such as GPs) with the necessary criteria to refer patients to public specialist outpatient services.

The proposed Maternity SRC recommend a woman actively trying for pregnancy and using AOD without follow-up or preconception care is seen by a public specialist outpatient service within 30 calendar days. It also proposes that pregnant women with AOD dependency are recommended to be seen within 7 calendar days. The Maternity SRC is scheduled to go live in March 2026.

239 'Greater Support and Care for Pregnant Women and Babies in NSW', *NSW Health* (Web Page, 18 March 2024) **https://www.health.nsw.gov.au/news/Pages/20240318_00.aspx**.

240 'State-wide Referral Criteria', *NSW Health* (Web Page, March 2024) **https://www.health.nsw.gov.au/outpatients/referrals/Pages/default.aspx**.

11.2.5 NSW Health Clinical Guidelines

NSW Health's Clinical Guidance for the Management of Substance Use in Pregnancy, Birth and the Postnatal Period (**NSW Health Guidance**) was updated on 29 July 2024.[241] The NSW Health Guidance's purpose is to provide all staff working with pregnant women who use AOD, and their families, with the latest evidence and advice to inform clinical care. The Guidance is for staff across all health services, not limited to SUPPS.

The NSW Health Guidance states that there is increasing evidence that infants with prenatal substance exposure, including methamphetamine exposure, require additional support and follow-up care. The Guidance highlights that, while methamphetamine does not typically cause withdrawal symptoms in neonates in the same way as opioids and some other addictive substances, these infants still require follow-up care by health services. This is due to difficulties they may experience such as feeding, risk to developmental and growth issues, and potential stress to caregivers that can adversely impact modifiable risk factors such as infant exposure to cigarette smoke and co-sleeping.

It also includes information about breastfeeding safety and discourages breastfeeding for 48 hours following methamphetamine use.[242]

The NSW Health Guidance encourages health staff, including maternity staff, to ask women about their current or previous use of methamphetamines and repeat this screening at follow-up antenatal visits. It states that health workers should refer a pregnant woman who discloses methamphetamine use to SUPPS where available, or a specialist AOD service. It also states that infants with prenatal exposure to methamphetamine use require follow-up care to ensure families receive appropriate support as early as possible to improve the child's developmental outcomes. Follow-up care includes screening and monitoring for withdrawal or toxicity symptoms following birth, extended hospitalisation periods following birth, support with breastfeeding and supplementary safe feeding plans, and discussions about safe sleeping.

The Guidance also outlines that mothers can and should be advised that it is safe to reduce and cease methamphetamine use during pregnancy. The NSW Health Guidance notes that although there is very little research on the outcomes of pregnancies and infants who have undergone methamphetamine withdrawal during gestation, the evidence available suggests that infants experience better outcomes when their mother is supported to withdraw and cease methamphetamine use during pregnancy.[243,244]

The NSW Health Guidance also encourages health professionals engaging with mothers who use methamphetamines and other drugs to discuss sexual health as being critical to both the mother and baby's wellbeing and to consider other comorbidities such as mental health and experiences of trauma, without making assumptions about their sexuality or family planning goals. This includes information, screening and treatment for blood-borne viruses and sexually transmitted diseases, and providing education on and facilitating access to long-acting reversible contraception as per the woman's choice.

NSW Health advised that the CAOD has developed an implementation plan for the NSW Health Guidance, focused on supporting the health and wellbeing of women and babies; preventing unplanned AOD-exposed pregnancies; reducing AOD use in pregnancy; and supporting children as they develop.

241 While the NSW Health Guidance was updated after this reporting period, a previous version of the Guidance was available at the time of these deaths (2014–23) **https://www1.health.nsw.gov.au/pds/Pages/doc.aspx?dn=GL2014_022**.

242 The guidance also recommends healthworkers advise mother who use methamphetamine to not breastfeed for at least 48 hours after use; express and discard the breastmilk after use (not simply stop breastfeeding); have a supplementary feeding plan, including formula; and have a safety plan if breastfeeding (e.g. breastfeeding in a safe position or having a support person to help).

243 NSW Health, *NSW Clinical Guidance: For the Management of Substance Use in Pregnancy, Birth and the Postnatal Period* (Guidance, July 2024) **https://www.health.nsw.gov.au/aod/resources/Publications/substance-use-pregnant-parenting.pdf**.

244 NSW Health, *NSW Clinical Guidance: Management of Withdrawal from Alcohol and Other Drugs* (Guidance, August 2022) **https://www.health.nsw.gov.au/aod/professionals/Publications/clinical-guidance-withdrawal-alcohol-and-other-drugs.pdf**.

11.3 Observations

11.3.1 NSW Health Guidelines – education and training

NSW Health is often required to deliver a range of specialist services at the time parents access prenatal or antenatal care. Since 2009, NSW Health has committed to a 'no wrong door' approach, aiming to provide specialist support – such as AOD treatment – to all individuals, including pregnant women and parents, regardless of where they seek care within the health system.[245]

The development and implementation of training and education materials is critical for staff across NSW working with pregnant women and parents, namely maternity and child and family health staff, to ensure they understand and respond to maternal methamphetamine use in line with the 2024 NSW Health Guidance.

In addition, the role of SUPPS is assumed to be vital in service provision as well as supporting health services across the state who do not specialise in drug treatment to work with parents using drugs.

245 NSW Health, *NSW Clinical Guidelines: For the Care of Persons with Comorbid Mental Illness and Substance Use Disorders in Acute Care Settings* (Guidelines, June 2009) **https://www.health.nsw.gov.au/aod/resources/Publications/comorbidity-report.pdf**.

11.3.2 Interagency collaboration and information sharing

Training and education materials should also address interagency collaboration and information sharing, including advice about how to respond when a mother is unable to be referred to a specialist AOD health service due to waitlists, accessibility, cultural barriers or otherwise.

While the 'no wrong door approach' is a goal expressed by NSW Health, pregnant women and parents are often referred to multiple services who record and manage information separately including AOD support, child protection and maternity care. Training and education materials should create opportunities for collaboration, information sharing and potential early intervention across multiple services such as Pregnancy Family Conferencing.[246]

Across government, record management systems can pose a barrier to information sharing among services. The NSW Health reform toward the Single Digital Patient Record[247] aims to support improved information sharing across health services such as maternity and AOD services. However, effective collaboration will still require practitioner expertise and skill.

11.3.3 Challenges for forensic research into cause of death

It is acknowledged that research on the impacts of methamphetamine toxicity in infants may pose significant ethical and practical challenges for researchers.

However, the CDRT supports the recommendations of the Special Inquiry and of DCJ (discussed at **Section 11.3.4**) for further research to better understand and respond to child protection and wellbeing risks associated with parental methamphetamine use in NSW.

246 'NSW Government Initiatives to Support Child Development', *NSW Government* (Web Page) **https://www.nsw.gov.au/family-and-relationships/early-child-development/initiatives-to-support-child-development**.

247 'Single Digital Patient Record', *NSW Health* (Web Page, 2025) **https://www.ehealth.nsw.gov.au/solutions/clinical-care/electronic-medical-records/sdpr**.

11.3.4 Calls for research into improved services for parents using methamphetamines

The Special Inquiry (2020) identified pregnant women as a priority population whose methamphetamine use requires careful analysis in the formulation of service responses (p xxix).

The Special Inquiry heard evidence that:

- pregnancy is an ideal time to address maternal drug use, with babies born to women in integrated treatment programs having fewer birth complications and higher birth weights compared to those not in integrated treatment (p 785)
- pregnant women are especially motivated to stop their drug use but face barriers to treatment and support, including social stigma and difficulty accessing services (p 614)
- service provision for families and children at ROSH is often disjointed and uncoordinated (p 179)
- methamphetamine use is very rarely the sole cause of risk to children, and services must better respond to multiple risks jointly (pp 230–322).

The Special Inquiry also heard evidence about the need for further work and research to:

- identify and expand treatment options for pregnant women using methamphetamines
- determine how health, family violence and child protection agencies should best respond to risks to children due to maternal methamphetamine use.

In addition, research published by the National Centre for Clinical Research on Emerging Drugs in 2023 highlights that while half of people who use methamphetamine regularly are women, they make up only one-third of people seeking treatment for methamphetamine dependence, stating there is a lack of research into the facilitators of and barriers to treatment for women who use methamphetamine.[248] This includes pregnant women and mothers. The research findings suggest women in particular face stigma and gender-based violence, creating barriers to accessing support.

DCJ has also recommended further research. Following a child death in 2023,[249] the DCJ SCR Panel (**Panel**) noted the impact of methamphetamine use on families and the child protection response required. The Panel noted the significant challenges for the sector arising from the lack of available services to support families or offer effective treatment for methamphetamine use particularly in regional, rural and remote locations.

In June 2024, the Panel recommended DCJ scope a cohort review to examine the impact of methamphetamine use on child protection services, the adequacy of existing child protection practice support and advice, and the existing services available for families experiencing methamphetamine dependency. This recommendation has not progressed. DCJ says this is due to a decrease in staffing in the identified research team in addition to 'competing priorities'.[250]

DCJ has developed an Alcohol and Other Drugs Practice Kit, which provides advice to caseworkers working with parents using AOD. The Practice Kit is separate from and developed prior to the 2024 NSW Health Guidance.

248 Brendan Clifford et al, "'There's a Big Tag on My Head": Exploring Barriers to Treatment Seeking with Women Who Use Methamphetamine in Sydney, Australia' (2023) 23 *BMC Health Services Research* 162 **https://nccred.org.au/uploads/documents/s12913-023-09125-z-1.pdf**.

249 This child is not included in this cohort. While their death occurred within the 2022–23 reporting period and maternal methamphetamine use was known, the child was over 1 year, and methamphetamine was not detected in their autopsy toxicology results.

250 DCJ SCR Panel Log, endorsed 18 June 2024, Recommendation 110.

11.3.5 Lessons from other jurisdictions

The 2024 Victorian report looked at a child's exposure to methamphetamines through broader measures than blood test toxicology results, including hair testing. This potentially resulted in a larger cohort of child deaths than considered in this report. NSW Health advise that hair testing is not used in NSW for several reasons including that infant hair is porous and is likely to pick up substances in their environment, which is not indicative of acute exposure or substances ingested.

Any future research should also consider the opportunities identified in the 2024 Queensland report for improving system responses to child risk caused by parental methamphetamine use, including:

- increasing worker awareness and understanding of the signs of harm and unacceptable risk to children
- increasing the availability of more actionable information about parental methamphetamine use
- increasing options for responding to families with multiple risk factors including the increase of parenting programs and family therapies in the child protection system
- addressing stigma among key staff and agencies given the evidence that AOD-use disclosure and help seeking is reliant on a trusting, professional relationship that is non-judgemental and supportive.

Recommendation

The CDRT recommends:

6

Prior to the completion of the NSW Health evaluation of the substance use in pregnancy and parenting services (**SUPPS**), and in consultation with the NSW Health Centre for Alcohol and Other Drugs (**CAOD**), DCJ should review and make necessary amendments to its own internal guidance (such as the Alcohol and Other Drugs Practice Kit) about working with pregnant women and parents using methamphetamines in response to the 2024 NSW Health SUPPS Guidance.

In response to the draft report, provided to agencies for consultation in October 2025, DCJ advised that due to timeframes and resource requirements, a project to review the Alcohol and Other Drugs Practice Kit would need to commence following the completion of the new Neglect and Physical Abuse Kits. DCJ anticipates the review of the Alcohol and Other Drugs Kit in consultation with the NSW Health Centre for Alcohol and Other Drugs will commence in 2026.

7

Following completion of the NSW Health evaluation of the substance use in pregnancy and parenting services (**SUPPS**), DCJ and NSW Health jointly commission expert research into pre- and post-natal health and community services for pregnant women and parents using methamphetamines. This research should involve those with lived or living experience of methamphetamine use. The research should identify:

a) Any practice and service gaps, and
b) Opportunities to improve collaboration and information sharing within and between relevant agencies.

The CDRT acknowledges the NSW Health SUPPS evaluation is anticipated to be completed in mid-2027 and will seek advice from NSW Health and DCJ in relation to the acceptance of Recommendation 7 after the evaluation is finalised.

Appendices

Appendix 1 Glossary of terms

Term	Definition
Abuse	A death is classified as due to abuse where an act of violence by any person directly against a child caused injury or harm leading to death. Abuse can refer to different types of maltreatment, including physical and sexual assault. Excluded from this definition are lawful acts of force that result in the death of a child or young person, for example, police discharge of a firearm to bring a dangerous individual under control.
Age	The age of a child, which is given inclusively. For example, 'child aged 10–14 years' includes a child from their 10th birthday to the day before their 15th birthday.
Australian Institute for Health and Welfare (**AIHW**)	An independent statutory Australian Government agency working with health and welfare data. The AIHW describes its role as to provide meaningful information and statistics for the benefit of the Australian people.[251]
Australian Bureau of Statistics (**ABS**)	The central statistical authority for the Australian Government and, by legal arrangements, provider of statistical services to Australian State and Territory Governments.[252]
NSW Registry of Births, Deaths and Marriages (**BDM**)	A NSW Government agency, which registers life events in New South Wales.[253] BDM provides information to the NSW Ombudsman's office sourced from birth and death certificates.
Causes of death	All diseases, morbid conditions or injuries that either resulted in or contributed to death and the circumstances of the accident or violence that produced any such injuries.[254] See **Appendix 4** for further information.
Child	A person under the age of 18 years.[255] Unless otherwise stated, the terms 'child' and 'children' include both infants and young people, as defined below.
Child Protection HelpLine (**HelpLine**)	DCJ's central point for receiving, screening and prioritising reports about children who may be at risk of significant harm.
Child protection history	The Child Death Review Team (**CDRT**) defines a child as having a 'child protection history' if a report about the safety, welfare or wellbeing of that child and/or their sibling was made to DCJ's Child Protection HelpLine (**HelpLine**) or to a Child Wellbeing Unit (**CWU**) within the 3 years before their death. This definition of 'child protection history' may be different to legislative definitions used elsewhere, such as in the DCJ child death review process and the coronial system. For example, the term 'known to DCJ', which is used in respect of DCJ child death reviews, includes any child who was in out-of-home care at the time of their death, even if no report was made within the 3 years before death. (Noting that the death of any child in care is reviewable by the Ombudsman as a 'reviewable death'.)
Child Wellbeing Unit (**CWU**)	CWUs operate within NSW Health, the NSW Police Force and the Department of Education. CWUs assist staff in these agencies to meet their mandatory child protection reporting obligations.
Community Services Centre (**CSC**)	DCJ locally based community services offices. There are approximately 80 CSCs across NSW.

251 'Our Role and Strategic Goals', *Australian Institute of Health and Welfare* (Web Page, 29 August 2025) **https://www.aihw.gov.au/about-us/our-role-strategic-goals.**
252 Australian Bureau of Statistics. See **https://www.abs.gov.au/.**
253 See **https://www.nsw.gov.au/departments-and-agencies/births-deaths-marriages.**
254 Australian Institute of Health and Welfare, *Deaths in Australia* (Web Report, 9 April 2025) **https://pp.aihw.gov.au/reports/life-expectancy-deaths/deaths-in-australia/contents/multiple-causes-of-death.**
255 As defined by the *Community Services (Complaints, Reviews and Monitoring) Act 1993.*

Term	Definition
Concerns report	This is a term currently used by DCJ (which is not found in any legislation) to describe any child protection report it receives that raises concerns about a child's safety, welfare and well-being. Concerns reports may include: • mandatory (section 27) reports and voluntary (section 24) reports made under the *Children and Young Persons (Care and Protection) Act 1998* (that is reports made by a person who has reasonable grounds to suspect a child is at ROSH, and which trigger DCJ's statutory response duty) • reports under sections 120 and 121 of the *Children and Young Persons (Care and Protection) Act 1998* that a child may be homeless • reports under section 25 of the *Children and Young Persons (Care and Protection) Act 1998* that a child not yet born may, once born, be at ROSH.
Co-sleeping	Where any person (including a child) is sleeping on the same surface as an infant, whether intended or not.
CS CRAMA	*Community Services (Complaints, Reviews and Monitoring) Act 1993*
Department of Communities and Justice (**DCJ**)	The lead agency in the NSW Government Communities and Justice portfolio, which aims to create safe, just, inclusive and resilient communities through its services.[256] DCJ is the statutory child protection agency in NSW.
Domestic and family violence	Any behaviour in an intimate or family relationship, which is violent, threatening, coercive or controlling and causing a person to live in fear for their own or someone else's safety. It is usually manifested as part of a pattern of ongoing controlling or coercive behaviour.[257]
Indigenous	Aboriginal and Torres Strait Islander people are the Indigenous peoples of Australia. They are not 1 group but comprise hundreds of groups that have their own distinct set of languages, histories and cultural traditions.
Infant	A child less than 1 year (12 months) of age.
Intrauterine growth restriction (**IUGR**)	IUGR is when a fetus does not grow as expected for the stage of the mother's pregnancy and is a reliable indicator of fetal and/or newborn deterioration. IUGR is a clearly defined condition based on an estimated fetal weight of less than the 10th percentile for its gestational age. It should be noted that this definition is likely to be an underestimate of growth restriction.[258]
Known to DCJ	A term used by DCJ to refer to any child whose death is or would be a 'reportable death' under section 172A of the *Children and Young Persons (Care and Protection) Act 1998*, including any child: • who was, or whose sibling was, the subject of a risk of significant harm (**ROSH**) report made during the period of 3 years immediately preceding the death, and • who is in statutory out-of-home-care.
LGBTIQ+	An inclusive term that refers to people who are lesbian, gay, bisexual, transgender, intersex, queer, asexual, and otherwise sexually or gender diverse. This includes those who may be questioning or struggling with their sexual or gender identity, including those experiencing gender dysphoria.
Major cities	Locations defined as major cities according to the Australian Government's Rural, Remote and Metropolitan Area classifications.[259]
Ministry of Health (**Ministry**)	The Ministry supports the Secretary, the NSW Minister for Health and Minister for Regional Health, the Minister for Mental Health and the Minister for Medical Research to perform their executive government and statutory functions. The Ministry is also the system manager for the NSW public health system and consists of ministry branches, centres and offices.[260]

256 'About DCJ', *NSW Government, Communities and Justice* (Web Page, 21 March 2025) **https://dcj.nsw.gov.au/about-us/who-we-are-and-what-we-do/about-dcj.html**.

257 What is domestic and family violence?, *Department of Communities and Justice* (Web Page) **https://dcj.nsw.gov.au/legal-and-justice/safer-pathway/what-is-domestic-and-family-violence.html**

258 Alexandre Stephens et al, 'Diagnosis of Fetal Growth Restriction in Perinatal Deaths Using Brain to Liver Weight Ratio' (2015) 47(1) *Pathology* 51 **https://pubmed.ncbi.nlm.nih.gov/25474506/.**

259 'Rural, Remote and Metropolitan Area', *Australian Government, Department of Health, Disability and Aging* (Web Page, 14 December 2021) **https://www.health.gov.au/topics/rural-health-workforce/classifications/rrma.**

260 'Ministry of Health Structure', *NSW Health* (Web Page, 17 February 2025) **https://www.health.nsw.gov.au/about/ministry/pages/structure.aspx.**

A1 Glossary of terms

Term	Definition
Mortality rates	**Child mortality rate:** the number of deaths per 100,000 children for a particular age group in a year or specified period. **Infant mortality rate:** the number of deaths of infants per 1,000 live births in a year or specified period.
Neglect	A death is classified as due to neglect if a reasonable person would conclude that the actions or inactions of a carer (in not meeting a child's basic needs – such as supervision, medical care, nutrition, shelter) exposed the child to a high risk of death or serious injury, and the occurrence of that risk led to the death.
Neonatal	Refers to the first 4 weeks (28 days) of an infant's life.
Non-ROSH report	This is a term currently used by DCJ to describe concerns reports that have been screened in by the HelpLine as not being a ROSH report.
NSW Police Force (NSWPF)	NSW's law enforcement agency whose role is to protect the community and property.
Out-of-home care (in care)	A child 'in care' is defined by various provisions in s 4(1) of CS CRAMA. The provisions in CS CRAMA are directly linked to various statutory care arrangements such as those set out in the *Children and Young Persons (Care and Protection) Act 1998*.[261] In 2022 and 2023, there were 3 main types of out-of-home care: • **statutory** out-of-home care • **supported** out-of-home care • **voluntary** out-of-home care (until 1 September 2022).[262] The definition also includes children who are otherwise in the care of a service provider.
Perinatal period	The period commencing at 20 completed weeks (140 days) of gestation and ending 28 completed days after birth.[263]
Post neonatal	Refers to the period commencing after 28 completed days after birth (week 5) until 1 year (12 months) of age (that is, infants aged 29 days to 1 year).
Proximal event	A proximal event is assessed as sufficiently related to a suicide death so that it is deemed relevant to the decision to suicide. Proximal events generally occur within 4 weeks of death but can occur outside that timeframe if the event is identified as directly related to the suicide.
Rate	A ratio where the numerator (the event count) is divided by the denominator (the population or period of time).
Reckless driving	Driving in such a way as to create a real risk of causing physical injury to someone else using the road, or damage to property more substantial than the kind of minor damage that may be caused by an error of judgement while parking one's car.[264] Examples include: • overtaking at speed while approaching a blind rise • drifting over the centre of the road while rounding a corner • doing a burnout in the middle of a busy intersection.[265]
Regional areas	Locations defined as regional according to the Australian Government's Rural, Remote and Metropolitan Area classifications.[266]
Register of Child Deaths (NSW)	Section 34D(1)(a) of CS CRAMA requires the CDRT to maintain a register of child deaths occurring in New South Wales since 1 January 1996.

261 Section 135 of the *Children and Young Persons (Care and Protection) Act 1998*.
262 The definition of voluntary out-of-home-care was repealed on 1 September 2022.
263 Meteor, Metadata Online Registry, 'Perinatal Period', *Australian Institute of Health and Welfare* (Web Page, 2021) **https://meteor.aihw.gov.au/content/327314#:~:text=The%20perinatal%20period%20commences%20at,28%20completed%20days%20after%20birt**
264 *Brysha v Kingmill Pty Ltd t/as Thrifty Car Rental* (2018) NSWCATCD 81.
265 Michelle Makela, 'Reckless driving', *Armstrong Legal* (Web Page, 2022) **https://www.armstronglegal.com.au/traffic-law/nsw/traffic-offences/reckless-driving/**.
266 'Rural, Remote and Metropolitan Area', *Australian Government, Department of Health, Disability and Ageing* (Web Page, December 2021) **https://www.health.gov.au/topics/rural-health-workforce/classifications/rrma**.

Term	Definition
Remote areas	Locations defined as remote according to the Australian Government's Rural, Remote and Metropolitan Area classifications.[267]
Risk of Significant Harm (ROSH)	The definition of 'at ROSH' is in s 23 of the *Children and Young Persons (Care and Protection) Act 1998*. A child or young person is at ROSH if 'current concerns exist for the safety, welfare or well-being of the child or young person because of the presence, to a significant extent, of any one or more of' the circumstances set out in that section. Circumstances include where the child or young person has been, or is at risk of being, physically or sexually abused or ill-treated.
ROSH report	This is a term currently used by DCJ to describe concerns reports that have been screened in by the HelpLine as not being a ROSH report.
Screened in	This is a term currently used by DCJ to describe a process, after a concerns report is received by the HelpLine, of the HelpLine classifying that report as either a ROSH report or a non-ROSH report.
Sudden Infant Death Syndrome (SIDS)	The sudden unexpected death of an infant, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after an investigation, including performance of a complete autopsy and review of the circumstances of death and the clinical history.[268] SIDS is coded to the ICD-10-AM as code R95 'sudden infant death syndrome (SIDS)'. This code also includes any mention of 'sudden infant death', 'cot death', 'SIDS', 'crib death' or other similar terms anywhere on the death certificate.
Sudden Unexpected Death in Infancy (SUDI)	The death of an infant that is sudden and unexpected, where the cause was not immediately apparent at the time of death. SUDI is not a cause of death, but is a descriptive term applied at the point an infant is found deceased. **SUDI explained:** where a definitive cause of death is found after investigation. These deaths may include death caused by infections, physiological or developmental abnormalities not recognised before death, accidental threats to breathing such as overlaying or suffocation in the context of an unsafe sleep environment. In rare cases, the cause may be identified as intentional injury. **SUDI unexplained:** where no cause of death could be determined, despite investigation. Unexplained SUDI includes unascertained deaths and deaths classified as SIDS. In many cases, clinical findings or environmental risk factors are present but none can be identified as the definitive cause of death. These deaths are classified as 'undetermined', 'unascertained' or 'unclassified sudden infant death'.
Suicide	Includes deaths where: • A Coroner found that the cause and manner of death was self-harm with fatal intent. • Police identified the death as suicide and the case remains open with the Coroner. • The Coroner dispensed with an inquest and has not made a finding about the manner of death, but police identified the death as suicide and records examined provide evidence of self-harm with fatal intent.
Suspected ROSH	This is a term currently used by DCJ to describe a situation where a concerns report has been screened in as a ROSH report, but DCJ has not completed such investigations and assessment as it considers necessary to determine whether or not the child or young person is at ROSH.
Suspicious	A child's death is classified as suspicious (of abuse or neglect) where there is evidence that the death may have been due to abuse or neglect, but the evidence is insufficient for this to be reasonably determined.
World Health Organization (WHO)	A specialised agency of the United Nations responsible for international public health.[269]
Year	Unless otherwise stated, means calendar year.
Young person	A child aged 15–17 years (inclusive).

267 Ibid.

268 Henry F Krous et al, 'Sudden Infant Death Syndrome and Unclassified Sudden Infant Deaths: A Definitional and Diagnostic Approach' (2004) 114(1) *Pediatrics* 234 https://pubmed.ncbi.nlm.nih.gov/15231934/.

269 See https://www.who.int/.

Appendix 2 Child death review functions exercised within or connected with the NSW Ombudsman's Office

A2.1 The NSW Child Death Review Team

The purpose of the NSW Child Death Review Team (**CDRT**) is to prevent or reduce the likelihood of deaths of children in NSW. The CDRT includes experts in healthcare, child development, child protection, and research, as well as representatives from key government agencies (see Appendix 3).

The main functions of the CDRT are to:

- maintain a register of child deaths occurring in NSW
- classify those deaths according to cause, demographic criteria and other relevant factors, and to identify trends and patterns relating to those deaths
- undertake, alone or with others, research that aims to help prevent or reduce the likelihood of child deaths and to identify areas requiring further research
- identify areas requiring further research by the CDRT or other agencies or persons
- make recommendations to prevent or reduce the likelihood of child deaths.

Under Pt 5A of CS CRAMA, the NSW Ombudsman convenes and supports the CDRT. Ombudsman staff undertake work to assist the CDRT, including maintaining and analysing information contained in the Register of Child Deaths, preparing statutory reports, monitoring recommendations and performing secretariat functions.

The CDRT reports directly to the NSW Parliament on its work and activities. There are 3 provisions in CS CRAMA under which the CDRT is required to report to Parliament:

- **Annual report** (s 34F), which details the activities of the CDRT and the progress of its recommendations.
- **Biennial report** (s 34G), which includes data in relation to child deaths that has been collected and analysed. Until 2016, this report was prepared and tabled on an annual basis. Since then, the CDRT has tabled biennial reports. This report is the biennial report for deaths of children in 2022 and 2023.
- **Other reports** (s 34H), which provide information on the results of research undertaken. The CDRT may report to Parliament at any time and is expected to report on its research at least once every 3 years.

CDRT information, publications and reports are available on the NSW Ombudsman website **(www.ombo.nsw.gov.au)**. The CDRT launched its own website in early November 2025, and following this, some CDRT documents will only be available on the CDRT's website **(www.cdrt.ombo.nsw.gov.au)**.

A2.2 Reviewable deaths of children

The Ombudsman has a separate responsibility for reviewing the deaths of children in circumstances of abuse or neglect, and the deaths of children in care or detention.

Under Pt 6 of CS CRAMA, the Ombudsman's functions are to:

- maintain a register of reviewable deaths in NSW, classifying the deaths according to cause, demographic criteria and other factors
- monitor and review reviewable deaths
- undertake, alone or with others, research or other projects that aim to reduce or remove risk factors associated with reviewable deaths that are preventable
- make recommendations as to policies and practices for implementation by government and non-government service providers to prevent or reduce the likelihood of reviewable child deaths.

Section 43 of CS CRAMA requires the Ombudsman to report to the NSW Parliament on a biennial basis about data collected and information relating to reviewable deaths, any recommendations made, and the implementation or otherwise of previous recommendations.

In 2023, the Ombudsman's biennial report of reviewable child deaths (in 2020 and 2021) was incorporated as an annexure to the CDRT's biennial report. The Ombudsman's biennial report of reviewable child deaths in 2022 and 2023 will be tabled as a separate report in November 2025.

Appendix 3 Child Death Review Team members and expert advisers

A3.1 Members (at 1 September 2025)

Ex officio members

Mr Paul Miller PSM (Convenor)
NSW Ombudsman

Mr Chris Clayton
Senior Deputy Ombudsman, Systems Oversight & Reviews, Community Services Commissioner

Ms Zoë Robinson
NSW Advocate for Children and Young People

Agency representatives

Ms Sarah Bramwell
Director Practice Learning, Office of the Senior Practitioner, Department of Communities and Justice

Ms Vanessa Chan[270]
Director, Criminal Law Specialist, Policy and Reform Branch, Department of Communities and Justice

Detective Superintendent Joseph Doueihi
Commander Homicide Squad, State Crime Command, NSW Police Force

Dr Helen Goodwin
Chief Paediatrician, NSW Ministry of Health
Senior Staff Specialist Paediatrician, Royal North Shore Hospital

Ms Anne Reddie
Director Child Wellbeing and Mental Health Services, Student Support and Specialist Programs, Department of Education

Ms Alison Sweep
Director, Inclusive Practice, Department of Communities and Justice

Ms Amy Vincent-Pennisi[271]
Coronial Information Support Program Coordinator, Office of the NSW State Coroner

270 Vanessa Chan commenced leave from CDRT under cl 5(1)(d) of Sch 2 to the *Community Services (Complaints, Reviews and Monitoring) Act 1993* in March 2025.
271 Amy Vincent-Pennisi commenced leave from the CDRT under cl 5(1)(d) of Sch 2 to the *Community Services (Complaints, Reviews and Monitoring) Act 1993* in January 2025.

Independent members

Dr Susan Adams
Senior Staff Specialist, General Paediatric Surgeon and Head of Vascular Birthmarks Service, Sydney Children's Hospital
Associate Professor, School of Women's and Children's Health, University of New South Wales

Dr Susan Arbuckle
Paediatric/Perinatal Pathologist,
The Children's Hospital at Westmead

Ms Jennifer Black
Commissioner, Mental Health Commission of NSW

Professor Ngiare Brown
Chancellor, James Cook University
Chair, National Mental Health Commission Advisory Board
Director and Program Manager, Ngaoara Child and Adolescent Wellbeing
Executive Manager Research and Senior Public Health Medical Officer, National Aboriginal Community Controlled Health Organisation
Professor of Indigenous Health and Education, University of Wollongong

Professor Kathleen Clapham (Deputy Convenor)[272]
Honorary Professor Ngarruwan Ngadju First Peoples Health and Wellbeing Research Centre School of Medical, Indigenous and Health Sciences, University of Wollongong

Dr Luciano Dalla-Pozza
Head of Department (Cancer Centre for Children)
Senior Staff Specialist (Paediatric Oncology)
The Children's Hospital at Westmead

Dr Bronwyn Gould AM
General Practitioner

Professor Ilan Katz
Professor Social Policy Research Centre, University of New South Wales

Dr Matthew O'Meara
Senior Staff Specialist Paediatric Emergency Medicine, Sydney Children's Hospital Randwick

Dr Lorraine du Toit-Prinsloo
Chief Forensic Pathologist and Clinical Director Forensic Medicine Newcastle Forensic & Analytical Science Service NSW Health Pathology

272 Professor Clapham has stepped aside from the position of Deputy Convenor until the conclusion of the Review of the suicide deaths of Aboriginal children and young people.

A3.2 Previous members (September 2023 to August 2025)

Ms Monica Wolf (to June 2025)
Chief Deputy Ombudsman, Community Services Commissioner

Detective Superintendent Danny Doherty APM (to April 2025)
Commander Homicide Squad, Crime Command NSW Police Force

Ms Eloise Sheldrick (to June 2024)
Coordinator and Assistant Coroner, Coronial Information and Support Program Office of the NSW State Coroner

Professor Philip Hazell (to April 2024)
Honorary Professor, The University of Sydney School of Medicine
Locum Psychiatrist, Hunter New England Local Health District

Ms Catherine Lourey (to February 2024)
Commissioner, Mental Health Commission of New South Wales

Professor Heather Jeffery AO (to November 2023)
Neonatologist
Honorary Professor of International Maternal and Child Health, University of Sydney

Mr Matthew Karpin (to October 2023)
Director, Criminal Law Specialist, Policy and Reform Branch, Department of Communities and Justice

A3.3 Expert advisers

Part 5A of CS CRAMA provides for the Convenor to appoint persons with relevant qualifications and experience to advise the CDRT in the exercise of its functions. Expert advisers who assisted the CDRT in its work and/or who undertook research on behalf of the CDRT include:

Ms Intan Bailey
Acting Coordinator, Coronial Information and Support Program , Office of the NSW State Coroner

Professor Philip Hazell
Honorary Professor, The University of Sydney School of Medicine
Locum Psychiatrist, Hunter New England Local Health District

Dr Marlene Longbottom
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Appendix 4 Technical notes

A4.1 NSW Register of Child Deaths

Data for this report was sourced from the NSW Register of Child Deaths (**the Register**).

The NSW Ombudsman is notified of the deaths of all children aged 0–17 years in NSW by the NSW Registry of Births, Deaths and Marriages (**BDM**). Relevant information for registering, classifying, analysing and reporting on deaths is then sourced from records provided by government and non-government agencies and service providers that came into contact with the child or young person, including NSW Health, Department of Education, Department of Communities and Justice, NSW Police, the Coroner and family support/early intervention/out-of-home-care/ disability support services and held in the Register.

The Register consists of 3 databases, including a legacy database of deaths that occurred in 1996–2013, 'DRS' database of deaths from 2014–2017, and 'RCD' database of deaths from 2018 to present.

All deaths are reported according to the year a death occurred, not the year a death was registered.

Deaths of resident children outside of NSW

NSW child death review functions outlined in Part 5A of CS CRAMA primarily relate to the deaths of children that occur in NSW, whether or not the child was ordinarily resident in NSW prior to the death.

The CDRT may also exercise its functions in connection with the death of a child outside of NSW where they were ordinarily resident in NSW.[273] However, while limited information is provided to the CDRT about the deaths of NSW children who die outside of the state by child death review teams (or similar) in other states and territories, we do not have a statutory basis to request agencies or services in other states or territories to provide us with information about these deaths. In practice, timely information about deaths of resident children registered interstate is also generally not available. For these reasons overall death rates and numbers may not be readily comparable to other reports of child deaths in NSW such as Deaths, Australia by ABS.[274]

A4.2 Causes of death

In this report, underlying cause of death is reported using the ICD-10-AM.

This classification document has more than 12,000 unique codes in more than 2,000 categories. The highest-level classification is the chapter level (22 chapters).

Underlying cause of death is defined by the World Health Organization (**WHO**) as the 'disease or injury that initiated the train of events leading directly to death, or the circumstances of the accident or violence which produced the fatal injury'. Unless otherwise indicated, in this report the cause of death relates to underlying cause.

The underlying cause of death is recognised as the single most essential element to understanding causes of death.[275]

Direct cause of death is the final condition or event that results in death. Antecedent causes of death are conditions that have given rise to the direct cause of death. Other significant causes of death are conditions or events that were present during the sequence leading to death but may not have been necessary influences.

273 As outlined in s 34D(2) of CS CRAMA.

274 'Deaths, Australia', *Australian Bureau of Statistics* (Web Page, 26 September 2025) **https://www.abs.gov.au/statistics/people/population/deaths-australia/latest-release.**

275 National Centre for Health Information Research and Training, *Review and Recommendations for the Annual Reporting of Child Deaths in NSW* (NSW Ombudsman, Report, 2011, unpublished).

A4.3 Population groups

The base populations used to determine mortality rates were calculated using the estimated resident population of children aged 0–17 in NSW including population groups for age, sex, Indigenous status, remoteness areas and socio-economic areas sourced from ABS, including customised reports.

Sources

The estimated resident populations of children by sex and age in NSW between 2009–23 were from the ABS, based on the 2021 Census.[276] Base populations for remoteness, socio-economic status and Indigenous status were based on 2021 Census information.

The base populations for remoteness and socio-economic areas were determined by a customised report from the ABS, based on 2021 Census information. These estimates correspond with 30 June 2001–2023 estimated resident population by Statistical Areas Level 2 as released in Regional Population by age and sex, 2023. Estimates are final for 2001 to 2021, preliminary estimates for 2023 and revised for 2022.[277]

Remoteness was based on 2021 Australian Statistical Geography Standard (**ASGS**) with 5 remoteness classes: major cities, inner regional, outer regional, remote and very remote. In this report, regional consists of the combined populations for inner regional and outer regional, and remote consists of the combined populations of remote and very remote.

Socio-economic areas were based on Socio-Economic Indexes for Areas (**SEIFA**) created from social and economic 2021 Census information, also based on 2021 ASGS. This report used the Index of Relative Social Disadvantage (**IRSD**) of the area in which a child lived. IRSD consists of Quintiles. Quintile 1 corresponds to 20% of the population residing in the most disadvantaged areas, and quintile 5 represents 20% of the population residing in the least disadvantaged areas.

The base population for all Aboriginal and Torres Strait Islander children was sourced from the ABS, based on 2021 Census information.[278] Non-Indigenous population estimates were derived by subtracting Aboriginal and Torres Strait Islander estimates from the total estimated resident population for a given year.

Identification of sex

This report relies on information about the biological sex of children provided by BDM. Children are reported to the NSW Ombudsman's Office as male, female or other, depending on what is recorded on the death registration. In this reporting period, 1 child was recorded as sex unknown. In the 15-year period 2009–2023, 2 children were recorded as sex unknown.

Identification of Aboriginal and Torres Strait Islander children

From 2013 onwards, and in line with recommendations by the Australian Institute of Health and Welfare (**AIHW**), data that identifies Aboriginal and Torres Strait Islander children are obtained from all available sources for each case reviewed and recorded in the Register of Child Deaths.[279]

Individual children are identified as Aboriginal and/or Torres Strait Islander if:

- The child was identified as Aboriginal or Torres Strait Islander on the BDM death certificate.
- The child or their parent/s were identified as Aboriginal or Torres Strait Islander on the NSW BDM birth certificate.

276 'Population: Census, Information on Sex and Age, Reference Period 2021', *Australian Bureau of Statistics* (Web Page, 28 June 2022) **https://www.abs.gov.au/statistics/people/population/population-census/latest-release.**

277 Australian Bureau of Statistics, *Estimated Resident Population* (Customised Report, 2022) **https://www.abs.gov.au/statistics/people/population/population-census/latest-release.**

278 'Estimates and Projections, Aboriginal and Torres Strait Islander Australians', *Australian Bureau of Statistics* (Web Page, 11 July 2019) **https://www.abs.gov.au/statistics/people/aboriginal-and-torres-strait-islander-peoples/estimates-and-projections-australian-aboriginal-and-torres-strait-islander-population/2006-2031**.

279 Australian Institute of Health and Welfare 2013. Identification and reporting of Aboriginal and Torres Strait Islander Children by the New South Wales Child Death Review Team, Advisory Report. Australian Institute of Health and Welfare, Canberra.

- Agency records identify the child as Aboriginal or Torres Strait Islander through several records, which are corroborative. The Department of Communities and Justice *ChildStory* database often holds information that can support Aboriginal or Torres Strait Islander identity. NSW Health, NSW Police, Education, coronial and other agency records are also sources of family cultural background information. The sources of information requested for every child depend on a number of factors.

To report on trends in deaths over time, only BDM data on Aboriginal or Torres Strait Islander status is used, to avoid compounding errors from differences in accuracy of secondary data sources through time. Data published in this report for Aboriginal and Torres Strait Islander status and mortality rates are therefore subject to change.

In 2022 and 2023, using BDM records only, 111 children who died were identified as Aboriginal and/or Torres Strait Islander. Based on a review of all sources, an additional 40 children who died were identified as Aboriginal and/or Torres Strait Islander: a total of 151 children. These 40 children are not included in trend data or discussions that specifically relate to Aboriginal and Torres Strait Islander children; they are included in all other analyses in this report.

A4.4 Statistical analysis

Mortality rates

This report uses Infant Mortality Rates (**IMRs**) where infant deaths can be neonatal (0–28 days), or post-neonatal (29 days to less than 1 year of age); or Crude Mortality Rates (**CMRs**) for deaths of children aged 1–17 inclusive. Unless age group was specified, rates were calculated for children aged 0–17 years.

Each mortality rate is calculated as follows:

- $$IMR_{neonatal} = \left(\frac{Neonatal\ \ Deaths\ \ for\ \ a\ \ Given\ \ Period}{Neonatal\ \ Live\ \ Birth\ \ Population\ \ for\ \ the\ \ Same\ \ Period} \times 1{,}000 \right)$$
- $$IMR_{post-neonatal} = \left(\frac{Post-Neonatal\ \ Deaths\ \ for\ \ a\ \ Given\ \ Period}{Post-Neonatal\ \ Live\ \ Birth\ \ Population\ \ for\ \ the\ \ Same\ \ Period} \times 1{,}000 \right)$$
- $$CMR_{children} = \left(\frac{Child\ \ Deaths\ \ for\ \ a\ \ Given\ \ Period}{Child\ \ Population\ \ for\ \ the\ \ Same\ \ Period} \times 100{,}000 \right)$$

These rates were calculated separately for sex, Indigenous status, remoteness and socio-economic areas.

Rate ratios

A Poisson regression model was used with the number of deaths as the outcome and population size included as an offset (log-transformed). Model results were expressed as incidence rate ratios (**IRRs**) with 95% confidence intervals (**CIs**). For interpretation, IRRs less than 1 were reported as a percentage lower rate and IRRs greater than 1 as a percentage higher rate to the reference group.

Statistical tests

Statistical tests throughout this report were conducted using a 5% level of significance. There were 4 aims for statistical tests:

- Test for statistical **significance of trends over time** (2009–23)
- Test whether one 15-year **trend is higher/lower** overall than another 15-year trend
- Test whether the **gap between 2 trends is widening or narrowing** over the 15-year period
- Test whether **groups differ** in their rate, for example, comparing 2023 to 2009 to see if 2023 is significantly higher or lower than 2009, or comparing females to males for a given period.

The details of the statistical methods for each are listed in Table A1.

Table A1
Statistical testing approach

Item	Test	Approach	Data Type	Rationale
1.1	15-Year Trend Significance (Counts)	Poisson regression with offset (log pop)	Death counts population denominator	Model rate as a function of time, accounting for exposure (log pop), ideal for low counts[280]
1.2	15-Year Trend Significance (Rates)	OLS regression on IMRs and CMRs	IMR/CMR calculated per 1,000 or 100,000	OLS suitable when modelling continuous rate values over time[281]
2	15-Year Trend Significance (Magnitudes)	t-tests comparing group means (of IMRs or CMRs)	Calculated IMRs/CMRs (not raw counts)	When comparing overall group means (for example, female vs male 15-year CMRs)[282]
3	15-Year Trend Significance (Interaction Term)	Poisson or OLS with i.group##c.year	Deaths and population (Poisson) or rates (OLS)	Interaction term allows formal testing of whether trend slopes differ across groups for convergence divergence[283]
4	Paired Group Significance (for example, 2009 vs 2023) or (for example, Female vs Male)	Poisson regression on 2-group data	Deaths + population for 2 endpoints	Poisson preferred over direct rate comparisons or t-tests, especially with small N[284]

280 A Colin Cameron and Pravin K Trivedi, *Microeconometrics Using Stata Volumes I and II* (Stata Press, College Station, Texas, 2nd ed, 2013); Joseph M Hilbe, *Modeling Count Data* (Stata Press, College Station, Texas, 2014); and J Scott Long and Jeremy Freese, *Regression Models for Categorical Dependent Variables Using Stata*, (Stata Press, 3rd ed, College Station, Texas, 2014).

281 Michael H Kutner, Christopher J Nachtsheim and John Neter, *Applied Linear Regression Models International Revised Edition* (McGraw-Hill Inc, Westminster Colorado, 2004); and Lawrence C Hamilton, *Statistics with Stata Version 12*, (Cengage, Boston, Massachusetts, 2013).

282 David S Moore, William I Notz and Michael A Fligner, *The Basic Practise of Statistics*, (MacMillan Press, New York, 8th ed, 2017); and Alan Agresti and Barbara Finlay, *Statistical Methods for the Social Sciences* (Pearson Prentice Hall, Upper Saddle River, New Jersey, 2009).

283 A Colin Cameron and Pravin K Trivedi, *Microeconometrics Using Stata Volumes I and II* (Stata Press, College Station, Texas, 2nd ed, 2013); and M Wooldridge, *Introductory Econometrics: A Modern Approach* (South-Western College Publishing Cincinnati, Ohio, 5th ed, 2013).

284 Joseph M Hilbe, *Modeling Count Data* (Stata Press, College Station, Texas, 2014); and David W Hosmer, S Lemeshow and Rodney X Sturdivant, *Applied Logistic Regression*, (John Wiley & Sons, Inc, New Jersey, 2013).

Software

Data extraction and summarisation was done using Microsoft SQL Server and Microsoft Excel. Statistical analysis was performed using STATA Version 19.

Neonatal calculation

Based on the AIHW definition of neonatal, 'neonates' in this report refers to infants within the first 28 days (4 weeks) of life, where the date of birth is counted as day 0, as shown in Table A2.

Table A2
Neonatal death count rule

Week 1	Week 2	Week 3	Week 4	Week 5
0 (day of birth)	7	14	21	28 (post-neonate)
1	8	15	22	29
2	9	16	23	
3	10	17	24	
4	11	18	25	
5	12	19	26	
6	13	20	27	

Appendix 5 Key reporting measures

Table A3 Chapter 1: Deaths due to all causes		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	All deaths aged 0–17 by cause	N	2022–2023
	All deaths by age group (under 7 days, 7 days–<1 year, 1–4, 5–9, 10–14, 15–17)	N	
	Infants and children aged 1–17	IMR, CMR (aged 1–17)	2009–2023
Demographics	Sex (male vs female)	IMR, CMR (aged 1–17)	2022–2023, 2009–2023
	Infant age (neonatal vs post neonatal)	IMR	
	Child age (1–4, 5–9, 10–14, 15–17)	CMR	
	Indigenous status (Indigenous vs non-Indigenous)	IMR, CMR (aged 1–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Cause of death, natural cause vs external cause	CMR (aged 0–17)	2009–2023
	Cause of death, undetermined and pending	% of all children aged 0–17	2009–2023
	5 leading causes of death total		2022–2023
	5 leading causes of death by demographics		2009–2013, 2014–2018, 2019–2023
	Select associated and underlying causes of death	% of all children aged 0–17	2009–2023
	Deaths with child protection history	% of all children aged 0–17	2009–2023 2022–2023

Table A4 Chapter 2: Deaths due to natural causes		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	Infants, children aged 1–17	N, IMR, CMR (aged 1–17)	2022–2023, 2009–2023
Demographics	Sex (male vs female)	IMR, CMR (aged 1–17)	2022–2023, 2009–2023
	Infant age (neonatal vs post neonatal)	IMR	
	Child age (1–4, 5–9, 10–14, 15–17)	CMR (aged 1–17)	
	Indigenous status (Indigenous vs non-Indigenous)	IMR, CMR (aged 1–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Leading cause of NC deaths for infants	N, %	2009–2023, 2022–2023
	Leading cause of NC deaths for children aged 1–17	N, %	2009–2023, 2022–2023
	Select diseases and conditions		
	Deaths due to COVID-19	N (aged 0–17)	2022–2023
	Potentially vaccine-preventable deaths	N (aged 0–17)	2009–2023
	Deaths due to sepsis	N (aged 0–17)	2009–2023, 2022–2023

Table A5 Chapter 3: Deaths due to external causes		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	All children aged 0–17	N, CMR (aged 0–17)	2022–2023, 2009–2023
	All external causes, unintentional and intentional	CMR (aged 0–17)	2009–2023
Demographics	Sex (male vs female)	CMR (aged 0–17)	2022–2023, 2009–2023
	Age (under 1, 1–4, 5–9, 10–14, 15–17)	CMR	
	Indigenous status (Indigenous vs non- Indigenous)	CMR (aged 0–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Leading external causes aged 0–17	N	2022–2023
	5 leading external causes of death	CMR (aged 0–17)	2009–2023
Factors	Supervision and access to hazards	N aged under 5	2022–2023
	Risk-taking behaviour	N aged 10–17	

Table A6 Chapter 4: Deaths due to transport-related injuries		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	All children aged 0–17	N, CMR (aged 0–17)	2022–2023, 2009–2023
Demographics	Sex (male vs female)	CMR (aged 0–17)	2022–2023, 2009–2023
	Age (aged under 5, 5–14, 15–17)	CMR	
	Indigenous status (Indigenous vs non-Indigenous)	CMR (aged 0–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Number of incidents	N, %	2022–2023
	Location (on road vs off-road)		
	Type of vehicle (larger, standard, motorcycles, trucks, other)		
	Role of child (driver, passenger, pedestrian, other)	%, CMR (aged 0–17)	2022–2023, 2009–2023
	Role by age	N, %	2009–2023
Factors	**Behavioural**	N, %	2022–2023
	Speeding		
	Reckless driving		
	Non-use of restraints		
	Driver distraction		
	Driver fatigue		
	Non-behavioural		
	Child travelling in older vehicle		
	Road and weather conditions		
	Driver view restricted		
	At-fault drivers		
	Experience		
	Age and sex		
	Driver license status		
	Relationship with child who died		
	Criminal investigation		

Table A7 Chapter 5: Deaths due to drowning		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	All children aged 0–17	N, CMR	2022–2023, 2009–2023
Demographics	Sex (male vs female)	CMR (aged 0–17)	2022–2023, 2009–2023
	Age (aged under 5, 5–17)	CMR	
	Indigenous status (Indigenous vs non-Indigenous)	CMR (aged 0–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Location (private pools, inland, bathtub, natural coastal, dams, public pools, other)	N, %	2022–2023, 2009–2023
	Deaths by activity (fall, swimming, jumped, bathing, boating, watercraft)		2022–2023
	Deaths in private swimming pools	N	2009–2023
Factors	Supervision issues	N, %	2022–2023
	Swimming ability		
	Safety devices		

Table A8 Chapter 6: Deaths due to suicide		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	All young people aged 10–17	N, CMR	2022–2023, 2009–2023
Demographics	Sex (male vs female)	CMR (aged 10–17)	2022–2023, 2009–2023
	Age (10–14, 15–17)	CMR	
	Indigenous status (Indigenous vs non-Indigenous)	CMR (aged 10–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Factors	**Proximal events**	N, %	2022–2023
	Individual factors		
	Interpersonal difficulties		
	Mental health conditions		
	Substance use		
	Sexual orientation and gender identity		
	Family or childhood trauma		
	Adverse childhood events		
	Other family and relationship factors		
	School-related factors		
	Suicide behaviours		
	Factors by young people at-risk		
Response	Contact with mental health services (within 12 months prior, over 12 months prior)	N, %	2022–2023
	Contact with mental health services (within 12 months prior) by type and demographics		
	Contact with other services (police, child protection authorities)		

Table A9
Chapter 7: Deaths due to homicide

		Measurement **N (number)** **IMR (infant mortality rate)** **CMR (child mortality rate)**	**Period**
Total	All young people aged 0–17	N, CMR	2022–2023, 2009–2023
Demographics	Sex (male vs female)	CMR (aged 10–17)	2022–2023, 2009–2023
	Age (under 1, 1–4, 5–9, 10–14, 15–17)	CMR	
	Indigenous status (Indigenous vs non-Indigenous)	CMR (aged 10–17)	
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Circumstances	N	2022–2023
	Charges and convictions	N	2022–2023
	Circumstances (familial/peer/other)	CMR, N	2009–2023
Factors	**Familial**	N	2022–2023
	Family violence and relationships		
	Parental mental health		
	Alcohol and drug use		
	Fatal peer violence	Qualitative	2022–2023
Response	Response to families at risk	N	2022–2023

Table A10 Chapter 8: Deaths classified as SUDI		Measurement N (number) IMR (infant mortality rate) CMR (child mortality rate)	Period
Total	Infants	N, IMR	2022–2023, 2009–2023
Demographics	Sex (male vs female)	IMR	2022–2023, 2009–2023
	Neonatal vs post-neonatal		
	Indigenous status (Indigenous vs non-Indigenous)		
	Remoteness (major cities vs regional and remote areas)		
	Socio-economic areas (least vs most disadvantaged areas)		
Other characteristics	Outcome of investigation (explained, unexplained, not finalised)	%, IMR	2022–2023, 2009–2023
	Cause of death (natural cause, external cause, unexplained)	N, %	2022–2023, 2009–2023
Factors	**Infant factors**	%	2022–2023
	Aged 0–3 months		
	Male		
	Low birth weight		
	Pre-term birth		
	IUGR (Small for gestational age)		
	Neonatal health problems at birth		
	Preceding illness within 2 weeks of death		
	Sleep environment factors	**N**	
	Loose/soft items and bedding		
	Bedding non-infant specific		
	Shared sleeping surface		
	Head covered and/or excess thermal stress		
	Prone or side sleeping		
	Separate room to caregiver		
	Placed for sleep with others		
	Placed alone		
	Not placed for sleep – co-sleeping unintended		
	Adult bedding		
	Other mattresses		
	Sofa, couch, lounge or recliner		
	Rocker, bouncer, capsule or car seat		
Factors	**Family factors**	**N**	2022–2023
	Exposure to tobacco smoking		
	Young maternal age		
	Shared sleeping in hazardous circumstances	**N, %**	
Response	**Contact with services**	**N**	

Appendix 6 Monitoring previous recommendations

A key function of both the CDRT and NSW Ombudsman, as outlined in sections 34D (1)(e) and 36(1)(b) of CS CRAMA respectively, is to make recommendations as to legislation, policies, practices and services that could be implemented by government and non-government agencies and the community to prevent or reduce the likelihood of child deaths.

We continue to monitor agency progress in implementing some of the CDRT's earlier recommendations – those that have not yet been implemented and remain open.

The NSW Child Death Review Team *Annual Report 2022–23* (published 30 October 2023)[285] and NSW Child Death Review Team *Annual Report 2023–24* (published 31 October 2024)[286] provide detailed information about the progress agencies reported to us in 2022 and 2023 regarding CDRT recommendations. The NSW Child Death Review Team *Annual Report 2024–25*, published on 30 October 2025, provides the most up-to-date information about CDRT recommendations.[287]

The NSW Ombudsman is also required to include information about any recommendations made, and details regarding the implementation or otherwise of previous recommendations, in its biennial reports.[288]

A6.1 Previous CDRT recommendations that remain open at the time of tabling

Suicide prevention

Targeted suicide prevention measures

Recommendation 10, *Biennial report of the deaths of children in NSW: 2016 and 2017* (published June 2019)

The NSW Government should include in any suicide prevention plan specific measures targeted to school-aged children and young people across the spectrum of need. In particular, this should include:

a. *… (element closed)*

b. *… (element closed)*

c. The provision of targeted, sustained and intensive therapeutic support to young people at high risk – including strategies for reaching those who are hard to engage.

285 NSW Ombudsman, *NSW Child Death Review Team Annual Report 2022–23* (Annual Report, 2023) **https://www.ombo.nsw.gov.au/reports/annual-report/nsw-child-death-review-team-annual-report-2022-23**.
286 NSW Ombudsman, *NSW Child Death Review Team Annual Report 2023–24* (Annual Report, 2024) **https://www.parliament.nsw.gov.au/tp/files/189679/NSW-Child-Death-Review-Team-Annual-Report-2023-24.pdf.**
287 NSW Child Death Review Team, *NSW Child Death Review Team Annual Report 2024-25* (Annual Report, 2025) **https://www.ombo.nsw.gov.au/reports/annual-report/nsw-child-death-review-team-annual-report-2024-25**.
288 Section 43(2) of the *Community Services (Complaints, Reviews and Monitoring) Act 1993.*

Appendix 7 Supplementary details – select categories

A7.1 Vaccine-preventable diseases

Infectious diseases are caused by pathogenic organisms including bacteria viruses, and parasites. They are transmitted from person to person through direct or indirect contact.

Immunisation has successfully reduced the number of child deaths from infectious diseases. The current National Immunisation Program (**NIP**) Schedule[289] – updated 22 March 2023 – provides funded vaccination to protect against infectious diseases for eligible children.

A death was considered vaccine-preventable according to the framework below.

Table A11
Classification for vaccine-preventable death

Preventable	Vaccine available and child eligible under the National Immunisation Program (NIP)
Potentially preventable	Vaccine available; however, child not eligible under NIP
	Insufficient information about disease sub-type to determine if it was in an available vaccine
Not preventable	Vaccine not available
	Child too young to be immunised
	Medical contraindication to immunisation
	Fully immunised but ineffective immune response

289 'National Immunisation Program Schedules', *Australian Government Department of Health and Aged Care* (Web Page, 2 June 2025) **https://www.health.gov.au/topics/immunisation/when-to-get-vaccinated/immunisation-for-infants-and-children**.

Table A12
Underlying ICD-10 codes that correspond to vaccine preventable diseases

Disease of interest	ICD-10 code	
Rotavirus	**A08.0**	Rotaviral enteritis
Tetanus	**A33**	Tetanus neonatorum
	A34	Obstetrical tetanus
	A35	Other tetanus
Diphtheria	**A36**	Diphtheria – higher level
	A36.0	Pharyngeal diphtheria
	A36.1	Nasopharyngeal diphtheria
	A36.2	Laryngeal diphtheria
	A36.3	Cutaneous diphtheria
	A36.8	Other diphtheria
	A36.9	Diphtheria, unspecified
Pertussis (whooping cough)	**A37**	Higher level
	A37.0	Whooping cough due to *Bordetella pertussis*
	A37.1	Whooping cough due to *Bordetella parapertussis*
	A37.8	Whooping cough due to other *Bordetella* species
	A37.9	Whooping cough, unspecified
Meningococcal infection	**A39**	Higher level
	A39.0	Meningococcal meningitis
	A39.1	Waterhouse-Friderichsen syndrome – meningococcal haemorrhagic adrenalitis, meningococcal adrenal syndrome
	A39.2	Acute meningococcaemia
	A39.3	Chronic meningococcaemia
	A39.4	Meningococcaemia, unspecified
	A39.5	Meningococcal heart disease
	A39.8	Other meningococcal infections
	A39.9	Meningococcal infection, unspecified
Poliomyelitis	**A80**	Acute poliomyelitis
	A80.0	Vaccine-associated
	A80.2	Wild virus
	A80.3	Other and unspecified
	A80.4	Nonparalytic
	A80.9	Acute poliomyelitis, unspecified
Pneumococcal	**A40.3**	Sepsis due to *Streptoccoccus pneumoniae* – Pneumococcal sepsis
	G00.1	Pneumococcal meningitis
	J13	Pneumonia due to *Streptococcus pneumoniae*
Chickenpox – varicella	**B01**	Higher level
	B01.0	Varicella meningitis
	B01.1	Varicella encephalitis
	B01.2	Varicella pneumonia
	B01.8	Varicella with other complications
	B01.9	Varicella without complication

Table A12 (continued)
Underlying ICD-10 codes that correspond to vaccine preventable diseases

Disease of interest	ICD-10 code	
Measles	**B05**	Higher level
	B05.0	Measles complicated by encephalitis
	B05.1	Measles complicated by meningitis
	B05.2	Measles complicated by pneumonia
	B05.3	Measles complicated by otitis media
	B05.4	Measles with intestinal complications
	B05.8	Measles with other complications
	B05.9	Measles without complication
Rubella (German measles)	**B06**	Higher level
	B06.0	Rubella with neurological complications
	B06.8	Rubella with other complications
	B06.9	Rubella without complication
Hepatitis B (acute)	**B16**	Higher level
	B16.0	With coinfection with hepatic coma
	B16.1	With coinfection without hepatic coma
	B16.2	Without coinfection with hepatic coma
	B16.9	Without coinfection without hepatic coma
Mumps	**B26**	Higher level
	B26.0	Mumps orchitis
	B26.1	Mumps meningitis
	B26.2	Mumps encephalitis
	B26.3	Mumps pancreatitis
	B26.8	Mumps with other complications
	B26.9	Mumps without complication
Influenza	**J10**	Influenza due to other identified influenza virus – higher level
	J10.0	with pneumonia
	J10.1	with other respiratory manifestations
	J10.8	with other manifestations
	J11	Influenza, virus not identified – higher level
	J11.0	with pneumonia
	J11.1	with other respiratory manifestations
	J11.8	with other manifestations
	J12	Viral pneumonia, not elsewhere classified – higher level
	J12.0	Adenoviral pneumonia
	J12.1	Respiratory syncytial virus pneumonia
	J12.2	Parainfluenza virus pneumonia
	J12.8	Other viral pneumonia
	J12.9	Viral pneumonia, unspecified
Haemophilus influenzae type b (**Hib**)	**J14**	Pneumonia due to *Haemophilus influenzae*
	G00.0	Meningitis due to *Haemophilus influenzae*

A7.2 Other unintentional injuries

Table A13
Sub-categories of deaths due to other unintentional injuries

Other unintentional injuries	Subcategories
Threats to breathing	• Suffocation – Plastic bag – Bedding – Co-sleeping – Trapped in confined space – Other • Strangulation – Blind cord – Hanging deemed accidental – other • Choking – Food – Toy – Magnet – other non-food • Inhalation of gastric contents
Exposure to smoke, fire or flames	• Residential/home fire • Commercial/public premises fire • Bush fire • Other
Falls	• Window • Balcony/verandah • Roof • Stairs • Fence • Bridge/overpass • Animal • Moving object • Tree • Cliff • Other
Poisoning	• Drug/medication toxicity • Household substance toxicity • Anaphylaxis • Other substances

Table A13 (continued)
Sub-categories of deaths due to other unintentional injuries

Other unintentional injuries	Subcategories
Complications of surgery or medical procedure	• Birth process • Transplant • Adverse effect of medication • Other surgical complication
Struck by object	• Exposure to animate force[290] – struck/crushed by animal – bitten/mauled by animal – struck or knocked by person/s – other – specify • Exposure to inanimate force – falling object – thrown or projected object – crushed or caught between objects – contact with machinery – explosion – other – specify
Exposure to excessive temperature and forces of nature	• Exposure to excessive heat – Left unsupervised in vehicle – Inadequate shelter or protection – Lost outdoors – Exercise/sports-related hyperthermia – Other (specify) • Exposure to excessive cold (as for heat) • Avalanche / landslide • Earthquake • Lightning • Other

290 Includes harmful contact with both everyday and industrial objects, including tools, machines and sporting equipment.

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