Annual Report

Deaths of children and young people Queensland

2022–23

Queensland Family & Child Commission

Queensland Government

About this report

This report has been prepared under section 29 of the *Family and Child Commission Act 2014* (FCC Act). It describes information on the deaths of children and young people in Queensland registered in the period 1 July 2022 to 30 June 2023. The Queensland Family and Child Commission (QFCC) is a statutory body of the Queensland Government. Its purpose is to influence change that improves the safety and wellbeing of Queensland's children and their families. Under the FCC Act, the QFCC has been charged by government to review and improve the systems that protect and safeguard Queensland's children.

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Queensland
Family & Child
Commission

Queensland
Government

31 October 2023

The Honourable Yvette D'Ath MP
Attorney-General and Minister for Justice,
Minister for the Prevention of Domestic and Family Violence
1 William Street
BRISBANE QLD 4000

Dear Attorney-General

In accordance with section 29(1) of the *Family and Child Commission Act 2014*, I provide to you the Queensland Family and Child Commission's annual report analysing the deaths of Queensland children and young people.

The report analyses the deaths of all children and young people in Queensland registered in the period 1 July 2022 to 30 June 2023, with a particular focus on external (non-natural) causes.

Yours sincerely,

Luke Twyford
Principal Commissioner
Queensland Family and Child Commission

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Acknowledgements

The Queensland Family and Child Commission (QFCC) acknowledges Aboriginal and Torres Strait Islander peoples as the Traditional Custodians across the lands, seas and skies where we walk, live and work.

We recognise Aboriginal and Torres Strait Islander people as two unique peoples, with their own rich and distinct cultures, strengths and knowledge. We celebrate the diversity of Aboriginal and Torres Strait Islander cultures across Queensland and pay our respects to Elders past, present and emerging.

The QFCC acknowledges the special rights of children which are recorded in the United Nations Convention on the Rights of the Child (UNCRC), guided by its four key principles: devotion to the best interests of the child; the right to life, survival and development; respect for the views of the child; and non-discrimination.

The QFCC thanks the government and non-government agencies and individuals who contributed data and their expertise to the report. In particular, we express appreciation to the Registry of Births, Deaths and Marriages; the Coroners Court of Queensland; Queensland Police Service; Queensland Health; Department of Child Safety, Seniors and Disability Services; the Australian Bureau of Statistics (ABS); Queensland Paediatric Quality Council; Queensland Ambulance Service; Queensland Treasury; and the Royal Life Saving Society of Australia. The Victorian Department of Justice and Community Safety is also acknowledged as administrator of the National Coronial Information System.

The QFCC would like to acknowledge the contribution of data from other Australian agencies and committees which perform similar child death review functions. This data has been compiled for an interjurisdictional overview representing further steps towards developing a nationally comparable child death review dataset.

This report may cause distress for some people. If you need help or support, please contact any of these services:

Lifeline
Phone 13 11 14

Beyond Blue
Phone 1300 22 4636

Kids Helpline (for 5–25 year olds)
Phone 1800 55 1800

Principal Commissioner's message

Every child should be loved, safe, and have their rights upheld.

Childhood is a critical time for development and learning, establishing the building blocks of future health and wellbeing. During this time, children are vulnerable, and their right to safety and to live free from harm must be protected. I firmly believe that we all live in communities that want children to be healthy and safe. Unfortunately, this is not always the case. Sadly, in the 12-month period to 30 June 2023, the deaths of 446 children and young people aged 0–17 years were registered in Queensland. I extend my sincerest condolences to the families and friends touched by these deaths.

The death of any child, for any reason, is incredibly tragic and leaves lasting impacts on the community. It often leaves us asking questions—*How and why did this happen? What could we have done differently? What can we do to prevent this from happening again?*

The Queensland Family and Child Commission (QFCC) records information about child deaths in the Queensland Child Death Register (the Register). With 19 years of data, the Register currently contains over 8,500 records, capturing information about a child's demographics, cause and circumstances of death and, where known, certain characteristics or vulnerabilities. It is a critical resource allowing the QFCC to analyse trends and patterns in child mortality, including risk factors for death. We use this information to contribute to research, inform policy improvement and support community safety initiatives aimed at reducing the likelihood of child deaths. This has seen a greater focus on health promotion, environmental change, and legislation and public policies designed to safeguard the lives of infants, children and young people.

In 2022 I was proud to launch *Safer pathways through childhood framework*[1] (Safer Pathways), which provides a five-year forward plan for QFCC's child death prevention activities and research. The framework takes a social justice approach to our work that focuses on achieving health equity. As one of our first pieces of work under Safer Pathways, we released an information paper analysing all drownings and non-fatal immersions occurring in backyard swimming pools since 2011. This analysis used a novel approach by looking at the rate of drowning against the number of residential pools rather than the population – using this lens threw a new light on the regions and councils where residential pools were a risk. Further steps on our pathway to safer childhoods during the next 12 months include projects on:

- paediatric sepsis, in a partnership with Children's Health Queensland
- preventable childhood mortality
- adversity and social vulnerability.

1 www.qfcc.qld.gov.au/safer-pathways-through-childhood

The QFCC was privileged to host the Australia and New Zealand Child Death Review and Prevention annual conference and meeting in May 2023, bringing together professionals in child death registration, review, research and prevention to share learnings and discuss best-practice in their field.

A key strategy to support child death and injury prevention is to make data held in the Register available for research, public education, policy development and program design. In 2022–23, we provided data and advice to a range of stakeholders on topics such as drowning prevention research, safety standards for infant products, and use of child restraints in vehicles. We also participated in numerous advisory bodies that address matters such as improvements to child mortality data, both within Queensland and nationally; birth and death registration; road safety; sudden unexpected death in infancy; and suicide prevention. We continued to actively share information with the Department of Education to support young people affected by the suicide of a peer and contributed to several initiatives to improve infant sleep environments and reduce the risk of sudden infant death.

I would like to acknowledge the dedication of and thank those who work in roles associated with child death review, research and prevention. These activities contribute to a future in which all of Queensland's children and young people, no matter where they live or who they are, have the same opportunities to lead a full life and to reach their potential.

Luke Twyford
Principal Commissioner
Queensland Family and Child Commission

Executive summary

In the 12-month period from 1 July 2022 to 30 June 2023, the deaths of 446 children and young people aged 0–17 years were registered in Queensland.[2]

Deaths from natural causes (diseases and morbid conditions) accounted for a large proportion of child deaths, with these most likely to occur in the first days and weeks of life. Child mortality from external causes includes deaths from injuries, either non-intentional (accidental) injuries such as transport incidents or drowning, or from intentional injuries, which include suicide and fatal assault and neglect.

Child deaths in Queensland, 2022–23

446
child deaths in Queensland 2022–23*

327
children died of **natural causes** – such as congenital and perinatal conditions

46
children had a cause of death that was **not yet determined** at the time of reporting

67
children died from **external causes**, including:

28 from transport incidents

10 from drowning

4 from other non-intentional injuries

20 from suicide

5 from fatal assault and neglect

6
children's deaths remained **unexplained**[3] even after comprehensive investigation:

4 infants died of sudden infant death syndrome (SIDS) or undetermined causes

2 children aged 1–17 years died of undetermined causes

** By date of death registration.*

Recent increase in natural cause deaths

The 327 deaths from natural causes in 2022–23 was an 8-year high which contributed to the high total number of child deaths in the period (446). In contrast the 67 deaths from external causes in 2022–23 was equal lowest (with 2015–16) for any year since 2004–05. The largest contributor to the increase in natural causes was deaths from perinatal conditions. The increase does not appear to be due to deaths from coronavirus (COVID-19)—only 4 child deaths have been directly attributed to COVID-19 in Queensland—although the pandemic may have had indirect impacts on child health and mortality. The COVID-19 Mortality Working Group has found an excess in total deaths in Australia in 2022, with roughly one-third of the excess not related to COVID-19 while two-thirds were.

Trends in child mortality

Notwithstanding the increased number of child deaths in the last 2 years, there has been an overall decrease in child mortality rates since the Child Death Register commenced operation in 2004 (down 2.2% per year on average). The trend has been driven, to a large extent, by decreases in deaths from natural causes.

2 The Queensland Child Death Register is based on death registrations recorded by the Queensland Registry of Births, Deaths and Marriages. Deaths in this Annual Report are counted by date of death registration and may therefore differ from child death data based on date of death.

3 Where a cause of death could not be determined even after thorough investigation. It includes deaths from SIDS and undetermined causes.

Transport-related child mortality has decreased 3.6% per year on average. However, higher numbers of transport deaths in the last 3 years have seen these rates begin to increase. There were 28 transport-related deaths in 2022–23.

A slowly increasing trend in the rate of youth suicide is evident over time. However, the 20 suicides recorded in the last year and in 2021–22 was below the higher numbers seen in 2018–19 (37) and 2020–21 (30). Further analysis suggests the suicide rate has increased more in young females than in young males.

Sudden unexpected deaths in infancy (SUDI) continue to represent a considerable proportion of infant deaths. There were 40 sudden unexpected infant deaths in Queensland in 2022–23, the second highest number in the last 8 years.

Leading cause by age

The leading causes of death vary with age, largely in line with the risks faced by children at each stage of development.

Age category		Leading causes*		
		1	2	3
Infants	0–27 days	Perinatal conditions	Congenital anomalies	SIDS and undetermined causes
	28–364 days	SIDS and undetermined causes	Congenital anomalies	Perinatal conditions
1–4 years		Drowning	Cancers and tumours	Transport
5–9 years		Cancers and tumours	Transport	Nervous system diseases
10–14 years		Suicide	Cancers and tumours	Transport
15–17 years		Suicide	Transport	Cancers and tumours

* *In the 5-year period 2018–19 to 2022–23.*

Vulnerable groups

Some children are more vulnerable to experiencing adversity—including experiences that increase risk of death—than others. Aboriginal and Torres Strait Islander children and those children who are known to the child protection system (Child Safety)[4] are consistently and significantly over-represented in child mortality statistics.

Aboriginal and Torres Strait Islander children were over-represented in child deaths. Ninety-four deaths in 2022–23 were of Aboriginal and Torres Strait Islander children. Of these, 60 died from natural causes (diseases and morbid conditions), 16 from external causes, 3 were unexplained deaths and 15 were pending a cause of death at the time of reporting.

The mortality rate for Aboriginal and Torres Strait Islander children was 2.5 times higher than for non-Indigenous children (75.4 deaths per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years, compared with 30.5 deaths per 100,000 non-Indigenous children (5-year average)). For external causes of death specifically, the Aboriginal and Torres Strait Islander mortality rate was 3.2 times the non-Indigenous rate (5-year average).

4 Department of Child Safety, Seniors and Disability Services.

Seventy-two of the 446 children who died in 2022–23 were known to Child Safety in the 12 months prior to their deaths, a slight increase from 69 deaths in 2021–22. Children are considered known to Child Safety if they were the subject of an intake call or intervention in the preceding 12 months. The population of children known to the child protection system has increased over the last 5 years, although this growth does not fully account for the increase in child deaths observed in the last 2 years.

The mortality rate for children known to Child Safety was almost twice the Queensland child mortality rate (5-year average). Children known to Child Safety were 4 times more likely to die of external causes than the total child population in Queensland.

This and previous annual reports have found child mortality rates for children known to Child Safety to be consistently higher than the rates for all children, especially for deaths from external causes. Children who are at increased risk of child maltreatment are often from families with higher levels of economic disadvantage, poor parental mental health and problematic substance misuse and social instability, all of which are risk factors for adverse childhood outcomes—including death. The over-representation of children coming to the attention of the child protection system can therefore, at least in part, be explained by the often multiple risk factors present in these children's lives.

Child death prevention activities

During 2022–23, the QFCC responded to 20 external requests for child death data, including to support:

- Australian Competition and Consumer Commission's (ACCC) policy review of options to reduce the risk of death and injury associated with infant sleep products
- a joint QFCC and Queensland Health project investigating the incidences and factors associated with sepsis-related deaths
- Queensland Paediatric Quality Council's (QPQC) analysis of issues associated with infant deaths, to improve understanding of issues and inform development of clinical care guidelines
- Queensland Department of Transport and Main Roads' public education campaign for parents and carers around appropriate use of child restraints in vehicles.

The QFCC also participated as an active member of a range of advisory groups, such as:

- Australian and New Zealand Child Death Review and Prevention Group
- Australian National Child Death Data Collection Working Group
- Consumer Product Injury Research Advisory Group
- Queensland Government Suicide Prevention Network
- Suicide Prevention Oversight Group
- QPQC Infant Mortality Sub-Committee
- QPQC Steering Committee
- Queensland Government Births and Deaths Working Group
- Road Safety Research Network.

The QFCC continued to monitor and support the response to suicide deaths of young people including through a crucial information sharing process with the Department of Education. This process informs student wellbeing policy development and supports suicide postvention in affected schools.

Safer pathways through childhood framework 2022–2027

The ***Safer pathways through childhood framework*** sets the direction of the QFCC's child death prevention functions over the next 5 years. The Action Plan for the coming year can be found on the QFCC's website: **www.qfcc.qld.gov.au/safer-pathways-through-childhood**

The QFCC's information paper ***Swimming pool immersions of young children in Queensland*** was released in November 2022. It reports on regional patterns in drownings and near drownings, and promoting methods of drowning prevention. The report can be found on the Safer pathways webpage noted above.

Collaborative partnerships

This report includes chapters on categories of death and identifies trends and findings that may require deeper investigation. The QFCC values the expertise of others and would welcome opportunities to work with stakeholders undertaking related initiatives.

Data for prevention activities

The QFCC works with researchers and government agencies to raise community awareness and develop prevention programs and policies by identifying risk factors, trends and emerging safety hazards.

The QFCC can provide detailed child death data to genuine researchers and organisations at no cost. Email **child_death_prevention@qfcc.qld.gov.au**

Resources available at www.qfcc.qld.gov.au/about-us/publications/child-death-reports-and-data

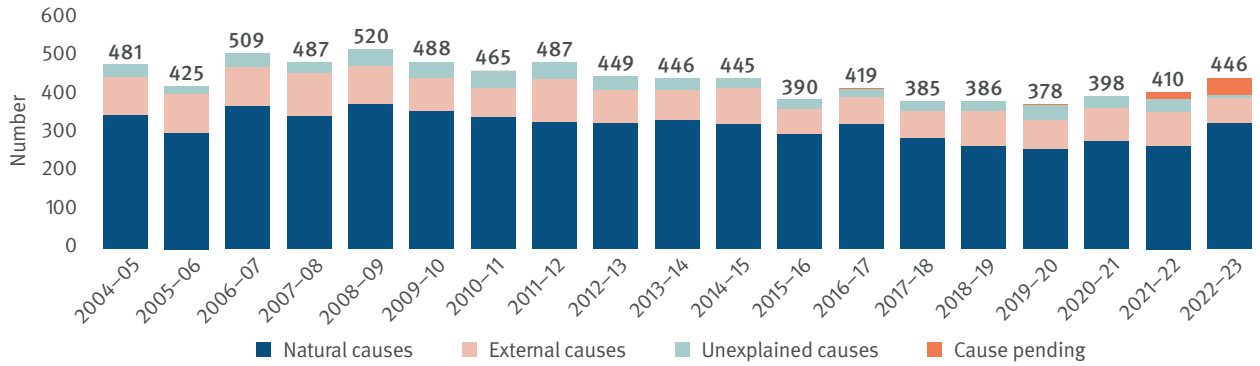
Annual report resources

- 19-year summary tables
- fact sheets
- Australian child death statistics 2021
- Appendices B to G

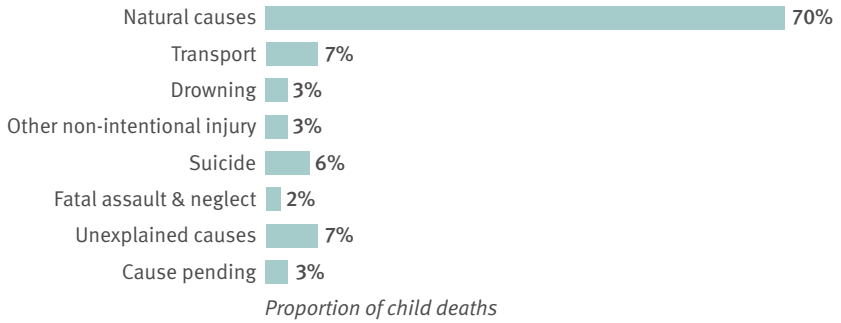
Safer pathways through childhood framework 2022–2027

1 Child deaths in Queensland

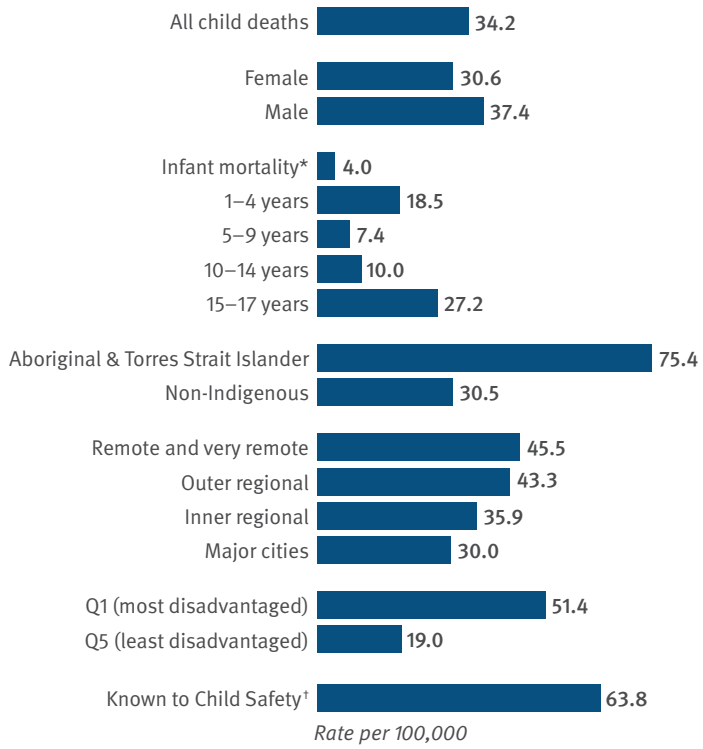
2004 to 2023



5-year summary (2018–2023) | Cause of death category



Demographics



Leading cause by age

0–27 days	**Perinatal conditions** 2.0 per 1,000 births
28–364 days	**SIDS and undetermined** 0.3 per 1,000 births
1–4 years	**Drowning** 2.5 per 100,000
5–9 years	**Cancers and tumours** 2.0 per 100,000
10–14 years	**Suicide** 2.1 per 100,000
15–17 years	**Suicide** 9.5 per 100,000

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
** rate per 1,000 births.*
† in the 12 months prior to death.

Key findings

Between 1 July 2022 and 30 June 2023, the deaths of 446 children and young people were registered in Queensland. The child mortality rate over the last 5 years was 34.2 deaths per 100,000 children aged 0–17 years and the infant mortality rate was 4.0 per 1,000 births.[5] Queensland's child mortality rate is high compared with other Australian states and territories. In 2020, Queensland's child mortality rate was the third highest in Australia at 33.7 per 100,000 children aged 0–17 years, while other jurisdictions ranged between 22.8 and 81.1 per 100,000.[6]

A summary table of child deaths by cause and key characteristics can be found in **Table A.1** in **Appendix A**.

Natural causes (diseases and morbid conditions) accounted for 73% of deaths of children and young people in 2022–23, occurring at a rate of 23.8 deaths per 100,000 (5-year average).[7]

Sixty-seven deaths were from external causes (which include transport, drowning, other non-intentional injury, suicide and fatal assault and neglect). External causes accounted for 15% of child deaths in 2022–23 and occurred at a rate of 7.0 deaths per 100,000 (5-year average).

Other than natural causes, the leading causes of deaths in 2022–23 were transport incidents (28), suicide (20), deaths from drowning (10), followed by unexplained causes (6). Five children died as a result of fatal assault and neglect and 4 children died from other non-intentional injuries.

Causes of death are often not available until the outcomes of autopsy and coronial investigations are final. For this reason, some deaths are reported as 'cause pending'. Final outcomes are usually available within 1–2 years, at which point the Queensland Child Death Register is updated to reflect the official cause. Of the 446 deaths of children and young people in 2022–23, 10% (46 deaths) were recorded as 'cause pending'. The majority pending a cause are infant deaths and are often found to be from unexplained causes (based on outcomes in previous periods).

Trends

In 2022–23, there was an 8-year high in deaths from natural causes (327) which contributed to the high total number of child deaths in the period (446). In contrast, the 67 deaths from external causes in 2022–23 was equal lowest (with 2015–16) for any year since 2004–05.

Child mortality rates, however, have generally declined over time. Broad trends in rates over the period 2004 to 2023 are illustrated in Figure 1.1 using 5-year rolling rates.[8] Key findings on changes between 2004–09 and 2018–23 include:

- the child mortality rate decreased 2.2% per year on average
- the overall trend is driven by decreases in child deaths from natural causes, which constituted the majority of child deaths, and decreased by 2.3% per year on average
- deaths from external causes decreased by 2.4% per year on average.[9]

Five-year rolling mortality rates for external causes from 2004 to 2023 are illustrated in Figure 1.2. Transport had been the leading external cause of child death across much of the period, with rates at least twice those for other external causes. However, the transport mortality rate decreased 3.6% per year on average between 2004–09 and 2018–23. Notwithstanding the overall decrease since 2004, higher numbers of transport deaths in the last 3 years have seen the rates begin to increase again.

5 For a summary of the population data used to calculate rates, see **Appendix B—Methodology** (available at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**).

6 QFCC (2023) *Australian and New Zealand child death statistics 2020*. **www.qfcc.qld.gov.au/sector/child-death/child-death-statistics-anz**

7 Detailed tables with data on cause of death and other demographics can be found in **Appendix A**.

8 Tables with data for 2004–2023 are available online at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**

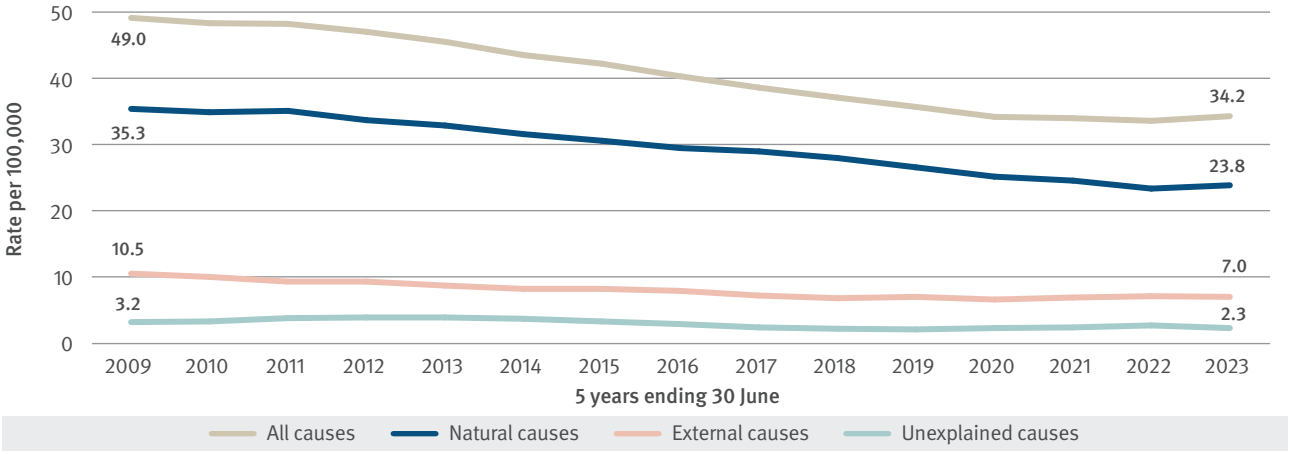
9 Average annual changes between 2004–09 and 2018–23 assume a linear change between the 2 periods.

In contrast, the rate of suicide has slowly increased over the period (up 1.9% per year on average), such that between 2013–17 and 2018–23 the rates of suicide and transport deaths have been at similar levels. The increase in suicide rates may have slowed as the 20 suicides in 2021–22 and 2022–23 were below the high numbers recorded in 2018–19 and 2020–21 (37 and 30 respectively).

Rates of deaths from drowning, other non-intentional injury and fatal assault and neglect decreased between 2004–09 and 2018–23, with average annual decreases of 2.8%, 3.4% and 1.6% respectively.

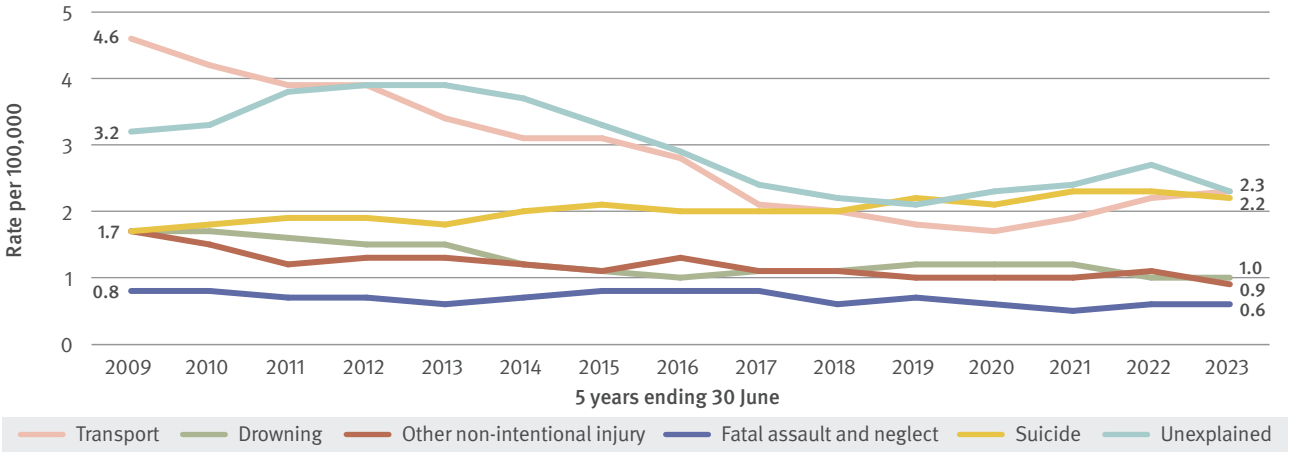
The mortality rate for deaths from unexplained causes is also illustrated on Figure 1.2. Between 2004–09 and 2018–23 the rate decreased by 1.9% per year on average. Almost all of this group are infant deaths certified as sudden infant death syndrome (SIDS) or undetermined causes. The dip in numbers and rates in the most recent periods is most likely due to the deaths which are pending a cause at the time of reporting, as opposed to an actual decrease.

Figure 1.1: Child deaths by major cause group (5-year rolling rate), 2004–09 to 2018–23



Notes: Rates calculated per 100,000 population aged 0–17 years, averaged over 5 years.

Figure 1.2: External-cause deaths by primary cause (5-year rolling rate), 2004–09 to 2018–23



Notes: Rates calculated per 100,000 population aged 0–17 years, averaged over 5 years.

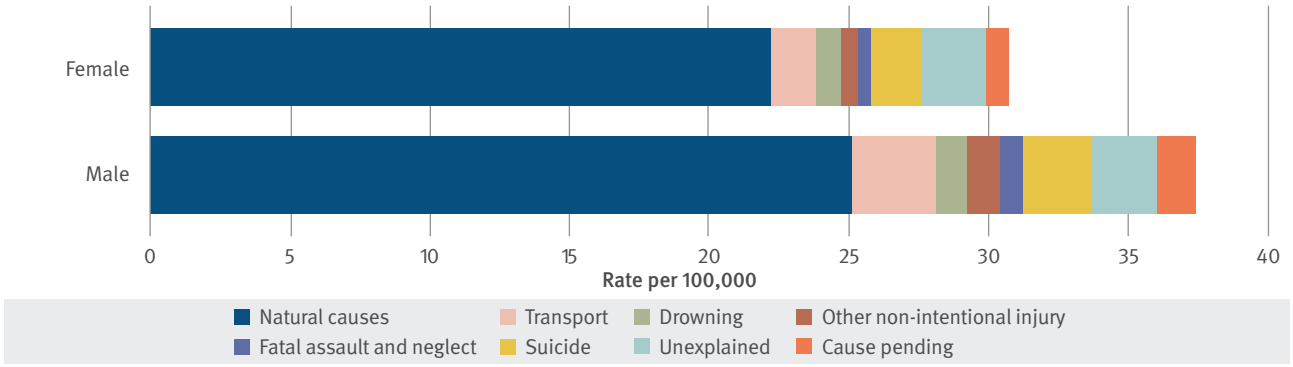
Demographics

Sex

In 2022–23, 57% of deaths were male children while 43% were female children. A small proportion of deaths (less than 1%) were infants of indeterminate sex. The 5-year mortality rates per 100,000 population aged 0–17 years were 37.4 for males and 30.6 for females.

Males were over-represented across most categories of death, particularly in deaths from transport incidents and other non-intentional injuries. Males and females were more equally represented in child deaths from fatal assault and neglect and unexplained causes.

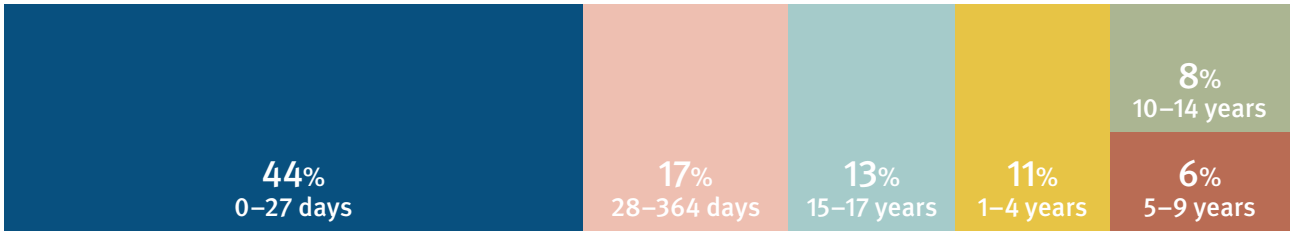
Figure 1.3: Deaths by sex and cause of death (rate), 2018–19 to 2022–23



Age

Figures 1.4 to 1.6 reveal the considerable differences in child deaths by age and cause. As shown in Figure 1.4, over the last 5 years, 44% of all child deaths occurred in the first days and weeks of life (0–27 days), and a further 17% were post-neonatal infants (28–364 days).

Figure 1.4: Deaths by age (proportion), 2018–19 to 2022–23

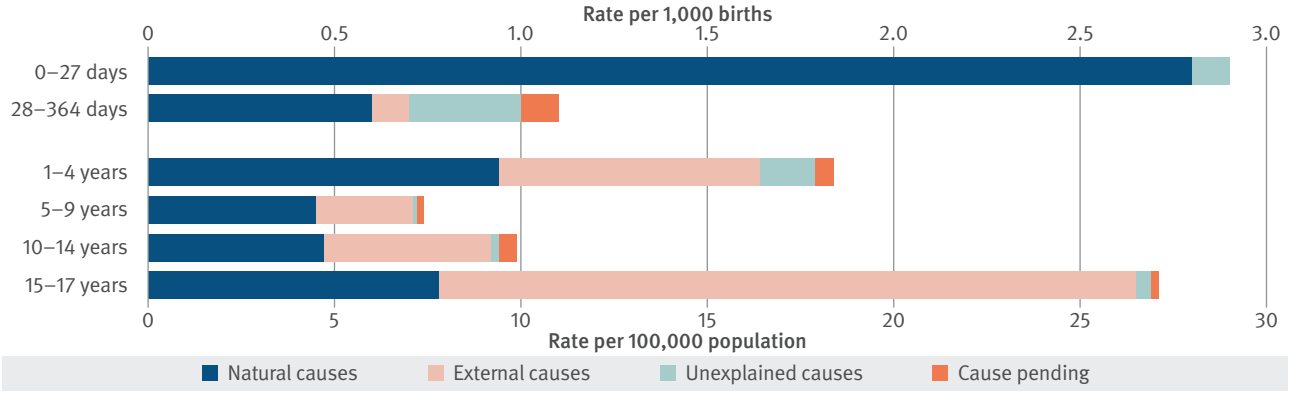


Notes: Percentages may not add to 100 due to rounding.

In Figure 1.5, rates of death are presented as per 1,000 live births for infants and per 100,000 population for older age groups. Almost all deaths in the 0–27 days age group were from natural causes, with a rate of 2.8 natural-cause deaths per 1,000 live births compared with the total mortality rate of 2.9 per 1,000. In all other age groups, however, between one-third and just over half of the mortality rates were from natural causes. For example, in the 1–4 age group the rate of natural-cause deaths was 9.4 per 100,000 while the total mortality rate was 18.5 per 100,000.

Unexplained causes made a greater contribution to the overall mortality rate for infants aged 28–364 days than in any other age group. External causes were larger contributors to overall mortality in older age groups. This was most marked for children aged 15–17 years (18.7 external-cause deaths per 100,000 and 27.2 total deaths per 100,000) and 1–4 years (7.0 external-cause deaths per 100,000 and 18.5 total deaths per 100,000).

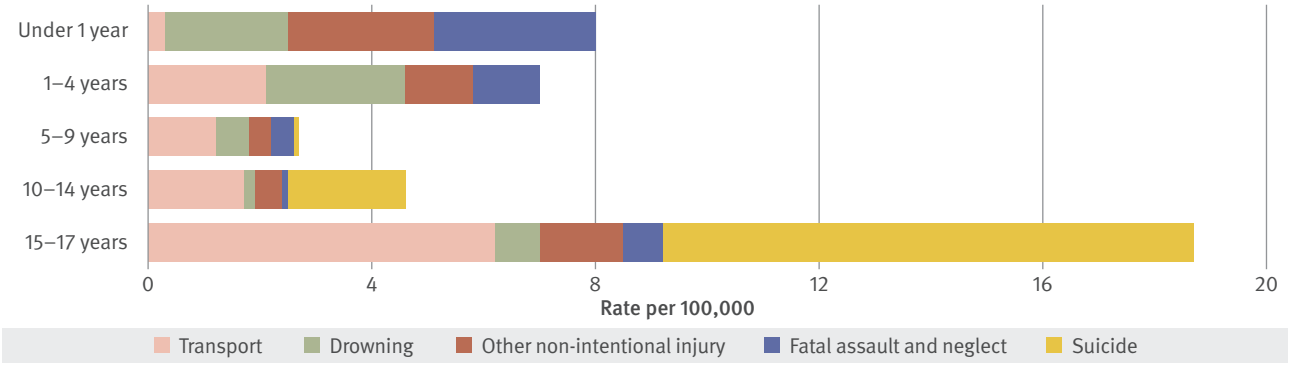
Figure 1.5: Deaths by age and major cause group (rate), 2018–19 to 2022–23



Notes: Rates for 0–27 days and 28–364 days calculated per 1,000 live births and, for age 1–17 years, per 100,000 population in each age category, averaged over 5 years.

Patterns in rates of external-cause deaths by age are indicated in Figure 1.6. Children aged 15–17 years and 1–4 years had the highest rates of death from external causes as noted above. Suicide was the leading external cause for children aged 10–14 and 15–17 years, while drowning was the leading external cause for children in the 1–4 year age category.

Figure 1.6: External-cause deaths by age (rate), 2018–19 to 2022–23



Leading causes of death

Table 1.1 indicates the leading causes of death in each age category, based on deaths in the last 5 years. The table uses categories from the *International Classification of Diseases and Related Health Problems, tenth revision* (ICD-10). Further detail on causes of death by age can be found in **Appendix D** (available at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**).

The leading causes of death for infants 0–27 days were perinatal conditions followed by congenital anomalies. For infants 28–364 days the leading cause was SIDS and undetermined causes (as a group). Young children aged 1–4 years are more vulnerable to external causes of death. Drowning was the leading cause in this age group and transport was the third leading cause after cancers and tumours.

Cancers and tumours were among the top 3 leading causes for each age category from 1–17 years. Suicide and transport were leading causes of death for children aged 15–17 years and for those aged 10–14 years.

Table 1.1: Top 4 leading causes of death by age (rate per 1,000/100,000), 2018–19 to 2022–23

Age category	1st	2nd	3rd	4th
0–27 days	Perinatal conditions (2.0)	Congenital anomalies (0.7)	SIDS and undetermined causes (0.06)	Cancers and tumours (0.02)
28–364 days	SIDS and undetermined causes (0.3)	Congenital anomalies (0.3)	Perinatal conditions (0.2)	Nervous system diseases (0.06)
Under 1 year	Perinatal conditions (2.1)	Congenital anomalies (1.0)	SIDS and undetermined causes (0.4)	Nervous system diseases (0.07)
1–4 years	Drowning (2.5)	Cancers and tumours (2.3)	Transport (2.1)	Congenital anomalies (1.8)
5–9 years	Cancers and tumours (2.0)	Transport (1.2)	Nervous system diseases (1.0)	Drowning (0.6)
10–14 years	Suicide (2.1)	Cancers and tumours (2.0)	Transport (1.7)	Nervous system diseases (1.1)
15–17 years	Suicide (9.5)	Transport (6.2)	Cancers and tumours; Nervous system diseases (2.2)	Other non-intentional injury (1.5)
0–17 years	Perinatal conditions (11.4)	Congenital anomalies (6.1)	SIDS and undetermined causes (2.3)	Transport (2.3)

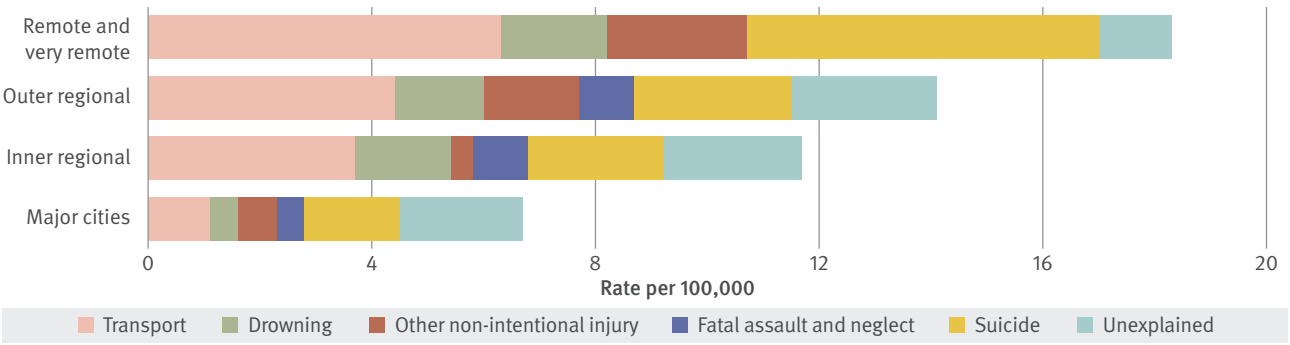
SIDS Sudden infant death syndrome.
Notes: The International Statistical Classification of Diseases and Related Health Problems, tenth revision (ICD-10) chapter classifications for diseases and morbid conditions (rather than the broader categories of death reported elsewhere) is used in this table and may therefore differ from other cause of death comparisons within the report. Rates are averaged over 5 years and calculated per 1,000 births for infants under 1 year and per 100,000 in age categories 1–17 years.

Regional and remote areas

The child mortality rate from all causes was highest in remote and very remote and outer regional areas of Queensland, with rates of 45.5 and 43.3 per 100,000 children aged 0–17 years, compared with 35.9 in inner regional areas and 30.0 in major cities (5-year average).[10,11]

Figure 1.7 illustrates that rates of deaths from external and unexplained causes, taken together, increase with increasing remoteness from population centres and services. In particular, the differences in transport death rates between major cities and other areas were found to be statistically significant.

Figure 1.7: ARIA+ of usual place of residence by selected causes of death (rate), 2018–19 to 2022–23



Notes: Rates calculated per 100,000 population aged 0–17 years in each ARIA+ category, averaged over 5 years. Excludes the deaths of children whose usual place of residence was outside Queensland.

10 Analysis based on the Accessibility/Remoteness Index of Australia Plus (ARIA+) for the child's place of usual residence. ARIA+ is a measure of remoteness that ranks locations based on their distance by road to a centre that provides services. www.qgso.qld.gov.au/about-statistics/statistical-standards-classifications/accessibility-remoteness-index-australia

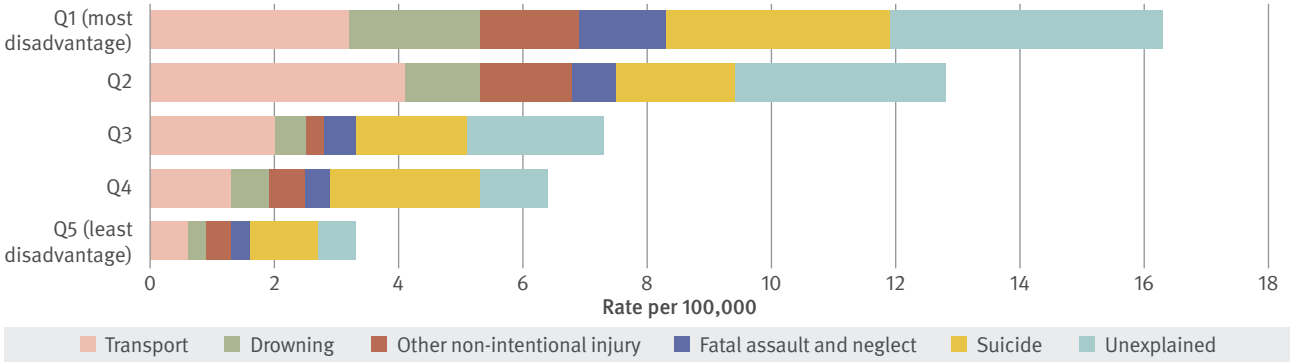
11 Rates exclude deaths of children whose usual residence was outside Queensland. See the *19-year data tables* available on the report home page for detailed data www.qfcc.qld.gov.au/about-us/publications/child-death-reports-and-data

Socio-economic disadvantage

The child mortality rate from all causes was highest in areas with the greatest levels of socio-economic disadvantage.[12] The rate of child deaths in quintile 1 areas (most disadvantaged) was 51.4 per 100,000 children aged 0–17 years, compared with 31.7 in quintile 3 areas and 19.0 in quintile 5 areas (least disadvantaged) (5-year average).[13]

Figure 1.8 illustrates that rates of death from external and unexplained causes, taken together, increase with increasing socio-economic disadvantage. The differences in rates of death between areas of greatest and least disadvantage were statistically significant for transport, drowning, suicide, and unexplained causes (although the raw numbers for quintile 5 were low).

Figure 1.8: SEIFA quintile of usual place of residence by selected causes of death (rate), 2018–19 to 2022–23



Notes: Rates calculated per 100,000 population aged 0–17 years in each SEIFA quintile, averaged over 5 years. Excludes the deaths of children whose usual place of residence was outside Queensland.

Aboriginal and Torres Strait Islander children

The deaths of 94 Aboriginal and Torres Strait Islander children were registered in 2022–23, of which:

- 60 were from natural causes
- 16 were external causes
- 3 were unexplained causes
- 15 deaths were pending a cause at the time of reporting.

The 94 deaths in the latest year were an increase from 71 in 2021–22. The change was seen mostly in deaths from natural causes which increased from 32 to 60. The 16 deaths from external causes; however, was a decrease from 22 deaths in the previous year.

Aboriginal and Torres Strait Islander children are over-represented in child deaths. The mortality rate for Aboriginal and Torres Strait Islander children was 75.4 deaths per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years, compared with 30.5 deaths per 100,000 non-Indigenous children (5-year average). The Aboriginal and Torres Strait Islander mortality rate was 2.5 times the rate for non-Indigenous children for all causes.[14]

The Aboriginal and Torres Strait Islander infant mortality rate was 6.6 deaths per 1,000 Aboriginal and Torres Strait Islander births, compared with 3.6 deaths per 1,000 non-Indigenous births (5-year average).

12 Analysis is based on the Socio-Economic Indexes of Australia (SEIFA) score for the child's place of the usual residence. SEIFA is allocated to geographic areas to represent their level of advantage or disadvantage from Census data. www.abs.gov.au/websitedbs/censushome.nsf/home/seifa

13 Rates exclude deaths of children whose usual residence was outside Queensland. See the *19-year data tables* available on the report home page for detailed data.

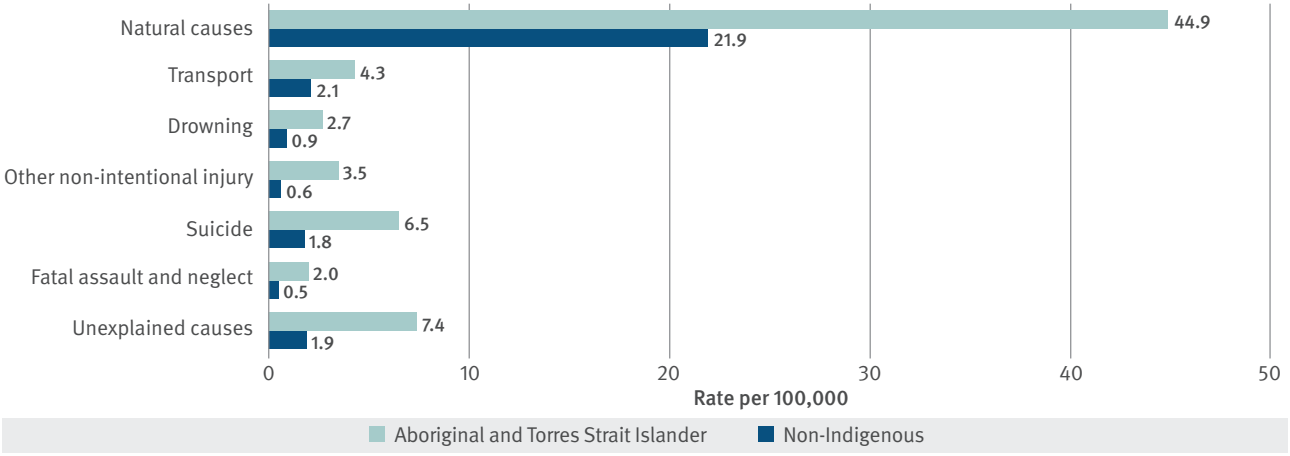
14 See Appendix A, Table A.2 for detailed data.

The level of over-representation was higher for certain causes of death, as illustrated in Figure 1.9. Mortality rates for Aboriginal and Torres Strait Islander children were more than 3 times higher than the non-Indigenous child mortality rates for:

- other non-intentional injury
- drowning
- suicide
- fatal assault and neglect.

Aboriginal and Torres Strait Islander infants were also over-represented in sudden unexpected death in infancy with a mortality rate 3.6 times that for non-Indigenous infants (1.6 and 0.4 per 1,000 births, respectively).

Figure 1.9: Cause of death by Aboriginal and Torres Strait Islander status (rate), 2018–19 to 2022–23

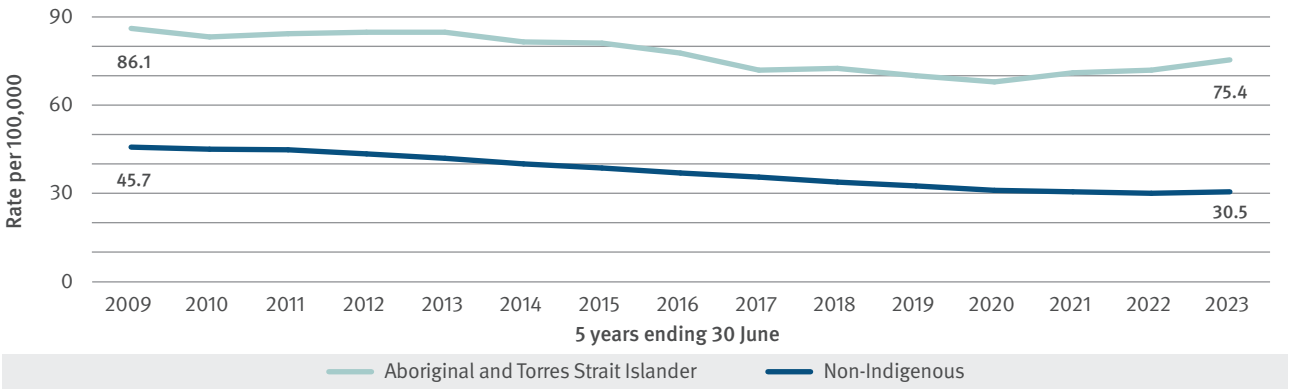


Notes: Rates calculated per 100,000 Aboriginal and Torres Strait Islander and non-Indigenous children aged 0–17 years, averaged over 5 years.

Trends

Aboriginal and Torres Strait Islander child mortality rates have decreased over the 19-year period. Between 2004–09 and 2018–23 the Aboriginal and Torres Strait Islander mortality rate (0–17 years) decreased 0.9% per year on average while the non-Indigenous rate decreased 2.4% on average. As shown in Figure 1.10, while decreases in the Aboriginal and Torres Strait Islander child mortality rate mirrored decreases in the non-Indigenous mortality rate over much of the period, the Aboriginal and Torres Strait Islander rate increased in the last 3 years whereas the non-Indigenous rate plateaued.

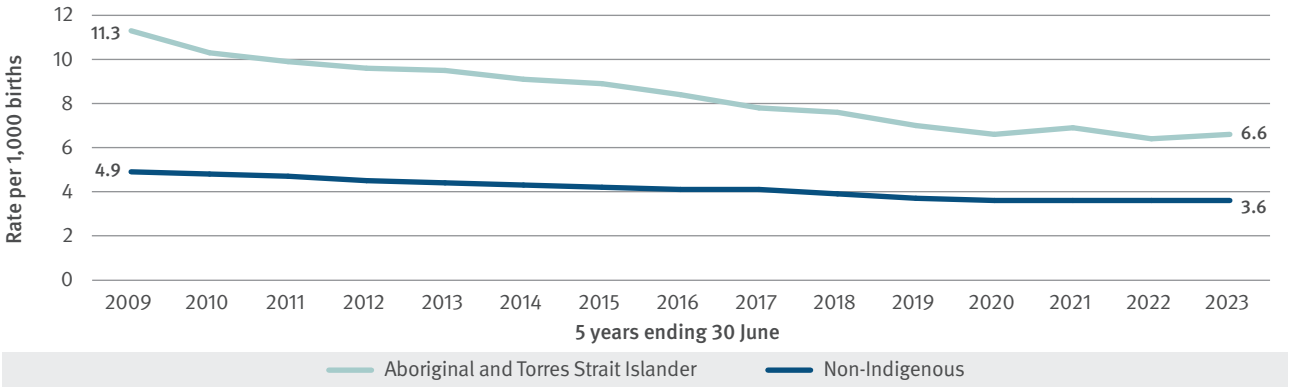
Figure 1.10: Child deaths by Aboriginal and Torres Strait Islander status (5-year rolling rate), 2004–09 to 2018–23



Notes: Rates calculated per 100,000 Aboriginal and Torres Strait Islander and non-Indigenous children aged 0–17 years, averaged over 5 years.

For infant deaths, there was a greater reduction in the Aboriginal and Torres Strait Islander infant mortality rate, which decreased from 11.3 per 1,000 live births in 2004–09 to 6.6 per 1,000 births in 2018–23 (down 3.0% per year on average). The non-Indigenous infant mortality rate decreased by 1.9% per year on average over the same period.

Figure 1.11: Infant deaths by Aboriginal and Torres Strait Islander status (5-year rolling rate), 2004–09 to 2018–23



Notes: Rates calculated per 1,000 Aboriginal and Torres Strait Islander and non-Indigenous live births, averaged over 5 years.

Children known to the child protection system

The Department of Child Safety, Seniors and Disability Services, specifically Child Safety services, administers the child protection system in Queensland. For this report, a child is deemed to have been known to Child Safety if, within 12 months before the child's death:

- Child Safety services was notified of concerns of alleged harm or risk of harm, or if
- Child Safety was notified of concerns before the birth of a child and reasonably suspected the child might be in need of protection after their birth, or if
- Child Safety took action under the *Child Protection Act 1999*, or if
- the child was in the custody or guardianship of Child Safety.

Seventy-two children who died in 2022–23 were known to Child Safety in the 12 months prior to their deaths, an increase from 69 deaths in 2021–22. Thirty-one of these children died from natural causes, 25 from external causes, one from unexplained causes and 15 deaths were pending a cause at the time of reporting.

On occasion, children may come to the attention of Child Safety due to an incident causing critical injuries (for example, in a road crash) and have subsequently died in hospital from their injuries. Of note in 2022–23, 9 children of the 72 who were known to Child Safety at the time of death did not have a child protection history prior to the incident, or had a protection history but the contact was more than 12 months before the incident.[15]

The mortality rate for children known to Child Safety was almost twice the Queensland child mortality rate (63.8 deaths per 100,000 and 34.2 deaths per 100,000 respectively, averaged over 5 years).[16,17]

The trends in deaths of children known to the child protection system are presented in Figure 1.12. From 2004–05 to 2013–14, statutory reviews were required for children known to child protection in the 3 years prior to their death. Following changes to the child protection system as a result of the Queensland Child Protection Commission of Inquiry, reviews since 2014–15 are only completed for children known to Child Safety in the 12 months prior to their death.[18]

15 A new field has been introduced into the Child Death Register, allowing the QFCC to assess and report on this aspect.

16 The population used as a denominator for 'children known to Child Safety' is the number of children known to Child Safety (as the subject of, or mentioned in, a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, child protection orders or placements) in the 12 months before the relevant year (e.g. the denominator for 2022–23 is the number of children known to Child Safety during 2021–22).

17 See Appendix A, Table A.3 for detailed data.

18 www.childprotectioninquiry.qld.gov.au

Figure 1.12: Deaths of children known to the child protection system (number), 2004–05 to 2022–23

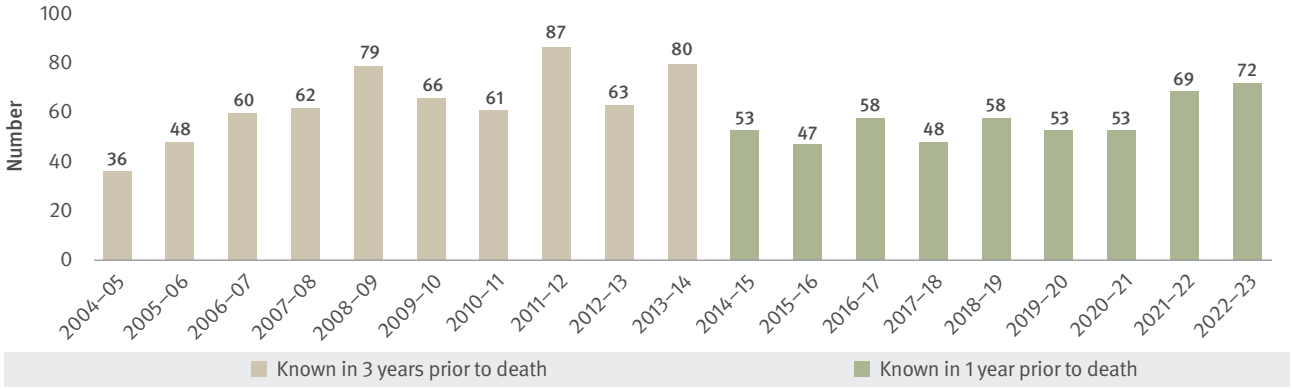


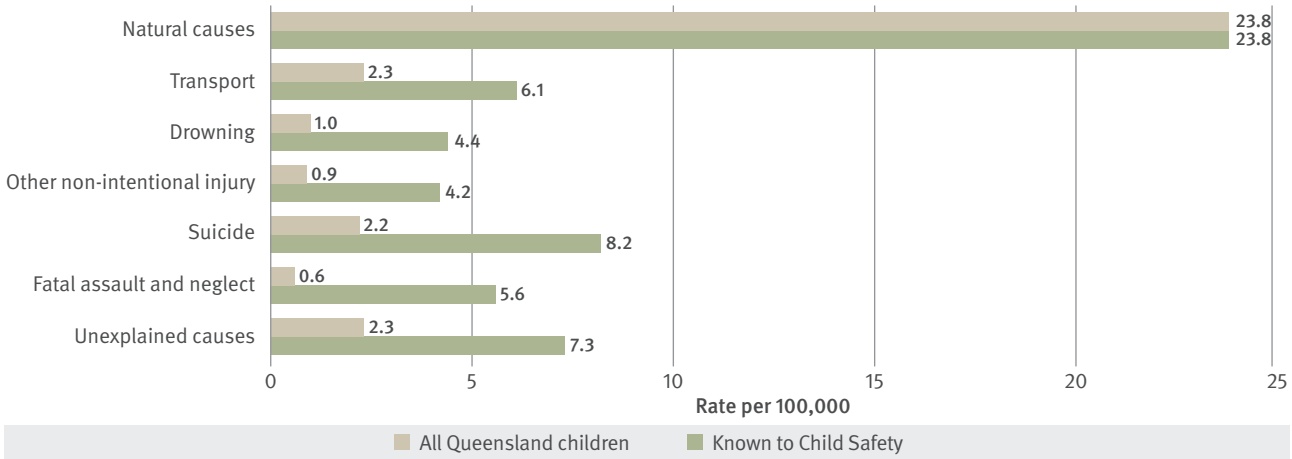
Figure 1.13 illustrates the over-representation of children known to Child Safety in deaths from external and unexplained causes (noting these figures include reference to those children who came to the attention of Child Safety as a result of the incident causing critical injuries and subsequent death). Over the last 5 years, mortality rates for children known to Child Safety have been more than 3 times higher than the Queensland child mortality rates for:

- fatal assault and neglect
- other non-intentional injury
- drowning
- suicide.

Children known to the child protection system were also over-represented in sudden unexpected infant deaths, with a mortality rate around 4 times the rate for all Queensland infants (respectively 2.3 and 0.6 per 1,000).

Children who are at increased risk of child maltreatment are often from families with higher levels of economic disadvantage, poor parental mental health and problematic substance misuse and social instability. All of which are risk factors for adverse childhood outcomes—including death.[19] It is therefore not the fact that being known to the child protection system that increases the risk of death, but the significant disadvantage, abuse and neglect that children experienced before they came to the attention of Child Safety and the multiple complex risk factors present in their lives.

Figure 1.13: Deaths by child protection system status and cause of death (rate), 2018–19 to 2022–23



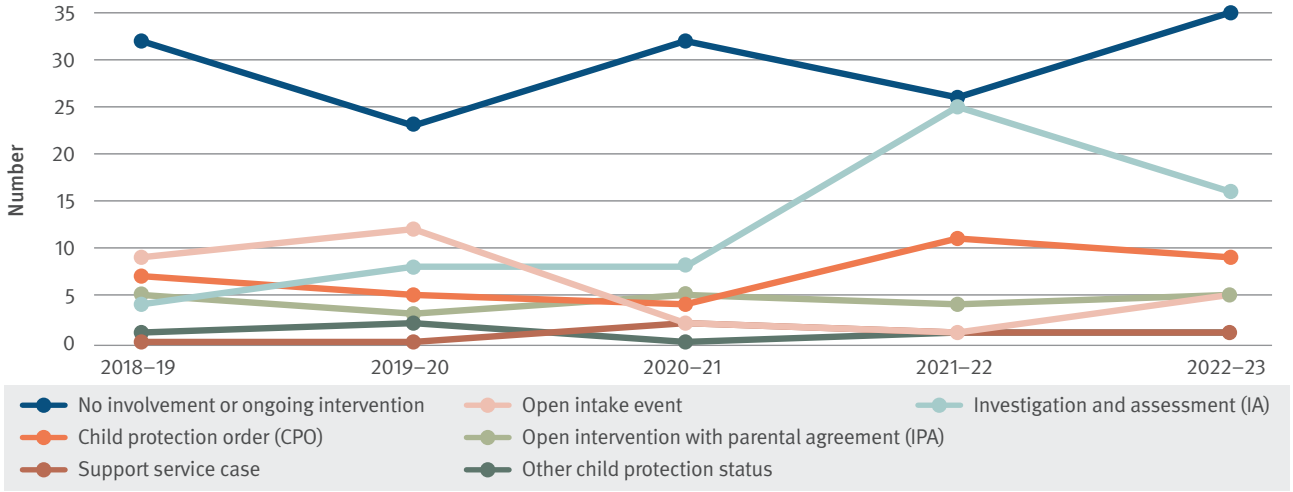
Notes: Rates calculated per 100,000 children known to Child Safety in the year prior to 30 June and per 100,000 population aged 0–17 years, averaged over 5 years.

19 Doidge J, Higgins D, Delfabbro P & Segal L 2017, 'Risk factors for child maltreatment in an Australian population-based birth cohort', *Child Abuse & Neglect*, 64, pp. 47–60.

'Known to child protection' is a broad cohort of children and is a proxy indicator for family wellbeing. Figure 1.14 provides the child protection status recorded at the time of death. Over the 5 years, the child protection status included:

- 49% – no involvement or ongoing intervention
- 20% – investigation and assessment (IA)
- 12% – child protection order (CPO)
- 10% – open intake event
- 7% – intervention with parental agreement (IPA).

Figure 1.14: Deaths of children known to the child protection system by status at the time of death (number), 2018–19 to 2022–23



Notes: Excludes child protection status not stated (one in 2021–22).

Children reported missing

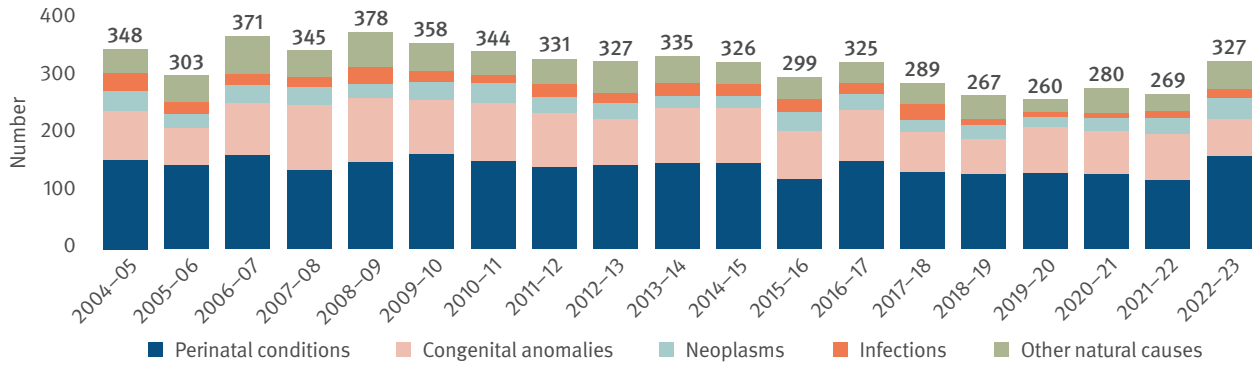
Reporting on deaths where the child or young person had been reported missing arose from the QFCC review ***When a child is missing: Remembering Tiahleigh***—a report into Queensland's children missing from out-of-home care.[20]

Five children in 2022–23 had been reported missing to the police in relation to their death, 3 of the deaths were from suicide and 2 from drowning. Two of the children reported missing were also known to Child Safety (neither of the children were in out-of-home care).

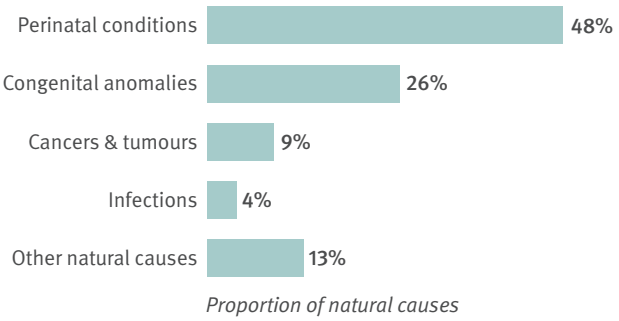
20 QFCC (2016) *When a child is missing: Remembering Tiahleigh—a report into Queensland's children missing from out-of-home care*, QFCC, Queensland Government. www.qfcc.qld.gov.au/sector/child-death/system-reviews-after-child-death

2 Deaths from natural causes

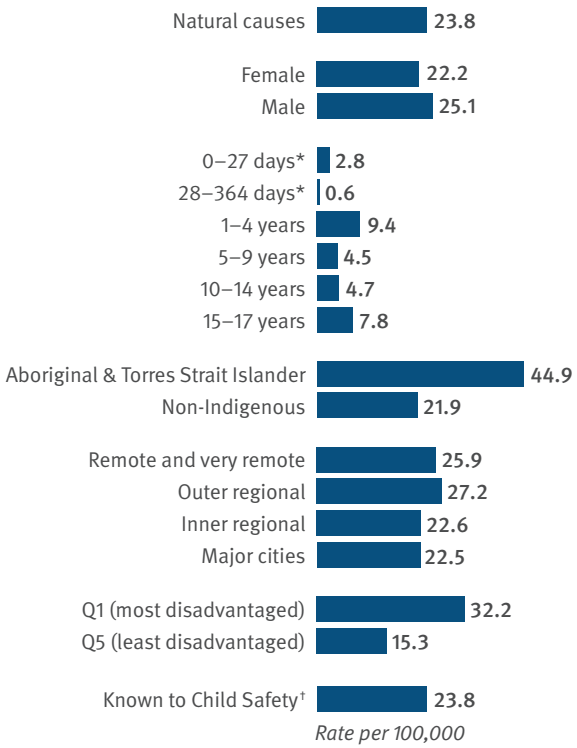
2004 to 2023



5-year summary (2018–23) | Cause of death category



Demographics



Leading natural causes by age

0–27 days	**Perinatal conditions** 2.0 per 1,000 births
28–364 days	**Congenital anomalies** 0.3 per 1,000 births
1–4 years	**Cancers & tumours** 2.3 per 100,000
5–9 years	**Cancers & tumours** 2.0 per 100,000
10–14 years	**Cancers & tumours** 2.0 per 100,000
15–17 years	**Cancers & tumours** 2.2 per 100,000

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
** rate per 1,000 births.*
† in the 12 months prior to death.

Key findings

Classification of causes of death using ICD-10

The QFCC uses the ***International statistical classification of diseases and related health problems***, tenth revision[21] (ICD-10) to classify causes of death. The ICD-10 chapters and codes form the major groups and sub-groups of diseases and conditions in reporting on deaths from natural causes.

Overall there has been a downward trend in the mortality rate for natural causes (diseases and morbid conditions),[22] with the rate decreasing from 35.3 per 100,000 in 2004–09 to 23.8 per 100,000 in 2018–23 (a decrease of 2.3% per year on average).[23] The majority of child deaths each year are from natural causes. Natural causes have accounted for 70% of all child deaths over the past 5 years.

Perinatal conditions and congenital anomalies were the most common natural causes in 2022–23 (161 and 66 deaths respectively). Together, these causes accounted for 69% of all deaths from natural causes.

Appendix A, Table A.4 provides summary data and key characteristics for deaths from natural causes.

Recent increase in natural cause deaths

Although the broader trend in the natural causes mortality rate is decreasing, there was a single year increase in 2022–23, 327 up from 269 deaths in 2021–22 (22% increase). The increase does not appear to be due to deaths from coronavirus (COVID-19)—only 4 child deaths have been directly attributed to COVID-19 in Queensland—although the pandemic may have had indirect impacts on child health and mortality. Interestingly, the COVID-19 Mortality Working Group has found an excess in total deaths of 20,000 in Australia in 2022, with roughly two-thirds related to COVID-19, but a further one-third were not related to COVID-19.[24]

Further review of the Register data indicates the following changes contributed to the 22% increase in natural cause deaths in the last year:

- The largest contributor to the increase was deaths from perinatal conditions, which increased from 120 to 161 (up 34%). Deaths from perinatal conditions, which predominantly occur in the neonatal period (0–27 days), are the largest contributor to child deaths. It is therefore understandable that an increase here is reflected in the overall number. The QFCC has no information to explain the increase in deaths from perinatal conditions at this time.
- Other increases were in neoplasms, with an increase in deaths from 27 to 36 (up 33%), and nervous system diseases, increasing from 20 to 30 deaths (up 50%). These changes made less of a contribution due to the smaller numbers involved.

While the QFCC has noted the increase in natural cause deaths, we also advise caution in interpreting changes. Year to year fluctuations can occur without these necessarily indicating a change in the underlying trend.

Sex

In 2022–23, of the 327 child deaths from natural causes 175 were male while 151 were female (in addition was an infant of indeterminate sex). Child mortality from natural causes is marginally higher for males than females. Over the last 5 years, the male mortality rate was 25.1 deaths per 100,000 male children compared to 22.2 deaths per 100,000 female children.

21 www.who.int/standards/classifications/classification-of-diseases

22 Deaths are reported as explained diseases and morbid conditions only. Deaths from unexplained causes are included in Chapter 8.

23 Tables with data for 2004–23 are available online at www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data

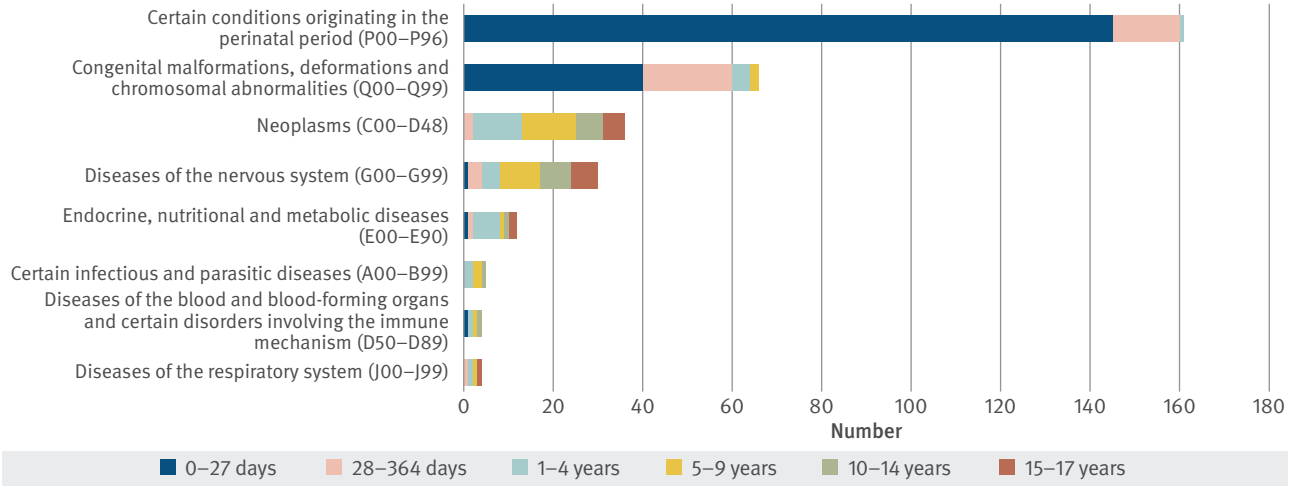
24 Actuaries Institute (2023) *Confirmation of 20,000 excess deaths for 2022 in Australia*, www.actuaries.digital/2023/04/06/covid-19-mortality-working-group-confirmation-of-20000-excess-deaths-for-2022-in-australia/

Age

Figure 2.1 illustrates the types of natural cause deaths for each age category in 2022–23. The following findings were evident:

- Almost all natural causes of death for infants (under 1 year) were from perinatal conditions and congenital anomalies (93% of all natural causes within this age group).
- Neoplasms (cancers and tumours) was the primary natural cause for children aged 1–9 years.
- Diseases of the nervous system was the primary natural cause for children age 10–17 years, closely followed by neoplasms.

Figure 2.1: Deaths from natural causes by ICD-10 chapter and age (number), 2022–23



Notes: Excludes causes where the total number of deaths was less than 4.

Neonatal and post-neonatal infants

Most child deaths from natural causes occur in the first year, predominantly within the first days and weeks of life. Table 2.1 shows the age and causes of infant deaths in major groups in the last 5 years, across the neonatal and post-neonatal periods.

Neonatal period (0–27 days)

Neonatal deaths are those occurring in the first 28 days after birth (0–27 days). Of the 1,054 infant deaths due to natural causes in the last 5 years, 82% occurred in the neonatal period. Of the 866 neonatal deaths, 61% occurred on the day of birth and a further 20% had occurred by the end of the first week.

The 2 leading causes—perinatal conditions (611 deaths) and congenital anomalies (233 deaths)—represent 97% of the neonatal deaths from natural causes.

Post-neonatal period (28–364 days)

Post-neonatal deaths occur during the remainder of the first year (28–364 days). During the last 5 years, there were 188 deaths from natural causes during the post-neonatal period. The leading cause of death from natural causes in the post-neonatal period was congenital anomalies (80 deaths or 43%).[25]

25 The leading overall cause of death in the post-neonatal period was SIDS and undetermined causes, see Table 1.1.

Table 2.1: Age and cause of infant deaths from natural causes (number), 2018–19 to 2022–23

Age		Cause of death			Total
		Perinatal conditions (P00–P96)	Congenital anomalies (Q00–Q99)	Other diseases and morbid conditions[a]	
Neonatal (age in days)	<1	371	154	5	530
	1–6	122	45	2	169
	7–27	118	34	15	167
Neonatal total		611	233	22	866
Post-neonatal (age in months)	1*	32	26	12	70
	2	9	14	9	32
	3	1	6	8	15
	4	2	11	3	16
	5	4	4	4	12
	6	1	7	6	14
	7	0	5	5	10
	8	1	2	1	4
	9	1	1	4	6
	10	1	2	1	4
	11	2	2	1	5
Post-neonatal total		54	80	54	188
Total infants		665	313	76	1,054

* *28 days to <2 months.*

a *Includes certain infectious and parasitic diseases (A00–B99); neoplasms (C00–D48); diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89); endocrine, nutritional and metabolic diseases (E00–E90); diseases of the nervous system (G00–G99); diseases of the circulatory system (I00–I99); diseases of the digestive system (K00–K93); diseases of the respiratory system (J00–J99); diseases of the musculoskeletal system and connective tissue (M00–M99); diseases of the genitourinary system (N00–N99); symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99); codes for special purposes (U00–U49).*

Major causes

Perinatal conditions

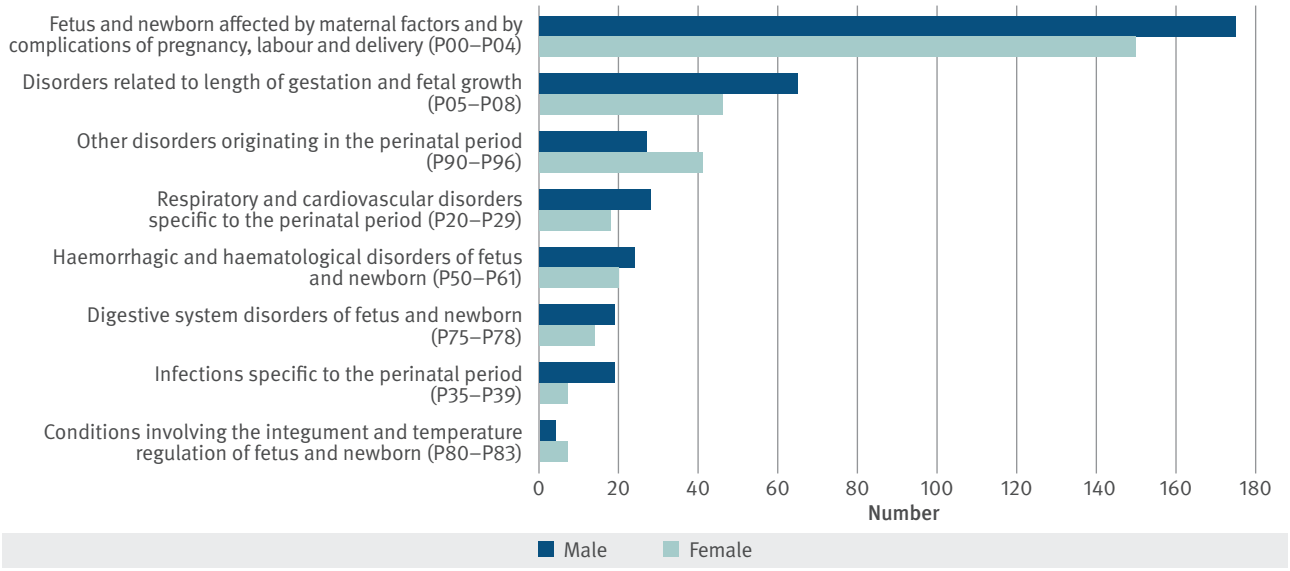
Perinatal conditions are diseases and conditions which originate during pregnancy or the neonatal period (first 28 days of life), even though death or morbidity may occur later. Perinatal conditions include maternal conditions which affect the newborn, such as complications of labour and delivery, disorders relating to fetal growth, length of gestation and birth weight, as well as disorders specific to the perinatal period such as respiratory and cardiovascular disorders, infections, and endocrine and metabolic disorders.

During 2022–23, there were 161 child deaths from perinatal conditions, at a mortality rate of 11.4 deaths per 100,000 children aged 0–17 years (5-year average). Perinatal conditions was the leading cause of death for infants (under 1 year).

As shown in Figure 2.2, over the past 5 years the majority of deaths due to perinatal conditions resulted from the fetus and/or newborn being affected by maternal factors or complications of pregnancy, labour and delivery (49%, 327 deaths), followed by disorders related to the length of gestation and fetal growth (17%, 111 deaths). Together, these causes accounted for 65% of all deaths due to perinatal conditions (438 of 672 deaths).[26]

26 Noting a small number of deaths from perinatal conditions occur in children aged 1 year and over.

Figure 2.2: Deaths due to perinatal conditions by sex (number), 2018–19 to 2022–23



Notes: Excludes causes where the total number of deaths was less than 4. Excludes 3 deaths of infants of indeterminate sex.

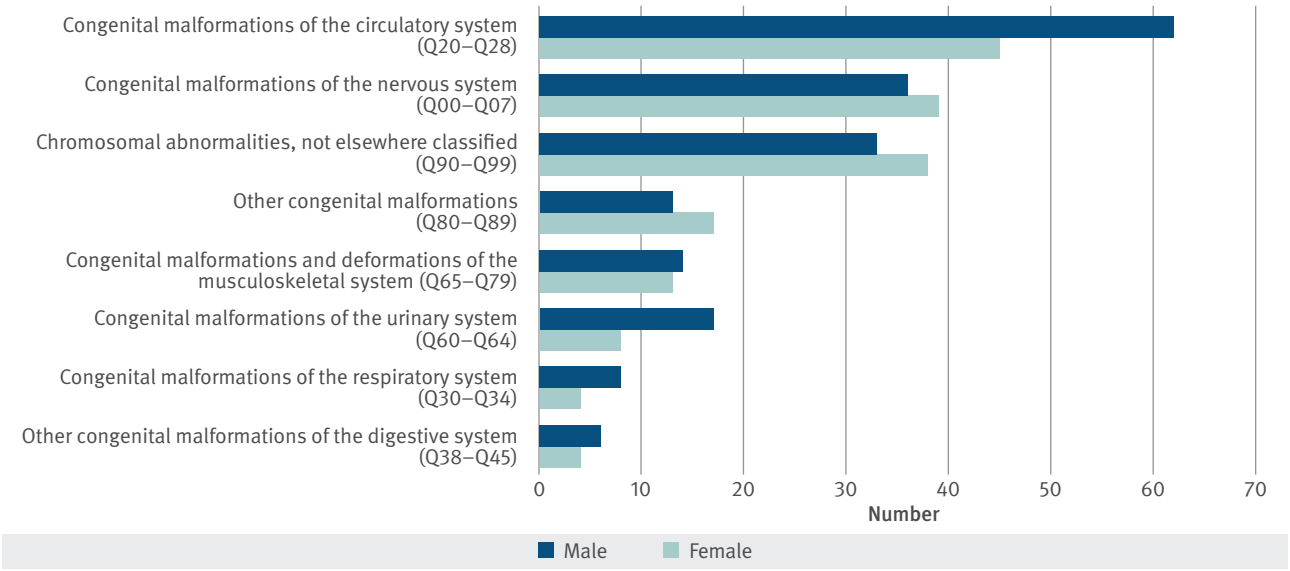
Congenital anomalies

Congenital anomalies are mental and physical conditions present at birth which are either hereditary or caused by environmental factors.[27]

During 2022–23, there were 66 child deaths from congenital anomalies, at a 5-year average rate of 6.1 deaths per 100,000 children aged 0–17 years.

As shown in Figure 2.3, over the last 5 years the leading causes of death due to congenital anomalies were malformations of the circulatory system (30%, 107 deaths) and congenital malformations of the nervous system (21%, 76 deaths).

Figure 2.3: Deaths due to congenital anomalies by sex (number), 2018–19 to 2022–23



Notes: Excludes causes where the total number of deaths was less than 4. Excludes 1 death of an infant of indeterminate sex.

27 ICD-10 Chapter XVII, Congenital malformations, deformations and chromosomal abnormalities.

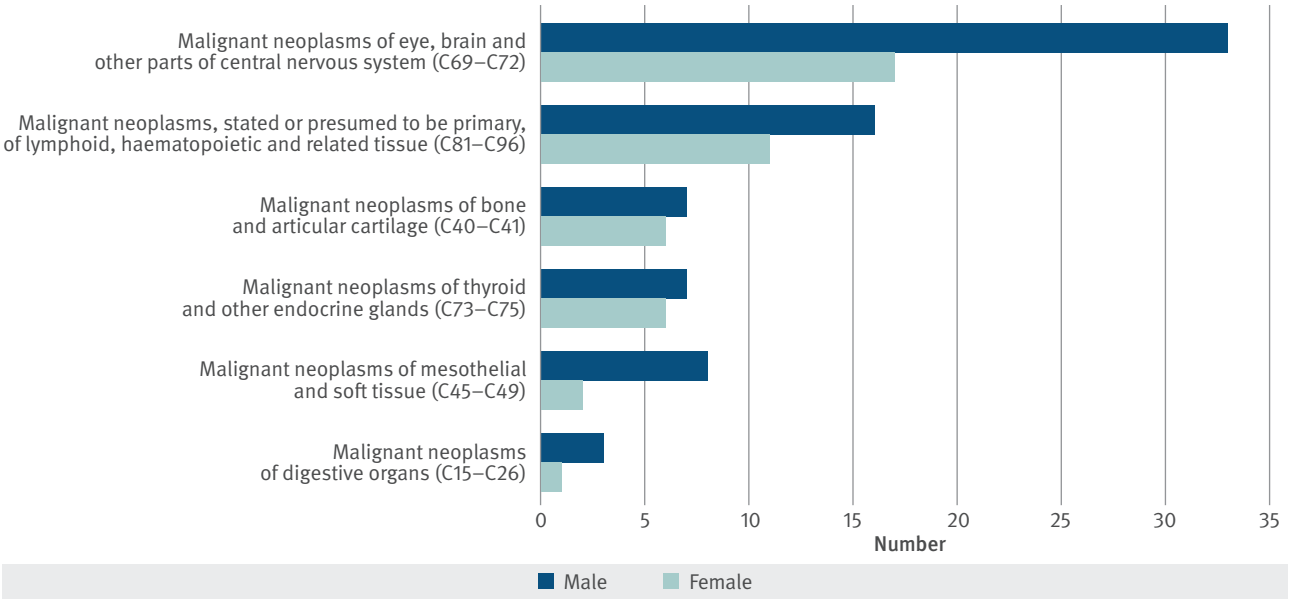
Neoplasms (cancers and tumours)

The term 'neoplasm' is often used interchangeably with the words 'tumour' and 'cancer'.[28]

Thirty-six children and young people died from neoplasms in 2022–23, at a 5-year average rate of 2.2 deaths per 100,000 children aged 0–17 years. As noted in **Chapter 1**, neoplasms were the leading cause of death (all causes) for ages 5–9 years, and the leading natural cause of death for ages 1–4 years, 10–14 years and 15–17 years.

Over the last 5 years, 129 children lost their lives to cancers and tumours. As illustrated in Figure 2.4, the most common types were malignant neoplasms of eye, brain and other parts of central nervous system (50 deaths or 39%), followed by malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (27 deaths or 21%).

Figure 2.4: Deaths due to neoplasms by sex (number), 2018–19 to 2022–23



Notes: Excludes causes where the total number of deaths was less than 4.

Infections

'Infections' is a hybrid category composed of certain infections and parasitic diseases, diseases of the nervous system and diseases of the respiratory system.[29]

Fifteen children died from infections in 2022–23. Over the last 5 years, 56 children and young people died from infections. The highest number of infections were caused by influenza and pneumonia (15 deaths or 27%).[30]

28 ICD-10 Chapter II, Neoplasms.

29 ICD-10 references: Chapter I, Certain infectious and parasitic diseases; Chapter VI, Diseases of the nervous system, codes G00–G09 only; Chapter X, Diseases of the respiratory system, codes J00–J22 only, Chapter XXII, Codes for special purposes, COVID 19 codes U07.1–U07.2 only.

30 ICD-10 Chapter X, Diseases of the respiratory system, Influenza and pneumonia (J09–J18).

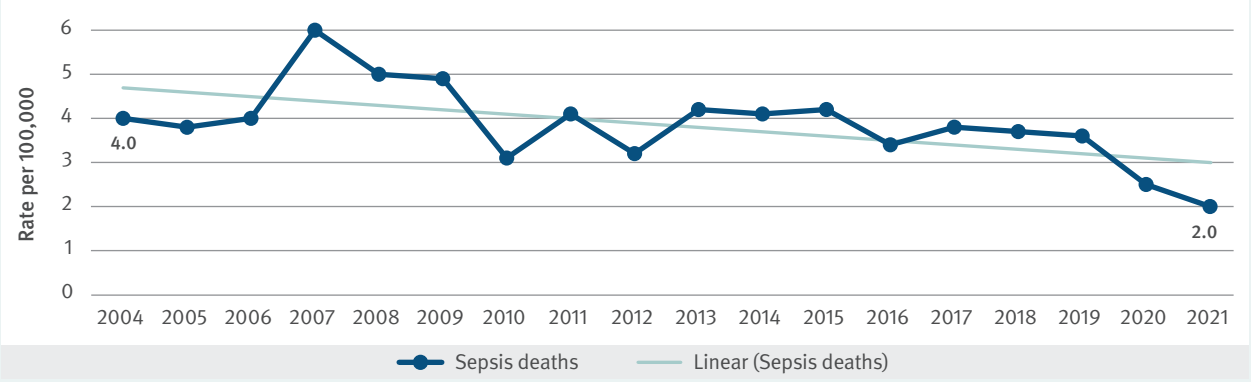
Paediatric sepsis mortality study

Sepsis—a life threatening condition that occurs when the body's response to an infection damages the organs and tissues—is a significant cause of preventable childhood mortality worldwide. The QFCC, in collaboration with the Queensland Paediatric Sepsis Program (QPSP) at Children's Health Queensland, is undertaking the paediatric sepsis mortality project.

The overarching aim of the study is to identify and describe the incidence of deaths due to sepsis in children aged less than 18 years in Queensland. As sepsis-related deaths may not be readily apparent in cause of death information, the project team developed a methodology to identify relevant deaths from ICD-10 mortality and morbidity codes, based on the internationally accepted approach which has been in use since the early 2000s.

Findings show that between 1 January 2004 and 31 December 2021, there were 748 sepsis-related deaths of infants and children aged 0–17 years in Queensland, a rate of 3.8 deaths per 100,000 children and young people.[31] Encouragingly, as shown in Figure 2.5, rates for all sepsis-related deaths declined significantly across the study period. Sepsis deaths were highest among infants and pre-school-aged children, with primary-school aged children (5–11 years) having the lowest rates of death. Aboriginal and Torres Strait Islander children, children living in remote and very remote areas and children living in areas with socio-economic disadvantage were also over-represented.

Figure 2.5: Deaths due to sepsis (rate) 0–17 years, 2004 to 2021



Source: QFCC Queensland paediatric sepsis mortality study (pending publication).

31 The report, once published, will be available at www.qfcc.qld.gov.au/safer-pathways-through-childhood

Deaths from notifiable conditions

There are national and local public health legislation requirements for health practitioners and laboratories to notify public health authorities of certain diseases in Australia.[32] Key factors considered when deciding if a condition should be notifiable include the overall impact of the disease on morbidity and mortality, potential for control, demonstrated public health concern and the availability of control measures. Notification allows authorities to detect outbreaks early and take rapid public health action, if necessary, and to plan and monitor these efforts. It also provides information on the occurrence of disease.

Thirty children and young people died from a notifiable condition over the latest 5-year period as shown in Table 2.2. Thirteen (43%) of the 30 deaths due to notifiable conditions were the result of potentially vaccine-preventable conditions, with the most common of these being invasive pneumococcal disease.[33,34]

COVID-19 was added to Queensland's Schedule of Notifiable Conditions in the *Public Health Regulation 2018* in January 2020. There were 4 child deaths due to coronavirus (COVID-19) during the 5-year reporting period.[35]

Table 2.2: Deaths with notifiable conditions as underlying cause (number), 2018–19 to 2022–23

Notifiable condition	Total
Pneumococcal disease (invasive)^	9
Invasive group A streptococcal infection	7
Coronavirus (COVID-19)*	4
Influenza^	3
Rheumatic heart disease	2
Salmonellosis	2
Melioidosis	1
Meningococcal disease (invasive)^	1
Respiratory syncytial virus	1
Total	**30**

^ *Potentially vaccine-preventable condition. Vaccines are available for selected strains of meningococcal, seasonal influenza and selected serotypes of pneumococcal disease. Serotyping information in relation to influenza, meningococcal and pneumococcal-related deaths is not available to the QFCC, and so deaths are reported as being potentially vaccine-preventable only.*

* *Vaccines became available for coronavirus (COVID-19) for children at the end of this reporting period, therefore it has not been included as a potentially vaccine-preventable condition for this current report.*

Notes: The child deaths with notifiable conditions in this report may differ from communicable disease reports which use date of notification or date of onset of disease to define the reporting period. The deaths reported by QFCC use date of death registration to define the reporting period, which may occur sometime after the notification of disease.

32 The Queensland Health list of notifiable conditions can be found at www.health.qld.gov.au/clinical-practice/guidelines-procedures/diseases-infection/notifiable-conditions/list

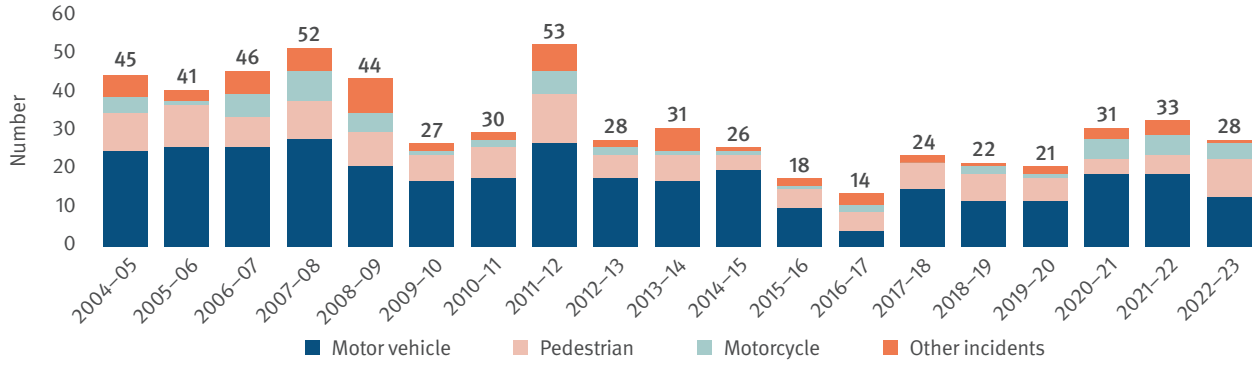
33 In Australia, publicly funded immunisation programs are administered by state and territory governments. The current National Immunisation Program Schedule (valid from April 2019) includes vaccinations against the following diseases: hepatitis B, diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, Haemophilus influenzae type b (Hib), pneumococcal disease, rotavirus, measles, mumps, rubella, meningococcal ACWY disease, varicella (chicken pox), influenza and human papillomavirus (HPV).

34 Vaccines are available for only selected strains of influenza, meningococcal disease and pneumococcal disease.

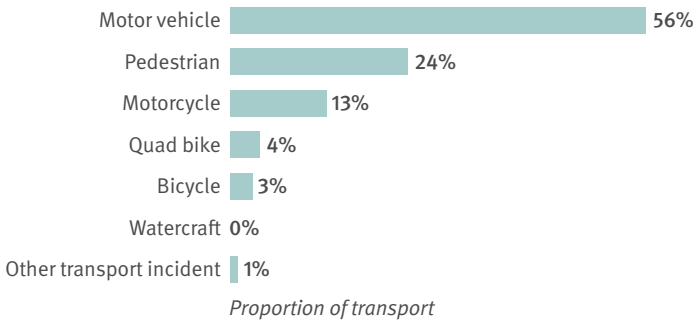
35 Information in this report on child deaths with notifiable diseases, including COVID-19, may differ from official reporting by Queensland Health due to different methodology. Further information about the QFCC's methodology can be found in the Methodology in Appendix B (available at www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data).

3 Transport-related deaths

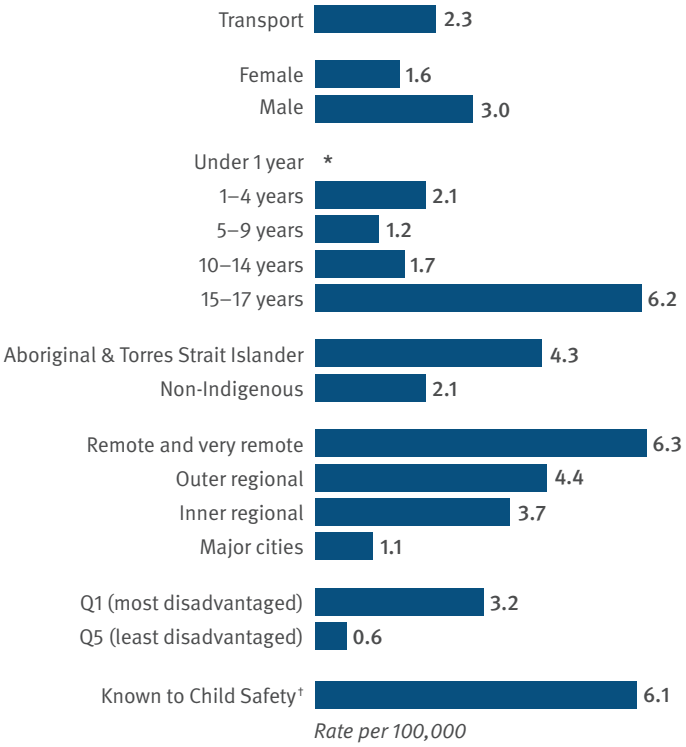
2004 to 2023



5-year summary (2018–23) | Incident type



Demographics



Risk factors in fatal motor vehicle crashes

54% excessive speed

39% no or inappropriate restraint

33% failure to follow road rules

30% reckless/dangerous driving

30% inexperienced driver

28% alcohol and/or substance use

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
** rate not calculated for numbers less than 4.*
† in the 12 months prior to death.

Key findings

In 2022–23, the deaths of 28 children and young people from transport-related incidents were recorded in Queensland. This represents a 5-year average rate of 2.3 deaths per 100,000 children aged 0–17 years. **Table A.5** in **Appendix A** provides summary data and key characteristics for transport-related deaths in the last 5 years.[36]

The rates of transport-related child fatalities have declined over the last 19 years, with the 5-year rolling rates dropping by 3.6% per year on average (see Figure 1.2). Although there has been an overall decrease in the transport mortality rate since 2004, the rates increased marginally in the last few years following higher numbers of transport deaths in the last 3 years.

Nature of transport incidents

During 2022–23, 13 children and young people died from motor vehicle crashes, 10 from pedestrian-related incidents, 4 from motorcycle and one from bicycle incidents.

Over the last 5 years, the majority of the 135 transport-related fatalities were motor vehicle deaths (75 or 56%), followed by pedestrian deaths (32 or 24%) and motorcycle incidents (17 or 13%).

Sex

Twenty-two male children died from transport-related incidents in 2022–23, compared with 6 female children.

Over the last 5 years, the average annual transport-related mortality rate for males was almost twice the rate for females (3.0 per 100,000 males and 1.6 per 100,000 females). The pattern of male over-representation in transport mortality has been attributed to, in part, greater risk-taking behaviours displayed by young males, including young male drivers.[37]

Age

Of the 28 transport-related fatalities during 2022–23, 7 were aged 1–4 years, 2 were aged 5–9 years, 6 were aged 10–14 years and 13 were aged 15–17 years.

The highest rate of transport deaths was among young people aged 15–17 years (6.2 per 100,000) which was almost three times the rate for the 1–4 year age group, which had the next highest rate (2.1 per 100,000) (5-year averages).

While risk taking in adolescent drivers may contribute to the higher rates of death in the 15–17 age group, driver inexperience, without an intention to drive recklessly, may also contribute. Relatively new drivers may lack critical driving skills such as hazard perception, attentional control and managing multiple driving tasks.[38]

36 Tables with data for 2004–2023 are available online at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**

37 AIHW (2011) *Young Australians: Their health and wellbeing*, cat. no: PHE 140, AIHW, Australian Government, **www.aihw.gov.au/reports/children-youth/young-australians-their-health-and-wellbeing-2011/report-editions**

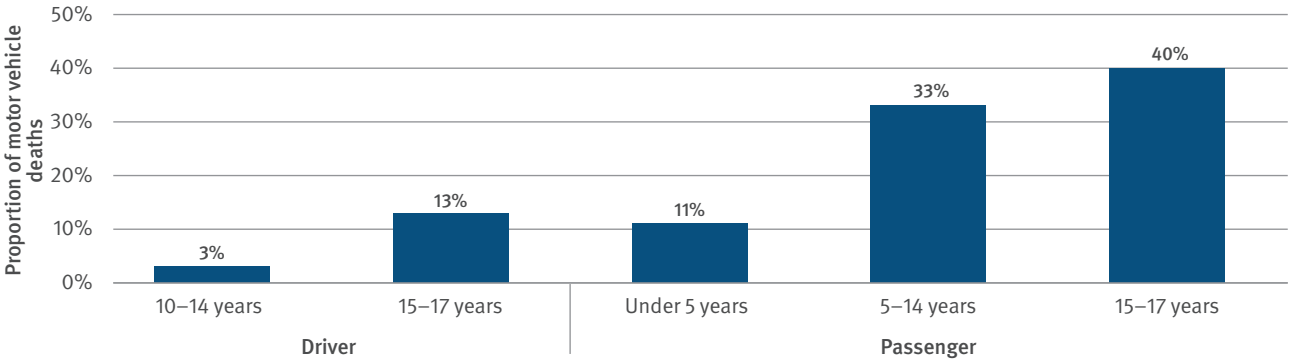
38 Centre for Accident Research & Road Safety Queensland (2019) *Adolescent risk taking*, **https://research.qut.edu.au/carrs-q/wp-content/uploads/sites/296/2020/06/Adolescent-risk-taking.pdf**

Transport-related characteristics

Motor vehicle incidents

Figure 3.1 illustrates the role of the child or young person in motor vehicle fatalities over the last 5 years. Of the 75 children and young people who died in motor vehicle incidents between 2018–19 and 2022–23, 16% (12) were driving at the time of the incident while 84% (63) were passengers.

Figure 3.1: Motor vehicle fatalities by role and age category (proportion), 2018–19 to 2022–23



Notes: Percentages may not add to 100 due to rounding.

Multiple fatalities

There was a total of 13 child deaths in 12 motor vehicle incidents in 2022–23. In addition to the child fatalities, 5 adults also died in incidents in which children died.

Roadway type

Of the 13 children and young people who died in motor vehicle incidents in 2022–23, 5 died in crashes on highways (roadways with a speed limit equal or greater than 100km/hr) and 5 on major roads (speed limit between 60 and 100km/hr). Over the last 5 years, 37% (28 out of 75) of child deaths in motor vehicle crashes occurred on highways, 31% were on major roads, 15% on rural roadways and 12% on residential streets. Four deaths (5%) in the last 5 years occurred in off-road settings (i.e. not on public roadways).

Risk factors associated with motor vehicle crashes

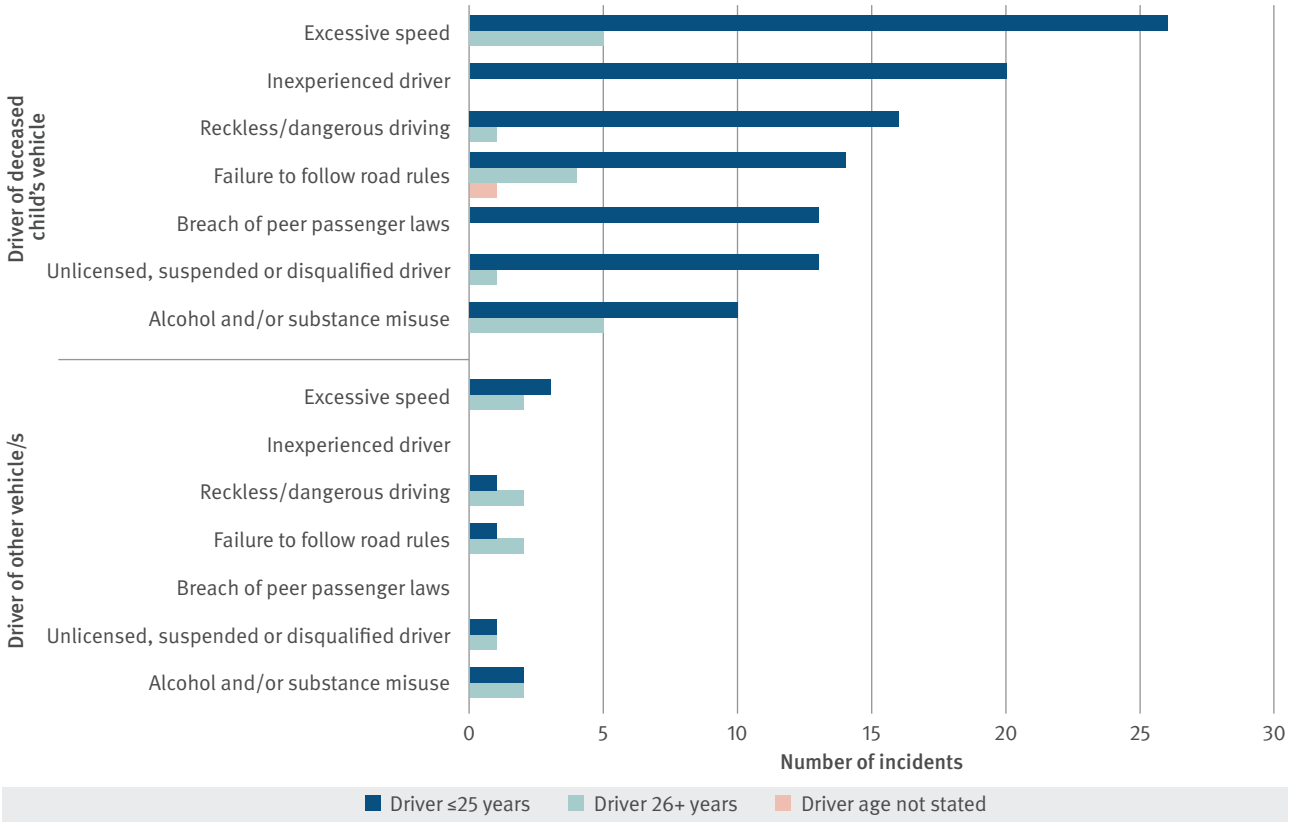
Of the 12 motor vehicle incidents in 2022–23, speed was the most commonly identified risk factor (7 incidents), followed by driver inexperience (4 incidents) and failure to follow road rules (3 incidents).

Over the last 5 years, 75 children died in 67 motor vehicle incidents (6 incidents involved multiple child fatalities). Single-vehicle accidents accounted for 58% (39) of those incidents. Two-thirds of the incidents (66%) involved a young driver (up to 25 years of age) driving the vehicle in which the child/ren was/were travelling. Twenty-nine children (39%) were either not wearing a restraint or were inappropriately restrained.

Risk factors identified in 67 incidents over the last 5 years are illustrated in Figure 3.2. The most common driver risk factors were:

- excessive speed (54%)
- failure to follow road rules (33%)
- inexperienced driver (30%)
- reckless/dangerous driving (30%)
- alcohol and/or substance use (28%).

Figure 3.2: Most common driver risk factors in motor vehicle incidents, by role of vehicle and age of driver (number of incidents), 2018–19 to 2022–23



Notes: The role of the vehicle applies to the vehicle in which the deceased child was travelling and, where applicable, any further vehicles involved in the incident. Multiple risk factors may be present in each incident.

Pedestrians

Ten children and young people died in pedestrian incidents during 2022–23, with 8 incidents occurring in the context of a low-speed vehicle run-over.

Over the last 5 years, there have been 32 pedestrian incidents, the majority of which were low-speed vehicle run-overs (63%) followed by road and railway crossings (25%):

- Children under 5 years are most at risk from pedestrian incidents, accounting for 59% (19 of 32) of the pedestrian deaths over the 5-year period.
- Children aged between 5 and 14 years accounted for 7 pedestrian deaths, 4 of which occurred while travelling on or crossing a roadway.
- Six young people aged 15–17 years died in pedestrian incidents, with alcohol and/or substance misuse at the time of the incident identified as the most common risk factor (3 of the 6 deaths).

Low-speed vehicle run-overs

'Low-speed vehicle run-over' (LSVR) is a term used to describe incidents where a pedestrian is injured or killed by a slow-moving vehicle in a non-traffic area or while entering or exiting a traffic area. Most of these incidents involve children under the age of 5. Over the last 5 years, there have been 20 LSVR incidents, most commonly occurring at the child's home or the home of a person known to the child (80%), with the driver most frequently identified as a parent or other close relative (80%).

E-scooters

Incidents involving E-scooters and other personal mobility devices are classified as pedestrian incidents in the Child Death Register, in line with coding rules in ICD-10 (coded to V09). As of November 2022, changes to Queensland's general road rules also include E-scooters within the scope of rules applying to personal mobility devices.[39] One death recorded within the last year was an E-scooter incident, with none recorded in the preceding years.[40]

Motorcycles, bicycles and quad bikes

There were 4 deaths from motorcycle incidents in 2022–23. Over the last 5 years, there have been 17 deaths of children and young people riding motorcycles. Almost all of the motorcycles were being driven by the child or young person (16), with excessive speed the most commonly reported risk factor.

There was one death in a bicycle incident in 2022–23. Over the last 5 years, there have been 4 deaths of children and young people riding bicycles with 3 incidents occurring on roadways.

There have been 5 quad bike-related fatalities in the last 5 years, although none occurred in 2022–23.

Off-road fatalities

Ten children died in off-road environments in Queensland during 2022–23. Eight deaths were pedestrian incidents and 2 children died in motorcycle incidents. Over the last 5 years, a total of 42 children and young people died in off-road environments.

Charges and criminal proceedings

Of the 27 transport-related incidents in 2022–23, 2 resulted in driving-related criminal charges (e.g. dangerous operation of a motor vehicle causing death). Over the last 5 years, there were criminal charges in relation to 39 of the 126 transport-related incidents.

Over the last 5 years, 11 young people who died were travelling in stolen vehicles in 8 distinct incidents.

39 www.qld.gov.au/transport/safety/rules/wheeled-devices/personal-mobility-devices accessed 4 September 2023.

40 Incidents involving wheeled toys (e.g. kick scooters), without the involvement of a transport vehicle, are not considered transport accidents. Falls from wheeled toys or collisions with stationary objects are examined in other non-intentional injury. Where a vehicle collides with a child riding a wheeled toy, these incidents are classified as pedestrian incidents.

Queensland Ambulance Service data

Injury data can be used to gain a more comprehensive understanding of the risks posed to children by vehicles and machinery. The Queensland Ambulance Service (QAS) has provided data on the number of ambulance responses to transport incidents involving children. Table 3.1 outlines the QAS responses to over 4,900 transport incidents in the last year, including both fatal and non-fatal injuries. The majority involved motor vehicles, followed by motorcycle and bicycle incidents. The highest number of incidents involved young people aged 15–17 years.

Ambulance callouts for young people injured in scooter incidents increased 70% in the last year, from 158 in 2021–22 to 268 in 2022–23. Further analysis of the 2022–23 data indicates 154 of the 268 scooter-related injuries involved E-scooters (57%).[41] Most of the 154 E-scooter injuries occurred in older children (72 were aged 10–14 years and 72 were aged 15–17 years).

Table 3.1: Queensland Ambulance Service responses to transport incidents (number), 2022–23

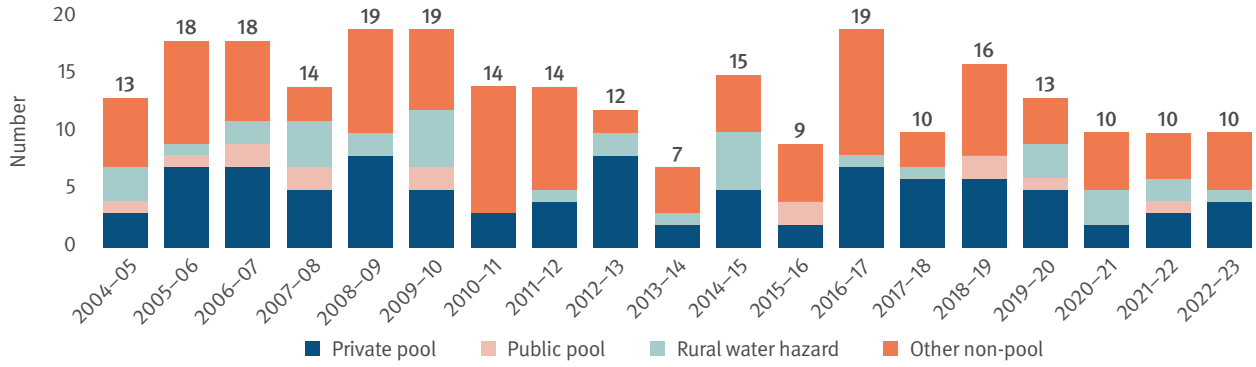
Type of incident	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Motor vehicle	149	489	677	704	1,327	3,346
Motorcycle	0	10	58	255	246	569
Bicycle	*	16	69	279	118	482
Scooter	0	*	29	133	106	268
Pedestrian	*	12	24	48	29	113
Quad bike	0	8	12	32	14	66
Watercraft	0	0	0	*	11	11
Other (e.g. go kart, skateboard)	0	5	10	18	26	59
Unknown type	*	10	9	8	7	34
Total	**149**	**550**	**888**	**1,477**	**1,884**	**4,948**

Source: Queensland Ambulance Service (Aug 2023).
** Not reported for numbers less than 5 and excluded from totals.*
Notes: Excludes data for children and young people whose gender was recorded as missing or indeterminate (n=47). Numbers in the table do not add to the total number of transport incidents attended by QAS (n=4,962) as cells with less than 5 are not shown, and are excluded from table totals.

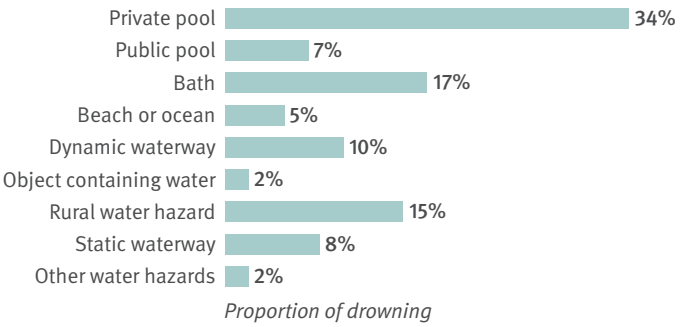
41 All scooter incidents were manually reviewed by QAS. Incidents were only identified as E-scooter incidents where the type of scooter was recorded somewhere in the record. QAS advise that E-scooter incidents may therefore be an under-estimate.

4 Drowning

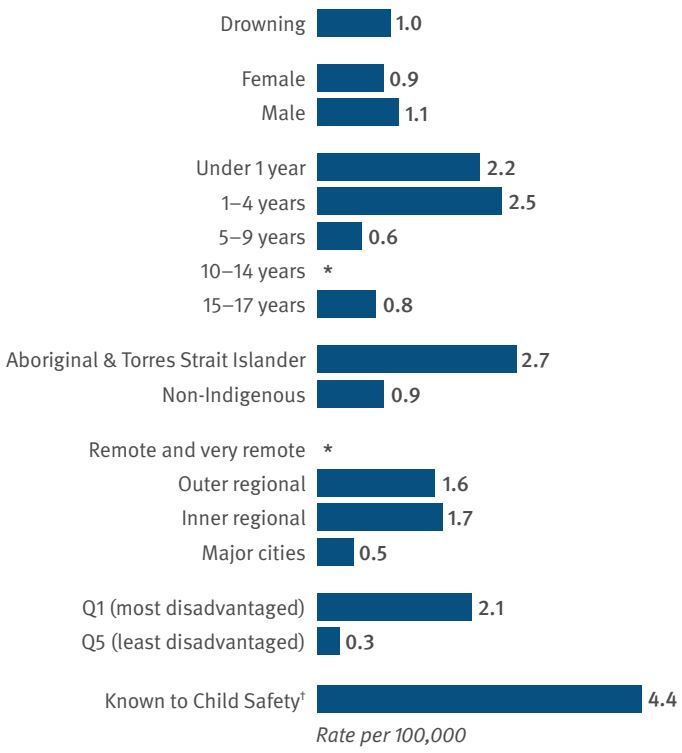
2004 to 2023



5-year summary (2018–23) | Water hazard type



Demographics



Risk factors

12 children on average **drowned each year** over the last 5 years

Under 5s are at greatest risk

Drowning is the **leading cause of death** in children 1–4 years

1–4 years

48% were in **private pools**

23% were in **rural water hazards**

Under 1s

In the last 5 years all 7 under 1 drownings were **bathing incidents**

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
** rate not calculated for numbers less than 4.*
† in the 12 months prior to death.

Key findings

The deaths of 10 children and young people were attributed to drowning in Queensland in 2022–23. This is a rate of 1.0 deaths per 100,000 children aged 0–17 years over a 5-year period.

Table A.6 in Appendix A provides summary data and key characteristics for drowning deaths in the last 5 years.[42]

Types of drowning-related deaths

Of the 10 child deaths in drowning incidents in 2022–23, 4 occurred in swimming pools and 6 were non-pool incidents.

Fifty-nine children drowned in the last 5 years. Private pools were the most common incident locations for child drownings (34%), with all 20 of these incidents in residential locations (homes, townhouse or units).[43] Bath drownings were the second most common location (10 deaths or 17%).

Other child drownings over the last 5 years included rural water hazards (e.g. dams) (9 deaths or 15%), dynamic waterways (e.g. rivers, creeks) (6 deaths or 10%), static waterways (e.g. lakes, reservoirs) (5 deaths or 8%), and public pools (4 deaths or 7%).

Sex

During 2022–23, 3 male children and 7 female children died in drowning incidents. The male drowning rate was slightly higher than the female rate over the last 5 years, with a male drowning rate of 1.1 per 100,000 compared with 0.9 per 100,000 for females.

Age

Children aged 1–4 years made up the largest group of drowning deaths in 2022–23 (50%). This pattern has been found in all previous reporting periods and is an indication of the vulnerability of this age group. Drowning was the leading cause of death for children aged 1–4 years over the last 5 years.

Risk factors and age

Under 1 year

Seven children under the age of 1 year have drowned over the last 5 years, accounting for 12% of child drowning deaths. All 7 deaths were bathing incidents, and in 5 of these incidents the infant was co-bathing with other children at the time. In all but one of the incidents the adult supervisors were aware of the infant's presence in the bath, however they were not actively supervising at the time of the incident.

1–4 years

Over the last 5 years, 31 children aged 1–4 years have drowned, accounting for 53% of all drowning deaths over this period. Fifteen of the 31 deaths (48%) occurred in private pools.

Pool fencing was non-compliant in 14 of the 15 incidents of private pool drownings. Non-compliant fencing includes the absence of fencing, fencing or gate defects or propping pool gates open. Circumstances included:

- 10 incidents in which pool fencing is believed to be non-compliant (including 4 where a gate was also propped open)
- 3 incidents in which the pool gate was propped open but pool fencing was otherwise compliant
- one incident in which pool fencing was absent[44]
- in one incident the pool fencing was compliant and the gate latched.

42 Tables with data for 2004–2023 are available online at www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data

43 Non-residential private pools include, for example, those in motels and resorts.

44 Incident occurred in a spa which required a fence that complied with pool fencing legislation.

Of the 15 private pool drowning deaths, 12 occurred at the child's usual place of residence, while 3 occurred at the homes of extended family or family friends.

Non-pool locations also present dangers to young children. Sixteen children aged 1–4 years drowned in non-pool incidents over the last 5 years with the most common being rural water hazards (7).

Twelve of the 31 children aged 1–4 years who drowned were known to be in, on or around water hazards. None of those 12 children were within arm's reach, or being actively supervised by a capable supervisor, at the time of the incident.[45]

5–9 years

Ten children aged 5–9 years drowned over the last 5 years, accounting for 17% of all drowning deaths. Five (50%) of those children were aged 5 years. The drownings involved a variety of water hazards, including public pools (3) and dynamic waterways (3).

In 7 of the 10 drownings (including 3 of the 5-year-olds), the child was known to be in, on or around water. Six of the 7 were either unsupervised or not actively supervised.[46] Six of the 7 children were identified by their families as weak or non-swimmers and 3 of the 7 were identified to have a medical condition or impairment that would require a higher level of supervision.[47]

10–17 years

Eleven young people aged 10–17 years drowned over the last 5 years (3 aged 10–14 years and 8 aged 15–17 years), accounting for 19% of all drowning deaths. The drownings occurred across a variety of water hazards.

Three of the young people were identified by their families as weak or non-swimmers. Two of the young people had a medical condition or impairment which would indicate a higher level of supervision was required.

Preventative factors

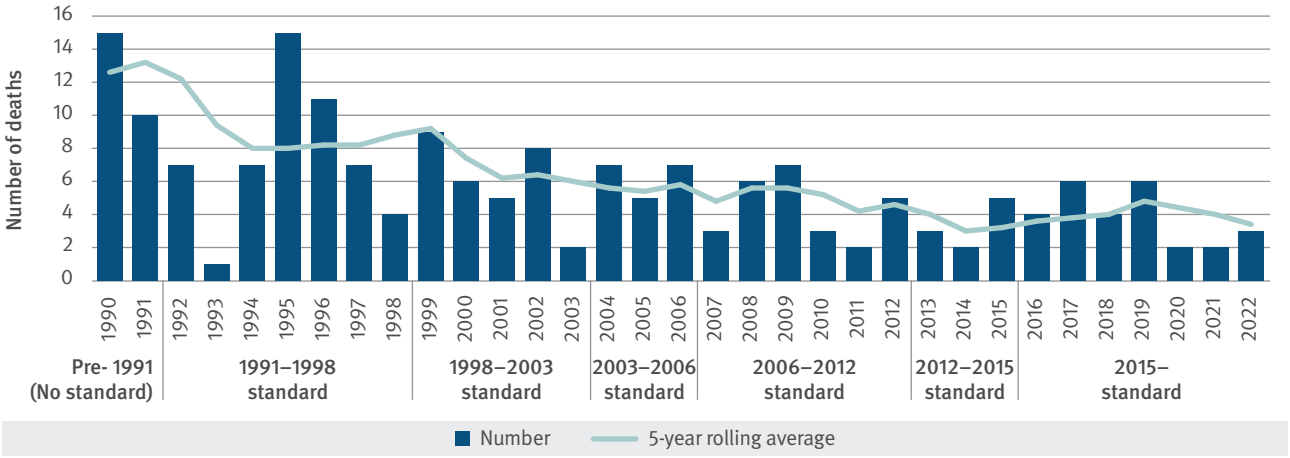
Figure 4.1 tracks the number of drowning deaths of children aged 0–4 years in private pools in Queensland against changes to fencing requirements over time. A number of changes in pool fencing standards have occurred—from no standards in place prior to 1991, to requirements for new pools to have fencing, later extended to existing pools; changes in requirements such as fence height; and more recently in 2009, compliance requirements for registration and inspection. The 5-year rolling average shows a decline following these changes in legislation, with regulation seen to have possibly impacted on the number of drownings. It is important to emphasise; however, that age-appropriate supervision must be used in conjunction with compliant physical barriers—both are critical to preventing pool drowning deaths in this age group.

45 Supervision recommendations for children aged 0–4 years by Royal Life Saving Australia, www.royallifesaving.com.au/about/campaigns-and-programs/keep-watch/keep-watch-actions. Active supervision means focusing all of your attention on your children all of the time, when they are in, on or around the water.

46 Supervision recommendations for children aged 5–14 years by Royal Life Saving Australia, www.royallifesaving.com.au/stay-safe-active/communities/how-to-keep-children-safe/children-aged-5-to-14-years

47 Supervision recommendations for children with epilepsy by Royal Life Saving Australia: www.royallifesaving.com.au/stay-safe-active/risk-factors/epilepsy-and-drowning

Figure 4.1: Drowning deaths of children 0–4 years in Queensland private pools by applicable pool standard (5-year rolling average), 1986–1990 to 2018–2022



Sources: Queensland Injury Surveillance Unit 2008, Injury Bulletin: Domestic pool immersion in Queensland children under 5 years of age. No.104; Queensland Child Death Register (2004–22).

Swimming pool immersions of young children in Queensland, 2011–2021

In 2022, the QFCC released an information paper analysing all fatal and non-fatal immersion incidents of children aged 0–4 years in Queensland that have occurred in pools covered by Queensland's swimming pool safety legislation since 2011.[48] The analysis used information from the Queensland Child Death Register, immersion notifications and the Queensland Pool Register to identify regional patterns and findings about the 2 key methods of drowning prevention—pool fencing and supervision.

Key findings included:

- Queensland has almost 400,000 registered swimming pools required to comply with the pool safety standard introduced in 2010 (regulated pools).
- Forty children aged 0–4 years lost their lives in regulated pools between 2011 and 2021 and a further 853 received medical attention after a non-fatal immersion incident.
- While the number of total immersion incidents has increased over time, the rate of immersions per 1,000 pools has remained steady. This suggests increases in the number of total immersions is largely in line with the swimming pools registered each year.
- There are clear regional patterns in immersions across the state, with Central Queensland having the highest total immersion rate per 1,000 pools.
- Despite the strong standards, fencing was found to be non-compliant in 90% of fatal immersions, with a concerning trend identified in which pool gates were deliberately propped open.
- The supervision of young children was considered inadequate for the circumstances in 65% of fatal immersions.
- There is a clear need to increase public awareness of the importance of maintaining pool fencing and of appropriate supervision for young children.

The regional analysis was shared with local Councils, which have carriage of pool fencing compliance. Strong media coverage of the findings was received across regional Queensland and a number of commitments were made by Councils to address the issues identified.

48 QFCC (2022) *Swimming pool immersions of young children in Queensland, 2011–2021* www.qfcc.qld.gov.au/safer-pathways-through-childhood

Medical conditions or impairments

Royal Life Saving Australia (RLS) advises that medical conditions, such as cardiac-related conditions, epilepsy, diabetes, and autism, should be taken into consideration when children are in and around water. In the last 5 years, 17% (10) of children and young people who have drowned in Queensland have had a known or suspected impairment or medical condition which should be considered when deciding the level of supervision required.

Epilepsy has been found to be a risk factor for drowning, particularly in children. The increased risk is thought to be between 5 and 15 times greater than those without epilepsy. Three children and young people with epilepsy or a history of seizures drowned in Queensland in the last 5 years. RLS advises that people with epilepsy consult with their doctor around water safety and the safety for the person to partake in water-related activities, regardless of the individual's swimming ability. It is also advisable that a child with epilepsy is actively supervised at all times when around water, including bath time.

Royal Life Saving research shows that autistic children and adolescents are 3 times more likely to drown than non-autistic children.[49] Six children known to be or suspected of being autistic have drowned in Queensland in the last 5 years. Prevention messaging for parent's and carers of autistic children highlights the importance of:

- active adult supervision for all ages
- the erection of barriers to restrict access to water
- the creation of child safe play areas where there is a risk of drowning posed by natural waterways.

More information on drowning risk factors and preventions measures can be found on the Royal Life Saving website: **www.royallifesaving.com.au/stay-safe-active/risk-factors**

Queensland Ambulance Service data

Table 4.1 presents data on ambulance responses for fatal and non-fatal immersion injuries of children in the last year. There was a total of 262 immersion incidents. Almost half (45%) of all immersion incidents involving children occurred in swimming pools. Immersion incidents were most common in children aged 1–4 years, and in this age group, the majority (72%) of incidents occurred in swimming pools.

Table 4.1: Queensland Ambulance Service responses to immersion incidents (number), 2022–23

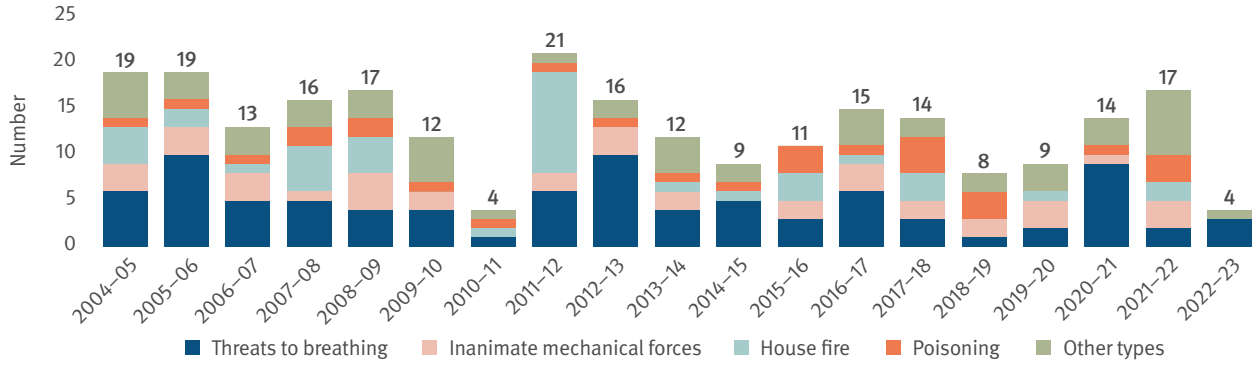
Type of incident	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Pool	*	68	28	13	*	109
Bath	12	6	*	*	*	18
Beach/ocean	*	*	*	13	9	22
Other immersion	7	21	15	29	25	97
Total	**19**	**95**	**43**	**55**	**34**	**246**

Source: Queensland Ambulance Service (Aug 2023).
** Not reported for numbers less than 5 and excluded from totals.*
Notes: Numbers in the table do not add to the total number of immersion incidents attended by Queensland Ambulance Service (n=262) as cells with less than 5 are not shown, and are excluded from table totals.

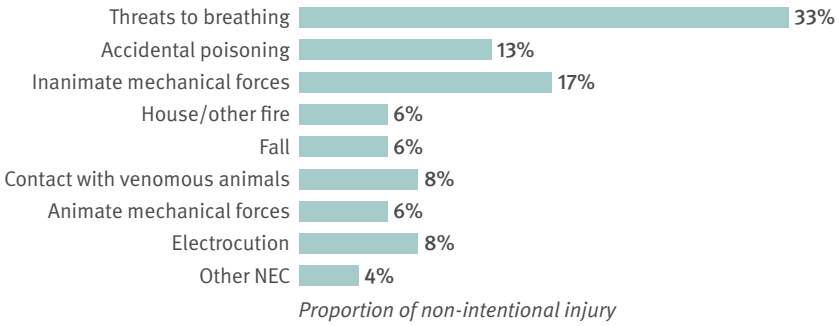
49 Peden, A. E. & Willcox-Pidgeon, S. (2020) *Autism spectrum disorder and unintentional fatal drowning of children and adolescents in Australia: an epidemiological analysis*. Archives of Disease in Childhood **https://adc.bmj.com/content/105/9/869?SQ_DESIGN_NAME=new**

5 Other non-intentional injury

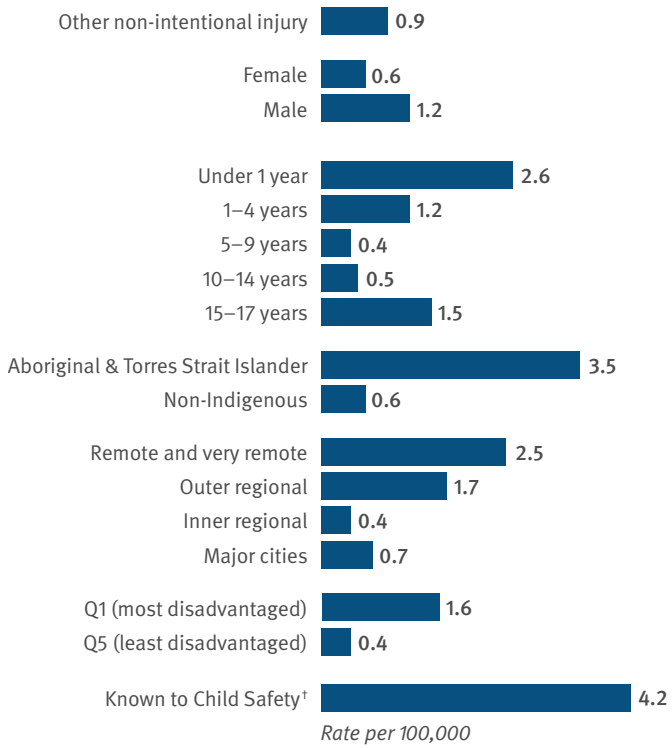
2004 to 2023



5-year summary (2018–23) | Incident type



Demographics



High risk groups

Under 5s

44% of deaths from non-intentional injury were aged **under 5 years**

57% of other non-intentional deaths in under 5s were from **threats to breathing**

Young people

27% of deaths from non-intentional injury were **aged 15–17 years**

86% of **accidental poisoning** deaths were aged between 12–17 years

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
† in the 12 months prior to death.

Key findings

This chapter considers all non-intentional injury-related deaths outside of transport or drowning fatalities. A comprehensive outline of the types of incidents included in 'other non-intentional injury-related deaths' can be found in **Appendix E** (available at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**).

Injury type

Four deaths from other non-intentional injuries were recorded during 2022–23. These included 3 from threats to breathing and one from exposure to electrical current. The number of children and young people who died from non-intentional injuries in 2022–23 is the lowest recorded number in the past decade.

Over the last 5 years, the most common injury types were threats to breathing, exposure to inanimate mechanical forces, and accidental poisoning.[50]

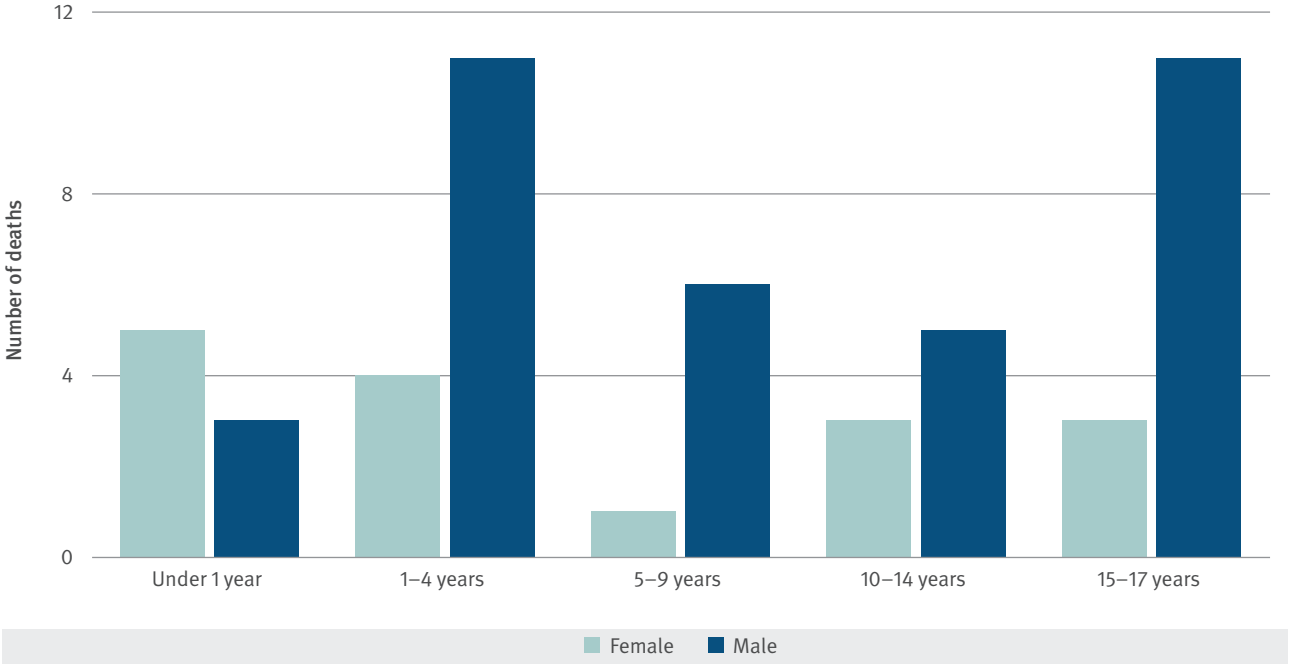
Table A.7 in **Appendix A** provides summary data on other non-intentional injury deaths in the last 5 years.[51]

Age and sex

As illustrated in Figure 5.1, patterns in differential risk of death by age and sex emerge in deaths from non-intentional injuries. Over the last 5 years, males have made up 69% of deaths from non-intentional injuries. In particular, the deaths of males outnumbered deaths of females in the age groups 1–4 years, 5–9 years, and 15–17 years.

The rate of death from non-intentional injuries was highest for infants aged under 1 year (2.6 per 100,000), followed by young people aged 15–17 years (1.5 per 100,00) and children aged 1–4 years (1.2 per 100,000) (5-year averages).

Figure 5.1: Other non-intentional injury deaths by age and sex (number), 2018–19 to 2022–23



50 Threats to breathing includes suffocation, strangulation and other threats to breathing. Exposure to inanimate mechanical forces includes, for example, struck or crushed by an object and accidental firearm discharge.

51 Tables with data for 2004–2023 are available online at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**

Risk factors

Situational risks

Children, particularly young children, are at risk in certain settings and circumstances. Over the last 5 years:

- 7 children, all aged under 1 year, died in sleep accidents. Incidents involved accidental over-lay by a co-sleeping person (4) and entrapment/entanglement incidents in the sleep environment (3)
- 3 children died from fire-related incidents including 2 in residential house fires (all aged under 10 years)
- 4 children died from heat stress when they were unintentionally left alone or became trapped in vehicles.[52]

Threats to breathing was the most common injury type for children aged 0–4 years (57% or 13 of 23 deaths).

Product safety

Various consumer products are subject to mandatory or voluntary safety standards, including products which present a higher risk of injury to children.

Child fatalities involving consumer products in Queensland over the 5 years included:

- 3 from the use of an infant or child product where the products were either potentially maladapted, defective or with high intrinsic risk
- 2 from strangulation after becoming entangled in a roller blind cord (4 in total since 2004)
- 1 from ingesting a button battery (2 in total since 2004).

Risk-taking activities

Several deaths have occurred during risk-taking activities. In the 5 years ending 30 June 2022:

- 6 deaths involved drug overdose
- 3 deaths appeared to be the result of a choking game or prank
- 1 death was from volatile substance misuse (also known as inhalant abuse or chroming)
- 86% of fatalities involving substance misuse or drug overdose were of children aged 12–17 years.

Charges and criminal proceedings

No deaths resulted in criminal charges in 2022–23. Over the last 5 years; however, there were criminal charges in relation to 4 of the 52 incidents.

Product safety priorities

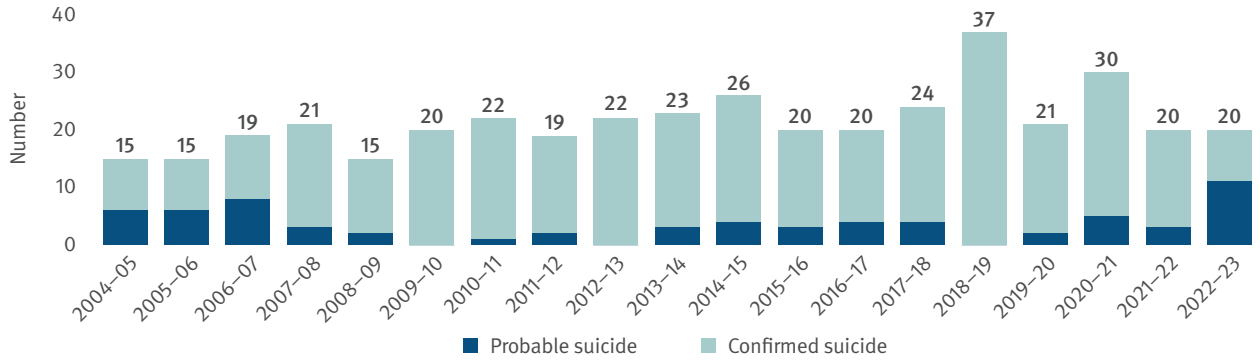
In December 2022 the QFCC provided advice to the Australian Competition and Consumer Commission (ACCC) for consideration in relation to the ACCC's 2023–24 Product Safety Priorities. The QFCC raised the following issues and concerns:

- Reducing the risk of child deaths and injury from heat stress in vehicles through a review of Australian car seat standards, with the view to embed safety measures to prevent heat stress injury and death.
- Exploring the safety of infant swaddle suits, particularly relating to instances where an infant rolls from lying on their back to their front, inhibiting their ability to move their face away from the sleep surface or other suffocation hazards as their hands and arms are secured inside the suit.
- Querying if action could be taken to address volatile substance misuse (also known as chroming).

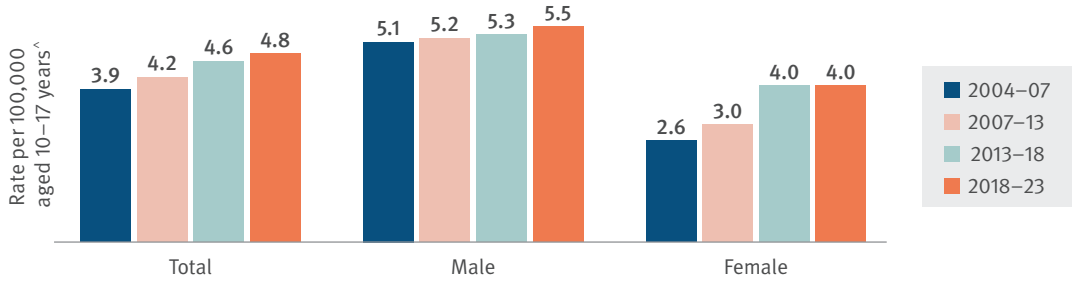
52 Only 2 of these deaths are counted in this chapter while the other 2 are included in **Chapter 7 – Fatal assault and neglect**.

6 Suicide

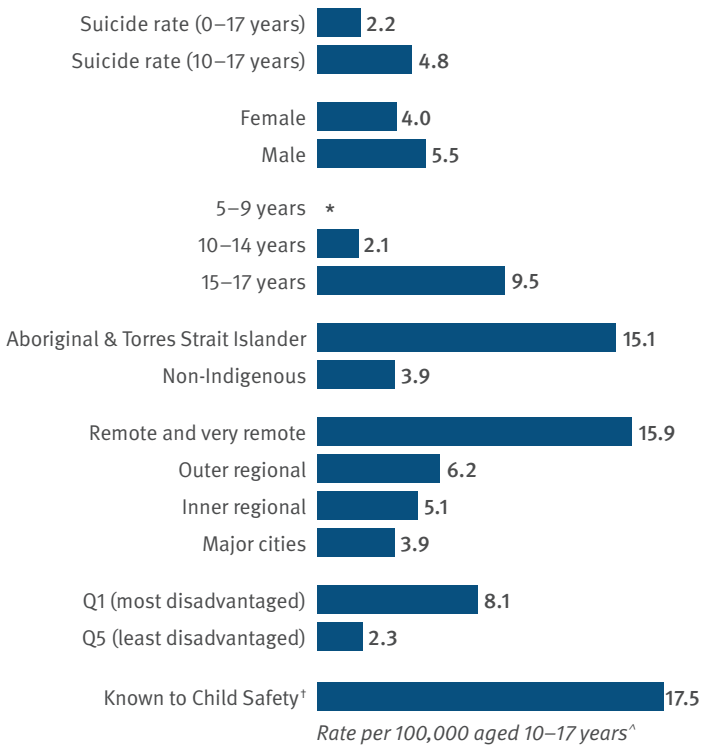
2004 to 2023



5-year summary (2018–23) | Sex



Demographics



Risk factors

38% adverse childhood experiences

41% diagnosed mental health condition

80% self-harm and suicidal behaviours

48% history of alcohol and/or substance misuse

39% history of behaviour problems and/or offending

Notes: Counting is by date of death registration.
** rate not calculated for numbers less than 4.*
^ deaths in 5–9 age group are included in 10–17 year rates, with exception of age group rates.
† in the 12 months prior to death.

Key findings

Defining and classifying suicide

Suspected suicide cases are assessed and categorised using a suicide classification model that considers factors such as: whether the incident was more consistent with death by suicide than any other cause; whether intent was communicated; any prior suicide attempts; and mental health history. Further information on the classification model can be found in **Appendix F** (available at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**).

Twenty children and young people died by suicide in 2022–23, consistent with the 20 deaths in the previous reporting period.

Nine deaths in the 2022–23 period were classified as confirmed suicides and 11 deaths were probable suicides (i.e. more consistent with suicide than any other means).[53]

A total of 128 young people have died by suicide over the last 5 years, with an average of 26 deaths per year.[54] A slowly increasing trend in youth suicide rates is evident over time. Between 2004–07 and 2018–23 the rate of suicide increased from 4.2 to 4.8 per 100,000 young people aged 10–17 years.[55] As reported in **Chapter 1**, the increase in suicide rates may have slowed as the 20 suicides in 2021–22 and 2022–23 were below the high numbers recorded in 2018–19 and 2020–21 (37 and 30 respectively).

Suicide was the leading overall cause of death for both young people aged 10–14 years and 15–17 years over the 5-year period.

Table A.8 in **Appendix A** provides summary data and key characteristics for suicide deaths in the last 5 years.

Coronial findings

At the time of reporting, coronial findings had been finalised for 6 of the 20 suicides from 2022–23. Coroners made clear statements that suicide was the cause of death in 4 of these cases. In the remaining deaths, the coroner either made no findings in relation to intent or were unable to make a final determination on intent.

Intent stated or implied (orally or written)

There was evidence of suicidal intent in 12 of the 20 suicide deaths during 2022–23. Nine young people stated or implied their intent to a friend, intimate partner, family member, healthcare professional or support worker. Intent was stated or implied either during a phone call, by text or instant message or in person.[56] Suicide notes were left by 4 young people.

Age

Of the 20 suicide deaths during 2022–23, 11 were aged 10–14 years and 9 were young people aged 15–17 years.

The 5-year suicide rate for young people aged 15–17 years was 4.5 times the rate for young people aged 10–14 years (9.5 deaths per 100,000 aged 15–17 years, compared with 2.1 deaths per 100,000 aged 10–14 years).

As illustrated in Figure 6.1, youth suicide deaths increase with each year of age. Young people aged 9–11 years made up 1% of suicides, with the proportions increasing with age. Seventeen-year-olds comprised 35% of youth suicides over the past 5 years. Two-thirds of youth suicides were among young people aged 15–17 years.

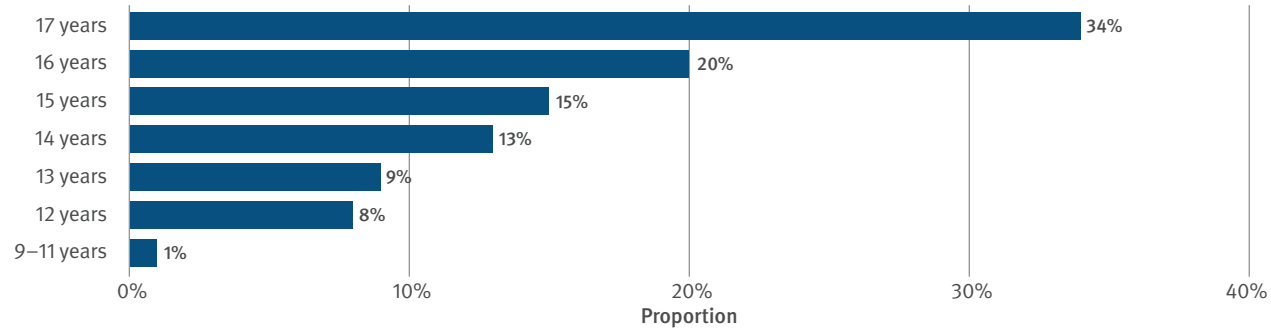
53 Suicide classifications are made based on information held by the QFCC at the time of reporting. Deaths are classified as possible suicides where there is insufficient information to determine fatal intent. Where the fatal outcome was most likely not intended, such as the consequences of risk-taking behaviour, these deaths will be classified as 'other non-intentional injury'. Where the coroner has not been able to determine whether death was the intended outcome, these cases are reported in the category 'unexplained'.

54 Tables with data for 2004–23 are available online at **www.qfcc.qld.gov.au/about-us/publications/child-death-reports-and-data**

55 Suicide rates in this chapter are per 100,000 population aged 10–17 years and, with the exception of age specific rates, include the small number of suicides of children aged 5–9 years.

56 Each young person may have stated or implied their intent using more than one communication method.

Figure 6.1: Suicide deaths by single year of age (proportion), 2018–19 to 2022–23



Notes: Percentages may not add to 100 due to rounding.

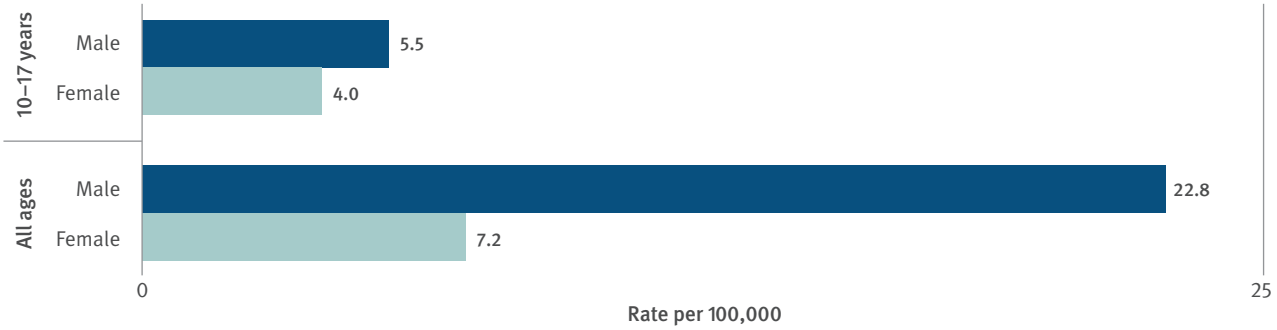
Sex

Of the 20 young people who died by suicide in 2022–23, 11 were male and 9 were female.

Over the last 5 years, 59% of young people who suicided were male and 41% were female. The average suicide rate for males was 1.4 times the rate for females (5.5 deaths per 100,000 males aged 10–17 years, compared with 4.0 deaths per 100,000 females aged 10–17 years). While the latest youth suicide rates are similar for males and females, during the first 10 years of the Child Death Register, males suicided at almost twice the rate of females.

Figure 6.2 presents the male and female suicide rates in the youth population in contrast to the population level suicide rates by sex (age-standardised). It illustrates the much higher rate of male suicide in the 'all ages' data compared with the much closer male and female rates for 10–17-year-olds.

Figure 6.2: Male and female youth suicide rates (2018–23) and Queensland total suicide rates (2021, age-standardised)



*Sources: QFCC Queensland Child Death Register; ABS (2022) **Causes of Death, Queensland**, 2021, 'Table 4.1: Underlying cause of death, All causes, Queensland, 2021'. **www.abs.gov.au/statistics/health/causes-death/causes-death-australia/latest-release#data-downloads***

Adverse childhood experiences and child maltreatment

Australian child maltreatment study

In 2023, the National Health and Medical Research Council released their report, *The prevalence and impact of child maltreatment in Australia: Findings from the Australian child maltreatment study*. The study collected data from 8,500 randomly selected Australians and examined the incidence of child maltreatment (physical abuse, emotional abuse, sexual abuse, neglect and exposure to domestic violence) as well as their history of mental health disorders and health risk behaviours. One in 4 16–24 year olds reported experiencing child maltreatment and that the abuse often occurred over a number of years. It was identified that young people aged 16–24 years who had experienced child maltreatment were at increased risk of:

- developing cannabis dependence (6.5 times)
- attempting suicide (4.5 times)
- non-suicidal self injury (3.5 times)
- developing a mental disorder (including symptoms consistent with major depressive disorder, generalised anxiety disorder and/or post-traumatic stress disorder) (2.9 times).

Other literature on suicide provides a relatively consistent account of the factors and life circumstances that are associated with youth suicide.[57] The *Adverse childhood experiences study* has led research showing strong relationships between adverse experiences in childhood and health and social problems across the lifespan, with a link to depressive disorders.[58]

Adverse childhood experiences include childhood abuse, neglect and household dysfunction (substance abuse, parent mental illness, exposure to domestic violence and parent criminal behaviour).

Information available indicated 8 of the 20 young people who suicided in 2022–23 had a history of alleged childhood abuse and neglect. Emotional abuse and physical abuse were the most common types of abuse reported.

Household dysfunction was identified in 7 of the 20 suicide deaths of young people in 2022–23, with exposure to domestic violence identified as the most common.

Complex behaviours

Young people can engage in risk-taking behaviours beyond that which is developmentally appropriate. These complex behaviours may interfere with development and daily functioning, pose serious risks to the young person's health and safety, and impair healthy functioning.

The behaviours often include substance dependency, self-harm and suicidal behaviours, verbal and physical assaults on others, destruction of property, engaging with adults who are considered exploitative, criminal behaviour, high-risk sexual behaviour and engaging in dangerous physical activities.[59]

Alcohol and substance misuse

Six of the 20 young people who suicided during 2022–23 were reported as having a history of alcohol, tobacco and/or substance use; with cannabis and alcohol the most frequently cited substances used.[60]

57 McDermott B (2021) ***Highly vulnerable infants, children and young people***: *A joint child protection mental health response to prevent suicide*, Queensland Child Death Review Board. **www.cdrb.qld.gov.au/reports-and-publications/**

58 Chapman DP, Whitfield CL, Felitti VJ, Dube SR, Edwards VJ, Anda RF (2004) 'Adverse childhood experiences and the risk of depressive disorders in adulthood', *Journal of Affective Disorders*, 82(2):217–225, **https://doi.org/10.1016/j.jad.2003.12.013**

59 QFCC *Beyond behaviours discussion paper* (pending publication).

60 Previous or current use of alcohol or drugs identified by friends, family members or in toxicology findings.

Self-harm and suicidal behaviour

Research into youth suicide shows that a history of self-harming behaviour, suicidal ideation and previous suicide attempts are associated with future suicidality. In relation to the 20 young people who died by suicide in 2022–23:

- At least one risk factor was present for 16 of the 20 young people who suicided.
- Ten had previously attempted suicide, with 3 young people attempting suicide on more than one occasion.
- Nine young people had previously engaged in self-harming behaviour, such as cutting.
- Thirteen had previously expressed suicidal thoughts (ideation).[61]
- There was no evidence of previous self-harm or suicidal behaviour for 4 young people.

Behavioural problems and offending

Eight of the young people who suicided in 2022–23 were identified as having exhibited behavioural problems and offending, with risk taking and aggression identified the most frequently.

Mental health

A high proportion of mental illness has been found among young people who die by suicide. While mental health issues are prevalent among young people who suicide, many young people are treated for these conditions and only a very small number may go on to suicide.

Eight of the 20 young people who suicided during 2022–23 had a diagnosed mental health condition before their death. Seven young people were known to have engaged with a healthcare professional and 8 had been prescribed medication for their condition/s.

The range of mental health diagnoses included depressive disorders, anxiety disorders (including obsessive compulsive disorder), eating disorders, trauma disorders and functional neurological disorder. The most common diagnosed conditions were depressive and anxiety disorders. Six of the 8 young people were identified to have multiple mental health conditions (co-morbid conditions).

Four young people were suspected to have a mental health issue. Three of those young people had engaged with a healthcare professional.

Cohorts in youth suicide

The *Adverse childhood experiences study* and the *Australian child maltreatment study* both highlight the risks to future health outcomes for those who have a history of adverse childhood experiences, including the increased risk of suicidal behaviour. While the cohort of young people who experience these adversities account for a significant proportion (45%), it appears that there are a number of other distinct groups within youth suicides.

Figure 6.3 provides a summary of the adverse childhood experiences, mental health diagnoses and complex behaviours identified for the 128 young people who suicided in Queensland in the last 5 years. This overview is based on information available to the QFCC and may therefore under-represent the actual circumstances for the children and young people.

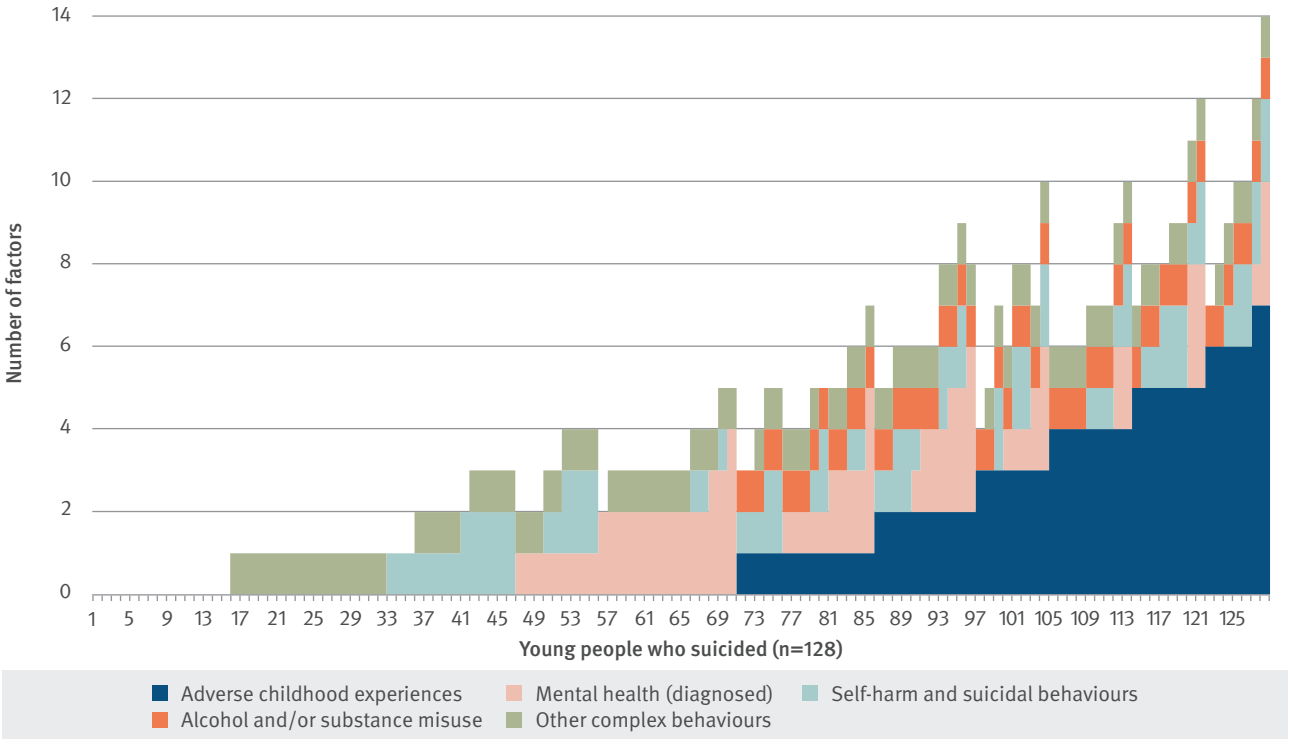
The data shows a number of groups, based on the experiences of those young people's lives:

- Young people who have a history of adverse childhood experiences with co-occurring diagnosed mental health conditions and/or complex behaviours (45%).
- Young people with diagnosed mental health conditions who display complex behaviours (19%).
- Young people who demonstrate complex behaviours (24%).
- Young people without any identified risk factors (12%).

61 Each young person with identified self-harm or suicidal behaviour may have exhibited more than one type of behaviour.

The data highlights the importance of intervention and prevention strategies tailored to the life experiences of children and young people.

Figure 6.3: Adverse childhood experiences, diagnosed mental health conditions and complex behaviours in youth suicides (number), 2018–19 to 2022–23



Other factors

Neurodiversity[62]

Five of the young people who suicided during 2022–23 were identified as neurodiverse. Neurodiversity is a term used to describe differences in how the brain works and can include autism, attention deficit hyperactivity disorder, Tourette's syndrome, dyspraxia, dyslexia, dyscalculia and other learning disabilities. The most common type of neurodiversity identified was autism. Three young people had co-occurring neurodiversities.

Stressful life events and precipitating incidents

Life stressors are events or experiences which produce significant strain on an individual; they can occur at any stage over the course of a person's lifetime and vary in severity and duration. Life stressors differ from precipitating incidents as they are more likely to occur in the background with strain accumulating over a period of time.

Precipitating incidents refer to events or stressors which occur prior to a suicide and which appear to have influenced the decision for a person to end their life. Most precipitating incidents will occur in the hours, days or weeks prior to death. Bereavement can be considered a precipitating incident, with an arbitrary timeframe of up to 6 months between the death of the family member or friend and the suicide of the young person.

Outside of adverse childhood experiences, the most common stressors and precipitating incidents evident for young people who suicided in 2022–23 were transitions in education (8), transitions in residence (6), transitions to/from out-of-home care (6), arguments with family members, intimate partners or friends (6), poor intra-familial relationships (6), bereavement (5) and relationship breakdowns (4).

62 Conditions recorded in neurodiversity were previously included in mental health and behavioural problems in earlier reports.

Contagion

Contagion refers to the process by which a prior suicide or attempted suicide of a family member or friend facilitates or influences suicidal behaviour in another person. Contagion was not identified in any youth suicides during 2022–23.

COVID-19

COVID-19 was not identified as a direct stressor for any suicide deaths in 2022–23. There continues to be no evidence of a significant change in youth suicide deaths in Queensland attributable to COVID-19.

Queensland Ambulance Service data

Queensland Ambulance Service (QAS) data indicates in the last year almost 9,400 ambulance callouts occurred for suicidal behaviour and self-harm-related incidents involving children, including both fatal and non-fatal injuries (see Table 6.1). Female patients accounted for 68% of callouts.

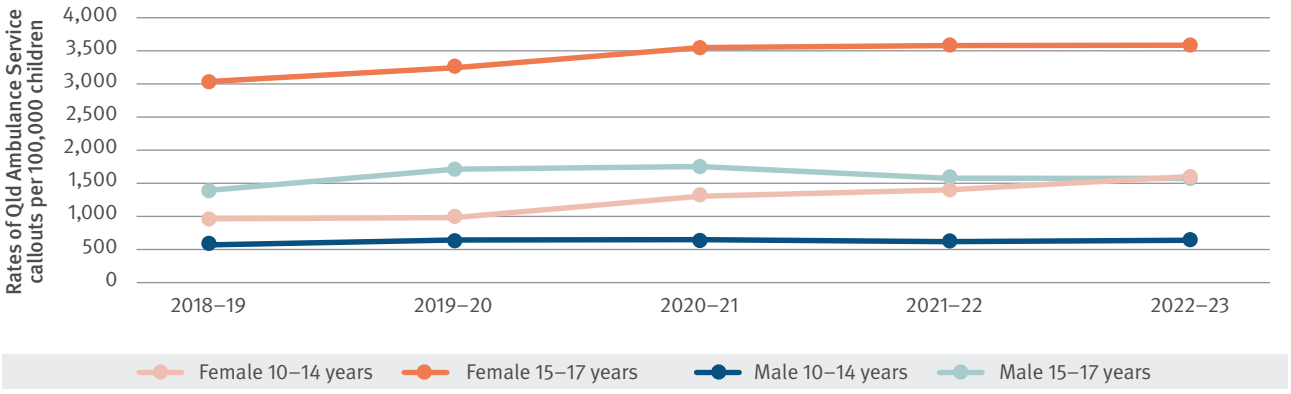
Table 6.1: Queensland Ambulance Service responses to self-harm and suicidal behaviour incidents (number), 2022–23

Age	Female	Male	Not specified	Total
5–9 years	82	80	*	162
10–14 years	2,761	1,157	45	3,963
15–17 years	3,529	1,654	75	5,258
Total	**6,372**	**2,891**	**120**	**9,383**

Source: Queensland Ambulance Service (Aug 2023).
Notes: Not specified includes cases where gender was recorded as indeterminate or missing.
** Not reported for total less than 5 and removed from totals.*

Analysis of the rate of QAS callouts for self-harm and suicidal behaviours over the last 5 years are shown in Figure 6.4.[63] The rate of callouts for 15–17 year old females was considerably higher than the other groups. While rates over time remained relatively stable for males, rates increased over time for females (both 10–14 year olds, and 15–17 year olds). The greatest increase was identified for 10–14 year old females (67% increase over the 5-year period).

Figure 6.4: Queensland Ambulance Services responses to self-harm and suicidal behaviour incidents (rate per 100,000), 2018–19 to 2022–23

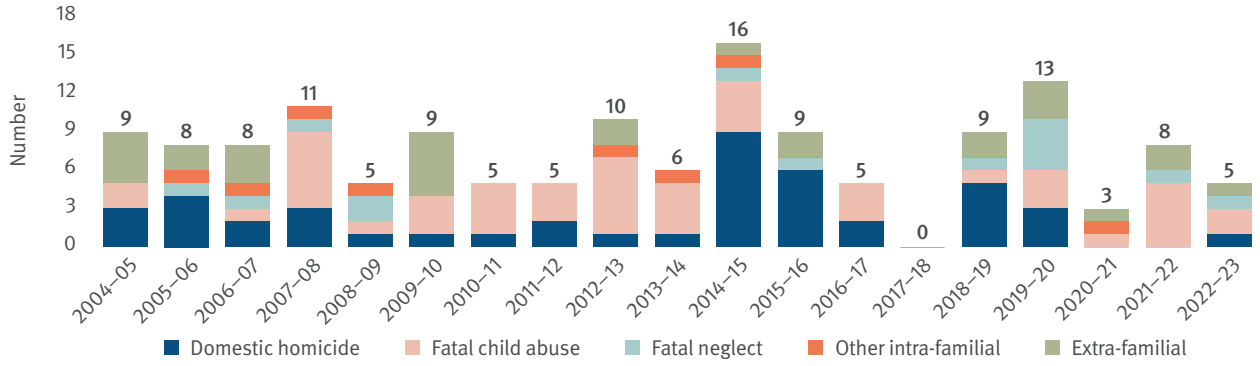


Source: Queensland Ambulance Service.
Notes: Excludes cases where gender was recorded as indeterminate or missing.

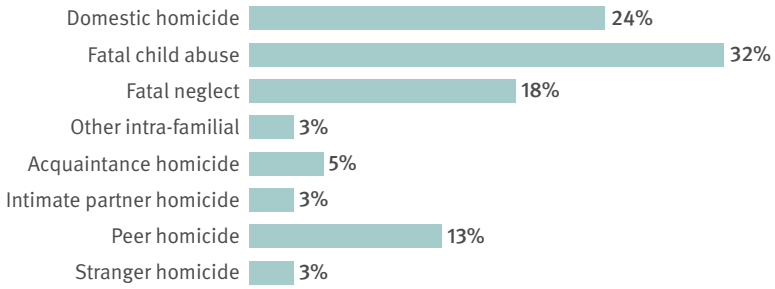
63 Data for the past years is published in previous editions of this report, from data originally provided by the QAS.

7 Fatal assault and neglect

2004 to 2023

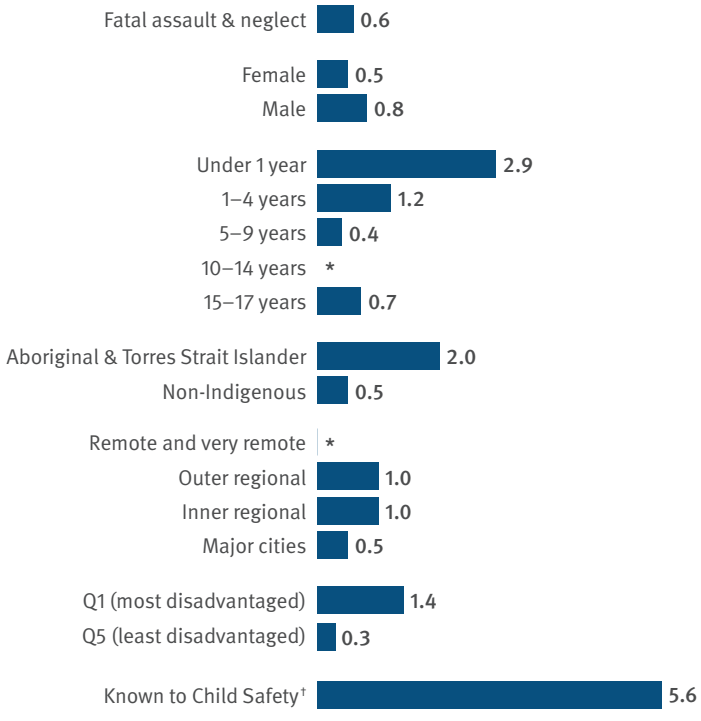


5-year summary (2018–23) | Incident type



Proportion of fatal assault and neglect

Demographics



Rate per 100,000

Intra-familial fatal assault and neglect risk factors

69% **child experienced previous abuse**

62% **household domestic and family violence**

48% alleged perpetrator had **history of offending**

39% alleged perpetrator had **alcohol and/or substance misuse**

39% alleged perpetrator had **suspected or diagnosed mental health issues**

***Notes:** Counting is by date of death registration. Percentages may not add to 100 due to rounding.*
** rate not calculated for numbers less than 4.*
† in the 12 months prior to death.

Key findings

Based on information available to the QFCC at the time of reporting, 5 deaths were identified as being the result of fatal assault and neglect in Queensland during 2022–23. Definitions for the types of fatal assault and neglect can be found in **Appendix C** and a description of the screening criteria can be found in **Appendix G** (both available at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**).

Over the last 5 years, 38 children died in 32 fatal assault and neglect incidents. Twenty-nine deaths were categorised as intra-familial, meaning that the alleged perpetrator was a parent, family member or person acting in a parental role. Nine children died in domestic homicides, including murder-suicide incidents where the alleged perpetrator also took their own life. Twelve children were found to have died as a result of child abuse, 7 died from neglect and one was other intrafamilial.

Nine deaths in the last 5 years were extra-familial homicides, including peer homicide (5), acquaintance homicide (2), intimate partner homicide (1) and stranger homicide (1).

Further summary information on deaths from fatal assault and neglect can be found in **Table A.9** in **Appendix A**.[64]

Age and sex

Infants under 1 year had the highest rate of death from fatal assault and neglect over the last 5 years (2.9 per 100,000), followed by children 1–4 years (1.2 per 100,000) and 15–17 years (0.7 per 100,000). All children who died in intra-familial homicides were aged under 9 years, while 7 of the 9 extra-familial homicide deaths were young people aged 15–17 years.

Of the 38 children who died from assault or neglect in 2018–23, 15 were female and 23 were male (a rate of 0.5 and 0.8 per 100,000, respectively). Males are more at risk of experiencing extra-familial homicide, 7 out of the 9 extra-familial homicide deaths were males over the last 5 years.

Charges and criminal proceedings

Of the 32 fatal assault and neglect incidents during 2018–23, alleged perpetrators for 29 incidents have been charged, while 3 perpetrators were deceased in the same incident.

Vulnerability characteristics

Of the 38 child deaths from assault and neglect during 2018–23, 27 (71%) children were known to the child protection system within the 12 months prior to death and one was known outside the statutory review period. It is noted that one of these children was only known to child protection because of the incident leading to their death.

Available evidence indicated the following factors[65] were present for the 29 children who died from intra-familial homicide in 23 incidents over the last 5 years:

- 69% had experienced child abuse prior to the incident (20 of 29 children)
- 62% had evidence domestic and family violence was present in the child's household (18 of 29 children)
- 39% of the alleged perpetrators were identified as either having a diagnosed or suspected mental health issue (in 9 of the 23 incidents)
- 48% of the alleged perpetrators had a history of criminal offending (11 of the 23 incidents)
- 39% of the alleged perpetrators had a history of alcohol or substance use[66] (9 of the 23 incidents).

64 Tables with data for 2004–23 are available online at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**

65 The QFCC collects information on vulnerability characteristics relating to the child, family and, where relevant, the perpetrator. The information is based on statements of fact or clear statements of opinion by credible external sources, as recorded in source documents (primarily police and coronial reports). The information is subject to limitations, in that it is based on those factors which can be identified in the source information. Given the small numbers in this analysis and these limitations, the findings are considered indicative only.

66 Alcohol use – evidence the person exhibited problematic drinking behaviours such as binge drinking or the consumption of alcohol in settings or circumstances where it is not appropriate or safe to do so (e.g. while driving). Substance use – evidence of the use of illicit drugs, mis-use of prescription medication or volatile substances.

Reviewing the child protection system's response to violence within families

In 2022, Queensland's Child Death Review Board (CDRB) published an analysis of the child protection system's response for families experiencing domestic and family violence.[67] This piece of work was prompted by an observation of a high prevalence of domestic and family violence across the cases that have been reviewed since it was established in July 2020. The CDRB analysed a sample of 43 child death cases to identify recurring issues and improvements in the responses provided to families who are known to the child protection system and experience domestic and family violence. The analysis found:

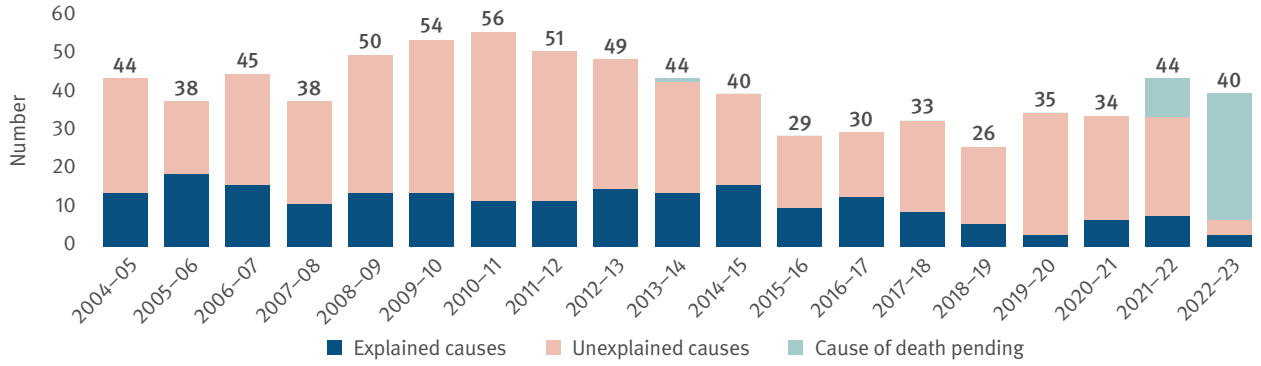
- The risk of harm to children was being missed where children were not interviewed appropriately, decisions about their safety were made based on incomplete information, or risk assessments did not consider all types of harm caused by domestic and family violence.
- Domestic and family violence services play a key role in supporting parents and children; however, uptake was low, particularly by the offending parent, with barriers including waitlists, fear that engagement would lead to further involvement from the child safety authority and lack of follow-up for families that relocate.
- Some First Nations families experienced barriers to support when they were referred to services without discussions around culturally appropriate and trauma-informed options.
- Programs that focus on fatherhood were found to be a significant motivator to encourage fathers to accept accountability and facilitate behaviour change, although these practices are not well embedded across men's behaviour-change programs.
- Gaps in knowledge or training can lead to responses that do not recognise complex factors that surround domestic and family violence, resulting in suboptimal responses to children and parents.
- Training is integral to supporting frontline staff to identify and respond to violence; however, despite the good intent of workers, the system faces workforce turnover and capacity challenges, which impact agencies' ability to retain contemporary workforce knowledge and experience.
- There is a need for staff to have a strong understanding of domestic and family violence when assessing the risks to children and develop ways that workers can effectively respond during periods of high demand to ensure continuity of knowledge in responding to violence.

These findings present opportunities for improving identification and assessment of violence and the risk it poses to children, as well as to ensure investment and effort in addressing offending parents' behaviours are appropriately targeted.

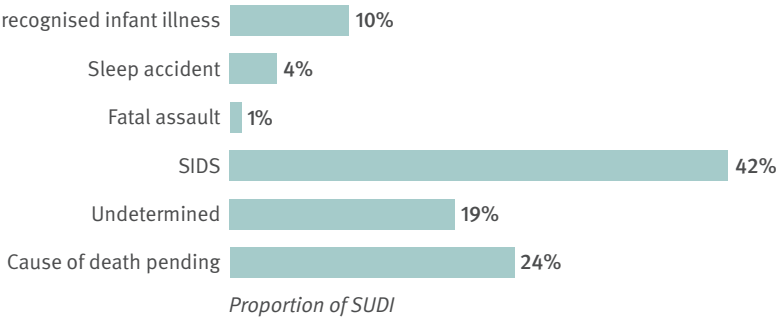
67 www.cdrb.qld.gov.au/wp-content/uploads/2022/11/A-review-of-the-systems-response-to-violence-within-families-DFV-Report-for-publication.pdf

8 Sudden unexpected deaths in infancy (SUDI)

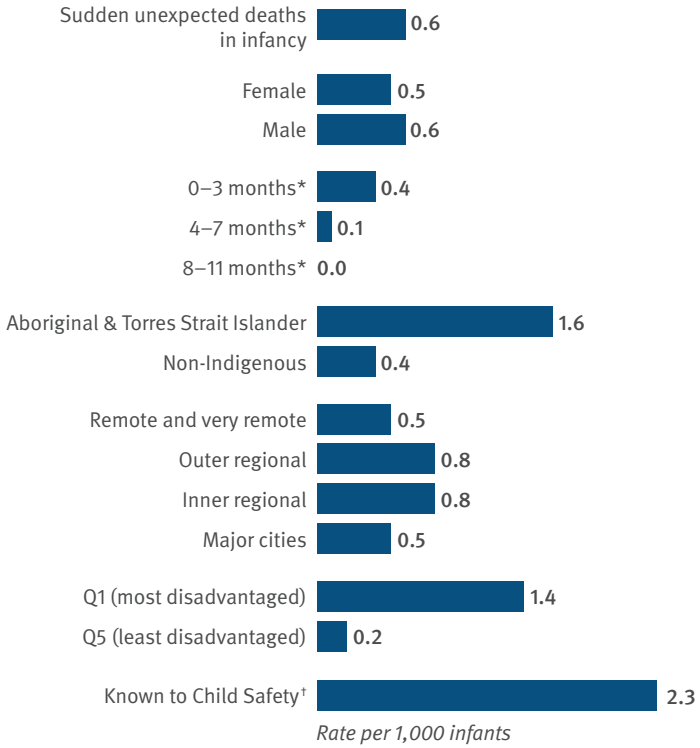
2004 to 2023



5-year summary (2018–23) | Cause of death category



Demographics



Key points

SUDI

Infants who die suddenly, usually during sleep, with no immediately obvious cause

36 SUDIs per year

on average in last 5 years

SIDS and undetermined causes

Cause remains unexplained after investigation

Leading cause of death for infants 1–11 months

Unsafe sleep factors

present for many SUDIs

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.
** rate per 1,000 births.*
† in the 12 months prior to death.

Key findings

Classification of Sudden unexpected death in infancy (SUDI)

SUDI is a research classification which is defined as the death of an infant aged less than 12 months, that is sudden and unexpected and where the cause was not immediately apparent at the time of death. Cases of SUDI with an official cause of death are grouped into the following categories and sub-categories:

Explained SUDI—infant deaths for which a cause was not immediately obvious; but for which post-mortem examinations were able to identify a specific reason:

- Infant illnesses or condition unrecognised at the time of death
- Sleep accidents
- Non-accidental injury (fatal assault).

Unexplained SUDI—those infant deaths for which a cause could not be determined:

- Sudden infant death syndrome (SIDS)[68]
- Undetermined causes.[69]

During 2022–23, there were 40 SUDI cases in Queensland, the second highest number of SUDIs in the last 8 years. Of the 40 SUDIs, 33 were pending a cause at the time of reporting—this reflects the longer timeframes for SUDI cases due to the complexity of the post-mortems and coronial investigation.

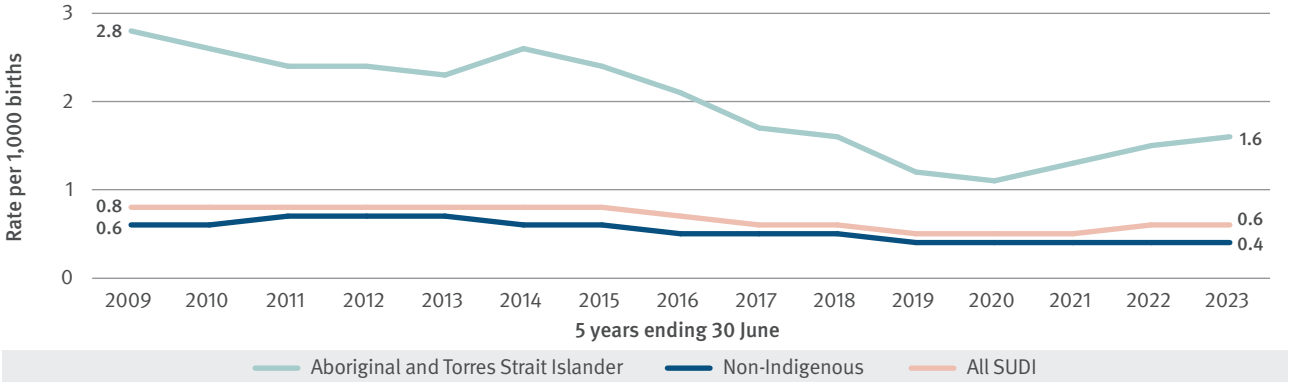
Table A.11 in Appendix A provides summary data on SUDIs in the last 5 years. Explained SUDIs are also included in the chapter relating to the specific causes of death.

There were 179 SUDIs in the last 5 years, of which 61% were found to be unexplained SUDI (SIDS and undetermined causes) while 15% were explained SUDI (illness, sleep accident and fatal assault). A further 24% were pending a cause at the time of reporting.

The SUDI mortality rate was 0.6 per 1,000 live births (5-year average).

Figure 8.1 shows the trends in the 5-year rolling rates of Aboriginal and Torres Strait Islander SUDIs, non-Indigenous SUDIs and all SUDIs in Queensland. The SUDI rate for Aboriginal and Torres Strait Islander infants was around 4 times the non-Indigenous SUDI rate between 2009 and 2016. Rates of Aboriginal and Torres Strait Islander SUDI dropped considerably between 2014 and 2020, reducing from 4.1 to 2.5 times the non-Indigenous rate in 2020.[70] In more recent periods the rates of Aboriginal and Torres Strait Islander SUDIs have been increasing.

Figure 8.1: SUDI by Aboriginal and Torres Strait Islander status (5-year rolling rate), 2004–09 to 2018–23



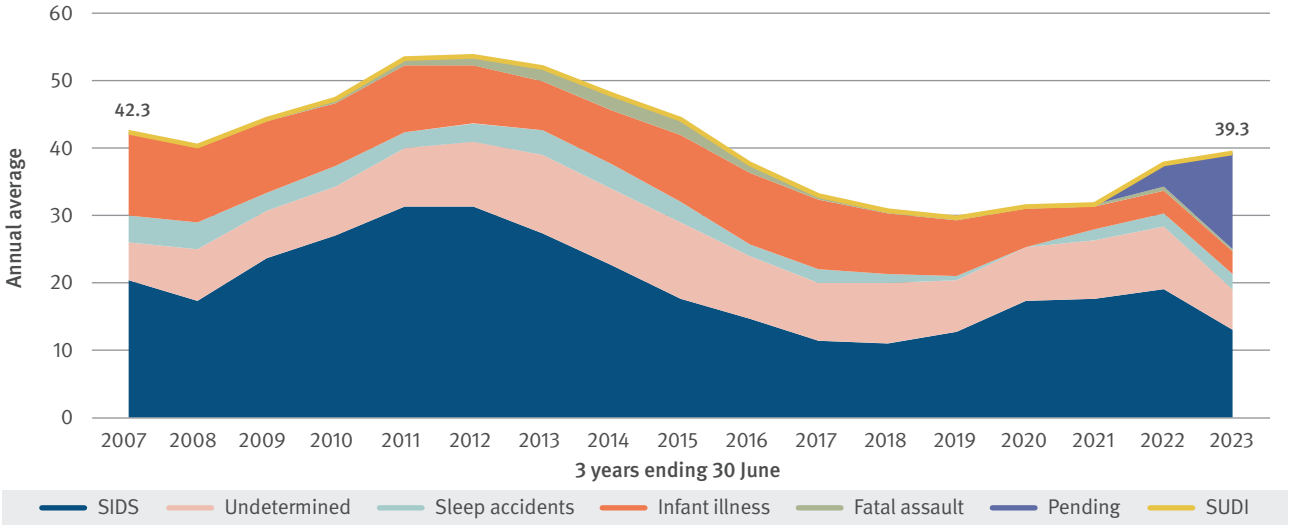
68 Krous HF, Beckwith JB, Byard RW, Rognum TO, Bajanowski T, Corey T, Cutz E, Hanzlick R, Keens TG, Mitchell EA (2004) 'Sudden infant death syndrome and unclassified sudden infant deaths: a definitional and diagnostic approach', *Pediatrics*, 114:234–8, doi:10.1542/peds.114.1.234

69 A finding where: natural disease processes are detected and are not considered sufficient to cause death but preclude a diagnosis of SIDS; there are signs of significant stress; non-accidental, but non-lethal, injuries are present; toxicology testing detects non-prescribed but non-lethal drugs; or a full autopsy has not been performed and a cause is not otherwise identified.

70 Tables with data for 2004–2023 are available online at www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data

Fluctuations in the number and causes of SUDIs (rolling average) are shown in Figure 8.2. While the number of SUDI deaths has decreased since 2011, average annual numbers have increased again since 2020.[71] While deaths from infant illness, undetermined causes and sleep accidents remained comparatively stable across the entire period, SIDS deaths rose and fell, driving the changes in SUDI totals. However, some caution is warranted as assigning definitive causes for SUDIs remains complex and developments in cause of death classification are ongoing.[72]

Figure 8.2: Cause of SUDI death (3-year rolling average number), 2004–07 to 2020–23



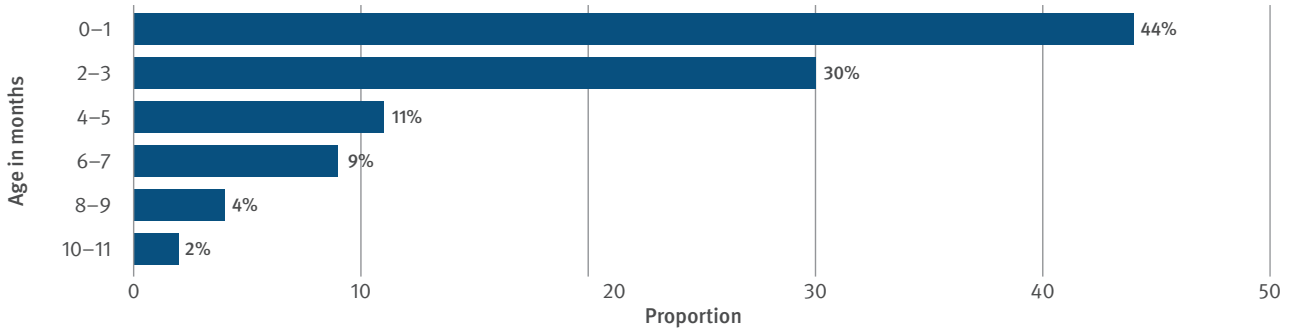
SUDIs later found to be the result of fatal assault or neglect are excluded from the analyses presented throughout the remainder of this chapter.

Sex and age

A slightly larger proportion of SUDIs in the last 5 years were males (57% male compared with 43% female), but there was not a significant difference in rates at 0.6 per 1,000 male births compared to 0.5 per 1,000 female births.

Figure 8.3 shows SUDI by age at death in the last 5 years. Two-thirds of sudden unexpected deaths (74%) occurred among infants aged 0–3 months.

Figure 8.3: SUDI by age in months (proportion), 2018–19 to 2022–23



Notes: Excludes SUDIs from fatal assault and neglect. Percentages may not add to 100 due to rounding.

71 An expanded table on SUDIs since 2004 is available on the report web page.

72 An expert panel review of Queensland post-neonatal SUDI deaths from 2013 recoded around half of the deaths to a different cause, with shifts occurring from explained to unexplained causes and vice versa. McEniery J, Cruice D (2018) **'The voice of the infant: Cause of death coding does not always reflect what really mattered in the life of the infant who died suddenly and unexpectedly'** [poster presentation], *Perinatal Society of Australia and New Zealand Conference*, Auckland. **www.childrens.health.qld.gov.au/chq/health-professionals/qpqc/**

Risk factors for SUDI deaths

A number of factors have been associated with an increased risk of SUDI.[73] These can be classified according to whether they are associated with the infant, the family or the sleep environment.

Infant factors: Prematurity and low birth weight, multiple gestation (twins, triplets), neonatal health problems, male sex and recent history of minor viral respiratory infections and/or gastrointestinal illness.

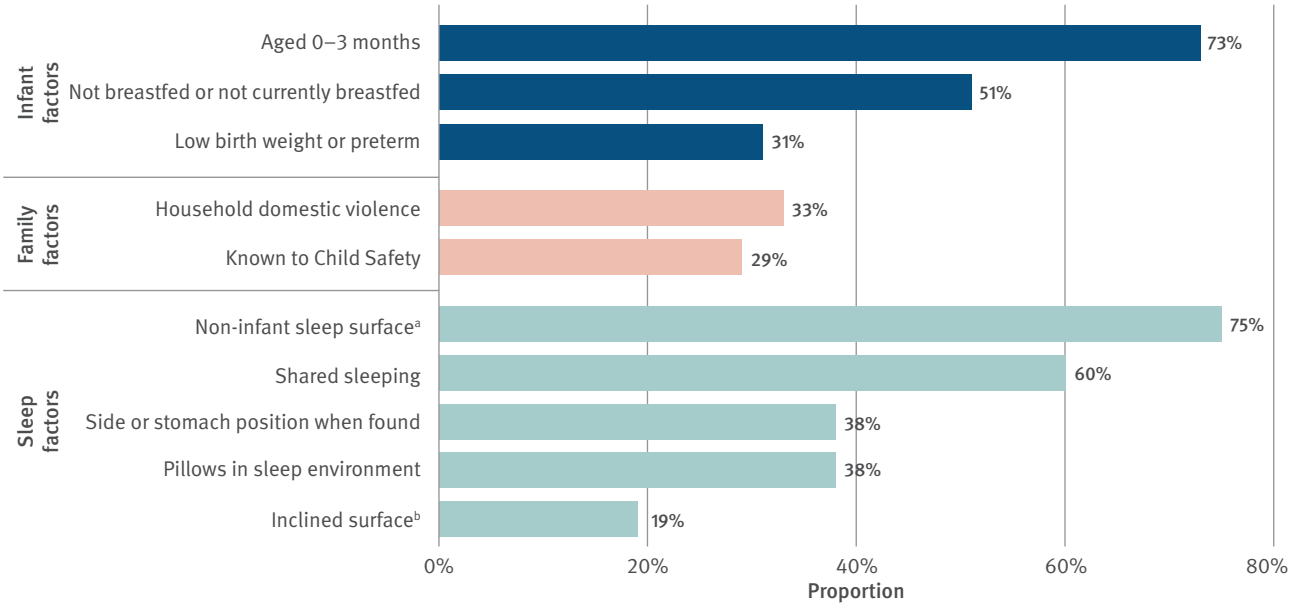
Family factors: Cigarette smoking during pregnancy and after birth, young maternal age (≤ 20 years), single marital status, high parity (number of births by mother) and short intervals between pregnancies, poor or delayed prenatal care, abuse or family violence, high-risk lifestyles including alcohol and illicit drug abuse, and social disadvantage and poverty.

Sleep environment factors: Sleeping on soft surfaces and loose bedding, prone (stomach) and side sleeping position, some forms of shared sleeping, and overwrapping or overheating.

Selected characteristics of the infant, family and unsafe sleep factors in 177 SUDI deaths over the last 5 years are shown in Figure 8.4. These indicate increased risk in the first months and for infants born with low birth weight. Breastfeeding is indicated as a potentially protective factor.

Using non-infant sleep surfaces (75% of SUDIs), sharing a sleep surface (60%) and sleep position on side or stomach (38%) are all reported to increase the risk of sudden unexpected infant deaths, as are pillows (38%) and excess bedding in the sleep space.

Figure 8.4: SUDI by selected infant, family and sleep factors (proportion), 2018–19 to 2022–23



a Includes adult sleep surfaces and other surfaces such as a couch/chair or infant product not primarily for sleep (e.g. pram/stroller, baby capsule).

b Includes infants propped on pillows or other items, and products with an inclined surface: pram/stroller; infant swing/rocker; baby capsule/car seat.

Notes: Excludes SUDIs from fatal assault and neglect.

73 The Triple Risk Model proposes SUDI risk increases with combined factors of vulnerable infant; critical development period; and external stressors https://rednose.org.au/article/the-triple-risk-model

Clinical guidelines: Safer infant sleep

The *Queensland clinical guidelines safer infant sleep*[74] describe infant care practices that are associated with reducing the risk of sudden unexpected deaths in infancy.

Safer sleep messages for SUDI risk reduction

Place infant in a safe sleep position in a safe sleep environment:

- place infant on their back for every sleep
- keep head and face uncovered
- smoke free before and after birth
- keep sleep space clear for every sleep
- safe sleep place in the same room as caregiver for first 6–12 months
- breastfeeding is recommended.

Sudden unexpected death in infancy among vulnerable families

In 2022, the Queensland Child Death Review Board released an *Issues Paper: Sudden unexpected death in infancy among vulnerable families in Queensland*,[75] which was prepared by the Queensland Paediatric Quality Council. The paper identified a number of key points of interest:

- SUDI result from an interaction of multiple factors–90% of SUDI have more than one modifiable behavioural risk factor.
- The adversities experienced by Aboriginal and Torres Strait Islander infants contribute to a SUDI rate more than 3.5 times higher than non-Indigenous infants in Queensland.
- The most socially vulnerable families are lagging in their uptake of safer infant care and safer sleep recommendations. As a result, SUDI occur primarily in poor and marginalised populations experiencing adverse social conditions.
- Effective interventions need to address infant care practices, including decisions about infant sleep environments, for socially vulnerable or at-risk families.

Sleep environment factors

Sleep surface

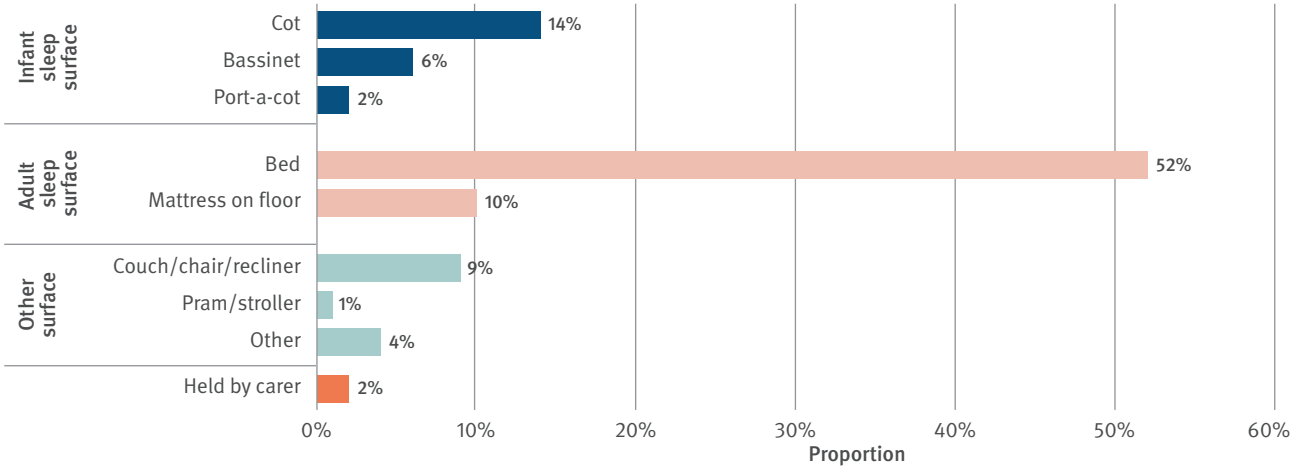
As indicated in Figure 8.5, in over half (62%) of SUDIs in the last 5 years the infant was on an adult sleep surface at the time of the incident and a further 9% were on a couch or recliner. Only 22% of the SUDIs occurred when an infant sleep product was being used.[76]

74 Available at www.health.qld.gov.au/__data/assets/pdf_file/0025/1166353/g-safer-sleep.pdf

75 Available at www.cdrb.qld.gov.au/wp-content/uploads/2022/11/Sudden-unexpected-death-in-infancy-among-vulnerable-families-in-Queensland-SUDI-report-for-publication.pdf

76 Percentages by surface types in Figure 8.5 may not add to sub-totals presented in this paragraph due to rounding.

Figure 8.5: Sleep surface in SUDIs (proportion), 2018–19 to 2022–23



Notes: Excludes SUDIs from fatal assault and neglect. Percentages may not add to 100 due to rounding.

Infant sleep position

Safer infant sleep advice is to place infants on their backs to sleep (supine). Once infants can roll of their own accord it remains important that the sleep surface is firm and flat—the infant's face/nose may be obstructed if the surface is too soft.

Information from incident reports on infant sleep position is shown in Table 8.1. While 74 deceased infants in the last 5 years were placed and found on their back, a further 27 had moved from their back to stomach or side position when found. Of the 177 infants dying suddenly and unexpectedly, 67 were on their stomach or side when found (38% of SUDIs excluding those from non-accidental injury).

Table 8.1: Infant sleep position when placed and found (number), 2018–19 to 2022–23

Position when placed	Position when found						Total
	Back	Stomach	Side	Other	Held by carer	Unknown	
Back (supine)	74	19	8	0	1	5	107
Stomach (prone)	2	12	0	0	0	1	15
Side	2	9	9	0	0	2	22
Held by carer	3	5	1	4	1	1	15
Other	0	1	0	0	1	0	2
Unknown	3	3	0	0	1	9	16
Total	**84**	**49**	**18**	**4**	**4**	**18**	**177**

Notes: Excludes SUDIs from fatal assault and neglect.

Inclined surface

A firm, flat sleeping surface (not tilted or elevated) is recommended to reduce the risk of SUDI, including for babies with reflux.[77] Information in the Child Death Register indicates 19% of SUDIs in the last 5 years were placed on an inclined surface. Most of these involved propping infants on pillows or other items. Some incidents involved an infant product with an inclined surface, including a hammock and infant car seat.

77 Queensland Health (2022) *Queensland Clinical Guidelines. Safer infant sleep*, Guideline No. MN22.71V1-R27, www.health.qld.gov.au/__data/assets/pdf_file/0025/1166353/g-safer-sleep.pdf

Shared sleeping

Over half (106, 60%) of the infants whose deaths were sudden and unexpected were sharing a sleep surface with one or more people at the time of death. Not all shared sleeping was planned—in some incidents the carer has fallen asleep while nursing the infant.

Sharing a sleep surface with a baby can increase the risk of SIDS and fatal sleep accidents in some circumstances.[78] Some studies have found there is an increased risk of SIDS only when mothers who smoke share a bed with their infant, although such findings are insufficient to enable complete reassurance that bed sharing is safe for non-smokers.

Risks are also associated with shared sleeping if infants are sharing a sleep surface with a caregiver who is under the influence of alcohol or drugs which cause sedation, if the caregiver is excessively tired or there are multiple people in the bed with the infant.

Of the 106 SUDIs in a shared sleep environment over the last 5 years, the following additional risk factors were identified:

- position in sleep environment, such as placed between 2 people or on top of a co-sleeping person (29%)
- alcohol or substance use (26%)
- tobacco (41%)
- extreme fatigue (19%)
- obesity (8%).

Infant product safety

In September 2022, the QFCC made a submission[79] to the ACCC in response to their third consultation paper on infant sleep products, to inform the proposed regulatory changes for safety improvements to infant sleep products, supporting an education campaign on safer sleep practices and supporting a ban on certain inclined sleep products.

In December 2022, the QFCC raised concerns with the Australian Competition and Consumer Commission (ACCC) relating to infant products to inform the formulation of their product safety priorities in 2023–24. One of the 3 areas of concern noted related to infant swaddle suits, in the circumstances of infants being able to roll from lying on their back to their front.

Best practice guide for the design of safe infant sleeping environments

The QFCC provided infant mortality data and contributed to the Infant Safe Sleeping Working Group's industry guide for manufacturers and retailers for infant sleep products. The guide, released in March 2022, provides a comprehensive, coordinated and evidence-based approach to reduce the risk of death and life-threatening injuries to infants.[80]

Unexplained deaths of children aged 1–17 years

While this chapter primarily examines sudden unexpected deaths of infants, a smaller proportion of unexplained-cause deaths were of children aged 1 year and over (see **Table A.10**, **Appendix A**). Two deaths of children aged 1–17 in 2022–23 were categorised as unexplained causes. Over the last 5 years, while 80% of unexplained deaths were infants, 14% were aged 1–4 years and 7% were aged 5–17 years.[81]

Some deaths in the younger age group show similarities to SUDI deaths in that they occurred during sleep with SUDI risk factors present. In some unexplained deaths, investigations have found the cause of death to be injury; however, it cannot be determined whether the cause of the injury was accidental or intentional.

78 Queensland Health (2022) *Queensland Clinical Guidelines. Safer infant sleep*, Guideline No. MN22.71V1-R27, www.health.qld.gov.au/__data/assets/pdf_file/0025/1166353/g-safer-sleep.pdf

79 Queensland Family and Child Commission, Policy submissions: www.qfcc.qld.gov.au/sector/policy-submissions

80 Infant Safe Sleeping Working Group (2022) *Best practice guide for the design of safe infant sleeping environments*, www.productsafety.gov.au/about-us/publications/best-practice-guide-for-the-design-of-safe-infant-sleeping-environments

81 Percentages may not add to 100 due to rounding.

9 Child death prevention activities

Maintaining the Child Death Register

The QFCC maintains Queensland's Child Death Register in accordance with Part 3 of the *Family and Child Commission Act 2014*, under which it is required to produce an annual report on the deaths of all children in Queensland.

The Child Death Register was established in 2004 and currently contains over 8,500 records that have been classified by cause of death, demographic and incident characteristics. It allows the QFCC to extract information from its 19 years of recorded data, highlighting risk factors and trends that can inform research, support policy improvement and community safety initiatives to help reduce the likelihood of child deaths.

Publications

In December 2022 the *Annual Report: Deaths of children and young people Queensland 2021–22* was tabled in Parliament. This was the 18th annual report to be produced on child deaths in Queensland. The electronic version of the annual report can be accessed on the **Queensland Parliament website** (authorised version).[82]

Resources associated with the annual report, including the 18-year summary tables, Appendices B to G, and fact sheets, can be found at **www.qfcc.qld.gov.au/sector/child-death/child-death-reports-and-data**

The QFCC also published the ***Australian child death statistics 2020* report**, prepared on behalf of the members of the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG). This report can be found at **www.qfcc.qld.gov.au/sector/child-death/child-death-statistics-anz**

Australian and New Zealand child death review conference and meeting

The QFCC hosted the 2023 ANZCDR&PG conference on 23 May. This online conference was a professional development opportunity for the specialist teams in each jurisdiction responsible for child death reviews and registers. The conference included a range of speakers on three themes.

Session 1's theme was *Data linkage and knowledge sharing to deepen our understanding of child deaths*. The session showcased projects where agencies have shared knowledge, information and linked data to support case analyses and improve understanding of the causes and risk factors in child deaths.

Session 2's theme was *Classification of sudden infant deaths*, and explored how classification algorithms can help to better identify unsafe sleep factors and suffocation in infants, the importance of understanding airway protection in safer sleep messaging, followed by insights on product safety issues for safer infant sleep.

The theme of session 3 was *Issues for the future of analysis and reporting*. It provided essential information to support decision-makers planning the transition from the ICD-10 and the implementation of classification system ICD-11 with a focus on those changes, implementation plans being developed here in Australia and some specific changes currently under discussion with the international community and WHO on SUDI. It also identified impacts of the revised population estimates from the 2021 Census, particularly for First Nations populations.

Session recordings can be found here **www.qfcc.qld.gov.au/events/2023/ANZCDRPG-Conference**

On 25 May 2023, representatives from child death review teams from each state and territory across Australia met in the QFCC Boardroom (and virtually) to share experiences, practices, barriers and priorities in relation to child death review and prevention. One of the key focus areas for the group is the development of a national dataset to strengthen child death and injury prevention and research to inform practice and policy. The group also discussed the varying impacts of COVID-19.

82 www.parliament.qld.gov.au/Work-of-the-Assembly/Tabled-Papers/Online-Tabled-Papers

Safer pathways through childhood framework

In 2022 the QFCC launched ***Safer pathways through childhood***.[83] The framework, designed to maximise the impact of the QFCC's legislated child death prevention functions, provides a roadmap for the QFCC's child death prevention activities over the next 5 years (2022–27). This framework takes a social justice approach to child death and injury prevention that focuses on achieving health equity. In addition to fulfilling our legislative obligations the QFCC will, in consultation with stakeholders, identify specific prevention activities to address priority areas each year. Work progressed under the 2022–23 action plan are summarized below.

Swimming pool drownings

In November 2022, the QFCC released an information paper analysing all drownings and non-fatal immersions occurring in back yard swimming pools since 2011. Key findings of this study are detailed in **Chapter 4 – Drowning**.

Family level adversity

While the QFCC has collected data on a range of indicators, such as, mental health, domestic and family violence and alcohol and substance use since 2013, further work is required to expand and refine this dataset. This piece of work aims to establish a clearer understanding of the impact of a range of adversities, experiences and vulnerabilities on a child's wellbeing and potential links to premature mortality. By collecting information about the experiences and circumstances of children who have died, it provides a deeper understanding of where prevention and early intervention efforts, including systemic and social change, are best targeted.

Preventable childhood mortality

The child death prevention work of the QFCC has been focused to date on external causes of mortality and sudden unexpected deaths in infancy (SUDI). However, the complete range of conditions causing death that are considered preventable or potentially avoidable is a topic of continuing international debate. To effectively measure the impact of our child death prevention activities over time, it is necessary to measure the rate of preventable deaths. The QFCC is currently reviewing Australian and International frameworks and standards for reporting. This review will form a foundation for work to be done with experts in the health sector to identify a comprehensive framework and ICD-10 code list of causes of child death considered preventable.

Paediatric sepsis

The paediatric sepsis project is a partnership project being undertaken in collaboration with the Queensland Paediatric Sepsis Program (QPSP) at Children's Health Queensland.[84] The overarching aim of this study is to identify and describe the incidence of deaths due to sepsis in children aged less than 18 years in Queensland (who have left hospital after birth), using multiple cause of death data from the Queensland Child Death Register, linked with administrative health datasets. This project is further explored in **Chapter 2**.

The *Safer pathways through childhood framework*, 2022–23 Action Plan and Swimming pool immersions of young children in Queensland 2011–2021 can be found at **www.qfcc.qld.gov.au/safer-pathways-through-childhood**

83 www.qfcc.qld.gov.au/safer-pathways-through-childhood

84 www.childrens.health.qld.gov.au/wp-content/uploads/PDF/QPSP-Sustainability-plan.pdf

QFCC submissions

During 2022–23, the QFCC used information in the Queensland Child Death Register to provide advice and recommendations in relation to the following consultations:[85]

- Australian Competition and Consumer Commission (ACCC) review into the safety of infant inclined products. The QFCC supported proposals for a mandatory standard focusing on all infant sleep products and a permanent ban on the supply of inclined sleep products with an incline greater than 7 degrees.
- ACCC's product safety priorities for 2023–24. The QFCC raised three issues: reducing risk of heat stress injury in vehicles, infant swaddle suits and misuse of aerosol deodorants.

Supporting youth suicide prevention

The QFCC continued to monitor and support prevention of suicide deaths of children and young people. This included a crucial information sharing process with the Department of Education to inform student wellbeing policy development and support suicide postvention in affected schools. The QFCC contributed to suicide prevention by:

- increasing awareness across government of trends and spikes in suicide numbers
- reporting on situational circumstances and risk factors affecting young people
- providing suicide data to government agencies to support development of mental health and wellbeing initiatives.

Researcher access to child death data

A key strategy to support child death and injury prevention is to make data held in the Child Death Register available for research, public education, policy development and program design. Data from the comprehensive dataset is available at no cost to genuine researchers.[86] Applications to obtain data can be made by emailing **child_death_prevention@qfcc.qld.gov.au**

In 2022–23, the QFCC responded to 20 external requests for Child Death Register data. Data provided to genuine researchers may be either aggregated or presented as confidential unit records. Table 9.1 gives an overview of the key projects and agencies for which data was provided.

85 QFCC submissions can be found at **www.qfcc.qld.gov.au/sector/policy-submissions**

86 Under section 28 of the FCC Act, the QFCC is able to provide child death information for genuine research, defined as research relating to childhood mortality or morbidity with a view to increasing knowledge of incidence, causes and risk factors relating to same. Genuine research includes policy and program initiatives to reduce child death or injury.

Table 9.1: Child death data requests by agency and purpose, 2022–23

Type of data	Requesting agency	Purpose
All deaths	Queensland Child Death Review Board	Provide background on frequency of sibling deaths to inform consideration of system responses to multiple child deaths in a family
Aboriginal and Torres Strait Islander deaths	Queensland Government Statistician's Office	Presentation to ANZCDR&PG on the impact of census changes for Aboriginal and Torres Strait Islander populations
Children known to the child protection system	Queensland Child Death Review Board	Provide child death and coronial information required to undertake case reviews
	ABC Tasmania	Inform a media story about the perceived failings of child protection systems nationwide
Diseases and morbid conditions	Queensland Health	Investigation of the incidence of, and factors associated with, child deaths due to sepsis in Queensland (collaborative project with QFCC)
Drowning	Gold Coast City Council	Inform a review of pool fence compliance measures
	Royal Life Saving Society Australia	Inform the National Drowning Report and drowning prevention research and advocacy
Interstate residents	Children and Young People Death Review Committee ACT	Australian Capital Territory reporting on deaths of residents in other jurisdictions
	Child Death Review and Prevention Committee NT	Northern Territory reporting on deaths of residents in other jurisdictions
	Child Death and Serious Injury Review Committee SA	South Australian reporting on deaths of residents in other jurisdictions
	Consultative Council on Obstetric and Paediatric Mortality and Morbidity VIC	Victorian reporting on deaths of residents in other jurisdictions
Non-intentional injury and SUDI	Australian Competition and Consumer Commission	Inform content refresh of Keeping Baby Safe public awareness campaign and Your First Steps website
Sudden unexpected death in infancy (SUDI)	Australian Competition and Consumer Commission	Inform review of policy options to reduce the risk of death and injury associated with infant sleep products
	Queensland Paediatric Quality Council	Analysis to comprehensively identify the issues associated with infant deaths and make recommendations for future investigation
Suicide	Queensland Government Statistician's Office	Undertaking research to identify First Nations communities with comparatively lower rates of suicide (collaborative project with QFCC)
Transport	Queensland Health	Inform media article on ride-on mower injuries and safety
	Queensland Department of Transport and Main Roads	Support public education and guidance for parents and carers on the need for and appropriate use of child restraints in vehicles

Notes: Not all requests are shown.

Participation in state and national advisory groups

QFCC officers participated in the following advisory bodies during 2022–23:

- Australian and New Zealand Child Death Review and Prevention Group
- Australian National Child Death Data Collection Working Group
- Consumer Product Injury Research Advisory Group
- Queensland Government Suicide Prevention Network
- Suicide Prevention Oversight Group
- QPQC Infant Mortality Sub-Committee
- QPQC Steering Committee
- Queensland Government Births and Deaths Working Group
- Road Safety Research Network.

Appendices

Appendix A — Summary tables on child deaths in Queensland 65

Appendices available online

www.qfcc.qld.gov.au/about-us/publications/child-death-reports-and-data

Appendix B — Methodology
Appendix C — Abbreviations and definitions
Appendix D — Cause of death by ICD-10 mortality coding classification
Appendix E — Inclusions within the other non-intentional injury category
Appendix F — Suicide classification model
Appendix G — Fatal assault and neglect definitions and screening criteria

Appendix A
Summary tables on child deaths in Queensland

All child deaths

Table A.1: Summary of deaths of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All deaths						
Deaths of children 0–17 years	386	378	398	410	446	34.2
Cause of death						
Natural causes	**267**	**260**	**280**	**269**	**327**	**23.8**
External causes	**92**	**77**	**88**	**88**	**67**	**7.0**
Transport	22	21	31	33	28	2.3
Drowning	16	13	10	10	10	1.0
Other non-intentional injury-related death	8	9	14	17	4	0.9
Suicide	37	21	30	20	20	2.2
Fatal assault and neglect	9	13	3	8	5	0.6
Unexplained causes	**27**	**39**	**30**	**35**	**6**	**2.3**
Cause of death pending	**0**	**2**	**0**	**18**	**46**	**1.1**
Sudden unexpected death in infancy (SUDI)						
Sudden unexpected infant deaths	26	35	34	44	40	0.6[a]
Sex[b]						
Female	162	163	185	175	193	30.6
Male	224	214	213	233	252	37.4
Age category						
Under 1 year	220	246	239	250	279	4.0[a]
1–4 years	50	42	41	44	52	18.5
5–9 years	27	17	19	24	37	7.4
10–14 years	32	28	31	43	37	10.0
15–17 years	57	45	68	49	41	27.2
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	65	66	73	71	94	75.4
Non-Indigenous	321	312	325	339	352	30.5
Known to the child protection system						
Known to Child Safety	58	53	53	69	72	63.8

Data source: Queensland Child Death Register (Aug 2023)

a Rate per 1,000 live births for SUDI and age under 1 year.

b Excludes deaths of children whose sex was indeterminate.

1. Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.

2. Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting SUDI and age under 1 year which are per 1,000 births.

3. SUDI is a research category applying to infants only, where the death was sudden with no immediately obvious cause. The category is not a cause of death, which will be counted within the relevant cause, and will not add to the total.

4. The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.

Aboriginal and Torres Strait Islander children

Table A.2: Summary of deaths of Aboriginal and Torres Strait Islander children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
Aboriginal and Torres Strait Islander deaths						
Total	65	66	73	71	94	75.4
Cause of death						
Natural causes	**40**	**40**	**48**	**32**	**60**	**44.9**
External causes	**19**	**19**	**17**	**22**	**16**	**19.0**
Transport	3	4	3	4	7	4.3
Drowning	3	1	4	3	2	2.7
Other non-intentional injury-related death	2	4	5	5	1	3.5
Suicide	10	7	4	7	4	6.5
Fatal assault and neglect	1	3	1	3	2	2.0
Unexplained causes	**6**	**7**	**8**	**12**	**3**	**7.4**
Cause of death pending	**0**	**0**	**0**	**5**	**15**	**4.1**
Sudden unexpected deaths in infancy (SUDI)						
Sudden unexpected infant deaths	5	9	12	15	14	1.6[a]
Age category						
Under 1 year	37	45	50	36	59	6.6[a]
1–4 years	9	6	8	12	11	41.1
5–9 years	4	1	1	4	9	14.0
10–14 years	6	4	4	7	4	18.5
15–17 years	9	10	10	12	11	67.7
Known to the child protection system						
Known to Child Safety	19	22	27	31	27	99.3

Data source: Queensland Child Death Register (Aug 2023)

a Rate per 1,000 births for SUDI and age under 1 year.

1. Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.

2. Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates for SUDI and age under 1 year which are per 1,000 live births.

3. SUDI is a research category applying to infants only, where the death was sudden with no immediately obvious cause. The category is not a cause of death, which will be counted within the relevant cause, and will not add to the total.

Children known to Child Safety

Table A.3: Summary of deaths of children known to Child Safety in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
Deaths of children known to Child Safety						
Total	58	53	53	69	72	63.8
Cause of death						
Natural causes	**22**	**16**	**21**	**24**	**31**	**23.8**
External causes	**30**	**27**	**23**	**31**	**25**	**28.5**
Transport	2	5	5	7	10	6.1
Drowning	5	2	5	5	4	4.4
Other non-intentional injury-related death	2	2	7	6	3	4.2
Suicide	14	8	4	7	6	8.2
Fatal assault and neglect	7	10	2	6	2	5.6
Unexplained causes	**6**	**9**	**9**	**10**	**1**	**7.3**
Cause of death pending	**0**	**1**	**0**	**4**	**15**	**4.2**
Sudden unexpected deaths in infancy (SUDI)						
Sudden unexpected infant deaths	8	9	13	11	13	2.3[a]
Age category						
Under 1 year	18	18	24	22	27	4.7[a]
1–4 years	12	16	9	19	15	75.8
5–9 years	5	2	5	4	11	19.5
10–14 years	8	7	8	11	9	29.4
15–17 years	15	10	7	13	10	72.2
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	19	22	27	31	27	99.3
Non-Indigenous	39	31	26	38	45	51.0

Data source: Queensland Child Death Register (Aug 2023)

a Rate per 1,000 aged under 1 year for SUDI and age under 1 year.

1. Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.

2. The number of children known to the child protection system represents the number of children, whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death.

3. Five-year average rates of death for children known to Child Safety use as a denominator the 5-year average number of children aged 0–17 years who were known to Child Safety, through either being subject to a child concern report, intake enquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.

4. SUDI is a research category applying to infants only, where the death was sudden with no immediately obvious cause. The category is not a cause of death, which will be counted within the relevant cause, and will not add to the total.

Natural causes

Table A.4: Summary of deaths from natural causes of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All natural cause deaths						
Disease and morbid condition	267	260	280	269	327	23.8
Category						
Perinatal conditions	130	132	129	120	161	11.4
Congenital anomalies	61	80	75	80	66	6.1
Neoplasms	25	17	24	27	36	2.2
Infections[a]	10	10	8	13	15	0.9
Other disease or morbid conditions NEC	41	21	44	29	49	3.1
Sex[b]						
Female	116	109	131	130	151	22.2
Male	151	150	149	137	175	25.1
Age category						
Under 1 year	196	210	204	208	236	3.4[c]
1–4 years	27	17	24	18	31	9.4
5–9 years	14	9	13	12	28	4.5
10–14 years	17	14	16	18	16	4.7
15–17 years	13	10	23	13	16	7.8
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	40	40	48	32	60	44.9
Non-Indigenous	227	220	232	237	267	21.9
Geographical area of usual residence (ARIA+)						
Remote and very remote	6	11	4	7	13	25.9
Outer regional	44	37	57	40	43	27.2
Inner regional	37	49	44	51	79	22.6
Major cities	171	157	172	162	185	22.5
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	69	61	68	59	93	32.2
Q5 (least disadvantage)	53	39	45	26	28	15.3
Known to the child protection system						
Known to Child Safety	22	16	21	24	31	23.8

Data source: Queensland Child Death Register (Aug 2023)

a 'Infections' is a hybrid category composed of ICD-10 Chapter I, Certain infectious and parasitic diseases; ICD-10 Chapter VI, Diseases of the nervous system, codes G00–G09 only; ICD-10 Chapter X, Diseases of the respiratory system, codes J00–J22 only, Chapter XXII, Codes for special purposes, codes U07.1–U07.2 only.

b Excludes the deaths of 1 infant of indeterminate sex in 2019–20, 2 in 2021–22 and 1 in 2022–23.

c Rate per 1,000 live births for age under 1 year.

NEC Not elsewhere classified.

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting for age under 1 year which is per 1,000 live births.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Transport

Table A.5: Summary of transport-related deaths of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All transport deaths						
Transport	22	21	31	33	28	2.3
Incident type						
Motor vehicle	12	12	19	19	13	1.3
Pedestrian	7	6	4	5	10	0.5
Low-speed vehicle run-over	3	2	3	4	8	0.3
Motorcycle	2	1	5	5	4	0.3
Quad bike	0	1	2	2	0	0.1
Bicycle	1	1	1	0	1	0.1
Other	0	0	0	2	0	*
Sex						
Female	9	7	14	9	6	1.6
Male	13	14	17	24	22	3.0
Age category						
Under 1 year	0	0	1	0	0	*
1–4 years	5	2	5	7	7	2.1
5–9 years	6	3	4	5	2	1.2
10–14 years	4	5	5	9	6	1.7
15–17 years	7	11	16	12	13	6.2
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	3	4	3	4	7	4.3
Non-Indigenous	19	17	28	29	21	2.1
Geographical area of usual residence (ARIA+)						
Remote and very remote	1	1	4	1	3	6.3
Outer regional	3	9	8	10	6	4.4
Inner regional	10	5	9	10	8	3.7
Major cities	8	5	9	10	10	1.1
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	6	4	13	5	7	3.2
Q5 (least disadvantage)	3	5	0	0	0	0.6
Known to the child protection system						
Known to Child Safety	2	5	5	7	10	6.1

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Low-speed vehicle run-over is a subset of the 'pedestrian' category; hence, summing categories will exceed the total.*
3. *Quad bike includes side-by-side vehicles.*
4. *The 'other' incident type category can include deaths involving aircraft, horse riding and specialised industrial vehicles.*
5. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland.*
6. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
7. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Drowning

Table A.6: Summary of drowning deaths of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All drowning deaths						
Drowning	16	13	10	10	10	1.0
Incident type						
Pool	8	6	2	4	4	0.4
Private pool	6	5	2	3	4	0.3
Public pool	2	1	0	1	0	0.1
Non-pool	8	7	8	6	6	0.6
Bath	2	0	3	1	4	0.2
Beach or ocean	1	1	0	1	0	*
Dynamic waterway	3	2	1	0	0	0.1
Object containing water	0	1	0	0	0	*
Rural water hazard	0	3	3	2	1	0.2
Static inland waterway	2	0	1	1	1	0.1
Other	0	0	0	1	0	*
Sex						
Female	2	8	6	2	7	0.9
Male	14	5	4	8	3	1.1
Age category						
Under 1 year	2	0	2	1	2	2.2
1–4 years	6	9	5	6	5	2.5
5–9 years	4	2	1	1	2	0.6
10–14 years	1	0	1	1	0	*
15–17 years	3	2	1	1	1	0.8
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	3	1	4	3	2	2.7
Non-Indigenous	13	12	6	7	8	0.9
Geographical area of usual residence (ARIA+)						
Remote and very remote	1	2	0	0	0	*
Outer regional	3	2	3	4	1	1.6
Inner regional	3	4	5	3	5	1.7
Major cities	4	5	2	3	4	0.5
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	4	5	4	6	4	2.1
Q5 (least disadvantage)	1	1	1	0	1	0.3
Known to the child protection system						
Known to Child Safety	5	2	5	5	4	4.4

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *'Other' non-pool water hazards include objects containing water and flood-related incidents.*
3. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates for age under 1 year which are per 100,000 births.*
4. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
5. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Other non-intentional injury

Table A.7: Summary of other non-intentional injury-related deaths of children in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All other non-intentional injury deaths						
Other non-intentional injury	8	9	14	17	4	0.9
Incident type						
Threats to breathing	1	2	9	2	3	0.3
Exposure to inanimate mechanical forces	2	3	1	3	0	0.2
Accidental poisoning	3	0	1	3	0	0.1
Deaths from fire	0	1	0	2	0	*
Falls	0	0	0	3	0	*
Contact with venomous animals and plants	0	1	1	2	0	0.1
Other incidents	2	2	2	2	1	0.2
Sex						
Female	4	2	7	3	0	0.6
Male	4	7	7	14	4	1.2
Age category						
Under 1 year	0	0	5	2	1	2.6
1–4 years	3	3	4	3	2	1.2
5–9 years	1	2	1	3	0	0.4
10–14 years	2	1	1	4	0	0.5
15–17 years	2	3	3	5	1	1.5
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	2	4	5	5	1	3.5
Non-Indigenous	6	5	9	12	3	0.6
Geographical area of usual residence (ARIA+)						
Remote and very remote	0	1	2	0	1	2.5
Outer regional	2	3	2	6	1	1.7
Inner regional	1	1	0	1	2	0.4
Major cities	4	3	10	10	0	0.7
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	3	2	5	6	1	1.6
Q5 (least disadvantage)	0	0	2	3	0	0.4
Known to the child protection system						
Known to Child Safety	2	2	7	6	3	4.2

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates for age under 1 year which are per 100,000 births.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Suicide

Table A.8: Summary of suicide deaths of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All suicide deaths						
Suicide	37	21	30	20	20	2.2[a]
Sex						
Female	18	6	12	7	9	4.0
Male	19	15	18	13	11	5.5
Age category						
10–17 years	37	21	30	19	20	4.8
5–9 years	0	0	0	1	0	*
10–14 years	8	6	6	5	11	2.1
15–17 years	29	15	24	14	9	9.5
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	10	7	4	7	4	15.1
Non-Indigenous	27	14	26	13	16	3.9
Geographical area of usual residence (ARIA+)						
Remote and very remote	4	3	1	1	1	15.9
Outer regional	8	4	6	3	2	6.2
Inner regional	3	5	7	9	4	5.1
Major cities	21	9	16	7	12	3.9
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	10	7	10	4	8	8.1
Q5 (least disadvantage)	5	2	4	0	3	2.3
Known to the child protection system						
Known to Child Safety	14	8	4	7	6	17.5

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

a *Overall suicide rates are calculated per 100,000 children aged 0–17 years in Queensland. All other rates are calculated per 100,000 children aged 10–17 years in Queensland.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 10–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*
5. *Data relating to method of death are available to genuine researchers by request.*

Fatal assault and neglect

Table A.9: Summary of deaths from assault and neglect of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All fatal assault and neglect deaths						
Fatal assault and neglect	9	13	3	8	5	0.6
Category of fatal assault and neglect						
Intra-familial	7	10	2	6	4	0.5
Domestic homicide	5	3	0	0	1	0.2
Fatal child abuse	1	3	1	5	2	0.2
Fatal neglect	1	4	0	1	1	0.1
Other intra-familial assault NEC	0	0	1	0	0	*
Extra-familial	2	3	1	2	1	0.2
Intimate partner homicide	1	0	0	0	0	*
Peer homicide	0	2	1	2	0	0.1
Acquaintance homicide	1	1	0	0	0	*
Stranger homicide	0	0	0	0	1	*
Sex						
Female	4	6	2	1	2	0.5
Male	5	7	1	7	3	0.8
Age category						
Under 1 year	2	4	0	2	1	2.9
1–4 years	4	5	2	3	1	1.2
5–9 years	2	1	0	1	2	0.4
10–14 years	0	0	0	0	1	*
15–17 years	1	3	1	2	0	0.7
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	1	3	1	3	2	2.0
Non-Indigenous	8	10	2	5	3	0.5
Geographic area of usual residence (ARIA+)						
Remote and very remote	0	0	0	0	0	*
Outer regional	1	0	1	3	3	1.0
Inner regional	5	2	0	2	2	1.0
Major cities	3	11	2	3	0	0.5
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	4	3	1	4	3	1.4
Q5 (least disadvantage)	0	3	0	0	1	0.3
Known to the child protection system						
Known to Child Safety	7	10	2	6	2	5.6

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates for age under 1 year which are per 100,000 births.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Unexplained causes

Table A.10: Summary of deaths from unexplained causes of children and young people in Queensland, 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All deaths from unexplained causes						
Unexplained causes	27	39	30	35	6	2.3
Cause of death						
Sudden infant death syndrome (SIDS)	14	22	17	18	4	24.1
Undetermined cause (infants)	6	10	10	8	0	10.9
Undetermined cause (1–17 years)	7	7	3	9	2	0.5
Sex						
Female	9	24	13	17	3	2.3
Male	18	15	17	18	3	2.3
Age category						
Under 1 year	20	32	27	26	4	35.0
1–4 years	5	5	1	6	2	1.5
5–17 years	2	2	2	3	0	0.2
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	6	7	8	12	3	7.4
Non-Indigenous	21	32	22	23	3	1.9
Geographic area of usual residence (ARIA+)						
Remote and very remote	2	0	0	0	0	*
Outer regional	3	5	8	4	1	2.6
Inner regional	7	8	6	7	1	2.5
Major cities	15	24	16	23	4	2.2
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	9	11	11	15	2	4.4
Q5 (least disadvantage)	2	1	2	1	1	0.6
Known to the child protection system						
Known to Child Safety	6	9	9	10	1	7.3

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates SIDS, undetermined causes (<1 year) and age under 1 year which are per 100,000 live births.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of children aged 0–17 who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Sudden unexpected deaths in infancy (SUDI)

Table A.11: Summary of SUDI infant deaths in Queensland 2018–23

	2018–19	2019–20	2020–21	2021–22	2022–23	5-year average
	n	*n*	*n*	*n*	*n*	Rate per 1,000
All sudden unexpected deaths in infancy (SUDI)						
SUDI (infants)	26	35	34	44	40	0.6
Cause of death						
Explained causes	**6**	**3**	**7**	**8**	**3**	**0.1**
Unrecognised infant illness	6	2	2	6	2	0.1
Sleep accident	0	0	5	1	1	0.0
Fatal assault	0	1	0	1	0	*
Unexplained causes	**20**	**32**	**27**	**26**	**4**	**0.4**
SIDS	14	22	17	18	4	0.2
Undetermined	6	10	10	8	0	0.1
Cause of death pending	**0**	**0**	**0**	**10**	**33**	**0.1**
Sex						
Female	9	21	17	21	11	0.5
Male	17	14	17	23	29	0.6
Aboriginal and Torres Strait Islander status						
Aboriginal and Torres Strait Islander	5	9	12	15	14	1.6
Non-Indigenous	21	26	22	29	26	0.4
Geographic area of usual residence (ARIA+)						
Remote and very remote	1	0	1	2	1	0.5
Outer regional	2	5	8	9	9	0.8
Inner regional	7	6	7	9	13	0.8
Major cities	16	22	18	23	17	0.5
Socio-economic status of usual residence (SEIFA)						
Q1 (most disadvantage)	10	12	12	24	19	1.4
Q5 (least disadvantage)	3	1	3	1	2	0.2
Known to the child protection system						
Known to Child Safety	8	9	13	11	13	2.3

Data source: Queensland Child Death Register (Aug 2023)

* *Rates have not been calculated for numbers less than 4.*

1. *Data presented are current in the Queensland Child Death Register as at August 2023 and thus may differ from previously published reports.*
2. *Rates are averaged over 5 years and calculated per 1,000 births (in the sex/Indigenous status) in Queensland.*
3. *ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.*
4. *The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period, who were known to Child Safety Services within the 1-year period prior to their death. The denominator for calculating rates is the 5-year average number of infants (aged under 1 year) who were known to Child Safety, through either being subject to a child concern report, intake inquiry, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

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