Annual Report

Deaths of children and young people Queensland

2020–21

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*. It describes information on the deaths of children and young people in Queensland registered in the period 1 July 2020 to 30 June 2021.

The Queensland Family and Child Commission (QFCC) is a statutory authority of the Queensland Government. Established in 2014, the QFCC provides oversight of the family and child support system, with an aim to bring children's rights to life. Through awareness, advocacy and accountability, we seek to give practical effect to the rights of all children and young people in Queensland.

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If you have difficulty understanding this document, you can contact us on 07 3900 6000 and we will arrange an interpreter to effectively explain the report to you.

Contact for enquiries

For enquiries or further information about this annual report (including to receive a hard copy) please contact:

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Queensland Government

Queensland
Family & Child
Commission

28 October 2021

The Honourable Shannon Fentiman MP
Attorney-General and Minister for Justice,
Minister for Women and Minister for the Prevention of Domestic and Family Violence
1 William Street
BRISBANE QLD 4000

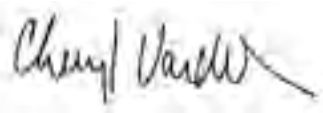
Dear Attorney-General

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 2020 to 30 June 2021, with a particular focus on external (non-natural) causes.

I draw your attention to section 29(7) of the *Family and Child Commission Act 2014* which requires you to table this report in the Parliament within 14 sitting days.

Yours sincerely



Cheryl Vardon
Principal Commissioner
Queensland Family and Child Commission

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Acknowledgements

The Queensland Family and Child Commission (QFCC) acknowledges the Turrbal and Yugara peoples as the Traditional Custodians across the land on which the QFCC meets and works. 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 their 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 principles: the right of all children to survival and development; respect of the best interests of the child as a primary consideration in all decisions relating to children; the right of all children to express their views freely on all matters affecting them; and the right of all children to enjoy all rights of the CRC without discrimination of any kind.

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 Children, Youth Justice and Multicultural Affairs; 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 Regulation is also acknowledged as administrator of the National Coronial Information System.

The QFCC would also like to acknowledge the contribution of data from other Australian and New Zealand agencies and committees which perform similar child death review functions. This data has been compiled for an inter-jurisdictional overview representing further steps towards developing a nationally comparable child death review dataset. The overview is available online at **https://www.qfcc.qld.gov.au** on the child death reports webpage.

The QFCC would like to acknowledge the considerable efforts of those involved in the redesigned Child Death Register, Coda, including the development and testing teams and the QFCC Child Death Prevention team.

We also acknowledge and appreciate the work of staff from the QFCC who contributed to data analysis, research and drafting processes.

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**

Foreword

Each year, one of the most important duties of the Queensland Family and Child Commission (QFCC) is to maintain a register of child deaths in Queensland. We analyse the data behind the tragedies and report on trends and patterns over time. Our information is used in policies, programs and public education campaigns to reduce deaths and to help keep our children safe.

We never allow ourselves to forget that the death of a child or young person, in any circumstances, is devastating for the family, friends and communities who are touched by the loss.

This is the seventh year of operation for the QFCC and the seventeenth year of reporting on the deaths of children and young people in Queensland. It has been a challenging one, as governments and communities have worked to minimise the negative impact of the COVID-19 pandemic. We have adapted our approaches so we could continue to make a difference to the safety and wellbeing of children.

In 2021, we implemented a redesigned register (Coda). This was significant, because Coda doesn't just provide improvements to the quality and quantity of the data we capture, it also enhances our reporting capabilities. We can now provide more specialised analysis of the data held in the system.

This year alone, we recorded information relating to 398 children whose deaths were registered between 1 July 2020 and 30 June 2021. While the majority of these deaths (67 per cent) were from natural causes, 86 children and young people died from what we call 'external causes' that the government and community can do something about.

In examining this information, we consider the risk factors that may play a part in specific causes of death. We also use it to contribute to initiatives designed to deal with these risk factors. The initiatives can range from developing targeted prevention messages through to providing evidence to support policy, practice and legislation.

In most areas of child mortality, the statistics seem to be moving in the right direction, but there are two trends that I am particularly concerned about. The first is motor vehicle crashes. Of the children and young people who died this year, 19 lost their lives in this way. This is the highest annual figure since 2014–15.

The number of motor vehicle crash fatalities fell considerably between 2004 and 2016, but we've seen concerning increases since 2016, particularly in 15–17 year-olds. In fact, over the past five years, almost 40% of all motor vehicle deaths featured drivers aged 18 years and under, travelling with passengers of a similar age.

The second relates to suicide, to which we have lost 30 young people this year, continuing an increasing trend. Sadly, this trend has been noted in other jurisdictions as well. Mental health and suicide prevention is high on the government's agenda. I am encouraged by this, and the QFCC works hard to keep parliamentarians and government officers up to date with relevant data.

In partnership with our youth advocates—the young people who serve on the QFCC's Youth Advisory Council—we have also been highlighting the importance of mental wellbeing for young people and developing strategies to connect them with the supports they need.[1]

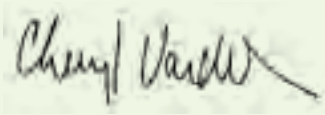
1 The Youth Advisory Council (YAC) champions the voices of children and young people to provide youth perspectives and leadership to the QFCC. The YAC meets regularly to provide advice to the Commissioners on what is important to children and young people in Queensland.

Earlier this year, the *Counting lives, changing patterns: Findings from the Queensland Child Death Register 2004–2019* report was tabled in Queensland Parliament. It analysed 16 years of data held in the Queensland Child Death Register, focusing on the deaths that can be prevented if we modify behavioural and environmental factors. I hope the findings of this groundbreaking report will be used in future research, policies and programs. Most of all, I hope it will save the lives of children and young people.

The Child Death Review Board began operating this year, and I was honoured to chair it. Its work complements the QFCC's child death prevention activities. While the QFCC reviews the circumstances of child deaths on an annual basis, the Child Death Review Board examines them at a systems level. Both approaches are critical to understanding the risk factors we need to be aware of and the preventative measures we need to take.

As this is my last annual report as the Principal Commissioner of the QFCC, I want to acknowledge the dedication demonstrated by those who work on the register of child deaths. It is not an easy task. The team members are committed to professionally gathering and analysing information, to understanding and communicating it, and to making a real difference to the lives of children.

It has been a privilege to lead these people and this work. It is difficult to think of anything more worthwhile than keeping children safe.



Cheryl Vardon
Principal Commissioner
Queensland Family and Child Commission

Executive summary

The Queensland Family and Child Commission records information about the deaths of all children and young people under 18 years of age in Queensland in the Child Death Register. The Register captures information about a child's demographics, cause and circumstances of death and, where known, certain characteristics or vulnerabilities. The Register has been in existence since 2004. It is an important resource for informing child death prevention activities and measures.

In the 12-month period from 1 July 2020 to 30 June 2021, the deaths of 398 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 includes suicide and fatal assault and neglect. Due to the relatively small numbers involved, caution should be exercised in interpreting year-to-year changes.

Child deaths in Queensland, 2020–21

398
child deaths in Queensland 2020–21*

266
children died of **natural causes** – such as congenital and perinatal conditions

29
children had a cause of death that was **not yet determined** at the time of reporting

86
children died from **external causes**, including:

- 31 from transport incidents
- 10 from drowning
- 12 from other non-intentional injuries
- 30 from suicide
- 3 from fatal assault and neglect

17
children's deaths remained **unexplained** even after comprehensive investigation

15
infants died of Sudden Infant Death Syndrome (SIDS) or undetermined causes

2
children aged 1+ years died of undetermined causes

** By date of death registration.*

Trends in child mortality

The number of child deaths and mortality rates have generally declined over the 17 years the Register has been in existence, driven to a large extent by decreases in deaths from natural causes. The overall child mortality rate has decreased 2.7% per year on average.

Transport-related child mortality has decreased 6.6% per year on average. While year to year changes should not be interpreted as indicating trends, 19 motor vehicle crash fatalities in 2020–21 was well above the preceding 5-year average of 10.6.

In contrast to overall trends in most other areas of child mortality, child mortality from suicide showed a slow increasing trend (2.4% per year on average). Thirty suicides in 2020–21 is the second highest annual number recorded since 2004, after 37 suicides in 2018–19.

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.

Leading cause by age

The leading causes of death changes with age, largely in line with the risks faced at each development stage. The leading external causes of death for 5–9 year olds was transport and for 10–14 year olds was suicide.

Age category		Leading cause[a]
Infants	0–27 days	Perinatal conditions
	28–364 days	SIDS and undetermined causes
	1–4 years	Drowning
	5–9 years	Neoplasms (cancers and tumours)
	10–14 years	Neoplasms (cancers and tumours)
	15–17 years	Suicide

a In the 5-year period 2016–17 to 2020–21.

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)[3] often experience multiple vulnerabilities and are consistently and significantly over-represented in child mortality statistics.

Seventy-one deaths in 2020–21 were of Aboriginal and Torres Strait Islander children, 41 died from natural causes (diseases and morbid conditions), 16 from external causes, 3 were unexplained deaths and 11 were pending a cause at the time of reporting.

Aboriginal and Torres Strait Islander children were over-represented in child deaths. The mortality rate for Indigenous children was 69.6 deaths per 100,000 Indigenous children aged 0–17 years, compared to 29.6 deaths per 100,000 non-Indigenous children (3-year average). The Indigenous mortality rate was 2.3 times the rate for non-Indigenous children for all causes. For external causes of death the Indigenous mortality rate was 3.0 times the non-Indigenous rate (5-year average).[4]

Of the 398 children and young people who died in 2020–21, 53 were known to Child Safety in the 12 months before they died. Causes of death for the 53 children at the time of reporting were:

- natural causes, 17
- transport incidents, 5
- drowning, 5
- other non-intentional injury, 6
- suicide, 4
- fatal assault and neglect, 2
- unexplained deaths, 5
- cause pending, 9.

The mortality rate for children known to Child Safety was almost twice the Queensland child mortality rate (5-year average). For external causes of death, the mortality rate for children known to Child Safety was four times the rate for all children in Queensland.

3 Department of Children, Youth Justice and Multicultural Affairs.

4 Rates are calculated as 3-year averages for major groups and 5-year averages for data which is further disaggregated.

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. This is explained, to an extent, by the significant disadvantage, abuse and neglect these children experience prior to coming to the attention of the child protection system, as well as the often multiple risk factors present in their families.

Areas of focus

COVID-19

The QFCC will continue to monitor trends in child deaths, including any impacts or effects on suicidal behaviours, throughout the next phase of the COVID-19 pandemic.

Youth suicide remains an area of deep concern. A slow increasing trend in suicide over time continues to be evident. Adverse childhood experiences can contribute to increased vulnerability to poor mental health, and multiple family stressors including family violence were commonly present for young people who have taken their own lives.

Sudden unexpected infant deaths continue to represent a significant group of infant deaths. Adopting safe sleep practices from birth offers the best protections to reduce the risk of SIDS and sleep accidents. The families of infants dying suddenly during sleep were often complex and vulnerable. The Pépi-Pod® Program has shown encouraging results in improving the sleep safety of at-risk infants in vulnerable families.

The family factors which lead to children becoming known to the child protection system – child neglect and abuse, domestic violence and substance misuse – are also factors which present an increased risk of fatal injury in children. The Queensland Child Death Review Board (CDRB) is responsible for conducting systemic reviews following the death of a child connected to the child protection system. The CDRB's focus is on opportunities to improve the child protection system and prevent future deaths. The inaugural report of the CDRB will be tabled in Parliament during 2021–22.

New Child Death Register for Queensland

The QFCC launched its new Child Death Register, Coda, in March 2021. The replacement database has enhanced functionality and captures quality information in a more structured way. It enables the delivery of public education campaigns, government policy and design programs to help reduce preventable child deaths.

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 online

QFCC's 16-years data analysis report, *Counting lives, changing patterns*

Annual report resources:

- 17-year summary tables
- fact sheets
- Australian and New Zealand child death statistics.

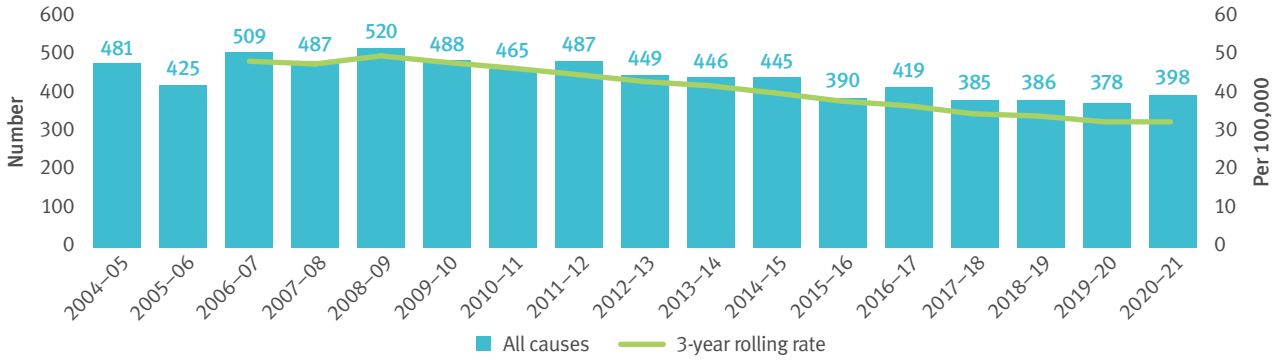
This report includes chapters on categories of death and annual child death data for 2020–21. It identifies trends and contains a number of findings that may require further review. The QFCC will pursue opportunities to collaborate with researchers and other interested stakeholders.

1 Child deaths in Queensland

Overview

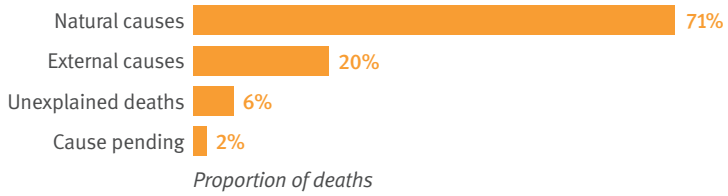
- 398 deaths of children and young people were registered in Queensland in 2020–21.
- The child mortality rate has declined since 2004, down 2.7% per year on average using 3-year rolling average rates.
- Aboriginal and Torres Strait Islander child mortality has declined; however Indigenous children were over-represented in child deaths by a factor of two.
- Sudden Infant Death Syndrome (SIDS) and undetermined causes is the leading cause of death in the post-neonatal period (28–364 days).
- Drowning is the leading cause of death for 1–4 year olds.
- Suicide is the leading cause for 15–17 year olds and second leading cause for 10–14 year olds.

Child deaths in Queensland



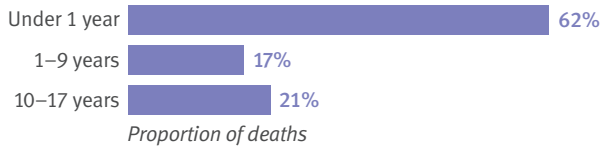
Five-year summary (2016–21)

Cause of death category



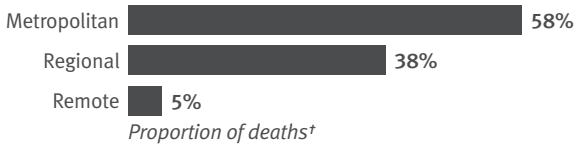
Proportion of deaths

Age



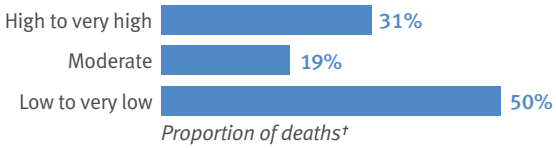
Proportion of deaths

Remoteness



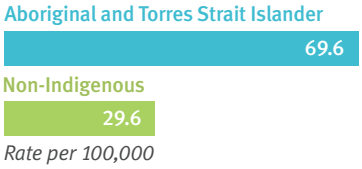
Proportion of deaths†

Socio-economic status

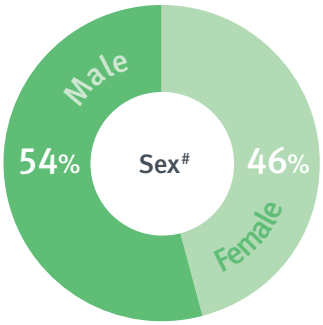


Proportion of deaths†

Indigenous status^



Rate per 100,000



Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

^ 3-year average rates
 # not shown, 0.1% sex indeterminate
† of Qld resident deaths only
** in the 12 months prior to death*

Key findings

Between 1 July 2020 and 30 June 2021, the deaths of 398 children and young people were registered in Queensland. The child mortality rate over the last 3 years was 32.9 deaths per 100,000 children aged 0–17 years and the infant mortality rate was 3.8 per 1,000 births.[5]

A summary table of child deaths by cause and key characteristics can be found in **Table A.1** in **Appendix A**. Tables with data from 2004 are available online at **http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death**

Rate calculations and percentages

Rates and percentages presented in this report are calculated as multi-year averages to provide more reliable estimates of mortality data and smooth out year to year fluctuations that arise with reporting on small numbers. Three-year rolling averages are used for trends in all causes, major cause groups, by Aboriginal and Torres Strait Islander status, and SUDI. Five-year averages are used for data further disaggregated by cause, type and demographics.

Data presented as percentages have in most cases been rounded to the nearest whole number. As a result, percentages may not add to 100 due to rounding.

Natural causes (or diseases and morbid conditions) accounted for the majority of deaths of children and young people in 2020–21 (67%), occurring at a rate of 22.4 deaths per 100,000 children aged 0–17 years (3-year average).[6]

Eighty-six deaths were from external causes (which includes transport, drowning, other non-intentional injury, suicide and fatal assault and neglect). External causes accounted for 22% of child deaths in 2020–21 and occurred at a rate of 7.2 deaths per 100,000 children aged 0–17 years (3-year average).

The leading causes of deaths after natural causes in 2020–21 were transport incidents (31), suicide (30), deaths from unexplained causes (17) followed by other non-intentional injuries (12). Ten children died from drowning and 3 children died as a result of fatal assault and neglect.

The cause may not be available for a number of child deaths until the outcomes of autopsy and coronial investigations are final. For this reason, the causes of a number of deaths are recorded as 'pending' in the year they are registered. Final outcomes are usually available within 1–2 years, at which point the Child Death Register is updated to reflect the official cause. Of the 398 deaths of children and young people in 2020–21, 7% (29 deaths) were recorded as 'cause of death pending'. The majority pending a cause are infant deaths and are most likely to be found to be from unexplained causes (based on outcomes in previous periods).

Trends in child deaths

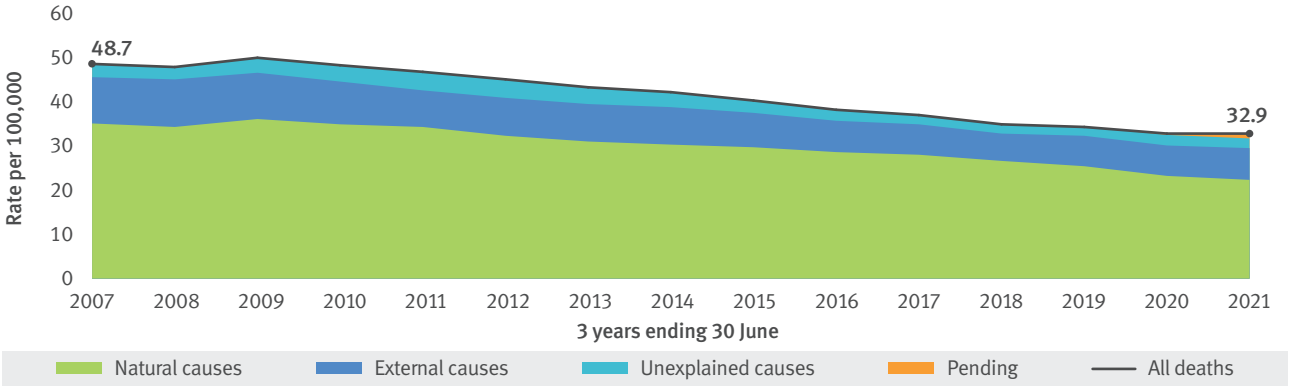
Child deaths and mortality rates have generally declined. Child mortality rates over the period 2004 to 2021 are illustrated in Figure 1.1 using 3-year rolling rates. Key points to note:

- The child mortality rate decreased 2.7% per year on average over the period.
- The overall trend is driven by decreases in child deaths from natural causes, which constituted the large majority of child deaths, and decreased by 3.1% per year on average.
- Deaths from external causes decreased by 2.4% per year on average.
- Deaths from unexplained causes decreased by 1.4% per year on average. Almost all of this group are infant deaths classified as Sudden Infant Death Syndrome (SIDS) or undetermined causes.

5 For a summary of the population data used to calculate rates, see **Appendix B** Methodology.

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

Figure 1.1: Child deaths by major cause group (3-year rolling rate), 2004–07 to 2018–21



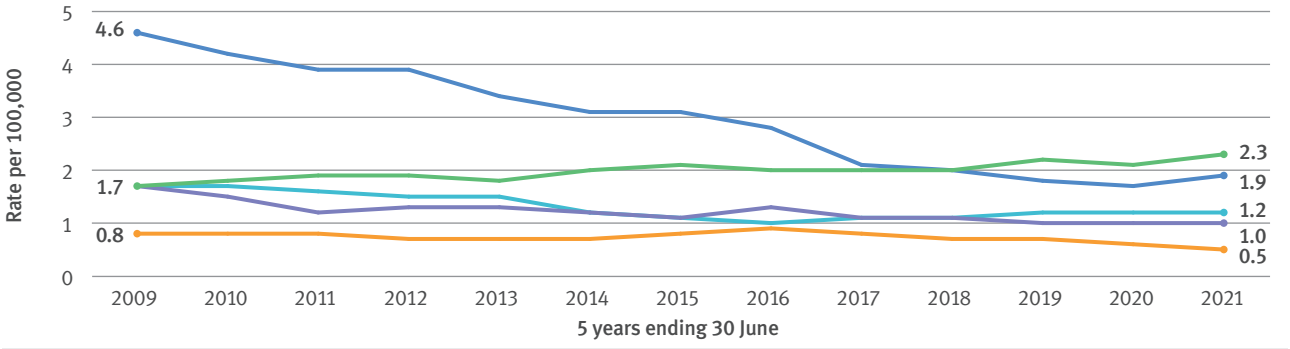
Notes: Rates calculated per 100,000 population aged 0–17 years, averaged over 3 years.

Five-year rolling rates of death from external causes are further illustrated in Figure 1.2.

The largest change in rates was in transport-related deaths, which decreased 6.6% per year on average over the period. While there were decreases in deaths from drowning, other non-intentional injury and fatal assault and neglect, the changes were not indicative of strong trends.

Deaths from suicide have increased, from 1.7 per 100,000 aged 0–17 years in 2004–09 to 2.3 per 100,000 in 2016–21 (up 2.4% per year on average).

Figure 1.2: External cause deaths by primary cause (5-year rolling rate), 2004–09 to 2016–21



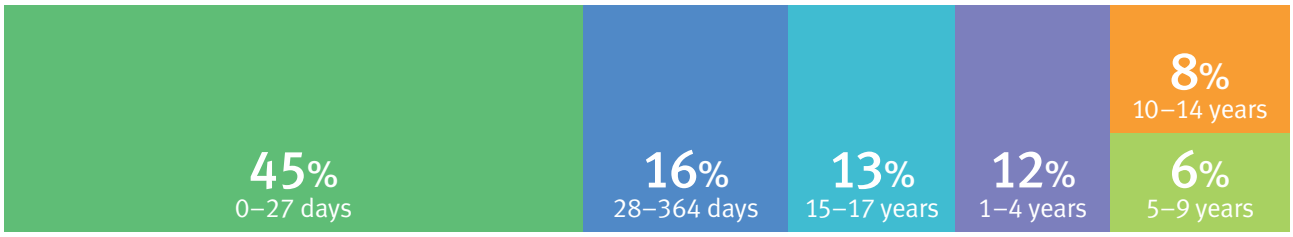
Notes: Rates calculated per 100,000 population aged 0–17 years, averaged over 5 years.

Demographics of child deaths

Age

Figures 1.3 to 1.5 reveal the considerable differences in child deaths by age and cause. Forty-five per cent of all child deaths occurred in the first days and weeks (0–27 days), and a further 16% were post-neonatal infants (28–364 days).

Figure 1.3: Deaths by age (proportion), 2016–17 to 2020–21

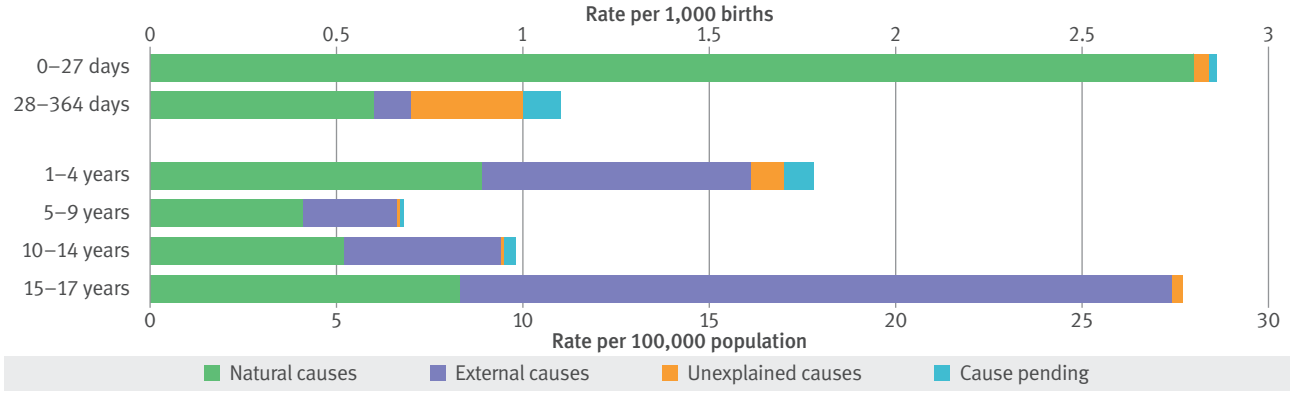


Notes: Percentages may not add to 100 due to rounding.

In Figure 1.4, 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 first 27 days were from natural causes, whereas in all other age groups between one and two-thirds of deaths were from natural causes.

Unexplained deaths made a larger contribution to the overall mortality rate for infants aged 28—364 days, while external causes were larger contributors for overall mortality in older age groups. This was most marked for age groups 15–17 years and 1–4 years.

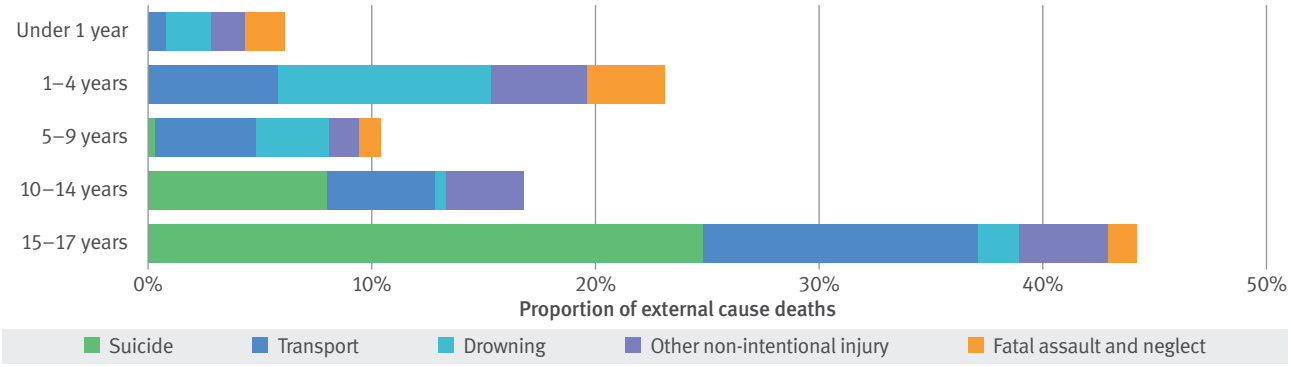
Figure 1.4: Deaths by age and major cause group (rate), 2016–17 to 2020–21



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 external causes by age are indicated in Figure 1.5. Children aged 15–17 years and 1–4 years made up the largest proportions of child deaths from external causes (respectively 44% and 23%). Suicide deaths made up the largest groups of external cause deaths in 15–17 and 10–14 year olds, while drowning was the largest external cause group for 1–4 year olds.

Figure 1.5: External cause deaths by age (proportion), 2016–17 to 2020–21



Leading causes by age

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 Health Related Problems version 10* (ICD-10). Further detail on causes of death by age can be found in **Appendix D**.

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, with drowning as lead cause and transport incidents (predominantly low-speed vehicle runovers) the next non-natural cause.

Neoplasms was a top three leading cause for each age category from 1–17 years. Suicide and transport incidents were leading external causes of death for ages 15–17 years and 10–14 years.

Table 1.1: Leading causes of death by age (number, proportion of age group), 2016–17 to 2020–21

Age category	Rank			
	1st	2nd	3rd	4th
Less than 28 days (*n* = 894)	**Perinatal conditions**[a] 611, 68%	**Congenital anomalies**[b] 242, 27%	**SIDS**[c] **and undetermined causes** 13, 1.5%	Refer to note[d]
28 days to 364 days (*n* = 321)	**SIDS and undetermined causes** 92, 29%	**Congenital anomalies** 69, 21%	**Perinatal conditions** 54, 17%	**Diseases of the nervous system** 18, 6%
1–4 years (*n* = 227)	**Drowning** 38, 17%	**Neoplasms; Congenital anomalies** 25, 11%	**Transport** 23, 10%	**Other non-intentional injury** 17, 7%
5–9 years (*n* = 111)	**Neoplasms** 23, 21%	**Transport** 18, 16%	**Drowning; Congenital anomalies; Diseases of the nervous system** 13, 12%	Refer to note[d]
10–14 years (*n* = 157)	**Neoplasms** 36, 23%	**Suicide** 32, 20%	**Transport** 19, 12%	**Other non-intentional injury** 14, 9%
15–17 years (*n* = 256)	**Suicide** 99, 39%	**Transport** 49, 19%	**Neoplasms** 21, 8%	**Other non-intentional injury** 16, 6%

a Certain conditions originating in the perinatal period.
b Congenital malformations, deformations and chromosomal abnormalities.
c Sudden Infant Death Syndrome.
d Cause and number too small to report.

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. Deaths by category are summed over 5 years.

Sex

Males comprised 56% of child deaths, with a rate of 36.9 deaths per 100,000 male children aged 0–17 years (5-year average). In comparison, females made up 44% of child deaths, with a rate of 30.4 deaths per 100,000 female children.

Males were over-represented in most cause categories, with this highest in deaths from transport incidents and other non-intentional injuries. The exceptions were deaths from fatal assault and neglect and unexplained deaths, where male and female were more equally represented in child deaths.

Regional and remote areas

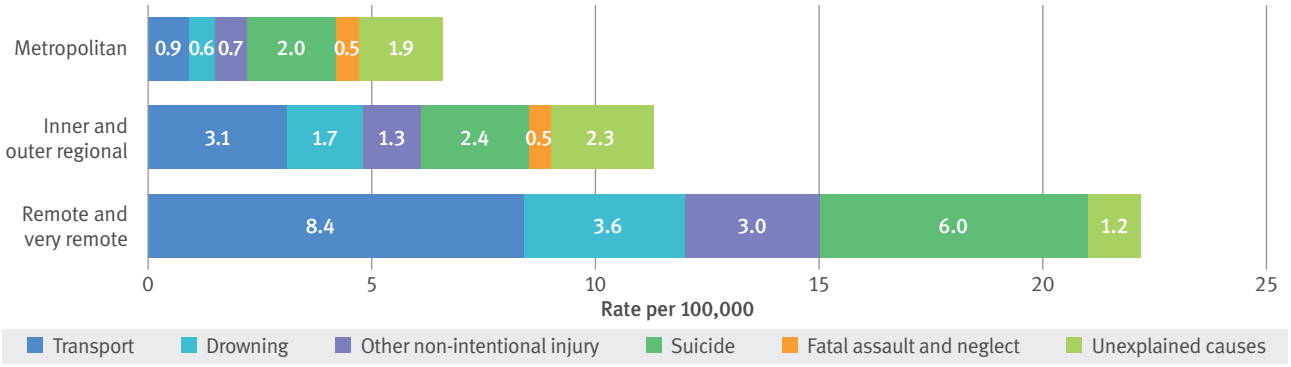
The child mortality rate from all causes was highest in remote areas of Queensland, with a rate of 52.4 per 100,000 children aged 0–17 years, compared to 36.4 in regional areas and 30.2 in metropolitan areas (5-year average).[7,8]

Figure 1.6 illustrates the rates of deaths from external and unexplained causes, taken together, increase with increasing remoteness from population centres and services. Within the cause types, differences in transport rates by remoteness were statistically significant.

7 Analysis based on the Accessibility/Remoteness Index of Australia Plus (ARIA+) for the area of usual residence. ARIA+ is a measure of remoteness that ranks locations based on their distance by road to a centre that provides services. Accessibility/Remoteness Index of Australia | Queensland Government Statistician's Office, Queensland Treasury (qgso.qld.gov.au)

8 Rates exclude deaths of children whose usual residence was outside Queensland.

Figure 1.6: ARIA+ of usual place of residence by selected causes of death (rate), 2016–17 to 2020–21



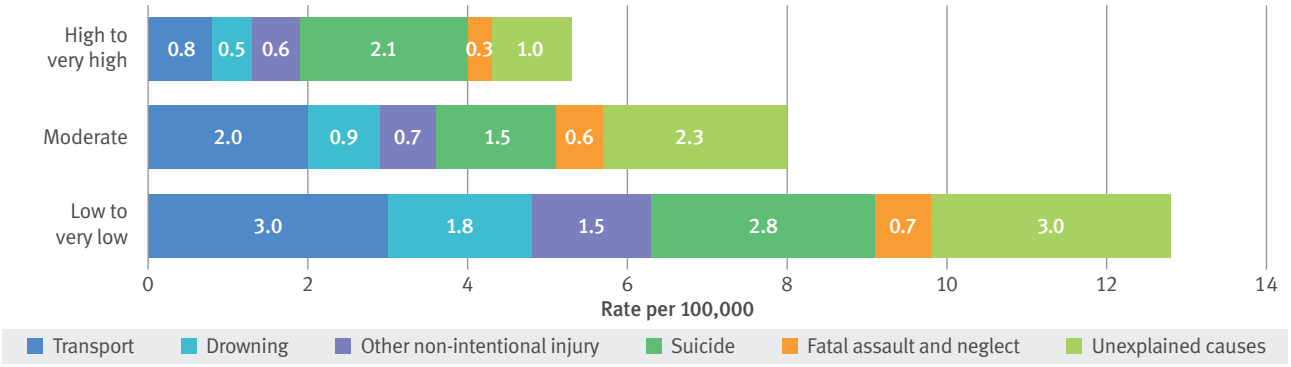
Notes: Rates calculated per 100,000 population aged 0–17 years in each ARIA+ category, averaged over 5 years. Excludes the deaths of children whose usual place of residence was outside Queensland.

Socio-economic disadvantage

The child mortality rate from all causes was highest in areas with the greatest levels of socio-economic disadvantage.[9] The rate of child deaths in areas of low to very low socio-economic status was 41.8 per 100,000 children aged 0–17 years, compared to 31.2 in moderate socio-economic status areas and 25.2 in high to very high socio-economic status areas (5-year average).[10]

Figure 1.7 illustrates the rates of deaths from external and unexplained causes, taken together, increase with increasing socio-economic disadvantage. Within the cause types, differences in rates of transport, drowning and unexplained deaths between areas of greatest and least disadvantage were statistically significant.

Figure 1.7: SEIFA of usual place of residence by selected causes of death (rate), 2016–17 to 2020–21



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

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

10 SEIFA quintiles 1 (most disadvantaged) and 2 are combined and referred to as 'low to very low' socio-economic areas in this report, moderate refers to quintile 3, and quintiles 4 and 5 (most advantaged) are combined to 'high to very high'. Rates exclude deaths of children whose usual residence was outside Queensland.

Aboriginal and Torres Strait Islander children

Indigenous status information

The information in the Child Death Register is based on the Aboriginal and Torres Strait Islander status recorded on source documents. Where Indigenous status for an individual is inconsistent between the sources, the QFCC applies business rules to decide the individual status allocated for reporting from the Register.

The redesign of the Child Death Register has allowed additional source records on the Aboriginal and Torres Strait Islander status of deceased children to be included in the Register. The business rules have been reviewed to align with the best practice approaches described by the Australian Institute of Health and Wellbeing and more recent research findings.

Following these processes, an audit was undertaken of the decisions in the Register resulting in changes in status for some children. As a result, there may be minor differences from previously reported mortality data by Indigenous status.

Aboriginal and Torres Strait Islander children

71
child deaths in 2020–21

41 children died of natural causes	**3** from transport incidents	**4** from drowning	**4** from other non-intentional injuries
4 from suicide	**1** from fatal assault and neglect	**3** died of SIDS and undetermined causes	**11** cause not yet determined

Aboriginal and Torres Strait Islander children are over-represented in child deaths.

The mortality rate for Indigenous children was 69.6 deaths per 100,000 Indigenous children aged 0–17 years, compared to 29.6 deaths per 100,000 non-Indigenous children (3-year average), indicating the Indigenous mortality rate was 2.3 times the rate for non-Indigenous children for all causes.[11]

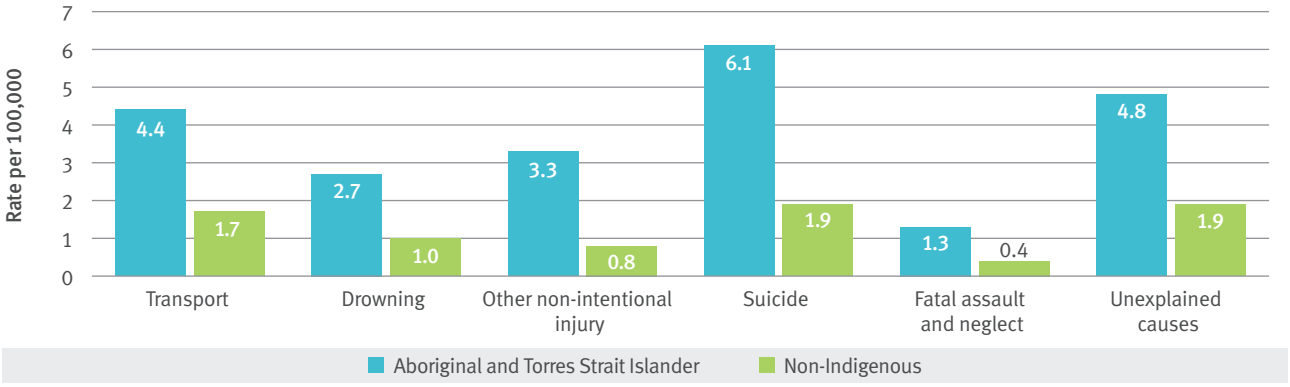
The Aboriginal and Torres Strait Islander infant mortality rate was 6.5 deaths per 1,000 Indigenous births, compared to 3.5 deaths per 1,000 non-Indigenous births (3-year average).

11 See **Appendix A Table A.2** for detailed data. Tables with data from 2004 are available online at **http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death**

Figure 1.8 illustrates the over-representation of Aboriginal and Torres Strait Islander children in deaths from external and unexplained causes. Mortality rates for Indigenous children were more than 3 times the non-Indigenous child mortality rates for:

- suicide
- other non-intentional injury.

Figure 1.8: Selected causes by Aboriginal and Torres Strait Islander status (rate), 2016–17 to 2020–21



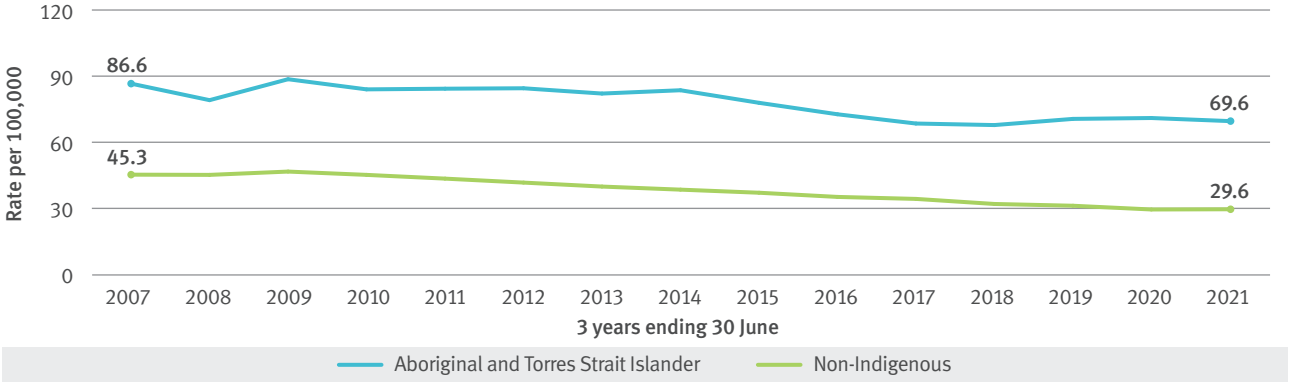
Notes: Rates calculated per 100,000 population aged 0–17 years in each category, averaged over 5 years.

Trends

Indigenous child mortality rates have decreased over the 17-year period, as shown in Figures 1.9 and 1.10. Aboriginal and Torres Strait Islander child mortality; however, was over twice the non-Indigenous rate.

Decreases in Indigenous mortality have not kept pace with decreases in non-Indigenous mortality. The mortality rate for Indigenous children aged 0–17 years decreased on average 1.4% per year compared to the non-Indigenous rate with an average decrease of 3.2%.

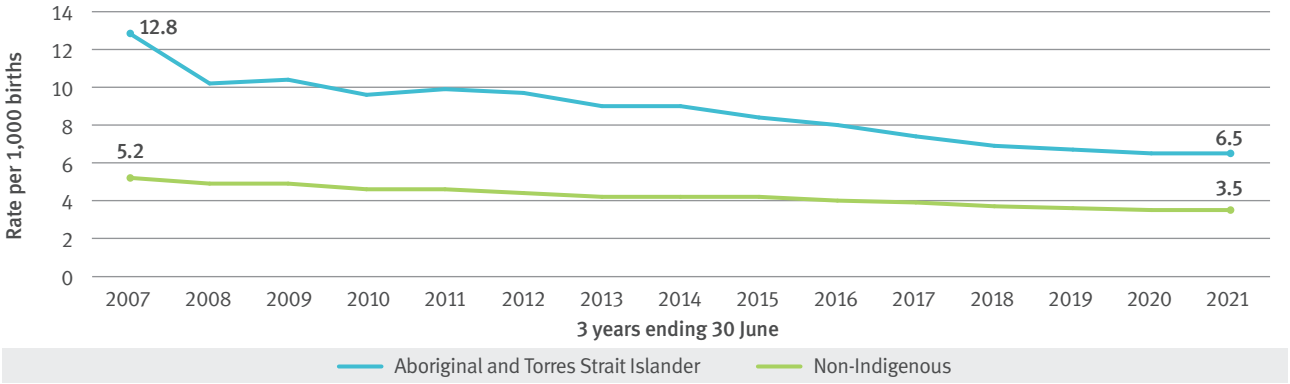
Figure 1.9: Child deaths by Aboriginal and Torres Strait Islander status (3-year rolling rate), 2004–07 to 2018–21



Notes: Rates calculated per 100,000 Aboriginal and Torres Strait Islander and non-Indigenous children aged 0–17 years, averaged over 3 years.

There was a greater reduction in the Aboriginal and Torres Strait Islander infant mortality rate, which decreased from 12.8 per 1,000 live births in 2004–07 to 6.5 per 1,000 births in 2018–21 (down 4.6% per year on average). In comparison the non-Indigenous rate decreased by 2.9% per year on average over the same period.

Figure 1.10: Infant deaths by Aboriginal and Torres Strait Islander status (3-year rolling rate), 2004–07 to 2018–21



Notes: Rates calculated per 1,000 Aboriginal and Torres Strait Islander and non-Indigenous live births, averaged over 3 years.

Children known to the child protection system

The Department of Children, Youth Justice and Multicultural Affairs, 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 1 year before the child's death:

- Child Safety 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.

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 a child concern report, notification, investigation and assessment, ongoing intervention, child protection orders or placements) in the 12 months before the relevant year (e.g. the denominator for 2020–21 is the number of children known to Child Safety during 2019–20).

Children known to the child protection system

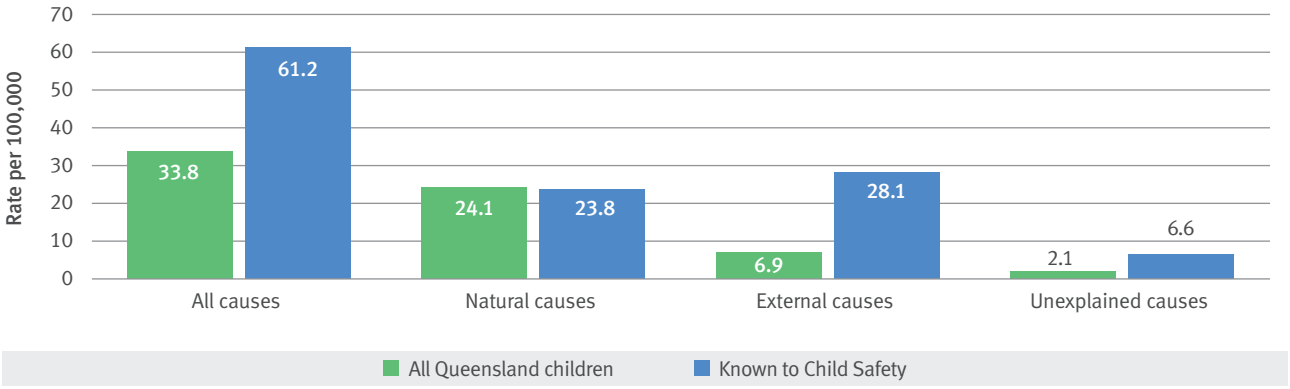
53
deaths of children in 2020–21

17 children died of natural causes	**5** from transport incidents	**5** from drowning	**6** from other non-intentional injuries
4 from suicide	**2** from fatal assault and neglect	**5** died of SIDS and undetermined causes	**9** cause not yet determined

The mortality rate for children known to Child Safety was almost twice the Queensland child mortality rate, as shown in Figure 1.11 (respectively 61.2 deaths per 100,000 and 33.8 deaths per 100,000 averaged over 5 years).[12] For external causes of death, the mortality rate for children known to Child Safety was 4 times the rate for all children in Queensland.

Children known to the child protection system may have experienced significant disadvantage, abuse and neglect prior to coming to the attention of authorities. The risk factors (often multiple) present in these families may explain in part the over-representation of children known to the child protection system in child death statistics.

Figure 1.11: Deaths by child protection system status and major cause group (rate), 2016–17 to 2020–21



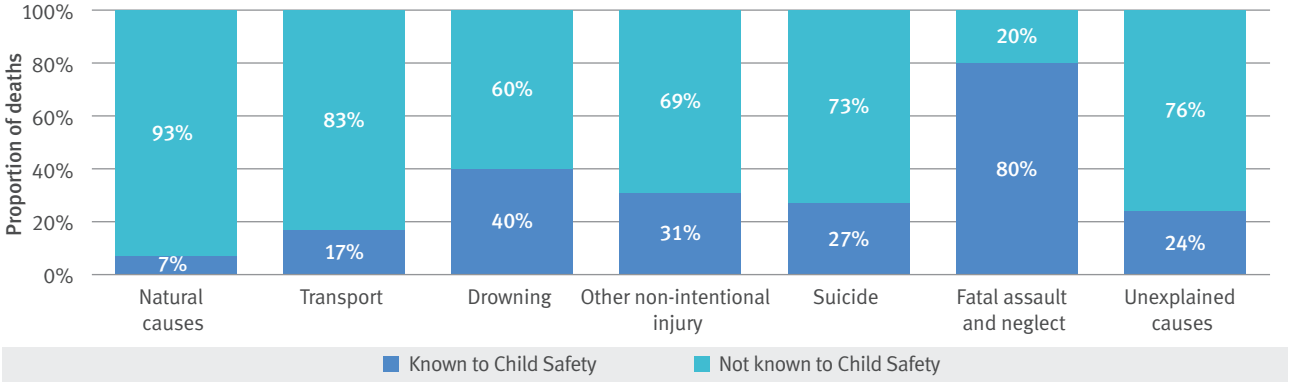
Notes: Rates calculated per 100,000 children known to Child Safety in the year prior to 30 June and per 100,000 population aged 0–17 years, averaged over 5 years.

Over the past 5 years, mortality rates for children known to Child Safety have been more than 3 times the Queensland child mortality rates for:

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

While some 8% of Queensland children were known to Child Safety in a 12 month period (averaged over 5 years), Figure 1.12 illustrates the over-representation of children known to Child Safety in deaths from external and unexplained causes.

Figure 1.12: Deaths by child protection system status and primary cause of death (proportion), 2016–17 to 2020–21



12 See **Appendix A Table A.3** for detailed data. Tables with data from 2004 are available online at **http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death**

Child deaths from fatal assault and neglect

Three deaths were recorded as a result of assault and neglect in Queensland during 2020–21, based on information available to the QFCC at the time of reporting. Two of the deaths were in relation to incidents which occurred some years earlier.

Thirty children died in 25 fatal assault and neglect incidents in the last 5 years. Twenty-four deaths (80%) were categorised as intra-familial, that is the alleged perpetrator was a parent, family member or person acting in a parental role. Ten children (32%) died in domestic homicides, including murder-suicide incidents where the alleged perpetrator also took his or her own life. Seven children were found to have died as a result of child abuse, 4 died from neglect and 3 were other intrafamilial incidents.

Six deaths in the last 5 years were extra-familial homicides.

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

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*.[13]

Five children in 2020–21 had been reported missing to the police at the time of their death. Two of the 5 reported missing were also known to Child Safety.

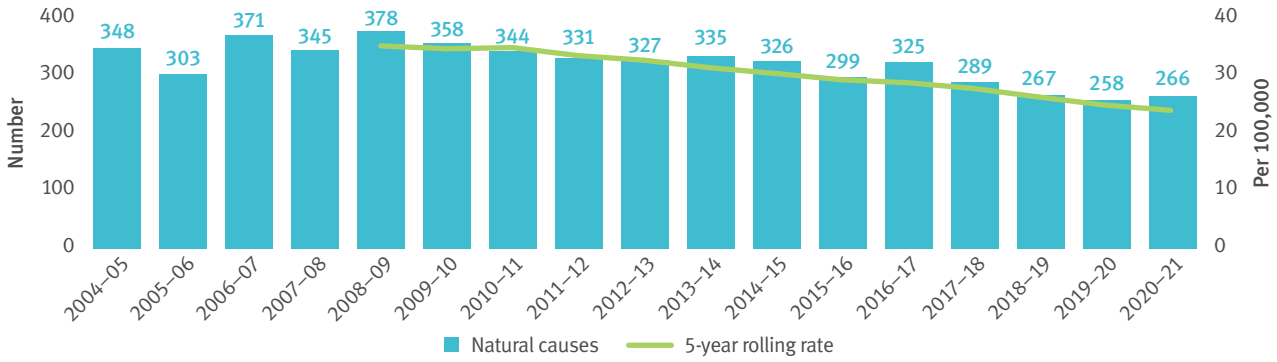
13 QFCC (2016) ***When a child is missing: Remembering Tiahleigh—a report into Queensland's children missing from out-of-home care***, QFCC, Queensland Government.

2 Deaths from natural causes

Overview

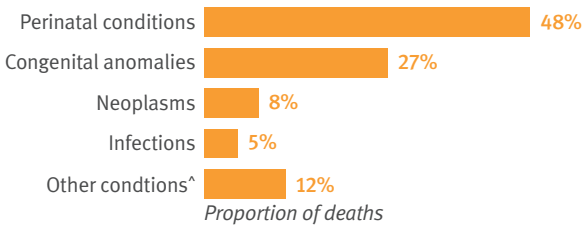
- 266 children and young people died from natural causes in 2020–21.
- Decreasing trend in child deaths from natural causes over time.
- Perinatal conditions was the leading cause of death for infants (under 1 year).
- Neoplasms (cancers) was the leading cause of death for ages 5–9 and 10–14 years.

Natural cause deaths in Queensland



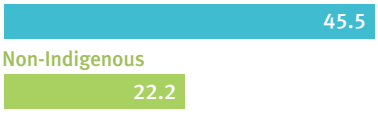
Five-year summary (2016–21)

Cause of death category



Proportion of deaths

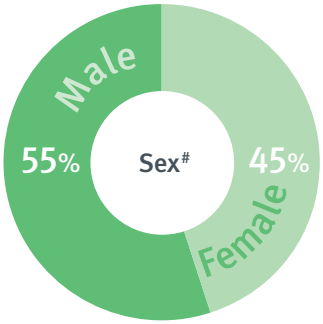
Indigenous status



Rate per 100,000

Age

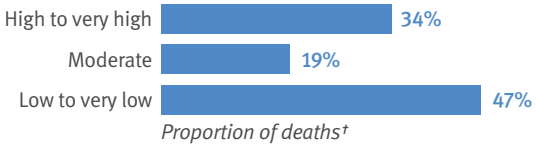
Proportion of deaths



Remoteness

Proportion of deaths†

Socio-economic status



Proportion of deaths†

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

^ all other diseases and conditions within natural causes
 # not shown, 0.1% sex indeterminate
† of Qld resident deaths only
** in the 12 months prior to death*

Classification of causes of death using ICD-10

The QFCC uses *the International statistical classification of diseases and related health problems, tenth revision* (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.

Key findings

During 2020–21, there were 266 deaths of children and young people from diseases and morbid conditions (or natural causes) registered in Queensland, at a 5-year average rate of 24.1 deaths per 100,000 children aged 0–17 years.[14,15]

The majority of child deaths each year are from natural causes. Over the last 5 years, 71% of all deaths were from natural causes.

The largest categories within natural causes were perinatal conditions and congenital anomalies, which in 2020–21 were the causes for 126 and 73 deaths respectively. Together, these causes accounted for 75% of all deaths from natural causes.

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

Sex

During 2020–21, there were 141 deaths of male children from natural causes, compared to 125 female children, with mortality rates of 26.0 deaths per 100,000 male children and 22.1 deaths per 100,000 female children (5-year average).

Child mortality from natural causes is marginally higher for males compared to females, with the male mortality rate over the last 17 years being about 1.2 times the rate for females (32.2 deaths per 100,000 male children and 27.1 deaths per 100,000 female children).

Age

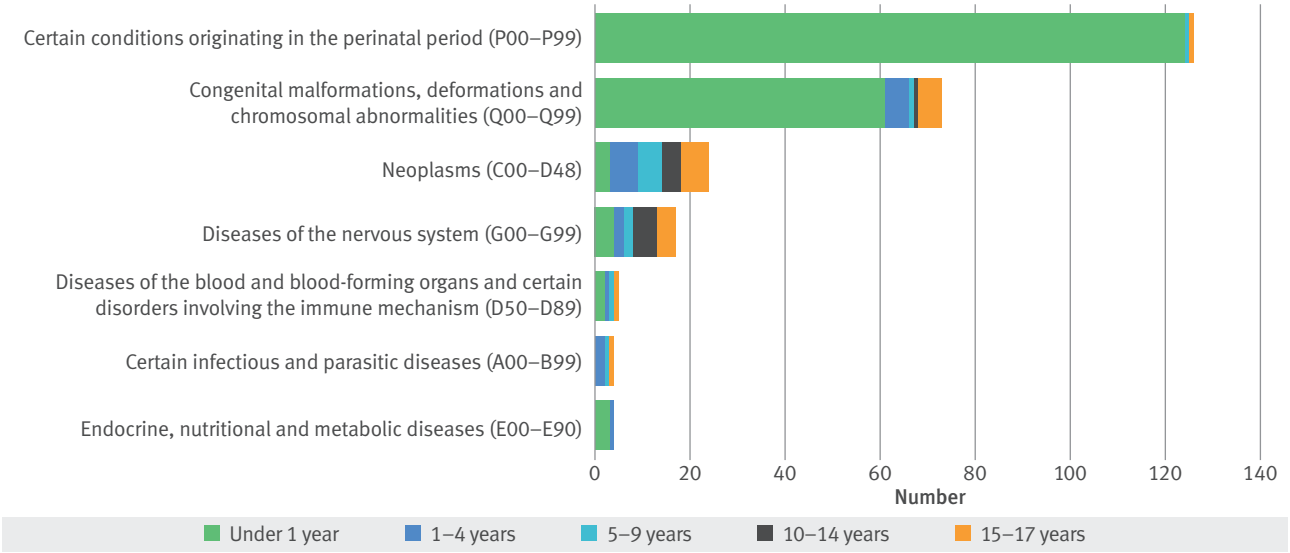
Figure 2.1 illustrates the causes of death from natural causes, for each age category. The following findings by age were evident:

- Almost all natural causes of death for infants (under 1 year) were from perinatal conditions and congenital anomalies (93% of all causes within this group).
- Neoplasms (cancer) was the primary natural cause for the remaining age groups (1–4 years, 5–9 years, 10–14 years and 15–17 years).

14 Deaths are reported as explained diseases and morbid conditions only. Deaths from unexplained causes (referred to as unexplained diseases and morbid conditions in earlier reports) are included in Chapter 7.

15 Tables with data from 2004 are available online at http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death

Figure 2.1: Deaths from natural causes by ICD-10 chapter and age (number), 2020–21



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, the large majority 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, divided into the neonatal and post-neonatal periods. Neonatal deaths are those which occur in the first 28 days after birth (0–27 days), while post-neonatal deaths occur during the remainder of the first year (28–364 days).

Neonatal period (0–27 days)

Of the 1,063 infant deaths due to natural causes in the last 5 years, 82% of deaths occurred in the neonatal period. Of the 875 neonatal deaths, 63% occurred on the day of birth and a further 19% had occurred by the end of the first week.

The two leading causes—perinatal conditions (611 deaths) and congenital anomalies (242 deaths)—represent 97% of the neonatal deaths from natural causes.

Post-neonatal period (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 (69 deaths or 37%).[16]

Table 2.1: Age and cause of infant deaths from natural causes (number), 2016–17 to 2020–21

Age		Cause of death			
		Perinatal conditions (P00–P96)	Congenital anomalies (Q00–Q99)	Other diseases and morbid conditions[b]	Total
Neonatal (age in days)	<1	382	163	5	550
	1–6	109	49	5	163
	7–27	120	30	12	162
Neonatal total		611	242	22	875
Post-neonatal (age in months)	1[a]	28	22	13	63
	2	10	12	11	33
	3	2	6	7	15
	4	4	10	10	24
	5	4	3	3	10
	6	2	5	5	12
	7	1	5	4	10
	8	1	3	5	9
	9	0	1	3	4
	10	0	1	2	3
	11	2	1	2	5
Post-neonatal total		54	69	65	188
Total infants		665	311	87	1,063

a 28 days to <two months.

b 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 respiratory system (J00–J99); diseases of the digestive system (K00–K93); symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99).

16 The leading cause of death in the post-neonatal period was SIDS and undetermined causes (93 deaths), see Table 1.1.

Major causes

Perinatal conditions

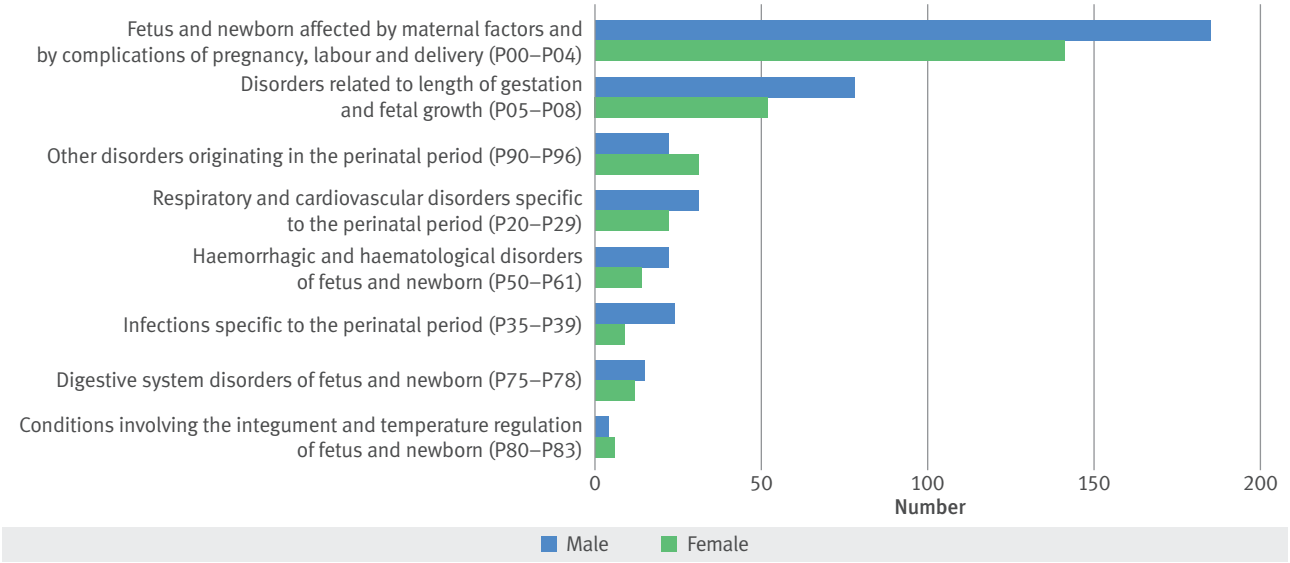
During 2020–21 there were 126 child deaths from perinatal conditions, at a mortality rate of 11.6 deaths per 100,000 children aged 0–17 years (5-year average).

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 foetal 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.

As shown in Figure 2.2, over the past 5 years the majority of deaths due to perinatal conditions resulted from the foetus and/or newborn being affected by maternal factors or complications of pregnancy, labour and delivery (48%, 326 deaths), followed by disorders related to the length of gestation and foetal growth (19%, 130 deaths). Together, these causes accounted for 68% of all deaths due to perinatal conditions (456 of 673 deaths).[17]

Figure 2.2: Deaths due to perinatal conditions by sex (number), 2016–17 to 2020–21



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

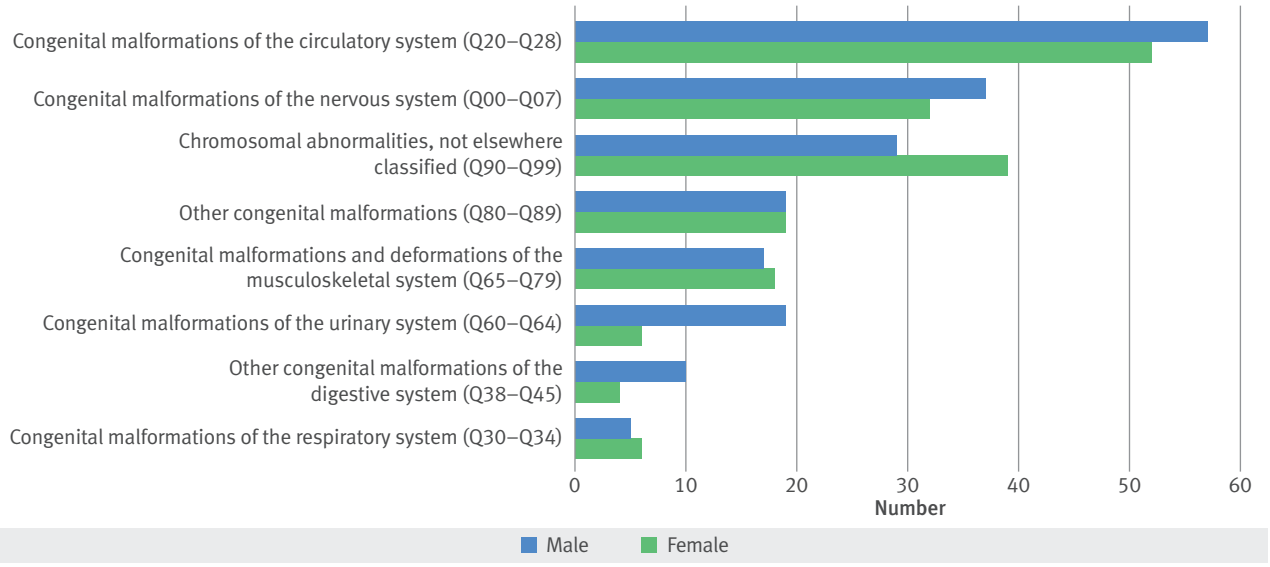
17 Noting a small number of deaths from perinatal conditions occur in children aged one year and over.

Congenital anomalies

During 2020–21 there were 73 child deaths from congenital anomalies, at a 5-year average rate of 6.4 deaths per 100,000 children aged 0–17 years. Congenital anomalies are mental and physical conditions present at birth which are either hereditary or caused by environmental factors.[18]

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 (29%, 109 deaths) and congenital malformations of the nervous system (19%, 70 deaths).

Figure 2.3: Deaths due to congenital anomalies by sex (number), 2016–17 to 2020–21



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

Neoplasms (cancers and tumours)

The term 'neoplasm' is often used interchangeably with the words 'tumour' and 'cancer'.[19] Cancer includes a range of diseases in which abnormal cells proliferate and spread out of control. Normally, cells grow and multiply in an orderly way to form organs which have a specific function in the body. However, occasionally cells multiply in an uncontrolled way after being affected by a carcinogen, or after developing a random genetic mutation. They may form a mass called a tumour or neoplasm. A 'benign neoplasm' refers to a non-cancerous tumour, whereas a 'malignant neoplasm' usually refers to a cancerous tumour (that is, cancer). Benign tumours do not invade other tissues or spread to other parts of the body, although they can expand to interfere with healthy structures.

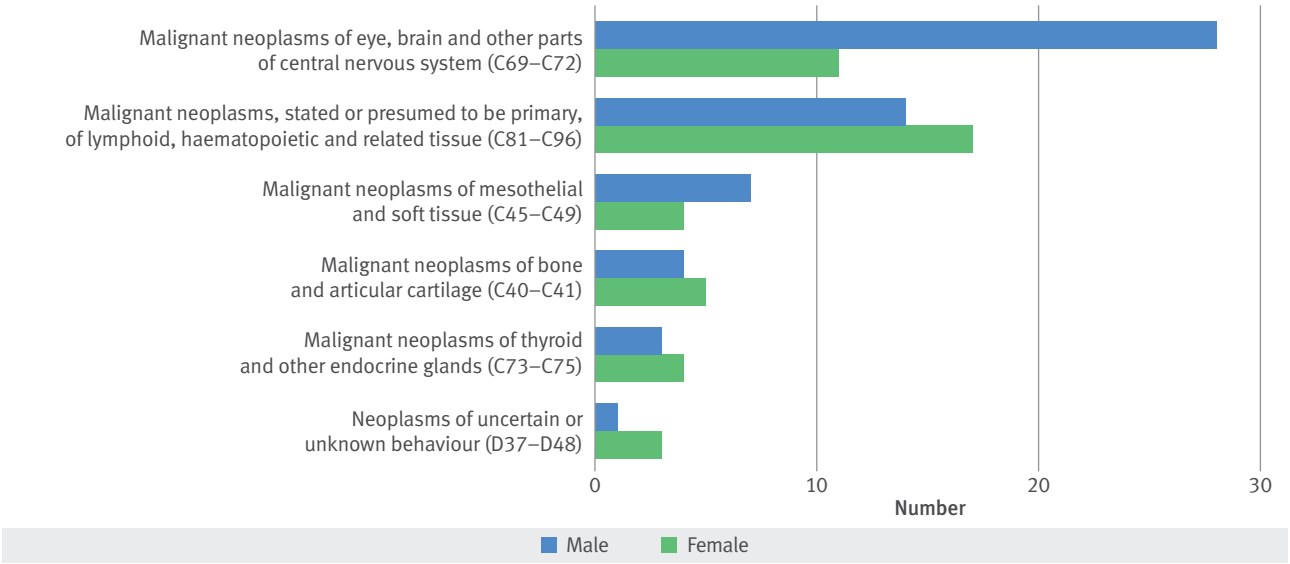
Twenty-four children and young people died from neoplasms (cancer) in 2020–21, at a 5-year average rate of 2.0 deaths per 100,000 children aged 0–17 years.

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

19 ICD-10 Chapter II, Neoplasms.

Over the last 5 years 116 children lost their lives to cancers and tumours. As illustrated in Figure 2.4 the most common types were neoplasms of the eye, brain and other parts of the central nervous system (39 deaths or 34%),[20] followed by malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (31 deaths or 27%).[21] Neoplasms was the leading cause of death (of all causes) for children aged 5–9 and 10–14 years, as noted in **Chapter 1**.

Figure 2.4: Deaths due to neoplasms by sex (number), 2016–17 to 2020–21



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.[22] Five children died from infections in 2020–21. Over the last 5 years 71 children and young people died from infections. The highest number of infections were caused by influenza and pneumonia (25 deaths or 35%).[23]

20 ICD-10 Chapter II, Neoplasms, Malignant neoplasms of eye, brain and other parts of the central nervous system (C69–C72).

21 ICD-10 Chapter II, Neoplasms, Malignant neoplasm, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81–C96).

22 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 J00–22 only.

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

Deaths from notifiable conditions

A disease may be notifiable to state health authorities if there is potential for its control or if there is a demonstrated public interest in a condition.[24] Key factors considered when deciding if a condition should be notifiable include the overall impact of the disease on morbidity and mortality, 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.

Twenty-eight children and young people died from a notifiable condition over a 5-year period as shown in Table 2.2. Fifteen (54%) of the 28 deaths due to notifiable conditions were the result of potentially vaccine-preventable conditions, with the most common of these being influenza, invasive meningococcal disease and invasive pneumococcal disease.[25,26]

COVID-19 was added to Queensland's Schedule of Notifiable Conditions in the *Public Health Regulation 2018* in January 2020. There have been no child deaths to date.

Table 2.2: Child deaths due to notifiable conditions (number), 2016–17 to 2020–21

Notifiable condition	Total
Influenza^	5
Invasive group A streptococcal infection	6
Pneumococcal disease (invasive)^	5
Meningococcal disease (invasive)^	4
Melioidosis	3
Salmonellosis	2
Haemophilus influenzae type b infection (invasive)	1
Listeriosis	1
Tuberculosis	1
Total	28

^ *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.*

Notes: Includes 4 deaths where the usual residence was outside of Queensland. 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 the QFCC use date of death registration to define the reporting period, which may occur sometime after the notification of disease.

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

25 In Australia, publicly funded immunisation programs are administered by state and territory governments. The current National Immunisation Program Schedule (valid from July 2020) 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 (chickenpox), influenza and human papillomavirus (HPV).

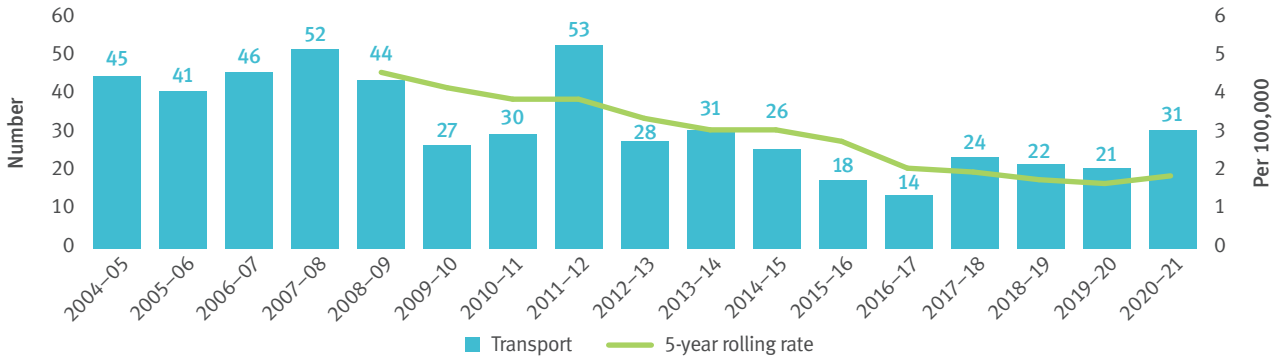
26 Vaccines are available for only selected strains of influenza, meningococcal disease and pneumococcal disease.

3 Transport-related deaths

Overview

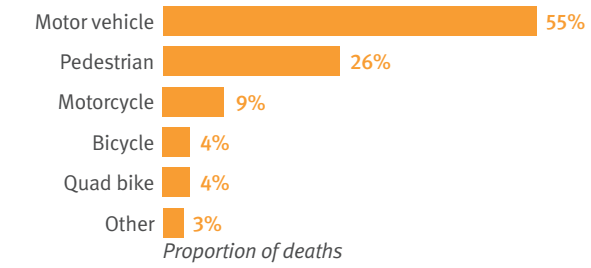
- 31 deaths from transport-related incidents in 2020–21.
- Over the last 5 years 55% of deaths were in motor vehicle incidents.
- Of the 112 transport-related deaths in the last 5 years, 9 were young people travelling in vehicles identified as stolen.
- Decreasing trend in transport deaths overall; however, 31 deaths this year is the highest number recorded in 7 years.

Transport-related deaths in Queensland



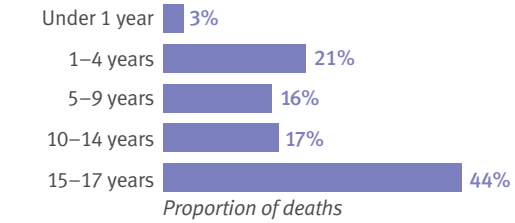
Five-year summary (2016–21)

Incident type



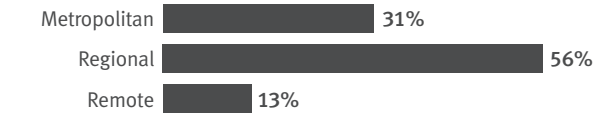
Proportion of deaths

Age



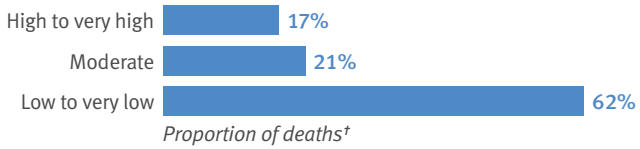
Proportion of deaths

Remoteness

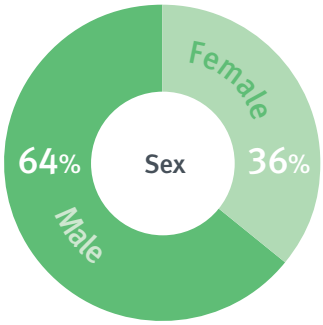


Proportion of deaths†

Socio-economic status



Proportion of deaths†



Risk factors in fatal motor vehicle crashes

56% excessive speed	**47%** no or inappropriate restraint
39% driver aged ≤18 years with peer passenger/s	**35%** inexperienced driver
31% alcohol or substance use	**31%** unlicensed, suspended or disqualified driver

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

† of Qld resident deaths only

Key findings

In 2020–21, the deaths of 31 children and young people from transport-related incidents were recorded in Queensland, representing a 5-year average rate of 1.9 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.

The rates of transport-related child fatalities have declined over the last 17 years, with the 5-year rolling rates dropping by 6.6% per year on average. Thirty-one deaths in 2020–21; however, is the highest annual number in the last 7 years.

Nature of transport incidents

During 2020–21, 19 deaths were in motor vehicle crashes, 5 were motorcycle incidents, 4 were pedestrian incidents, 2 were quad bike incidents and 1 was a bicycle incident.

As illustrated in Figure 3.1, over the last 5 years, the majority of transport-related fatalities were motor vehicle deaths (55%) followed by pedestrian deaths (26%).

Figure 3.1: Incident type (proportion), 2016–17 to 2020–21

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

Sex

During 2020–21, 14 female children died from transport-related incidents, compared to 17 male children.

Over the last 5 years, the average annual transport-related mortality rate for males was 1.7 times the rate for females (2.4 per 100,000 males and 1.4 per 100,000 females respectively). Higher rates of death for males has been attributed to, in part, greater risk-taking behaviours displayed by young males—this includes risk-taking behaviours of male drivers.[27]

Age

Of the 31 transport-related fatalities during 2020–21, 1 was a child aged under 1 year, 5 were of children aged 1–4 years, 4 were of children aged 5–9 years, 5 were of children aged 10–14 years and 16 were of children aged 15–17 years.

Over the last 5 years, children aged 15–17 years followed by 1–4 years had the highest rates of mortality from transport-related incidents compared to children from other age groups (5.3 and 1.8 per 100,000 children in each group respectively, compared to 1.2 per 100,000 children aged 10–14 years and 1.1 per 100,000 children aged 5–9 years).

27 AIHW (2011) ***Young Australians: Their health and wellbeing***, cat. no: PHE 140, AIHW, Australian Government.

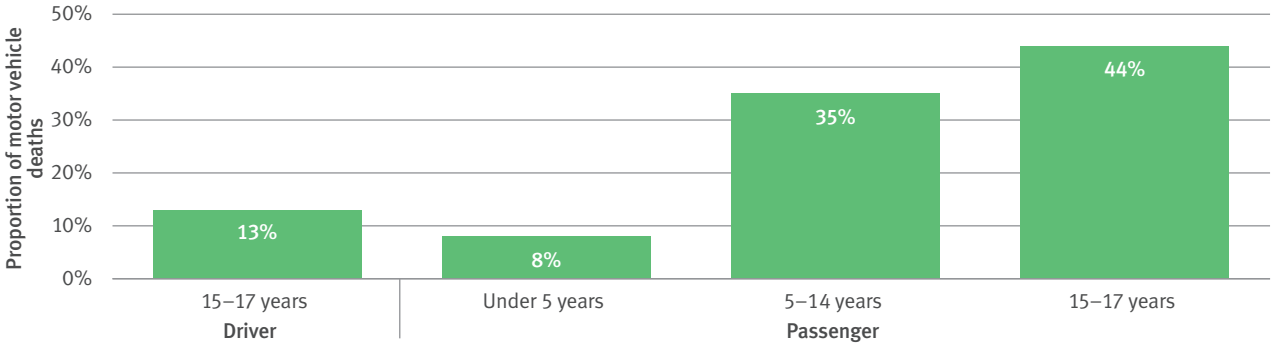
Transport-related characteristics

This section provides information about specific types of transport-related incidents and an overview of charges and criminal proceedings in relation to transport-related fatalities in Queensland.

Motor vehicle incidents

Figure 3.2 illustrates the role of the child or young person in motor vehicle fatalities over the last 5 years. Of the 62 motor vehicle incident deaths, 13% (8) were driving at the time of the incident while 87% (54) were passengers.

Figure 3.2: Motor vehicle incidents by role and age category (proportion), 2016–17 to 2020–21



Multiple fatalities

Of the 17 motor vehicle incidents where 19 children and young people died in 2020–21, 7 incidents involved multiple fatalities (including children and/or adults). One incident resulted in the deaths of 4 children, in 1 incident 2 children died, and in 5 incidents there were adult fatalities in addition to a child fatality.[28]

Roadway type

Of the 19 children and young people who died in motor vehicle incidents in 2020–21, almost half (8) died on major roads (speed limit between 60 and 100km/hr). However, over the last 5 years, 45% (28 out of 62) of child deaths in motor vehicle crashes occurred on highways (greater than or equal to 100km/hr), compared to 18% on major roads and 16% on residential streets.

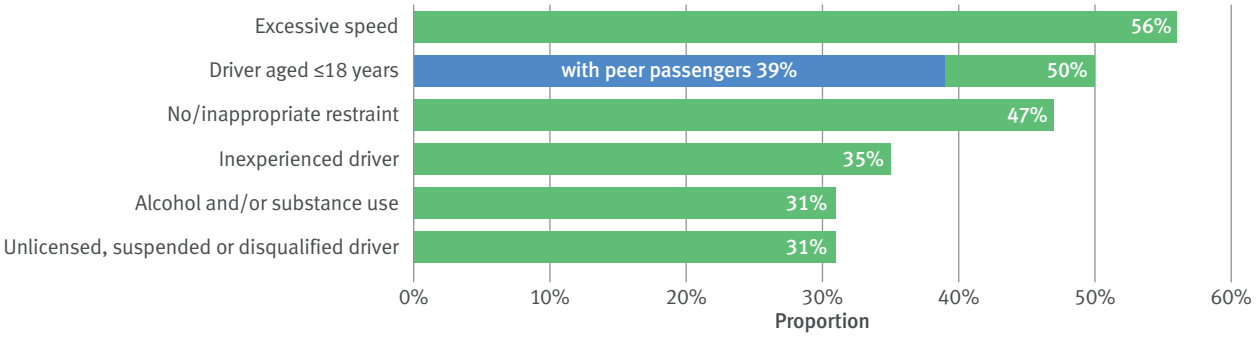
28 Two child deaths in multiple fatality incidents were recorded in 2019–20 based on the date of death registration.

Risk factors associated with motor vehicle crashes

Of the 19 motor vehicle fatalities in 2020–21, 18 were children and young people travelling as passengers. Speeding was identified as a risk factor in just over half of the deaths, coupled with other risk factors such as driver inexperience and alcohol or substance use.

The most common risk factors in motor vehicle crashes over the last 5 years are illustrated in Figure 3.3.[29]

Figure 3.3: Most common risk factors in motor vehicle incidents (proportion), 2016–17 2016–17 to 2020–21



Pedestrians

Four children and young people died in pedestrian incidents during 2020–21, with 3 incidents occurring in the context of a low-speed vehicle run-over and 1 during a road or railway crossing.

Over the last 5 years, there have been 29 pedestrian incidents, the majority of which were low-speed vehicle run-overs (55%) followed by road and railway crossings (31%).

'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 whilst 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 16 LSVR incidents, most commonly occurring at the child's home or the home of a person known to the child (88%), with the driver most frequently identified as a parent or other close relative (63%).

Children aged between 5–14 years accounted for 5 pedestrian deaths over the 5-year period, 4 of which occurred while travelling on or crossing a roadway. Two deaths involved self-propelled kick scooters.[30]

Young people aged 15–17 years were identified in 4 deaths, with alcohol and/or substance misuse at the time of the incident identified as the most common risk factor.

29 It should be noted individual transport-related fatalities may have had multiple risk factors present.

30 Incidents involving wheeled toys without the involvement of another motor 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.

Motorcycles, quad bikes and bicycles

There were 5 motorcycle deaths in 2020–21. Over the last 5 years, there have been 10 deaths of children and young people riding motorcycles. Almost all of the motorcycles were being driven by the child or young person with excessive speed being identified as the most commonly reported risk factor.

There were 2 quad bike[31] deaths in 2020–21. Over the last 5 years, there have been 4 deaths of children and young people riding quad bikes. Three of the 4 deaths were children under the age of 16, driving or riding as passengers.

There was 1 death of a child in a bicycle incident in 2020–21. Over the last 5 years, there have been 4 deaths of children and young people riding bicycles. Three of the 4 incidents involved older children riding on or crossing major roads.

Introduction of new quad bikes safety standard

The *Consumer Goods (Quad Bikes) Safety Standard* was introduced in 2019, and the first stage of the mandatory requirements came into force in October 2020 and related to information affixed to the vehicles.

In the second and final stage, from October 2021 new general use quad bikes will need to conform with minimum standards for stability on slopes as well as to have an operator protection device or rollover bar to reduce the risk of serious crush injuries and deaths in the event of a rollover. The new standards do not apply to second-hand quad bikes other than those imported into Australia.

Off-road fatalities

Eleven children died in off-road transport environments in Queensland during 2020–21. Four deaths were motorcycle incidents, 3 were pedestrian incidents and 2 deaths each in motor vehicle and quad bike incidents. The deaths of children and young people occurring in off-road environments are not included in the official road toll. Over the last 5 years, a total of 37 children and young person died in off-road environments.

Charges and criminal proceedings

Of the 31 transport-related fatalities in 2020–21, 6 resulted in driving-related criminal charges (i.e. dangerous operation of a motor vehicle causing death). Those charged were all identified as friends driving the vehicle in which the child was travelling, in single vehicle motor vehicle accidents.

Over the last 5 years, there were criminal charges in relation to 27 of the 112 transport incident-related deaths. The persons charged were identified as either friends (59%); persons unknown to the child (26%) or parents, siblings or other family members (15%).

Traffic infringements, as opposed to criminal charges, were identified in relation to the death incident for 1 death in 2020–21 and 15 deaths over the 5-year period. The most common infringement identified was careless driving of a motor vehicle (driving without due care and attention).

Over the 5-year period, 9 young people in 5 distinct incidents were travelling in a vehicle that was identified as having been stolen.

31 Also known as all-terrain vehicles or ATVs. Includes side-by-side vehicles (SSVs) (also known as utility task vehicles (UTVs)).

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 almost 5,000 transport incidents in the last year, including both fatal and non-fatal injuries. The majority involved motor vehicles, followed by bicycle and motorcycle incidents. The highest number of incidents involved young people aged 15–17 years.

Table 3.1: Queensland Ambulance Service responses to transport incidents (number), 2020–21

Type of incident	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Motor vehicle	134	442	536	712	1,284	3,108
Bicycle	0	38	104	319	179	640
Motorcycle	0	16	90	295	234	635
Scooter	0	12	37	87	32	168
Pedestrian	*	16	17	37	18	88
Quad bike	0	*	17	23	16	56
Watercraft	0	*	*	8	22	30
Other (e.g. go kart, skateboard)	*	*	11	31	19	61
Unknown type	7	23	31	39	50	150
Total	141	547	843	1,551	1,854	4,936

Source: Queensland Ambulance Service (Aug-2021)

** Not reported for numbers less than 5 and excluded from totals.*

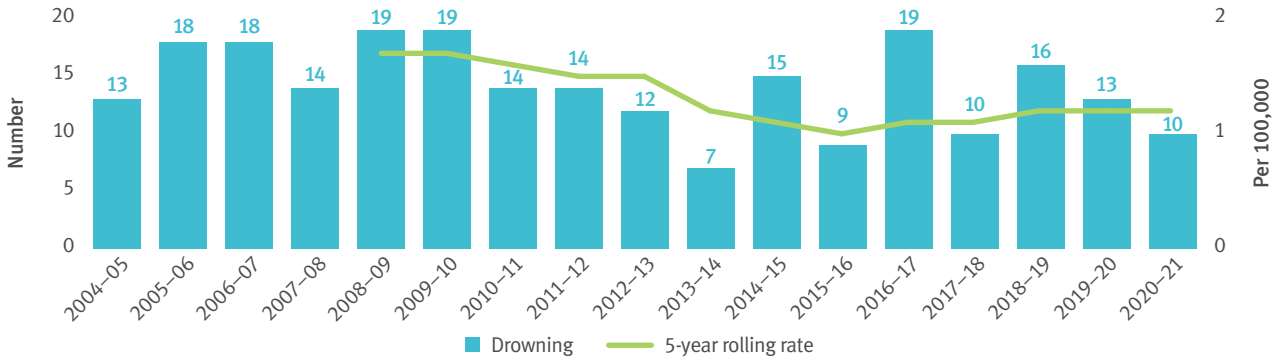
Notes: Excludes data for children and young people whose gender was not recorded (n = 18).

4 Drowning

Overview

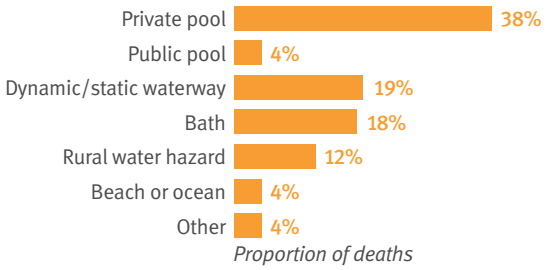
- 10 drowning deaths of children and young people in 2020–21.
- Children aged 1–4 years are most at risk of drowning, predominately in backyard swimming pools and rural water hazards.
- Other risk groups identified:
  - infants and young children if unsupervised while bathing
  - young children around pools at the homes of extended family, friends, or neighbours
  - young people who were international visitors or had recently moved to Australia.

Drowning deaths in Queensland



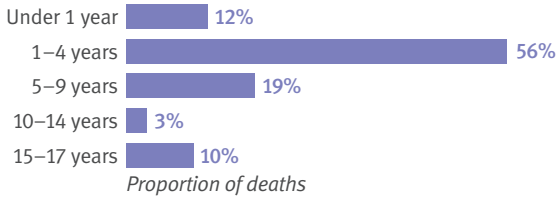
Five-year summary (2016–21)

Water hazard type



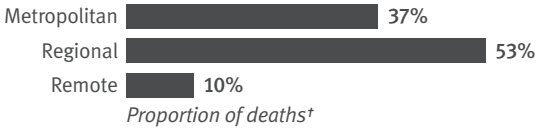
Proportion of deaths

Age



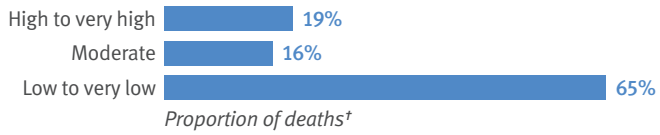
Proportion of deaths

Remoteness



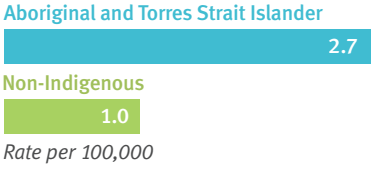
Proportion of deaths†

Socio-economic status

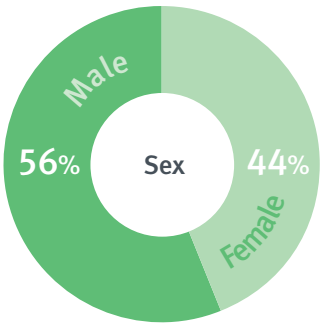


Proportion of deaths†

Indigenous status



Rate per 100,000



Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

** in the 12 months prior to death* *† of Qld resident deaths only*

Key findings

During 2020–21, the drowning deaths of 10 children and young people were registered in Queensland, at a rate of 1.2 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.

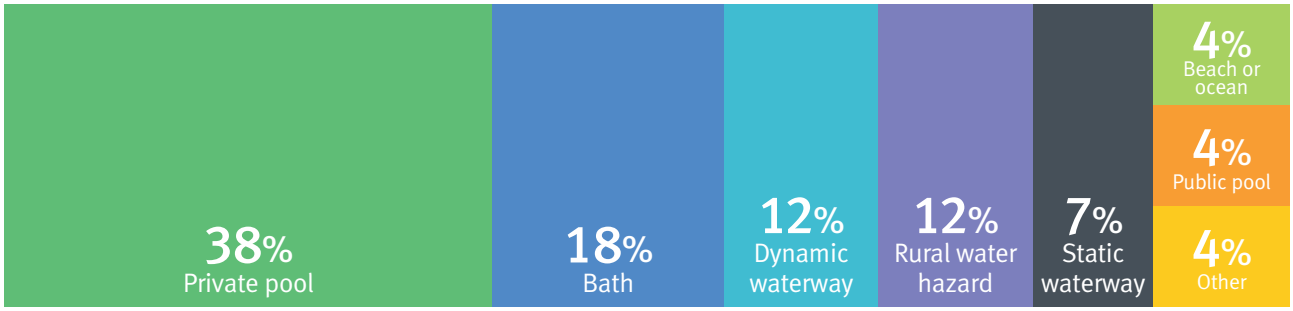
Types of drowning-related deaths

During 2020–21, 2 pool drownings and 8 non-pool related death incidents were recorded for the period.

As illustrated in Figure 4.1, over the last 5 years the most common incident locations from child drownings was in private pools (38%) followed by bathtubs (18%). Almost all of the 26 private pool incidents were residential (homes, townhouse or units), with 1 in a resort pool. Dynamic waterways (e.g. rivers, creeks) made up 12% of the incidents and static waterways (e.g. lakes, reservoirs) were 7%.

Rural water hazard incidents (e.g. rural dams) has risen to be 12% of drownings over the past 5 years with 75% of these occurring in the in the last 2 years.

Figure 4.1: Drowning incident type (proportion), 2016–17 to 2020–21



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

Sex

During 2020–21, 4 male children and 6 female children died in drowning incidents. Over the last 5 years, however; males made up 56% of children who drowned, while 44% were female.

Age

During 2020–21, children aged 1–4 years made up the largest group of drowning deaths (5 deaths, 50%)—a pattern which has been found in all previous reporting periods, and 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

Eight children under the age of 1 year have drowned over the last 5 years, accounting for 12% of all child drowning deaths. All 8 deaths were bathing incidents, and in 4 of these the infant was co-bathing with other children at the time. All 8 infants were not being actively supervised by an adult at the time of the incident, with the adult supervisor aware of the infant's presence in the bath in 7 of the incidents.

1–4 years

Over the last 5 years, 38 children aged 1–4 years drowned, accounting for 56% of all drowning deaths over this period. Twenty-three of these deaths (61%) occurred in private pools, while 6 deaths occurred in rural water hazards (16%).

Pool fencing was non-compliant in 22 of the 23 incidents of private pool drownings. Non-compliant fencing includes the absence of fencing, fencing or gate defects or propping pool gates open. The circumstances of pool fencing and the number of drowning deaths for each is as follows:

- 17 with pool fencing believed to be non-compliant (including 6 where a gate was also propped open)
- 3 with the gate propped open and pool fencing which was otherwise compliant
- 1 where the pool fencing was compliant, and gate latched
- 2 with pool fencing absent—both were portable pools which were required to comply with pool fencing legislation.

Of the 23 private pool drowning deaths, 15 occurred at the child's usual place of residence, while 8 occurred at the homes of extended family, friends, or neighbours.

Non-pool locations also presented dangers to young children. Fifteen 1–4 year olds drowned in non-pool incidents including rural water hazards (6), bathtubs (3), and objects containing water (3).

Fifteen of the 38 1–4 year olds who drowned were known to be in, on or around water hazards (bathtubs, pools, dynamic and static waterways, beach or ocean, objects containing water and rural water hazards). None of those 15 children were within arm's reach, or being actively supervised by a capable supervisor, at the time of the incident.

5–9 years

Thirteen children aged 5–9 years drowned over the last 5 years, accounting for 19% of all drowning deaths. Six (46%) of those children were aged 5 years. The drownings involved a variety of water hazards, including pools, dynamic and static waterways, rural water hazards and baths.

In 10 of the 13 drownings (including 5 of the 5-year olds), the child was known to be in, on or around water. Of those 10, 9 were either unsupervised or not actively supervised.

10–17 years

Nine young people aged 10–17 years drowned over the 5 years (2 aged 10–14 years and 7 aged 15–17 years), accounting for 13% of all drowning deaths. The drownings occurred across a variety of water hazards, including pools, waterways (static and dynamic) and the beach/ocean.

Five of the young people were international visitors or had recently moved to Australia. Four of the young people were identified by their families as weak or non-swimmers.

Preventative factors

Supervision

Lapses in supervision of young children in, on or around water hazards has been found to be a factor in drowning deaths of young children. When a young child is known to be in, on or around water, the Royal Life Saving Society of Australia recommends the use of active supervision. Active supervision means a supervisor focusing all of their attention on the child/ren all of the time, when they are in, on or around the water. Parents need to be within arm's reach, interacting with the child/ren.[32]

A level of supervision is still required even when a child is not known to be in, on or around water. Young children can be highly mobile and may circumvent barriers to access water features. Reliance only on pool fences and gates to prevent drowning is not recommended, as breakdowns in protections can occur, such as pool gates being propped open or becoming non-compliant due to wear and tear. Accordingly, it is essential children aged under 5 years are regularly checked on by an active supervisor.

Heightened supervision is advisable when away from the home environment, such as visiting other homes with pools, or in the period after moving to a new residence.

32 Royal Life Saving Australia (no date) ***Keep Watch Actions***, RLSA website, accessed 19 August 2021.

Pool fencing

Pools in residential settings pose a considerable risk of drowning to young children. Graduated changes to Queensland pool fencing laws have increased the obligation on pool owners to enhance the safety of pool areas. In accordance with the requirements:

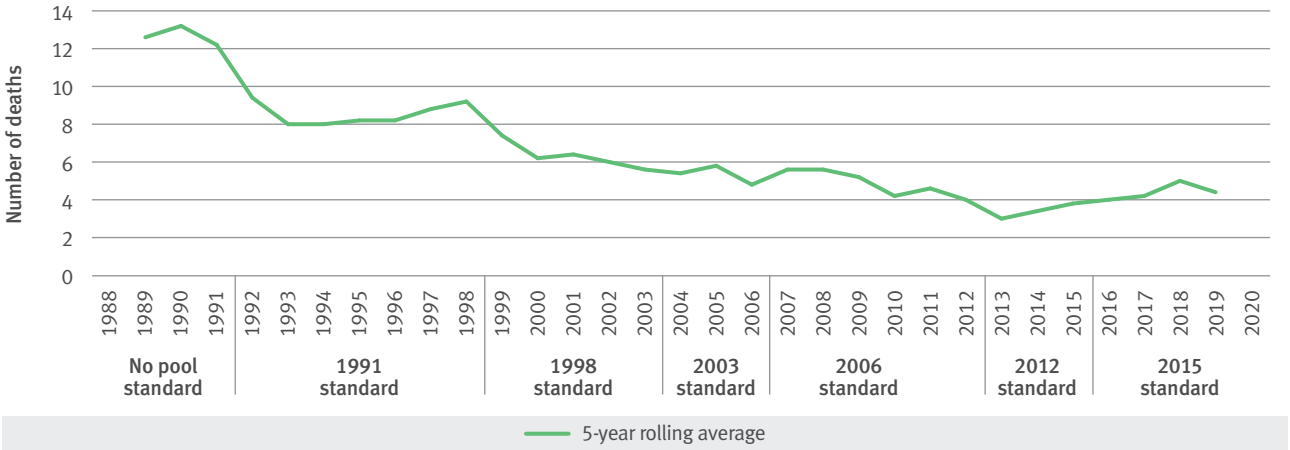
- compliant fencing is required of all pools and spas—including portable pools and spas capable of being filled with 300 millimetres or more of water
- the latest CPR sign must be displayed and be easily visible to people in or near the pool all pools must be registered on the Pools Safety Register, and
- a local government inspection is mandatory following any immersion incidents involving a child under the age of 5.

The effectiveness of swimming pool fencing is dependent upon fencing and gates being compliant with the regulation, in good working order and used correctly (such as not propping open a pool gate).

Figure 4.2 tracks the number of drowning deaths over time of children aged 0–4 years in Queensland private pools against changes to fencing requirements. 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 proceeding these changes in legislation with regulation seen to have possibly impacted on the number of drownings. However from 2015 the number of private pool drowning deaths in children aged 0–4 years has seen a gradual increase until the 2020 calendar year. This highlights the importance of age-appropriate supervision being used in conjunction with compliant physical barriers is critical to preventing drowning deaths in this age group.

The Royal Life Saving Society of Australia (RLSSA) promotes a life stages approach to drowning prevention, allowing for targeted strategies that recognise risk priorities for each age group, with 'active supervision' being a key preventative factor.

Figure 4.2: Drowning deaths of children 0–4 years in Queensland private pools by applicable pool standard (5-year rolling average), 1986–1990 to 2016–2020



Data 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 (2004–20)

Safe play areas to reduce rural drownings

Rural water hazards, such as dams and troughs, may not be recognised as presenting a drowning risk and are often at a distance from the family home. As children love water play and can travel significant distances to access water, any body of water should be considered a potential risk regardless of its location.

Easy access to water and lack of direct adult supervision are the main factors in child drowning deaths in rural settings.

There have been 26 deaths of children aged under 5 years in rural water hazards since 2004.

Drowning prevention is most effective when strategies are multi-faceted. Active supervision is the most effective strategy, but to maintain this continuously is not realistic. Children can also be taught from a young age about nearby dangers and 'no go' areas. Establishing a safe play area in or around the family home can act as a critical means of preventing access to water hazards.

A safe play area should be securely fenced, high enough and constructed of materials appropriate to make it difficult for a child to climb. The area should be fitted with a self-closing, self-latching gate that remains closed when not being attended to.

Royal Life Saving's **Keep Watch@The Farm** initiative is aimed at preventing children aged 0 to 4 years from drowning by getting parents and carers to undertake four simple **Keep Watch actions**: Supervise, Restrict, Teach and Respond.

Australian Water Safety Strategy 2030

A new national Water Safety Strategy was launched in May 2021, with an aim to significantly reduce the drowning rate in Australia.

Key findings of the Strategy include:

- for every fatal drowning, there are 3 non-fatal drowning incidents
- males drown at a rate 4 times that of females
- 1-year-old toddlers record the highest drowning rate of any age
- rivers and lakes account for 36% of drowning deaths
- coastal environments (beaches, ocean and rock) account for 41% of drowning deaths
- 23% of drowning deaths occur while swimming and recreating
- 61% of drowning deaths occur outside of major cities
- fatal drowning rate has reduced by 26% over the last 10 years
- child (0–4 years) fatal drowning rate has reduced by 50% over the last 10 years.

The new Strategy seeks to raise awareness around non-fatal drowning incidents, encourage communities to create localised water safety plans and promote access to swimming and water safety skills for all Australians including refugees, migrants and those living in regional areas.

To stay safe around water, the Australian Water Safety Council urges all Australians to:

- supervise children at all times in, on and around water
- learn swimming, water safety and lifesaving skills
- wear a lifejacket when boating, rock fishing or paddling
- swim at a patrolled beach between the red and yellow flags
- avoid alcohol and drugs around water.

More information can be found at **Australian Water Safety Strategy 2030**.

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 were a total of 304 incidents. Almost half (46%) of all immersion incidents involving children occurred in swimming pools. Immersion incidents were most common in the 1–4 year age category, and in this age group, the majority (67%) of incidents occurred in swimming pools. For children under 1 year of age, bathtubs were the most commonly identified water hazard for immersion incidents.

Table 4.1: Queensland Ambulance Service responses to immersion incidents (number), 2020–21

Type of incident	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Pool	*	93	19	19	5	136
Bath	25	15	*	*	*	40
Beach/ocean	0	5	6	19	14	44
Other immersion	7	25	12	20	12	76
Total	32	138	37	58	31	296

Source: Queensland Ambulance Service (Aug-2021)

** Not reported for numbers less than 5 and excluded from totals.*

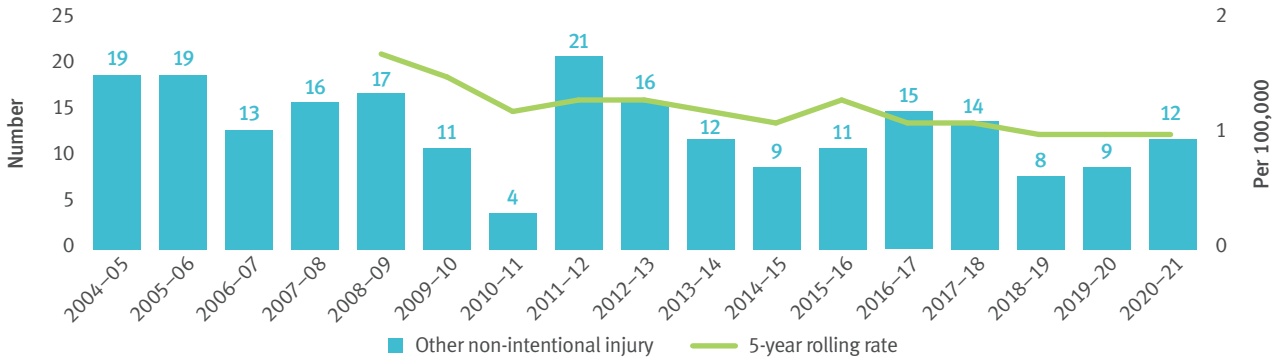
Notes: Numbers in table do not add to the total number of immersion incidents attended by Queensland Ambulance Service (n = 304) as cells with less than 5 are not shown, and were excluded from table totals.

5 Other non-intentional injury

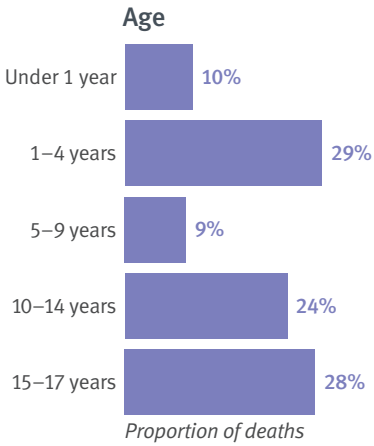
Overview

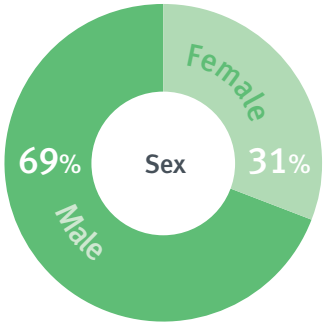
- 12 child deaths from other non-intentional injury in 2020–21.
- Fatal injuries related to infant sleep, product safety and residential house fires, while rare, are all potentially preventable.
- Children aged under 5 years are at most risk from product or other injuries within the home setting.
- Children and young people aged over 10 years may place themselves at risk of serious injury and death through risk-taking activities.

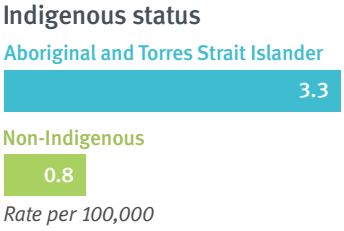
Other non-intentional injury deaths in Queensland



Five-year summary (2016–21)







Notes: Counting is by date of death registration by the Registry Births, Deaths and Marriages. Percentages may not add to 100 due to rounding.

** in the 12 months prior to death*

Key findings

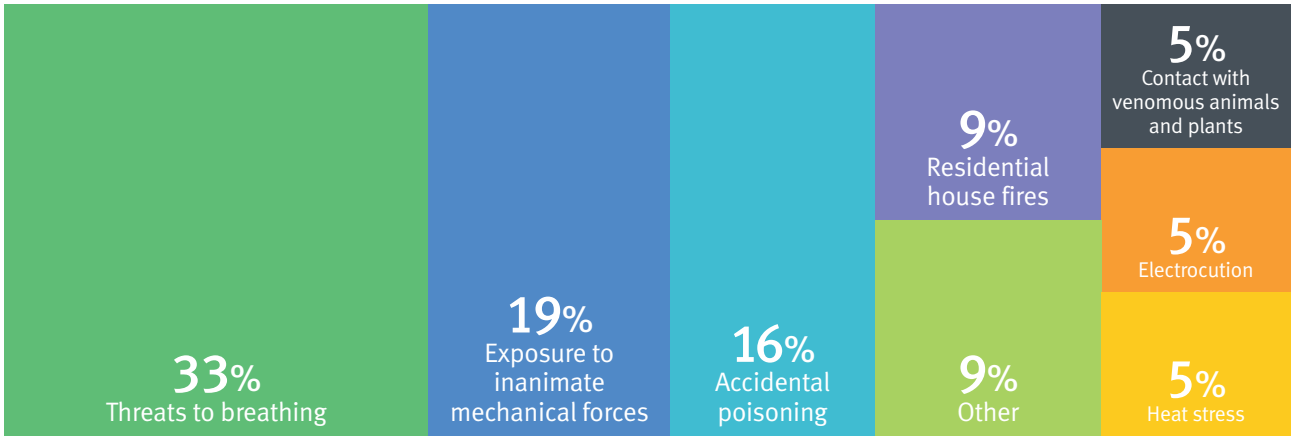
The child deaths discussed in this chapter are those unintentional deaths which fall outside the scope of the more common non-intentional injury-related deaths examined earlier in this report (transport incidents and drowning).[33]

Twelve deaths from other non-intentional injuries were recorded during 2020–21. These included sleep accidents (3, all infants), strangulation (3), and 1 each from choking on foreign object, button battery ingestion, electrocution, drug overdose, box jelly fish sting, and heat stress in a vehicle.

Injury type

Over the last 5 years, the most common injury types were threats to breathing, exposure to inanimate mechanical forces, accidental poisoning, and residential house fires, as shown in Figure 5.1.[34]

Figure 5.1: Other non-intentional injury deaths by incident type (proportion), 2016–17 to 2020–21



Notes: Other includes falls, exposure to animate forces and other injuries not elsewhere classified. Percentages may not add to 100 due to rounding.

Situational risks

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

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

33 See **Appendix D** a comprehensive outline of categories of death constituting 'other non-intentional injury-related deaths'. **Table A.7** in **Appendix A** provides summary data on other non-intentional injury deaths in the last 5 years.

34 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.

Product safety

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

Button batteries can cause life-long or even fatal injuries if swallowed. Loose or inadequately secured batteries pose a risk to young children as placing small objects in their mouth is part of exploratory play. Two children have died in Queensland from button battery injuries since 2004, of which one occurred during 2020–21.

Other child fatalities involving consumer products in Queensland over the last 5 years included:

- 2 from strangulation from window blind/roller cords (4 in total since 2004)
- 1 from furniture/appliance tip-over (7 in total since 2004)
- 1 from caustic substances (3 in total since 2004).

Risk-taking activities

Some deaths have occurred during risk-taking activities. In the last 5 years:

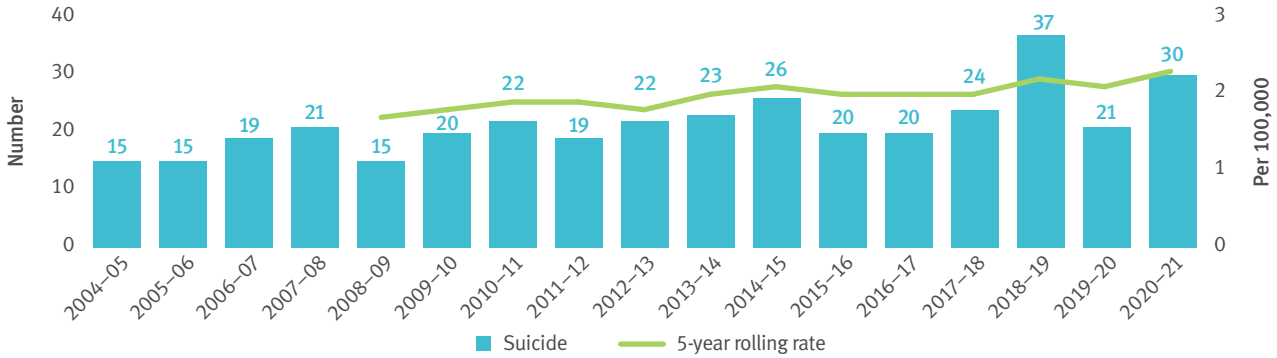
- 4 deaths were from volatile substance misuse (also known as inhalant abuse or chroming)—the substances involved in the majority of deaths were aerosol deodorants
- 4 deaths involved drug overdoses and/or excessive consumption of alcohol
- 5 deaths appeared to be the result of a choking game or prank
- all fatalities involving risk taking activities were children aged 10–17 years.

6 Suicide

Overview

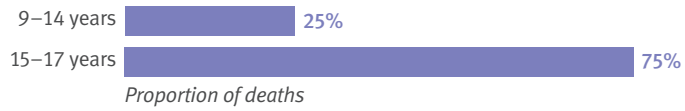
- 30 children and young people died by suicide in 2020–21.
- A slow increasing trend in youth suicide rates is evident over time.
- Risk increases with increasing age, 3 in 4 young people who suicided were aged 15–17 years.

Suicide deaths in Queensland



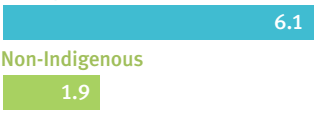
Five-year summary (2016–21)

Age



Proportion of deaths

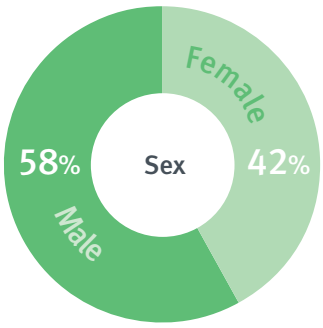
Indigenous status



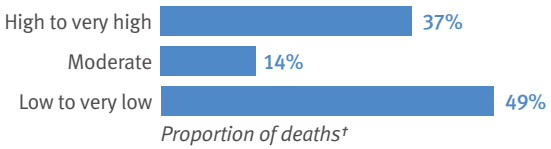
Rate per 100,000

Remoteness

Proportion of deaths†



Socio-economic status



Proportion of deaths†

Risk factors

70%	67%	35%	45%
diagnosed/ suspected mental health issue or behavioural disorder	history of suicidal ideation	previous suicide attempt/s	alcohol or substance use

Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

† of Qld resident deaths only
** in the 12 months prior to death*

Defining and classifying suicide

In the Queensland Child Death Register, all suspected suicide cases are assessed and categorised using a suicide classification model based on an amended version of the Australian Institute of Suicide Research and Prevention's (AISRAP) suicide classification.[35] The QFCC considers a number of factors, such as whether intent was stated, mental health or suicide attempt history, significant precipitating factors or life stressors, and coronial findings on intent. Under the suicide classification model, described further in **Appendix F**, the QFCC will record suspected suicides as either 'possible', 'probable' or 'confirmed' suicide. Only probable and confirmed suicides are reported in this chapter.

Possible suicides may be recorded as 'pending a cause' until coronial findings are received. Cases where the fatal outcome was most likely not intended, such as a prank gone wrong, are recorded as Other non-intentional injury. In some cases deaths may be recorded as Unexplained causes if the coroner, on completing investigations, has not been able to determine whether death was intended or not.

Information used to classify suicide certainty is based on data available to the QFCC at the time of reporting.

Key findings

During 2020–21, 30 confirmed or probable suicide deaths of young people were recorded in Queensland, an increase from the 21 deaths in 2019–20.[36] Suicide was the leading external cause of death for 10–14 year olds and leading cause overall for 15–17 year olds over the 5-year period.

Fifteen deaths were classified as confirmed suicides in the 2020–21 period, and fifteen deaths were probable suicides. Two deaths in the period were classified as possible suicides.

A total of 132 young people have died from suicide over the last 5 years, with an average of 26 deaths per year, at a rate of 2.3 deaths per 100,000 children aged 0–17 years.[37]

As indicated in **Chapter 1**, a slow increasing trend in youth suicide rates is evident over time.

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 10 of the 30 suicides from 2020–21. Coroners made clear statements that the cause of death was suicide in 9 of these deaths. In the 1 remaining death, hanging was confirmed as the method of death and there was no indication of an alternative cause of death.

Sex

Of the 30 young people who died from suicide in 2020–21, 18 were male and 12 were female.

Over the last 5 years, 58% of young people who suicided were male and 42% were female. The average suicide rate for males was 1.3 times the rate for females (5.8 deaths per 100,000 males aged 10–17 years, compared to 4.5 deaths per 100,000 females aged 10–17 years). Male and female suicide rates in adult populations have a much greater disparity compared to youth suicides, with an age-standardised suicide rate for males being 3 times that for females (23.8 deaths per 100,000 males, compared to 7.4 deaths per 100,000 females).[38]

35 See **Appendix F** for further details regarding the suicide classification model.

36 2019–20 number revised up one from previous report (one reclassified from possible to probable suicide based on updated information).

37 Tables with data from 2004 are available online at **http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death**

38 ABS (2020) ***Causes of Death, Queensland, 2019***, 'Table 4.1: Underlying cause of death, All causes, Queensland, 2019', ABS website, accessed 10 September 2021.

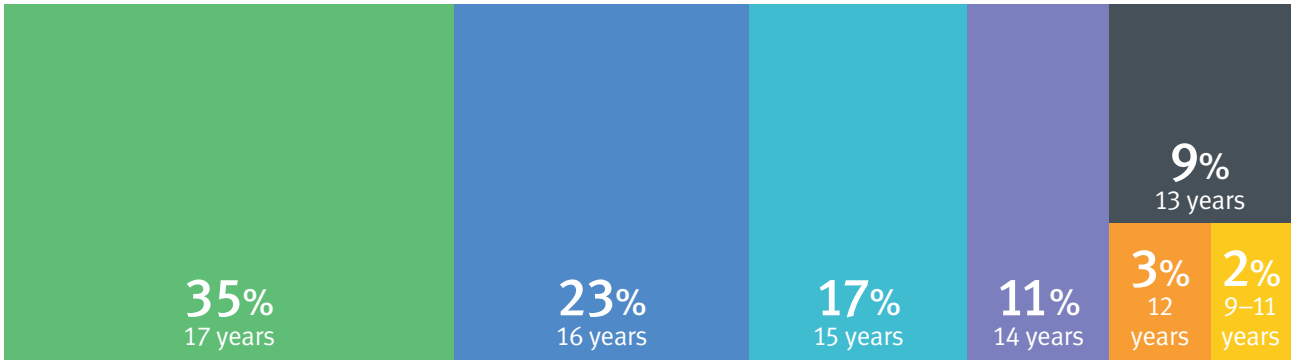
Age

Of the 30 suicide deaths during 2020–21, 24 (80%) were of young people aged 15–17 years and 6 (20%) were of young people aged 10–14 years. Suicide was the leading external cause of death for young people from both age categories in Queensland during 2020–21.

Over the last 5 years, the suicide rate for young people aged 15–17 years was 5 times the rate for young people aged 10–14 years (10.6 deaths per 100,000 aged 15–17 years, compared to 2.0 deaths per 100,000 children aged 10–14 years).

As illustrated in Figure 6.1, youth suicide deaths increase with each year of age, with 9–11 year-olds making up 2% of suicides and the proportions increasing with age up to 35% being aged 17 years.

Figure 6.1: Suicide deaths by single year of age (proportion), 2016–17 to 2020–21



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

Situational circumstances and risk factors

The literature on suicide provides a relatively consistent account of the factors and life circumstances that are associated with youth suicide.[39]

- Research into youth suicide shows that a history of self-harming behaviour, suicidal ideation and previous suicide attempts are associated with future suicidality.
- A high proportion of mental illness has been found among young people who die by suicide.
- Childhood abuse and exposure to domestic and family violence have been found to be potential risk factors for future youth suicides. *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 the link to depressive disorders.[40]

Suicidal behaviours in young people are often not the result of a single cause, and multiple stressors and adverse life experiences may be present. Most suicides; however, cannot be predicted.[41]

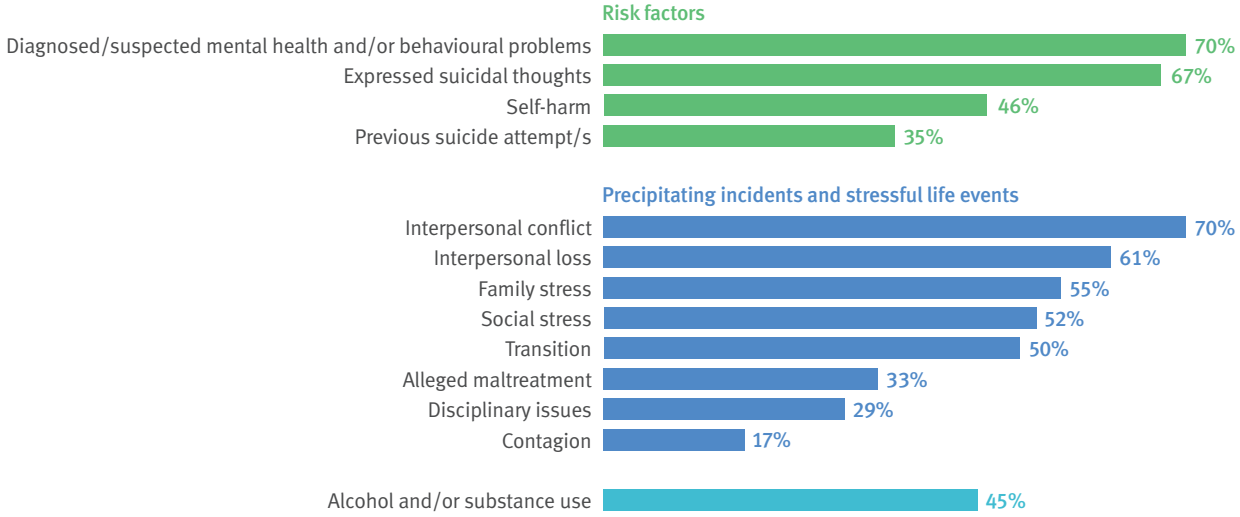
Figure 6.2 provides a summary of the most frequently reported risk factors and situational circumstances identified for the young people who suicided in Queensland in the last 5 years. The overview is based on information available to the QFCC and may therefore under-represent the actual circumstances for the children and young people.

39 CCYPCG (2009) ***Reducing Youth Suicide in Queensland discussion paper***, Queensland Government. [National Library of Australia web archive]

40 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**.

41 Scott J, Ryan A, Hielscher E, Thomas H (2018) '**Suicide in children and adolescents in Queensland 2004–2015**', *QFCC Research Summary*, QFCC, Queensland Government.

Figure 6.2: Summary of risk factors and situational circumstances (proportion), 2016–17 to 2020–21



Notes: Young people who suicided may have experienced more than 1 risk factor, precipitating incident or stressful life event. Interpersonal conflict includes conflict in parental relationships, including issues with intimate partners, family, friends or acquaintances or bullying. Interpersonal loss includes the loss or perceived loss of something, someone or a number of individuals and includes the death of a loved one (including pets), loss of social supports (often due to transitions) and parental divorce or separation. Family stress includes stressors that put real or perceived demands on, or cause interpersonal conflict for, an individual. Examples include poor intra-familial relationships, parental abandonment, familial alcohol or substance use or psychopathology, financial problems, parental offending or detention, family law court proceedings, parental medical conditions, housing issues or domestic and intimate partner violence. Social stress includes any stressors that may have impacted on the young person, such as illness or disability, unemployment, school stress, body image issues, sexual identity or gender issues or pregnancy. Transition includes transitions from or into care, transition of residence, transition in education, transition in work. Victim of alleged maltreatment includes reports of the young person experiencing physical, emotional or sexual harm, neglect or reports that the young person was the victim of a criminal offence. Disciplinary issues refers to consistent rule breaking or behavioural problems, including in the home, at school or contact with authorities. Only a selection of risk factors and situational circumstances are presented in this figure, focusing on those most frequently found.

Previous self-harm and suicidal behaviour

Prior suicide attempts, ideation and self-harming behaviours are recognised as risk factors for suicide. Twenty of the 30 young people who suicided during 2020–21 had displayed at least 1 form of the risk factors. Ten had previously attempted suicide, with 4 young people attempting suicide on more than 1 occasion. Thirteen young people had previously engaged in self-harming behaviour, such as cutting.[42] Seventeen had previously expressed suicidal thoughts (ideation). There was no evidence of previous self-harm or suicidal behaviour for 10 young people.

Mental health issues and behavioural disorders

While mental health issues are prevalent amongst young people who suicide, many young people are treated for these conditions and only a very small number may go on to suicide.

As indicated in Table 6.1, 9 of the 30 young people who suicided during 2020–21 had a diagnosed mental health issue and/or behavioural disorder before their death, and 13 were suspected to have a mental health issue. Sixteen young people had accessed a healthcare provider.

The most common diagnosed conditions were depression and anxiety. Five of the 9 young people were identified to have multiple mental health and/or behavioural disorders (co-morbid conditions).

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

Table 6.1: Mental health issues and behavioural disorders (number), 2020–21

Mental health issues and/or behavioural disorders	Total
Diagnosed mental health issue or behavioural disorder	**9**
Known to have accessed healthcare provider	9
Currently or previously prescribed medication for mental health issue	9
Suspected mental health issue[a]	**13**
Known to have accessed healthcare provider	7
Currently or previously prescribed medication for mental health issue	1

a In absence of any diagnosed issue.

Notes: More than one issue/factor may be present for each young person who suicided, therefore the sum of the counts may be greater than the total. 'Suspected mental health issue' refers to information from family members or friends who believed the young person to be experiencing a mental health issue. Young people were recorded as not having a mental health issue where the QFCC did not have information to indicate otherwise. This is not an absolute finding in regard to the young person's mental health.

Intent stated or implied (orally or written)

There was evidence of suicidal intent in 12 of the 30 suicide deaths during 2020–21. Five young people stated or implied their intent to a friend, extended family member or healthcare professional. Intent was stated or implied by phone, text or instant messaging or in person.[43] Suicide notes were left by 8 young people.

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 identified as a potential factor for 2 of the 30 young people who suicided during 2020–21.

Alcohol, drug and substance use

Nine of the 30 young people who suicided during 2020–21 were reported as having a history of alcohol, drug or substance use; with alcohol and cannabis the most frequently cited substances used.[44]

Stressful life events

Stressful life events (life stressors) were identified in 27 of the 30 suicide deaths of young people in Queensland during 2020–21. 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 over a period of time with strain accumulating over time.

The 4 most common stressors identified in young people who suicided in 2020–21 were parental separation or divorce, poor intra-familial relationships, bullying and equally transitions in education and transitions in residence (i.e. moving).

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

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

History of childhood abuse

Information available indicated 6 of the 30 young people who suicided in 2020–21 had a history of alleged childhood abuse. A history of domestic and family violence within the young person's family was also identified for 3 young people.

Precipitating incidents

Precipitating incidents were identified in 17 of the 30 suicide deaths of young people in Queensland during 2020–21. 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 week prior to death. Bereavement can be considered a precipitating incident, with an arbitrary time frame of up to 6 months between the death of the family member or friend and the suicide of the young person.

COVID-19

At the time of reporting, there was no evidence of a significant change in youth suicide deaths as a direct or indirect result of COVID-19, with the most recent increase continuing a trend which was evident before the pandemic. Mental health services and helplines; however, are reporting increases in young people seeking assistance. The incidence of stressors commonly reported in youth suicide data, such as mental health, transitions, social isolation, domestic violence, family stress and academic achievement-related stress are likely to continue to be heightened by the economic and social changes that have occurred. The QFCC will continue to closely monitor trends in youth suicide deaths throughout the pandemic period.

Queensland Ambulance Service data

Queensland Ambulance Service (QAS) data indicates in the last year approximately 8,500 ambulance callouts occurred for suicidal behaviour and self-harm-related incidents involving children, including both fatal and non-fatal injuries *(see Table 6.2)*. This was an increase of some 1,000 callouts from the number reported for 2019–20.

Female patients accounted for 64% of callouts.

Table 6.2: Queensland Ambulance Service responses to self-harm and suicidal behaviour incidents (number), 2020–21

Age	Female	Male	Total
5–9 years	58	116	174
10–14 years	2,180	1,149	3,329
15–17 years	3,247	1,691	4,938
Total	5,485	2,956	8,441

Source: Queensland Ambulance Service (Aug-2021)

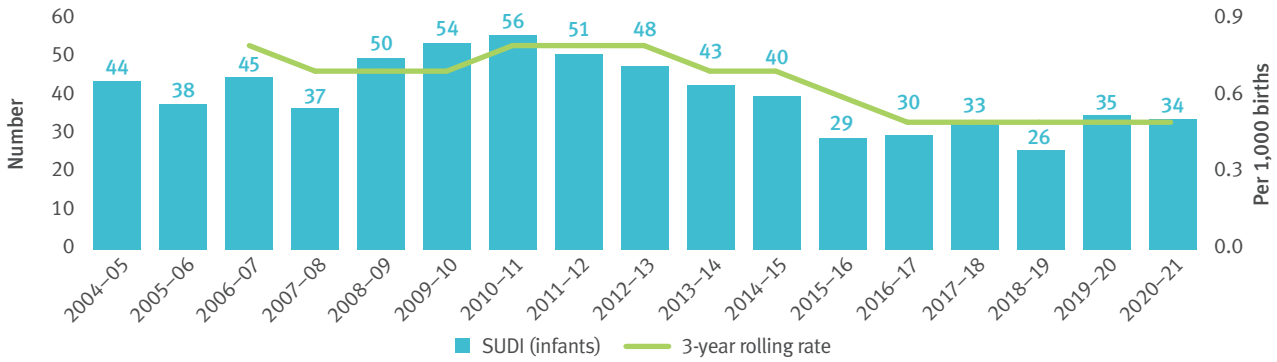
Notes: Excludes data for children and young people whose age and gender at the time of the incident were not recorded, or whose gender was recorded as indeterminate.

7 Sudden Unexpected Deaths in Infancy

Overview

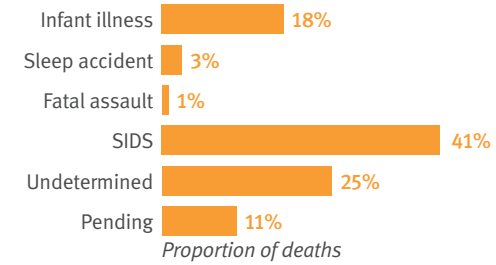
- Sudden Unexpected Death in Infancy (SUDI) is a category of deaths where an infant dies suddenly, usually during sleep, and with no immediately obvious cause.
- Sudden Infant Deaths Syndrome (SIDS) and undetermined causes, as a group, was the leading cause of post-neonatal infant death.
- SUDI numbers have plateaued in the last six years.
- Unsafe sleep factors were present for many SUDIs.

SUDI in Queensland



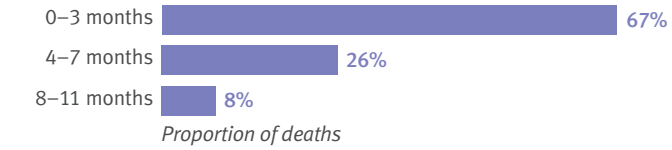
Five-year summary (2016–21)

Cause of death category



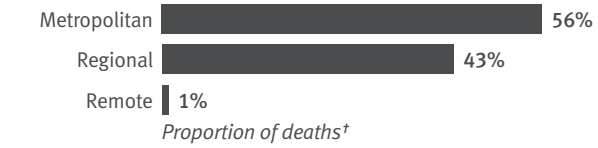
Proportion of deaths

Age



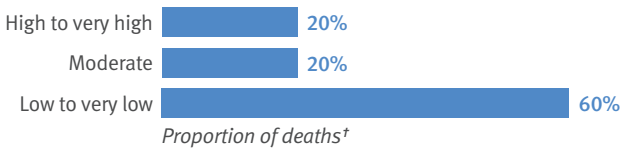
Proportion of deaths

Remoteness



Proportion of deaths†

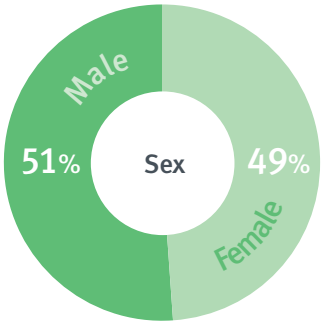
Socio-economic status



Proportion of deaths†

Indigenous status^

Rate per 1,000 births



Notes: Counting is by date of death registration. Percentages may not add to 100 due to rounding.

^ 3-year average rates
† of Qld resident deaths only
** in the 12 months prior to death*

Sudden Unexpected Death in Infancy (SUDI) classification

SUDI is a research classification which groups together the deaths of apparently well infants who would be expected to thrive, yet, for reasons often unknown, die suddenly and unexpectedly. Identifying deaths in this way assists in the identification of possible risk factors for and associations with sudden infant death and, most significantly, those factors which may be preventable or amenable to change.

SUDI 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 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

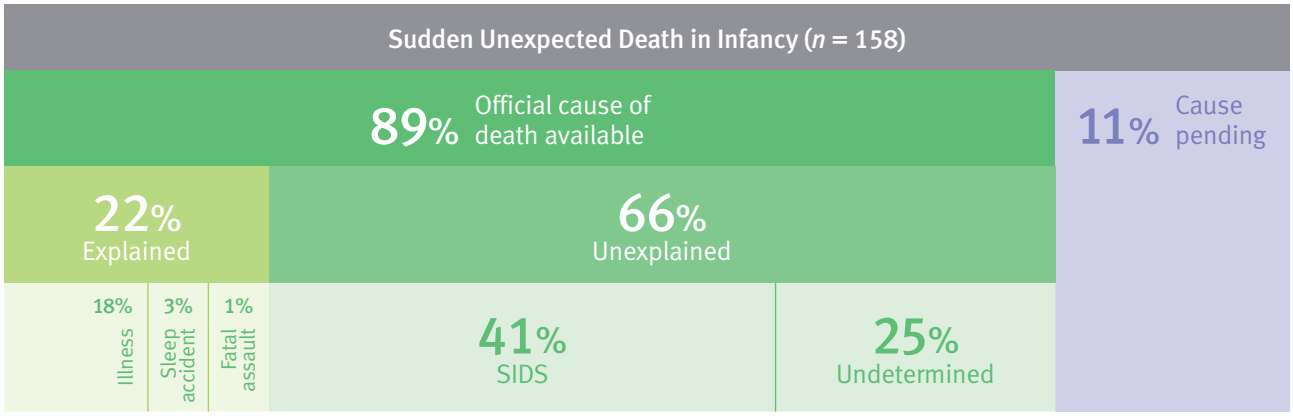
- Sudden Infant Death Syndrome (SIDS)[45]
- Undetermined causes[46]

Key findings

During 2020–21, there were 34 SUDI cases in Queensland, of which 15 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 158 SUDIs in the last 5 years and, as indicated in Figure 7.1, 66% were found to be unexplained SUDI while 22% were explained SUDI. The SUDI mortality rate was 0.5 per 1,000 live births (3-year average).

Figure 7.1: SUDI by cause of death (proportion), 2016–17 to 2020–21



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

45 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.

46 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.

Trends

SUDI deaths have fluctuated over the last 17 years, as indicated in the rolling average numbers presented in Figure 7.2. While overall SUDIs have decreased, annual numbers have plateaued in the most recent 6 years. SUDI numbers peaked across the periods 2008–10 to 2010–13.[47] While deaths from infant illness, undetermined causes and sleep accidents remained comparatively stable across the entire period, SIDS deaths rose and fell over the period with this 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. 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.[48] The SIDS deaths were the group most commonly recoded, with the panel coding most as undetermined causes. The findings of the expert panel review; however, are not reflected in this report which relies on cause classification from official causes of death.

As further described at the end of this chapter, the Pépi-Pod® Program was introduced as a research initiative in Queensland in 2011 and is hypothesised to have had an effect on reducing infant mortality rates from 2014.

Figure 7.2: Cause of SUDI death (3-year rolling average number), 2004–07 to 2018–21

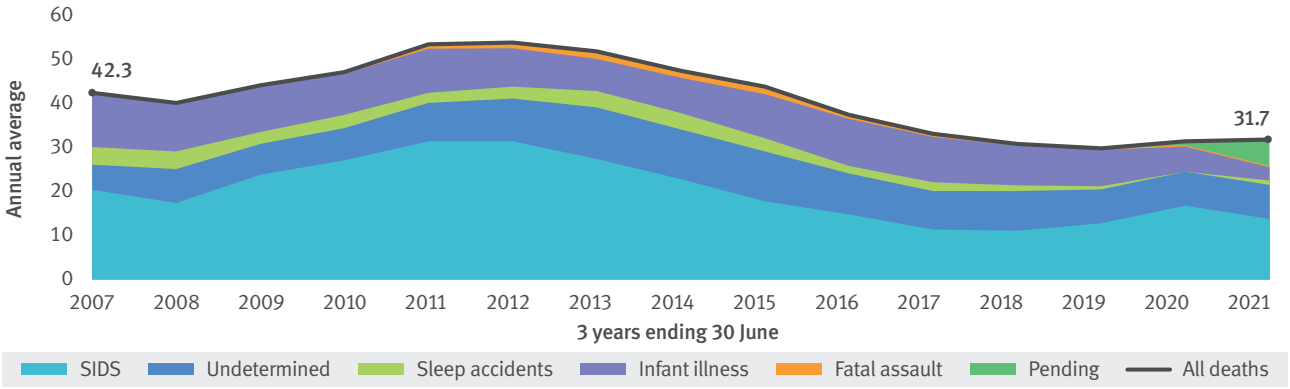


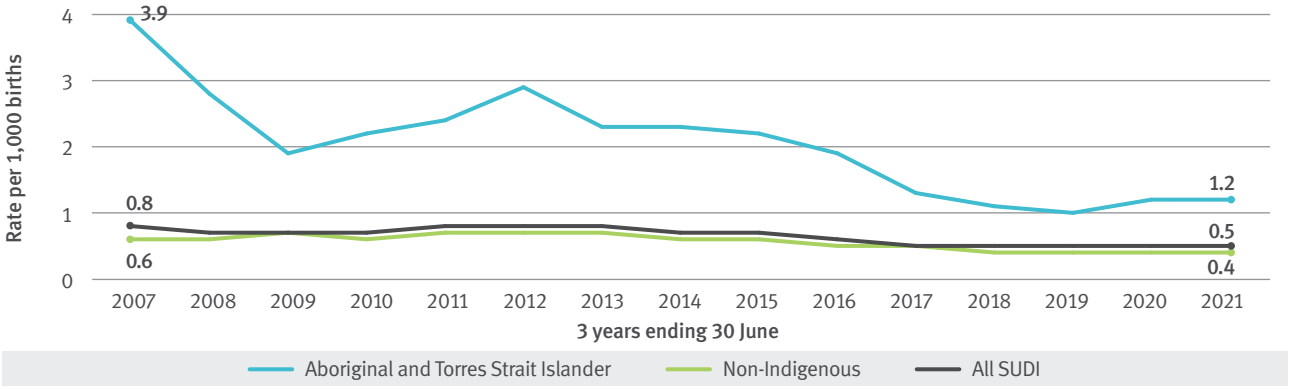
Figure 7.3 shows the declining rate of Aboriginal and Torres Strait Islander SUDI deaths over the last 17 years. The rate of Aboriginal and Torres Strait Islander SUDIs was particularly high in the first years of the Register. Over the period 2009–2016 the Aboriginal and Torres Strait Islander SUDI rate was around 4 times the non-Indigenous SUDI rate. Indigenous over-representation was still evident from 2016–2021; however, it had reduced to be just under 3 times the non-Indigenous rate.[49]

47 Tables with data from 2004 are available online at http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death

48 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, accessed 12 August 2021.

49 Data by Indigenous status may have changed from previous reports due to: QFCC audit of Indigenous status where source records are inconsistent; and, change in data analysis from 5-year to 3-year rolling average rate.

Figure 7.3: SUDI by Aboriginal and Torres Strait Islander status (3-year rolling rate), 2004–07 to 2018–21



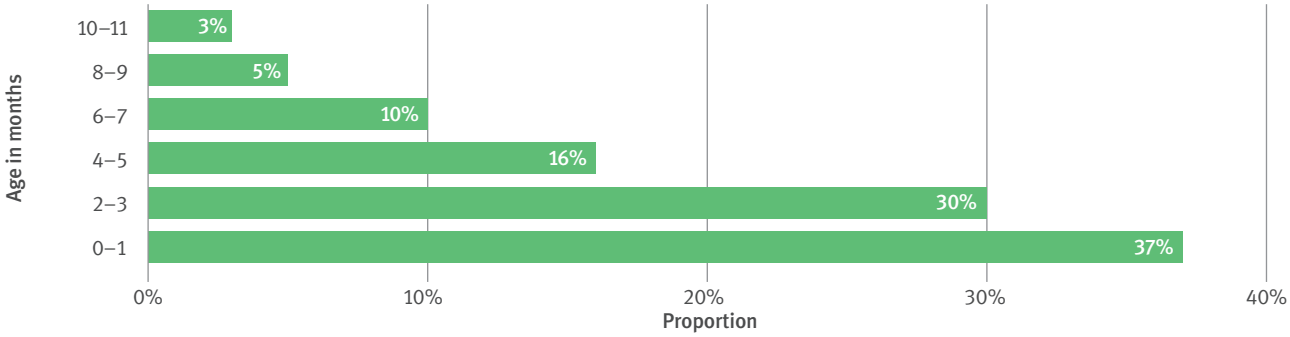
Notes: Data by Indigenous status may have changed from previous reports due to: QFCC audit of Indigenous status where source records are inconsistent; and, change in data analysis from 5-year to 3-year rolling rate.

Sex and age

Of the 156 SUDIs in the last 5 years, 49% were female and 51% were male. However, over the full 17-year period from 2004, males made up a larger proportion (58%) compared to females (42%). These figures, and analysis in the rest of this chapter, exclude deaths from fatal assault.

Figure 7.4 shows SUDI by age at death in the last 5 years. Two-thirds of sudden unexpected deaths (67%) occurred among infants aged under 4 months.

Figure 7.4: SUDI by age in months (proportion), 2016–17 to 2020–21



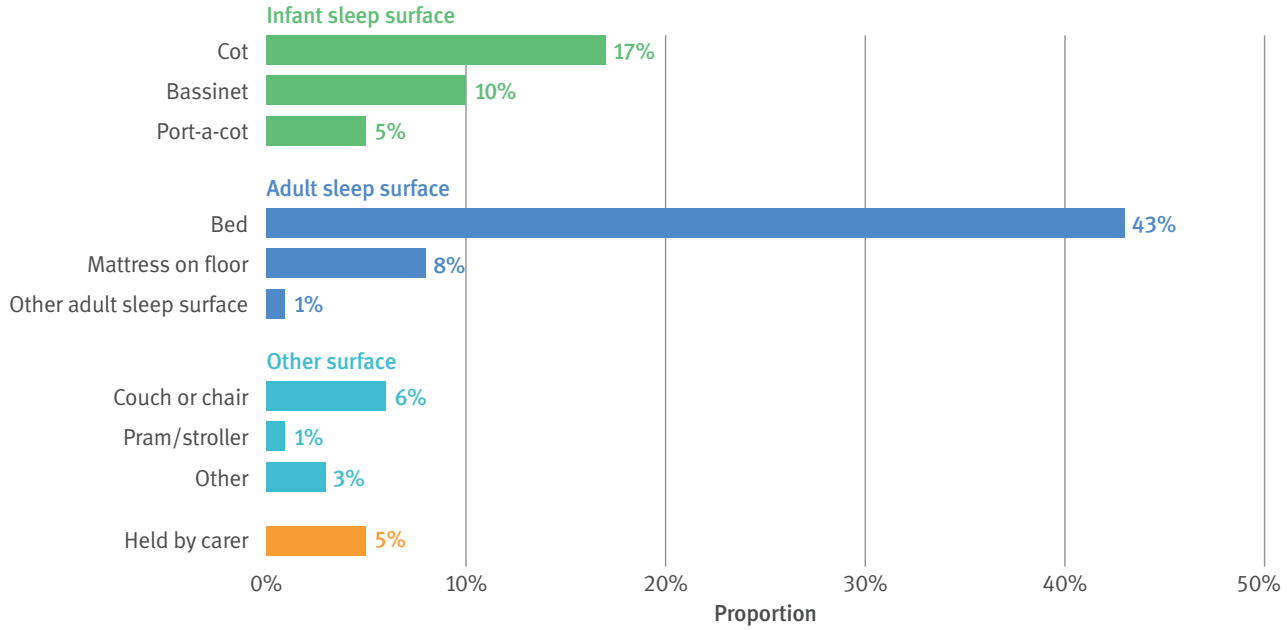
Notes: Excludes SUDIs from non-accidental injury. Percentages may not add to 100 due to rounding.

Incident factors

Sleep surface

As indicated in Figure 7.5, for half (51%) of the SUDIs in the last 5 years the infant was on an adult sleep surface at the time of the incident and a further 6% were on a couch or a sofa. Only 33% of the SUDIs occurred when an infant sleep product was being used. A further 5% occurred while the infant was being held by a carer.[50]

Figure 7.5: Sleep surface in SUDIs (proportion), 2016–17 to 2020–21



Notes: Excludes SUDIs from non-accidental injury. Percentages may not add to 100 due to rounding.

Infant sleep position

Incident reports indicated some infants were placed to sleep in one position but were found in a different position, as shown in Table 7.1. While 57 in the last 5 years were placed and found on their back, a further 25 had moved from their back to stomach or side position when found. Of the infants placed to sleep, 65 were found on their stomach or side (or 42% of the 156 SUDIs excluding those from non-accidental injury).

Table 7.1: Infant sleep position when placed to sleep (number), 2016–17 to 2020–21

Position when placed to sleep	Position when found					Total
	Back	Stomach	Side	Other	Unknown	
Back (supine)	57	22	3	2	4	88
Stomach (prone)	0	20	1	0	0	21
Side	0	6	5	0	2	13
Held by carer	1	1	0	2	0	4
Other	0	1	0	1	0	2
Unknown	2	5	1	0	9	17
Total	60	55	10	5	15	145

Notes: Excludes SUDIs from non-accidental injury. Includes only SUDIs where the infant was placed to sleep (n = 145).

50 Percentages by surface types in Figure 7.5 may not add to sub-totals presented in this paragraph due to rounding.

Inclined surface

A firm, flat sleeping surface (not tilted or elevated) is recommended to reduce the risk of SUDI, including for babies with reflux.[51] Information in the Register indicates 11% 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 pram/stroller, infant swing and infant car seat.

Shared sleeping

Around half (53%) of the infants whose deaths were sudden and unexpected were sharing a sleep surface with 1 or more people at the time of death. Sharing a sleep surface with a baby can increase the risk of SIDS and fatal sleep accidents in some circumstances.[52]

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, or if the caregiver is excessively tired or there are multiple people in the bed with the infant.

Of the 83 SUDIs with shared sleeping over the last 5 years, additional risk factors were identified in co-sleepers or co-sleeping environment including alcohol or substance use (34%); smoking (47%); extreme fatigue (17%); and obesity (8%).

Risk factors for SUDI deaths

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

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.

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.

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.

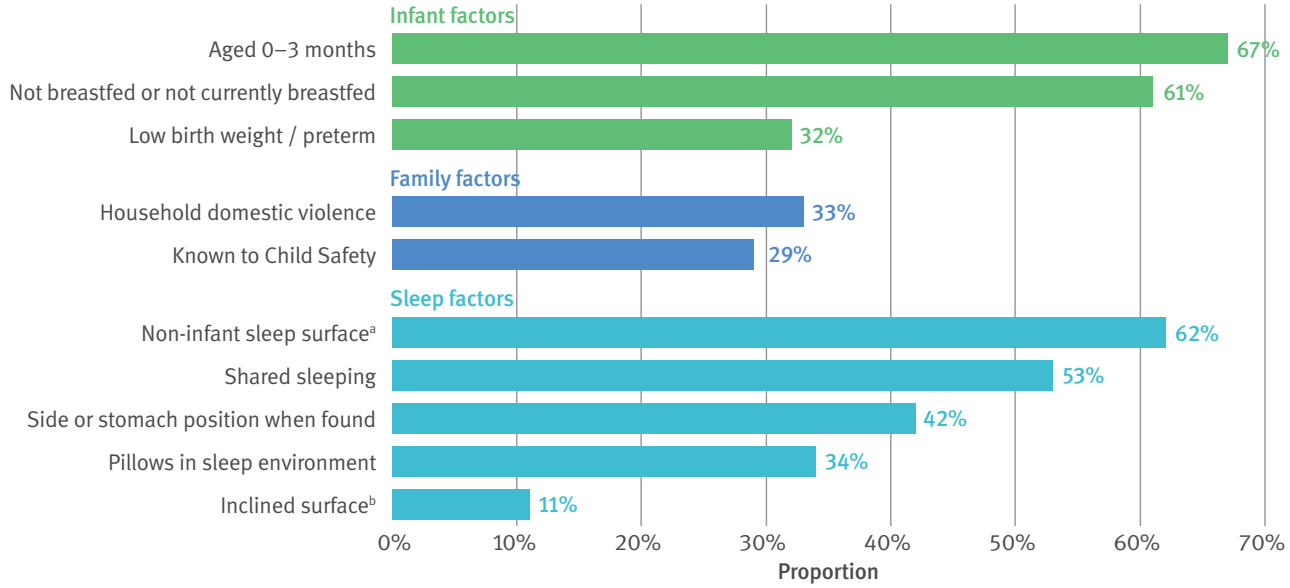
Selected characteristics of the infant and unsafe sleep factors in 156 SUDI deaths over the last 5 years are shown in Figure 7.6. These indicate increased risk in the first months and for infants born with low birth weight, and breastfeeding as a potentially protective factor.

Using non-infant sleep surfaces (62% of SUDIs), sharing a sleep surface (53%) and sleep position on side or stomach (42%) are all reported to increase the risk of sudden unexpected infant deaths, as are pillows (34%) and excess bedding in the sleep space.

51 Red Nose National Scientific Advisory Group (2017) ***Information statement: Reflux: sleeping position for babies with gastro-oesophageal reflux (GOR)***, Red Nose website, accessed 19 August 2021.

52 Red Nose National Scientific Advisory Group (updated 2019) ***Information statement. Sharing a sleep surface with a baby***, Red Nose website, accessed 19 August 2021.

Figure 7.6: SUDI by selected infant, family and sleep factors (proportion), 2016–17 to 2020–21



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

b Includes infant 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 non-accidental injury.

Adoption of safe sleep practices

Recent Queensland research indicated the majority of families were aware of sleep-related infant mortality although not all could recall safe sleep messages.[53] Further, care-giver practice did not always follow the safe sleep guidance. Survey respondents indicated following advice for reducing the risk of SUDI to:[54]

- keep baby smoke free before and after birth 83.7%
- sleep baby on back 83.0%
- breastfeed baby 77.2%
- safe sleeping environment night and day 33.6%
- no soft surfaces or bulky bedding 62.4%.

One in 2 infants were reported to sleep in environments that were not recommended for safe sleep. Cots and bassinets were the most common surfaces used for night and daytime sleeps, but adult beds were the second most common surface at night. The second most common surface in daytime sleeps was infant rockers, swings or bouncers, which are not recommended for safe infant sleep.

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 in 2020–21 were categorised as unexplained causes. Over the last 5 years, while 86% of unexplained deaths were infants, 9% were aged 1–4 years and 5% were aged 5– 17 years.

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 inflicted.

53 Cole R, Young J, Kearney L, Thompson JMD (2021) 'Awareness of infant safe sleep messages and associated care practices: findings from an Australian cohort of families with young infants', *BMJ Paediatrics Open* 5:e000972, doi:10.1136/bmjpo-2020-000972.

54 Cole R, Young J, Kearney L, Thompson JMD (2020) 'Infant care practices and parent uptake of safe sleep messages: a cross-sectional survey in Queensland, Australia', *BMC Paediatrics* 20:27, https://doi.org/10.1186/s12887-020-1917-5.

Queensland Paediatric Quality Council update

Measuring the effectiveness of the Pépi-Pod® Program in reducing infant mortality in Queensland

Reviews of the circumstances of Sudden Unexpected Death in Infancy (SUDI), conducted by the QFCC, the Queensland Paediatric Quality Council (QPQC), and researchers in other Australian[i,ii,iii] and international settings, have demonstrated the extremely high rate of unsafe sleep risk factors, both environmental and infant care related, associated with these deaths. The risk of SUDI is greatly increased in unsafe sleep circumstances whether the infant is sleeping alone or sharing a sleep surface. The majority of these deaths were experienced by families in the context of considerable challenges and socio-economic deprivation[iii] and are significantly more common in the Aboriginal and Torres Strait Islander populations.[i]

The Pépi-Pod® Program originated in New Zealand and was introduced into Queensland in early 2011 as a research initiative by University of the Sunshine Coast researchers, to address the need for culturally appropriate support strategies to reduce infant deaths. The Program provides a portable sleep space (Pépi-Pod®) embedded in safe sleep education, with a family commitment to share learnings about safe sleep within their family and social network. The Pépi-Pod® Program has been formally evaluated and has demonstrated a reduction in the proportion of infants sharing a sleep surface in the context of known risk factors. It was also shown to be culturally appropriate, feasible, accessible, and sustainable.[iii,iv] The QPQC in conjunction with researchers from the University of the Sunshine Coast and The University of Auckland have recently completed a project to evaluate the impact on infant mortality in Queensland of the Pépi-Pod® Program as implemented thus far.

The outcome examined in the project was Study Infant Mortality Rate (IMR), defined as all-cause post-neonatal infant mortality between one and six months of age. The age range covers the commonest age of SUDI, and the expected range that an infant would sleep in a Pépi-Pod®. The study compared outcomes within, and between, research location subgroups, and the whole of Queensland Study IMR before and after the research intervention. The Study IMR fell after the Pépi-Pod® Program intervention in two of the three research location subgroups, with the greatest fall being a 75% reduction. There was also a 22% statistically significant reduction in the Study IMR in the whole population of Queensland from 2014 onwards. These falls are substantial and of public health importance. The researchers hypothesise that the Pépi-Pod© Program is responsible for this notable reduction in mortality.

This Program presents a practical strategy to reduce infant mortality experienced by priority populations in Queensland. The Program also has a flexible delivery approach enabling it to be embedded into current models of maternal and child health delivery in both government and non-government organisations within metropolitan, regional, and rural/remote settings.[v,vi]

The QPQC has commenced a project to develop an implementation strategy to facilitate the use of the Pépi-Pod® Program across Queensland. This will link in with the new QPQC-developed Infant Safe Sleeping Guideline which offers a tiered, risk minimisation approach to working with families to improve infant safety at sleep time.

A copy of the report, once released, will be available at the QPQC website **Queensland Child and Youth Clinical Network | CHQ (health.qld.gov.au)**.

The QPQC wishes to acknowledge the contributions of Professor Jeanine Young (University of the Sunshine Coast) and Professor John Thompson (University of Auckland) for their contributions to this project and report.

i Shipstone R, Young J, Thompson JMD (2019) 'The real divide: the use of algorithm-derived Indigenous status to measure disparities in sudden unexpected deaths in infancy in Queensland', *Australian and New Zealand Journal of Public Health Online*, **https://doi.org/10.1111/1753-6405.12951**

ii Shipstone R, Young J, Kearney L, Thompson JMD (2020) 'Prevalence of risk factors for sudden infant death among Indigenous and non-Indigenous people in Australia: a retrospective cohort study', *Acta Paediatrica,* **https://doi.org/10.1111/apa.15274**

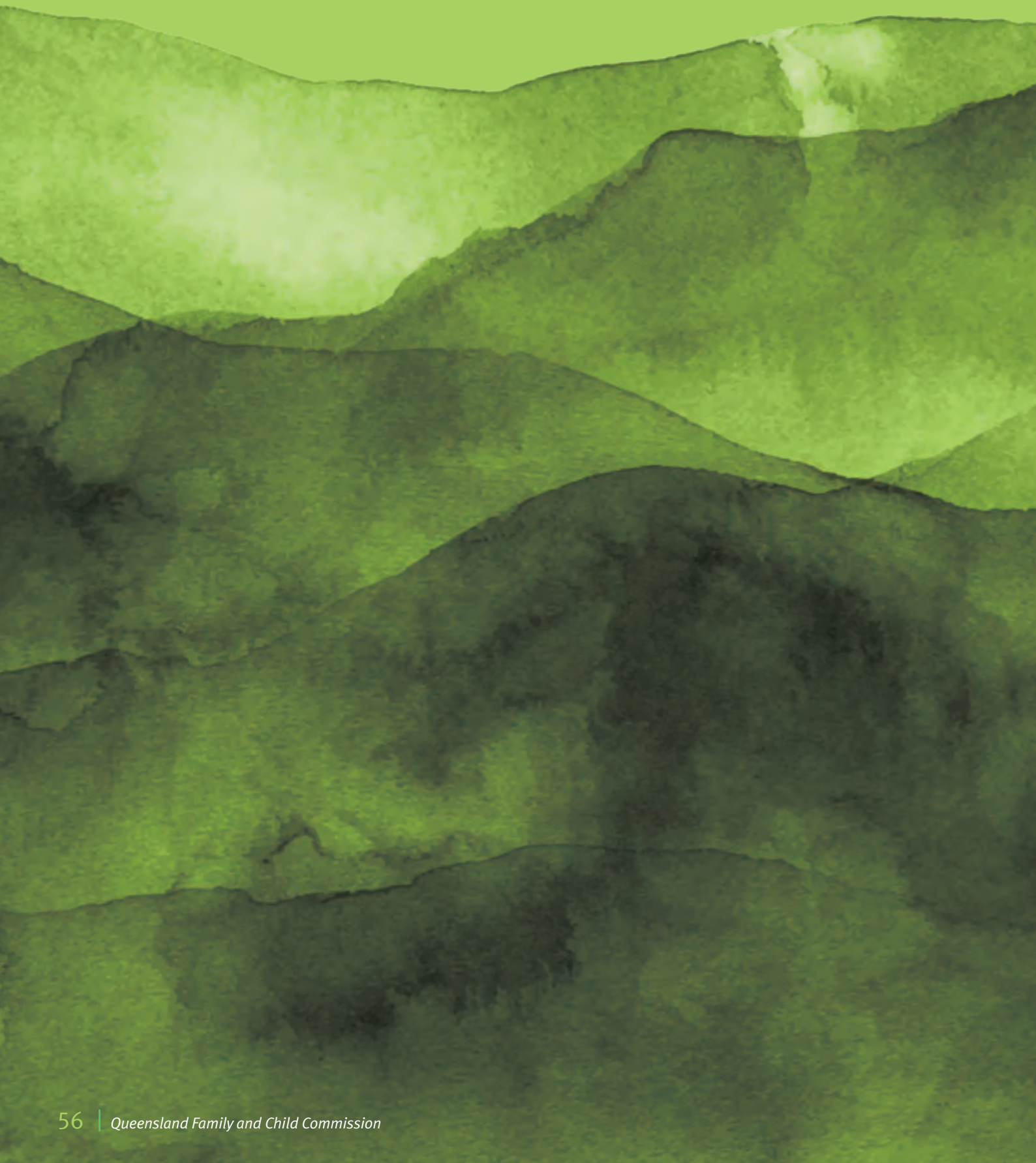
iii Shipstone R, Young J, Kearney L, Thompson JMD (2020) 'Applying a social exclusion framework to explore the relationship between Sudden Unexpected Deaths in Infancy (SUDI) and social vulnerability', *Frontiers in Public Health (Inequalities in Health),* **https://www.frontiersin.org/articles/10.3389/fpubh.2020.563573**

iv Young J, Craigie L, Cowan S, Kearney L, Watson K (2018) ***Reducing risk for Aboriginal and Torres Strait Islander babies: trial of a safe sleep enabler to reduce the risk of sudden unexpected deaths in infancy in high risk environments*** (The Queensland Pépi-Pod Program), Final Research Project Report, University of the Sunshine Coast, Queensland, doi:10.25907/5c6b462922760.

v Young J, Watson K, Craigie L, Neville J, Hunt J (2019) 'Best practice principles for research with Aboriginal and Torres Strait Islander communities in action: Case study of a safe infant sleep strategy', *Women and Birth*, 32(5):460-465, **doi.10.1016/j.wombi.2019.06.022**

vi Young J, Cowan S, Kearney L, Watson K, Craigie L (2018) *A strategy to promote safe sleeping environments and reduce the risk of Sudden Unexpected Death in Infancy in Aboriginal and Torres Strait Islander communities*, Final Implementation Project Report for the Department of Child Safety, Youth and Women, Queensland Government, **https://doi.org/10.25907/00011**

8 Child death prevention activities



Maintaining the Child Death Register

The QFCC maintains the Queensland 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 Register was established in 2004 and currently contains over 7,700 records that have been classified by the cause of death, demographic and incident characteristics. It allows the QFCC to extract information from its 17 years of recorded data, highlighting risk factors and trends to inform research, support policy improvement and community safety initiatives to help reduce the likelihood of child deaths.

Redesign of the Child Death Register

The QFCC has undertaken a two-year development project to replace the Child Death Register database system.

The redesigned system, Coda, was successfully implemented on 12 March 2021. The new application sits on a cloud-based platform and has modernised the Register by capturing quality information in a more structured way. Manual processes have been automated, making reporting easier and enabling better auditing, and enhancing the way sensitive information is captured.

Stakeholder engagement with other child death jurisdictions, system users and genuine researchers was used to understand what improvements were needed. The redesign incorporated an in-depth review of the way the Register information is collected and used. Redundant or rarely used fields were removed, while other fields were added or amended to improve sequencing or address emerging issues.

The introduction of Coda has resulted in improvements including:

- ability to immediately record child death data in Coda as it is received—no longer a need to wait for formal death registration through the Registry of Births, Deaths and Marriages
- enhanced accessibility and intuitive design for ease of navigation
- increased efficiency through automation, system processing speed and refinement of content/structure of information
- geographical remoteness and socio-economic status indicators updated to latest Census data
- improved case search and display functionality and speed in return of search results
- centralisation of case records with their supporting documentation
- incorporation of task workflow into the system
- refinements to the decision making around Aboriginal and Torres Strait Islander status where source records are inconsistent
- enhanced recording of multiple fatality events (child and/or adult)
- secure portal for cause of death coding undertaken remotely by ABS mortality coders
- ICD-10 coding linked to the latest online version of the classification
- structured placement of suicide fields aligned with the suicide classification model
- improved access and efficiency in extracting the data through the report building tool.

An important element of the project was migrating the full set of child death records into Coda. Migration of field data was, for the most part, achieved on a one-to-one basis. However, only partial migration was possible in some complex areas where substantial changes were made to improve the data structure. The QFCC will continue to undertake data audits, data cleansing and populating new fields, as well as progressing other system enhancements, in the coming year.

Publications

Annual report

In March 2021 the *Annual Report: Deaths of Children and young people Queensland 2019–20* was tabled in Parliament. This was the 16th 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) and the **2019–20 report webpage**.

The QFCC also published the ***Australian and New Zealand child death statistics 2018***, prepared on behalf of the members of the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG). This report, along with factsheets and 16-year data tables, are available on the report webpage.

16-year trend review

The ***Counting lives, changing patterns: Findings from the Queensland Child Death Register 2004–2019*** report was tabled in the Queensland Parliament on 13 May 2021. The QFCC reviewed the 16 years of child death data held in its Child Death Register, with a focus on those causes of death considered to be most preventable by modifying behavioural or environmental factors.

The report provides a high-level overview of broad trends and patterns in child mortality in Queensland. By analysing all deaths occurring during the 16-year period, the QFCC was able to identify patterns and conduct complex statistical analysis to generate new insights into risk and protective factors.

The report can be used to inform policy and program development to improve safety for children and young people. Several areas requiring further research have been identified, which the QFCC intends to act on in collaboration with stakeholders.

Systems reviews relating to child deaths

In 2020–21, the QFCC delivered system review reports to the Honourable Attorney-General and Minister for Justice and Minister for Women and Minister for Domestic and Family Violence. The review reports followed the deaths and serious neglect of several children and made recommendations to improve the child protection system.

The QFCC consulted with multiple agencies to inform the review findings.

The reviews identified gaps in system responses intended to keep vulnerable children safe and help their parents to protect and care for them. The QFCC continues to work with the Minister and government agencies to implement the necessary changes to protect vulnerable children.

Publicly available systems reviews by the QFCC can be found at **System reviews | Queensland Family & Child Commission (qfcc.qld.gov.au)**.

Child Death Review Board

On 1 July 2020, the *Child Death Review Legislation Amendment Act 2020* commenced, implementing a new child death review model in Queensland. The introduction of the new model followed a recommendation made by the QFCC in its report: *A systems review of individual agency findings following the death of a child*.

The new model included the establishment of the independent Child Death Review Board (CDRB). The CDRB conducts systemic reviews following the death of a child, connected to the child protection system, to identify opportunities to improve the child protection system and prevent future deaths. It does not investigate the deaths of individual children.

In addition to establishing the CDRB, under the new model more agencies are required to review service responses following the death or serious physical injury of a child known to the child protection system.

More information on the CDRB functions, procedures and reports can be found at **Home – Child Death Review Board – Queensland Government (cdrb.qld.gov.au)**

Supporting youth suicide and SUDI prevention efforts

The QFCC continued to monitor and support prevention of suicide deaths of children and young people. This included sharing information with the Department of Education to support suicide postvention in affected schools and promoting mental wellbeing tips through QFCC social media channels.

SUDI prevention was also an area of focus and in the last year the QFCC contributed by:

- providing SUDI data for several initiatives including reviews of infant product safety standards
- supporting activities led by the Queensland Paediatric Quality Council
- participation in the SUDI multiagency advisory meeting pilot.

The CDRB, in its first year of operation, has also engaged with researchers in the areas of suicide and SUDI prevention to inform improvements to system responses for highly vulnerable children and families.

SUDI multiagency advisory meeting pilot

Following advocacy from the QPQC and QFCC, the Office of the State Coroner has initiated a 9-month pilot of a Multiagency advisory meeting for recent SUDI deaths. The advisory meeting is to provide advice and recommendations to the investigating Coroner in relation to SUDI deaths reports under the *Coroners Act 2003* regarding:

- the identification of contributory factors
- further investigation or enquiries that may assist to establish a cause of death and/or identify and better understand risk factors arising from the circumstances of the child's death
- the identification of any gaps or potential opportunities for improvement by government, non-government and private sector agencies involved with the child's family or the child's care prior to the death
- possible recommendations to prevent future infant deaths happening in similar circumstances
- appropriate support pathways for the child's family.

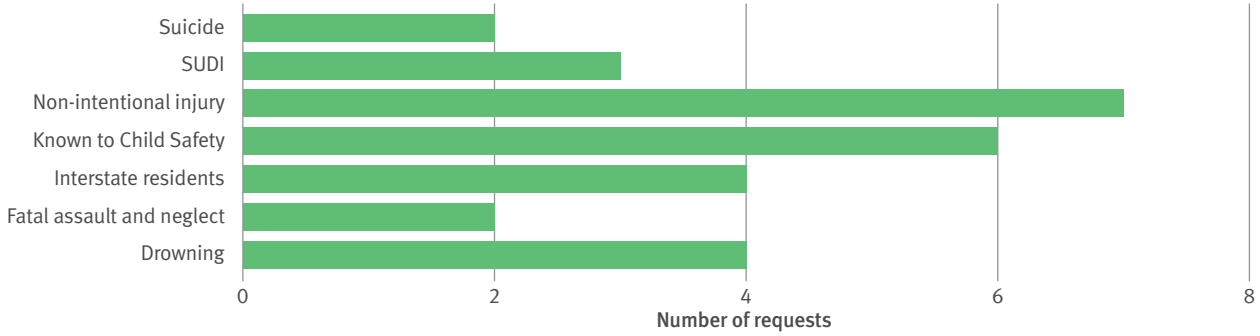
The meeting is chaired by the QPQC Chair and attended by the State Coroner and representatives from the Queensland Police Service, Forensic and Scientific Services, Queensland Ambulance Service, Queensland Health, Department of Children, Youth Justice and Multicultural Affairs and the QFCC.

Researcher access to child death data

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. Data from the comprehensive dataset is available at no cost to genuine researchers.[55] Applications to obtain data can be made by emailing **child_death_prevention@qfcc.qld.gov.au**.

In 2020–21, the QFCC responded to 28 requests for Child Death Register data. Figure 8.1 gives an overview of the types of data provided. The purposes the data was used for included: public education and reporting (50%); policy and program development (18%); research (18%); and safety standards (14%).

Figure 8.1: Type of data requested (number), 2020–21



Projects provided with child death information

- Non-intentional injury data was provided to:
  - Kidsafe to inform a Victorian coronial inquest into a child fatality as a result of entrapment in a car window
  - the Office of Fair Trading to inform product safety standards and assist with product specific child death investigations
  - Queensland Injury Surveillance Unit to understand the incidence of deaths linked to the choking game or choking experimentation in Queensland.
- Drowning data was provided to:
  - Mackay Regional Council to support a Pool Fencing Safety Campaign to promote compliant pool fencing
  - Royal Life Saving Society Australia on a regular basis to support its National Drowning Report and research program
  - Queensland Building and Construction Commission to support a summer pool safety awareness campaign.
- Fatal assault and neglect data was provided to the University of New England to support PhD research around deaths of children known to the Family Court and Federal Circuit Court.
- SUDI data was provided to the QPQC Infant Mortality Sub-Committee, for its comprehensive analysis of the issues associated with infant deaths. The research paper, ***Infant Reflux and Inclined Sleep: Why is this a SUDI risk?*** was published in September 2020. The project is also informing development of the Queensland clinical guideline for infant safe sleeping.
- Child death data on place of death location type was provided to the University of Queensland School of Medicine to support PhD research on staff wellbeing in Paediatric Intensive Care Units.
- Child death data for children known to Child Safety provided to the CDRB included:
  - updated cause of death and case specific information to support the review processes
  - SUDI case data and geographical remoteness data for research projects.

55 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.

Participation in state and national advisory groups

Whilst the COVID-19 global pandemic has disrupted face to face stakeholder and community engagement during 2020–21, engagement has continued via online platforms. QFCC officers participated in the following advisory bodies during 2020–21:

- Australian and New Zealand Child Death Review and Prevention Group
- Consumer Product Injury Research Advisory Group
- Interim Queensland Government Suicide Prevention Network
- SUDI multiagency advisory meeting
- QPQC Infant Mortality Sub-Committee
- QPQC Steering Committee
- Queensland Government Births and Deaths Working Group
- Road Safety Research Network.

Focus areas for 2021–22

Child death prevention strategy

The QFCC is developing a strategy to guide its child death prevention activities over the next 5 years. It is intended to provide an approach to using data captured in the Child Death Register to prioritise prevention initiatives in response to patterns and trends in child deaths in Queensland. It will focus on areas where interventions are possible, effective, and able to be implemented through practice and policy change and community education messaging.

Child Death Register enhancement

The QFCC will continue to work with developers to further enhance and refine the Child Death Register. This commitment to ongoing improvement will see the Register continue to evolve with technology and business needs, including further enhancement of the reporting tool.

In addition to enhancements within the system, a comprehensive data dictionary will be developed to establish consistent definitions of fields, data items and procedures. The dictionary will be a valuable reference for communication between system developers and end users, as well as supporting future enhancements through the clarification of business processes and requirements.

Information sharing

Information sharing between partner agencies is a critical element of maintaining an accurate and holistic suite of data in the Child Death Register. The QFCC will continue to collaborate with partner agencies to ensure the information sharing agreements continue to be fit for purpose and are meeting the needs of individual agencies.

Appendices

Appendix A — Summary tables on child deaths in Queensland

Table A.1: Summary of deaths of children and young people in Queensland, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All deaths						
Deaths of children 0–17 years	419	385	386	378	398	32.9[a]
Cause of death						
Natural causes	**325**	**289**	**267**	**258**	**266**	**22.4[a]**
External causes	**73**	**72**	**92**	**77**	**86**	**7.2[a]**
Transport	14	24	22	21	31	1.9
Drowning	19	10	16	13	10	1.2
Other non-intentional injury-related death	15	14	8	9	12	1.0
Suicide	20	24	37	21	30	2.3
Fatal assault and neglect	5	0	9	13	3	0.5
Unexplained causes	**20**	**24**	**27**	**34**	**17**	**2.1**
SIDS and undetermined causes	20	24	24	19	17	1.8
Cause of death pending	1	**0**	0	9	**29**	**0.7**
Sudden Unexpected Deaths in Infancy (SUDI)						
Sudden unexpected infant deaths	30	33	26	35	34	0.5[a,b]
Sex[c]						
Female	190	163	162	163	185	30.4
Male	229	221	224	214	213	36.9
Age category						
Under 1 year	268	242	220	246	239	3.8[a,b]
1–4 years	53	41	50	42	41	17.8
5–9 years	27	21	27	17	19	6.6
10–14 years	35	31	32	28	31	9.6
15–17 years	36	50	57	45	68	27.5
Aboriginal and Torres Strait Islander status						
Indigenous	63	73	65	66	71	69.6[a]
Non-Indigenous	356	312	321	312	327	29.6[a]
Known to the child protection system						
Known to Child Safety	58	48	58	53	53	61.2

Data source: Queensland Child Death Register (Aug-2021)

a 3-year average rate.

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

c Excludes deaths of children whose sex was indeterminate.

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
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 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.*
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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
Aboriginal and Torres Strait Islander deaths						
Total	**63**	**73**	**65**	**66**	**71**	**69.6**[a]
Cause of death						
Natural causes	**49**	**48**	**40**	**40**	**41**	**45.5**
External causes	**12**	**19**	**19**	**19**	**16**	**17.7**
Transport	4	7	3	4	3	4.4
Drowning	3	2	3	1	4	2.7
Other non-intentional injury-related death	1	5	2	4	4	3.3
Suicide	3	5	10	7	4	6.1
Fatal assault and neglect	1	0	1	3	1	1.3
Unexplained causes	**2**	**6**	**6**	**6**	**3**	**4.8**
SIDS and undetermined causes	2	6	6	6	3	4.8
Cause of death pending	**0**	**0**	**0**	**1**	**11**	**2.5**
Sudden Unexpected Deaths in Infancy (SUDI)						
Sudden unexpected infant deaths	4	10	5	9	11	1.2[b]
Age category						
Under 1 year	39	46	37	45	48	6.5[a,b]
1–4 years	5	8	9	6	8	33.0
5–9 years	8	5	4	1	1	13.9
10–14 years	4	4	6	4	4	16.8
15–17 years	7	10	9	10	10	61.8

Data source: Queensland Child Death Register (Aug-2021)

a 3-year average rate.

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
2. *Aboriginal and Torres Strait Islander status recorded in the Register is based on source documents. An audit was undertaken of decisions where the status in sources was inconsistent and in some cases the status was changed. As a result, there may be minor differences from previously reported mortality data by Indigenous status. Further information on the decision process can be found in Appendix B – Methodology.*
3. *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.*
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.*

Children known to Child Safety

Table A.3: Summary of deaths of children known to Child Safety in Queensland, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
Deaths of children known to Child Safety						
Total	**58**	**48**	**58**	**53**	**53**	**61.2**
Cause of death						
Natural causes	**26**	**25**	**22**	**15**	**17**	**23.8**
External causes	**27**	**18**	**30**	**27**	**22**	**28.1**
Transport	2	5	2	5	5	4.3
Drowning	10	5	5	2	5	6.1
Other non-intentional injury-related death	2	6	2	2	6	4.1
Suicide	8	2	14	8	4	8.2
Fatal assault and neglect	5	0	7	10	2	5.4
Unexplained causes	**4**	**5**	**6**	**9**	**5**	**6.6**
SIDS and undetermined causes	4	5	6	9	5	6.6
Cause of death pending	**1**	**0**	**0**	**2**	**9**	**2.7**
Sudden Unexpected Deaths in Infancy (SUDI)						
Sudden unexpected infant deaths	7	10	8	9	13	*
Age category						
Under 1 year	15	20	18	18	24	*
1–4 years	18	11	12	16	9	*
5–9 years	9	5	5	2	5	*
10–14 years	6	3	8	7	8	*
15–17 years	10	9	15	10	7	*

Data source: Queensland Child Death Register (Aug-2021)

* *Rate not calculated as no denominator data are available.*

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All natural cause deaths						
Diseases and morbid conditions	325	289	267	258	266	24.1
Category						
Perinatal conditions	153	133	130	131	126	11.6
Congenital anomalies	88	70	61	81	73	6.4
Neoplasms	29	21	25	17	24	2.0
Infections[a]	19	28	10	9	5	1.2
Other disease or morbid conditions NEC	36	37	41	20	38	3.0
Sex[b]						
Female	152	125	116	109	125	22.1
Male	173	163	151	148	141	26.0
Age category						
Under 1 year	243	215	196	209	200	3.4[c]
1–4 years	30	23	27	16	18	8.9
5–9 years	19	14	14	9	12	4.1
10–14 years	17	22	17	14	13	5.1
15–17 years	16	15	13	10	23	8.3
Aboriginal and Torres Strait Islander status						
Indigenous	49	48	40	40	41	45.5
Non-Indigenous	276	241	227	218	225	22.2
Geographical area of usual residence (ARIA+)						
Remote	21	8	6	11	3	29.5
Regional	108	108	81	86	93	24.1
Metropolitan	188	161	171	155	167	23.0
Socio-economic status of usual residence (SEIFA)						
Low to very low	164	138	117	104	114	28.1
Moderate	52	50	50	61	51	22.7
High to very high	101	89	91	87	98	19.6
Known to the child protection system						
Known to Child Safety	26	25	22	15	17	23.8

Data source: Queensland Child Death Register (Aug-2021)

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.

b Excludes the deaths of 1 infant of indeterminate sex in 2017–18 and 2019–20 each.

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

1. Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death

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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All transport deaths						
Transport	14	24	22	21	31	1.9
Incident type						
Motor vehicle	4	15	12	12	19	1.1
Pedestrian	5	7	7	6	4	1.1
Low-speed vehicle run-over	*3*	*5*	*3*	*2*	*3*	*0.3*
Motorcycle	2	0	2	1	5	0.2
Quad bike	0	1	0	1	2	0.1
Watercraft	1	1	0	0	0	*
Bicycle	1	0	1	1	1	0.1
Other	1	0	0	0	0	*
Sex						
Female	3	7	9	7	14	1.4
Male	11	17	13	14	17	2.4
Age category						
Under 1 year	1	1	0	0	1	*
1–4 years	4	7	5	2	5	1.8
5–9 years	2	3	6	3	4	1.1
10–14 years	2	3	4	5	5	1.2
15–17 years	5	10	7	11	16	5.3
Aboriginal and Torres Strait Islander status						
Indigenous	4	7	3	4	3	4.4
Non-Indigenous	10	17	19	17	28	1.7
Geographical area of usual residence (ARIA+)						
Remote	4	4	1	1	4	8.4
Regional	5	13	13	14	17	3.1
Metropolitan	5	7	8	5	9	0.9
Socio-economic status of usual residence (SEIFA)						
Low to very low	7	16	12	11	22	3.0
Moderate	6	2	4	4	7	2.0
High to very high	1	6	6	5	1	0.8
Known to the child protection system						
Known to Child Safety	2	5	2	5	5	4.3

Data source: Queensland Child Death Register (Aug-2021)

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
2. *Low-speed vehicle run-over is a subset of the 'pedestrian' category; hence, summing categories will exceed the total.*
3. *Quad bike includes all-terrain vehicles (ATV) and side-by-side vehicles (SSV) (also known as utility task vehicles (UTV)).*
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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All drowning deaths						
Drowning	19	10	16	13	10	1.2
Incident type						
Pool	7	6	8	6	2	0.5
Private pool	7	6	6	5	2	0.4
Public pool	0	0	2	1	0	*
Non-pool drownings	12	4	8	7	8	0.7
Bath	5	2	2	0	3	0.2
Beach or ocean	1	0	1	1	0	*
Dynamic waterway	1	1	3	2	1	0.1
Rural water hazard	1	1	0	3	3	0.1
Static inland waterway	2	0	2	0	1	0.1
Other	2	0	0	1	0	*
Sex						
Female	11	3	2	8	6	1.1
Male	8	7	14	5	4	1.3
Age category						
Under 1 year	3	1	2	0	2	2.6
1–4 years	11	7	6	9	5	3.0
5–9 years	4	2	4	2	1	0.8
10–14 years	0	0	1	0	1	*
15–17 years	1	0	3	2	1	0.8
Aboriginal and Torres Strait Islander status						
Indigenous	3	2	3	1	4	2.7
Non-Indigenous	16	8	13	12	6	1.0
Geographical area of usual residence (ARIA+)						
Remote	2	1	1	2	0	3.6
Regional	9	4	6	6	8	1.7
Metropolitan	7	5	4	5	2	0.6
Socio-economic status of usual residence (SEIFA)						
Low to very low	11	5	7	9	8	1.8
Moderate	5	2	1	1	1	0.9
High to very high	2	3	3	3	1	0.5
Known to the child protection system						
Known to Child Safety	10	5	5	2	5	6.1

Data source: Queensland Child Death Register (Aug-2021)

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 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 rate for age under 1 year which is per 100,000 live 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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All other non-intentional injury deaths						
Other non-intentional injury	15	14	8	9	12	1.0
Incident type						
Accidental poisoning	1	4	3	0	1	0.2
Deaths from fire	1	3	0	1	0	0.1
Exposure to inanimate mechanical forces	3	2	2	3	1	0.2
Threats to breathing	6	3	1	2	7	0.3
Other incidents	4	2	2	3	3	0.2
Sex						
Female	3	3	4	2	6	0.6
Male	12	11	4	7	6	1.3
Age category						
Under 1 year	2	1	0	0	3	1.9
1–4 years	3	4	3	3	4	1.3
5–9 years	0	1	1	2	1	0.3
10–14 years	8	2	2	1	1	0.9
15–17 years	2	6	2	3	3	1.7
Aboriginal and Torres Strait Islander status						
Indigenous	1	5	2	4	4	3.3
Non-Indigenous	14	9	6	5	8	0.8
Geographical area of usual residence (ARIA+)						
Remote	1	1	0	1	2	3.0
Regional	7	10	3	4	2	1.3
Metropolitan	7	3	4	3	8	0.7
Socio-economic status of usual residence (SEIFA)						
Low to very low	6	10	5	7	6	1.5
Moderate	4	1	0	1	2	0.7
High to very high	5	3	2	0	4	0.6
Known to the child protection system						
Known to Child Safety	2	6	2	2	6	4.1

Data source: Queensland Child Death Register (Aug-2021)

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rate for age under 1 year which is 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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000[3]
All suicide deaths						
Suicide	20	24	37	21	30	2.3
Sex						
Female	6	14	18	6	12	4.5
Male	14	10	19	15	18	5.8
Age category						
10–17 years	20	23	37	21	30	5.1
5–9 years	0	1	0	0	0	*
10–14 years	8	4	8	6	6	2.0
15–17 years	12	19	29	15	24	10.6
Aboriginal and Torres Strait Islander status						
Indigenous	3	5	10	7	4	14.1
Non-Indigenous	17	19	27	14	26	4.4
Geographical area of usual residence (ARIA+)						
Remote	0	2	4	3	1	15.3
Regional	7	7	11	9	13	5.2
Metropolitan	13	15	21	9	16	4.7
Socio-economic status of usual residence (SEIFA)						
Low to very low	8	13	16	11	16	6.7
Moderate	3	3	7	2	3	3.5
High to very high	9	8	13	8	11	4.5
Known to the child protection system						
Known to Child Safety	8	2	14	8	4	8.2

Data source: Queensland Child Death Register (Aug-2021)

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland.*
3. *Overall suicide rates are calculated per 100,000 children aged 0–17 years in Queensland. All other rates, except known to the child protection population, are calculated per 100,000 children aged 10–17 years in Queensland.*
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, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*
6. *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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All fatal assault and neglect deaths						
Fatal assault and neglect	5	0	9	13	3	0.5
Sex						
Female	2	0	4	6	2	0.5
Male	3	0	5	7	1	0.5
Age category						
Under 1 year	1	0	2	4	0	2.3
1–4 years	3	0	4	5	2	1.1
5–9 years	1	0	2	1	0	0.2
10–14 years	0	0	0	0	0	0.0
15–17 years	0	0	1	3	1	0.5
Aboriginal and Torres Strait Islander status						
Indigenous	1	0	1	3	1	1.3
Non-Indigenous	4	0	8	10	2	0.4
Geographic area of usual residence (ARIA+)						
Remote	0	0	0	0	0	0.0
Regional	0	0	6	3	1	0.5
Metropolitan	5	0	3	10	2	0.5
Socio-economic status of usual residence (SEIFA)						
Low to very low	2	0	8	5	1	0.7
Moderate	2	0	0	3	2	0.6
High to very high	1	0	1	5	0	0.3
Known to the child protection system						
Known to Child Safety	5	0	7	10	2	5.4
Category of fatal assault and neglect						
Intra-familial	5	0	7	10	2	0.4
Neonaticide	0	0	0	0	0	0.0
Domestic homicide	2	0	5	3	0	0.2
Fatal child abuse	2	0	1	3	1	0.1
Fatal neglect	1	0	0	3	0	0.1
Other intra-familial assault NEC	0	0	1	1	1	*
Extra-familial	0	0	2	3	1	0.1
Intimate partner homicide	0	0	1	0	0	*
Peer homicide	0	0	0	2	1	*
Stranger homicide	0	0	0	0	0	0.0
Acquaintance homicide	0	0	1	1	0	*

Data source: Queensland Child Death Register (Aug-2021)

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 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 rate for age under 1 year which is 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, 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, 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All deaths from unexplained causes						
Unexplained causes	20	24	27	34	17	2.1
Cause of death						
Sudden Infant Death Syndrome (SIDS)	8	16	14	20	7	21.1
Undetermined cause (infants)	9	8	6	9	8	13.0
Undetermined cause (1–17 years)	3	0	7	5	2	0.3
Sex						
Female	13	11	9	21	5	2.1
Male	7	13	18	13	12	2.1
Age category						
Under 1 year	17	24	20	29	15	34.0
1–4 years	2	0	5	3	1	0.9
5–17 years	1	0	2	2	1	0.1
Aboriginal and Torres Strait Islander status						
Indigenous	2	6	6	6	3	4.8
Non-Indigenous	18	18	21	28	14	1.9
Geographic area of usual residence (ARIA+)						
Remote	0	0	2	0	0	*
Regional	8	11	10	10	6	2.3
Metropolitan	11	12	15	22	11	1.9
Socio-economic status of usual residence (SEIFA)						
Low to very low	9	12	18	20	9	3.0
Moderate	6	6	5	7	3	2.3
High to very high	4	5	4	5	5	1.0
Known to the child protection system						
Known to Child Safety	4	5	6	9	5	6.6

Data source: Queensland Child Death Register (Aug-2021)

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

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
2. *Rates are averaged over 5 years and calculated per 100,000 children (in the sex/age/Indigenous status) in Queensland, excepting rates for 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, notification, investigation and assessment, ongoing intervention, orders or placement, in the 1-year period prior to the reporting period.*

Sudden Unexpected Deaths in Infancy

Table A.11: Summary of SUDI infant deaths in Queensland 2016–21

	2016–17	2017–18	2018–19	2019–20	2020–21	5 year average
	n	*n*	*n*	*n*	*n*	Rate per 100,000
All Sudden Unexpected Deaths in Infancy (SUDI)						
SUDI (infants)	30	33	26	35	34	0.5
Cause of death						
Explained causes	13	9	6	3	4	0.1
Unrecognised infant illness	10	9	6	2	1	0.1
Sleep accident	2	0	0	0	3	0.0
Fatal assault	1	0	0	1	0	*
Unexplained causes	17	24	20	29	15	0.3
SIDS	8	16	14	20	7	0.2
Undetermined	9	8	6	9	8	0.1
Cause of death pending	0	0	0	3	15	0.1
Sex						
Female	17	13	9	21	17	0.5
Male	13	20	17	14	17	0.5
Aboriginal and Torres Strait Islander status						
Indigenous	4	10	5	9	11	1.2
Non-Indigenous	26	23	21	26	23	0.4
Geographic area of usual residence (ARIA+)						
Remote	0	0	1	0	1	*
Regional	14	17	9	11	15	*
Metropolitan	15	15	16	22	18	*
Socio-economic status of usual residence (SEIFA)						
Low to very low	17	16	18	20	21	*
Moderate	6	8	3	8	6	*
High to very high	6	8	5	5	7	*
Known to the child protection system						
Known to Child Safety	7	10	8	9	13	*

Data source: Queensland Child Death Register (Aug-2021)

* *Rates have not been calculated for numbers less than four or where denominator data are not available.*

1. *Data presented are current in the Queensland Child Death Register as at August 2021 and thus may differ from previously published reports. Tables with data from 2004 are available online at* http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death
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.*

Appendix B — Methodology

This appendix provides an overview of the methodology employed in the production of the *Annual Report: Deaths of children and young people, Queensland, 2020–21*. It also explains the process of maintaining the Queensland Child Death Register and the methods used for the analysis of trends and patterns in the data.

Queensland Child Death Register

Under Part 3 (sections 25–29) of the *Family and Child Commission Act 2014*, the QFCC has the responsibility to maintain a register of all deaths of children and young people under the age of 18 years that are registered in Queensland. The information in the Register is required to be classified according to cause of death, demographic information and other relevant factors. The Queensland Child Death Register contains information in relation to all child deaths registered in Queensland from 1 January 2004. The *Family and Child Commission Act 2014* also outlines functions of the QFCC to help reduce the likelihood of child deaths, including to conduct research, make recommendations about laws, policies, practices and services and provide access to data contained in the Queensland Child Death Register to persons undertaking genuine research. Under the *Family and Child Commission Act 2014*, the Principal Commissioner must prepare an annual report in relation to child deaths in Queensland.

To support the establishment and maintenance of the Register, the Registry of Births, Deaths and Marriages and the Office of the State Coroner both advise the Principal Commissioner of a child's death and provide available relevant particulars.

Redesign of the Child Death Register

The QFCC launched its new Child Death Register, Coda, in March 2021. The replacement system has enhanced functionality and captures quality information in a more structured way. An important consideration in the system development was to migrate the child death data captured in the Register since 2004. Migration of field data was achieved on a one-to-one basis across most of the Register.

The QFCC considers key data items have for the most part been carried over with no changes detected as a result of the transition to the new system. Some changes from previously reported numbers are normal and expected as the Register is continually updated when new information is received.

Minor changes may have affected data in relation to Aboriginal and Torres Strait Islander status and indicators of geographic remoteness (ARIA+) and socio-economic status (SEIFA). Further details are provided in the relevant sections.

Data comparability and accuracy

The *Annual Report: Deaths of children and young people in Queensland, 2020–21* brings together information from a number of key sources and presents it in a way which facilitates consideration and interpretation of the risk factors associated with the deaths of children and young people in Queensland. The report also allows comparisons to be made between different population subgroups, such as Aboriginal and/or Torres Strait Islander children and children known to the child protection system.

Caution must be exercised; however, when making comparisons and interpreting rates due to the small number of deaths analysed. An increase or decrease of one or two deaths across the course of a year may have a significant impact on the rates when small numbers are involved.

As the Register relies on administrative data sources, a small margin of error is possible. There are no mechanisms available to formally verify the complete accuracy of the datasets provided to the QFCC.

Registry of Births, Deaths and Marriages

The information contained in the Queensland Child Death Register is based on death registration data from the Queensland Registry of Births, Deaths and Marriages (RBDM). The *Births, Deaths and Marriages Registration Act 2003* provides the registrar must give notice of the registration of all child deaths to the Principal Commissioner.[56] The data provided include:

- death registration number
- child's name
- child's date and place of birth
- child's usual place of residence
- child's age
- child's sex
- child's occupation, if any
- child's Aboriginal or Torres Strait Islander status
- duration of the last illness, if any, had by the child
- date and place of death
- cause of death, and
- mode of dying.[57]

The RBDM also provides the QFCC with birth registration data for linked birth/death records.

To the extent practicable, this information is provided within 30 days after the death is registered. Where the death is a natural death (due to diseases or morbid conditions), and a Cause of Death Certificate is issued by a medical practitioner, only death and birth registration data (as outlined above) are available for analysis. In coronial cases, additional information on the death is available.

Coroners Court of Queensland

In cases of reportable child deaths, coronial information is also available. Section 8 of the *Coroners Act 2003* defines a reportable death as a death where the:

- identity of the person is unknown
- death was violent or unnatural
- death occurred in suspicious circumstances
- death was health care-related
- Cause of Death Certificate was not issued, or is not likely to be issued
- death occurred in care
- death occurred in custody, or
- death occurred in the course of, or as a result of, police operations.

56 Section 48A (details of stillborn children are not included in the information given to the QFCC).

57 Section 48B of the *Births, Deaths and Marriages Act 2003* enables the registrar to enter into an arrangement with QFCC to provide additional data. Aboriginal and Torres Strait Islander status, date of birth and mode of dying are provided by administrative arrangement only.

A death in care occurs when the person who has died:

- had a disability (as defined under the *Disability Services Act 2006*) and was living in a residential service provided by a government or non-government service provider or hostel
- had a disability, such as an intellectual disability, or an acquired brain injury or a psychiatric disability; and lived in a private hostel (not an aged-care hostel)
- was being detained in, taken to or undergoing treatment in a mental health service, or
- was a child in foster care or under the guardianship of the Department of Children, Youth Justice and Multicultural Affairs.[58]

A death in custody is defined as a death of someone in custody (including someone in detention under the *Youth Justice Act 1992*), escaping from custody or trying to avoid custody.[59]

To help the QFCC fulfil its child death functions, the *Coroners Act 2003* imposed an obligation on the State Coroner to notify the Principal Commissioner of all reportable child deaths. The information provided by the State Coroner includes:

- the Police Report of Death to a Coroner (Form 1), which includes a narrative giving a summary of the circumstances surrounding the death
- autopsy and toxicology reports
- the coroner's findings and comments.[60]

For the major categories of reportable deaths, which include deaths from external causes and Sudden Unexpected Deaths in Infancy (SUDI), coronial information is reviewed with a view to identifying key risk factors.

Of the 398 deaths of children and young people registered in 2020–21, 36% were reportable under the *Coroners Act 2003* (145 deaths). At the time of reporting, coronial findings had been finalised for 27% (39 deaths) of reportable deaths. Autopsy and preliminary examination reports, where internal and/or external autopsies were performed, were provided in 35 of the 39 finalised cases and in 50 of the 106 cases where coronial findings were still outstanding.

Access to other data sources

The QFCC has information sharing arrangements with the following agencies:

- Registry of Births, Deaths and Marriages[61]
- Coroners Court of Queensland[62]
- Department of Children, Youth Justice and Multicultural Affairs (including records relating to child safety)
- Queensland Police Service
- Queensland Ambulance Service
- Department of Justice and Attorney-General (including records relating to Workplace Health and Safety Queensland)
- Australian Bureau of Statistics
- Queensland Health
- Department of Education
- National Coronial Information System.

58 Section 9 of the *Coroners Act 2003*.

59 Section 10 of the *Coroners Act 2003*.

60 Section 45 of the *Coroners Act 2003* provides the Coroner must give written copies of his/her findings relating to child deaths to the Principal Commissioner. Coroners' findings are the findings of coronial investigations and should confirm the identity of the person; how, when and where the person died; and what caused the death. Section 46 provides, in the case of a child death, the Coroner must give written copies of his/her comments to the Principal Commissioner. Coroners' comments may arise from an inquest that relates to public health or safety or relates to the administration of justice or ways to prevent future deaths.

61 The agreement between the Registry of Births, Deaths and Marriages and the QFCC was developed in accordance with the provisions of section 48B of the *Births, Deaths and Marriages Act 2003*.

62 The agreement between the Office of the State Coroner and the QFCC was developed in accordance with the provisions of section 54A of the *Coroners Act 2003*.

Confidentiality

Accompanying the QFCC's privileged access to information is a duty of confidentiality specified in the *Family and Child Commission Act 2014*. Section 36 (Confidentiality of Information) of the Act states:

> If a person gains confidential information through involvement in the administration of this Act, the person must not –
>
> (a) make a record of the information or intentionally disclose the information to anyone, other than under subsection (3),[63] or
>
> (b) recklessly disclose the information to anyone.

Coding cause of death

The QFCC used the *International statistical classification of diseases and related health problems, tenth revision* (ICD-10) to code underlying and multiple causes of death. ICD-10 was developed by the World Health Organization (WHO) and is designed to promote international comparability in the collection, processing, classification and presentation of morbidity and mortality statistics.

What is the underlying cause of death?

The concept of the underlying cause of death is central to mortality coding and comparable international mortality reporting. The WHO has defined the underlying cause of death as the:

- disease or injury which initiated the chain of morbid events leading directly to death, or
- circumstances of the incident or violence which produced the fatal injury.

Stated simply, the underlying cause of death is the condition, event or circumstances without the occurrence of which the person would not have died.

Qualified mortality coders

QFCC staff trained in ICD-10 mortality coding are responsible for the coding of all external cause deaths.

In addition, the QFCC has a formal arrangement with the Australian Bureau of Statistics (ABS) for the provision of mortality coding services. Qualified ABS mortality coders review all available information for natural cause deaths and code the underlying and multiple causes of death according to ICD-10 cause of death coding regulations. ABS also undertakes quality assurance of external cause deaths coded by the QFCC.

Classification of external cause deaths

The QFCC recognises that ICD-10 carries certain inherent limitations, particularly in regard to recognising contextual subtleties of cases, and in adequately capturing deaths due to:

- drowning in dams
- low-speed vehicle run-overs that occur in driveways
- four-wheel motorcycle (quad bike) incidents
- SUDI.

To help overcome the limitations of ICD-10, the QFCC primarily classifies deaths according to their circumstances. Based on the information contained in the Police Report of Death to a Coroner (Form 1), such classification enables the QFCC to discuss deaths occurring in similar circumstances, even where an official cause of death has not yet been established, or where the ICD-10 code does not accurately reflect the circumstances of death.[64]

All reportable deaths are classified as being caused by disease and morbid conditions, transport incidents, drowning, other non-intentional injury, suicide, fatal assault and neglect or unexplained. SUDI are also grouped together for the purpose of analysis.

63 Subsection 3 permitted a person to make a record of, or disclose, confidential information for this Act to discharge a function under another law, for a proceeding in a court or tribunal or if authorised under a regulation or another law.

64 Cases which have not received an official cause of death, as established at autopsy or coronial investigation, cannot be coded according to ICD-10.

As outlined above, discrepancies may exist between research categories and ICD-10 figures. The QFCC primarily reports by the broad external cause classifications described above. ICD-10 coding is still used to report on deaths from natural causes. Full details of ICD-10 coding for external cause deaths can be found in **Appendix D**.

Location geocoding

All locations related to child deaths (such as place of death, usual residence, incident location) are geocoded using the Queensland Government Property Location Service Plus. The geocoded locations are then linked to reference data for indicators of remoteness and socio-economic status.

Geographical remoteness (ARIA+)

The Accessibility/Remoteness Index of Australia Plus (ARIA+) is used to code geographical remoteness for locations recorded for child death data. ARIA+ is a standard distance-based measure of remoteness developed by the National Centre for the Social Applications of Geographic Information Systems (GISCA) and the former Australian Department of Health and Aged Care (now Department of Health). It interprets remoteness based on access to a range of services; the remoteness of a location is measured in terms of distance travelled by road to reach a centre that provides services.[65]

All child deaths are classified according to the ARIA+ index. The analysis of geographic distribution in the child death annual report refers to the child's usual place of residence, which may differ from the place of death or the incident location.

At the time of the implementation of the new Child Death Register in March 2021, the ARIA+ reference data for locations added after that date is from the Census 2016. Location data for all records entered into the Register from 2004 to February 2021 use reference data from Census 2011. Some locations needed to be revalidated after March 2021, and a small number may have shifted categories due to the updated reference data.

For the purposes of analysis in this report, the following general categories of remoteness are reported:

- **Metropolitan:** includes major cities of Queensland[66]
- **Regional:** includes inner and outer regional Queensland[67]
- **Remote:** includes remote and very remote Queensland.[68]

Socio-economic status (SEIFA)

Of the Socio-economic Indexes for Areas (SEIFA) developed by the ABS, the Index of Advantage/Disadvantage has been used in the child death report. This index aims to rank geographical areas to reflect both advantage and disadvantage at the same time, effectively measuring a net effect of social and economic conditions.

Variables associated with advantage include the proportion of families with high incomes, the proportion of people with a university degree or higher and the proportion of people with skilled occupations.

Variables associated with disadvantage include the proportion of families with low incomes, the proportion of persons with relatively low levels of education and the proportion of people in low-skilled occupations.

To determine the level of advantage and disadvantage, the child's usual place of residence was used for coding the geographic area. For this reason, measures of socio-economic status (SES) used in the Annual Report are measures of the status of the areas in which children and young people reside, not the SES of each individual child or their family.

The SEIFA reference data is based on Census 2011 for locations entered in the Register from 2004 to February 2021. All locations entered into the Register from March 2021 are based on Census 2016. Possible data changes arising from the transition to the new Register are similar to those noted above for remoteness indicators.

65 ARIA+ is a purely geographic measure of remoteness, which excludes any consideration of socio-economic status, rurality and population size factors (other than the use of natural breaks in the population distribution of urban centres to define the service centre categories).

66 Relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.

67 Significantly restricted accessibility of goods, services and opportunities for social interaction.

68 Very restricted accessibility of goods, services and opportunities for social interaction.

Aboriginal and Torres Strait Islander status

Historically, the identification of Indigenous status on death registration forms was often incomplete or inaccurate, leading to an undercount of the actual numbers of deaths of Aboriginal and Torres Strait Islander people. The identification of the deaths of Indigenous people has improved considerably in recent years; however, the extent of any continued under-reporting is not known and it is likely some undercount of the number of deaths registered as Aboriginal and Torres Strait Islander continues.

The Child Death Register records Aboriginal and Torres Strait Islander status as noted in the derived birth registration and death registration data, on the Form 1 and in other official records. There are instances of inconsistent reporting of Aboriginal and Torres Strait Islander status across official records. The QFCC uses a guideline to determine which status will be recorded within the Register.

The redesign of the Child Death Register has allowed additional source records on the Aboriginal and Torres Strait Islander status of deceased children to be included in the Register. The business rules have been reviewed to align with the best practice approaches described by the Australian Institute of Health and Wellbeing (AIHW) and more recent research findings.[69,70,71]

Following these processes, an audit was undertaken of the decisions in the Register resulting in changes in status for some children. As a result, there may be minor differences from previously reported mortality data by Indigenous status.

Children known to the child protection system

The deaths of children known to the child protection system have been analysed as a separate cohort, as the Queensland child protection system has legislative responsibilities in relation to these deaths. In accordance with Chapter 7A of the *Child Protection Act 1999*, the deaths of all children known to the Queensland child protection system are subject to an internal review by the Department of Children, Youth Justice and Multicultural Affairs (DCYJMA). These reviews are undertaken to facilitate learning, improve service delivery and promote accountability.[72]

A child is deemed to have been known to the Queensland child protection system, if within one year before the child's death:

- DCYJMA was notified of concerns of alleged harm or risk of harm, or
- DCYJMA 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
- DCYJMA took action under the *Child Protection Act 1999*, or
- the child was in the custody or guardianship of DCYJMA.[73]

On 1 July 2020, a two-tier review process came into effect. Under the *Child Death Review Legislation Amendment Act 2020*, agencies are responsible for conducting internal system reviews following the death or serious physical injury of a child known to the child protection system. The independent Child Death Review Board has been established to conduct systemic reviews following the death of a child, connected to the child protection system, to identify opportunities to improve the child protection system and prevent future deaths.

69 AIHW, ABS (2012) ***National best practice guidelines for data linkage activities relating to Aboriginal and Torres Strait Islander people***, cat. no: IHW 74, AIHW, Australian Government.

70 Christensen D, Davis G, Draper G, Mitrou F, McKeown S, Lawrence D, McAullay D, Pearson G, Rikkers W, Zubrick SR (2014) 'Evidence for the use of an algorithm in resolving inconsistent and missing Indigenous status in administrative data collections', *Australian Journal of Social Issues*, 49:423–443, https://doi.org/10.1002/j.1839-4655.2014.tb00322.x.

71 Shipstone R, Young J, Thompson JMD (2019) 'The real divide: the use of algorithm-derived Indigenous status to measure disparities in sudden unexpected deaths in infancy in Queensland', *Australian and New Zealand Journal of Public Health*, 43:570–576, https://doi.org/10.1111/1753-6405.12951.

72 Section 245(3) of the *Child Protection Act 1999*.

73 Section 246A of the *Child Protection Act 1999*.

Analysis and reporting

Analysis period

The Queensland Child Death Register is analysed according to date of registration of the death (rather than date of death). This is in accordance with national datasets managed by the ABS and the AIHW, as well as child death datasets managed by other Australian states and territories.

Reporting period

This annual report examines the deaths of 398 children and young people aged from birth to 17 years, registered between 1 July 2020 and 30 June 2021.

Place of residence

The Queensland Child Death Register records the deaths of children which occur within Queensland, regardless of the child's usual place of residence. Deaths of interstate and international residents that occur within Queensland are therefore recorded (visitors, holidaymakers and children who die while accessing specialist and emergency medical care). Deaths of Queensland residents that occur within other jurisdictions are not recorded.

Differences from previously published data

Information on child deaths can be received at a much later date than the original registration data, following processes of child death reviews, autopsies and coronial investigations. A critical element of the Register's comprehensiveness and research value is the inclusion of new information relating to individual child deaths as it is received. However, it should be noted the information on deaths in previous periods may therefore differ from those presented in earlier published annual reports.

Copies of the **Appendix A** summary tables containing the timeseries data from 2004 are available online at **http://www.qfcc.qld.gov.au/kids/preventing-child-injury-death**.

Population data used in calculations of child death rates

Child death rates are calculated per 100,000 children (for each sex/age category/Indigenous status/child protection status/ARIA+ region/SEIFA region) in Queensland.

This annual report uses the estimated resident population (ERP) data to calculate rates, excepting for the age group under 1 year where the number of live births is used as the denominator. Infant mortality rates are calculated per 1,000 births; however, for comparative purposes rates are also presented as per 100,000 births. Rates are not calculated for numbers less than four deaths because of the unreliability of such calculations.

Rates and percentages presented in this report are calculated as multi-year averages to provide more reliable estimates of mortality data and smooth out year to year fluctuations that arise with reporting on small numbers. Three-year rolling averages are used for trends in all causes, major cause groups, by Aboriginal and Torres Strait Islander status, and SUDI. Five-year averages are used for data further disaggregated by cause, type and demographics.

In this report, mortality rates are calculated as the average number of deaths over the 3 (or 5) year period divided by the average population (or live births) over the 3 (or 5) year period.

The Queensland Government Statistician's Office provides updated ERPs each year. ERP by age, sex and Indigenous status for the latest year, 2020, were preliminary at the time of reporting. ERPs for SEIFA and ARIA+ were not available for 2020. In calculations, the 2019 values were used as proxies to replace the missing 2020 values.

Infant mortality rates

Chapters 1 and 2 present infant mortality rates, defined as the number of deaths of infants aged under one year per 1,000 live births. In the 2019 calendar year, there were 61,735 live births in Queensland, including 6,852 Indigenous live births.[74] Live births data was not available for 2020 at the time of reporting. In calculations, the 2019 values were used as proxies to replace the missing 2020 values.

Rates of death for children known to the child protection system

Rates of death for children known to Child Safety are calculated using, as the denominator, the number of distinct children known to the Queensland child protection system in the one-year period before the relevant financial year.

The denominator data, shown in Table B.1, represents the number of distinct children (aged 0—17 years) who had any of the following forms of contact with Child Safety in the preceding financial year:

- Child Concern Report
- Child Protection Notification
- Investigation and Assessment Order
- Ongoing intervention
- Child Protection Order
- Placement in care.

Table B.1: Children known to the Queensland child protection system

Reporting period	Number of distinct children known to the child protection system
2016–17	80,510
2017–18	84,597
2018–19	88,824
2019–20	92,040
2020–21	95,292

Data source: DCYJMA (2021)

74 ABS (2020) ***Births, Australia, 2019***, 'Births, summary, by state, Queensland – 2006 to 2019', ABS website, accessed 22 June 2021.

Appendix C — Abbreviations and definitions

ABS	Australian Bureau of Statistics.
Acquaintance homicide	A child killed by an adult (over 18 years) known to—but not intimately connected with or in a friendship with—the victim. Perpetrators may include neighbours, family friends, teachers or a person who had interacted with the child in an online context. This differs from domestic homicide, where there is an unambiguous familial association, and stranger homicide, where there is no prior association whatsoever between the perpetrator and victim.
AIHW	Australian Institute of Health and Welfare.
ANZCDR&PG	Australian and New Zealand Child Death Review and Prevention Group.
ARIA+	Accessibility/Remoteness Index of Australia Plus. An index of remoteness derived from measures of road distance between populated localities and service centres. These road distance measures are then used to generate a remoteness score for any location in Australia.
Autopsy	Also 'post-mortem'. A detailed physical examination of a person's body after death. An autopsy can be external only, external with full internal or external with partial internal.
Bathtub	A large open container for water in which a person may wash their body and includes a bathtub or baby bath.
Beach or ocean	Beach refers to the shoreline of an ocean (the land component) and ocean refers to the sea.
Bullying	Repeated hurtful behaviour which involves a power imbalance. It includes physical, verbal, social (often covert) and cyber bullying behaviours.
Bystander	Pedestrian incident in which a child who has not entered or attempted to enter a roadway or other area where vehicles are usually driven, is struck by a vehicle that has left the designated roadway or area. For example, a child playing in the front yard of a home is struck by a vehicle that has left the roadway after the driver has lost control.
Cause of death pending	Used to categorise deaths that do not have an immediately obvious cause (such as a transport incident), and where official cause of death information has not yet been received to enable classification.
CCYPCG	The Commission for Children and Young People and Child Guardian (Qld). The CCYPCG ceased operations on the 30 June 2014 following the repeal of the *Commission for Children and Young People and Child Guardian Act 2000*. Prior to the establishment of the QFCC on 1 July 2014, the CCYPCG was responsible for maintaining the Queensland Child Death Register.
CDRB	Child Death Review Board. The CDRB conducts systemic reviews following the death of a child connected to the child protection system under Part 3A of the *Family and Child Commission Act 2014*. These reviews identify opportunities to improve the child protection system and prevent future deaths. The CDRB uses agency information, research and data to make system-wide findings and recommendations for systemic improvements to help prevent deaths that may have been avoidable.
Child	A person aged from birth up to, but not including, 18 years.

Child known to Child Safety	A child is deemed to have been known to Child Safety if, within one year before the child's death: • Child Safety 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.[75]
Congenital anomalies	Congenital anomalies (ICD-10 Chapter XVII, Congenital malformations, deformations and chromosomal abnormalities) are mental and physical conditions present at birth that are either hereditary or caused by environmental factors.
CPR	Cardiopulmonary resuscitation.
DCYJMA	Department of Children, Youth Justice and Multicultural Affairs (Qld). Queensland government agency responsible for administering the *Child Protection Act 1999*.
Death in care	A death as defined under section 9 of the *Coroners Act 2003*. This occurs when a person who had died: • had a disability and was living in a residential service provided by a government or non-government service provider or hostel • had a disability and lived in a private hostel (not aged-care) • was being detained in, taken to, or undergoing treatment in a mental health service • was a child in foster care or placed at a residential facility under the guardianship of the DCYJMA.
Death in custody	A death as defined under section 10 of the *Coroners Act 2003*. This includes the death of someone in custody (including someone in detention under the *Youth Justice Act 1992*), escaping from custody or trying to avoid custody.
Death incident location	The address at which the set of circumstances leading to death occurred. This may be the same as, or different from, the place of death.
Diseases and morbid conditions	Also referred to as natural causes. A cause of death category used for those cases where the official cause of death has been given an ICD-10 Underlying Cause of Death which corresponds to Chapters 1–17 of the ICD Codebook (except deaths coded as R95 and R99 which are included in unexplained causes). Diseases and morbid conditions cannot be assigned as a category of death until an official cause of death has been received and coded. All reportable deaths suspected to be the result of a disease or morbid condition are assigned a category of death of 'Unknown—cause of death pending', until the official cause of death has been received and coded.
Domestic homicide	Homicide committed by someone in the child's familial network or foster carer where there is a clear intent to cause life threatening injury on the part of the perpetrator. Such events are usually characterised by evidence of a breakdown in the parental relationship and/or acute mental illness in one or both parents. It is characterised by an obvious critical event or angry impulse in which the perpetrator acts overtly (and usually suddenly) to end the life of one or more family members. Children of any age may be victims. It is common in cases of domestic homicide for a perpetrator to suicide subsequent to their killing of one or more family members. This subtype of domestic homicide is often referred to as murder-suicide. Parents, step-parents, foster parents and extended family members can be involved in these incidents.

75 Section 246A of the *Child Protection Act 1999*.

Drowning	Deaths that occur as a direct or indirect result of immersion in some form of liquid.
Dynamic waterway	A waterway with a flowing momentum, that is rivers and/or creeks.
ERP	Estimated resident population.
External causes of death	Pertaining to environmental events and circumstances that cause injury, poisoning and other adverse effects. Broadly, external cause deaths are generally more amenable to prevention than many deaths from disease and morbid conditions.
Fatal assault	Death of a child at the hands of another person who has inflicted harm to them through some means of force or physical aggression.
Fatal child abuse	Describes deaths from physical abuse perpetrated by a parent or caregiver against a child who is reliant upon them for care and protection where the intent was to harm the child (e.g. over-use of force or excessive disciplinary behaviours). It may be characterised by a history of chronic and escalating abuse or by an isolated incident. It also includes cases where the child is permanently injured from physical harm but dies at a later stage from medical issues initiated by the physical harm incident (late effects of abuse). Victims are predominantly infants, toddlers and preschool-aged children.
Fatal neglect	Defined as where a child, dependent on a caregiver for the basic necessities of life, dies owing to the failure of the caregiver to meet the child's ongoing basic needs. This may involve acts or omissions on the part of a caregiver that are either deliberate or extraordinarily irresponsible or reckless. It is most likely to involve younger children who are wholly reliant upon their primary caregivers.
Floodwater	A body of water that has escaped its usual boundaries (including overflows of drainage systems), water that exceeds the capacity of the structure normally holding it (including creeks and rivers), or water that temporarily covers land not normally covered by water (flash flooding).
ICD-10	International statistical classification of diseases and related health problems, tenth revision.
Indigenous	Refers to people who identify as being Aboriginal and/or Torres Strait Islander.
Intimate partner homicide	Homicide committed by intimate partners or former intimate partners. Intimate refers to a romantic or coupled relationship characterised by a level of mutual trust, dependence or commitment between the child and the perpetrator. It does not include friendship-only relationships. There is no age threshold for this category.
Known to be in or on water	When a child aged under 5 years is known by the carer to be actively swimming, paddling, wading, playing, bathing in water or on a watercraft.
Known to be around water	When the carer of a child aged under 5 years is aware of the existence of a nearby water hazard and a reasonable person could foresee that the child could quickly or easily gain access to it (i.e. no barrier or a defective barrier). Examples include where a carer leaves a child playing on the floor of the bathroom while the bath is filling up, or the carer leaves the child playing in the backyard but has propped open the pool gate.
Low-speed vehicle run-over	An incident where a pedestrian is injured or killed by a slow-moving vehicle travelling forwards or reversing. The incident can occur in a non-traffic area (e.g. residential driveway) or as a vehicle is merging into or out of a traffic area (e.g. school pick-up zone).
Neonatal death	A neonatal death is the death of an infant within 0–27 days of birth who, after delivery, breathed or showed any other evidence of life, such as a heartbeat.

Neonaticide	The killing of an infant within 24 hours of birth. It is to be differentiated from infanticide, which is commonly defined as the killing of an infant under the age of one year by a parent. Neonaticide is typically characterised by an attempt to conceal birth by disposing of the foetal remains but can also include intentional harm to the infant (regardless of the presence of mind of the offender at the time). This definition does not limit neonaticide to acts or omissions involving mothers, as fathers and stepfathers may also be involved.
Neoplasms (cancers and tumours)	The term 'neoplasm' (ICD-10 Chapter II) is often used interchangeably with words such as 'tumour' and 'cancer'. Cancer includes a range of diseases in which abnormal cells proliferate and spread out of control. Normally, cells grow and multiply in an orderly way to form organs that have a specific function in the body. Occasionally; however, cells multiply in an uncontrolled way after being affected by a carcinogen, or after developing a random genetic mutation. They may form a mass that is called a tumour or neoplasm. A 'benign neoplasm' refers to a non-cancerous tumour, whereas a 'malignant neoplasm' usually refers to a cancerous tumour (that is, cancer). Benign tumours do not invade other tissues or spread to other parts of the body, although they can expand to interfere with healthy structures.
Notifiable condition	A condition made notifiable to state health authorities if there is potential for its control. The Queensland Health list of notifiable conditions can be found at **https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/diseases-infection/notifiable-conditions/list**.
Not known to be around water	When the carer of a child aged under 5 years is not aware the child is exposed to a water hazard (i.e. the carer thinks the water hazard is appropriately restricted and is not aware that the child has gained access to it) or the presence of the water hazard was not known. Examples include where a child is thought to be sleeping or playing safely in a restricted area but has gained access to a water hazard by climbing the fence to the pool or filling up the bathtub.
Object containing water	An object that acts as a vessel for water such as a mop bucket or laundry bucket.
Other non-intentional injury-related deaths	Other non-intentional injury-related deaths include those resulting from a fall, electrocution, poisoning, suffocation, strangulation and choking, fire, and other non-intentional injury-related deaths that are not discussed in **Chapter 3** (Transport) or **Chapter 4** (Drowning) of the Annual Report. The complete list is included in **Appendix E**.
Peer homicide	Lethal confrontations that occur between peers. Peers are classified as young people (under 18 years) who are of a similar age and/or developmental level, or 2 people of any age who are friends and therefore of the same social standing and peer network.
Peer passengers	Refers to the laws regarding restrictions on the number of passengers that a P1-type provisional licence holder under 25 years may carry in a vehicle. During the period between 11pm on a day and 5am on the next day, the P1-type provisional driver must not drive on a road in a vehicle carrying more than one passenger under the age of 21 years who is not an immediate family member.
Perinatal condition	Perinatal conditions (ICD-10 Chapter XVI, Certain conditions originating in the perinatal period) are diseases and conditions that originated during pregnancy or the neonatal period (first 28 days of life), even though death or morbidity may occur later. These include maternal conditions that affect the newborn, such as complications of labour and delivery, disorders relating to foetal 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.

Perinatal period	The perinatal period refers to infants of at least 20 weeks gestation or at least 400 grams birth weight, and all neonates (all live born babies up to 28 completed days of life after birth, regardless of gestational age or birth weight). This is based on the ABS definition of the perinatal period. The ABS has adopted the legal requirement for registration of a perinatal death as the statistical standard as it meets the requirements of major users in Australia. This definition differs from the World Health Organization's recommended definition of perinatal deaths, which includes infants and foetuses weighing at least 500 grams or having a gestational age of 22 weeks or a body length of 25 centimetres crown–heel.
Place of death	The address at which the child was officially declared deceased.
Place of usual residence	The address nominated by the child's family as the child's primary residential address upon registering the death with the Registry of Births, Deaths and Marriages.
Police Report of Death to a Coroner (Form 1)	A form completed by the police in accordance with section 7 of the *Coroners Act 2003*—Duty to Report Deaths.
Post-neonatal death	A post-neonatal death is the death of an infant 28 or more days, but less than 12 months, after birth.
Postvention	The provision of crisis intervention, support and assistance for those affected by a completed suicide.
Precipitating factor	An event that occurred in the months preceding a young person's suicide which may be considered to have contributed to the young person's decision to take their own life.
Principal Commissioner	Principal Commissioner of the Queensland Family and Child Commission.
Quad bike	Previously referred to as all-terrain vehicles (ATVs), these are four-wheeled motorcycles primarily used for agricultural purposes. Includes side-by-side vehicles and utility terrain vehicles (UTV).
QFCC	Queensland Family and Child Commission enacted by the *Family and Child Commission Act 2014* on 1 July 2014.
RBDM	Registry of Births, Deaths and Marriages (Qld).
Reportable death	A death as defined under sections 8, 9 and 10 of the *Coroners Act 2003*. This includes any death where the: • identity of the person is unknown • death was violent or unnatural • death occurred in suspicious circumstances • death was health care-related • Cause of Death Certificate was not issued and is not likely to be issued • death occurred in care • death occurred in custody, or • death occurred in the course of, or as a result of, police operations.
Rural water hazard	Sources of water used in agricultural activities, such as dams, irrigation channels, livestock dips and troughs.

SEIFA	Socio-Economic Indexes for Areas. Developed by the ABS using data from the Census of Population and Housing, SEIFA provides a range of measures to rank areas based on their relative social and economic wellbeing.
Self-harm	The non-socially or culturally sanctioned deliberate destruction of one's own body tissue and can be suicidal or non-suicidal in intent. Generally it does not include self-harm that is done for religious or cultural purpose, such as rites of passage.
Sex	The biological distinction between male and female, as separate and distinct from a person's gender or sexual identity. Indeterminate sex is recorded where medical practitioners are unable to ascertain an infant's sex due to extreme prematurity or non-viable gestation.
SIDS	Sudden Infant Death Syndrome.
Speeding/ excessive speed	May be a contributing factor when police have indicated that speed was definitely or likely a factor in the death incident or there is other evidence which can confirm the speed at which the vehicle was travelling to be above the speed limit for the place of incident.
Static inland waterway	A waterway without a flowing momentum such as dams and ponds.
Stillborn/ stillbirth	A stillborn child is a child who has shown no sign of respiration or heartbeat, or other sign of life, after completely leaving the child's mother and who has been gestated for 20 weeks or more, or weighs 400 grams or more.
Stranger homicide	A child death that occurs at the hands of an adult person (over 18 years) who is unknown to the child.
Stressful life event	An event that occurred over the course of the child's life, with the stressor first occurring more than six months before death. These types of events are often considered to be more chronic and longstanding in nature than a precipitating incident.
Sudden cardiac death	An unexplained or presumed arrhythmic sudden death, occurring in a short time period (generally within one hour of symptom onset), in a child or young person with no previously known cardiac disease.
SUDI	Sudden Unexpected Death in Infancy. This is a research classification and does not correspond with any single medical definition or categorisation. The aim of the grouping is to report on the deaths of apparently normal infants who would be expected to thrive yet, for reasons often not known or immediately apparent, do not survive. The QFCC adopted the following working criteria for the inclusion of cases in the SUDI grouping: the death was of an infant less than one year of age, the death was sudden in nature, the death was unexpected, the infant had no known condition likely to cause death, and the infant had no immediately obvious cause of death.
Suicidal act	Involves self-inflicted injury that is accompanied by the intention of the individual to die from the result of the action taken.
Suicidal contagion	The process by which a prior suicide or attempted suicide facilitates or influences suicidal behaviour in another person.
Suicidal ideation	The explicit communication of having thoughts of suicide.

Suicidal intent	Suicidal intent may be communicated directly or implied to a significant person in a child or young person's life such as a family member/carer, friend, health professional or educator. Notification of suicidal intent may occur in person, be verbalised via telephone or be written or expressed using online technology (SMS text messaging, online messenger and email, or through social media platforms).
Suicide	Death resulting from a voluntary and deliberate act against oneself, where death is a reasonably expected outcome of such act. This includes those cases where it can be established the person intended to die and those where intent is unclear, or the person may not have the capacity of reason to intend death, such as children under 15 years or persons with a serious mental illness.
Suicide attempt	A suicidal act causing injury but not leading to death.
Toxicology	The analysis of drugs, alcohol and poisons in the body fluids at autopsy.
Transport deaths	Death incidents involving a vehicle of some description. Vehicles include, but are not limited to: • motor vehicles and motorcycles • quad bikes, tractors and other rural plant • bicycles, skateboards, scooters and other small-wheel devices (excluding wheeled toys) • watercraft and aircraft • horses and other animals used for transportation.
Unexplained causes	Deaths where a cause of death could not be determined even after thorough investigation. It includes deaths from SIDS and Undetermined causes.
WHO	World Health Organization.

Appendix D — Cause of death by ICD-10 Mortality Coding Classification

Table D.1 provides a summary of the ICD-10 categories for child deaths from diseases and morbid conditions (or natural causes) registered during 2020–21. Table D.2 provides the ICD-10 categories for child deaths from external causes.

Table D.1: Deaths from diseases and morbid conditions and unexplained causes (number) 2020–21

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Diseases and morbid conditions	**200**	**18**	**12**	**13**	**23**	**266**
Certain infectious and parasitic diseases (A00–B99)	0	2	1	0	1	4
Neoplasms (C00–D48)	3	6	5	4	6	24
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	2	1	1	0	1	5
Endocrine, nutritional and metabolic diseases (E00–E90)	3	1	0	0	0	4
Mental and behavioural disorders (F00–F99)	0	0	1	1	1	3
Diseases of the nervous system (G00–G99)	4	2	2	5	4	17
Diseases of the circulatory system (I00–I99)	0	0	0	0	3	3
Diseases of the respiratory system (J00–J99)	1	0	0	1	0	2
Diseases of the digestive system (K00–K93)	1	0	0	0	0	1
Diseases of the musculoskeletal system and connective tissue (M00–M99)	0	1	0	1	0	2
Certain conditions originating in the perinatal period (P00–P96)	124	0	1	0	1	126
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	61	5	1	1	5	73
Symptoms, signs and abnormal clinical and laboratory findings, not elsewhere classified (R00–R99)	1	0	0	0	1	2
Unexplained causes	**15**	**1**	**0**	**1**	**0**	**17**
Sudden infant death syndrome (R95)	7	0	0	0	0	7
Other ill-defined and unspecified causes of mortality (R99)	8	1	0	0	0	9
Event of undetermined intent (Y10–Y34)	0	0	0	1	0	1
Total	215	19	12	14	23	283

Table D.2: Deaths from external causes (number) 2020–21

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
Transport total	**1**	**5**	**4**	**5**	**16**	**31**
Pedestrian injured in transport accident (V01–V09)	0	4	0	0	0	4
Pedal cyclist injured in transport accident (V10–V19)	0	0	0	1	0	1
Motorcycle rider injured in transport accident (V20–V29)	0	0	2	0	3	5
Car occupant injured in transport accident (V40–V49)	1	1	2	3	12	19
Other land transport accidents (V80–V89)	0	0	0	1	1	2
Drowning total	**2**	**5**	**1**	**1**	**1**	**10**
Accidental drowning and submersion (W65–W74)	2	5	1	1	1	10
Other non-intentional injury-related death total	**3**	**4**	**1**	**1**	**3**	**12**
Exposure to inanimate mechanical forces (W20–W49)	0	1	0	0	0	1
Other accidental threats to breathing (W75–W84)	3	2	1	1	0	7
Exposure to electric current, radiation and extreme ambient air temperature and pressure (W85–W99)	0	0	0	0	1	1
Contact with venomous animals and plants (X20–X29)	0	0	0	0	1	1
Exposure to forces of nature (X30–X39)	0	1	0	0	0	1
Accidental poisoning by and exposure to noxious substances (X40–X49)	0	0	0	0	1	1
Suicide total	**0**	**0**	**0**	**6**	**24**	**30**
Intentional self-harm (X60–X84)	0	0	0	6	24	30
Fatal assault and neglect total	**0**	**2**	**0**	**0**	**1**	**3**
Assault (X85–Y09)	0	1	0	0	1	2
Sequelae of external causes of morbidity and mortality (Y85–Y89)	0	1	0	0	0	1
Total	6	16	6	13	45	86

Appendix E — Inclusions within the other non-intentional injury category

Causes of death included in other non-intentional injury-related death category:

- falls
- exposure to inanimate mechanical forces, examples include:
  - struck by object
  - caught or crushed between objects
  - contact with machinery
  - foreign body entering through eye, orifice or skin
- exposure to animate mechanical forces, examples include:
  - struck by other person
  - struck or bitten by mammal
  - contact with marine animal
- threats to breathing, examples include:
  - non-intentional suffocation or strangulation
  - threat to breathing due to cave-in, falling earth and other substances
  - inhalation of gastric contents
- exposure to electrical current, radiation and extreme ambient air temperature/pressure
- exposure to smoke, fire and flames
- exposure to heat and hot substances
- contact with venomous animals and plants
- exposure to forces of nature, examples include:
  - lightning
  - exposure to sunlight
  - excessive natural heat
  - excessive natural cold
- accidental poisoning by noxious substances, examples include:
  - inhalation of volatile substances
  - non-intentional overdose
  - unintended consumption
- complications of medical and surgical care.

Appendix F — Suicide classification model

The suicide classification model is used to classify all cases of suspected suicide into one of three levels of certainty. In classifying these deaths, the QFCC considers a number of factors, including whether intent was stated previously, the presence of a suicide note, witnesses to the event, previous suicide attempts and any significant precipitating factors or life stressors.

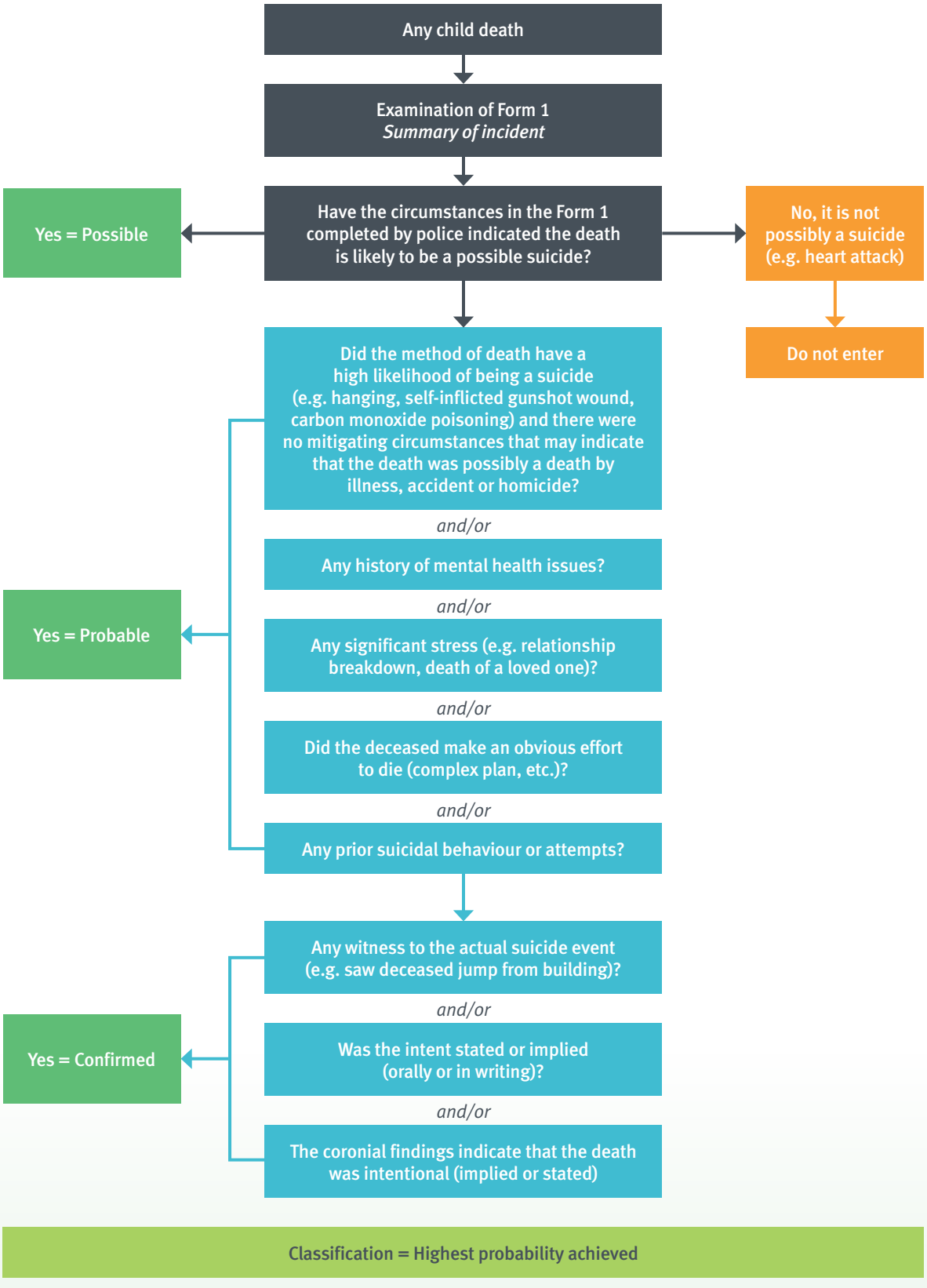
Information used to classify suicide certainty is based on data available to the QFCC at the time of reporting. Information is gathered from numerous records, including the Police Report of Death to a Coroner (Form 1), additional information requested from police (including the contents of suicide notes), autopsy and toxicology report, child protection system records and coronial findings.

Levels of classification are as follows:

- **Confirmed:** The available information refers to at least one significant factor that constitutes a virtually certain level of suicide classification, or coronial investigations have found that the death was a suicide.
- **Probable:** The available information is not sufficient for a judgement of confirmed, but is consistent more with death by suicide than with death by any other means. Risk factors for suicide have been identified and/or the method and circumstances surrounding the death are such that intent may be inferred.
- **Possible/undetermined:** The police have indicated (on the Form 1) that the case is a suspected suicide or the QFCC identified the possibility of a suicide but, because of a lack of information on the circumstances of the death, there is a substantial possibility that the death may be the result of another cause, or is of undetermined intent.

Deaths are only reported as suicides in **Chapter 6** of this report if the classification is listed as probable or confirmed.

Figure F.1: Suicide classification model



Appendix G — Fatal assault and neglect screening criteria

The QFCC uses the fatal assault and neglect screening criteria to classify all cases of suspected fatal assault and neglect into one of three levels of certainty. In classifying these deaths, the QFCC considers a number of factors. Information is gathered from numerous records, including the Police Report of Death to a Coroner (Form 1), autopsy and toxicology reports, child protection system records and coronial findings. Additional information from criminal proceedings and sentencing is also reviewed.

Information used to confirm fatal assault and neglect deaths is based on data available to the QFCC at the time of reporting.

Levels of confirmation are as follows:

Confirmed

- a perpetrator has been charged for a criminal offence relating to the death of the child and, regardless of the outcome, the facts establish the death was the result of inflicted harm or neglect, and/or
- coronial findings indicate (either expressly or impliedly) that the death was a result of inflicted harm or neglect, and/or
- a perpetrator has suicided in conjunction with the death of the child and has expressly or impliedly stated that they were responsible for the child's death.

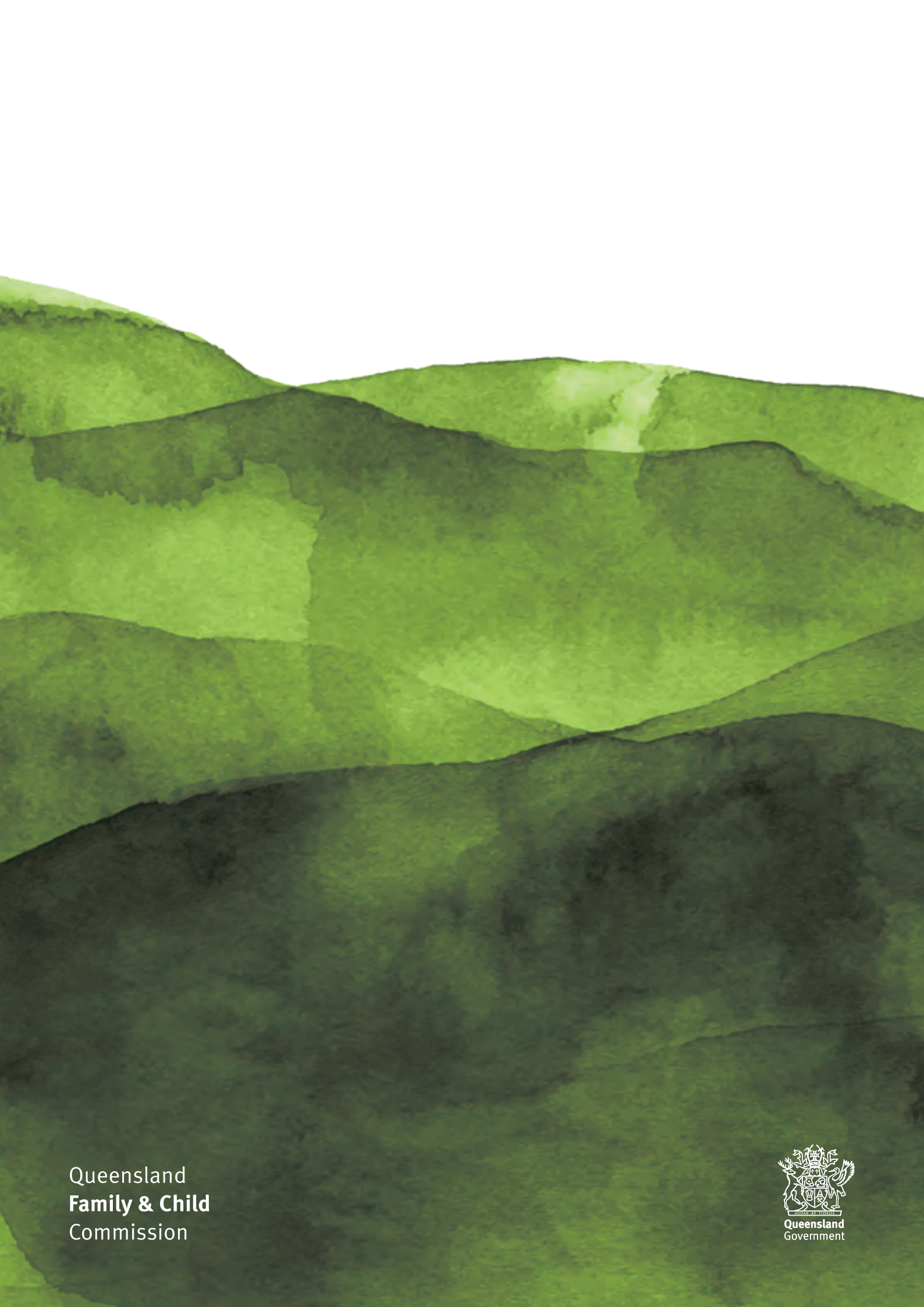
Probable

- the evidence available to the QFCC indicated that there was a high likelihood that the death was a consequence of inflicted injury or neglect (i.e. but for the inflicted injury or neglect the child probably would not have died), and/or
- there is medical evidence to suggest the death was a consequence of inflicted injury or neglect, and/or
- a perpetrator has suicided in conjunction with the apparent non-accidental death of the child.

Possible

- the initial evidence available to the QFCC indicated that the child may have experienced inflicted harm or neglect which may have contributed to or caused the death (i.e. these deaths demonstrated the presence of risk factors at the time of the incident that could potentially have played some role in relation to the child's death, without establishing a probable likelihood of this having occurred).

Deaths are only reported as fatal assault and neglect if the classification is listed as probable or confirmed.



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