



Annual Report:

**Deaths of children
and young people
Queensland 2014–15**

Queensland
**Family & Child
Commission**



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 2014 – 30 June 2015.



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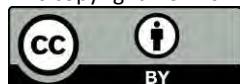
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Queensland
Government

Queensland
Family & Child
Commission

30 October 2015

The Honourable Anastacia Palaszczuk MP
Premier of Queensland and Minister for the Arts
Executive Building
100 George Street
BRISBANE QLD 4000

Dear Premier

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 2014 – 30 June 2015, 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 unique and diverse cultures of Aboriginal and Torres Strait Islander people and notes that, throughout this document, the term Aboriginal and Torres Strait Islander has been used to collectively describe two distinct groups of people. The QFCC respects the beliefs of the Aboriginal and Torres Strait Islander peoples and advises that there is information regarding Aboriginal and Torres Strait Islander deceased people in this report.

The QFCC would like to thank the Queensland state government departments and non-government organisations that contributed data and provided advice for this report. Particular appreciation is expressed to officers from the Registry of Births, Deaths and Marriages; the Office of the State Coroner; the Queensland Police Service; the Queensland Ambulance Service; Queensland Health; the Department of Communities, Child Safety and Disability Services; the Australian Bureau of Statistics; and Queensland Treasury.

The QFCC would also like to acknowledge the contribution of data from other Australian and New Zealand agencies and committees who perform similar child death review functions. For the seventh year in a row, this annual report has utilised this data to compile an interjurisdictional overview representing further steps towards developing a nationally comparable child death review dataset.

The QFCC would like to acknowledge the former Commission for Children and Young People and Child Guardian for undertaking the work of child death research in Queensland from 2004 to 2014, and the substantial effort involved in developing the comprehensive database for child death data that exists today. The contribution of officers from the QFCC's Strategic Research, Evaluation and Reporting Program who maintained the Queensland Child Death Register, analysed the data and prepared the report is also acknowledged and appreciated.

Foreword

On behalf of the Queensland Family and Child Commission (QFCC), I would like to extend my sincere condolences to the families and friends of the 445 children and young people whose deaths were registered in 2014–15.

This is Queensland's 11th annual report analysing the deaths of children and young people in this state, focusing on the circumstances and risk factors surrounding external (non-natural) causes of death. This report aims to provide evidence for supporting and focusing child death prevention efforts using the only dataset of all deaths of children and young people in Queensland.

The QFCC's Queensland Child Death Register now holds data in relation to 5413 children and young people whose deaths have been registered in Queensland since 1 January 2004.

Beyond medical causes of child deaths, deaths from preventable causes are relatively rare. But sometimes, despite our best efforts, a set of circumstances and factors will lead to a child's death that we can't predict or prevent. Families, community members and professionals have to contend with such tragic outcomes.

What we can do is have processes to review, to research and to raise community awareness. In some circumstances we need to forensically investigate the circumstances that may have led to a child's death. Coroners, pathologists, those responsible for reviewing child protection and domestic violence cases, and specialist researchers have key roles in this regard. We need to learn from these reviews, we need to look to other jurisdictions and countries to see what programs prove effective in preventing deaths, we need to be vigilant in identifying emerging risks.

This is where it is important to collect and collate information and conduct research to identify the risks and trends, and to inform prevention programs and policies.

Over time, safeguards have been put in place to modify and regulate building, product and transport safety codes. Historically, we have examples of design or legislation, which have contributed to reducing deaths and serious injury. The list is long, but child-proof packaging on medicines and poisons, safety switches, smoke alarms, and design of nursery furniture, fridges, stoves and toys are all examples. In transport, we have seen the value of seatbelt and child restraint requirements, random breath testing and reduced speed limits near schools and in residential areas. Pool fencing legislation and compliance requirements have been in place and strengthened in recent decades, and even though private pool ownership has gone up over this time, the number of pool drownings of young children has gone down.

As to child deaths from diseases and medical conditions, most of these occur in the first weeks and months of life, caused by perinatal conditions or congenital abnormalities. Medical science and health care have made great inroads here, but tiny children remain vulnerable. It is essential that antenatal care is accessed during pregnancy and that medical advice to reduce risks to unborn children is followed.

Infant mortality for Aboriginal and Torres Strait Islanders is around twice that of non-Indigenous children. For both Aboriginal and Torres Strait Islander and non-Indigenous children, deaths due to perinatal conditions or congenital abnormalities are big contributors to the number of deaths from diseases and medical conditions. So again, I would emphasise the vital role of antenatal care during pregnancy and following medical advice—these things can make a difference.

Closing the gap in outcomes for Aboriginal and Torres Strait Islander people must remain as a priority for government at all levels.

What are the most important messages that need to be reinforced based on the areas of highest risk and known best protections? In my view, these are:

- Access antenatal care and follow medical advice during pregnancy.
- Use child restraints and seatbelts. Don't drink and drive. Don't drive through flood waters.
- Don't walk away from infants in the bath or shower. Don't rely on siblings to supervise.

- Maintain compliant pool fencing and be diligent about closing gates. Learn resuscitation.
- Provide appropriate supervision for young children especially near pools, dams or creeks—they can wander off very quickly and some children can be adept at circumventing obstacles.
- On rural properties or acreage, teach children about dangers and strongly reinforce 'no go' areas. Provide a safe play area and consider barriers where hazards are nearby.
- Be especially vigilant of nearby hazards in the first months in a new property.
- Provide young people with the space to develop but be alert to signs of distress or instability.
- Seek help if family violence is occurring.
- If you are aware of a family in trouble, see what you can do to help or direct them to services.

Every death in this report is a heavy loss for families, friends and communities. Every death from a preventable cause leaves regret, heartache and grief. It is hoped that by collecting, collating and sharing information on child deaths, awareness of possible risks can be heightened and child death prevention activities can be better formulated and targeted. This year's report again demonstrates the need for continued efforts to reduce child deaths.

I have informed relevant stakeholders of pertinent findings from this report to advocate for strengthened efforts to prevent the deaths of children and young people, where possible.

Cheryl Vardon

Principal Commissioner

Queensland Family and Child Commission

Executive summary

Purpose and establishment

The Queensland Family and Child Commission (QFCC) was established on 1 July 2014 as part of the Queensland Government's far-reaching reforms around child protection. As a statutory body, the QFCC is charged with the responsibility to provide independent advice and expert oversight to ensure that government and non-government agencies are delivering best practice services for families and children across Queensland. The QFCC also promotes and advocates the role of families and communities to protect and care for Queensland's children and young people, so that more children can stay at home safely.

Prior to the establishment of the QFCC on 1 July 2014, the Commission for Children and Young People and Child Guardian (CCYPCG) was responsible for maintaining the Queensland Child Death Register and conducting research into child deaths. The CCYPCG ceased operations on 30 June 2014 and accordingly, the Queensland Child Death Register and other functions relating to child deaths were transferred to the QFCC.

This report represents the 11th annual report to be produced on child deaths in Queensland. Under Part 3 of the Family and Child Commission Act, the QFCC has responsibility for the child death register and production of an annual report, specifically to:

- maintain a register of the deaths of all children and young people in Queensland
- classify deaths and analyse and identify patterns or trends from the data
- conduct research alone or in cooperation with other entities
- identify areas for further research by QFCC or other entities
- make recommendations arising from the register and conducting research about laws, policies, practices and services.

This report highlights the key trends and issues relevant to the deaths of children and young people aged 0–17 years registered in Queensland in 2014–15. This report is complemented by comprehensive data tables, which can be accessed on the QFCC's website to provide a more detailed account of Queensland child death statistics. The methodology for data analysis is explained in Appendix 1.1 of this report.

Access to comprehensive child death data is available at no cost to organisations or individuals conducting genuine research. Stakeholders wishing to access the Queensland Child Death Register to support their research, policy or program initiatives should email their request to child.death@qfcc.qld.gov.au.

Child deaths in Queensland, findings in 2014–15 and trends since 2004

Deaths of children are relatively rare beyond the vulnerable first weeks and months of life. The QFCC notes that due to relatively small numbers involved in the following information, caution should be exercised in interpreting year-to-year changes, as these may not be indicative of particular trends. However, many patterns of mortality in population sub-groups (such as age groups, sex and Indigenous status) are repeated each year for particular causes of death, reflecting consistent risk and vulnerability profiles.

In the 12-month period from 1 July 2014 to 30 June 2015, the deaths of 445 children were registered in Queensland, a rate of 40.2 deaths per 100,000 children and young people aged 0–17 years.

The table over the page broadly outlines the causes of death by age group for the 445 registered deaths.

The table below shows the number and rate of child deaths in Queensland each reporting period since 2004–05. Over the 11-year period of data collection, there have been some year-to-year fluctuations in child death rates; however, there has been a general reduction in recent years.

Number and rate of child deaths by reporting period, 2004–2015

Year	Number of deaths <i>n</i>	Rate per 100,000
2004–05	481	49.6
2005–06	425	43.0
2006–07	509	51.6
2007–08	487	48.3
2008–09	520	50.5
2009–10	488	46.5
2010–11	465	43.8
2011–12	487	45.4
2012–13	449	41.1
2013–14	446	40.3
2014–15	445	40.2

Data source: Queensland Child Death Register (2004–2015)

Leading causes of child deaths

- Deaths from diseases and morbid conditions (natural causes) accounted for the majority of deaths of children and young people registered in 2014–15 (69.4 per cent), occurring at a rate of 27.9 deaths per 100,000 aged 0–17 years.
- External or non-natural causes of death (transport, drowning, other non-intentional injury, suicide and fatal assault and neglect) accounted for 20.2 per cent of child deaths, and occurred at a rate of 8.1 deaths per 100,000 aged 0–17 years.
- Suicide accounted for 6.3 per cent of deaths of children and young people and was the leading external cause of death, occurring at a rate of 2.5 deaths per 100,000 children and young people (28 deaths).
- Over the 11 reporting periods in the Queensland Child Death Register, the leading external causes of death have generally been transport, suicide or drowning. Transport has been the leading external cause for the previous 10 periods; however, in 2014–15, with the low number of transport deaths in this year, suicide is for the first time the leading external cause of death for 0–17 year olds.

Cause of death by age category, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>	Rate per 100,000
Diseases and morbid conditions	245	20	16	11	17	309	27.9
Explained diseases and morbid conditions	239	20	16	11	17	303	27.4
Unexplained diseases and morbid conditions	6	0	0	0	0	6	0.5
<i>SIDS and undetermined causes (infants)</i>	6	0	0	0	0	6	0.5
<i>Undetermined > 1 year</i>	0	0	0	0	0	0	0.0
External causes	6	26	14	10	34	90	8.1
Suicide	0	0	0	4	24	28	2.5
Transport	1	9	3	3	9	25	2.3
<i>Motor vehicle</i>	1	4	2	3	9	19	1.7
<i>Pedestrian</i>	0	4	0	0	0	4	0.4
<i>Motorcycle</i>	0	1	0	0	0	1	*
<i>Quad bike</i>	0	0	0	0	0	0	0.0
<i>Other</i>	0	0	1	0	0	1	*
Drowning	1	10	5	0	0	16	1.4
<i>Non-pool</i>	1	5	5	0	0	11	1.0
<i>Pool</i>	0	5	0	0	0	5	0.5
Fatal assault and neglect	2	4	5	3	0	14	1.3
Other non-intentional injury-related death	2	3	1	0	1	7	0.6
<i>Threats to breathing</i>	1	2	0	0	0	3	*
<i>Fall</i>	1	0	1	0	0	2	*
<i>Exposure to smoke, fire and flames</i>	0	1	0	0	0	1	*
<i>Non-intentional poisoning by noxious substances</i>	0	0	0	0	1	1	*
Cause of death pending	34	8	1	1	2	46	4.2
Total	285	54	31	22	53	445	40.2
Rate per 100,000	448.5	21.4	10.0	7.4	29.0	40.2	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children aged 0–17 years in Queensland.

2. Rates for age categories are calculated per 100,000 children in each age category.

3. Although deaths that only occur within a certain age category (SIDS, suicide) are generally expressed as a rate per 100,000 children within that age category (e.g. infants under 1 year or young people aged 10–17 years), all rates have been calculated per 100,000 children aged 0–17 years in Queensland to enable comparison across all causes of death. Age-specific death rates are discussed in the chapters relating to each cause of death.

By age and sex

- In 2014–15, for the 0–17 years age group the mortality rate for males was slightly higher than for females, with a rate of 41.6 deaths per 100,000 males compared to 38.4 deaths per 100,000 females.
- Diseases and morbid conditions were the most frequent cause of death of **infants under 1 year of age**, accounting for 86.0 per cent of the deaths in this age category (245 deaths).
- The leading cause of death for children aged **1–4 years** was diseases and morbid conditions (20 deaths), followed by drowning (10 deaths).
- Children aged **5–9 years** died most frequently of diseases and morbid conditions (16 deaths). Drowning and fatal assault and neglect were the equal second leading cause of death (five deaths each).
- Diseases and morbid conditions were the leading cause of death for children aged **10–14 years** (11 deaths). The leading external cause of death for 10–14 year-olds was suicide (four deaths).
- Suicide was the leading cause of death for young people aged **15–17 years** (24 deaths) followed by diseases and morbid conditions (17 deaths). The number of 15–17 year-olds who died from transport incidents (nine deaths) is the lowest recorded since the commencement of the child death register in 2004.

Aboriginal and Torres Strait Islander children

- Aboriginal and Torres Strait Islander children accounted for 16.4 per cent of deaths and died at 2.3 times the rate of non-Indigenous children in Queensland in 2014–15.
- Deaths of Indigenous infants from diseases and morbid conditions make up the largest proportion of all deaths of Indigenous children and young people (49.3 per cent of the 73 deaths from all causes).
- Over the last 11 years, the Indigenous mortality rates from diseases and morbid conditions have generally been 1.5–2 times the rates for non-Indigenous children.
- There were six suicide deaths of Aboriginal and Torres Strait Islander young people. The rate of suicide among Aboriginal and Torres Strait Islander young people was more than three times that of their non-Indigenous peers.
- Aboriginal and Torres Strait Islander infants are over-represented in sudden unexpected deaths in infancy (SUDI). During 2014–15, they died suddenly and unexpectedly at 3.9 times the rate of non-Indigenous infants.

Children known to the child protection system in the 12 months prior to their death

- In 2014–15 children known to the child protection system died at a rate of 53.7 deaths per 100,000, compared with 40.2 deaths per 100,000 for all Queensland children.
- Fifteen young people who died as a result of suicide were known to the child protection system.
- Three of the 14 children who died due to fatal assault or neglect were known to the child protection system.¹

Diseases and morbid conditions

- In 2014–15, the deaths of 309 children and young people were the result of diseases and morbid conditions, a rate of 27.9 deaths per 100,000 children and young people aged 0–17 years in Queensland. Both the number and rate of deaths from diseases and morbid conditions in 2014–15 are the lowest recorded over the 11 years since 2004.
- The most common causes of death as a result of diseases and morbid conditions were certain conditions originating in the perinatal period (13.1 deaths per 100,000 children aged 0–17 years), with the majority occurring as a result of complications of pregnancy, labour and delivery. This was followed by deaths due to congenital malformations, deformations and chromosomal abnormalities (8.3 deaths per 100,000).
- Deaths of children from diseases and morbid conditions are most likely to occur in the first weeks and months of life, with infants accounting for 79.3 per cent of deaths from diseases and morbid conditions in 2014–15. The infant mortality rate in relation to diseases and morbid conditions (using live births as the denominator) is 3.9 deaths per 1000 live births.
- Infant deaths from the two leading causes—conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities (220 deaths combined)—make up the largest

¹ While all three cases were in line with the definition, in two cases there were no child protection histories prior to the incidents that resulted in the deaths.

proportion of all deaths of children and young people (71.2 per cent of all 309 deaths from diseases and morbid conditions and 49.4 per cent of the 445 deaths from all causes).

Transport-related deaths

- In 2014–15, 25 children and young people died in transport incidents, a rate of 2.3 deaths per 100,000 children aged 0–17 years. This is the lowest annual number of transport-related fatalities since reporting commenced in 2004.

Drowning

- Sixteen children and young people drowned in Queensland in 2014–15 compared to seven in 2013–14 and 11 in 2012–13.
- Children aged 1–4 years made up the largest group of drowning deaths (10 deaths), a pattern that has been found in all previous reporting periods, and an indication of the particular vulnerability of this age group.
- Of the children aged 1–4 years, five children drowned in private pools and five drowned in rural water hazards such as farm dams.
- Pool fencing standards were introduced in 1991 and have been incrementally strengthened over time. The number of drowning deaths of young children has fluctuated from year to year; however, numbers before the introduction of pool fencing requirements were generally higher than those seen since the introduction of standards, and especially in the last decade. For example, the average annual number of children under 5 drowned in private pools for the three-year period 1983–1985, was 11.3 deaths compared to an average of 3.3 drowned annually in 2012–2014.
- Swimming pool fencing and diligence in keeping pool gates closed, appropriate supervision of young children in bathtubs or where pools and water hazards are in the vicinity, and establishing safe play areas on rural properties and acreage where hazards are nearby are recommended approaches to reducing the risk of drowning for young children.

Suicide

- There were 28 suicides of young people during 2014–15. This year's total of 28 is the highest number of suicide deaths recorded over the 11 years since 2004, with numbers in other recording periods ranging from 15 to 23.
- Contributing to the 11-year high in suicide deaths were the deaths of 14 females, which was higher than in any other reporting period since the register started in 2004. The 14 male suicides were within the range from 17 as the highest annual number (in 2013–14) and nine as the lowest (in 2005–06 and 2008–09).
- Male suicides for young people usually outnumber female suicides, and over the most recent three-year period, the suicide rate for males was 1.6 times that for females.

Fatal assault and neglect

- Fourteen children and young people died as a result of fatal assault and neglect in Queensland in 2014–15, the highest number recorded since reporting began in 2004. This number is due, in part, to a single incident involving multiple fatalities.
- Nine children were victims of domestic homicide. Four deaths were identified as fatal child abuse. The remaining deaths were due to neonaticide.

Sudden unexpected deaths in infancy (SUDI)

- There were 39 cases of sudden unexpected death in infancy (SUDI) in 2014–15: a rate of 61.4 deaths per 100,000 infants (aged under 1 year). The number and rate of SUDI deaths have fluctuated over the last 11 reporting periods; however, the 2014–15 rate is the lowest recorded since reporting began in 2004, while the 39 deaths is close to the lowest number (36 deaths were recorded in 2007–08).
- Six deaths were attributed to sudden infant death syndrome (SIDS) and undetermined causes (of the 12 SUDIs with an official cause of death). Official causes of death were still pending for 27 deaths.
- Six of the sudden and unexpected infant deaths were found, following post-mortem examination, to have an explained cause of death. All six children died as a result of infant illnesses unrecognised prior to their deaths.

- Predominantly, deaths from sudden unexpected deaths in infancy are recorded as ‘cause pending’ until the outcomes of coroner’s investigations or post-mortem examinations are concluded. Looking to the period 2012–13, where only two of the 48 deaths remained pending, over half of the deaths (27 or 56.3 per cent) were attributed to SIDS, seven were due to unrecognised infant illnesses, five each were sleep accidents and cause undetermined, and two were due to fatal assault.

Queensland Child Death Register access and data requests

The QFCC, through its strategy of providing access to data from the Queensland Child Death Register, supported a range of researchers and stakeholders during the reporting period in the development and implementation of programs, policies and initiatives or research programs that require a solid and contemporary evidence base. The overarching aim of this strategy is to promote the information collected in the Queensland Child Death Register to stakeholders (at both the state and national levels), identify opportunities to engage with stakeholders and share the child death dataset and key findings to inform ongoing prevention efforts.

During 2014–15, the QFCC received 18 requests for access to the Queensland Child Death Register from external stakeholders. The table over the page indicates the types and purposes for which data was provided to external researchers and stakeholders. Examples of the projects provided with information include the following:

- A University of the Sunshine Coast study examining sudden unexpected deaths in infancy (SUDI) death records in order to identify ways to better engage vulnerable, marginalised, difficult-to-engage groups to provide risk-reduction education.
- A review of circumstances and events surrounding deaths of infants by the Queensland Paediatric Quality Council Infant Mortality Subcommittee, in an effort to comprehensively identify the factors associated with infant deaths and appropriate interventions.
- A national study by the Royal Prince Alfred Hospital (NSW) is examining underlying medical causes of death by obtaining detailed information on unexpected early neonatal deaths (i.e. within the first seven days of life).
- The Royal Life Saving Society of Australia publishes the *National Drowning Report* and provides related drowning prevention activities and information.
- A Department of Education and Training review of suicide postvention practices in state schools.

Purpose of data request by type of data requested, 2014–15

Type of data requested	Purpose of data request			
	Research	Public education/ reporting	Policy/ Program development	Total
Diseases and morbid conditions	2	0	0	2
SUDI	2	0	0	2
Drowning	0	5	0	5
Transport	1	1	0	2
Suicide	0	1	1	2
All deaths	0	4	1	5
Total	5	11	2	18

Data source: Queensland Family and Child Commission (2014–15)

Committees

The QFCC participated in various committees in this reporting period, including the:

- Australian and New Zealand Child Death Review and Prevention Group
- Queensland Perinatal and Infant Mortality Taskforce
- Queensland Births and Deaths Working Group
- Queensland Council for Injury Prevention Executive Committee Meeting
- CARRS-Q Road Safety Researchers Network.

Report structure

The report structure is divided into seven parts as follows:

Part I—Introduction and overview

Part II—Deaths from diseases and morbid conditions

Part III—Non-intentional injury-related deaths

- Transport
- Drowning
- Other non-intentional injury-related deaths

Part IV—Intentional injury-related deaths

- Suicide
- Fatal assault and neglect

Part V—Sudden unexpected deaths in infancy

Part VI—Child death prevention activities

Part VII—Australian and New Zealand child death statistics

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Part I: Introduction and overview

Chapter 1—Introduction and overview

This chapter provides an overview of child deaths in Queensland for 2014–15.

Key findings

- The deaths of 445 children and young people were registered in Queensland between 1 July 2014 and 30 June 2015, occurring at a rate of 40.2 per 100,000 children and young people aged 0–17 years.
- The child death rate for Aboriginal and Torres Strait Islander children was 2.3 times the rate for non-Indigenous children.
- Deaths from diseases and morbid conditions (natural causes) accounted for the majority of deaths of children and young people registered in 2014–15 (69.4 per cent), occurring at a rate of 27.9 deaths per 100,000 children and young people.
- External causes of death (transport, drowning, other non-intentional injury, suicide and fatal assault and neglect) accounted for 20.2 per cent of child deaths, and occurred at a rate of 8.1 deaths per 100,000 children and young people aged 0–17 years. Suicide was the leading external cause of death, occurring at a rate of 2.5 deaths per 100,000 children and young people.
- Over the 11 reporting periods in the Queensland Child Death Register, the leading external causes of death have generally been transport, suicide or drowning. Transport has been the leading external cause for the previous 10 periods; however in 2014–15, with the low number of transport deaths in the latest year, suicide is—for the first time—the leading external cause of death for 0–17 year olds.

Child death and injury prevention activities

Maintaining the Queensland Child Death Register

The QFCC was formed on 1 July 2014, at which time the responsibility for the Queensland Child Death Register and the associated functions were transitioned to the QFCC from the former Commission for Children and Young People and Child Guardian (which ceased operations on 30 June 2014 with the repeal of the Commission for Child and Young People and Child Guardian Act 2000).

During its first year as an entity, the QFCC has concentrated its Child-Death-Register-related activities on:

- maintaining the accuracy and comprehensiveness of the child death information in the register
- meeting the legislated requirement to report annually
- establishing secure data transfer processes with other agencies for confidential information
- recruiting and training staff
- responding to researcher requests for child death data
- maintaining involvement in relevant committees.

In future periods, the QFCC will report on analyses of trends and issues for key causes of preventable deaths, in order to improve understanding of risk factors and support the development of policies and practices to reduce child deaths.

Activities to improve child mortality data

In March 2015, Victoria hosted the Australian and New Zealand Child Death Review and Prevention Group's (ANZCDR&PG) annual meeting. The meeting focused on establishing a national minimum dataset for child deaths in Australia and New Zealand and included presentations by staff from the National Children's Commissioner's office, the Australian Institute of Health and Welfare, the Australian Bureau of Statistics (ABS) and the National Coroner's Information System.

The QFCC was a member of the Queensland Perinatal Mortality Taskforce, which was established in response to Queensland being identified as having higher perinatal and infant mortality rates than most other Australian states and territories over a number of years. The taskforce was responsible for examining the causes of perinatal deaths, identifying potential differences in recording practices across Australia and making recommendations for future policy and practice development for maternal and perinatal health care to the Minister for Health to reduce the rate of perinatal mortality.

The QFCC was also a member of the Queensland Government Births and Deaths Working Group. The group provides a forum for discussing statistical and other issues around Queensland births and deaths registrations, to assist in improving the quality and reliability of Queensland population statistics.

Child deaths in Queensland: 2012–2015

A copy of Table 1.1, containing data since 2004, is available online at www.qfcc.qld.gov.au.

Table 1.1: Summary of deaths of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All deaths							
Deaths of children 0–17 years	449	41.1	446	40.3	445	40.2	40.4
Cause of death							
Diseases and morbid conditions	360	33.0	359	32.4	309	27.9	31.0
Explained diseases and morbid conditions	328	30.1	331	29.9	303	27.4	29.0
Unexplained diseases and morbid conditions	32	2.9	28	2.5	6	0.5	2.0
<i>SIDS and undetermined causes (infants)</i>	32	2.9	26	2.3	6	0.5	1.9
<i>Undetermined causes (>1 year)</i>	0	0.0	2	*	0	0.0	*
External causes	87	8.0	76	6.9	90	8.1	7.6
Transport	28	2.6	31	2.8	25	2.3	2.5
Suicide	22	2.0	23	2.1	28	2.5	2.2
Drowning	11	1.0	7	0.6	16	1.4	1.0
Other non-intentional injury-related death	15	1.4	9	0.8	7	0.6	0.9
Fatal assault and neglect	11	1.0	6	0.5	14	1.3	0.9
Cause of death pending	2	*	11	1.0	46	4.2	1.8
Sudden unexpected deaths in infancy (SUDI)							
Sudden unexpected infant deaths	48	75.9	43	67.7	39	61.4	68.2
Sex							
Female	204	38.4	198 ^a	36.7	207 ^a	38.4	37.7
Male	245	43.8	247 ^a	43.5	236 ^a	41.6	42.7
Age category							
Under 1 year	288	455.4	298	468.9	285	448.5	456.9
1–4 years	48	19.3	45	17.8	54	21.4	19.4
5–9 years	31	10.3	39	12.6	31	10.0	10.9
10–14 years	38	12.8	21	7.0	22	7.4	9.0
15–17 years	44	24.2	43	23.6	53	29.0	25.6
Aboriginal and Torres Strait Islander status							
Indigenous	60	70.8	69	80.5	73	85.2	78.6
Non-Indigenous	389	38.6	377	36.9	372	36.4	37.1
Known to the child protection system							
Known to the child protection system	63	38.0	80	47.8	52	53.7	..

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 4).

^a Excludes the death of one infant of indeterminate sex in 2013–14 and two infants of indeterminate sex in 2014–15.

1. Data presented here is current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status) in each year.

3. Rates for cause of death are calculated per 100,000 children aged 0–17 years in Queensland in each year, with the exception of sudden unexpected deaths in infancy, which are calculated per 100,000 infants under the age of 1 year in Queensland.

4. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

5. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

Child deaths in Queensland: Findings, 2014–15

Between 1 July 2014 and 30 June 2015, the deaths of 445 children and young people were registered in Queensland, representing a rate of 40.2 deaths per 100,000 aged 0–17 years.²

Cause of death

Table 1.2 (over page) broadly outlines the causes of death for the 445 children and young people whose deaths were registered in 2014–15.³

Deaths from diseases and morbid conditions (natural causes) accounted for the majority of deaths of children and young people registered in 2014–15 (69.4 per cent), occurring at a rate of 27.9 deaths per 100,000 children and young people.

External causes of death (transport, drowning, other non-intentional injury, suicide and fatal assault and neglect) accounted for 20.2 per cent of child deaths, and occurred at a rate of 8.1 deaths per 100,000 children and young people aged 0–17 years. Suicide was the leading external cause of death, occurring at a rate of 2.5 deaths per 100,000 children and young people.

Over the 11 reporting periods in the Queensland Child Death Register, the leading external causes of death have generally been transport, suicide or drowning. Transport has been the leading external cause for the previous 10 periods; however, in 2014–15, with the low number of transport deaths in the latest year, suicide is for the first time the leading external cause of death for 0–17 year olds.⁴

For a number of child deaths, the cause of death may be ‘pending’ until the outcomes of autopsies or coroners’ findings are final. For this reason, a number of deaths are recorded as ‘pending’ in the year they are registered. However, they are usually finalised within one to two years, at which point the Queensland Child Death Register is updated to reflect the actual cause. Of the 445 deaths of children and young people registered in 2014–15, no cause of death information was available for 10.3 per cent (46 deaths) and these were recorded as ‘cause of death pending’. The majority (73.9 per cent) of deaths pending cause of death information were infants under the age of 1 year (34 deaths).

Sex

Males comprised 53.0 per cent of child deaths in 2014–15, with a rate of 41.6 deaths per 100,000 males aged 0–17 years. In comparison, females made up 46.5 per cent⁵ of deaths, representing 38.4 deaths per 100,000 females aged 0–17 years.

Age

Under 1 year

Diseases and morbid conditions were the most frequent cause of death for infants under 1 year of age, accounting for 86.0 per cent of the deaths in this age category (245 deaths).

1–4 years

The leading cause of death for 1–4 year olds was diseases and morbid conditions (20 deaths), followed by drowning (10 deaths).

5–9 years

Children aged 5–9 years died most frequently of diseases and morbid conditions (16 deaths). Drowning and fatal assault and neglect were the equal second leading cause of death (five deaths each).

10–14 years

Diseases and morbid conditions were the leading cause of death for young people in this age category (11 deaths). The leading external cause of death for 10–14 year-olds was suicide (four deaths).

² For a summary of the population data used to calculate rates, see Appendix 1.1.

³ For a summary of the methodology for reporting causes of death, including development of the distinct research categories, see Appendix 1.1.

⁴ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

⁵ Percentages will not sum correctly due to the death of two infants, whose sex was indeterminate at the time of registration.

15–17 years

Suicide was the leading cause of death for young people in this age category (24 deaths). Diseases and morbid conditions were the second leading cause of death for young people aged 15–17 years (17 deaths). The number of 15–17 year-olds who died from transport incidents (9 deaths) is the lowest recorded since the commencement of the child death register in 2004.

Table 1.2: Cause of death by age category, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>	Rate per 100,000
Diseases and morbid conditions	245	20	16	11	17	309	27.9
Explained diseases and morbid conditions	239	20	16	11	17	303	27.4
Unexplained diseases and morbid conditions	6	0	0	0	0	6	0.5
<i>SIDS and undetermined causes (infants)</i>	6	0	0	0	0	6	0.5
<i>Undetermined > 1 year</i>	0	0	0	0	0	0	0.0
External causes	6	26	14	10	34	90	8.1
Suicide	0	0	0	4	24	28	2.5
Transport	1	9	3	3	9	25	2.3
<i>Motor vehicle</i>	1	4	2	3	9	19	1.7
<i>Pedestrian</i>	0	4	0	0	0	4	0.4
<i>Motorcycle</i>	0	1	0	0	0	1	*
<i>Quad bike</i>	0	0	0	0	0	0	0.0
<i>Other</i>	0	0	1	0	0	1	*
Drowning	1	10	5	0	0	16	1.4
<i>Non-pool</i>	1	5	5	0	0	11	1.0
<i>Pool</i>	0	5	0	0	0	5	0.5
Fatal assault and neglect	2	4	5	3	0	14	1.3
Other non-intentional injury-related death	2	3	1	0	1	7	0.6
<i>Threats to breathing</i>	1	2	0	0	0	3	*
<i>Fall</i>	1	0	1	0	0	2	*
<i>Exposure to smoke, fire and flames</i>	0	1	0	0	0	1	*
<i>Non-intentional poisoning by noxious substances</i>	0	0	0	0	1	1	*
Cause of death pending	34	8	1	1	2	46	4.2
Total	285	54	31	22	53	445	40.2
Rate per 100,000	448.5	21.4	10.0	7.4	29.0	40.2	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.
2. Rates for age categories are calculated per 100,000 children and young people in each age category.
3. Although deaths that only occur within a certain age category (SIDS, suicide) are generally expressed as a rate per 100,000 children within that age category (for example, infants under 1 year or young people aged 10–17 years), all rates have been calculated per 100,000 children and young people aged 0–17 years in Queensland to enable comparison across all causes of death. Age-specific death rates are discussed in the chapters relating to each cause of death.

Leading cause of death by age category

Table 1.3 summarises the leading causes of death in each age category by rate of death per 100,000.

Table 1.3: Leading cause of death by age category, 2014–15⁶

Rank	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years
1	Perinatal conditions (226.6 per 100,000)	Drowning (4.0 per 100,000)	Neoplasms (3.2 per 100,000)	Suicide ----- Congenital anomalies ----- Diseases of the respiratory system (1.3 per 100,000)	Suicide (13.1 per 100,000)
2	Congenital anomalies (118.0 per 100,000)	Transport (3.6 per 100,000)	Drowning ----- Fatal assault (1.6 per 100,000)	*	Transport (4.9 per 100,000)
3	Diseases of the nervous system (11.0 per 100,000)	Diseases of the nervous system (2.0 per 100,000)	*	*	Neoplasms (3.3 per 100,000)
4	SIDS & undetermined causes (9.4 per 100,000)	Fatal assault ----- Congenital anomalies ----- Neoplasms (1.6 per 100,000)	*	*	Congenital anomalies (2.7 per 100,000)
5	*	*	*	*	*

Data source: Queensland Child Death Register (2014–15)

* Causes of death are not represented in the table where rates have not been calculated (for numbers less than four).

1. Rates for age categories are calculated per 100,000 children and young people in each age category.

⁶ Note this will differ from other cause of death comparisons within the report, as this table uses ICD-10 chapter classifications for diseases and morbid conditions, rather than the broader category of deaths due to diseases and morbid conditions reported elsewhere.

Aboriginal and Torres Strait Islander status

Of the 445 children and young people who died, 73 were identified as Aboriginal and Torres Strait Islander. The child death rate for Aboriginal and Torres Strait Islander children was 2.3 times the rate for non-Indigenous children; with a rate of 85.2 deaths per 100,000 Indigenous children aged 0–17 years, compared with 36.4 deaths per 100,000 for non-Indigenous children. Table 1.4 (below) shows the breakdown by age and cause of death for Aboriginal and Torres Strait Islander children and young people.

The greatest proportion of Indigenous deaths occurred among children under 1 year (61.6 per cent) followed by 10–14-year-olds. The higher proportion of infant deaths, compared to other age groups, due to diseases and morbid conditions is also seen in mortality data for non-Indigenous children. Fatal assault and neglect was the leading external cause of death for Aboriginal and Torres Strait Islander children and young people in 2014–15, followed by transport incidents.

Table 1.4: Aboriginal and Torres Strait Islander deaths by cause of death and age category, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>	Rate per 100,000 Indigenous children	Rate per 100,000 non-Indigenous children
Diseases and morbid conditions	36	1	0	3	2	42	49.0	26.1
Explained diseases and morbid conditions	34	1	0	3	2	40	46.7	25.8
Unexplained diseases and morbid conditions	2	0	0	0	0	2	*	0.4
<i>SIDS and undetermined causes (infants)</i>	2	0	0	0	0	2	*	0.4
<i>Undetermined >1 year</i>	0	0	0	0	0	0	0.0	0.0
External causes	3	3	7	6	6	25	29.2	6.4
Fatal assault and neglect	1	1	4	3	0	9	10.5	0.5
Transport	1	2	1	1	2	7	8.2	1.8
Suicide	0	0	0	2	4	6	7.0	2.2
Drowning	0	0	1	0	0	1	*	1.5
Other non-intentional injury	1	0	1	0	0	2	*	0.5
Cause of death pending	6	0	0	0	0	6	7.0	3.9
Total	45	4	7	9	8	73	85.2	36.4
Rate per 100,000 (Indigenous)	864.6	19.8	29.1	39.5	59.4	85.2		
Rate per 100,000 (non-Indigenous)	411.4	21.5	8.4	4.7	26.6	36.4		

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years in Queensland, and per 100,000 non-Indigenous children aged 0–17 years in Queensland.
2. Rates for age categories are calculated per 100,000 Indigenous/non-Indigenous children and young people in each age category.
3. Although deaths that only occur within a certain age category (such as SIDS and suicide) are generally expressed as a rate per 100,000 children within that age category (for example, infants under 1 year or young people aged 10–17 years), all rates have been calculated per 100,000 children and young people aged 0–17 years in Queensland to enable comparison across all causes of death. Age-specific death rates are discussed in the chapters relating to each cause of death.

Geographical area of usual residence (ARIA+)⁷

Regional areas of Queensland recorded the highest rate of child death, with 43.2 deaths per 100,000 children aged 0–17 years living in regional areas. Remote areas recorded the next highest rate of child deaths (41.1 per 100,000), followed by metropolitan areas with 35.1 deaths per 100,000 children.

Regional areas recorded the highest rate of deaths for diseases and morbid conditions (27.3 per 100,000), while remote areas recorded the highest rate of child deaths for external causes (13.1 per 100,000).

Socio-economic status of usual residence (SEIFA)

Children and young people living in low to very low socio-economic areas recorded the highest rate of child deaths (49.6 per 100,000). Moderate socio-economic areas recorded a rate of 34.9 per 100,000, while high to very high socio-economic areas recorded the lowest rate of child deaths (29.0 per 100,000). This pattern was similar to the previous two reporting periods; however, there has not been a consistent trend across all reporting periods.

Low to very low socio-economic areas recorded the highest rate of deaths for both diseases and morbid conditions (32.5 per 100,000) and external causes (10.8 per 100,000).

Children known to the child protection system

Following recommendations made in the Queensland Child Protection Commission of Inquiry Final Report, *Taking Responsibility: A Road Map for Queensland Child Protection*, changes were made to the timeframes required for the Department of Communities, Child Safety and Disability Services (Department of Communities) to conduct a review of the death of a child. For the purpose of this report, a child is deemed to have been known to the child protection system if, within one year before the child's death, the child was in the custody or guardianship of the Department of Communities, the Department of Communities was aware of alleged harm or risk of harm, the Department of Communities took action under the *Child Protection Act 1999*, or the Department of Communities was notified of concerns before the birth of a child and reasonably suspected the child might be in need of protection after their birth. Prior to this, the timeframe for review was within three years of the department's last involvement with the child prior to their death.

The population used as a denominator for 'children known to the child protection system' for the 2014–15 reporting period is based on the number of children and young people known to the department in the 2013–14 financial year who were subject to a child concern report, notification, investigation and assessment, ongoing intervention, child protection orders or placements as provided by the Department of Communities.

Of the 445 children and young people whose deaths were registered in 2014–15, 52 were known to the child protection system. Table 1.5 (over page) shows the breakdown by age and cause of death for children known to the child protection system.

Of the children known to the child protection system, 21.2 per cent died as a result of diseases and morbid conditions (11 deaths) and 59.6 per cent as a result of external causes (31 deaths). The leading external cause of death for children known to the child protection system were suicides (15 deaths), followed by transport incidents (eight deaths).

In 2014–15, deaths of children known to the child protection system represented a rate of 53.7 deaths per 100,000, compared with 40.2 deaths per 100,000 for all Queensland children. For external causes of death, the rate of deaths for children known to the child protection system was 4.0 times the rate for all children in Queensland (32.0 and 8.1 deaths per 100,000 respectively).

⁷ Note that ARIA+ and SEIFA breakdowns exclude 20 children whose usual residence was outside of Queensland, 18 died from diseases and morbid conditions, one from external causes and one from a cause yet to be determined (pending test results). See Appendix 1.3 for usual place-of-residence data.

Table 1.5: Cause of death of children known to the child protection system by age category, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Child known <i>n</i>	Only siblings known <i>n</i>	Child or siblings known <i>n</i>	Rate per 100,000 in child protection system	Rate per 100,000 all Queensland children
Diseases and morbid conditions	5	1	2	0	3	11	1	12	11.4	27.9
Explained diseases and morbid conditions	4	1	2	0	3	10	0	10	10.3	27.4
Unexplained diseases and morbid conditions	1	0	0	0	0	1	1	2	*	0.5
<i>SIDS and undetermined causes (infants)</i>	1	0	0	0	0	1	1	2	*	0.5
<i>Undetermined >1 year</i>	0	0	0	0	0	0	0	0	0.0	0.0
External causes	4	7	3	4	13	31	1	32	32.0	8.1
Suicide	0	0	0	3	12	15	0	15	15.5	2.5
Transport	1	3	2	1	1	8	1	9	8.3	2.3
Fatal assault and neglect	1	2	0	0	0	3	0	3	*	1.3
Other non-intentional injury	2	1	0	0	0	3	0	3	*	0.6
Drowning	0	1	1	0	0	2	0	2	*	1.4
Cause of death pending	7	2	0	0	1	10	1	11	10.3	4.2
Total	16	10	5	4	17	52	3	55	53.7	40.2

Data source: Queensland Child Death Register (2014–15)

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

1. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.
2. Rates have only been calculated for cases where the deceased child was known to the child protection system, not for cases where the departmental involvement was with the child's siblings only.
3. Rates of death for all Queensland children are based on the number of children aged 0–17 years in Queensland.

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Part II: Deaths from diseases and morbid conditions, 2014–15

Chapter 2—Diseases and morbid conditions

This chapter provides details of child deaths from diseases and morbid conditions, ranging from congenital anomalies and perinatal conditions through to cancers and infections.

Key findings

- In 2014–15, the deaths of 309 children and young people were the result of diseases and morbid conditions, a rate of 27.9 deaths per 100,000 children and young people aged 0–17 years in Queensland. Both the number and rate of deaths from diseases and morbid conditions in 2014–15 are the lowest recorded over the 11 years since 2004.
- The most common causes of death as a result of diseases and morbid conditions were certain conditions originating in the perinatal period (13.1 deaths per 100,000 children aged 0–17 years), with the majority occurring as a result of complications of pregnancy, labour and delivery. This was followed by deaths due to congenital malformations, deformations and chromosomal abnormalities (8.3 deaths per 100,000).
- Deaths of children from diseases and morbid conditions are most likely to occur in the first weeks and months of life, with infants accounting for 79.3 per cent of deaths from diseases and morbid conditions in 2014–15. The infant mortality rate in relation to diseases and morbid conditions (using live births as the denominator) is 3.9 deaths per 1000 live births.
- Infant deaths from the two leading causes—conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities (220 deaths combined)—make up the largest proportion of all deaths of children and young people (71.2 per cent of all 309 deaths from diseases and morbid conditions and 49.4% per cent of the 445 deaths from all causes).
- Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 49.0 per 100,000 Indigenous children aged 0–17 years (compared with 26.1 deaths per 100,000 non-Indigenous children). Over the last 11 reporting periods, the Indigenous mortality rates from diseases and morbid conditions have generally been 1.5–2 times the rates for non-Indigenous children.
- The infant mortality rate for Aboriginal and Torres Strait Islander children in relation to diseases and morbid conditions (using live births as the denominator) is 0.6 deaths per 1000 live births. Deaths of Indigenous infants from diseases and morbid conditions make up the largest proportion of all deaths of Indigenous children and young people (85.7 per cent of the 42 deaths from diseases and morbid conditions and 49.3 per cent of the 73 deaths from all causes).
- Five children and young people died of notifiable conditions. A disease is made notifiable by state health authorities if there is potential for control, such as through public education, immunisation or other programs, or if there is a demonstrated public interest in a condition.

Child death and injury prevention activities

Data requests

The QFCC provided data from the Queensland Child Death Register on a periodic basis for one data request related to diseases and morbid conditions. This data was used to inform a study around Sudden Unexpected Early Neonatal Death.

Deaths from diseases and morbid conditions, 2012–2015

A copy of Table 2.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 2.1: Summary of deaths from diseases and morbid conditions of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All deaths from diseases and morbid conditions							
Diseases and morbid conditions	360	33.0	359	32.4	309	27.9	31.0
Explained diseases and morbid conditions	328	30.1	331	29.9	303	27.4	29.0
Unexplained diseases and morbid conditions	32	2.9	28	2.5	6	0.5	2.0
<i>SIDS and undetermined</i>	32	2.9	26	2.3	6	0.5	1.9
<i>Undetermined > 1 year</i>	0	0.0	2	*	0	0.0	*
Sex							
Female	172	32.4	167 ^a	31.0	149 ^a	27.6	30.2
Male	188	33.6	191 ^a	33.6	158 ^a	27.8	31.5
Age category							
Under 1 year	275	434.9	284	446.9	245	385.5	421.7
1–4 years	27	10.9	31	12.3	20	7.9	10.3
5–9 years	23	7.6	22	7.1	16	5.2	6.6
10–14 years	17	5.7	10	3.4	11	3.7	4.2
15–17 years	18	9.9	12	6.6	17	9.3	8.6
Aboriginal and Torres Strait Islander status							
Indigenous	44	51.9	50	58.4	42	49.0	52.9
Non-Indigenous	316	31.4	309	30.3	267	26.1	29.1
Geographical area of usual residence (ARIA+)							
Remote	15	28.0	19	35.5	14	26.1	29.9
Regional	126	31.1	127	31.0	112	27.3	29.7
Metropolitan	210	33.2	204	31.7	165	25.6	30.0
Socio-economic status of usual residence (SEIFA)							
Low to very low	192	43.8	173	39.0	144	32.5	38.3
Moderate	63	29.6	57	26.5	50	23.2	26.3
High to very high	96	21.8	120	26.7	97	21.6	23.3
Known to the child protection system							
Known to the child protection system	28	16.9	46	27.5	11	11.4	..

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
Perinatal conditions							
Perinatal conditions	145	229.3	149	234.5	145	228.2	230.3
<i>Indigenous</i>	23	455.7	22	422.7	19	365.0	409.9
Congenital anomalies							
Congenital anomalies	81	7.4	95	8.6	92	8.3	8.1
<i>Indigenous</i>	6	7.1	5	5.8	12	14.0	8.9
Neoplasms							
Neoplasms	27	2.5	20	1.8	21	1.9	2.0
<i>Indigenous</i>	2	*	3	*	0	0.0	*
Infections							
Infections	20	1.8	22	2.0	12	1.1	1.6
<i>Indigenous</i>	2	*	3	*	5	5.8	*

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 4).

^a Excludes the death of one infant of indeterminate sex in 2013–14 and two infants of indeterminate sex in 2014–15.

1. Data presented here is current in the Queensland Child Death Register as at June 2014 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. Rates for the various types of diseases and morbid conditions are calculated per 100,000 children aged 0–17 years in Queensland in each year, with the exception of 'Perinatal conditions', which is calculated per 100,000 infants under the age of 1 year in Queensland.

4. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15 this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

5. ARIA and SEIFA were not able to be calculated for children whose usual place of residence was not Queensland.

6. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

Diseases and morbid conditions: Findings, 2014–15

Between 1 July 2014 and 30 June 2015, 309 children and young people died from diseases and morbid conditions in Queensland, representing 69.4 per cent of all child deaths and a rate of 27.9 deaths per 100,000 children and young people aged 0–17 years. Both the number and rate of deaths from diseases and morbid conditions in 2014–15 are the lowest recorded over the 11 years since 2004.⁸

The main causes of mortality from diseases and morbid conditions were conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities. Together, these causes accounted for 76.7 per cent of all deaths from diseases and morbid conditions.

Table 2.2: Deaths from diseases and morbid conditions by ICD-10 chapter level classification, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total		Rate per 100,000
						<i>n</i>	%	
Certain conditions originating in the perinatal period (P00–P96)	144	1	0	0	0	145	46.9	13.1
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	76	5	2	4	5	92	29.8	8.3
Neoplasms (C00–D48)	1	4	10	0	6	21	6.8	1.9
Diseases of the nervous system (G00–G99)	7	4	3	1	1	16	5.2	1.4
Diseases of the respiratory system (J00–J99)	4	2	0	4	1	11	3.6	1.0
SIDS and undetermined causes (R95–R99)	6	0	0	0	0	6	1.9	0.5
Certain infectious and parasitic diseases (A00–B99)	1	2	0	2	1	6	1.9	0.5
Diseases of the circulatory system (I00–I99)	2	1	0	0	2	5	1.6	0.5
Endocrine, nutritional and metabolic diseases (E00–E90)	1	1	0	0	1	3	1.0	*
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	2	0	0	0	0	2	0.6	*
Diseases of the digestive system (K00–K93)	1	0	1	0	0	2	0.6	*
Total	245	20	16	11	17	309	100.0	27.9
Rate per 100,000	385.5	7.9	5.2	3.7	9.3	27.9		

Data source: Queensland Child Death Register (2014–15)

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

1. Although deaths that only occur within a certain age category (such as perinatal conditions) are generally expressed as a rate per 100,000 children within that age category (for example, infants under 1 year), rates for causes of death have been calculated per 100,000 children and young people aged 0–17 years in Queensland to enable comparison across all causes of death.

⁸ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

Sex

Male children died from diseases and morbid conditions at a rate of 27.8 deaths per 100,000 male children aged 0–17 years, compared to female children representing 27.6 deaths per 100,000 female children aged 0–17 years.

Age

There is generally an inverse relationship between children's age and deaths due to diseases and morbid conditions. That is, the likelihood of children dying from diseases and morbid conditions decreases with increasing age. Rates for 2014–15 were generally consistent with this trend.

Infants under 1 year

Children are significantly more likely to die from diseases and morbid conditions in the first year of life than at any other age. Infants under 1 year accounted for 79.3 per cent of deaths due to diseases and morbid conditions (245 deaths), a rate of 385.5 deaths per 100,000 infants. The infant mortality rate in relation to diseases and morbid conditions (using live births as the denominator) is 3.9 deaths per 1000 live births.

Infant deaths from the two leading causes—conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities (220 deaths combined)—make up the largest proportion of all deaths of children and young people (71.2 per cent of all 309 deaths from diseases and morbid conditions and 49.4 per cent of the 445 deaths from all causes).

Table 2.3 (over page) shows the age and selected causes of infant deaths.

Infant deaths are divided into neonatal and post-neonatal periods. Neonatal deaths are those that 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). The overall number of deaths from diseases and morbid conditions decreases significantly in the post-neonatal period.

Neonatal period

In total, 81.6 per cent (200 deaths) of infant deaths due to diseases and morbid conditions occurred in the neonatal period: a rate of 3.2 neonatal deaths per 1000 live births. Of the 200 neonatal deaths, 56.0 per cent (112 deaths) occurred on the day of birth and a further 27.5 per cent (55 deaths) of neonatal deaths had occurred by the end of the first week.

The majority of infant deaths in the neonatal period resulted from conditions originating in the perinatal period (2.1 deaths per 1000 live births), followed by congenital malformations, deformations and chromosomal abnormalities (1.0 deaths per 1000 live births).

Post-neonatal period

Infants died from diseases and morbid conditions in the post-neonatal period at a rate of 0.7 deaths per 1000 live births (45 deaths). The leading causes of death in the post-neonatal period were congenital malformations, deformations and chromosomal abnormalities (31.1 per cent, 14 deaths) and conditions originating in the perinatal period (22.2 per cent, 10 deaths).

Table 2.3: Age and cause of infant deaths from diseases and morbid conditions, 2014–15

Age		Cause of death				
		Certain conditions originating in the perinatal period (P00–P96)	Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	SIDS and undetermined causes (R95–R99)	Other diseases and morbid conditions ^a	Total <i>n</i>
Neonatal (age in days)	<1	80	31	0	1	112
	1–6	35	19	0	1	55
	7–27	19	12	2	0	33
Neonatal total		134	62	2	2	200
Post-neonatal (age in months)	1*	7	6	3	1	17
	2	1	3	1	2	7
	3	1	3	0	1	5
	4	0	2	0	1	3
	5	1	0	0	3	4
	6	0	0	0	1	1
	7	0	0	0	3	3
	8	0	0	0	1	1
	9	0	0	0	0	0
	10	0	0	0	2	2
	11	0	0	0	2	2
Post-neonatal total		10	14	4	17	45
Total infants		144	76	6	19	245

Data source: Queensland Child Death Register (2014–15)

* 28 days to two months

^a Includes diseases of the nervous system (G00–G99), diseases of the respiratory system (J00–J99), diseases of the blood-forming organs and certain disorders involving the immune mechanism (D50–D89), diseases of the circulatory system (I00–I99), diseases of the digestive system (K00–K93), endocrine, nutritional and metabolic diseases (E00–E90), certain infectious and parasitic diseases (A00–B99) and neoplasms (C00–D48).

Children aged 1–17 years

For children aged over one year, the following findings were evident:

Children aged 1–4 years died from diseases and morbid conditions at a rate of 7.9 deaths per 100,000 children in this age category (20 deaths). The leading cause of death in this age category was congenital malformations, deformations and chromosomal abnormalities (five deaths).

Children aged 5–9 years died from diseases and morbid conditions at a rate of 5.2 deaths per 100,000 children aged 5–9 years (16 deaths). Neoplasms accounted for the largest number of deaths in this age category (10 deaths).

Children aged 10–14 years had the lowest rate of death from diseases and morbid conditions, dying at a rate of 3.7 deaths per 100,000 children aged 10–14 years (11 deaths). Congenital malformations, deformations and chromosomal abnormalities and diseases of the respiratory system accounted for the largest number of deaths in this age category (four deaths each).

Young people aged 15–17 years died at a rate of 9.3 deaths per 100,000 young people aged 15–17 years (17 deaths). The leading cause of death in this age category was neoplasms (six deaths).

Aboriginal and Torres Strait Islander status

Forty-two children who died from diseases and morbid conditions were Aboriginal and Torres Strait Islander. Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 49.0 deaths per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years (compared with 26.1 deaths per 100,000 non-Indigenous children). These rates have fluctuated over the last 11 reporting periods; however, the Indigenous mortality rates from diseases and morbid conditions have generally been 1.5–2 times the rates for non-Indigenous children.

The infant mortality rate for Aboriginal and Torres Strait Islander children in relation to diseases and morbid conditions (using Indigenous live births as the denominator) is 6.9 deaths per 1000 Indigenous live births. Deaths of Indigenous infants from diseases and morbid conditions make up the largest proportion of all deaths of Indigenous children and young people (85.7 per cent of the 42 deaths from diseases and morbid conditions and 49.3 per cent of the 73 deaths from all causes).

Geographical area of usual residence (ARIA+)

The highest number of deaths were recorded for children who usually resided in metropolitan areas (165 deaths), compared to 112 in regional and 14 in remote areas. The rate of death was equally represented in regional, remote and metropolitan areas with 27.3, 26.1 and 25.6 deaths per 100,000 children respectively. Eighteen children who died from diseases and morbid conditions normally resided in a jurisdiction outside of Queensland.⁹

Socio-economic status of usual residence (SEIFA)

Children residing in low to very low socio-economic areas had the highest number and rate of death (144 deaths, 32.5 deaths per 100,000) compared to children residing in high to very high socio-economic areas (97 deaths, 21.6 deaths per 100,000) and moderate socio-economic areas (50 deaths, 23.2 deaths per 100,000).¹⁰

Children known to the child protection system

Of the 309 children who died from diseases and morbid conditions, 11 (3.6 per cent) were known to the child protection system in the year before their death. Children known to the child protection system died from diseases and morbid conditions at a lower rate than that of all Queensland children (11.4 deaths per 100,000 children known to the child protection system, compared with 27.9 deaths per 100,000 children in Queensland).

Deaths from diseases and morbid conditions: Major causes

As discussed above, the main causes of mortality from diseases and morbid conditions were conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities, followed by neoplasms.

Deaths as a result of infection are also discussed in this section. Within the World Health Organisation's classification system (ICD-10), deaths due to infection may be categorised separately, according to which part of the body they affect. Deaths due to infection are, in the main, both unexpected and potentially preventable; and are therefore worthy of further consideration.

Perinatal conditions

Perinatal conditions are diseases and conditions that originate during pregnancy or the neonatal period (first 28 days of life), even though death or morbidity may occur later.¹¹ 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.

⁹ Appendix 1.3 provides additional cause of death information for children and young people who died in Queensland but usually resided in another jurisdiction.

¹⁰ Eighteen children could not be classified, as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

¹¹ Perinatal conditions are those coded to ICD-10 Chapter XVI, Certain conditions originating in the perinatal period. These deaths have been coded based on medical cause of death only (as provided by the Registry of Births, Deaths and Marriages under s.48A of the Births, Deaths and Marriages Registration Act

One hundred and forty-four infants died from perinatal conditions, a rate of 226.6 deaths per 100,000 infants.^{12,13} This has remained relatively stable for the past three reporting periods. As shown in Table 2.4, 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 (54.9 per cent, 79 deaths), followed by disorders related to the length of gestation and foetal growth (18.1 per cent, 26 deaths). Together, these causes accounted for 72.9 per cent of all deaths due to perinatal conditions.

Table 2.4: Deaths due to perinatal conditions by sex, 2014–15

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00–P04)	36	43	79	124.3
Disorders related to length of gestation and foetal growth (P05–P08)	12 ^a	12 ^a	26	40.9
Haemorrhagic and haematological disorders of foetus and newborn (P50–P61)	10	2	12	18.9
Respiratory and cardiovascular disorders specific to the perinatal period (P20–P29)	7	5	12	18.9
Other disorders originating in the perinatal period (P90–P96)	3	3	6	9.4
Infections specific to the perinatal period (P35–P39)	4	1	5	7.9
Digestive system disorders of foetus and newborn (P75–P78)	2	2	4	6.3
Total	74^a	68^a	144	226.6
Rate per 100,000	239.8	208.0	226.6	

Data source: Queensland Child Death Register (2014–15)

^a Excludes the death of two infants whose sex was indeterminate.

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

1. Rates are calculated per 100,000 children under 1 year of age in Queensland.

2. Two deaths due to perinatal conditions are not included in this table as the children were over 1 year of age.

2003). The QFCC does not currently have access to either complete death certificates or perinatal data collection forms. Death certificates for infants who die in the neonatal period include information on birth weight and gestation that may be relevant to the underlying cause of death.

¹² All rates in this section have been given for infant populations

¹³ One death due to perinatal conditions is not included in these calculations as the child was over 1 year of age.

Congenital anomalies

Congenital anomalies are mental and physical conditions present at birth that are either hereditary or caused by environmental factors.¹⁴ Ninety-two children and young people died from congenital anomalies, at a rate of 8.3 deaths per 100,000 children aged 0–17 years. This is consistent with the rate of deaths due to congenital anomalies over the past three reporting periods. As shown in Table 2.5, the greatest number of deaths due to congenital anomalies was caused by malformations of the circulatory system (30.4 per cent, 28 deaths), and chromosomal abnormalities, not elsewhere classified (19.6 per cent, 18 deaths). Together, these causes accounted for 50.0 per cent of all deaths due to congenital anomalies.

Table 2.5: Deaths due to congenital anomalies by sex, 2014–15

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Congenital malformations of the circulatory system (Q20–Q28)	12	16	28	2.5
Chromosomal abnormalities, not elsewhere classified (Q90–Q99)	10	8	18	1.6
Congenital malformations of the nervous system (Q00–Q07)	10	6	16	1.4
Congenital malformations of the urinary system (Q60–Q64)	2	8	10	0.9
Other congenital malformations (Q80–Q89)	4	6	10	0.9
Congenital malformations and deformations of the musculoskeletal system (Q65–Q79)	2	3	5	0.5
Congenital malformations of the respiratory system (Q30–Q34)	2	1	3	*
Other congenital malformations of the digestive system (Q38–Q45)	1	1	2	*
Total	43	49	92	8.3
Rate per 100,000	8.0	8.6	8.3	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

Neoplasms (cancers and tumours)

Although these terms are not synonymous, the term ‘neoplasm’ is often used interchangeably with words such as ‘tumour’ and ‘cancer’.¹⁵ 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. 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 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.

As outlined in Table 2.6, 21 children and young people died from cancers and tumours, a rate of 1.9 deaths per 100,000 children aged 0–17 years. The most common types of neoplasms were of the eye, brain and other parts of the central nervous system (nine deaths), followed by neoplasms of lymphoid, haematopoietic and related tissue (six deaths).

¹⁴ ICD-10 Chapter XVII, Congenital malformations, deformations and chromosomal abnormalities.

¹⁵ ICD-10 Chapter II, Neoplasms.

Table 2.6: Deaths due to neoplasms by sex, 2014–15

Type of neoplasm	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Eye, brain and other parts of central nervous system (C69–C72)	4	5	9	0.8
Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81–C96)	1	5	6	0.5
Bone and articular cartilage (C40–C41)	2	1	3	*
Mesothelial and soft tissue (C45–C49)	1	0	1	*
Lip, oral cavity and pharynx (C00–C14)	0	1	1	*
Urinary tract (C64–C68)	1	0	1	*
Total	9	12	21	1.9
Rate per 100,000	1.7	2.1	1.9	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

Diseases of the nervous system

Diseases of the nervous system refer to diseases that affect the central nervous system (the brain and spinal cord) and the peripheral nervous system (the nerves and ganglia outside the central nervous system).¹⁶ As outlined in Table 2.7, 16 children and young people died from diseases of the nervous system, a rate of 1.4 deaths per 100,000 children aged 0–17 years. The most common types of nervous system diseases were systemic atrophies primarily affecting the central nervous system (six deaths) and episodic and paroxysmal disorders (four deaths).

Table 2.7: Deaths due to diseases of the nervous system by sex, 2014–15

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Systemic atrophies primarily affecting the central nervous system (G10–G13)	4	2	6	0.5
Episodic and paroxysmal disorders (G40–G47)	3	1	4	0.4
Cerebral palsy and other paralytic syndromes (G80–G83)	2	0	2	*
Inflammatory diseases of the central nervous system (G00–G09)	1	0	1	*
Other degenerative diseases of the nervous system (G30–G32)	0	1	1	*
Demyelinating diseases of the central nervous system (G35–G37)	0	1	1	*
Other disorders of the nervous system (G90–G99)	0	1	1	*
Total	10	6	16	1.4
Rate per 100,000	1.9	1.1	1.4	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

¹⁶ ICD-10 Chapter VI, Diseases of the nervous system.

Infections

'Infections' is a hybrid category composed of certain infections and parasitic diseases, diseases of the nervous system, and diseases of the respiratory system.¹⁷ Twelve children and young people died from infections, a rate of 1.1 per 100,000 children aged 0–17 years. The highest number of infections were caused by other bacterial diseases (five deaths), followed by influenza and pneumonia (three deaths).

Table 2.8: Deaths due to infections by sex, 2014–15

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Other bacterial diseases (A30–A49)	2	3	5	0.5
Influenza and pneumonia (J09–J18)	2	1	3	*
Protozoal diseases (B50–B64)	0	1	1	*
Inflammatory diseases of the central nervous system (G00–G09)	1	0	1	*
Acute upper respiratory infections (J00–J06)	1	0	1	*
Other acute lower respiratory infection (J20–J22)	0	1	1	*
Total	6	6	12	1.1
Rate per 100,000	1.1	1.1	1.1	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

Deaths from notifiable conditions

A disease may be made notifiable to state health authorities if there is potential for its control or if there is a demonstrated public interest in a condition.¹⁸ The 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 patterns of occurrence of disease.

Five children and young people died of a notifiable condition as shown in Table 2.9. All deaths from notifiable conditions were due to vaccine-preventable or potentially vaccine-preventable conditions.¹⁹

Table 2.9: Notifiable conditions by sex, 2014–15

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>
Meningococcal disease (invasive) ^a	2	0	2
Pneumococcal disease (invasive) ^a	0	1	1
Influenza ^a	0	1	1
<i>Haemophilus influenzae</i> type b ^b	1	0	1
Total	3	2	5

Data source: Queensland Child Death Register (2014–15)

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

^b Vaccine-preventable condition.

¹⁷ 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.

¹⁸ See Appendix 2.1 for the complete Queensland Notifiable Conditions Schedule contained in the Public Health Regulation 2005.

¹⁹ In Australia, publicly-funded immunisation programs are administered by state and territory governments. The current National Immunisation Program Schedule (valid from May 2012) includes vaccinations against the following diseases: hepatitis B, diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, *Haemophilus influenzae* type b (Hib), invasive pneumococcal disease, rotavirus, measles, mumps, rubella, meningococcal C disease, varicella (chicken pox) and human papillomavirus (HPV).

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Part III: Non-intentional injury-related deaths, 2014–15

Chapter 3—Transport

This chapter provides details of child deaths from injury as a result of transport incidents.

Key findings

- In 2014–15, 25 children and young people died in transport incidents, a rate of 2.3 deaths per 100,000 children aged 0–17 years. This is the lowest number of transport-related fatalities since reporting commenced in 2004.

Child death and injury prevention activities

Data requests

QFCC provided Queensland Child Death Register data for two requests relating to transport incidents. The data provided was used for research and public education/reporting by the Royal Children’s Hospital and the Department of Transport and Main Roads.

Transport, 2012–2015

A copy of Table 3.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 3.1: Summary of transport deaths of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All transport deaths							
Transport	28	2.6	31	2.8	25	2.3	2.5
Incident type							
Motor vehicle	18	1.6	17	1.5	19	1.7	1.6
Pedestrian	6	0.5	7	0.6	4	0.4	0.5
LSVRO	3	*	4	0.4	2	*	*
Motorcycle	2	*	1	*	1	*	*
Quad bike	1	*	3	*	0	0.0	*
Watercraft	0	0.0	0	0.0	0	0.0	*
Other	1	*	3	*	1	*	*
Sex							
Female	12	2.3	11	2.0	11	2.0	2.1
Male	16	2.9	20	3.5	14	2.5	2.9
Age category							
Under 1 year	0	0.0	0	0.0	1	*	*
1–4 years	6	2.4	4	1.6	9	3.6	2.5
5–9 years	6	2.0	12	3.9	3	*	2.3
10–14 years	4	1.3	5	1.7	3	*	1.3
15–17 years	12	6.6	10	5.5	9	4.9	5.7
Aboriginal and Torres Strait Islander status							
Indigenous	7	8.3	5	5.8	7	8.2	7.4
Non-Indigenous	21	2.1	26	2.5	18	1.8	2.1
Geographical area of incident location (ARIA+)							
Remote	3	*	6	11.2	5	9.3	8.7
Regional	15	3.7	20	4.9	16	3.9	4.1
Metropolitan	10	1.6	5	0.8	3	*	0.9
Socio-economic status of incident location (SEIFA)							
Low to very low	15	3.4	10	2.3	11	2.5	2.7
Moderate	4	1.9	13	6.0	5	2.3	3.4
High to very high	9	2.0	8	1.8	8	1.8	1.9
Known to the child protection system							
Known to the child protection system	12	7.2	9	5.4	8	8.3	..

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 3).

1. Data presented here is current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.
2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.
3. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.
4. ARIA+ and SEIFA were not able to be calculated for one incident which occurred outside of Queensland.
5. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).
6. LSVRO refers to deaths as a result of a low speed vehicle run-over, a subset of the 'pedestrian' category; hence, summing categories will exceed the total.
7. The 'other' category includes deaths involving bicycles, motorised go-carts, horse riding incidents, and specialised industrial vehicles.

Transport-related fatalities: Findings, 2014–15

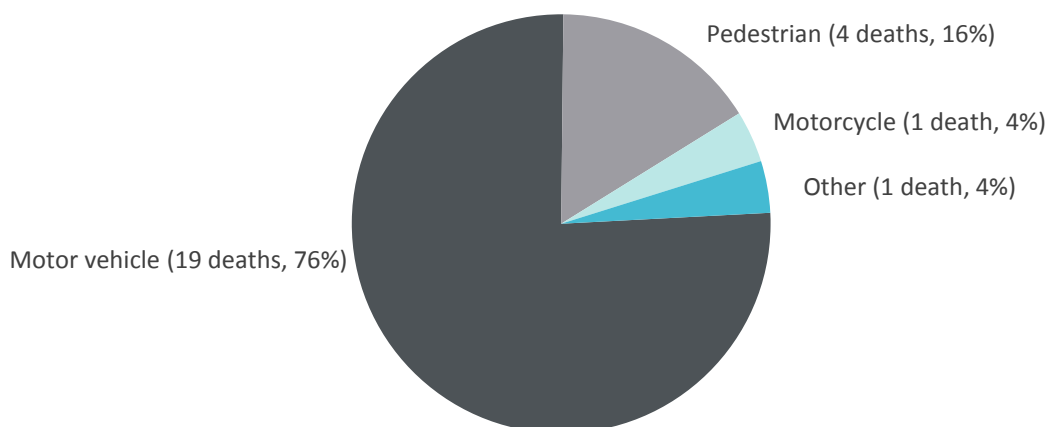
Between 1 July 2014 and 30 June 2015, 25 children and young people died as a result of transport incidents at a rate of 2.3 deaths per 100,000 children aged 0–17 years in Queensland.²⁰ This is the lowest number of transport-related fatalities since reporting commenced in 2004.²¹

The highest number of transport-related fatalities occurred in 2011–12 (52 deaths). Over the 11-year period, the rate of transport-related child deaths has greatly fluctuated across the reporting periods.

Nature of transport incident

As illustrated in Figure 3.1, the majority of transport fatalities occurred in motor vehicles (76 per cent), followed by pedestrian deaths (16 per cent). This pattern is similar to that observed in previous years.

Figure 3.1: Nature of transport fatality, 2014–15



Data source: Queensland Child Death Register (2014–15)

Sex

Males accounted for 56.0 per cent of transport deaths (14 deaths). Whilst this relationship is consistent with previous reporting periods, the rate of death for male children and young people in transport incidents is the lowest since reporting commenced in 2004 (2.5 deaths per 100,000 male children). Research has established that higher rates of death for males can, in part, be attributed to greater risk-taking behaviours displayed by young males—this includes risk-taking behaviours of male drivers.²²

Age

Children aged in the 1–4 and 15–17 year age categories experienced the greatest number of deaths as a result of transport incidents (nine deaths each, 36.0 per cent each).

The highest rate of transport deaths was for 15–17 year olds (nine deaths, 4.9 deaths per 100,000). In seven of the nine deaths, the vehicle was operated either by the young person or another driver aged under 21 years.

Aboriginal and Torres Strait Islander status

Of the 25 transport deaths, seven were Aboriginal and Torres Strait Islander children and young people (28.0 per cent, 8.2 deaths per 100,000 Indigenous children).

²⁰ There was one additional transport-related-incident death that has not been counted here as it occurred in the context of a drowning incident.

²¹ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

²² Australian Institute of Health and Welfare (2011). *Young Australians: Their health and wellbeing*. Cat no PHE 140, Australian Institute of Health and Welfare, Canberra.

Geographical area of usual residence (ARIA+)²³

Children and young people who usually resided in regional areas had the highest number of deaths as a result of transport incidents, accounting for 12 deaths (2.9 deaths per 100,000 children in regional areas, 48.0 per cent), compared to 10 from metropolitan areas and three from remote areas.

To facilitate an understanding of the areas in which transport fatalities more frequently occur, the incident locations (as provided in the Police Report of Death to a Coroner) have been calculated.

Twenty-one of the 25 transport fatalities (84.0 per cent) occurred in regional and remote areas of Queensland. This may be due to a combination of factors including poorer road conditions and fatigue due to driving long distances.²⁴

Socio-economic status of usual residence (SEIFA)²⁵

Regional analyses of death rates according to socio-economic status of the area of residence indicate that the rate of transport-related child deaths was 3.7 deaths per 100,000 from moderate socio-economic areas (eight deaths) and 2.0 deaths per 100,000 (nine deaths) from low to very low socio-economic areas. Children from high to very high socio-economic areas had a rate of 1.8 deaths per 100,000 (eight deaths).²⁶

Children known to the child protection system

Of the 25 children who died in transport incidents, eight were known to the child protection system.

Transport-related characteristics

Motor vehicle incidents

Table 3.2 below illustrates the role of the child or young person in motor vehicle fatalities in Queensland in 2014–15. In 16 of the 19 fatalities, the child or young person was a passenger in the motor vehicle and for the remaining three the young person was the driver.

Table 3.2: Motor vehicle incidents by role, age category and sex, 2014–15

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Drivers	0	3	3	*
15–17 years	0	3	3	*
Passengers	9	7	16	1.4
Under 1 year	0	1	1	*
1–4 years	2	2	4	1.6
5–9 years	1	1	2	*
10–14 years	1	2	3	*
15–17 years	5	1	6	3.3
Total	9	10	19	1.7
Rate per 100,000	1.7	1.8	1.7	

Data source: Queensland Child Death Register (2014–15)

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

1. Rates are calculated per 100,000 children and young people in each age category.

2. Rates for subtotals and totals are calculated per 100,000 children aged 0–17 years in Queensland.

²³ Note that these figures are of the usual residence and will not match those presented in Table 3.1, which present data based on the incident location.

²⁴ Australasian College of Road Safety (2012). *Rural and Remote Road Safety: Fact Sheet*.

²⁵ Note that these figures are of the usual residence and will not match those presented in Table 3.1, which present data based on the incident location.

²⁶ One child could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

Pedestrians

Four children and young people died as pedestrians in 2014–15 (see Table 3.3).

‘Low speed vehicle run-over’ is a term used to describe an incident 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 younger children 1–4 years of age. Drivers tend to be family members, with vehicles reversing at the time of impact. In 2014–15, two deaths occurred due to low speed vehicle run-overs. In one instance, the vehicle was reversing at the time, whilst the other vehicle was moving forwards. The number of low speed vehicle run-overs has remained relatively stable across the last decade, with between two and four deaths reported each year since 2005–06. In 2004–05, there were seven deaths from low speed vehicle run-overs.

Table 3.3: Pedestrian incidents by type, age category and sex, 2014–15

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>
Low speed vehicle run-over			
1–4 years	0	2	2
Total	0	2	2
Bystander			
1–4 years	1	0	1
Total	1	0	1
Other			
1–4 years	0	1	1
Total	0	1	1

Data source: Queensland Child Death Register (2014–15)

Motorcycles and quad bikes

One child (male) died in a motorcycle incident in 2014–15. The fatality occurred off-road with the child solely operating the motorcycle.

No children or young people died in quad bike incidents during the reporting period. In August 2015, the Queensland Deputy State Coroner handed down findings for an inquest into nine quad bike deaths, including those of four children and young people.²⁷ The Deputy State Coroner made 15 recommendations, one of which specifically related to the appropriate usage of quad bikes by children and young people. Recommendation 5 states:

Noting that children between 6–16 are permitted to operate ‘youth sized’ quad bikes and side by side vehicles, according to the manufacturer’s age recommendation for a particular vehicle, it is recommended that the Queensland government introduce legislation to:

- (a) prohibit children under the age of 16 from operating adult sized quad bikes and side by side vehicles;*
- (b) prohibit children between the ages of 6 and 16 from operating a youth sized quad bike or side by side vehicle, that is not specified to be appropriate according to the manufacturer’s age recommendation for that particular vehicle;*
- (c) prohibit children under the age of 7 from being carried as passengers on adult-sized side by side vehicles, as well as any child of whatever age if they are unable to sit with their back against the seat, feet flat on the floor and floor rests, and hands on handholds; and*
- (d) prohibit children under the age of 16 from being carried as passengers on adult-sized sit-astride quad bikes.*
- (e) It is suggested that the Specialty Vehicle Institute of America’s age based model legislation be considered as a starting point for the legislative regime.*
- (f) It is recommended that the Queensland government support the introduction of the legislation with an ongoing public awareness campaign about the dangers of parents and guardians allowing children to ride adult sized vehicles and ‘youth sized’ vehicles that are inappropriate for the age of the relevant child.*

²⁷ Queensland Courts (2015). Office of the State Coroner Findings of Inquest: *Inquest into nine (9) deaths caused by Quad Bike accidents*.

Other transport

One child (aged 5–9 years) died while riding a mobility scooter.

Multiple fatalities

Ten children and young people died in seven motor vehicle incidents that involved multiple fatalities in 2014–15 (including incidents where adults also died). Of these, one incident involved the death of three children and one adult, one incident involved the death of two children and one adult and five incidents involved the death of one child and at least one adult.

Highway fatalities

Of the 19 children and young people who died in motor vehicle incidents, eight died on highways (speed limit greater than or equal to 100 kilometres per hour). There were six fatalities on rural roadways and three on residential streets (speed limit up to 60 kilometres per hour). There was one death each for major roads (speed limit between 60 and 100 kilometres per hour) and off-road incidents.

Charges and criminal proceedings

Of the 25 transport fatalities in 2014–15, driving-related charges were laid for two incidents (8.0 per cent) (based on information available at the time of reporting). These charges included dangerous operation of a motor vehicle causing death while engaged in a race or speed trial, careless driving and driving under the influence of drugs. In some incidents, a criminal offence may have taken place; however, the driver of the vehicle also died and therefore charges were unable to be laid.

Off-road fatalities

The deaths of children and young people that occur in an off-road environment are not included in the official road toll. There were five deaths of children and young people in off-road transport environments in 2014–15. Three were pedestrian incidents, one a motorcycle incident and one involved a passenger on the outside of a vehicle.

Risk factors

Table 3.4 (over page) outlines the types of risk factors and the frequency of risk factors present for every transport fatality in 2014–15. The most prevalent risk factors for children and young people transport-related fatalities were:

- excessive speed
- drug and/or alcohol use
- having a driver or operator who was aged 21 years or younger
- peer passengers
- limited driver ability.

The highest number of transport fatalities were equally represented across the 1–4 and 15–17-year age groups. The most prevalent risk factors for both youth and adult driver behaviours were:

- excessive speed
- drug and/or alcohol use
- driving in wet conditions.

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 3.5 outlines the 4692 QAS responses for transport incidents, including both fatal and non-fatal injuries, between 1 July 2014 and 30 June 2015. As evident in previous reporting periods, the majority of incidents involved motor vehicles, followed by motorcycle incidents. The highest number of incidents involved young people aged 15–17 years.

Table 3.5: Queensland Ambulance Service responses to transport incidents, 2014–15

Type of incident	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>
Motor vehicle (including car, utility, bus, truck)	147	454	609	546	981	2737
Motorcycle	3	19	114	288	222	646
Bicycle	1	21	143	308	182	655
Pedestrian	5	52	98	157	96	408
Quad bike/ATV	0	4	18	33	27	82
Other	1	1	3	11	18	34
Unknown method of transport	0	17	25	43	45	130
Total	157	568	1010	1386	1571	4692

Data Source: Queensland Ambulance Service (2014–15)

1. Excludes data for eight children and young people whose age at the time of the incident was not known.

Chapter 4—Drowning

This chapter provides details of child deaths from drowning.

Key findings

- Sixteen children and young people drowned in Queensland in 2014–15 compared to seven in 2013–14 and 11 in 2012–13.
- Children aged 1–4 years made up the largest group of drowning deaths (10 deaths), a pattern that has been found in all previous reporting periods, and an indication of the particular vulnerability of this age group. Drowning is currently the leading external cause of death for children aged 1–4 years.
- Five children drowned in private pools and five drowned in rural water hazards such as farm dams—all of these deaths were of children aged 1–4 years.
- Pool fencing standards were introduced in 1991 and have been incrementally strengthened over time. The number of drowning deaths of young children have fluctuated from year to year; however, numbers before the introduction of pool fencing requirements were generally higher than those seen since the introduction of standards, and especially in the last decade. For example, the average annual number of children under five drowned in private pools for 1983–1985 was 11.3 deaths compared to an average of 3.3 drowned annually in 2012–2014.
- Swimming pool fencing and diligence in keeping pool gates closed, appropriate supervision of young children in bathtubs or where pools and water hazards are in the vicinity, and establishing safe play areas on rural properties and acreage where hazards are nearby are recommended approaches to reducing the risk of drowning for young children.

Child death and injury prevention activities

Data requests

There were five requests for data relating to drowning incidents during 2014–15. All were used for public education/reporting by the Department of Housing and Public Works and the Royal Life Saving Society of Australia. The Royal Life Saving Society of Australia uses the data provided to inform its National Drowning Report and related drowning prevention activities.

Drowning, 2012–2015

A copy of Table 4.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 4.1: Summary of drowning deaths of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All drowning deaths							
Drowning	11	1.0	7	0.6	16	1.4	1.0
Pool drowning deaths							
Pool drowning deaths	8	0.7	2	*	5	0.5	0.5
Private pools	8	0.7	2	*	5	0.5	0.5
Public pools	0	0.0	0	0.0	0	0.0	0.0
Non-pool drowning deaths							
Non-pool drowning deaths	3	*	5	0.5	11	1.0	0.6
Static inland waterways	0	0.0	2	*	2	*	*
Rural water hazards	2	*	1	*	5	0.5	*
Dynamic inland waterways	0	0.0	2	*	1	*	*
Bathtubs	0	0.0	0	0.0	1	*	*
Beach/ocean	1	*	0	0.0	1	*	*
Other	0	0.0	0	0.0	1	*	*
Sex							
Female	3	*	2	*	5	0.9	*
Male	8	1.4	5	0.9	11	1.9	1.4
Age category							
Under 1 year	0	0.0	0	0.0	1	*	*
1–4 years	8	3.2	3	*	10	4.0	2.8
5–9 years	1	*	2	*	5	1.6	*
10–14 years	0	0.0	0	0.0	0	0.0	0.0
15–17 years	2	*	2	*	0	0.0	*
Aboriginal and Torres Strait Islander status							
Indigenous	1	*	1	*	1	*	*
Non-Indigenous	10	1.0	6	0.6	15	1.5	1.0
Geographical area of usual residence (ARIA+)							
Remote	0	0.0	0	0.0	2	*	*
Regional	7	1.7	3	*	8	2.0	1.5
Metropolitan	4	0.6	4	0.6	5	0.8	0.7
Socio-economic status of usual residence (SEIFA)							
Low to very low	5	1.1	5	1.1	8	1.8	1.4
Moderate	3	*	1	*	4	1.9	*
High to very high	3	*	1	*	3	*	*
Known to the child protection system							
Known to the child protection system	5	3.0	4	2.4	2	*	..

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 3).

1. Data presented here is current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

4. ARIA+ and SEIFA were not able to be calculated for children whose usual place of residence was not Queensland.

5. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

6. The non-pool drowning category of 'other' includes flood-related drownings.

Drowning: Findings, 2014–15

Between 1 July 2014 and 30 June 2015, 16 children and young people drowned in Queensland, representing a rate of 1.4 deaths per 100,000 children aged 0–17 years.²⁸ The highest annual number of drowning deaths over the last 11 years was 19 and occurred in 2008–09 and 2009–10, while the lowest number of drowning deaths was seven in 2013–14.²⁹

Types of drowning-related deaths

Eleven deaths occurred in non-pool water hazards (comprising rural water hazards, static and dynamic inland waterways, bathtubs, beaches and floodwaters).

Five pool drownings were recorded for the period with all of the incidents occurring in private pools.

The deaths occurred in water hazards both at, and away from, the child's usual place of residence.

Resuscitation was attempted in 13 of the drownings by an adult supervisor or by attending ambulance officers. Resuscitation may not have been attempted if there was a considerably protracted period of time before the child was located. Information available to QFCC indicated that four of the five pool locations did not have signs displayed nearby with details of cardiopulmonary resuscitation procedures (CPR). From 30 November 2015, it will be mandatory for all residential pools to have a CPR sign attached to the safety barrier of the pool; or displayed near the pool, so that the sign is easily visible to a person near the pool.

One pool-related drowning and one beach/ocean drowning occurred at locations outside of Queensland.

Sex

Eleven of the 16 children and young people who drowned in 2014–15 were male. Males continue to be over-represented in childhood drowning data, both within Queensland and throughout Australia.³⁰

Age

Children aged 1–4 years made up the largest group of drowning deaths (10 deaths)—a pattern that has been found in all previous reporting periods, and an indication of the particular vulnerability of this age group.

Aboriginal and Torres Strait Islander status

One of the 16 children and young people who drowned identified as Aboriginal and Torres Strait Islander.

Geographical area of usual residence (ARIA+)

Eight of the 16 children and young people who drowned usually resided in regional areas, five were from metropolitan areas and two were from remote areas.³¹

Socio-economic status of usual residence (SEIFA)

There were eight drowning deaths of children and young people who usually resided in low to very low socio-economic areas. Four deaths were reported for moderate, and three for high to very high socio-economic areas.³¹

Children known to the child protection system

Two of the 16 children and young people who drowned were known to the child protection system.

²⁸ Findings presented here are based on the number of children who drowned whose deaths were registered with the Registry of Births, Deaths and Marriages in 2014–15. These figures may differ from the number of child drownings that occurred during the period. The analysis of deaths by date-of-death registration is in accordance with national datasets managed by the Australian Bureau of Statistics and the Australian Institute of Health and Welfare, as well as child death datasets managed by other Australian states and territories.

²⁹ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

³⁰ Royal Life Saving Society—Australia. *National Drowning Report 2014*.

³¹ Note that ARIA+ and SEIFA breakdowns exclude one child whose usual residence was outside of Queensland.

Key issues

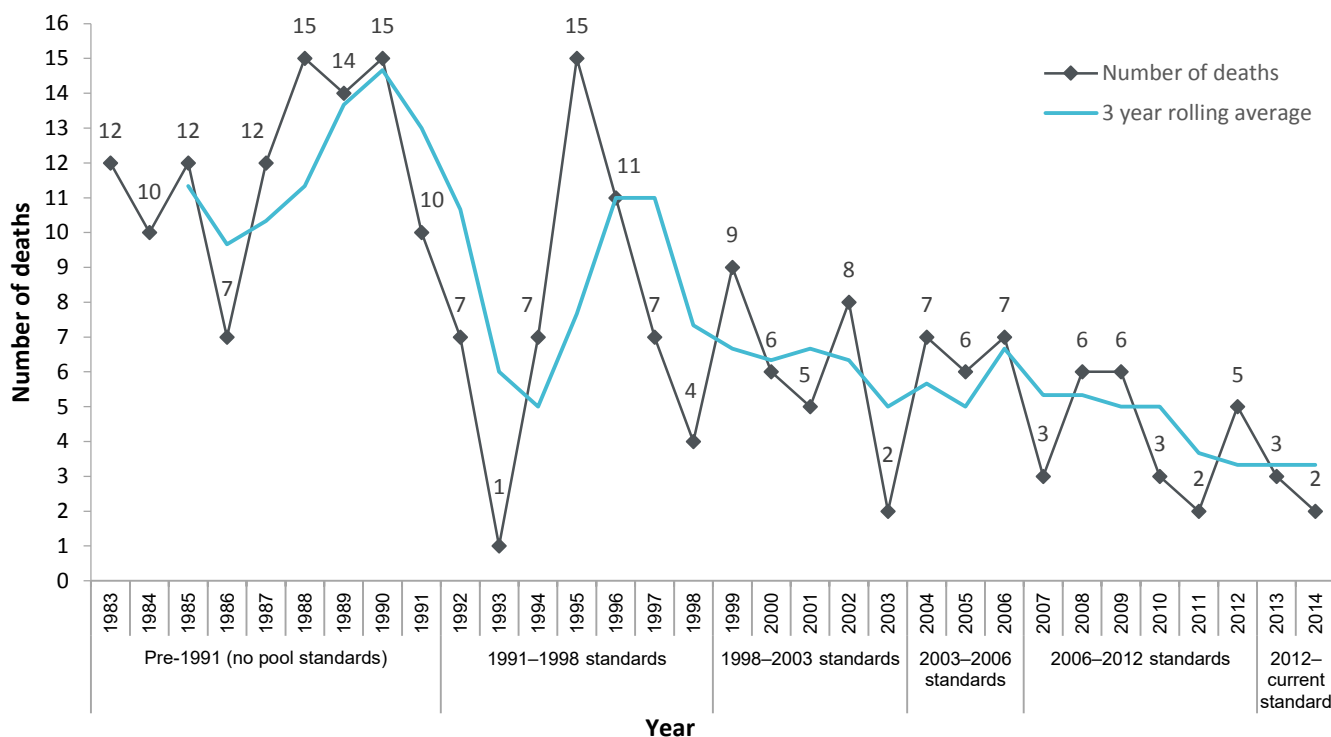
Swimming pool fencing

Children under the age of five are most at risk of drowning. Compliant swimming pool fencing is a key contributor in reducing the risk of drowning for this age group but should not be over-relied upon, as other factors are also important. These include active supervision and water safety education. 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). Table 4.2 (later in this chapter) indicates that an open or defective pool gate was noted for three of the five pool drowning deaths of young children in 2014–15.

Figure 4.1 tracks the number of drowning deaths of young children in private pools over time against changes to fencing requirements. A number changes in pool fencing standards have occurred—from no standards in place prior to 1991, to requirements for fencing for new pools later extended to existing pools, changes in requirements such as fence height, and more recently compliance requirements for registration and inspections.

The average annual number of drowning deaths fluctuated over the first decade (to 1993), before gradually declining over the last two decades (1996–2014). Three-year annual averages prior to 1991 ranged between 9.7 and 14.7, whereas most recently the averages were at 5.0 for 2007–2009 dropping to 3.3 for 2012–2014. Data presented in Figure 4.1 is based on date of death, as opposed to date of registration. The figures presented below will therefore be different from those published in the rest of the report.

Figure 4.1: Drowning deaths of children 0–4 years in private pools by applicable pool standard, 1983–2014



Data sources: Queensland Injury Surveillance Unit 2008, Injury Bulletin: Domestic pool immersion in Queensland children under five years of age. No.104; Queensland Child Death Register (2004–2014)

1. The above data represents the number of deaths that occurred in each calendar year. These figures will therefore not align with the summary of drowning deaths presented in Table 4.1 of this report, which are based on date of death registration by financial year.

Supervision

Lapses in supervision of young children in or near water hazards has been found to be a factor in drowning deaths of young children. A drowning supervision model³² has been applied to examine the supervision that occurred in drowning deaths for Queensland children aged under five years. This allows for common breakdowns in supervision to be identified to assist in informing drowning prevention strategies.

³² Developed by the former CCYPCG.

The model examines drowning deaths in categories based on whether the child was known—or not known—to be in, on or around water. This is because the threshold of supervision required for children known to be in, on or around water is higher due to the presence of a significant hazard, than that of children not known to be in, on or around water.

The key elements of supervision examined are the:

- capacity of the supervisor
- proximity of the supervisor to the child
- continuity of supervision.

When a child is not known to be in, on or around water, it is still important to provide a level of supervision to ensure that the child is protected from all hazards. Young children are unable to appropriately identify and negotiate risks, yet can be highly mobile. 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 that children under five years are regularly checked on by an active supervisor and that there are other protections to reduce the risk of drowning (or access to other hazards) should there be a lapse in supervision.

In 2014–15, there were seven drowning deaths of children aged under five, who were known to be in, on, or around water. A child is known to be in, on or around water when the child is known by carers to be actively swimming, paddling, wading, playing, bathing in water or on a watercraft, or the carers are 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). An example includes where a carer leaves the child playing in the backyard but has propped open the pool gate. A combination of factors, including ineffective barriers to water hazards, proximity of the supervisor and continuity of supervision were identified as being relevant to these deaths (see Table 4.2).

It is important to acknowledge that not all drowning deaths are reasonably foreseeable or the result of a breakdown in the elements of supervision occurring for the child. Sometimes a child is not known to be in, on or around water and is being appropriately supervised by a capable supervisor, but a resourceful and inquisitive child may manage to bypass protections, unbeknown to the supervisor. These child deaths highlight the importance of having many and varied protections in place for the child, inclusive of adequate supervision.

The role of safe play areas in reducing rural drownings

Rural water hazards, such as dams and troughs, may not be considered risks due to the distance from the family home; however, children can travel significant distances (for their age) to access water hazards—some as far as one kilometre. Any water hazard should therefore be considered a potential risk regardless of its location on the property.

Five drownings were associated with rural water hazards during the 2014–15 period, predominantly in dams. All of the deaths involved children aged 1–4 years. Most of the water hazards were located within 100 metres of the residence, highlighting the need for consideration of safe play areas to reduce the number of childhood drownings in rural settings. There have been 27 deaths in rural water hazards since 2004.

Removing water hazards near the house may not always be practical. Drowning prevention is most effective when strategies are multi-faceted. Active supervision is the most effective strategy to prevent drowning; but to maintain this continuously is not realistic. Therefore, other strategies should be in place for when lapses in supervision occur. Establishing a safe play area around the family home can act as a critical means of preventing access to water hazards. Children can also be taught from a young age about nearby dangers and ‘no go’ areas.

Risk factors

Table 4.2 (over page) outlines the types of risk factors and the frequency of risk factors present for every drowning fatality in 2014–15. As illustrated, the length of time young children were left unsupervised can vary. Drowning can occur in the minutes when parents and carers are not actively supervising their child, or when they become distracted. Of the children aged under 10 years, 12 were known to have been non-swimmers.

Water safety awareness programs can improve children’s swimming ability and water safety; however, young children may be too developmentally immature to respond effectively when immersed in water, and swimming lessons should not be relied on as a means of drowning prevention. A range of safety strategies is essential, such as ensuring pool gates are compliant and active supervision by an appropriate adult.

Table 4.2: Summary of characteristics of all children and young people who drowned in 2014–15

Sex	Demographics				Known risk factors							Known to the child protection system
	Indigenous	Regional/ remote	Low SES	Type of water hazard	Inadequate supervision	Length of time child left unsupervised	Inadequate/ defective/ no fencing or safety barrier	Defective or open gate	Rural drowning hazard	Swimming ability		
Under 1 year	0	1	1		1		0	0	0		0	
male		✓	✓	bath	inadequate	< 5 mins				non-swimmer		
1–4 years	0	6	3		6		5	3	5		1	
male		✓	✓	livestock clip	adequate	< 5 mins	✓		✓	non-swimmer		
male				pool (private)	inadequate	5-9 mins		✓		non-swimmer		
female		✓		dam	inadequate	5-9 mins	✓		✓	non-swimmer	✓	
male				pool (private)	inadequate	undetermined		✓		non-swimmer		
male		n/a	n/a	pool (private)	inadequate	undetermined	✓			non-swimmer		
female		✓		dam	adequate	10-14 mins			✓	non-swimmer		
female				pool (private)	undetermined	undetermined	not stated	not stated		not stated		
male		✓	✓	pool (private)	inadequate	5-9 mins		✓		non-swimmer		
male		✓		dam	inadequate	15-29 mins	✓		✓	non-swimmer		
male		✓	✓	dam	undetermined	10-14 mins	undetermined		✓	non-swimmer		
5–9 years	1	3	3				0	0	0		1	
female		✓	✓	static inland waterway	n/a	< 5 mins				non-swimmer		
male		✓	✓	static inland waterway	n/a	< 5 mins				non-swimmer		
female	✓	✓	✓	dynamic inland waterway	n/a	< 5 mins				competent		
male		n/a	n/a	beach	n/a	< 5 mins				not stated	✓	
male				other	n/a	< 5 mins				not stated		
Total	1	10	7		7		5	3	5		2	

Data source: Queensland Child Death Register (2014–15)

✓ = Risk factor identified for the child based on the evidence available at the time of reporting.

1. Regional or remote and low SES refers to location of incident as opposed to area of usual residence.

2. Supervision is based on the CCYPCG model for classifying caregiver supervision in infant and toddler drowning deaths (children aged 0–4 years). Inadequate supervision is considered based on whether the child was known to be in, on, or around water, the capacity of the supervisor to respond, the proximity of the supervisor to the child, and the continuity of supervision.

3. Children and young people aged five and over are not included in the supervision model, therefore 'n/a' has been used in the 'inadequate supervision' column for these children and young people.

4. Inadequate / defective / no fencing or safety barrier includes swimming pool regulation safety barriers and non-regulated safe play areas on rural properties.

Queensland Ambulance Service data

The Queensland Ambulance Service (QAS) has provided data on the number of ambulance responses to immersion incidents involving children in 2014–15, where children may have drowned or experienced near drowning. Table 4.3 shows the total number of QAS responses, and includes both fatal and nonfatal injuries. Across the reporting periods, immersion incidents were most common in the 1–4 year age category.

Table 4.3: QAS immersion incidents (fatal and non-fatal), 2010–2015

Age category	2010–11 <i>n</i>	2011–12 <i>n</i>	2012–13 <i>n</i>	2013–14 <i>n</i>	2014–15 <i>n</i>
Under 1 year	28	15	28	27	35
1–4 years	91	72	130	94	133
5–9 years	12	20	41	30	35
10–14 years	13	14	27	33	43
15–17 years	29	21	16	25	26
Total	173	142	242	209	272

Data source: Queensland Ambulance Service (2010–15)

Excludes data for two children and young people in 2014–15 whose age at the time of the incident was not known.

Chapter 5—Other non-intentional injury-related deaths

This chapter provides details of child deaths from other non-intentional injury.

Key findings

- In 2014–15, seven children and young people died in non-intentional injury-related incidents, other than a drowning or transport incident, at a rate of 0.6 deaths per 100,000 children aged 0–17 years. This represents the second lowest number of non-intentional injury-related deaths since reporting began in 2004 (four deaths were reported in 2010–11).
- The highest number of deaths occurred in the 1–4-year age group, with three deaths.
- Three of the deaths were caused by accidental threats to breathing.
- There was one death as a result of fire.

Child death and injury prevention activities

Data requests

No data requests were received in relation to other non-intentional injury-related deaths.

Other non-intentional injury-related deaths, 2012–2015

A copy of Table 5.1 containing data since 2004 is available online at www.qfcc.qld.gov.au.

Table 5.1: Summary of other non-intentional injury-related deaths of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All other non-intentional injury deaths							
Other non-intentional injury	15	1.4	9	0.8	7	0.6	0.9
Incident type							
Deaths from fire	0	0.0	1	*	1	*	*
Other injuries	15	1.4	8	0.7	6	0.5	0.9
Sex							
Female	6	1.1	4	0.7	4	0.7	0.9
Male	9	1.6	5	0.9	3	*	1.0
Age category							
Under 1 year	5	7.9	0	0.0	2	*	*
1–4 years	4	1.6	5	2.0	3	*	1.6
5–9 years	1	*	3	*	1	*	*
10–14 years	4	1.3	1	*	0	0.0	*
15–17 years	1	*	0	0.0	1	*	*
Aboriginal and Torres Strait Islander status							
Indigenous	0	0.0	1	*	2	*	*
Non-Indigenous	15	1.5	8	0.8	5	0.5	0.9
Geographical area of usual residence (ARIA+)							
Remote	1	*	1	*	0	0.0	*
Regional	7	1.7	4	1.0	3	*	1.1
Metropolitan	5	0.8	4	0.6	4	0.6	0.7
Socio-economic status of usual residence (SEIFA)							
Low to very low	5	1.1	4	0.9	4	0.9	1.0
Moderate	4	1.9	3	*	1	*	*
High to very high	4	0.9	2	*	2	*	*
Known to the child protection system							
Known to the child protection system	2	*	2	*	3	*	..

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 3).

1. Data presented here are current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15 this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

4. ARIA+ and SEIFA were not able to be calculated for children whose usual place of residence was not Queensland.

5. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

Other non-intentional injury-related deaths: Findings, 2014–15

The child deaths discussed in this chapter are those unintentional deaths that fall outside the scope of the more common non-intentional child deaths covered earlier in this report (that is, transport incidents and drowning).³³ Seven children and young people died in non-intentional injury-related incidents between 1 July 2014 and 30 June 2015, representing a rate of 0.6 deaths per 100,000 children aged 0–17 years.³⁴

Types of non-intentional injury-related deaths

Of the non-intentional injury-related deaths, three were caused by accidental threats to breathing and two were from falls. Of the two remaining non-intentional injury-related deaths, there was one death as a result of poisoning and one due to exposure to fire, smoke and flames.

Sex

There were four females and three males who died from non-intentional injuries.

Age

There were three non-intentional injury-related deaths within the 1–4-year age category, two deaths within the under-1-year age category, and one death each of a 5–9-year-old child and a 15–17-year-old young person.

Aboriginal and Torres Strait Islander status

Two Aboriginal and Torres Strait Islander children died as a result of non-intentional injury in 2014–15.

Geographical area of usual residence (ARIA+)

Four of the children and young people who died as a result of a non-intentional injury in 2014–15 usually resided in a metropolitan area of Queensland. The three remaining deaths recorded were for children and young people from regional areas.

Socio-economic status of usual residence (SEIFA)

Four of the seven children and young people who died were from areas classified as low to very low socio-economic status, two were children from high to very high socio-economic areas and one was from a moderate socio-economic area.

Children known to the child protection system

Three children who died due to non-intentional injuries were known to the child protection system in the 12 months prior to their death.

³³Refer to Appendix 5.1 for a comprehensive outline of categories of death constituting 'other non-intentional injury-related deaths'.

³⁴For the purposes of this chapter, other non-intentional injury-related deaths will be referred to as deaths caused by 'non-intentional injury'.

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Part IV: Intentional injury-related deaths, 2014–15

Chapter 6—Suicide

This section provides details of child deaths from suicide.

Key findings

- There were 28 suicides of young people during 2014–15. This year's total of 28 is the highest number of suicide deaths recorded over the 11 years since 2004, with numbers in other recording periods ranging from 15 to 23. The QFCC notes that, given the relatively small numbers involved, caution should be exercised in interpreting year-to-year changes, as these may not be indicative of particular trends.
- Contributing to the 11-year high in suicide deaths were the 14 female suicides, which were higher than in any other reporting period since the register started in 2004. The 14 male suicides were within the range from 17 as the highest annual number (in 2013–14) and nine as the lowest (in 2005–06 and 2008–09).
- Male suicides for young people usually outnumber female suicides, and over the most recent three-year period, the suicide rate for males was 1.6 times that for females.
- Suicide deaths were the leading external cause of death overall (31.1 per cent of external causes of death for all children). Suicide accounted for over 63.6 per cent of deaths by external causes among young people aged 10–17 years.
- Twenty-four suicide deaths were of 15–17-year-olds. Suicide was the leading cause of death for this age group. Four suicide deaths were of young people aged 10–14 years.
- There were six suicide deaths of Aboriginal and Torres Strait Islander young people. The rate of suicide among Aboriginal and Torres Strait Islander young people was more than three times that of their non-Indigenous peers.
- Young people may exhibit one or more suicidal or self-harm behaviours prior to suicide. Seventeen of the 28 young people were identified as having previous suicidal ideation or had made an attempt to suicide. Nine young people were known to have engaged in self-harming behaviours.
- In six cases, the young person stated or implied their intent verbally, online or via text message prior to their death, with two thirds of the young people stating or implying intent in the 24 hours immediately preceding their death.
- Fifteen of the young people who died as a result of suicide were known to the Queensland child protection system in the twelve months prior to their death. None of the young people were on child protection orders at the time.

Child death and injury prevention activities

Data requests

The QFCC provided data from the Queensland Child Death Register for two data requests relating to suicide. Requests included suicide data to assist in public education and reporting by the Office of the State Coroner and the Department of Education and Training.

In June 2015, the Queensland State Coroner publicly released findings for the inquest into the deaths of two 16-year-old males, who died as a result of suicide.³⁵ The State Coroner cited the *Reducing Youth Suicide in Queensland* report, *Child Death—Over-representation of Aboriginal and Torres Strait Islander youth who suicide*, Trends and Issues Paper Number 11 published by the former CCYPCG and research conducted by the Australian Institute of Suicide Research and Prevention, based on data held in the Queensland Child Death Register, particularly in relation to the over-representation of Indigenous youth in suicide data.³⁶

³⁵ Queensland Courts (2015). Office of the State Coroner Findings of Inquest: *Inquest into the deaths of JE and JJ*.

³⁶ Soole et al, 2014. *Factors related to childhood suicides: Analysis of the Queensland Child Death Register*.

Suicide, 2012–2015

A copy of Table 6.1 containing data since 2004 is available online at www.qfcc.qld.gov.au.

Table 6.1: Summary of suicide deaths of children and young people in Queensland, 2012–2015

	2012–13		2013–2014		2014–2015		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All suicide deaths							
Suicide	22	2.0	23	2.1	28	2.5	2.2
Sex							
Female	7	3.0	6	2.6	14	6.0	3.8
Male	15	6.1	17	6.9	14	5.7	6.2
Age category							
10–17 years	22	4.6	23	4.8	28	5.8	5.1
10–14 years	12	4.0	4	1.3	4	1.3	2.2
15–17 years	10	5.5	19	10.4	24	13.1	9.7
Aboriginal and Torres Strait Islander status							
Indigenous	6	16.7	4	11.0	6	16.6	14.7
Non-Indigenous	16	3.6	19	4.3	22	4.9	4.3
Geographical area of usual residence (ARIA+)							
Remote	1	*	1	*	2	*	*
Regional	7	3.8	15	8.1	14	7.6	6.5
Metropolitan	14	5.1	7	2.5	12	4.4	4.0
Socio-economic status of usual residence (SEIFA)							
Low or very low	11	5.8	10	5.2	15	7.9	6.3
Moderate	5	5.3	8	8.5	5	5.3	6.3
High or very high	6	3.1	5	2.6	8	4.1	3.2
Known to the child protection system							
Known to the child protection system	11	6.6	10	6.0	15	15.5	..
Method of death							
Hanging	18	3.8	18	3.7	24	5.0	4.2
Jumping/lying in front of moving object	1	*	2	*	0	0.0	*
Gunshot wound	1	*	2	*	1	*	*
Poisoning	1	*	1	*	3	*	*
Jumping from a high place	1	*	0	0.0	0	0.0	*

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 5).

1. Data presented here is current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. Overall suicide rates are calculated per 100,000 children aged 0–17 years in Queensland.

4. All other rates, except known to the child protection population, are calculated per 100,000 children aged 10–17 years in Queensland in each year.

5. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

6. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

Defining and classifying suicide

Historically, the substantial evidence required for suicide classification often resulted in deaths that would ordinarily, in clinical or research situations, be categorised as suicides not meeting the threshold for a legal classification. Consequently, cases where suicide was suspected but intent was unclear (that is, the deceased did not leave a suicide note and did not state their intent before death) were often coded as accidents. This resulted in childhood and adolescent suicide being under-reported in official statistics, with a large proportion recorded as accidental deaths.³⁷

In the Queensland Child Death Register, all cases where police have indicated that a death is a suspected suicide³⁸ are assessed and categorised using the suicide classification model developed by the former CCYPCG (see Appendix 6.1).

In the 2014–15 reporting period, 14 deaths were classified as confirmed suicides and 14 deaths were categorised as probable suicides. No deaths were classified as possible or undetermined.

Coronial findings

At the time of reporting, coronial findings had been finalised for 11 of the 28 suicides. Coroners made clear statements that the cause of death was suicide in 10 of these cases. In the remaining case, suicide was not addressed in the findings.

Suicide: Findings, 2014–15

Twenty-eight children and young people suicided during the 2014–15 reporting period. Table 6.2 provides the sex and age breakdowns for all suicides. This year's total of 28 is the highest number of suicide deaths recorded over the 11 years since the register started in 2004, with numbers in other reporting periods ranging from 15 to 23.³⁹ The QFCC notes that, given the relatively small numbers involved, caution should be exercised in interpreting year-to-year changes, as these may not be indicative of particular trends.

Table 6.2: Suicide by sex and age category, 2014–15

Age at death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
10–14 years	3	1	4	1.3
13 years	1	1	2	-
14 years	2	0	2	-
15–17 years	11	13	24	13.1
15 years	0	3	3	-
16 years	6	4	10	-
17 years	5	6	11	-
Total 10–17 years	14	14	28	5.8
Rate per 100,000	6.0	5.7	5.8	

Data source: Queensland Child Death Register (2014–15)

- Rates have not been calculated for single year of age.

1. Rates are calculated per 100,000 children in each age/sex category in Queensland.
2. Total rate of death is calculated per 100,000 children aged 10–17 years in Queensland.

³⁷ In 2009, the Australian Bureau of Statistics (ABS) reviewed its processes in relation to classifying suicide and commenced publishing aggregated information on children under 15 years, as was recommended by the CCYPCG in 2006. Since 2013, the ABS publication *Causes of Death* includes an appendix presenting suicide deaths of children aged under 15.

³⁸ As identified in the Police Report of Death to a Coroner (Form 1), in circumstances where the Commission is notified of a child who may have suicided, but this information was not recorded on the Form 1, these cases will be included in this chapter. In 2014–15, there were three cases included in the analysis that had not been identified by police as suspected suicides.

³⁹ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

Sex

Fourteen females suicided, at a rate of 6.0 suicides per 100,000 females aged 10–17 years, compared to 14 males, at a rate of 5.7 suicides per 100,000 males aged 10–17 years. The 14 female suicides is higher than in any other reporting period since 2004, whereas the 14 male suicides is below the highest number of 17 recorded in 2013–14. As indicated in table 6.1, the three-year average annual suicide rate for males is 1.6 times that for females (male rate of 6.2 compared to the female rate of 3.8 per 100,000 aged 10–17 years).

Generally, suicide rates for males are higher than females, and can also be found in adult suicide data. Research has identified that differences between the sexes in suicide are most likely due to the greater possibility of males experiencing multiple risk factors, such as co-morbid mental health issues and higher levels of externalising behaviours and aggression, as well as males choosing more lethal methods compared to those chosen by females. This may also be due to males reportedly having lower help-seeking behaviours and a perceived greater social stigma of help-seeking than females.⁴⁰ The QFCC would caution against the interpretation of trends based on small year-to-year fluctuations in numbers and rates of deaths. Although the rates are based on a population rather than a sample, common practice is to consider death a random event, and hence have an associated sampling error. This is particularly important when comparing rates from low numbers.

Age

Suicide was the leading cause of death for young people aged 15–17 years in Queensland (24 deaths), occurring at a rate of 13.1 per 100,000 young people in this age group.

Suicide was the leading external cause of death for young people aged 10–14 years in Queensland (four deaths). Over the last three reporting periods, the numbers of suicide deaths of young people aged under 15 years have ranged from four to a high of 12 in 2012–13.

Aboriginal and Torres Strait Islander status

Six out of the 28 suicide deaths were of Aboriginal and Torres Strait Islander young people. The rate of suicide among Aboriginal and Torres Strait Islander young people was more than three times that of their non-Indigenous peers, with a rate of 16.6 deaths per 100,000 Indigenous people aged 10–17 years compared to 4.9 per 100,000 for those who were non-Indigenous.

Aboriginal and Torres Strait Islander young people have been over-represented in suicide deaths since the Child Death Register collection began in 2004. A 2011 analysis of suicide deaths in the register found that, compared to suicides of non-Indigenous young people, Aboriginal and Torres Strait Islander young people were more likely to suicide at a younger age, and were less likely to have made a previous suicide attempt.⁴¹

Geographical area of usual residence (ARIA+)

Fourteen suicide deaths were of young people who resided in regional areas of Queensland, 12 were of young people from metropolitan areas and two were of young people from a remote area.

Socio-economic status of usual residence (SEIFA)

Fifteen young people who suicided were from areas with low to very low socio-economic status, eight were from high to very high socio-economic areas and five were from moderate socio-economic areas. Research has found that risks of suicidal behaviour are increased for individuals from a socially disadvantaged background, characterised by low socio-economic status and low income.⁴²

⁴⁰ Australian Institute of Health and Welfare (2011). *Young Australians: Their health and wellbeing*.

⁴¹ CCYPCG (2011). *Reducing youth suicide in Queensland final report*.

⁴² Australian Institute of Health and Welfare (2008). *Injury among young Australians*, Bulletin 60.

Children known to the child protection system

Of the 28 children and young people who died as a result of suicide, 15 were known to the Queensland child protection system.⁴³ None of the young people were on child protection orders at the time of their death. An increased risk of suicide has been identified among children and young people known to child protection agencies.⁴⁴ Children known to these agencies may often be living in circumstances that are characterised by substance misuse, mental health problems, lack of attachment to significant others, behavioural and disciplinary problems or a history of abuse.

Circumstances of death

Situational circumstances and risk factors

This section outlines the factors that may have influenced suicidal behaviour in the 28 suicide deaths in 2014–15. This is based on information available to QFCC and may therefore under-represent the actual number of circumstances and risk factors for some of the children and young people.

Suicidal behaviours in children and young people are often not the result of a single cause, but are multi-faceted and frequently occur at the end point of adverse life sequences in which interacting risk factors combine, resulting in feelings of hopelessness and a desire to ‘make it all go away’.⁴⁵ It is widely understood, and confirmed by analysis of data in the Queensland Child Death Register, that a number of common risk factors and adverse life circumstances may contribute to suicidal behaviour in children and young people.

Accordingly, the findings presented in Table 6.7 (end of chapter) illustrate the complex interaction of circumstances present in the lives of the children and young people whose deaths were reported in 2014–15.

Mental health issues and behavioural problems

Nineteen of the 28 children and young people who suicided had, or were suspected to have had, a mental health issue before their death. Depression was the main mental health issue identified (13 cases). Two young people were identified as having an anxiety disorder. Five of the 19 young people were identified to have multiple mental health and/or behavioural issues (co-morbid conditions). Table 6.3 outlines the number of children with confirmed or suspected mental health issues, and the contextual details on which this assessment has been based. Thirteen young people had accessed a mental health provider prior to their deaths.

Table 6.3: Mental health issues, 2014–15

Mental health issues	Total <i>n</i>
Known mental health issue	12
Known to have accessed mental health provider	9
Currently or previously prescribed medication for mental health issue	9
Suspected mental health issue	7
No mental health issue identified	9
Total	28

Data source: Queensland Child Death Register (2014–15)

1. ‘Known mental health issues’ will not sum accurately where young people had both accessed mental health support and were prescribed or previously prescribed medication.
2. ‘Suspected mental health issue’ refers to information from family members or friends that believed the young person to be experiencing a mental health issue.
3. 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 regards to the young person’s mental health.

⁴³ For the purpose of this report, a child is deemed to have been known to the child protection system if, within one year before the child’s death, the Department of Communities, Child Safety and Disability Services became aware of child protection concerns, alleged harm or alleged risk of harm to the child or took action under the Child Protection Act in relation to the child.

⁴⁴ CCYPCG (2014). *Child deaths—prevalence of youth suicide in Queensland*, Trends and Issues Paper Number 19.

⁴⁵ CCYPCG (2009). *Reducing youth suicide in Queensland discussion paper*.

Alcohol, drug and substance use

Eleven of the children and young people who suicided were reported to have been known alcohol, drug and/or substance users,⁴⁶ with alcohol as the most frequently-cited substance used (six cases). The young people were reported to have engaged in the misuse of cannabis, amphetamines, prescription medication, volatile substances and tobacco.

History of childhood abuse

Of the 15 young people known to the child protection system, eight had a known history of alleged childhood abuse. Six of the young people were victims of emotional harm and/or neglect, two had been physically abused and two were victims of alleged familial sexual abuse.⁴⁷ Perpetrators of the abuse were typically from within the family, being the child's parent, step-parent or guardian. All eight young people who had a history of abuse were also known to the Department of Communities within the year before their deaths. A history of domestic and family violence within the child's family was also identified for one young person.

Previous self-harm and suicidal behaviour

Eleven young people had previously attempted suicide and, of these, four had attempted suicide on more than one occasion. Sixteen young people were recorded as having experienced suicidal ideation.⁴⁸ In total, 17 of the 28 young people had identified previous suicidal behaviour and/or suicidal ideation. Nine had previously engaged in self-harming behaviour, such as cutting.⁴⁹

Intent stated or implied (orally or written)

In six cases, children and young people stated or implied their intent to a family member, friend, boyfriend or girlfriend or online prior to their suicide. Intent was stated or implied via mobile phone text message (four deaths) and/or in an online forum (three deaths).⁵⁰ In four cases, the young people stated or implied their intent in the 24 hours immediately preceding the suicide. Suicide notes were found in seven cases.

Contagion

Contagion refers to the process by which a prior suicide or attempted suicide facilitates or influences suicidal behaviour in another person. Contagion was identified as a potential factor for five of the 28 children and young people who suicided during this period. Table 6.4 illustrates the different types of contagion influences identified among children and young people who suicided during the current reporting period.

Table 6.4: Contagion influences, 2014–15

Contagion influences	Total <i>n</i>
Contagion a potential influencing factor	5
Completed or attempted suicide of a family member (excl. parent)	3
Completed or attempted suicide of a parent	1
Completed or attempted suicide of a friend	1
No contagion identified	23
Total	28

Data source: Queensland Child Death Register (2014–15)

⁴⁶ Previous or current use of alcohol or drugs identified by friends, family members or in toxicology findings.

⁴⁷ Each young person may have experienced more than one type of abuse. Therefore, numbers may not sum accurately.

⁴⁸ 'Suicidal ideation' refers to the explicit communication of having thoughts of suicide.

⁴⁹ Each young person with identified self-harm or suicidal behaviour may have exhibited more than one type of behaviour. Therefore, numbers will not sum accurately.

⁵⁰ Each young person may have stated or implied their intent using more than one communication method. Therefore, numbers may not sum accurately.

Stressful life events and precipitating incidents

Stressful life events

Stressful life events were identified in 24 of the 28 suicides. Life stressors considered in this section refer to those events that occurred over the course of the child's life, with the stressors first occurring more than six months before death. These events were often considered to be more chronic and longstanding in nature and do not include other risk factors already examined (such as mental health problems). Table 6.5 shows the types of life stressors that occurred among children and young people who suicided in 2014–15.⁵¹

Table 6.5: Types of other stressful life events, 2014–15

Types of other stressful life events	Total <i>n</i>
Life stressors identified for the child	24
Parental separation/divorce	19
Poor intra-familial relationships	6
Transition of residence	6
Violent or aggressive behaviour	5
Domestic violence	5
Relationship breakdown	5
Victim of bullying	5
Self-harm or suicidal ideation of another person	5
Alleged offending or detention	4
Family alcohol or substance misuse	4
Family financial stress	3
Transience	3
Bereaved by death (other than suicide)	3
Bereaved by suicide	3
Body image issues	3
Mental health issues	3
Transition from care	2
Transition (other)	2
Unstable accommodation or homelessness	2
Sexual or gender identity issues	2
Victim of criminal assault	2
Other stressful life events	16
No other life stressors identified for the child	4
Total	28

Data source: Queensland Child Death Register (2014–15)

1. 'Life stressors' will not sum accurately where more than one factor is identified under each heading.

2. Young people were recorded as not having an identifiable life stressor where the QFCC did not have information to indicate otherwise. This is not an absolute finding in regards to the young person's situation.

Other stressful life events identified for young people included transitions in education, disciplinary problems with parents or family, disciplinary problems with teachers or school, feelings of isolation/loneliness/abandonment/disownment/being unloved, loss of social supports, arguments with family members/intimate partners or friends, compromised living conditions, risk-taking behaviour and family stressors (such as medical issues, mental health issues, unemployment, offending/detention or gambling) and other social stress.

⁵¹ Each young person may have experienced more than one life stressor prior to their death. Therefore, numbers may not sum accurately.

Precipitating incidents

Precipitating incidents were identified in 15 of the 28 suicides. Precipitating incidents refer to events that occurred in the months preceding the young person's suicide, which may be considered to have contributed to the young person's decision to take their own life. Table 6.6 shows the types of precipitating incidents that occurred among young people who suicided in 2014–15.⁵²

Table 6.6: Prevalent types of precipitating incidents, 2014–15

Types of precipitating incidents	Total <i>n</i>
Precipitating incidents identified for child	15
Argument with family member, intimate partner or friend	7
Relationship breakdown	4
Disciplinary problems with parents or family	2
Alleged offending or detention	2
Other precipitating incidents	6
No precipitating incident/s identified for child	13
Total	28

Data source: Queensland Child Death Register (2014–15)

1. 'Precipitating incidents' will not sum accurately where more than one factor is identified under each heading.

2. Young people were recorded as not having an identifiable precipitating incident where the QFCC did not have information to indicate otherwise. This is not an absolute finding in regards to the young person's situation.

Other precipitating incidents identified for young people included disciplinary problems with teachers or school, body image issues, possible pregnancy, sexual or gender identity issues, self-harm or suicidal ideation of a person known to the young person and imminent mental health treatment.

The QAS attendance data in relation to self-harm or suicidal behaviours of children and young people has not been included in this report. However, it is envisaged that it will be included in future reports.

⁵² Each young person may have experienced more than one precipitating incident and/or life stressor prior to their death. Therefore, numbers may not sum accurately.

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Chapter 7—Fatal assault and neglect

This chapter provides details of child deaths from assault and neglect.

Key findings

- Fourteen children and young people died as a result of fatal assault and neglect in Queensland in 2014–15, the highest recorded since reporting began in 2004. This number is due, in part, to a single incident involving multiple fatalities.
- Unlike previous reporting periods, where children aged under five make up a larger proportion in fatal assault and neglect data, the deaths were spread across a number of age categories.
- Thirteen children who were fatally assaulted in 2014–15, were alleged to have been killed by a family member.
- Nine children were victims of domestic homicide. Four deaths were identified as fatal child abuse. The remaining death was due to neonaticide.
- Three of the children and young people were known to the child protection system in the 12 months prior to their death.⁵³

⁵³ While all three cases were in line with the definition, in two cases there were no child protection histories prior to the incidents that resulted in the deaths.

Fatal assault and neglect, 2012–2015

A copy of Table 7.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 7.1: Summary of deaths from assault and neglect of children and young people in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All assault and neglect deaths							
Fatal assault and neglect	11	1.0	6	0.5	14	1.3	0.9
Sex							
Female	3	*	3	*	4	0.7	*
Male	8	1.4	3	*	10	1.8	1.2
Age category							
Under 1 year	6	9.5	5	7.9	2	*	6.8
1–4 years	3	*	0	0.0	4	1.6	*
5–9 years	0	0.0	0	0.0	5	1.6	*
10–14 years	1	*	1	*	3	*	*
15–17 years	1	*	0	0.0	0	0.0	*
Aboriginal and Torres Strait Islander status							
Indigenous	2	*	4	4.7	9	10.5	5.8
Non-Indigenous	9	0.9	2	*	5	0.5	0.5
Geographical area of usual residence (ARIA+)							
Remote	1	*	1	*	0	0.0	*
Regional	6	1.5	3	*	12	2.9	1.7
Metropolitan	4	0.6	2	*	2	*	*
Socio-economic status of usual residence (SEIFA)							
Low to very low	6	1.4	5	1.1	12	2.7	1.7
Moderate	2	*	1	*	0	0.0	*
High to very high	3	*	0	0.0	2	*	*
Known to the child protection system							
Known to the child protection system	5	3.0	4	2.4	3	*	..
Category of fatal assault and neglect							
Neonaticide	1	*	1	*	1	*	*
Fatal child abuse	6	0.5	4	0.4	4	0.4	0.4
Domestic homicide	1	*	1	*	9	0.8	*
Fatal neglect	1	*	0	0.0	0	0.0	*
Intimate partner homicide	0	0.0	0	0.0	0	0.0	0.0
Peer homicide	1	*	0	0.0	0	0.0	*
Acquaintance homicide	0	0.0	0	0.0	0	0.0	0.0
Stranger homicide	1	*	0	0.0	0	0.0	*

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 3).

1. Data presented here is current in the Queensland Child Death Register as at June 2015 and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children (in the age/sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

4. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

5. Definitions of each category are listed under the Abbreviations and Definitions table presented in Appendix 1.2.

Defining fatal assault and neglect

'Fatal assault' is defined in this report as a death where a child dies at the hands of another person who has inflicted harm to them through some means of force or physical aggression.⁵⁴ 'Fatal neglect' is defined as a death where a child that is 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.

The definitions are intended to be child-focused insofar as the perpetrator's intention is not relevant—the definition includes instances of violence or neglect leading to the child's death even though the perpetrator may not have intended such an outcome; as well as instances where the perpetrator intended to kill the child.⁵⁵

It is important to note that assault and neglect are not necessarily exclusive categories. For example, a child's death may be the culmination of a series of violent and neglectful acts perpetrated against them. Where more than one type of fatal assault and neglect was identified for the child at the time of death, a primary type of fatal assault or neglect in relation to the cause of death is identified for the child for reporting purposes.

Queensland Domestic and Family Violence Prevention Strategy

A special taskforce on domestic and family violence was established in 2014 to investigate and make recommendations to inform the development of a long-term vision and strategy for government and the community, to address the issues surrounding domestic and family violence in Queensland. In 2015, the taskforce delivered its report, making 140 recommendations (including 121 directed at government and 19 directed at non-government bodies).

The Queensland Government accepted or supported all of the recommendations made in the report and committed to leading the reform's coordinated whole-of-community response over the next 10 years to implement a Domestic and Family Violence Prevention Strategy.

Fatal assault and neglect: Findings, 2014–15

Fourteen children died as a result of fatal assault and neglect in Queensland in 2014–15; the highest recorded since reporting began in 2004. This number is due, in part, to a single incident involving multiple fatalities. There have been between four and 14 child deaths from assault and neglect each year since reporting commenced in 2004.

Nine children were victims of domestic homicide. Four deaths were identified as fatal child abuse. The remaining death was due to neonaticide.⁵⁶

Sex

Ten of the children who died were male. The remaining four deaths were female children.

Age

Unlike previous reporting periods, where children aged under five made up the largest proportion in fatal assault and neglect data, the deaths in 2014–15 were spread across a number of age categories. The greatest proportion of deaths was recorded in the 5–9 year age group (five deaths).

Aboriginal and Torres Strait Islander status

Of the 14 fatal assault and neglect deaths, nine were Aboriginal and Torres Strait Islander children.

⁵⁴ Deaths where a person has been charged with driving offences resulting in the death of a child are currently excluded from the definition of fatal assault and neglect (with the exception of murder charges). These cases are counted in Chapter 3, Transport.

⁵⁵ These definitions have been adapted from Lawrence, R. (2004). 'Understanding fatal assault of children: a typology and explanatory theory', *Children & Youth Services Review*, 26, 837–852.

⁵⁶ See Appendix 1.2 for definitions of the types of fatal abuse and neglect.

Geographic area of usual residence (ARIA+)

Twelve of the fourteen fatal assault and neglect deaths were of children who resided in regional areas of Queensland. Two deaths were of children from a metropolitan area.

Socio-economic status of usual residence (SEIFA)

In 2014–15, 12 children who died from assault and neglect were from low to very low socio-economic areas. The remaining deaths were for children from high to very-high socio-economic areas.

Children known to the child protection system

Of the 14 children who died as a result of assault and neglect, three were known to the child protection system in the one year preceding their deaths.⁵⁷

Coronial findings

At the time of reporting, there were no coronial findings for any of the 14 child deaths. Criminal proceedings were underway for all but two of the deaths.

Level of confirmation

Screening criteria have been used to establish the level of confirmation of fatal assault and neglect that applies to relevant child deaths.⁵⁸ As indicated in Table 7.2, of the 14 fatal assault and neglect deaths, 12 were assessed as confirmed and two were assessed as probable.⁵⁹

Table 7.2: Classification of death by level of confirmation, 2014–15

Classification of death	Level of confirmation		Total <i>n</i>
	Probable	Confirmed	
Child deaths that demonstrated fatal assault	2	12	14
Domestic homicide	1	8	9
Fatal child abuse	1	3	4
Neonaticide	0	1	1
Child deaths that demonstrated fatal neglect	0	0	0
Child deaths that demonstrated some type of fatal assault or neglect	2	12	14

Data source: Queensland Child Death Register (2014–15)

⁵⁷ While all three cases were in line with the definition, in two cases, there were no child protection histories prior to the incidents that resulted in the deaths.

⁵⁸ See Appendix 7.1 for further details regarding the screening criteria.

⁵⁹ Level of confirmation is subject to ongoing police and coronial investigations and is dependent upon information available at the time of reporting.

Multiple fatalities

The highest number of fatal assault and neglect deaths were recorded during the 2014–15 reporting period. Fourteen children and young people died in seven separate fatal assault and neglect incidents. Of these, one incident involved the death of eight children and young people, one incident involved the death of two adults and one child. The remaining five incidents involved the death of one child only.

Multiple fatality incidents occur less often, compared to single fatality incidents in fatal assault and neglect child death data. Table 7.3 shows a comparison between the number of deaths and the number of death incidents over the last 11 years (since reporting began in 2004). This data is based on date of death registration.⁶⁰

Table 7.3: Fatal assault and neglect deaths by number of incidents and number of deaths, 2004–2015

Year	Incidents <i>n</i>	Deaths <i>n</i>	Rate per 100,000
2004–05	7	9	0.9
2005–06	8	8	0.8
2006–07	10	10	1.0
2007–08	10	11	1.1
2008–09	4	5	0.5
2009–10	10	10	1.0
2010–11	4	4	0.4
2011–12	6	6	0.6
2012–13	11	11	1.0
2013–14	6	6	0.5
2014–15	7	14	1.3

Data source: Queensland Child Death Register (2004–15)

⁶⁰ Due to reporting processes, there can be a delay between when a death occurs and when the death is registered. Therefore, the number of deaths in the Child Death Register will not necessarily align with deaths that occurred during the reporting periods.

Vulnerability characteristics

Vulnerability characteristics related to the deceased child, their family and the alleged perpetrator are presented in Table 7.4 below. This table presents data in relation to seven death incidents, rather than individual child deaths, due to the identifying and sensitive nature of the data.

Table 7.4: Types of vulnerability characteristics, 2014–15

Vulnerability characteristics ⁶¹	Incidents <i>n</i>
Of the child	
Mental health issues of the child	0
Intellectual disability of the child	0
Physical disability of the child	0
A known serious medical condition of the child	0
Of the child's family⁶²	
The child was known to the Queensland child protection system within 1 year of their death	3*
The child was in out-of-home care at the time of their death	0
The child's family had a domestic violence history	2
At least one of the child's parents had a criminal history	2
At least one of the child's parents had a history of drug or alcohol abuse	2
A sibling is known to have died in the same incident as the child	1
A sibling is known to have previously died from a similar category of death to the child	0
Of the alleged perpetrator/s	
Child deaths where one or more alleged perpetrators had a mental health issue ⁶³	0
Child deaths where one or more alleged perpetrators had an intellectual disability	0
Child deaths where one or more alleged perpetrators had a physical disability	0
Child deaths where one or more alleged perpetrators had used drugs and/or alcohol immediately prior to the incident	0
Child deaths where one or more alleged perpetrators had a criminal history	3

Data source: Queensland Child Death Register (2014–15)

* Not included in this total is one additional family, who was known historically to the Queensland child protection system; but had no involvement with the Department of Communities in the year prior to their death.

⁶¹ Vulnerability characteristic findings are based on information available to the QFCC at the point in time that analysis was conducted. The absence of evidence of vulnerability characteristics in the information relied upon does not mean that vulnerability characteristics were not present, but that the QFCC did not have evidence to suggest it from all available sources.

⁶² A history of a particular vulnerability characteristic refers to any known history of that characteristic and does not mean that the behaviours were active at the time of the death incident.

⁶³ The presence of a mental health issue does not indicate the perpetrator meets the threshold for any consideration of presence of state of mind in any criminal charges or court matters relating to the death incident.

Part V: Sudden unexpected deaths in infancy, 2014–15

Chapter 8—Sudden unexpected deaths in infancy

This chapter provides details of sudden unexpected infant deaths.

Key findings

- There were 39 cases of sudden unexpected death in infancy (SUDI) in 2014–15, a rate of 61.4 deaths per 100,000 infants (aged under 1 year). The number and rate of SUDI deaths have fluctuated over the last 11 reporting periods; however, the 2014–15 rate is the lowest recorded since reporting began in 2004 while the 39 deaths is close to the lowest number (36 deaths were recorded in 2007–08).
- Aboriginal and Torres Strait Islander infants are over-represented in SUDI deaths. During 2014–15, they died suddenly and unexpectedly at 3.9 times the rate of non-Indigenous infants.
- Six deaths were attributed to Sudden Infant Death Syndrome (SIDS) and undetermined causes (of the 12 SUDIs with an official cause of death). Official causes of death were still pending for 27 deaths.
- Six of the sudden and unexpected infant deaths were found, following post-mortem examination, to have an explained cause of death. All six children died as a result of infant illnesses unrecognised prior to their deaths. These deaths are included in this chapter; however, they are also included in the chapter relating to the specific cause of the deaths.
- Predominantly, deaths from SUDI are recorded as cause pending until the outcomes of coroners' investigations or post-mortem examinations are concluded. Looking to the period 2012–13, where only two of the 48 deaths remained pending a cause, over half of the deaths (27 or 56.3 per cent) were attributed to SIDS; seven were due to unrecognised infant illnesses, five each were sleep accidents and cause undetermined, and two were due to fatal assault.

Child death and injury prevention activities

Data requests

The QFCC has engaged with an ongoing University of the Sunshine Coast study examining SUDI death records in order to identify ways to better engage vulnerable, marginalised, difficult-to-engage groups to provide risk-reduction education.

Sudden unexpected deaths in infancy, 2012–2015

A copy of Table 8.1 containing data since 2004 is available online at www.qfcc.qld.gov.au

Table 8.1: Summary of sudden unexpected deaths in infancy (SUDI) in Queensland, 2012–2015

	2012–13		2013–14		2014–15		Yearly average
	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All SUDI							
SUDI	48	75.9	43	67.7	39	61.4	68.2
Sex							
Female	20	64.7	20	64.8	15	48.6	59.4
Male	28	86.6	23	70.4	24	73.4	76.5
Aboriginal and Torres Strait Islander status							
Indigenous	9	178.3	12	230.5	10	192.1	198.5
Non-Indigenous	39	67.0	31	53.1	29	49.7	56.6
Geographical area of usual residence (ARIA+)							
Remote	2	*	3	*	2	*	*
Regional	24	110.3	20	91.6	19	87.0	96.1
Metropolitan	21	55.1	20	52.0	18	46.8	51.1
Socio-economic status of usual residence (SEIFA)							
Low to very low	26	99.9	31	119.0	24	92.1	103.6
Moderate	9	72.9	6	48.9	7	57.0	59.8
High to very high	12	48.2	6	23.8	8	31.7	34.4
Known to the child protection system							
Known to the child protection system	10	6.0	14	8.4	8	8.3	..
Unexplained SUDI							
Unexplained SUDI	34	53.8	33	51.9	33	51.9	52.5
<i>SIDS</i>	27	42.7	20	31.5	3	*	26.2
<i>Undetermined causes</i>	5	7.9	6	9.4	3	*	7.3
<i>Cause of death pending</i>	2	*	7	11.0	27	42.5	18.9
Explained SUDI							
Explained SUDI	14	22.1	10	15.7	6	9.4	15.7
<i>Unrecognised infant illness</i>	7	11.1	9	14.2	6	9.4	11.5
<i>Other non-intentional injury/sleep accident</i>	5	7.9	0	0.0	0	0.0	*
<i>Fatal assault</i>	2	*	1	*	0	0.0	*

Data source: Queensland Child Death Register (2012–2015)

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

.. Average across the three-year period has not been calculated due to the break in series (see note 3).

1. Data presented here is current in the Queensland Child Death Register as at June 2015, and thus may differ from those presented in previously published reports.

2. Rates are based on the most up-to-date denominator data available and are calculated per 100,000 children under the age of 1 year (in the sex/Indigenous status/ARIA region/SEIFA region) in each year.

3. For 2013–14 and all earlier periods, 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

4. Rates of SUDI for 'Known to the child protection system' are calculated per 100,000 children aged 0–17 years in Queensland, instead of per 100,000 infants under the age of 1 year, in order to provide a comparable rate.

5. ARIA+ and SEIFA were not able to be calculated for children whose usual place of residence was not Queensland.

6. Average annual rates have been calculated using the estimated resident population data at June 2013 (the mid-point for the period).

The classification of sudden unexpected deaths in infancy

SUDI is a research classification and does not correspond with any single medical definition or categorisation. Rather, the aim of this grouping is to report on the deaths of apparently well infants who would be expected to thrive, yet, for reasons often unknown, die suddenly and unexpectedly. Grouping deaths in this way assists in the identification of possible risk factors and associations for sudden infant death and, most significantly, those factors that may be preventable or amenable to change.

The Police Report of Death to a Coroner (Form 1), which includes a summary of the circumstances surrounding the death as initially reported,¹¹³ is used to identify relevant deaths. The circumstances of the death must meet all of the following criteria to be included in the SUDI grouping:

- child less than one year of age
- sudden in nature
- unexpected, with no previously known condition that was likely to cause death
- no immediately obvious cause of death.

The SUDI grouping includes deaths found to be associated with infections or anatomical/developmental abnormalities not recognised before death, sleep accidents such as inhalation of gastric contents, and deaths that initially present as sudden and unexpected but are revealed by investigations to be the result of non-accidental injury. It also includes deaths due to SIDS and infant deaths where a cause could not be determined.¹¹⁴

Death certification

Queensland Health advises that paediatric autopsies are among the most complex forms of autopsies undertaken. Within the specific context of SUDI, following the development of a new definition of SIDS in 2004 (termed the San Diego definition), all cases of SUDI optimally require the performance of a complete autopsy (including toxicology, microbiology, radiology, vitreous chemistry and metabolic screening studies).¹¹⁵ There is also an additional focus on establishing that there is no evidence of unexplained trauma, abuse or unintentional injury before a classification of SIDS can be assigned. This frequently involves more extensive gross and microscopic examination during autopsy than in cases of explained infant and child deaths.

Queensland Health also reports an increase in the number and complexity of autopsies that are performed since the introduction of the *Coroners Act 2003*, which has led to more in-hospital deaths being deemed reportable.¹¹⁶ These autopsies are frequently more complex due to the presence of multiple co-morbidities.

The above factors contribute to a high proportion of SUDI cases (27 of 39) pending death certification at time of reporting.

Sudden unexpected deaths in infancy: Findings, 2014–15

There were 39 cases of SUDI in 2014–15, a rate of 61.4 deaths per 100,000 infants (an infant mortality rate of 0.6 per 1000 live births). The number and rate of SUDI deaths have fluctuated over the last 11 reporting periods; however, the 2014–15 rate is the lowest recorded since reporting began in 2004 while the 39 deaths is close to the lowest number (36 deaths were recorded in 2007–08).¹¹⁷

Sex

Of the 39 infants who died, 24 were male (61.5 per cent) and 15 were female (38.5 per cent).

¹¹³ In Queensland, section 8 of the Coroners Act requires that all violent or unnatural/unusual deaths be reported to a coroner. All unexpected infant deaths fall within that description. All cases of SUDI require a comprehensive investigation, which should include a full autopsy, examination of the death scene and review of clinical history.

¹¹⁴ Cases of SUDI that were explained at post-mortem are also counted and discussed in the chapter appropriate to their cause of death. Deaths found at autopsy to be caused by previously unrecognised illnesses or congenital anomalies are counted in Chapter 2, Deaths from diseases and morbid conditions.

¹¹⁵ Krous, HF, Beckwith, B, Byard, R, Rognum, TO, Bajanowski, T, Corey, T, Cutz, E, Hanzlick, R, Keens, TG and Mitchell, EA (2004). 'Sudden infant death syndrome and unclassified sudden infant deaths: A definitional and diagnostic approach', *Paediatrics*, 114(1), pp 234–238

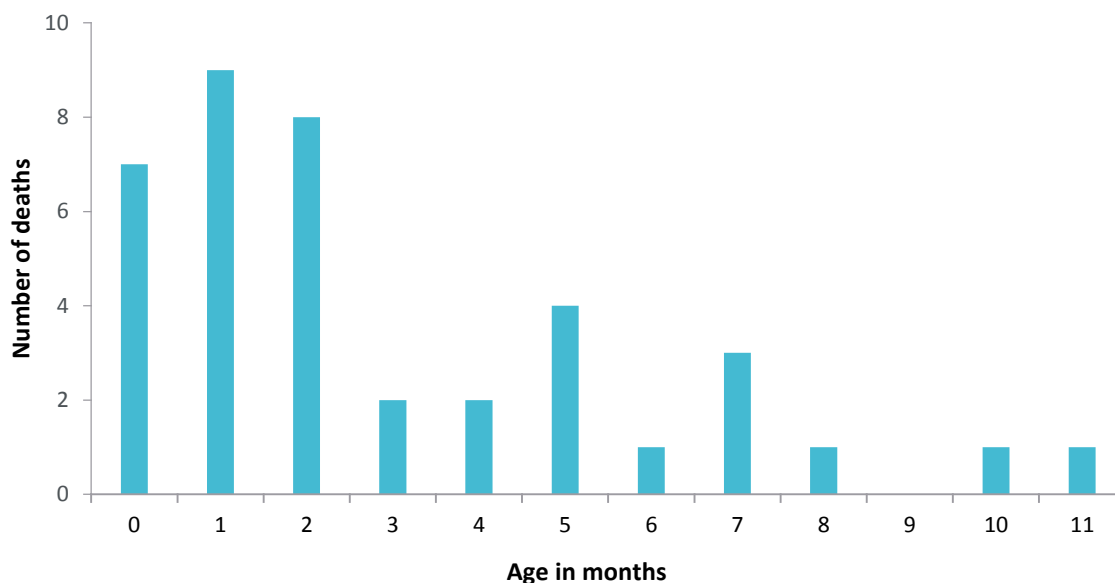
¹¹⁶ Under section 7(3)(a) of the Coroners Act, a reportable death includes a death that was not reasonably expected to be the health outcome of a health procedure.

¹¹⁷ Tables with data for 2004 to 2015 are available online at www.qfcc.qld.gov.au

Age

Figure 8.1 shows SUDI by age at death. Infants' age ranged from 4 days to 11 months. The majority of deaths occurred among infants aged 7 months or younger (36 of the 39 deaths).

Figure 8.1: Sudden unexpected deaths in infancy by age at death, 2014–15



Data source: Queensland Child Death Register (2014–15)

Aboriginal and Torres Strait Islander status

Ten of the 39 infants who died suddenly and unexpectedly were identified as Aboriginal and Torres Strait Islander (25.6 per cent). Indigenous infants died suddenly and unexpectedly at 3.9 times the rate of non-Indigenous infants, with 192.1 deaths per 100,000 Indigenous infants, compared with 49.7 deaths per 100,000 non-Indigenous infants.

Geographical area of usual residence (ARIA+)

Nineteen infants who died were from regional areas of Queensland (87.0 deaths per 100,000 infants) and 18 were from metropolitan areas (46.8 deaths per 100,000). Two SUDI deaths were of infants from remote areas.

Socio-economic status of usual residence (SEIFA)

The highest number and rate of SUDI occurred in infants from low to very low socio-economic areas (24 deaths, 92.1 per 100,000). Seven SUDI deaths were of infants from moderate socio-economic areas (57.0 per 100,000), while eight SUDI deaths were of infants from high to very high socio-economic areas (31.7 per 100,000).

Children known to the child protection system

Of the 39 infants who died suddenly and unexpectedly, eight were known to the child protection system (20.5 per cent). The number of SUDI deaths for children known to the child protection system has fluctuated in the past decade (between 5 and 19 deaths). Information sources available to the QFCC also enable the identification of cases where, while the deceased infant had not come to the attention of the Department of Communities, Child Safety and Disability Services, the infant's siblings had. In a further three cases, the deceased infant's siblings or parents were known to the child protection system.

Cause of death

Cause of death information was available for 12 of the 39 deaths in 2014–15. Six deaths were attributed to SIDS and undetermined causes. A further six deaths were found to have been the result of unrecognised infant illnesses.

Predominantly, deaths from SUDI are recorded as cause pending until the outcomes of post-mortem examinations or coroner's investigations are concluded. Looking to the period 2012–13 where only two of the 48 deaths remained pending a cause, over half of the deaths (27 or 56.3 per cent) were attributed to SIDS, seven were due to unrecognised infant illnesses, five each were sleep accidents and cause undetermined, and two were due to fatal assault.

Cases of SUDI are grouped broadly into two categories:

- **Unexplained SUDI**—those infant deaths where a cause of death could not be determined (including SIDS and undetermined cases and those with a cause of death pending).
- **Explained SUDI**—infant deaths where a cause of death was not immediately obvious; however, post-mortem examinations were able to identify a specific reason for the death (including unrecognised infant illnesses, sleep accidents and deaths as a result of non-accidental injury).

Unexplained sudden unexpected deaths in infancy

At the time of reporting there were 33 unexplained SUDI from 2014–15. Six infants had been classified as having an unexplained cause of death following post-mortem examination; and for a further 27, the cause of death had not yet been ascertained.

SIDS and undetermined causes

The definition of SIDS applied in this report and currently accepted by most experts within Australia¹¹⁸ is as follows:

The sudden, unexpected death of an infant under one year of age, with onset of the fatal episode apparently occurring during sleep, that remains unexplained after a thorough investigation including performance of a complete autopsy and review of the circumstances of death and the clinical history.

Cases of SUDI are classified as undetermined if:

- natural disease processes are detected that are not considered sufficient to cause death but that 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.

Further classification of the six unexplained SUDI in 2014–15 identified three deaths as SIDS and three deaths with cause undetermined.

A rate was not able to be calculated for SIDS alone, as the Commission does not calculate rates for less than four deaths due to the unreliability of such calculations.

Risk factors for SIDS

Infant, parental and environmental factors have been associated with an increased risk of SIDS. Infant factors relate to the vulnerability of the infant and include:

- prematurity (less than 37 weeks gestation) and low birth weight (less than 2500 grams)
- multiple gestation (twins, triplets)
- neonatal health problems
- male sex
- history of minor viral respiratory infections and/or gastrointestinal illness in the days leading up to death.

¹¹⁸ Krous H et al, (2004) 'Sudden infant death syndrome and unclassified sudden infant deaths: a definitional and diagnostic approach', *Paediatrics*, vol 114, pp 234–8.

Parental factors include:

- 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
- high-risk lifestyles, including alcohol and illicit drug abuse.

Environmental factors include:

- poor socio-economic status (social disadvantage and poverty)
- sleeping on soft surfaces and loose bedding
- prone (on stomach) sleeping position and side sleeping position
- overwrapping/overheating
- some forms of shared sleeping.

Table 8.3 (over page) provides a summary of known risk factors for the 33 cases of unexplained SUDI.

Infant sleep position

Table 8.2 shows the position of infants, when placed for sleep or when found, whose deaths were classified as unexplained SUDI.

Table 8.2: Unexplained SUDI by sleep position and position when found, 2014–15

Sleep position	SIDS <i>n</i>	Undetermined <i>n</i>	Cause of death pending <i>n</i>	Total <i>n</i>
Position when placed to sleep				
Back	1	1	20	22
Stomach	0	0	2	2
Side	1	0	3	4
Unknown	1	2	2	5
Total	3	3	27	33
Position when found				
Back	2	1	12	15
Stomach	0	1	8	9
Side	1	0	3	4
Other	0	0	2	2
Unknown	0	1	2	3
Total	3	3	27	33

Data source: Queensland Child Death Register (2014–15)

Table 8.3: Summary of SIDS risk factors in cases of unexplained SUDI, 2014–15

Cause of death	Indigenous	Infant factors		Parental factors			Environmental factors					Known to the child protection system
		Low birth weight	Pre-term birth	Young maternal age	Smoking	Drugs/alcohol	Shared sleeping	Sleep surface	Prone/ side sleeping	Chaotic social circumstances	Low SES	
SIDS total (3)	2	1	1	1	3	2	2	1	1	3	3	1
SIDS	✓	✓		✓	✓	✓	✓		✓	✓	✓	
SIDS				✓	✓	✓				✓	✓	
SIDS	✓	✓	✓	✓	✓	✓	✓	mattress on floor	✓	✓	✓	✓
Undetermined total (3)	0	1	1	0	0	1	2	0	0	1	2	0 (1*)
Undetermined						✓	✓	couch		✓		*
Undetermined		✓	✓				✓	adult bed			✓	
Undetermined								adult bed			✓	
Pending total (27)	6	5	6	10	12	5	11	5	8	17	6 (8*)	
Pending							✓	adult bed				
Pending	✓		✓	✓	✓		✓	mattress on floor			✓	
Pending				✓				infant mattress on floor			✓	
Pending	✓		✓		✓			bassinet			✓	✓
Pending	✓	✓	✓	✓	✓	✓	✓	baby capsule			✓	*
Pending	✓		✓	✓	✓		✓	adult bed		✓	✓	✓
Pending		✓	✓				✓	adult bed	✓			*
Pending				✓				cot			✓	
Pending								cot				
Pending			✓	✓	✓			adult bed	✓			
Pending			✓	✓	✓	✓		bassinet		✓	✓	✓
Pending			✓	✓	✓		✓	adult bed	✓	✓	✓	
Pending								cot				
Pending		✓	✓	✓	✓	✓	✓	adult bed		✓	✓	
Pending		✓		✓	✓			cot			✓	
Pending				✓	✓			cot				
Pending			✓	✓	✓			adult bed		✓	✓	
Pending	✓			✓	✓			adult bed			✓	✓
Pending	✓						✓	adult bed			✓	
Pending				✓	✓	✓	✓	adult bed	✓	✓	✓	✓
Pending								mattress on floor	✓		✓	
Pending								baby swing				

Cause of death	Indigenous	Infant factors		Parental factors			Environmental factors					Known to the child protection system
		Low birth weight	Pre-term birth	Young maternal age	Smoking	Drugs/alcohol	Shared sleeping	Sleep surface	Prone/ side sleeping	Chaotic social circumstances	Low SES	
Pending				✓	✓	✓	✓	couch		✓	✓	✓
Pending			✓	✓				bassinnet		✓	✓	
Pending								cot			✓	
Pending			✓	✓	✓			cot	✓		✓	
Pending			✓				✓	adult bed				
Total (33)	8	7	8	11	15	8	15		6	12	22	7 (10*)

Data source: Queensland Child Death Register (2014–15)

✓ Risk factor identified for the infant based on the evidence available at the time of reporting.

* Family of infant known to child protection system refers to those cases where information available to the Commission identifies that the infant's family were known to the Department of Communities prior to the infant's death.

1. Young maternal age refers to mothers aged 20 or younger.

2. Low SES refers to location of incident as opposed to area of usual residence.

3. 'Prone/side sleeping' refers to the position the child was put to sleep.

4. Drug and/or alcohol use includes both current and historical use of either or both parents.

5. Chaotic social circumstances refers to social factors such as parental criminal history, domestic and family violence, parental mental health issues present within the infant's life.

Shared sleeping with other risk factors

Fifteen of the 33 infants whose deaths were classified as unexplained SUDI were sharing a sleep surface with one or more people at the time of death (two SIDS, two undetermined, 11 cause pending). Of these 15 infants:

- eight were sharing a sleep surface with one other person
- seven were sharing with two or more people.

Evidence of habitual smoking or smoking during pregnancy was found in eight of the 15 deaths in which shared sleeping was reported. Additionally, evidence of habitual drug/alcohol use, or drug/alcohol use at the time of the sleep incident, was noted in six deaths where co-sleeping was identified.

Sharing a sleep surface with a baby increases the risk of SIDS and fatal sleep accidents in some circumstances.¹¹⁹ Some studies have found that 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 that cause sedation, if the caregiver is excessively tired or there are multiple people in the bed with the infant.

Aboriginal and Torres Strait Islander status

Eight of the 33 infants whose deaths were classified as unexplained SUDI were Aboriginal and Torres Strait Islander. Aboriginal and Torres Strait Islander infants were over-represented in cases of unexplained SUDI, dying at a rate 3.6 times that of non-Indigenous infants, with 153.7 deaths per 100,000 Indigenous infants, compared with 42.9 deaths per 100,000 non-Indigenous infants.

Explained sudden unexpected deaths in infancy

In 2014–15, six infants of the 39 SUDI deaths were classified as having an explained cause of death following post-mortem examination. All six infants died as a result of illnesses unrecognised prior to their deaths. These deaths are included in this chapter (as sudden and unexpected); however, they are also included in the chapter relating to the specific cause of the deaths. Table 8.4 shows the breakdown of explained SUDI by cause of death.

Table 8.4: Explained SUDI by cause of death, 2014–15

Cause of death	Total <i>n</i>
Unrecognised infant illness	6
<i>Diseases of the respiratory system</i>	3
Acute pharyngitis (J02)	1
Bacterial pneumonia, not elsewhere classified (J15)	1
Acute bronchitis (J20)	1
<i>Certain infectious and parasitic diseases</i>	1
Streptococcal sepsis (A40)	1
<i>Diseases of the nervous system</i>	1
Other disorders of the brain (G93)	1
<i>Diseases of the digestive system</i>	1
Peptic ulcer, site unspecified (K27)	1
Total	6

Data source: Queensland Child Death Register (2014–15)

1. ICD-10 underlying cause of death code included in parentheses.

¹¹⁹ Blair, PS, Fleming, PJ, Smith, IJ, Platt, MW, Young, J, Nadin, P, Berry, PJ, Golding, J and the CESDI SUDI research group (1999). 'Babies sleeping with parents: case-control study of factors influencing the risk of the sudden infant death syndrome', *BMJ*, vol 319, pp 1457–61.

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Part VI: Child death prevention activities 2014–15

Chapter 9—Child death prevention activities

Sections 26 and 28 of the Family and Child Commission Act set out the functions of the QFCC to help reduce the likelihood of child deaths, including to:

- conduct research, alone or in cooperation with other entities
- identify areas for further research
- make recommendations, arising from keeping the register and conducting research, about laws, policies, practices and services
- allow genuine researchers to access information in the register to undertake research to help reduce the likelihood of child deaths.

This chapter details the child death prevention activities, beyond those to do with maintaining and reporting on the Child Death Register, that the QFCC has undertaken during 2014–15.

As noted elsewhere in this report, the QFCC was formed on 1 July 2014, at which time the responsibility for the Child Death Register and the associated functions were transitioned to the QFCC from the former CCYPCG (which ceased operations on 30 June 2014 with the repeal of the Commission for Children and Young People and Child Guardian Act 2000).

During its first year as an entity, the QFCC has concentrated its Child-Death-Register-related activities on:

- maintaining the accuracy and comprehensiveness of the child death information in the register
- meeting the legislated requirement to report annually
- establishing secure data transfer processes with other agencies for confidential information
- recruiting and training staff
- responding to researcher requests for child death data
- maintaining involvement in relevant committees.

In future periods, the QFCC will report on analyses of trends and issues for key causes of preventable deaths, in order to improve understanding of risk factors and support the development of policies and practices to reduce child deaths.

Researcher access to child death data

A range of stakeholders (both government and non-government) are responsible for the development and/or implementation of various child death and injury prevention strategies, programs, policies and/or research initiatives. QFCC is able to support these activities by providing researchers with access to the register's comprehensive collection of information from the analysis of autopsies, coronial reports, child protection and police files, as well as other relevant data sources. The register contains data on cause of death, demographic information, relevant family characteristics, and circumstances and factors that may have contributed to deaths.

The Queensland Child Death Register may be accessed at no cost to organisations or individuals conducting genuine research.¹²⁰ Stakeholders wishing to access the register to support their research, policy or program initiatives can email their request to child.death@qfcc.qld.gov.au.

During 2014–15, the QFCC responded to 18 requests for access to the Child Death Register from external stakeholders. Table 9.1 provides an overview of the type of data requested in 2014–15 and the purpose for which it was used. Examples of the projects provided with information include the following:

¹²⁰ Genuine research is 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/program initiatives to reduce child death or injury.

- A University of the Sunshine Coast study examining SUDI death records in order to better understand contributing risk factors and identify ways to better engage vulnerable, marginalised, difficult-to-engage groups to provide risk-reduction education.
- A review of circumstances and events surrounding deaths of infants by the Queensland Paediatric Quality Council Infant Mortality Subcommittee, in an effort to comprehensively identify the factors associated with infant deaths and appropriate interventions.
- A national study by the Royal Prince Alfred Hospital (NSW) examining underlying medical causes of death by obtaining detailed information on unexpected early neonatal deaths (i.e. within the first seven days of life).
- The Royal Life Saving Society of Australia publishes the *National Drowning Report* and provides related drowning prevention activities and information.
- The Department of Education and Training used information provided from the register to support suicide postvention strategies in state schools.

Table 9.1: Purpose of data request by type of data requested, 2014–15

Type of data requested	Purpose of data request			Total <i>n</i>
	Research	Public education/ reporting	Policy/ Program development	
Diseases and morbid conditions	2	0	0	2
SUDI	2	0	0	2
Drowning	0	5	0	5
Transport	1	1	0	2
Suicide	0	1	1	2
All deaths	0	4	1	5
Total	5	11	2	18

Data source: Queensland Family and Child Commission (2014–15)

Committees

The QFCC participated as a member of the following committees in this reporting period:

- Australian and New Zealand Child Death Review and Prevention Group
- Queensland Perinatal and Infant Mortality Taskforce
- Queensland Births and Deaths Working Group
- Queensland Council for Injury Prevention Executive Committee Meeting
- CARRS-Q Road Safety Researchers Network.

Australian and New Zealand Child Death Review and Prevention Group¹²¹

All states and territories within Australia, as well as New Zealand, have child death review mechanisms in various forms and stages of development. In recognition of the need to develop nationally comparable data and promote prevention messages across jurisdictions, agencies with child death review functions have convened the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG).

Established in 2005, the aim of this group is to identify and share information about trends and issues in infant, child and youth mortality, and work collaboratively towards national and international reporting.

In March 2015, Victoria hosted the ANZCDR&PG's annual meeting. The meeting focussed on establishing a national minimum dataset for child deaths in Australia and New Zealand and included presentations by staff from the National Children's Commissioner's office, the Australian Institute of Health and Welfare, the Australian Bureau of Statistics and the National Coroner's Information System.

¹²¹ See also Chapter 10, Australian and New Zealand child death statistics.

Part VII: Australian and New Zealand child death statistics: 2013 calendar year

Chapter 10—Australian and New Zealand child death statistics

Key findings

- The information in this chapter presents a snapshot of child mortality in contributing Australian states and New Zealand in 2013. Analysis of statistics for 2013 has shown:
 - the Northern Territory had the highest rate of child death overall (76.9 deaths per 100,000)
 - the Northern Territory had the highest rate of child death from suicide (12.5 deaths per 100,000)
 - the Northern Territory had the highest rate of child death from transport and other non-intentional injury (6.3 deaths per 100,000 each)
 - Queensland and New South Wales had the equal highest rate of child death from drowning (0.8 deaths per 100,000).
- This chapter has been compiled based on child death statistics provided by the following member teams of the Australian and New Zealand Child Death Review and Prevention Group:
 - Queensland Family and Child Commission
 - New South Wales Child Death Review Team, New South Wales Ombudsman
 - South Australian Child Death and Serious Injury Review Committee
 - Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity
 - Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity
 - Australian Capital Territory Children and Young People Death Review Committee
 - Northern Territory Child Deaths Review and Prevention Committee
 - Western Australian Department of Health
 - New Zealand Child and Youth Mortality Review Committee.

Australian and New Zealand child death statistics

In recognition of the need to develop nationally comparable data and multi-jurisdiction prevention messages, agencies with child death review functions have convened the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG). The stated aim of the ANZCDR&PG is to identify, address and potentially decrease the numbers of infant, child and youth deaths by sharing information on issues in the review and reporting of child deaths and to work collaboratively towards national and international reporting.

Child death review functions within agencies throughout Australia and New Zealand are at varying stages of implementation and have individual legislative bases, functions, roles and reporting requirements. The data prepared by these agencies currently differs in some respects, but meaningful comparisons are still achievable.

The jurisdictions currently with the capacity to share detailed child death data are Queensland, New South Wales, Victoria, South Australia, Tasmania, Australian Capital Territory, Northern Territory and New Zealand. Western Australia is continuing to build their data collection and reporting capacity, and have provided general demographic information for this reporting period.

The methodology used in compiling the data in this chapter is outlined in Appendix 10.1.

All causes of child deaths: 2013

Table 10.1: Number and rate of child deaths by age and jurisdiction, 2013

Jurisdiction		Age category					Total
		Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
QLD	<i>n</i>	308	45	38	31	48	470
	Rate per 100,000	483.3	17.8	12.3	10.4	26.3	42.5
NSW	<i>n</i>	353	70	40	37	56	556
	Rate per 100,000	355.3	18.1	8.6	8.3	20.5	33.3
SA	<i>n</i>	63	18	5	11	11	108
	Rate per 100,000	308.7	22.5	5.1	11.3	17.9	30.3
VIC	<i>n</i>	274	34	33	27	37	405
	Rate per 100,000	358.4	11.6	9.4	8.1	17.9	32.2
TAS	<i>n</i>	24	3	4	5	7	43
	Rate per 100,000	392.3	*	12.6	15.6	34.8	37.3
ACT	<i>n</i>	25			<5 ^a		28
	Rate per 100,000	453.9			*		33.5
NT	<i>n</i>	25	7	1	6	10	49
	Rate per 100,000	626.1	46.4	*	35.2	102.7	76.9
WA	<i>n</i>	89	31	14	22	35	191
	Rate per 100,000	257.4	23.2	8.7	14.4	37.2	33.1
NZ	<i>n</i>	248	51	25	29	74	427
	Rate per 100,000	411.5	20.3	8.3	9.8	39.7	39.0

Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

* Rates have not been calculated for numbers less than four, with the exception of the Australian Capital Territory, where rates were not calculated for numbers less than five.

^a Figure not specified where the number of deaths is less than five.

1. Rates are calculated per 100,000 children in each age category in each jurisdiction.
2. Total rates are calculated per 100,000 children aged 0–17 years in each jurisdiction.
3. Australian Capital Territory data was not available in some age categories due to the potential identification of individual cases.
4. Australian Capital Territory data does not include deaths of children and young people awaiting the Coroner's findings.
5. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.
6. South Australian data excludes the deaths of infants born spontaneously before 20 weeks gestation and deaths as a result of a planned termination of pregnancy.
7. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

Children in the under-1-year age category had the highest number of child deaths in all jurisdictions. In general, the rate of death in childhood usually decreases with increasing age until the teen years, when it increases again. In most jurisdictions (with the exception of South Australia), rates of death (where calculable) are second highest in the 15–17-year age category.

Table 10.2 below shows the number and rate of child deaths in each jurisdiction by sex. Males experienced higher rates of death in all but two jurisdictions.

Table 10.2: Number and rate of child deaths by sex and jurisdiction, 2013

Jurisdiction		Sex	
		Female	Male
QLD	<i>n</i>	206	263
	Rate per 100,000	38.3	46.3
NSW	<i>n</i>	248	308
	Rate per 100,000	30.6	35.8
SA	<i>n</i>	44	64
	Rate per 100,000	25.3	35.0
VIC	<i>n</i>	195	209
	Rate per 100,000	31.8	32.4
TAS	<i>n</i>	19	24
	Rate per 100,000	34.1	40.3
ACT	<i>n</i>	16	12
	Rate per 100,000	39.3	28.0
NT	<i>n</i>	28	21
	Rate per 100,000	91.2	63.5
WA	<i>n</i>	80	111
	Rate per 100,000	28.4	37.7
NZ	<i>n</i>	186	241
	Rate per 100,000	34.9	42.9

Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

1. Rates are calculated per 100,000 females and per 100,000 males aged 0–17 years in each jurisdiction.
2. There was one child death in Victoria and one child death in Queensland where the sex was either unknown or undetermined.
3. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.
4. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event, and hence have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

Diseases and morbid conditions—excluding SIDS and undetermined causes

Deaths from diseases and morbid conditions are those deaths whose underlying cause is an infection, disease, congenital anomaly or other naturally-occurring condition.

As outlined in Table 10.3 below, deaths from diseases and morbid conditions were highest for infants under 1 year of age in all jurisdictions. The Northern Territory had the highest rate of child deaths from diseases and morbid conditions (32.9 per 100,000), followed by Queensland (31.4 per 100,000).

Table 10.3: Number and rate of child deaths from diseases and morbid conditions by age and jurisdiction, 2013

Jurisdiction		Age category					Total
		Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
QLD	<i>n</i>	269	26	23	16	13	347
	Rate per 100,000	422.1	10.3	7.4	5.4	7.1	31.4
NSW	<i>n</i>	305	48	27	29	23	432
	Rate per 100,000	307.0	12.4	5.8	6.5	8.4	25.9
SA	<i>n</i>	52	10	4	6	2	74
	Rate per 100,000	254.8	12.5	4.1	6.2	*	20.7
VIC	<i>n</i>	254	22	24	18	13	331
	Rate per 100,000	332.2	7.5	6.9	5.4	6.3	26.3
TAS	<i>n</i>	17	3	3	4	2	29
	Rate per 100,000	277.9	*	*	12.5	*	25.2
ACT	<i>n</i>	18			<5 ^a		21
	Rate per 100,000	326.8			*		25.1
NT	<i>n</i>	18	2	1	0	0	21
	Rate per 100,000	450.8	*	*	*	*	32.9
WA	<i>n</i>	-	-	-	-	-	-
	Rate per 100,000	-	-	-	-	-	-
NZ	<i>n</i>	185	29	17	14	18	263
	Rate per 100,000	307.0	11.5	5.7	4.7	9.7	24.0

Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

* Rates have not been calculated for numbers less than four, with the exception of the Australian Capital Territory, where rates were not calculated for numbers less than five.

^a Figure not specified where number of deaths is less than five.

1. Rates are calculated per 100,000 children in each age category in each jurisdiction.

2. Total rates are calculated per 100,000 children aged 0–17 years in each jurisdiction.

3. Australian Capital Territory data was not available for some age categories due to the potential identification of individual cases.

4. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.

5. Cause of death information was not available for deaths in Western Australia.

6. The cause of 20 deaths in New Zealand, seven deaths in the Northern Territory, five deaths in Queensland and three deaths in New South Wales is yet to be finalised and these deaths are not included in Tables 10.3, 10.4 or 10.5. Hence, the overall numbers and rates are subject to change.

7. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event, and hence have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

External causes

External-cause deaths are those resulting from environmental events and circumstances causing injury, poisoning and other adverse effects. Table 10.4 illustrates the number and rate of child deaths from external causes across seven jurisdictions.

Deaths from external causes occurred at a higher rate in the Northern Territory than in any other jurisdiction (28.2 per 100,000). New Zealand had the next highest rate of death from external causes, at 10.0 per 100,000.

The Northern Territory had the greatest rate of transport deaths (6.3 per 100,000) followed by Queensland (3.1 per 100,000).

Drowning deaths occurred at the greatest rate equally in Queensland and New South Wales (0.8 per 100,000), whilst the rate of suicide deaths was highest in the Northern Territory (12.5 per 100,000).

Table 10.4: Number and rate of child deaths from external causes by jurisdiction, 2013

Jurisdiction		Cause of death					Total
		Transport	Drowning	Other non-intentional injury related death	Suicide	Fatal assault and neglect	
QLD	<i>n</i>	34	9	13	27	7	90
	Rate per 100,000	3.1	0.8	1.2	2.4	0.6	8.1
NSW	<i>n</i>	27	13	18	18	2	78
	Rate per 100,000	1.6	0.8	1.1	1.1	*	4.7
SA	<i>n</i>	7	2	7	7	1	24
	Rate per 100,000	2.0	*	2.0	2.0	*	6.7
VIC	<i>n</i>	12	≤5 ^a	15	14	≤5 ^a	49
	Rate per 100,000	1.0	*	1.2	1.1	*	3.9
TAS	<i>n</i>	1	1	0	5	0	7
	Rate per 100,000	*	*	0.0	4.3	0.0	6.1
ACT	<i>n</i>	0	0	0	0	0	0
	Rate per 100,000	0.0	0.0	0.0	0.0	0.0	0.0
NT	<i>n</i>	4	2	4	8	0	18
	Rate per 100,000	6.3	*	6.3	12.5	0.0	28.2
WA	<i>n</i>	-	-	-	-	-	-
	Rate per 100,000	-	-	-	-	-	-
NZ	<i>n</i>	32	11	29	34	3	109
	Rate per 100,000	2.9	1.0	2.6	3.1	*	10.0

Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

* Rates have not been calculated for numbers less than four, with the exception of Victoria, where rates were not calculated for numbers less than five.

^a Figure not specified where the number of deaths is less than five.

1. Classification of external cause deaths may differ from state to state. The methodology section in Appendix 10.1 provides further details.
2. Rates are calculated per 100,000 children aged 0–17 years in each jurisdiction.
3. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.
4. Cause of death information was not available for deaths in Western Australia.
5. The cause of 20 deaths in New Zealand, seven deaths in the Northern Territory, five deaths in Queensland and three deaths in New South Wales is yet to be finalised and these deaths are not included in Tables 10.3, 10.4 or 10.5. Hence, the overall numbers and rates are subject to change.
6. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

Deaths from ill-defined and unknown causes of mortality

The deaths of children as a result of unknown or ill-defined causes of mortality, including SIDS are outlined in Table 10.5.

Unexplained deaths of infants

Of specific interest in the study of infant deaths are those certified as due to SIDS or where the cause of death cannot be determined. SIDS is defined as the sudden, unexpected death of an infant under 1 year of age, the cause of which remains unexplained after a thorough investigation (including review of the death scene, clinical history and complete autopsy). While SIDS is essentially an undetermined cause of death itself, infant deaths should be specifically certified as undetermined when:

- natural disease processes were detected (insufficient to cause death but precluding a SIDS diagnosis)
- there are signs of significant stress
- non-accidental but non-lethal injuries were present
- toxicology screening detects non-prescribed but non-lethal drugs.

It is important to note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Whilst the Australian Capital Territory's rate of unexplained infant deaths for 2013 appears to be the highest at 127.1 per 100,000 infants, this rate was based on only seven deaths, and as a result any comparisons with other jurisdictions must be treated with a high degree of caution.

Table 10.5: Child deaths from SIDS and undetermined causes by age and jurisdiction, 2013

Jurisdiction		Age category					Total	
		Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years		1–17 years total
QLD	<i>n</i>	27	0	0	0	1	1	28
	Rate per 100,000	42.4	0.0	0.0	0.0	*	*	2.5
NSW	<i>n</i>	39	4	0	0	0	4	43
	Rate per 100,000	39.3	1.0	0.0	0.0	0.0	0.3	2.6
SA	<i>n</i>	7	1	0	0	0	1	8
	Rate per 100,000	34.3	*	0.0	0.0	0.0	*	2.2
VIC	<i>n</i>	17	≤5 ^a	≤5 ^a	0	≤5 ^a	8	25
	Rate per 100,000	22.2	*	*	0.0	*	0.7	2.0
TAS	<i>n</i>	7	0	0	0	0	0	7
	Rate per 100,000	114.4	0.0	0.0	0.0	0.0	0.0	6.1
ACT	<i>n</i>	7	0	0	0	0	0	7
	Rate per 100,000	127.1	0.0	0.0	0.0	0.0	0.0	8.4
NT	<i>n</i>	3	0	0	0	0	0	3
	Rate per 100,000	*	0.0	0.0	0.0	0.0	0.0	*
WA	<i>n</i>	-	-	-	-	-	-	-
	Rate per 100,000	-	-	-	-	-	-	-
NZ	<i>n</i>	31	<3 ^c	0	0	<3 ^c	4	35
	Rate per 100,000	51.4	*	0.0	0.0	*	0.4	3.2

Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

* Rates have not been calculated for numbers less than four, with the exception of Victoria, where rates were not calculated for numbers less than five.

^a Figure not specified where the number of deaths is less than five.

^b Figure not specified where the number of deaths is less than three.

1. Classification of external-cause deaths may differ from state to state. The methodology section in Appendix 10.1 provides further details.

2. Rates are calculated per 100,000 children aged 0–17 years in each jurisdiction.

3. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.

4. Cause of death information was not available for deaths in Western Australia.

5. The cause of 20 deaths in New Zealand, seven deaths in the Northern Territory, five deaths in Queensland and three deaths in New South Wales is yet to be finalised and these deaths are not included in Tables 10.3, 10.4 or 10.5. Hence, the overall numbers and rates are subject to change.

6. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

Deaths of Indigenous children and young people

It should be noted that some jurisdictions experience difficulty with the collection of data regarding Aboriginal and Torres Strait Islander status. Challenges are also faced in obtaining accurate population data for Indigenous children and young people in Australia to enable the calculation of rates. Therefore, the rates presented in Table 10.6 should be interpreted with caution.

Rates of Aboriginal and Torres Strait Islander child deaths (Australia) and Māori child deaths (New Zealand) from 2009 to 2013 have been included in Table 10.6. Based on the available data, in 2013, South Australia had the highest rate of death for Aboriginal and Torres Strait Islander children and young people (120.1 per 100,000), followed by Western Australia (116.6 per 100,000) and the Northern Territory (116.2 per 100,000). The New Zealand rate of deaths for Māori children was 58.8 per 100,000.

Table 10.6: Number and rate of Indigenous child deaths by year of death and jurisdiction, 2009–2013¹⁴⁸

Jurisdiction		Year				
		2009	2010	2011	2012	2013
QLD	<i>n</i>	64	62	63	55	74
	Rate per 100,000	78.9	75.1	75.4	64.9	86.4
NSW	<i>n</i>	32	60	57	47	67
	Rate per 100,000	35.9	66.6	63.0	51.7	73.6
SA	<i>n</i>	11	8	13	13	19
	Rate per 100,000	73.1	52.2	83.8	83.0	120.1
VIC	<i>n</i>	9	10	≤5 ^a	10	13
	Rate per 100,000	46.2	50.6	*	49.2	63.3
TAS	<i>n</i>	0	0	0	0	0
	Rate per 100,000	0.0	0.0	0.0	0.0	0.0
ACT	<i>n</i>	<5 ^a	<5 ^a	<5 ^a	0	<5 ^a
	Rate per 100,000	*	*	*	0.0	*
NT	<i>n</i>	32	27	50	36	31
	Rate per 100,000	118.6	100.6	187.6	134.9	116.2
WA	<i>n</i>	35	35	33	33	43
	Rate per 100,000	96.6	95.8	90.2	89.9	116.6
NZ	<i>n</i>	241	225	203	208	162
	Rate per 100,000	90.4	83.4	74.5	75.8	58.8

Data source: Australian and New Zealand Child Death Review and Prevention Group (2009–2013)

* Rates have not been calculated for numbers less than 10 for Victorian data and less than five for Australian Capital Territory data.

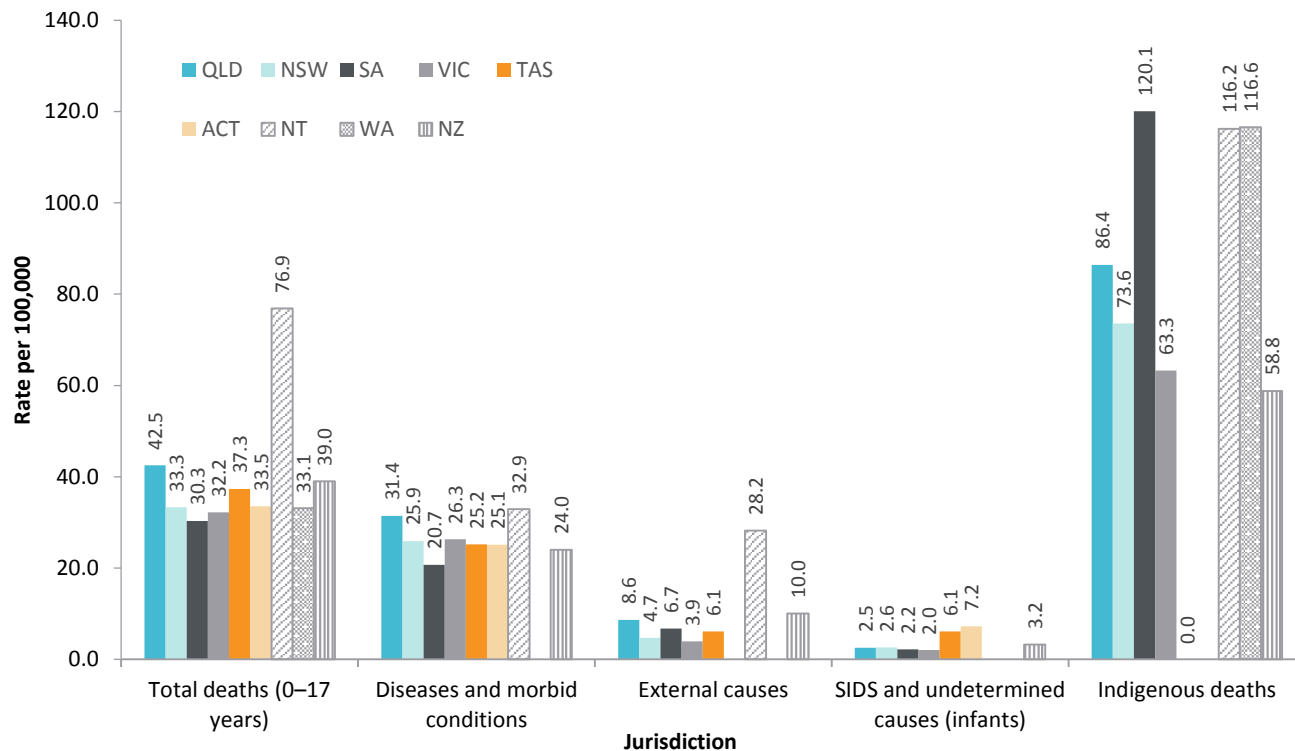
^a Figure not specified where number of deaths is less than five.

1. Rates are calculated per 100,000 Indigenous children aged 0–17 years in each jurisdiction.
2. Victorian data in this table is provisional and subject to change. Full data will be available from the upcoming Annual Report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm.
3. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

¹⁴⁸ Note that for Australian jurisdictions, Indigenous children refers to the Aboriginal and Torres Strait Islander population, whilst for New Zealand it refers to the Māori population.

Selected findings for contributing Australian states and territories and New Zealand in 2013 are provided in Figure 10.1 below. Apparent from this illustration is the relative homogeneity of child death rates from diseases and morbid conditions, but the considerable variation in rates where the underlying numbers of deaths are relatively small (such as for deaths from SIDS and undetermined causes). As noted above, problems in the collection of Indigenous status data on death registrations may result in an undercount in the Indigenous death rates, limiting the comparability of the data on this aspect.

Figure 10.1: Jurisdictional comparisons—selected findings, 2013



Data source: Australian and New Zealand Child Death Review and Prevention Group (2013)

* Rates have not been calculated for numbers less than four, and numbers less than five for Australian Capital Territory and Victorian data.

1. Victorian data in this figure is provisional and subject to change. Full data will be available from the upcoming annual report for the year 2013 at www.health.vic.gov.au/ccopmm/index.htm

2. Note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event; and hence, have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

Appendices

Appendix 1.1: Methodology

This appendix provides an overview of the methodology employed in the production of this report. 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, the QFCC has the responsibility formerly held by the CCYPCG 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 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 research to help reduce the likelihood of child deaths. Under the Family and Child Commission Act, 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 Commissioner of a child's death and provide available relevant particulars.

Data comparability and accuracy

The *Annual Report: Deaths of children and young people in Queensland, 2014–15* brings together information from a number of key sources and presents it in a way that 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 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. The *Births, Deaths and Marriages Registration Act 2003* provides that the Registrar must give notice of the registration of all child deaths to the Commissioner.¹⁴⁹ The data provided includes the:

- 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
- mode of dying.¹⁵⁰

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

Office of the State Coroner

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

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

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
- was a child in foster care or under the guardianship of the Department of Communities.¹⁵¹

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.¹⁵²

¹⁴⁹ Section 48A (details of stillborn children are not included in the information given to the QFCC).

¹⁵⁰ Section 48B of the Births, Deaths and Marriages Act 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.

¹⁵¹ Section 9 of the Coroners Act .

¹⁵² Section 10 of the Coroners Act.

To help the QFCC fulfil its child death review functions, the Coroners Act 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.¹⁵³

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

Of the 445 deaths of children and young people registered in 2014–15, 37.3 per cent were reportable under the Coroners Act (166 deaths). At the time of reporting, coronial findings had been finalised for 25.3 per cent (42 deaths) of reportable deaths. Autopsy reports, where performed, were provided in 40 of the 42 finalised cases and in 36 of the cases where coronial findings are still outstanding. Cause of death information provided by the Registry of Births, Deaths and Marriages was available in 64.4 per cent (107 deaths) of reportable deaths. No cause of death information was available for 27.7 per cent (46 deaths) of children and young people.

Access to other data sources

The QFCC shares data with the following agencies:

- Registry of Births, Deaths and Marriages¹⁵⁴
- Office of the State Coroner¹⁵⁵
- Department of Communities, Child Safety and Disability Services (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)
- Department of Housing and Public Works
- Australian Bureau of Statistics
- Queensland Health
- Department of Education, Training and Employment.

¹⁵³ Section 45 of the Coroners Act provides that the Coroner must give written copies of his/her findings relating to child deaths to the Principal Commissioner. Coroner's 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 that, in the case of a child death, the Coroner must give written copies of his/her comments to the Commissioner. Coroner's 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.

¹⁵⁴ 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.

¹⁵⁵ 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.

Confidentiality

Accompanying the QFCC's privileged access to information is a duty of confidentiality specified in the Family and Child Commission Act. 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)¹⁵⁶, 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 Organisation (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
- 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 undertook training in ICD-10 mortality coding and were responsible for the coding of all external cause deaths.

In addition, the QFCC has entered into 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 recognised that ICD-10 carries certain inherent limitations, particularly in regard to recognising contextual subtleties between 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 classified deaths according to their circumstances. Based on the information contained in the Police Report of Death to a Coroner (Form 1), such classification enabled 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.¹⁵⁷

All reportable deaths are classified as transport, drowning, other non-intentional injury-related deaths, suicide or fatal assault and neglect. SUDI are also grouped together for the purpose of analysis.

¹⁵⁶ 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.

¹⁵⁷ Where cases have not received an official cause of death as established at autopsy, they are unable to be coded according to ICD-10.

As outlined above, discrepancies may exist between research categories and ICD-10 figures. The QFCC primarily report by the broad external cause classifications described above. ICD-10 coding is still used to report on deaths from diseases and morbid conditions. Full details of ICD-10 coding for external cause deaths can be found in Appendix 1.4.

Geographical distribution (ARIA+)

The latest version of the Accessibility/Remoteness Index of Australia Plus (ARIA+) is used to code geographical remoteness.¹⁵⁸

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 and Ageing).

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.¹⁵⁹

All child deaths are classified according to the ARIA+ index. The analysis of geographic distribution in this report refers to the child's usual place of residence, which may differ from the place of death or the incident location. However, because of the importance of incident location in the prevention of transport-related deaths, the geographical distribution of all deaths falling within this category has also been reported according to the place of incident.

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

- Metropolitan: includes major cities of Queensland¹⁶⁰
- Regional: includes inner and outer regional Queensland¹⁶¹
- Remote: includes remote and very remote Queensland.¹⁶²

Socio-economic status (SEIFA)

The Socio-economic Indexes for Areas (SEIFA) developed by the ABS have been used in this report, specifically the SEIFA Index of Advantage/Disadvantage. 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.¹⁶³

Variables associated with advantage include the proportion of families with high incomes, the proportion of people with a 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 used in this report are measures of the status of the areas in which children and young people reside, not the socio-economic status of each individual child or their family.

¹⁵⁸ Population data sources: Queensland Treasury and Trade, *Population Estimates by Indigenous Status, 2011 edition*; GISCA, University of Adelaide, ARIA+ (Accessibility/Remoteness Index of Australia), 2011, unpublished data. Note that although base populations for all years are based on the latest version of ARIA, deaths registered prior to 2012–13 were classified according to earlier ARIA boundaries.

¹⁵⁹ 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).

¹⁶⁰ Relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.

¹⁶¹ Significantly restricted accessibility of goods, services and opportunities for social interaction.

¹⁶² Very restricted accessibility of goods, services and opportunities for social interaction.

¹⁶³ Population data sources: Queensland Treasury and Trade, *Population Estimates by Indigenous Status, 2012 edition*; Australian Bureau of Statistics, *Census of Population and Housing: Socio-Economic Indexes for Areas (SEIFA), Australia Data only, 2011*, cat. no. 2033.0.55.001. Note that although base populations for all years are based on the latest version of SEIFA, deaths registered prior to 2012–13 were classified according to earlier SEIFA boundaries.

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 that 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 death registration data, on the Form 1 and from other official records. There are instances of inconsistent reporting of Aboriginal and Torres Strait Islander status across official records. For instance, several cases have been recorded where a child has been identified as Indigenous by the reporting police officer in completing the Form 1; but the death registration form, often completed by funeral directors on behalf of family members, did not identify the child as Indigenous. In cases where there has been inconsistent reporting of Aboriginal and Torres Strait Islander status across official records, a guideline is used by the QFCC to determine which status will be recorded within the register.

Children known to the child protection system

The deaths of children known to the child protection system have been analysed as a separate cohort. The Queensland Child Death Register captures information regarding whether the child was known to the child protection system, or whether their siblings were known to the child protection system.

Following recommendations made in the Queensland Child Protection Commission of Inquiry Final Report—*Taking Responsibility: A Road Map for Queensland Child Protection*, changes were made to the timeframes required for conducting a review of the death of a child. From 1 July 2014, the Department of Communities is required to conduct a review of its involvement in each case if, within one year before the child's death; the child was in the custody or guardianship of the Department of Communities; the Department of Communities was aware of alleged harm or risk of harm; the Department of Communities took action under the Child Protection Act; or the Department of Communities was notified of concerns before the birth of a child and reasonably suspected the child might be in need of protection after their birth. Prior to this, the timeframe for review was within three years of the department's last involvement with the child prior to their death. A further independent review is conducted by a panel of appropriately qualified persons (Child Death Case Review Panel) in accordance with section 246AA(3) of the Child Protection Act. The purposes of requiring the reviews are: to facilitate ongoing learning and improvement in the provision of services by the department, and to promote the accountability of the department.

Analysis and reporting

Analysis period

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

Reporting period

This report examines the deaths of 445 children and young people aged from birth to 17 years, registered between 1 July 2014 and 30 June 2015.

Differences from previously published data

Information in the Queensland Child Death Register now comprises 11 years of data, and data from the last three years only is displayed in the first table for Chapters 1–8 of this report. Copies of the tables containing data since 2004 are available online at www.qfcc.qld.gov.au.

As indicated elsewhere, 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 coroners' reports. 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 that the information on deaths in previous periods may therefore differ from those presented in earlier published reports.

Population data used in calculations of child death rates

This report uses the latest available population estimates to calculate the child death rates for various sections of the population during the reporting period. The population data at 30 June 2013, and used throughout the report for 2014–15 rates, is provided in the table below.

Queensland and Aboriginal and Torres Strait Islander populations by age category, 30 June 2013

Age group	Total number of children	Number of Aboriginal and Torres Strait Islander children
Under 1 year	63,547	5,205
1–4 years	252,483	20,223
5–9 years	309,947	24,019
10–14 years	298,375	22,763
15–17 years	182,532	13,463
Total 0–17 years	1,106,884	85,673

Data source: Queensland Treasury and Trade (2013)

Rates were not calculated for less than four deaths because of the unreliability of such calculations.

Infant mortality rates

Chapters 2 and 8 present infant mortality rates, defined as the number of deaths of infants aged under 1 year per 1000 live births. In the 2013 calendar year, there were 63,354 live births in Queensland, including 5206 Indigenous live births.¹⁶⁴

Rates for ARIA+ and SEIFA classifications

Queensland Treasury and Trade provided Queensland population data for Statistical Local Areas to allow for calculation of child death rates by ARIA+ and SEIFA classifications, based on census populations at 30 June 2011.

¹⁶⁴ Source: Australian Bureau of Statistics, *Births, Australia (various editions)*, cat. No. 3301.0.

Rates of death for children known to the child protection system

For the period to June 2014, rates of death for children known to the child protection system are calculated using, as the denominator, the number of distinct children known to the child protection system in the three-year period before the relevant financial year.

Following changes to the child protection system as a result of the Queensland Child Protection Commission of Inquiry, the denominator used for calculating rates is calculated as the number of distinct children known to the child protection system in the one-year period before the 2014–15 financial year. This has resulted in a reduction in the number of children known to the child protection system for the current reporting period. This data was provided to the QFCC by the Department of Communities. The table below lists the denominator data provided by the department for the last five reporting periods.¹⁶⁵

The denominator data represents the number of distinct children (aged 0–17 years) who have had any of the following forms of contact with the child protection system in the preceding three/one year/s:

- Child Concern Report
- Child Protection Notification
- Investigation and Assessment order
- placement.

It should be noted that, due to large increases within the last decade in the numbers of child protection intakes received by the department, there have been resultant increases in the number of distinct children known to the department. As the data are used as the denominator in rate calculations, there has been a related reduction in the child death rates, despite the number of child protection deaths remaining relatively stable.

Distinct children known to the Queensland child protection system

Reporting period	Number of distinct children known to the child protection system	Percentage change from previous year
2009–10	129,361	+27%
2010–11	151,349	+17%
2011–12	162,984	+8%
2012–13	165,572	+2%
2013–14	167,434	+1%
2014–15	96,788	..

Data source: Department of Communities, provided August 2015

.. Percentage change has not been calculated due to the break in series (see note 1).

1. For 2013–14 and all earlier periods, denominator data for 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 the Department of Communities in the three-year period prior to their death. For 2014–15, this was changed to the deaths of children known to the Department of Communities in the one-year period prior to their death.

Child death rates for Australian states and territories and New Zealand

Information on the methodology used in compiling Chapter 10 can be found in Appendix 10.1.

¹⁶⁵ The Department of Communities has improved the methodology used for calculating denominator data. This methodology was employed for denominator data used in all Child Death Annual Reports from 2006–07 onwards. Comparisons should therefore not be drawn between the rates of death in the child protection system presented in these reports and those prior to the 2006–07 reporting period.

Appendix 1.2: 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 (ARIA+). 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.
Births, Deaths and Marriages Registration Act	<i>Births, Deaths and Marriages Registration Act 2003 (Qld)</i> .
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 when the driver 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.
Commission for Children and Young People and Child Guardian	Prior to the establishment of the QFCC on 1 July 2014, the Commission for Children and Young People and Child Guardian (CCYPCG) was responsible for maintaining the Child Death Register and conducting research into child deaths. The CCYPCG ceased operations on 30 June 2014 and accordingly, the Child Death Register and other functions relating to child deaths transferred to the QFCC.
Chaotic social circumstances	For the purpose of this report, a child is considered to have been living in chaotic social circumstances if their familial environment is characterised by persistent disruption, instability and exposure to risk relevant to one or more of the following: parental abuse or neglect, domestic violence, mental health problems, itinerancy, poverty.
Child	A person aged from birth up to, but not including, 18 years.
Child known to the child protection system	<p>Following recommendations made in the Queensland Child Protection Commission of Inquiry Final Report—Taking Responsibility: A Road Map for Queensland Child Protection, changes were made to the timeframes required for the Department of Communities to conduct a review of the death of a child. For the purpose of this report, a child is deemed to have been known to the child protection system if, within one year before the child’s death, the Department of Communities became aware of child protection concerns, alleged harm or alleged risk of harm to the child or took action under the Child Protection Act in relation to the child. Prior to this, the timeframe for review was within three years of the department’s last involvement with the child prior to their death.</p> <p>The population used as a denominator for children known to the child protection system for the 2014–15 reporting period is based on the number of children and young people known to the department in the 2013–14 financial year who were subject to a child concern report, notification, investigation and assessment, ongoing intervention, child protection orders or placements as provided by the Department of Communities..</p>

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.
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.
Coroners Act	<i>Coroners Act 2003</i> .
CPR	Cardiopulmonary resuscitation.
Death in care	A death as defined under section 9 of the Coroners Act. This occurs when a person who had died: <ul style="list-style-type: none"> • 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 Department of Communities.
Death in custody	A death as defined under section 10 of the Coroners Act. This includes the death of someone in custody (including someone in detention under the <i>Youth Justice Act 1992</i>), 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.
Department of Communities	Department of Communities, Child Safety and Disability Services (Qld). Government agency responsible for administering the Child Protection Act.
Diseases and morbid conditions	A cause of death category used for those cases whose official cause of death has been given an ICD-10 Underlying Cause of Death that corresponds to Chapters 1–17 of the ICD Codebook. 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 (including SIDS or undetermined causes) 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 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 and extended family members can be involved in these incidents.
Drowning	Deaths that occur as a direct or indirect result of immersion in some form of liquid.
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	Defines where a child dies 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 which 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 Islanders.
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.
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. This is the definition used by the Australian Bureau of Statistics in all cause of death publications.
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.
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 this report. The complete list is included in Appendix 5.1.
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 two people of any age who are friends and therefore of the same social standing and peer network.
Peer passengers	Refers to 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 gestation 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	This is 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—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. This is the definition used by the ABS in all cause of death publications.
Postvention	Defined by the American Association of Suicide Prevention as 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 for 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.
QFCC	Queensland Family and Child Commission enacted by the Family and Child Commission Act on 1 July 2014.
The Registrar	Registrar of the Registry of Births, Deaths and Marriages (Qld).
Registry	Registry of Births, Deaths and Marriages (Qld).
Reportable death	A death as defined under sections 8, 9 and 10 of the Coroners Act. This includes any death where the: <ul style="list-style-type: none"> • identity of the person is unknown • death was violent or unnatural • death happened in suspicious circumstances • death was not a reasonably expected outcome of a health procedure • Cause of Death Certificate was not issued and is not likely to be issued • death occurred in care • death occurred in custody.
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 2011. Developed by the ABS using data derived from the 2011 Census of Population and Housing, SEIFA 2011 provides a range of measures to rank areas based on their relative social and economic wellbeing.
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.
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.
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 CCYPCG adopted the following working criteria for the inclusion of cases in the SUDI grouping of deaths of infants less than 1 year of age that: were sudden in nature, were unexpected, with no known condition likely to cause death, and have 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	Contagion refers to 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, written or expressed using online technology (SMS text messaging, online messenger and email, or through social media platforms).
Suicide	Deaths 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 that 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: <ul style="list-style-type: none"> • motor vehicles and motorcycles • quad bikes, tractors and other rural plant • bicycles, skateboards, scooters and other small-wheel devices • watercraft and aircraft • horses and other animals used for transportation.

Undetermined	Death certified as undetermined refers to deaths in which available information is insufficient to classify the death into one of the specific causes of natural or unnatural death. If an extensive investigation and autopsy cannot clarify the circumstances, the death is placed in this category. SUDI are certified as undetermined when insufficient findings are present to support a particular diagnosis but when sufficient abnormal features in the history or at the scene, examination, autopsy or laboratory workshop were found that were not typical of SIDS. ¹⁶⁶
Undetermined intent	A death where available information is insufficient to enable a medical or legal authority to make a distinction between accident, self-harm and assault.
Waterway	A waterway, whether natural or man-made, that carries flowing or tidal water or contains a body of water. Examples of dynamic waterways are rivers, creeks and other free moving water sources. Examples of static waterways are lakes and ponds where water does not freely move.
WHO	World Health Organization.
Workplace death	Any death where there is evidence to suggest that the death incident location was a workplace, or that the incident leading to death involved a work activity, or any death where the CCYPCG received a notification from Workplace Health and Safety Queensland.

¹⁶⁶ Mitchell, E., Krous, H., Donald, T. & Byard, R. (2000). Changing trends in the diagnosis of sudden infant death. *American Journal of Forensic Medicine and Pathology*, 21(4), 311–14.

Appendix 1.3: Deaths of interstate and international residents 2014–15

Information received from the Registry of Births, Deaths and Marriages indicates the last place of residence for each child death. This information is taken to indicate the child's usual place of residence for reporting purposes. The QFCC considered child death prevention activities relevant to Queensland residents, as well as those children who die in Queensland while accessing specialist and emergency medical care or visiting as a holidaymaker.

Deaths of interstate and international residents, 2014–15

Case	Cause of death	Sex	Age category	Usual place of residence
1	Diseases and morbid conditions	Female	15–17 years	New South Wales
2	Diseases and morbid conditions	Male	15–17 years	Western Australia
3	Diseases and morbid conditions	Female	Under 1 year	New South Wales
4	Diseases and morbid conditions	Female	Under 1 year	New South Wales
5	Diseases and morbid conditions	Female	Under 1 year	New South Wales
6	Diseases and morbid conditions	Female	Under 1 year	New South Wales
7	Diseases and morbid conditions	Female	Under 1 year	New South Wales
8	Diseases and morbid conditions	Female	Under 1 year	Outside Australia
9	Diseases and morbid conditions	Male	Under 1 year	New South Wales
10	Diseases and morbid conditions	Male	Under 1 year	New South Wales
11	Diseases and morbid conditions	Male	Under 1 year	New South Wales
12	Diseases and morbid conditions	Male	Under 1 year	New South Wales
13	Diseases and morbid conditions	Male	Under 1 year	New South Wales
14	Diseases and morbid conditions	Male	Under 1 year	New South Wales
15	Diseases and morbid conditions	Male	Under 1 year	New South Wales
16	Diseases and morbid conditions	Male	Under 1 year	Northern Territory
17	Diseases and morbid conditions	Male	Under 1 year	Outside Australia
18	Diseases and morbid conditions	Male	Under 1 year	Outside Australia
19	Drowning	Male	1–4 years	New South Wales
20	Unknown—cause of death pending	Female	10–14 years	Outside Australia

Data source: Queensland Child Death Register (2014–15)

Appendix 1.4: Cause of death by ICD-10 mortality coding classification

Deaths from diseases and morbid conditions, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>
Diseases and morbid conditions total	239	20	16	11	17	303
Certain conditions originating in the perinatal period (P00–P96)	144	1	0	0	0	145
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	76	5	2	4	5	92
Neoplasms (C00–D48)	1	4	10	0	6	21
Diseases of the nervous system (G00–G99)	7	4	3	1	1	16
Diseases of the respiratory system (J00–J99)	4	2	0	4	1	11
Certain infectious and parasitic diseases (A00–B99)	1	2	0	2	1	6
Diseases of the circulatory system (I00–I99)	2	1	0	0	2	5
Endocrine, nutritional and metabolic diseases (E00–E90)	1	1	0	0	1	3
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	2	0	0	0	0	2
Diseases of the digestive system (K00–K93)	1	0	1	0	0	2
SIDS and undetermined causes (infants) total	6	0	0	0	0	6
Sudden infant death syndrome (R95)	3	0	0	0	0	3
Other ill-defined and unspecified causes of mortality (R99)	3	0	0	0	0	3
Undetermined >1 year total	0	0	0	0	0	0
Other ill-defined and unspecified causes of mortality (R99)	0	0	0	0	0	0
Total	245	20	16	11	17	309

Data source: Queensland Child Death Register (2014–15)

Deaths from external causes, 2014–15

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>
Suicide total	0	0	0	4	24	28
Intentional self-harm (X60–X84)	0	0	0	4	24	28
Transport total	1	9	3	3	9	25
Car occupant injured in transport accident (V40–V49)	1	4	2	3	9	19
Pedestrian injured in transport accident (V01–V09)	0	4	0	0	0	4
Motorcycle rider injured in transport accident (V20–V29)	0	1	0	0	0	1
Other and unspecified transport accidents (V98–V99)	0	0	1	0	0	1
Drowning total	1	10	5	0	0	16
Accidental drowning and submersion (W65–W74)	1	10	4	0	0	15
Exposure to forces of nature (X30–X39)	0	0	1	0	0	1
Fatal assault and neglect total	2	4	5	3	0	14
Assault (X85–Y09)	2	4	5	3	0	14
Other non-intentional injury-related death total	2	3	1	0	1	7
Other accidental threats to breathing (W75–W84)	1	2	0	0	0	3
Falls (W00–W19)	1	0	1	0	0	2
Accidental poisoning and exposure to noxious substances (X40–X49)	0	0	0	0	1	1
Exposure to smoke, fire and flames (X00–X09)	0	1	0	0	0	1
Total	6	26	14	10	34	90

Data source: Queensland Child Death Register (2014–15)

Appendix 2.1: Notifiable diseases

Schedule of Notifiable Conditions (Public Health Regulation 2005)⁹⁶

Acquired immunodeficiency syndrome (AIDS)	Haemolytic uraemic syndrome (HUS)
Acute flaccid paralysis	<i>Haemophilus influenzae</i> type b infection (invasive)
Acute rheumatic fever	Hansen's disease (leprosy)
Acute viral hepatitis	Hepatitis A
Adverse event following immunisation	Hepatitis B (acute)
Anthrax	Hepatitis B (chronic)
Arbovirus (mosquito borne) infections	Hepatitis B (not otherwise specified)
<ul style="list-style-type: none"> • alphavirus infections including: <ul style="list-style-type: none"> – Barmah Forest – getah – Ross River – sindbis • bunyavirus infections including: <ul style="list-style-type: none"> – gan gan – mapputta – termeil – trubanaman • flavivirus infections including: <ul style="list-style-type: none"> – alfuy – Edge Hill – kokobera – kunjin – Stratford • Other unspecified arbovirus infections 	Hepatitis C
	Hepatitis D
	Hepatitis E
	Hepatitis (other)
	Human immunodeficiency virus infection (HIV)
	Influenza
	Invasive group A streptococcal infection
	Japanese encephalitis
	Lead exposure (notifiable) (blood level of 10 µg/dL (0.48 µmol/L) or more)
	Legionellosis
	Leptospirosis
	Listeriosis
	Lyssavirus (Australian bat lyssavirus)
	Lyssavirus (Australian bat lyssavirus), potential exposure
Avian influenza	Lyssavirus (rabies)
Botulism	Lyssavirus (unspecified)
Brucellosis	Malaria
Campylobacteriosis	Measles
Chancroid	Melioidosis
Chikungunya	Meningococcal infection (invasive)
<i>Chlamydia trachomatis</i> infection	Mumps
Cholera	Murray Valley encephalitis
Ciguatera intoxication	Non-tuberculous mycobacterial diseases
Cruetzfeldt-Jakob disease	Ornithosis (psittacosis)
Cryptosporidiosis	Paratyphoid
Dengue fever	Pertussis
Diphtheria	Plague
Donovanosis	Pneumococcal disease (invasive)
<i>Equine morbillivirus</i> (Hendra virus)	Poliomyelitis (wild type and vaccine associated)
Food-borne or waterborne illness in 2 or more cases	Q fever
Food-borne or waterborne illness in food handler	Rotavirus
Gonococcal infection	Rubella (including congenital rubella)

Salmonellosis	Tuberculosis
Severe acute respiratory syndrome (SARS)	Tularaemia
Shiga toxin and vero toxin producing <i>Escherichia coli</i> infection (SLTEC/VTEC)	Typhoid
Shigellosis	Varicella—zoster virus infection (chickenpox, shingles and unspecified)
Smallpox	Viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)
Syphilis (including congenital syphilis)	Yellow fever
Tetanus	Yersiniosis

Appendix 5.1: Inclusions within the other non-intentional injury-related death 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 in bed
 - 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 cold
- accidental poisoning by noxious substances, examples include:
 - inhalation of volatile substances
 - non-intentional overdose
 - unintended consumption
- complications of medical and surgical care.

Appendix 6.1: Suicide classification model

The former CCYPCG suicide classification model has been adopted by the QFCC to classify all cases of suspected suicide into one of three levels of certainty.¹⁶⁸ 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.

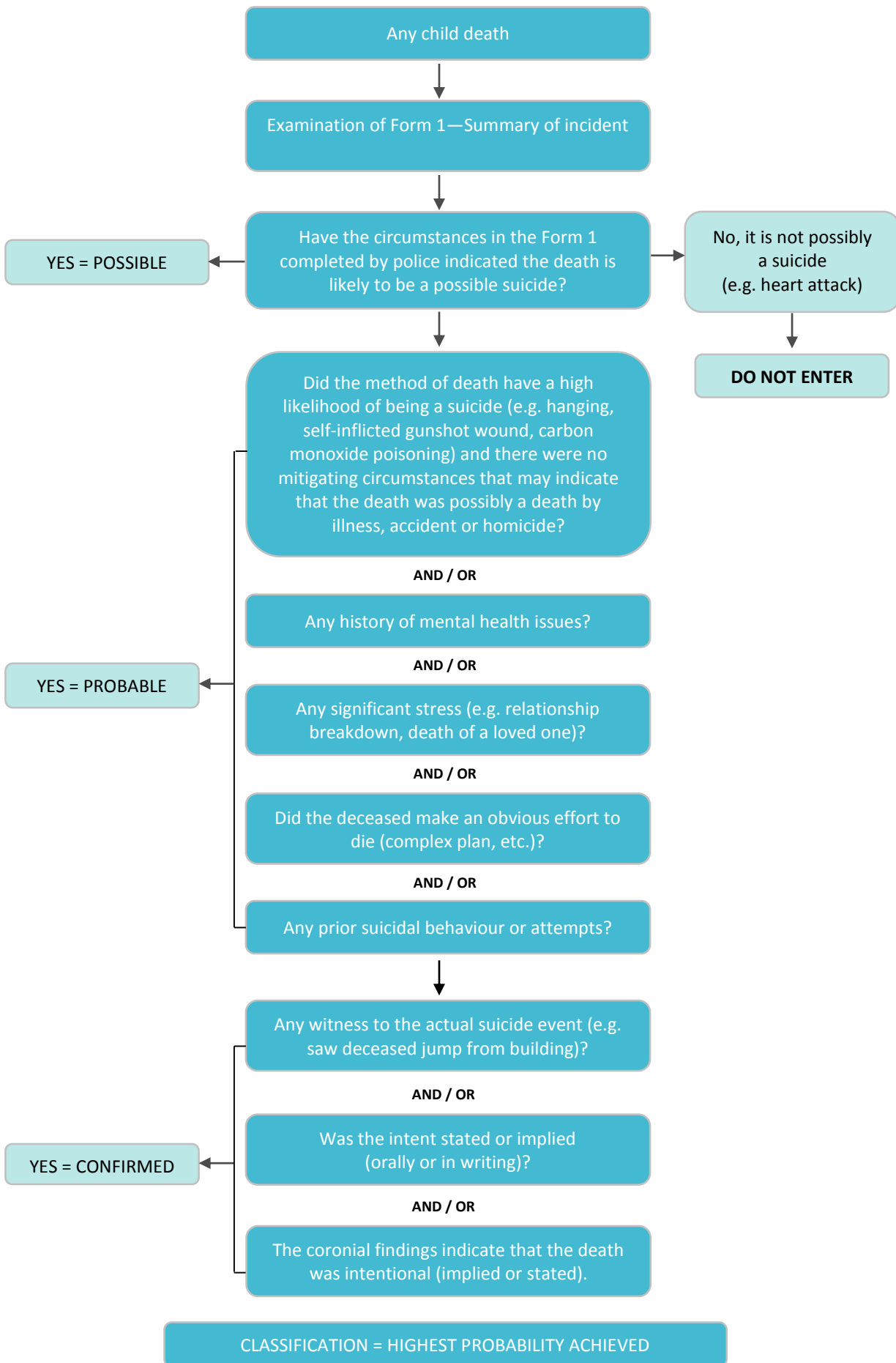
Information used to classify suicide certainty is based on data available to the QFCC at the time of reporting. Information is gathered from numerous records, including the Police Report of Death to a Coroner (Form 1), autopsy and coronial findings, toxicology reports, child protection system records and, for finalised cases, police briefs of evidence to the coroner (which can include witness statements, supplementary Form 1s, additional police reports and suicide notes).

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 more consistent with death by suicide than 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.

¹⁶⁸ The QFCC classification model is an amended version of the Australian Institute of Suicide Research and Prevention's (AISRAP) suicide classification flow chart.

Suicide Classification Model



Appendix 7.1: Fatal assault and neglect screening criteria

The former CCYPCG's fatal assault and neglect screening criteria has been adopted by the QFCC and is used 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, for finalised cases, police briefs of evidence to the coroner (which can include witness statements, supplementary Form 1s and additional police reports). 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).

Appendix 10.1: Methodology for Australian and New Zealand child death statistics

Data sources

Jurisdictional mortality statistics have been provided by the member teams and committees of the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG) with the current capacity to share child death data. Consequently, this data is provided by the:

- Queensland Family and Child Commission
- New South Wales Child Death Review Team, NSW Ombudsman
- South Australian Child Death and Serious Injury Review Committee
- Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity
- Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity
- Australian Capital Territory Children and Young People Death Review Committee
- Northern Territory Child Deaths Review and Prevention Committee
- Western Australian Department of Health
- New Zealand Child and Youth Mortality Review Committee.

Analysis period

The analysis covers deaths that occurred during the period 1 January 2013 – 31 December 2013.

Date of death and place of residence

All jurisdictions provided raw numbers of the deaths of all children from birth up to, but not including, 18 years of age occurring in 2013, independent of when these deaths were registered with the Registry of Births, Deaths and Marriages. Note that for 2008 and earlier, some states provided data on the deaths of children per the date of registration with the Registry of Births, Deaths and Marriages in their respective jurisdictions.

Recording deaths based on the jurisdiction in which they occurred can have an impact on rates of deaths. Rates of death in South Australia, for example, may be artificially inflated by the number of deaths of residents from surrounding areas of the Northern Territory occurring within South Australian boundaries. Similar problems are also known to occur between the Australian Capital Territory and New South Wales.

Population data

The population figures used in the following analysis are estimated resident populations (ERP) for each jurisdiction, as at June 2013.¹⁹⁰ To ensure comparability of child death rates between jurisdictions, all rates have been calculated on this population data, and therefore may differ from those previously published in the reports of individual agencies.¹⁹¹

It is important to note that caution must be exercised when comparing rates between jurisdictions. Although the rates are based on a population rather than a sample, common practice is to consider death a random event, and hence have an associated sampling error. This is particularly important when comparing rates from low numbers. Current methodology calculates the crude rates for 2013, and should not be used to infer the general probability of death for specific cohorts.

¹⁹⁰ Australian Bureau of Statistics, *Estimated Resident Population by Single Year of Age, Dec 2014*, cat. No 3101.0; Statistics New Zealand, *Estimated Resident Population by Age and Sex (1991+) (Annual-Jun 2013)*.

¹⁹¹ Rates presented here are crude rates rather than adjusted rates as used in some jurisdictions, and may also account for some differences between the rates published here and those published in other reports.

The table below provides details of the ERP of each jurisdiction as sourced from the ABS and Statistics New Zealand.

Estimated resident population by age category and jurisdiction, June 2013

Jurisdiction	Age category					Total (0–17 years)
	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
Queensland	63,724	252,343	309,676	298,204	182,503	1,106,450
New South Wales	99,341	387,341	464,418	446,821	273,127	1,671,048
South Australia	20,405	79,891	97,866	97,339	61,390	356,891
Victoria	76,450	292,608	349,339	332,863	206,891	1,258,151
Tasmania	6,118	25,322	31,623	32,071	20,105	115,239
Northern Territory	3,993	15,099	17,859	17,064	9,738	63,753
Western Australia	34,572	133,719	160,967	152,848	94,157	576,263
Australian Capital Territory	5,508	20,585	23,102	21,278	13,100	83,573
New Zealand	60,260	251,670	300,070	296,790	186,420	1,095,210

Data source: Australian Bureau of Statistics; Statistics New Zealand

Estimates for the Australian Aboriginal and Torres Strait Islander child population are based on experimental estimates for 2008–2013.¹⁹² Estimates for the New Zealand Māori population are based on ERP and were available by single year of age.¹⁹³ The below table provides details of estimates of the Indigenous child population in each jurisdiction as used in the calculation of death rates in the following analysis.

Estimated Indigenous population aged 0–17 years by jurisdiction, June 2013

Jurisdiction	Estimated Indigenous population
Queensland	85,673
New South Wales	91,079
South Australia	15,814
Victoria	20,547
Tasmania	10,500
Northern Territory	26,683
Western Australia	36,873
Australian Capital Territory	2,396
New Zealand	275,520

Data source: Australian Bureau of Statistics; Statistics New Zealand

Data extraction and methodological differences

To assist with comparative research regarding the prevention of child deaths, the ANZCDR&PG has agreed to report under a number of research categories based on the circumstances of death. These research categories capture diseases and morbid conditions and the major external causes of death: transport, drowning, suicide, other non-intentional injury, and fatal assault and neglect.

However, it is important to recognise that the deaths counted under each category are as per that particular agency's classification. In many cases, agencies have multiple sources of information available concerning children (including health, welfare and education records) and are not limited to the causes of death recorded in post-mortem reports or death certificates. Accordingly, a team or committee's classification for a particular death may vary from the World Health Organisation's International Classification of Diseases (version 10-AM) classifications.

¹⁹² Australian Bureau of Statistics, *Estimates and projections, Aboriginal and Torres Strait Islander Australians, 2001 to 2026*, cat. no. 3238.0

¹⁹³ Statistics New Zealand, *Total Māori estimated resident population, by single-year of age, five-year age group, broad age group, and median age, 1991–2014*.

Notable differences include:

- the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity (CCOPMM) apply coding of neonatal (0–27 days) deaths according to PSANZ-PDC¹⁹⁴ and PSANZ-NDC¹⁹⁵ rather than ICD-10. However, Victorian data provided by the council for this report has been recoded into the ICD-10
- Victorian figures exclude neonatal deaths as a result of terminations of pregnancy (for congenital anomaly or other maternal reason) and those born less than 20 weeks gestation, or, if the gestation is unknown, less than 400 grams birth weight
- South Australian figures do not include deaths of infants who were born spontaneously before 20 weeks gestation, or deaths of infants as a result of planned termination of pregnancy, irrespective of whether they showed signs of life after birth and irrespective of whether they were registered at Births, Deaths and Marriages as a live birth
- the methodology for classification of external cause deaths by the South Australian Child Death and Serious Injury Review Committee is available in the Committee’s Annual report at www.cdsirc.sa.gov.au, including a revision of the classification of fatal assault.

A number of additional issues affecting data for particular jurisdictions should also be noted:

- The Victorian CCOPMM notes that the data provided is provisional only. Final data will be available in the yet-to-be-published Annual Report for the year 2013. This will be available from www.health.vic.gov.au/ccopmm/index.htm.
- The Victorian CCOPMM does not specify raw figures where these are less than, or equal to, five. These are represented by the figure ≤ 5 throughout the analysis.
- Australian Capital Territory data does not include deaths of children and young people awaiting the Coroner’s findings.
- The South Australian Child Death and Serious Injury Review Committee does not specify raw figures where these are less than four. These are represented by the figure < 4 throughout the analysis.

The New Zealand Child and Youth Mortality Committee notes that:

- data are from the NZ Mortality Review Database, which collects and stores data for the Child and Youth, and Perinatal and Maternal Mortality Review Committees
- data consists of deaths occurring in the age range of 20 weeks gestation (or birth weight 400 grams) up to but not including the 18th birthday, and excludes stillbirths and terminations
- only deaths of New Zealand residents are included in these analyses (overseas deaths are excluded)
- raw numbers are not specified when they are less than three
- infant mortality is usually calculated using live births in New Zealand, so presented figures will differ from official New Zealand statistics
- deaths are recorded as a suicide only when they have been found to be so after the process of coronial review.

¹⁹⁴ Perinatal Society of Australia and New Zealand—Perinatal Death Classification.

¹⁹⁵ Perinatal Society of Australia and New Zealand—Neonatal Death Classification.