

A background image of a sunset over water, with the sun low on the horizon and its light reflecting on the water. The sky is filled with soft, white clouds. In the foreground, there are several large, semi-transparent circles in various colors: purple, green, blue, and orange.

Annual Report

Deaths of children and young people

2013–14

Queensland
Family and Child Commission
www.qfcc.qld.gov.au



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 2013 – 30 June 2014.



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Queensland
Family and Child Commission

31 October 2014

The Honourable Campbell Newman MP
Premier Of Queensland
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 2013 – 30 June 2014, 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

Steve Armitage
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 Commission 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 and Trade.

The QFCC would also like to acknowledge the contribution of data from other Australian and New Zealand agencies and/or committees who perform similar child death review functions. For the sixth 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 contribution of officers of the QFCC's Strategic Research, Evaluation and Reporting Program and of the (former) Commission for Children and Young People and Child Guardian 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 446 children and young people whose deaths were registered in 2013–14.

This is Queensland's tenth 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, and the first one produced by the recently established QFCC.

The QFCC's Queensland Child Death Register now holds data in relation to 4756 children and young people whose deaths have been registered in Queensland since 1 January 2004. Over the ten 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 the rates in the most recent years in comparison to the first half of the decade.

The rate of Aboriginal and Torres Strait Islander deaths remains double that of non-Indigenous Queensland children and young people, highlighting the significant, ongoing disadvantage experienced by this vulnerable group.

I would like to acknowledge the former Commission for Children and Young People and Child Guardian (CCYPCG) for undertaking the work of child death research in Queensland since 2004. The transfer of the child death register functions to my office has occurred in the context of the Honourable Tim Carmody's vision in recommending significant change to child protection in Queensland in his report *Taking Responsibility: A Roadmap for Queensland Child Protection*. In moving forward, the QFCC's immediate focus will be to develop a clear work plan and determine its short and long term priorities. We will also be considering the best way to report on child deaths and the role of the QFCC in prevention work and engaging others in driving prevention strategies.

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 and sharing information on child deaths that awareness of possible risks can be heightened and child death prevention activities can be better formulated and targeted. The QFCC welcomes actions that have been taken in the past year to increase awareness and reduce preventable deaths of Queensland's children and young people. This year's report demonstrates the need for continued efforts to reduce child deaths.



Steve Armitage
Principal Commissioner
Queensland Family and Child Commission

Executive summary

Background

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 will also promote and advocate 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. Therefore, for the period 2013–14 to which this report relates, the research and activities referred to were all undertaken by the former CCYPCG.

This report represents the 10th annual report to be produced on child deaths in Queensland. Under Part 3 of the *Family and Child Commission Act 2014*, the QFCC has acquired 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, analyse and identify patterns or trends from the data
- conduct research alone or in cooperation with other entities
- identify areas for further research by the Commission or other entities, and
- make recommendations arising from the register and conducting research about laws, policies, practices and services.

As part of the reform process currently underway of the Queensland child protection system, and the QFCC's responsibility for the child death register, the QFCC will be investigating new ways over the coming year to promote and increase awareness of child death and injury prevention issues to ensure the safety and wellbeing of Queensland children.

This report highlights the key trends and issues relevant to the deaths of children and young people aged 0 to 17 years registered in Queensland in 2013–14. 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, 1 July 2013 – 30 June 2014

In the 12-month period from 1 July 2013 to 30 June 2014, the deaths of 446 children were registered in Queensland, a rate of 41.0 deaths per 100,000 children and young people aged 0–17 years.

The table on the following page shows the number and rate of child deaths in Queensland each reporting period since 2004–05. Over the ten 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 the rates in the most recent years in comparison to first half of the decade.

Number and rate of child deaths by reporting period, 2004–2014

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	448	41.1
2013–14	446	41.0

Data source: Queensland Child Death Register (2004–2014)

The table over the page broadly outlines the causes of death for the 446 children and young people whose deaths were registered in 2013–14. The following observations can be made, and these findings are generally similar to those found in previous reporting periods:

- 55.4% of the deaths were male and 44.4% were female
- diseases and morbid conditions accounted for the majority of deaths (76.9%)
- 16.4% of deaths were due to external causes – transport, drowning, suicide, fatal assault and neglect, or other non-intentional injury
- 66.8% of deaths were of infants under 1 year of age
- Aboriginal and Torres Strait Islander children accounted for 15.5% of deaths and died at around twice the rate of non-Indigenous children in Queensland, and
- children known to the child protection system died at a rate of 47.8 deaths per 100,000, compared with 41.0 deaths per 100,000 for all Queensland children.

Cause of death by age category, 2013–14

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
Diseases and morbid conditions	271	29	21	10	12	343	31.5
Explained diseases and morbid conditions	252	29	21	10	11	323	29.7
Unexplained diseases and morbid conditions	19	0	0	0	1	20	1.8
<i>SIDS and undetermined causes (infants)</i>	19	0	0	0	0	19	1.7
<i>Undetermined >1 year</i>	0	0	0	0	1	1	*
External causes	3	12	16	11	31	73	6.7
Transport	0	4	12	5	10	31	2.8
<i>Bicycle</i>	0	0	3	0	0	3	*
<i>Motorcycle</i>	0	0	1	0	0	1	*
<i>Pedestrian</i>	0	4	1	1	1	7	0.6
<i>Quad bike</i>	0	0	1	2	0	3	*
Suicide	0	0	0	4	19	23	2.1
Drowning	0	3	2	0	2	7	0.6
<i>Non-pool</i>	0	1	2	0	2	5	0.5
<i>Pool</i>	0	2	0	0	0	2	*
Other non-intentional injury-related death	0	5	2	1	0	8	0.7
<i>Threats to breathing</i>	0	1	1	0	0	2	*
<i>Exposure to inanimate mechanical forces</i>	0	1	1	0	0	2	*
<i>Exposure to animate mechanical forces</i>	0	1	0	0	0	1	*
<i>Exposure to forces of nature</i>	0	1	0	0	0	1	*
<i>Exposure to smoke, fire and flames</i>	0	1	0	0	0	1	*
<i>Fall</i>	0	0	0	1	0	1	*
Fatal assault and neglect	3	0	0	1	0	4	0.4
Cause of death pending	24	4	2	0	0	30	2.8
Total	298	45	39	21	43	446	41.0
Rate per 100,000	484.4	18.1	13.0	7.1	23.6	41.0	

Data source: Queensland Child Death Register (2013–14)

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

Notes:

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 (for example, 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.

Queensland Child Death Register access and data requests

The CCYPCG, through its strategy of providing access to data from the Queensland Child Death Register, supported a range of stakeholders during the reporting period in the development and implementation of programs, policies and initiatives that require a solid and contemporary evidence base. The overarching aim of this strategy is to promote the information collected in the 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 2013–14, the CCYPCG received 50 requests for access to the Child Death Register from external stakeholders. Requests included:

- data regarding drowning deaths for provision to the Queensland Injury Surveillance Unit and the Department of Housing and Public Works to inform the administration of swimming pool fencing legislation and a related immersion notification program, and to the Royal Life Saving Society – Australia to inform its *National Drowning Report* and related drowning prevention activities
- information and data regarding transport fatalities to support research initiatives conducted by Kidsafe QLD; the University of the Sunshine Coast Accident Research (USCAR); and the Queensland Injury Surveillance Unit
- complex summaries of circumstances of slow suffocation deaths to inform safe sleeping and safe infant handling research undertaken by the University of the Sunshine Coast
- suicide data to assist in research and development of programs for the Australian Institute of Suicide Research and Prevention (AISRAP); Office of the State Coroner; the Queensland Mental Health Commission; and the University of Queensland Centre for Clinical Research, and
- accidental death data including product safety surveillance data for the Australian Competition and Consumer Commission and the Centre for Accident Research and Road Safety – Queensland (CARRS-Q).

Purpose of data request by type of data requested, 2013–14

Type of data requested	Purpose of data request			
	Research	Public education/ reporting	Policy/ program development	Total
Drowning	3	11	1	15
Suicide	4	5	2	11
Transport	3	4	1	8
Diseases and morbid conditions	3	2	0	5
Accidental	0	2	1	3
All deaths	2	1	0	3
Interstate residents	0	3	0	3
All external causes	2	0	0	2
Total	17	28	5	50

Data source: Queensland Family and Child Commission (2013–14)

Supporting child death and injury prevention initiatives

The CCYPCG utilised opportunities to contribute to a wide range of child death and injury prevention initiatives during the reporting period.

During 2013–14, the CCYPCG completed five policy submissions based on evidence from the Child Death Register. These are summarised as follows:

- a submission to the Queensland Parliament Transport, Housing and Local Government Committee Inquiry into Cycling Issues outlined specific considerations for young cyclists, including helmet use, improved road safety education and cycle path infrastructure to reduce cycling related fatalities
- a submission to the Department of Infrastructure and Transport in response to its *Driveway Safety Design Guidelines Discussion Paper*, supporting the introduction of guidelines to design driveways that are safer for young children and reduce deaths and injury from low speed vehicle run-overs
- a submission to the Coronial Council of Victoria regarding its proposed amendments to coronial legislation and practice to increase the standardised reporting of suicide, as a benchmark for national changes to coronial practice with a particular focus on reducing the under-reporting of youth suicide
- a submission to the Department of Justice and Attorney-General regarding its review of the *Births, Deaths and Marriages Registration Act 2003*, supporting current and proposed strategies aimed to increase the birth and death registrations of Aboriginal and Torres Strait Islanders in Queensland as well as the benefits of transitioning to electronic registration processes, and
- a submission to the National Children's Commissioner regarding intentional self-harm and suicidal behaviour in children, in which critical issues were outlined on the reporting of youth suicide, emerging risk factors and trends, and which recommended engagement and strategic planning with peak bodies in the sector to identify opportunities for mutual advocacy and collaboration.

As well as contributing to policy and legislation amendments, the CCYPCG engaged with a number of policy and program initiatives to advocate for the best interests of Queensland children.

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

- Australian and New Zealand Child Death Review and Prevention Group
- Queensland Council for Injury Prevention
- Queensland Advisory Group on Suicide
- National Committee for the Standardised Reporting of Suicide
- CARRS-Q Road Safety Researchers Network
- Child Restraint Safety Campaign Committee
- Queensland Births and Deaths Working Group
- Consumer Product Injury Research Advisory Group, and
- Australasian Mortality Data Interest Group.

The CCYPCG Trends and Issues Papers addressed topical child death and injury prevention issues. The papers were intended to increase awareness of the issues to ensure Government and non-government key stakeholders, researchers and the broader community were better informed about the factors that can affect the vulnerability of children and young people, and be better placed to drive prevention and intervention efforts to reduce child deaths. Four Trends and Issues Papers were released during 2013–14:

- *Notifiable and vaccine-preventable diseases in Queensland* – this paper advocated for parents and caregivers to make informed decisions about vaccinating their children.
- *Low speed vehicle run-overs* – this paper advocated for strategies that build layers of protection by changing driver behaviour, environmental design and vehicle safety technologies.

- *Swimming pool safety* – advocated for strategies that build layers of protection through active supervision, maintenance and compliant use of fencing and gates, and water safety awareness training.
- *Prevalence of youth suicide in Queensland* – this paper highlighted trends in youth suicides in Queensland.

Report structure

The report structure is divided into 7 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 section provides an overview of child deaths in Queensland for 2013–14.

Key findings

- The deaths of 446 children and young people were registered in Queensland between 1 July 2013 and 30 June 2014, occurring at a rate of 41.0 per 100,000 children and young people aged 0–17 years.
- The rates and numbers of deaths from suicide have been relatively stable over the last five reporting periods.
- The child death rate for Aboriginal and Torres Strait Islander children was 2.2 times the rate for non-Indigenous children.

Significant developments in Queensland child protection 2013–14

On 30 June 2014, the Commission for Children and Young People and Child Guardian (CCYPCG) ceased operations in preparation for the establishment of the new Queensland Family and Child Commission (QFCC) and enactment of the *Family and Child Commission Act 2014* (the Act) on 1 July 2014. This was in line with the recommendations made by the Queensland Child Protection Commission of Inquiry in its report *Taking Responsibility: A Roadmap for Queensland Child Protection*, which included 121 recommendations to reform the Queensland child protection system.

Under Part 3 (sections 25–29) of the *Family and Child Commission Act 2014*, the QFCC has the responsibility, formerly held by the CCYPCG, for the maintenance of the Queensland Child Death Register. Under the Act, the QFCC is also required to classify, analyse and conduct research, make recommendations about laws, policies, practices and services and provide access to data contained in the Child Death Register to persons undertaking research to help reduce the likelihood of child deaths. The Act also retained the requirement that the Principal Commissioner must prepare an annual report in relation to child deaths in Queensland.

Whilst this report has been prepared by the QFCC, for the period 2013–14 to which this report relates, the research and activities referred to were all undertaken by the former CCYPCG.

Child death and injury prevention activities

Child mortality data improvements

In March 2014, the CCYPCG attended the annual meeting of the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG) with the theme of building minimum national death datasets, including reviewing the outcomes of a pilot study using swimming pool drowning data. The meeting also provided an opportunity to learn about emerging issues and improvements in practice in other child death review jurisdictions, as well as a forum to promote the redeveloped Queensland Child Death Register and review of the CCYPCG child death data model.

Submission to improve data quality in relation to Aboriginal and Torres Strait Islander children and young people

The CCYPCG made a submission to the Department of Justice and Attorney-General regarding its review of the *Births, Deaths and Marriages Registration Act 2003*, supporting current and proposed strategies aimed at improving the quality of births and deaths registration data.

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Deaths of Queensland children and young people, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	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	488	46.5	465	43.8	487	45.4	448	41.1	446	41.0	43.5
Cause of death											
Diseases and morbid conditions	402	38.3	390	36.7	375	35.0	357	32.8	343	31.5	34.8
Explained diseases and morbid conditions	357	34.0	344	32.4	331	30.9	327	30.0	323	29.7	31.4
Unexplained diseases and morbid conditions	45	4.3	46	4.3	44	4.1	30	2.8	20	1.8	3.4
<i>SIDS and undetermined causes (infants)</i>	42	4.0	45	4.2	39	3.6	30	2.8	19	1.7	3.3
<i>Undetermined > 1 year</i>	3	*	1	*	5	0.5	0	0.0	1	*	*
External causes	86	8.2	74	7.0	111	10.3	87	8.0	73	6.7	8.0
Transport	27	2.6	30	2.8	52	4.8	28	2.6	31	2.8	3.1
Suicide	20	1.9	22	2.1	19	1.8	22	2.0	23	2.1	2.0
Drowning	19	1.8	14	1.3	14	1.3	11	1.0	7	0.6	1.2
Other non-intentional injury-related death	11	1.0	4	0.4	21	2.0	15	1.4	8	0.7	1.1
Fatal assault and neglect	9	0.9	4	0.4	5	0.5	11	1.0	4	0.4	0.6
Cause of death pending	0	0.0	1	*	1	*	4	0.4	30	2.8	0.7
Sudden unexpected deaths in infancy (SUDI)											
Sudden unexpected infant deaths	53	85.2	55	89.0	51	84.8	48	78.0	43	69.9	83.1
Sex											
Female	189 ^a	37.0	207	40.1	210 ^a	40.2	204	38.5	198 ^a	37.3	38.6
Male	298 ^a	55.3	258	47.3	276 ^a	50.1	244	43.7	247 ^a	44.2	48.1
Age category											
Under 1 year	329	529.2	309	500.1	293	487.1	287	466.5	298	484.4	504.0
1–4 years	48	20.3	40	16.5	60	24.6	48	19.4	45	18.1	19.7
5–9 years	28	9.9	28	9.8	35	11.9	31	10.3	39	13.0	11.0
10–14 years	28	9.6	32	11.0	36	12.3	38	12.8	21	7.1	10.6
15–17 years	55	30.8	56	31.2	63	34.9	44	24.2	43	23.6	28.9
Aboriginal and Torres Strait Islander status											
Indigenous	61	75.2	61	73.9	69	82.6	59	69.7	69	81.5	76.3
Non-Indigenous	427	44.1	404	41.2	418	42.3	389	35.7	377	37.5	40.7
Known to the child protection system											
Known to the child protection system	65	50.2	62	41.0	87	53.4	63	38.0	80	47.8	43.8

Data source: Queensland Child Death Register (2009–14)

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

^a Excludes the death of 1 infant whose sex was unknown in 2009–10, 1 infant of indeterminate sex in 2011–12 and 1 infant of indeterminate sex in 2013–14.

- Notes:
1. Data presented here are 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) 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. 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 3 years prior to their death.
 5. Average annual rates have been calculated using the estimated resident population data at June 2011 (the mid-point for the period).

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Child deaths in Queensland: Findings, 1 July 2013 – 30 June 2014

Between 1 July 2013 and 30 June 2014, the deaths of 446 children and young people were registered in Queensland. This chapter examines the causes of these deaths, sex, age, Aboriginal and Torres Strait Islander status, geographical region, socio-economic status and child protection history.

Children and young people in Queensland died at a rate of 41.0 per 100,000 children and young people aged 0–17 years.¹

Cause of death

Table 1.2 (over page) broadly outlines the causes of death for the 446 children and young people whose deaths were registered in 2013–14.²

Deaths from diseases and morbid conditions (natural causes) accounted for the majority of deaths of children and young people registered in 2013–14 (76.9%), occurring at a rate of 31.5 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 16.4% of child deaths, and occurred at a rate of 6.7 deaths per 100,000 children and young people aged 0–17 years. This is comparable to previous reporting periods (with the exception of 2011–12, during which there were atypical higher numbers of transport and fire fatalities). As in previous years, transport incidents were the leading external cause of death, occurring at a rate of 2.8 deaths per 100,000 children and young people.

Sex

Males comprised 55.4% of child deaths in 2013–14, with a rate of 44.2 deaths per 100,000 males aged 0–17 years. In comparison, females made up 44.4%³ of deaths, representing 37.3 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 90.9% of the deaths in this age category (271 deaths).

1–4 years

The leading cause of death for 1–4 year olds was diseases and morbid conditions (29 deaths), followed by other non-intentional injury-related deaths (5 deaths).

5–9 years

Children aged 5–9 years died most frequently of diseases and morbid conditions (21 deaths). Transport was the second leading cause of death (12 deaths).

10–14 years

Diseases and morbid conditions were the leading cause of death for young people in this age category (10 deaths). The leading external cause of death for 10–14 year-olds was transport accidents (5 deaths).

15–17 years

Suicide was the leading cause of death and the leading external cause of death for young people in this age category (19 deaths). Diseases and morbid conditions were the second leading cause of death for young people aged 15–17 years (12 deaths). The number of 15–17 year-olds who died from transport incidents (10 deaths) is the equal lowest recorded (with 2009–10) since the commencement of the child death register in 2004.

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

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

3. Percentages will not sum correctly due to the death of 1 infant, whose sex was indeterminate at the time of registration.

Table 1.2: Cause of death by age category, 2013–14

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
Diseases and morbid conditions	271	29	21	10	12	343	31.5
Explained diseases and morbid conditions	252	29	21	10	11	323	29.7
Unexplained diseases and morbid conditions	19	0	0	0	1	20	1.8
<i>SIDS and undetermined causes (infants)</i>	19	0	0	0	0	19	1.7
<i>Undetermined >1 year</i>	0	0	0	0	1	1	*
External causes	3	12	16	11	31	73	6.7
Transport	0	4	12	5	10	31	2.8
<i>Bicycle</i>	0	0	3	0	0	3	*
<i>Motorcycle</i>	0	0	1	0	0	1	*
<i>Pedestrian</i>	0	4	1	1	1	7	0.6
<i>Quad bike</i>	0	0	1	2	0	3	*
Suicide	0	0	0	4	19	23	2.1
Drowning	0	3	2	0	2	7	0.6
<i>Non-pool</i>	0	1	2	0	2	5	0.5
<i>Pool</i>	0	2	0	0	0	2	*
Other non-intentional injury-related death	0	5	2	1	0	8	0.7
<i>Threats to breathing</i>	0	1	1	0	0	2	*
<i>Exposure to inanimate mechanical forces</i>	0	1	1	0	0	2	*
<i>Exposure to animate mechanical forces</i>	0	1	0	0	0	1	*
<i>Exposure to forces of nature</i>	0	1	0	0	0	1	*
<i>Exposure to smoke, fire and flames</i>	0	1	0	0	0	1	*
<i>Fall</i>	0	0	0	1	0	1	*
Fatal assault and neglect	3	0	0	1	0	4	0.4
Cause of death pending	24	4	2	0	0	30	2.8
Total	298	45	39	21	43	446	41.0
Rate per 100,000	484.4	18.1	13.0	7.1	23.6	41.0	

Data source: Queensland Child Death Register (2013–14)

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

- Notes:
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, 2013–14⁴

Rank	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years
1	Perinatal conditions (235.7 per 100,000)	Congenital anomalies (2.8 per 100,000)	Transport (4.0 per 100,000)	Transport Diseases of the nervous system (1.7 per 100,000)	Suicide (10.4 per 100,000)
2	Congenital anomalies (131.7 per 100,000)	Endocrine, nutritional and metabolic diseases (2.4 per 100,000)	Neoplasms (2.7 per 100,000)	Suicide (1.3 per 100,000)	Transport (5.5 per 100,000)
3	SIDS & undetermined causes (30.9 per 100,000)	Other non-intentional injury (2.0 per 100,000)	Diseases of the nervous system (2.0 per 100,000)	*	Neoplasms (2.2 per 100,000)
4	Diseases of the nervous system (11.4 per 100,000)	Transport Diseases of the respiratory system Neoplasms (1.6 per 100,000)	*	*	*
5	Certain infectious and parasitic diseases (8.1 per 100,000)	*	*	*	*

Data source: Queensland Child Death Register (2013–14)

* Causes of death are not represented in the table where rates have not been calculated (for numbers less than 4).

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

Aboriginal and Torres Strait Islander status

Of the 446 children and young people who died, 69 were identified as Aboriginal and Torres Strait Islander. The child death rate for Aboriginal and Torres Strait Islander children was 2.2 times the rate for non-Indigenous children; with a rate of 81.5 deaths per 100,000 Indigenous children aged 0–17 years, compared with 37.5 deaths per 100,000 for non-Indigenous children. The greatest proportion of Indigenous deaths occurred among children under 1 year (63.8%) followed by 5–9 year-olds. This is similar to patterns of death by age category for non-Indigenous children. Transport incidents were the leading external cause of death for Aboriginal and Torres Strait Islander children and young people in 2013–14, followed by suicide.

4. 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.

Table 1.4: Aboriginal and Torres Strait Islander deaths by cause of death and age category, 2013–14

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	37	2	5	3	1	48	56.7	29.4
Explained diseases and morbid conditions	30	2	5	3	1	41	48.4	28.0
Unexplained diseases and morbid conditions	7	0	0	0	0	7	8.3	1.4
<i>SIDS and undetermined causes (infants)</i>	7	0	0	0	0	7	8.3	1.4
<i>Undetermined >1 year</i>	0	0	0	0	0	0	0.0	*
External causes	3	1	3	3	4	14	16.5	5.9
Transport	0	0	2	1	2	5	5.9	2.6
Suicide	0	0	0	2	2	4	4.7	1.9
Fatal assault and neglect	3	0	0	0	0	3	*	*
Drowning	0	1	0	0	0	1	*	0.6
Other non-intentional injury	0	0	1	0	0	1	*	0.7
Cause of death pending	4	2	1	0	0	7	8.3	2.3
Total	44	5	9	6	5	69	81.5	37.5
Rate per 100,000 (Indigenous)	871.8	24.9	38.0	26.5	37.6	81.5		
Rate per 100,000 (non-Indigenous)	449.8	17.5	10.8	5.5	22.5	37.5		

Data source: Queensland Child Death Register (2013–14)

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

- Notes:
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+)⁵

Remote areas of Queensland recorded the highest rate of child death, with 56.1 deaths per 100,000 children aged 0–17 years living in remote areas. Regional areas recorded the next highest rate of child deaths (42.5 per 100,000), followed by metropolitan areas with 36.9 deaths per 100,000 children.

Remote areas recorded the highest rate of deaths for both diseases and morbid conditions (35.5 per 100,000), and external causes (16.8 per 100,000).

5. Note that ARIA+ and SEIFA breakdowns exclude 11 children whose usual residence was outside of Queensland, 9 died from diseases and morbid conditions, 1 from external causes and 1 from a cause yet to be determined (pending test results). See Appendix 1.3 for usual place of residence data.

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 (49.4 per 100,000). Moderate socio-economic areas recorded a rate of 39.6 per 100,000, while high to very high socio-economic areas recorded the lowest rate of child deaths (30.7 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.

Deaths from diseases and morbid conditions were highest in low to very low socio-economic areas (37.1 per 100,000). However, moderate socio-economic areas recorded the highest rate of death from external causes (11.3 per 100,000).

Children known to the child protection system

Of the 446 children and young people whose deaths were registered in 2013–14, 80 were known to the child protection system. For the purpose of this report, a child is deemed to have been known to the child protection system if, within three years 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 1999* in relation to the child. 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, 52.5% died as a result of diseases and morbid conditions (42 deaths) and 35.0% as a result of external causes (28 deaths). The leading external cause of death for children known to the child protection system were suicides (10 deaths), followed by transport incidents (9 deaths).

In 2013–14, deaths of children known to the child protection system represented a rate of 47.8 deaths per 100,000, compared with 41.0 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 2.5 times the rate for all children in Queensland (16.7 and 6.7 deaths per 100,000 respectively).

Table 1.5: Cause of death of children known to the child protection system by age category, 2013–14

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	16	11	8	5	2	42	2	44	25.1	31.5
Explained diseases and morbid conditions	9	11	8	5	2	35	2	37	20.9	29.6
Unexplained diseases and morbid conditions	7	0	0	0	0	7	0	7	4.2	1.9
<i>SIDS and undetermined causes (infants)</i>	7	0	0	0	0	7	0	7	4.2	1.8
<i>Undetermined >1 year</i>	0	0	0	0	0	0	0	0	0.0	*
External causes	2	5	4	4	13	28	2	30	16.7	6.7
Transport	0	0	3	2	4	9	0	9	5.4	2.8
Suicide	0	0	0	1	9	10	1	11	6.0	2.1
Drowning	0	3	1	0	0	4	0	4	2.4	0.6
Other non-intentional injury	0	2	0	0	0	2	0	2	*	0.7
Fatal assault and neglect	2	0	0	1	0	3	1	4	*	0.4
Cause of death pending	6	3	1	0	0	10	1	11	60.	2.8
Total	24	19	13	9	15	80	5	85	47.8	41.0

Data source: Queensland Child Death Register (2013–14)

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

- Notes:
1. Rates of death for children known to the child protection system are based on the number of distinct children known to the Department of Communities in the 3 year period before the 2013–14 financial year.
 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.

Part II: Deaths from diseases and morbid conditions, 2013–14

Chapter 2 - Diseases and morbid conditions

This section 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 2013–14, the deaths of 343 children and young people were the result of diseases and morbid conditions, a rate of 31.5 deaths per 100,000 children and young people aged 0–17 years in Queensland which, following a consistent decline, represents the lowest rate and number of deaths over the past five reporting periods.
- The most common causes of death as a result of diseases and morbid conditions were certain conditions originating in the perinatal period (13.5 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 (8.5 deaths per 100,000). Together, these causes accounted for 70.0% of the deaths from diseases and morbid conditions.
- Children in their first year of life are particularly vulnerable to diseases and morbid conditions. Infants accounted for 79.0% of deaths from diseases and morbid conditions.
- Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 56.7 per 100,000 Indigenous children aged 0–17 years (compared with 29.4 deaths per 100,000 non-Indigenous children). This rate has fluctuated over the previous reporting periods.

Child death and injury prevention activities

Data requests

The CCYPCG provided data from the Queensland Child Death Register for five data requests related to diseases and morbid conditions. Three were used to inform research and two were for public education and reporting.

Trends and Issues Paper

The CCYPCG released the Trends and Issues Paper, *Notifiable and vaccine-preventable diseases*. This paper examined deaths associated with notifiable and vaccine-preventable diseases in Queensland. The paper advocates for parents and caregivers to make informed decisions about vaccinating their children.

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Deaths from diseases and morbid conditions, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	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	402	38.3	390	36.7	375	35.0	357	32.8	343	31.5	34.8
Explained diseases and morbid conditions	357	34.0	344	32.4	331	30.9	327	30.0	323	29.7	31.4
Unexplained diseases and morbid conditions	45	4.3	46	4.3	44	4.1	30	2.8	20	1.8	3.4
<i>SIDS and undetermined causes</i>	42	4.0	45	4.2	39	3.6	30	2.8	19	1.7	3.3
<i>Undetermined > 1 year</i>	3	*	1	*	5	0.5	0	0.0	1	*	*
Sex											
Female	156 ^a	30.5	178	34.5	166 ^a	31.8	172	32.4	160 ^a	30.2	31.8
Male	245 ^a	45.4	212	38.9	208 ^a	37.8	185	33.1	182 ^a	32.6	37.5
Age category											
Under 1 year	319	513.1	303	490.4	283	470.5	272	442.1	271	440.5	481.1
1–4 years	26	11.0	28	11.6	35	14.3	27	10.9	29	11.7	11.9
5–9 years	19	6.7	20	7.0	24	8.2	23	7.6	21	7.0	7.3
10–14 years	18	6.2	18	6.2	15	5.1	17	5.7	10	3.4	5.3
15–17 years	20	11.2	21	11.7	18	10.0	18	9.9	12	6.6	9.8
Aboriginal and Torres Strait Islander status											
Indigenous	52	64.1	45	54.5	52	62.2	43	50.8	48	56.7	57.4
Non-Indigenous	350	36.1	345	35.2	323	32.7	314	31.3	295	29.4	32.9
Geographical area of usual residence (ARIA+)											
Remote	24	44.8	21	39.3	28	52.2	15	28.1	19	35.5	39.9
Regional	135	34.4	162	40.9	130	32.5	126	31.2	120	29.7	33.7
Metropolitan	230	38.0	192	31.3	203	32.8	206	32.6	195	30.9	33.1
Socio-economic status of usual residence (SEIFA)											
Low to very low	142	33.5	137	32.0	155	35.9	190	43.5	162	37.1	36.4
Moderate	89	42.8	116	55.5	71	33.8	61	28.7	54	25.4	37.3
High to very high	158	37.7	122	28.7	135	31.3	96	21.8	118	26.8	29.2
Known to the child protection system											
Known to the child protection system	35	27.1	39	25.8	51	31.3	28	16.9	42	25.1	23.9
Perinatal conditions											
Perinatal conditions	162	260.2	151	244.4	142	236.1	145	235.7	147	239.0	248.4
<i>Indigenous</i>	14	274.5	20	398.5	16	329.0	23	455.7	22	435.9	390.7

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
Congenital anomalies											
Congenital anomalies	95	9.0	103	9.7	95	8.9	80	7.3	93	8.5	8.7
Indigenous	12	14.8	9	10.9	12	14.4	5	5.9	5	5.9	10.3
Neoplasms (cancers and tumours)											
Neoplasms	31	3.0	34	3.2	27	2.5	27	2.5	20	1.8	2.6
Indigenous	2	*	1	*	3	*	2	*	3	*	*
Infections											
Infections	20	1.9	14	1.3	22	2.1	20	1.8	19	1.7	1.8
Indigenous	5	6.2	2	*	7	8.4	2	*	3	*	*

Data source: Queensland Child Death Register (2009–2014)

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

^a Excludes the death of 1 infant of unknown sex in 2009–10, 1 infant of indeterminate sex in 2011–12 and 1 infant of indeterminate sex in 2013–14.

- Notes:
1.

Data presented here are 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.

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 3 years 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 2011 (the mid-point for the period).

Diseases and morbid conditions: Findings, 2013–14

Between 1 July 2013 and 30 June 2014, 343 children and young people died from diseases and morbid conditions in Queensland, representing 76.9% of all child deaths and a rate of 31.5 deaths per 100,000 children and young people aged 0–17 years.

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 70.0% of all deaths from diseases and morbid conditions.

Table 2.2: Deaths from diseases and morbid conditions by ICD-10 chapter level classification, 2013–14

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)	145	1	0	1	0	147	42.9	13.5
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	81	7	3	1	1	93	27.1	8.5
Diseases of the nervous system (G00–G99)	7	1	6	5	2	21	6.1	1.9
Neoplasms (C00–D48)	3	4	8	1	4	20	5.8	1.8
SIDS and undetermined causes (R95–R99)	19	0	0	0	1	20	5.8	1.8
Certain infectious and parasitic diseases (A00–B99)	5	3	1	1	2	12	3.5	1.1
Endocrine, nutritional and metabolic diseases (E00–E90)	3	6	1	1	0	11	3.2	1.0
Diseases of the respiratory system (J00–J99)	3	4	2	0	0	9	2.6	0.8
Diseases of the circulatory system (I00–I99)	3	1	0	0	2	6	1.7	0.6
Diseases of the digestive system (K00–K93)	1	2	0	0	0	3	0.9	*
Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism (D50–D89)	1	0	0	0	0	1	0.3	*
Total	271	29	21	10	12	343	100.0	31.5
Rate per 100,000	440.5	11.7	7.0	3.4	6.6	31.5		

Data source: Queensland Child Death Register (2013–14)

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

Notes: 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.

Sex

Male children died from diseases and morbid conditions at a rate of 32.6 deaths per 100,000 male children aged 0–17 years, compared to female children with 30.2 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 2013–14 were 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 79.0% of deaths due to diseases and morbid conditions (271 deaths), a rate of 440.5 deaths per 100,000 infants. The infant mortality rate in relation to diseases and morbid conditions (using live births as the denominator) is 4.3 deaths per 1000 live births.

Table 2.3 (over page) shows the age and cause 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 numbers of deaths from diseases and morbid conditions decrease significantly in the post-neonatal period.

Neonatal period

In total, 75.3% (204 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 204 neonatal deaths, 63.7% (130 deaths) occurred on the day of birth and a further 19.6% (40 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 1.1 deaths per 1000 live births (67 deaths). The leading causes of death in the post-neonatal period were SIDS and undetermined causes (25.4%, 17 deaths), congenital malformations, deformations and chromosomal abnormalities (23.9%, 16 deaths), and conditions originating in the perinatal period (19.4%, 13 deaths).

Table 2.3: Age and cause of infant deaths from diseases and morbid conditions, 2013–14

Cause of death	Neonatal (age in days)			Neonatal total <i>n</i>	Post-neonatal (age in months)										Post- neonatal total <i>n</i>	Total infants <i>n</i>
	<1	1-6	7-27		1*	2	3	4	5	6	7	8	9	10	11	
Certain conditions originating in the perinatal period (P00–P96)	90	25	17	132	7	4	1	0	1	0	0	0	0	0	0	145
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	39	13	13	65	11	2	2	0	0	0	0	0	0	0	1	81
SIDS and undetermined causes (R95–R99)	0	1	1	2	3	8	2	2	1	0	0	1	0	0	0	19
Diseases of the nervous system (G00–G99)	0	0	2	2	0	0	1	1	0	3	0	0	0	0	0	7
Certain infectious and parasitic diseases (A00–B99)	0	0	0	0	2	0	1	0	0	0	1	0	1	0	0	5
Endocrine, nutritional and metabolic diseases (E00–E90)	0	0	0	0	1	0	0	1	0	0	1	0	0	0	0	3
Diseases of the circulatory system (I00–I99)	0	1	0	1	0	0	0	0	1	0	0	0	1	0	0	3
Neoplasms (C00–D48)	1	0	1	2	0	1	0	0	0	0	0	0	0	0	0	3
Diseases of the respiratory system (J00–J99)	0	0	0	0	0	1	0	1	1	0	0	0	0	0	0	3
Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism (D50–D89)	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1
Diseases of the digestive system (K00–K93)	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
Total	130	40	34	204	24	16	7	6	4	3	2	1	2	1	1	271

Data source: Queensland Child Death Register (2013–14)

* 28 days to 2 months.

Children aged 1–17 years

For children aged over 1 year, the following findings were evident:

Children aged 1–4 years died from diseases and morbid conditions at a rate of 11.7 deaths per 100,000 children in this age category (29 deaths). The leading cause of death in this age category was congenital malformations, deformations and chromosomal abnormalities (7 deaths).

Children aged 5–9 years died from diseases and morbid conditions at a rate of 7.0 deaths per 100,000 children aged 5–9 years (21 deaths). Neoplasms accounted for the largest number of deaths in this age category (8 deaths).

Children aged 10–14 years had the lowest rate of death from diseases and morbid conditions, dying at a rate of 3.4 deaths per 100,000 children aged 10–14 years (10 deaths). Neoplasms accounted for the largest number of deaths in this age category (5 deaths).

Young people aged 15–17 years died at a rate of 6.6 deaths per 100,000 young people aged 15–17 years (12 deaths). The leading cause of death in this age category was neoplasms (4 deaths).

Aboriginal and Torres Strait Islander status

Forty-eight 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 56.7 deaths per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years (compared with 29.4 deaths per 100,000 non-Indigenous children). This rate has fluctuated over the last five reporting periods.

Geographical area of usual residence (ARIA+)

The highest number of deaths were recorded for children who usually resided in metropolitan areas (195 deaths), compared to 120 in regional and 19 in remote areas. The rate of death was somewhat higher in remote areas (representing 35.5 deaths per 100,000), compared to rates of 30.9 and 29.7 deaths in metropolitan and regional areas respectively. Nine children who died from diseases and morbid conditions normally resided in a jurisdiction outside of Queensland.⁶

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 (162 deaths, 37.1 deaths per 100,000) compared to children residing in high to very high socio-economic areas (118 deaths, 26.8 deaths per 100,000) and moderate socio-economic areas (54 deaths, 25.4 deaths per 100,000).⁷

Children known to the child protection system

Of the 343 children who died from diseases and morbid conditions, 42 (12.2%) were known to the child protection system in the three years 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 (25.1 deaths per 100,000 children known to the child protection system, compared with 31.5 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 diseases of the nervous system.

6. Appendix 1.3 provides additional cause of death information for children and young people who died in Queensland but usually resided in another jurisdiction.
7. Nine children could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

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.⁸ 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.

One hundred and forty-five infants died from perinatal conditions, a rate of 235.7 deaths per 100,000 infants.^{9,10} This has remained relatively stable for the past five 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 (52.4%, 76 deaths), followed by disorders related to the length of gestation and foetal growth (20.0%, 29 deaths). Together these causes accounted for 72.4% of all deaths due to perinatal conditions.

Table 2.4: Deaths due to perinatal conditions by sex, 2013–14

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)	33 ^a	42 ^a	76	123.5
Disorders related to length of gestation and foetal growth (P05–P08)	12	17	29	47.1
Respiratory and cardiovascular disorders specific to the perinatal period (P20–P29)	5	5	10	16.3
Digestive system disorders of foetus and newborn (P75–P78)	7	2	9	14.6
Haemorrhagic and haematological disorders of foetus and newborn (P50–P61)	2	6	8	13.0
Infections specific to the perinatal period (P35–P39)	6	2	8	13.0
Other disorders originating in the perinatal period (P90–P96)	3	1	4	6.5
Conditions involving the integument and temperature regulation of foetus and newborn (P80–P83)	1	0	1	*
Total	69	75	145	235.7
Rate per 100,000	230.8	237.2	235.7	

Data source: Queensland Child Death Register (2013–14)

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

^a Excludes the death of 1 infant whose sex was indeterminate.

Note: 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.

8. 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 2003). The CCYPCG did not 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.

9. All rates in this section have been given for infant populations.

10. Two deaths due to perinatal conditions are not included in these calculations as the children were 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.¹¹ Ninety-three children and young people died from congenital anomalies, at a rate of 8.5 deaths per 100,000 children aged 0–17 years. This is consistent with the rate of deaths due to congenital anomalies over the past five reporting periods. As shown in Table 2.5 (over page), the greatest number of deaths due to congenital anomalies was caused by malformations of the circulatory system (23.7%, 22 deaths), and chromosomal abnormalities, not elsewhere classified (22.3%, 21 deaths). Together these causes accounted for 46.2% of all deaths due to congenital anomalies.

Table 2.5: Deaths due to congenital anomalies by sex, 2013–14

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	10	22	2.0
Chromosomal abnormalities, not elsewhere classified (Q90–Q99)	12	9	21	1.9
Congenital malformations of the nervous system (Q00–Q07)	5	7	12	1.1
Other congenital malformations (Q80–Q89)	3	8	11	1.0
Congenital malformations and deformations of the musculoskeletal system (Q65–Q79)	8	3	11	1.0
Congenital malformations of the urinary system (Q60–Q64)	3	4	7	0.6
Congenital malformations of the respiratory system (Q30–Q34)	2	3	5	0.5
Other congenital malformations of the digestive system (Q38–Q45)	2	2	4	0.4
Total	47	46	93	8.5
Rate per 100,000	8.9	8.2	8.5	

Data source: Queensland Child Death Register (2013–14)

Note: 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).¹² As outlined in Table 2.6, 21 children and young people died from diseases of the nervous system, a rate of 1.9 deaths per 100,000 children aged 0–17 years. The most common types of nervous system diseases were of the myoneural junction and muscle (6 deaths), and systemic atrophies primarily affecting the central nervous system (6 deaths), and systemic atrophies primarily affecting the central nervous system (6 deaths).

Table 2.6: Deaths due to diseases of the nervous system by sex, 2013–14

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Diseases of the myoneural junction and muscle (G70–G73)	1	5	6	0.6
Systemic atrophies primarily affecting the central nervous system (G10–G13)	4	2	6	0.6
Cerebral palsy and other paralytic syndromes (G80–G83)	2	2	4	0.4
Episodic and paroxysmal disorders (G40–G47)	1	2	3	*
Inflammatory diseases of the central nervous system (G00–G09)	1	0	1	*
Other degenerative diseases of the nervous system (G30–G32)	0	1	1	*
Total	9	12	21	1.9
Rate per 100,000	1.7	2.1	1.9	

Data source: Queensland Child Death Register (2013–14)

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

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

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

Neoplasms (cancers and tumours)

Although these terms are not synonymous, the term ‘neoplasm’ is often used interchangeably with words such as ‘tumour’ and ‘cancer’.¹³ 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 2.7, 20 children and young people died from cancers and tumours, a rate of 1.8 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 (8 deaths), followed by neoplasms of lymphoid, haematopoietic and related tissues (4 deaths).

Table 2.7: Deaths due to neoplasms by sex, 2013–14

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)	2	6	8	0.7
Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81–C96)	2	2	4	0.4
Thyroid and other endocrine glands (C73–C75)	0	2	2	*
Bone and articular cartilage (C40–C41)	0	2	2	*
Urinary tract (C64–C68)	1	1	2	*
Mesothelial and soft tissue (C45–C49)	1	0	1	*
Benign neoplasms (D10–D36)	0	1	1	*
Total	6	14	20	1.8
Rate per 100,000	1.1	2.5	1.8	

Data source: Queensland Child Death Register (2013–14)

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

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

Infections

Infections is a hybrid category composed of certain infections and parasitic diseases, diseases of the nervous system, and diseases of the respiratory system.¹⁴ Nineteen children and young people died from infections, a rate of 1.7 per 100,000 children aged 0–17 years. The highest number of infections were caused by other bacterial diseases (6 deaths), followed by influenza and pneumonia (5 deaths).

13. ICD-10 Chapter II, Neoplasms.

14. 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.

Table 2.8: Deaths due to infections by sex, 2013–14

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	4	6	0.6
Influenza and pneumonia (J09–J18)	1	4	5	0.5
Other viral diseases (B25–B34)	1	1	2	*
Viral infections characterised by skin and mucous membrane lesions (B00–B09)	1	1	2	*
Certain zoonotic bacterial diseases (A20–A28)	1	0	1	*
Intestinal infectious diseases (A00–A09)	1	0	1	*
Inflammatory diseases of the central nervous system (G00–G09)	1	0	1	*
Other acute lower respiratory infections (J20–J22)	0	1	1	*
Total	8	11	19	1.7
Rate per 100,000	1.5	2.0	1.7	

Data source: Queensland Child Death Register (2013–14)

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

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

Deaths from notifiable communicable diseases

Communicable diseases (including infectious and parasitic diseases) are those diseases capable of being transmitted from one person to another, or from one species to another. A disease may be made notifiable to state health authorities if there is potential for its control. Most of the notifiable diseases are included on a core list agreed to by all states and territories.¹⁵ The factors considered 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. Three of the deaths from notifiable conditions were due to vaccine-preventable conditions.¹⁶

Table 2.9: Notifiable conditions by sex, 2013–14

Cause of death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>
Influenza ^a	0	1	1
Varicella – zoster virus infection (chickenpox, shingles or unspecified) ^a	1	0	1
Pneumococcal disease (invasive) ^a	1	0	1
Invasive Group A streptococcal infection	0	1	1
Leptospirosis ¹⁷	1	0	1
Total	3	2	5

Data source: Queensland Child Death Register (2013–14)

^a Vaccine-preventable condition

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

16. In Australia, programs of mass immunisation are mostly administered by state and territory Governments. The current National Immunisation Program Schedule (valid from May 2012) includes the following vaccinations: hepatitis B, diphtheria, tetanus, acellular pertussis (whooping cough), inactivated poliomyelitis (IPV), *Haemophilus influenzae* type b (Hib), pneumococcal conjugate, rotavirus, measles, mumps and rubella, meningococcal C, varicella (chicken pox) and human papillomavirus (HVP).

17. One child death is recorded in the data as being due to leptospirosis. Queensland Health advised that this death did not meet the case definition for notification, and was unable to confirm this death as a 'valid' case as there were no supporting pathology testing results.

Part III: Non-intentional injury-related deaths, 2013–14

Chapter 3 - Transport

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

Key findings

- In 2013–14, 31 children and young people died in transport incidents, a rate of 2.8 deaths per 100,000 children aged 0–17 years.
- The numbers of transport-related child fatalities over the last five periods have shown no clear trends, with the number ranging from 27 to 52 deaths (2.6 to 4.8 deaths per 100,000 children aged 0–17 years).
- Transport deaths were the leading external cause of death overall (42.5% of external causes of death for all children).

Child death and injury prevention activities

Data requests

CCYPCG provided Child Death Register data for seven data requests relating to transport incidents. The data provided were used for various reasons, including to inform research, for public education/reporting and to inform policy/program development. Information provided supported research initiatives conducted by Kidsafe QLD, the University of the Sunshine Coast Accident Research (USCAR), and the Queensland Injury Surveillance Unit.

Research and policy submissions

The CCYPCG prepared two submissions in 2013–14 relating to transport using evidence from the Queensland Child Death Register. One submission was to the Queensland Parliament Transport, Housing and Local Government Committee Inquiry into Cycling Issues which outlined specific considerations for young cyclists, including helmet use, improved road safety education and cycle path infrastructure to reduce cycling related fatalities. A submission was also made to the Department of Infrastructure and Transport in response to its *Driveway Safety Design Guidelines Discussion Paper* supporting the introduction of guidelines to design driveways that are safer for young children and to reduce deaths and injury from low speed vehicle run-overs.

Trends and Issues Papers

One Trends and Issues Paper was released which examined child deaths associated with low speed vehicle run-overs in Queensland. The paper advocates for strategies that build layers of protection by changing driver behaviour, environmental design and vehicle safety technologies.

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Transport, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All transport deaths											
Transport	27	2.6	30	2.8	52	4.8	28	2.6	31	2.8	3.1
Incident type											
Motor vehicle	17	1.6	17	1.6	27	2.5	18	1.7	17	1.6	1.8
Pedestrian	7	0.7	8	0.8	11	1.0	6	0.6	7	0.6	0.7
<i>LSVRO</i>	2	*	4	0.4	4	0.4	3	*	4	0.4	*
Motorcycle	1	*	2	*	6	0.6	2	*	1	*	*
Quad bike	1	*	0	0.0	2	*	1	*	3	*	*
Watercraft	1	*	2	*	1	*	0	0.0	0	0.0	*
Other	0	0.0	1	*	5	0.5	1	*	3	*	*
Sex											
Female	10	2.0	10	1.9	19	3.6	12	2.3	11	2.1	2.4
Male	17	3.2	20	3.7	33	6.0	16	2.9	20	3.6	3.9
Age category											
Under 1 year	1	*	1	*	4	6.6	0	0.0	0	0.0	*
1–4 years	8	3.4	5	2.1	11	4.5	6	2.4	4	1.6	2.8
5–9 years	4	1.4	4	1.4	4	1.4	6	2.0	12	4.0	2.0
10–14 years	4	1.4	6	2.1	8	2.7	4	1.3	5	1.7	1.8
15–17 years	10	5.6	14	7.8	25	13.8	12	6.6	10	5.5	7.9
Aboriginal and Torres Strait Islander status											
Indigenous	0	0.0	4	4.8	9	10.8	7	8.3	5	5.9	6.0
Non-Indigenous	27	2.8	26	2.7	43	4.3	21	2.1	26	2.6	2.9
Geographical area of incident location (ARIA+)											
Remote	3	*	3	*	7	13.1	3	*	6	11.2	8.2
Regional	18	4.6	15	3.8	35	8.8	15	3.7	20	4.9	5.2
Metropolitan	5	0.8	12	2.0	9	1.5	10	1.6	5	0.8	1.3
Socio-economic status of incident location (SEIFA)											
Low to very low	14	3.3	17	4.0	34	7.9	15	3.4	8	1.8	4.1
Moderate	9	4.3	7	3.3	6	2.9	4	1.9	13	6.1	3.7
High to very high	3	*	6	1.4	11	2.6	9	2.0	10	2.3	1.8
Known to the child protection system											
Known to the child protection system	9	7.0	4	2.6	15	9.2	12	7.2	9	5.4	6.0

Data source: Queensland Child Death Register (2009–2014)

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

- Notes:
1. Data presented here are 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. 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 3 years prior to their death.
 4. ARIA and SEIFA were not able to be calculated for incidents occurring outside of Queensland.
 5. Average annual rates have been calculated using the estimated resident population data at June 2011 (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, scooters, motorised go-carts, horse riding incidents, and specialised industrial vehicles.

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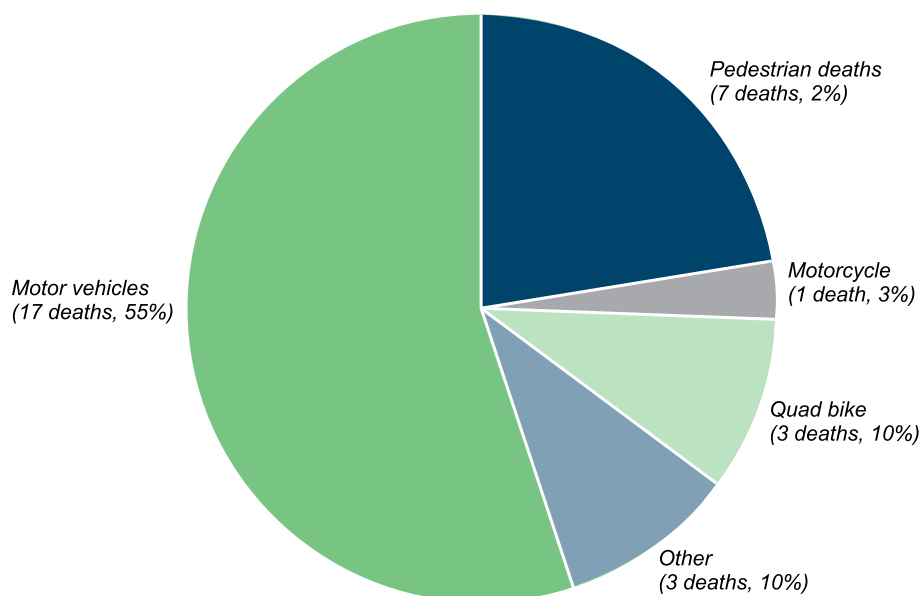
Transport-related fatalities: Findings, 2013–14

Between 1 July 2013 and 30 June 2014, 31 children and young people died as a result of transport incidents at a rate of 2.8 deaths per 100,000 children aged 0–17 years in Queensland.¹⁸ The rate of transport deaths is consistent with the last reporting period. Data trends since 2004 shows 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 (55%), followed by pedestrian deaths (23%). This pattern is similar with that observed in previous years.

Figure 3.1: Nature of transport fatality, 2013–14



Data source: Queensland Child Death Register (2013–14)

Sex

Males accounted for 64.5% of transport deaths (20 deaths). This relationship is consistent with previous reporting periods. 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.¹⁹

Age

Children aged 5–9 years experienced the greatest number of deaths as a result of transport incidents, at a rate of 4.0 deaths per 100,000 5–9 year olds (12 deaths, 38.7%).

The highest rate of transport deaths was for 15–17 year olds (10 deaths, 5.5 deaths per 100,000 15–17 year olds). In eight of the ten 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 31 transport deaths, five were Aboriginal and Torres Strait Islander children and young people (16.1%, 5.9 deaths per 100,000 Indigenous children).

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

19. 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+)²⁰

Children and young people who usually resided in regional areas had the highest number of deaths as a result of transport incidents, accounting for 18 deaths (4.5 deaths per 100,000 children, 58.1%), compared to six from each of remote and metropolitan areas.²¹

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-six of the 31 transport fatalities (83.9%) 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.²²

Socio-economic status of usual residence (SEIFA)²³

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 3.2 deaths per 100,000 from moderate socio-economic areas (13 deaths) and 2.7 deaths per 100,000 (12 deaths) from low to very low socio-economic areas. Children from high to very high socio-economic areas had a rate of 1.1 deaths per 100,000.²⁴

Children known to the child protection system

Of the 31 children who died in transport incidents, nine were known to the child protection system.

Motor vehicle incidents

Table 3.2 below illustrates the role of the child or young person in motor vehicle fatalities in Queensland in 2013–14. In ten of the 17 fatalities the child or young person was a passenger in the motor vehicle and for the remaining seven the young person was the driver.

Table 3.2: Motor vehicle incidents by role, age category and sex, 2013–14

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
Drivers	6	1	7	0.6
10–14 years	1	0	1	*
15–17 years	5	1	6	3.3
Passengers	4	6	10	0.9
5–9 years	3	3	6	2.0
10–14 years	1	0	1	*
15–17 years	0	3	3	*
Total	10	7	17	1.6
Rate per 100,000	1.9	1.3	1.6	

Data source: Queensland Child Death Register (2013–14)

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

Notes: 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.

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20. 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.
21. One child could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.
22. Australasian College of Road Safety (2012). *Rural and Remote Road Safety: Fact Sheet*.
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. One child could not be classified as their usual place of residence was outside Queensland. See Appendix 1.3 for details.

Pedestrians

Seven children and young people died as pedestrians in 2013–14 (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 involved younger children between 1–4 years of age. Drivers tend to be family members, with vehicles reversing at the time of impact. In 2013–14, four deaths occurred due to low speed vehicle run-overs. In two instances, the vehicle was reversing at the time, whilst the other two vehicles were moving forwards. The number of low speed vehicle run-overs has remained relatively stable in the last five reporting periods.

Table 3.3: Pedestrian incidents by type, age category and sex, 2013–14

Age category	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>
Low speed vehicle run-over			
1–4 years	0	3	3
5–9 years	0	1	1
Total	0	4	4
Road or railway crossing			
1–4 years	0	1	1
Total	0	1	1
Other			
10–14 years	0	1	1
15–17 years	0	1	1
Total	0	2	2

Data source: Queensland Child Death Register (2013–14)

Motorcycles and quad bikes

One child (male) died in a motorcycle incident in 2013–14. The fatality occurred off-road with the child solely operating the motorcycle.

Three children (2 males and 1 female, aged 12 years and under) died in quad bike incidents. In two of the incidents the child was operating the vehicle. One child was reported as not wearing a helmet at the time of the incident. It is recommended that children under 12 years be restricted from operating a quad bike of any size due to the physical strength and experience required to operate a quad bike.²⁵ At the time of reporting, the Deputy State Coroner was conducting an inquest with the view to developing recommendations into reducing the likelihood of quad bike deaths.

Other

Three male children (aged 5–9 years) died while riding bicycles on or across roadways. In each of the bicycling deaths, at least one of the following risk factors were identified:

- no/ineffective helmet usage
- no active supervision while riding on the roadway, and
- ineffective braking mechanisms.

25. CCYPCG (2013). Trends and Issues paper: *Child deaths – risk of death in off-road transport incidents*.

Multiple fatalities

Seven children and young people died in four motor vehicle incidents that involved multiple fatalities in 2013–14 (including incidents where adults also died). Of these, three incidents involved the deaths of two children and one incident involved the death of one child and at least one adult.

Highway fatalities

Of the 17 children and young people who died in motor vehicle incidents, nine died on highways (speed limit greater than or equal to 100km/h). Six of these nine children were in the 5–9 year age category (66.7%). There were three fatalities on major roads (speed limit between 60 and 100km/h) and three on rural roadways.

Charges and criminal proceedings

Of the 31 transport fatalities in 2013–14, driving-related charges were laid for five incidents (16.1%) (based on information available at the time of reporting). These charges included dangerous operation of a motor vehicle causing death, failure to stop at a road incident, driving without due care and attention, disqualified driving, driving unaccompanied, exceeding registered carrying capacity and drink driving. 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 seven deaths of children and young people in off-road transport environments in 2013–14. Three of these incidents involved quad bikes, one a motorcycle and three were pedestrian incidents.

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 2013–14. The most prevalent risk-factors for child and young person transport-related fatalities were:

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

The highest number of transport fatalities was of young people in the 5–9 years age group. The most prevalent risk factors for both youth and adult driver behaviours were:

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

Table 3.4: Summary of characteristics of all children and young people who died in transport incidents in 2013–14

Demographics					Known risk factors													Known to child protection system
Sex	Type of Incident	Indigenous	Regional/ remote	Low SES	Speed	Fatigue	Driver ability	Risktaking	Inappropriate seat belts/ restraints	Failure to drive to road condition	Rain or wet road	Dry or dusty road	Uneven road	Alcohol / drug use	Driver/ operator aged 21 or under	Peer passengers	Breach of peer passenger laws	
1–4 years	4	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
M	Pedestrian		✓															
M	Pedestrian		✓															
M	Pedestrian		✓															
M	Pedestrian		✓															
5–9 years	12	2	10	4	2	1	0	0	1	0	2	0	1	2	0	0	0	0
F	Motor vehicle		✓															3
F	Motor vehicle		✓															
F	Motor vehicle		✓															
M	Other																	
M	Motorcycle		✓															
M	Motor vehicle		✓		✓						✓							
M	Other		✓	✓	✓													✓
M	Motor vehicle	✓	✓	✓		✓			✓					✓				✓
M	Motor vehicle		✓	✓							✓							
M	Other	✓	✓	✓														✓
M	Quad bike		✓										✓	✓				
M	Pedestrian																	
10–14 years	5	1	4	2	2	0	4	2	1	1	0	2	2	2	4	1	0	2
F	Motor vehicle	✓		✓	✓		✓	✓							✓			✓
F	Motor vehicle		✓		✓		✓	✓	✓	✓		✓		✓	✓	✓		✓
F	Quad bike		✓				✓					✓	✓		✓			
M	Quad bike		✓										✓		✓			
M	Pedestrian		✓	✓										✓				

Demographics				Known risk factors											Known to child protection system			
Sex	Type of Incident	Indigenous	Regional/ remote	Low SES	Speed	Fatigue	Driver ability	Risktaking	Inappropriate seat belts/ restraints	Failure to drive to road condition	Rain or wet road	Dry or dusty road	Uneven road	Alcohol / drug use	Driver/ operator aged 21 or under	Peer passengers	Breach of peer passenger laws	Known to child protection system
15-17 years	10	2	8	4	2	1	4	0	1	1	3	3	0	2	8	5	0	4
F	Motor vehicle						✓								✓	✓		✓
F	Motor vehicle		✓												✓	✓		
F	Motor vehicle		✓	✓		✓									✓			
F	Motor vehicle		✓		✓		✓		✓	✓		✓		✓	✓	✓		✓
F	Motor vehicle		✓				✓					✓			✓			
M	Motor vehicle				✓										✓			
M	Motor vehicle	✓	✓	✓			✓					✓			✓	✓		✓
M	Motor vehicle		✓	✓							✓							
M	Motor vehicle		✓											✓		✓		
M	Pedestrian	✓	✓	✓											✓			✓
Total	31	5	26	10	6	2	8	2	3	2	3	5	3	6	12	6	0	9

Data source: Queensland Child Death Register (2013–14)

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

Notes: 1. Regional or remote and low SES categories refer to the location of incident as opposed to area of the usual place of residence.

2. 'Driver/operator aged 21 or under' refers only to motor vehicle incidents based on Queensland licensing provisions.

3. 'Fatigue' refers to driver fatigue caused by a range of factors including driving with a lack of quality sleep, the time of day and length of time driving.

4. 'Risk taking behaviour' refers to inappropriate and unsafe driving behaviour which may result in perceived thrill including hooning, racing, dragging, and drifting.

5. 'Driver ability' refers to the ability of the driver to effectively control the vehicle with an understanding, awareness and ability to react appropriately to hazards. Driver ability is impacted by the driver's physical and mental ability and level of cognition, perception and insight.

6. 'Alcohol/drug use' includes other individuals involved in the transport incident as well as the child or young person.

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 3468 QAS responses for transport incidents, including both fatal and non-fatal injuries, between 1 July 2013 and 30 June 2014. 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, 2013–14

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)	122	332	381	414	928	2177
Motorcycle	0	10	47	133	164	354
Bicycle	0	8	48	116	84	256
Pedestrian	0	22	29	36	35	122
Quad bike/ATV	0	5	12	13	19	49
Unknown method of transport	9	60	92	170	179	510
Total	131	437	609	882	1409	3468

Data Source: Queensland Ambulance Service (2013–14)

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Part III: Non-intentional injury-related deaths, 2013–14

Chapter 4 - Drowning

This section provides details of child deaths from drowning.

Key findings

- Seven children and young people drowned in Queensland in 2013–14. This was the lowest number of drowning deaths for children aged 0–17 years since reporting began in 2004–05. The highest numbers of drowning deaths (19) occurred in 2008–09 and 2009–10.
- Drowning is not currently the leading external cause of death for children aged 1–4 years. The number of drowning deaths for this age group is the lowest since reporting began in 2004–05.
- The number of child deaths from drowning in private swimming pools is the equal lowest recorded (2 deaths, equal to 2010–11).
- No children drowned in bathtubs during the 2013–14 period.

Child death and injury prevention activities

Data requests

There were 15 requests for data relating to drowning incidents during 2013–14. Of these, three were used for research purposes, eleven for public education/reporting and one for policy/program development.

Swimming pool legislation and drowning prevention activities

The CCYPCG provided data regarding drowning deaths to the Queensland Injury Surveillance Unit and Department of Housing and Public Works to inform the administration of swimming pool fencing legislation and a related immersion notification program.

Data was also provided to the Royal Life Saving Society – Australia to inform its National Drowning Report and related drowning prevention activities.

Trends and Issues Papers

One Trends and Issues paper was released in 2013–14. This paper related to swimming pool safety and advocated for strategies that build layers of protection through active supervision, maintenance and compliant use of fencing and gates, and water safety awareness training.

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Drowning, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All drowning deaths											
Drowning	19	1.8	14	1.3	14	1.3	11	1.0	7	0.6	1.2
Pool drownings											
Pool drownings	7	0.7	3	*	4	0.4	8	0.7	2	*	0.4
<i>Public pools</i>	2	*	1	*	1	*	0	0.0	0	0.0	*
<i>Private pools</i>	5	0.5	2	*	3	*	8	0.7	2	*	0.4
Non-pool drownings											
Non-pool drownings	12	1.1	11	1.0	10	0.9	3	*	5	0.5	0.8
<i>Static inland waterways</i>	0	0.0	1	*	0	0.0	0	0.0	2	*	*
<i>Rural water hazards</i>	5	0.5	0	0.0	1	*	2	*	1	*	*
<i>Dynamic inland waterways</i>	1	*	3	*	3	*	0	0.0	2	*	*
<i>Bathtubs</i>	2	*	1	*	4	0.4	0	0.0	0	0.0	*
<i>Beach/ocean</i>	1	*	0	0.0	1	*	1	*	0	0.0	*
<i>Other</i>	3	*	6	0.6	1	*	0	0.0	0	0.0	*
Sex											
Female	6	1.2	6	1.2	3	*	3	*	2	*	0.8
Male	13	2.4	8	1.5	11	2.0	8	1.4	5	0.9	1.6
Age category											
Under 1 year	3	*	1	*	1	*	0	0.0	0	0.0	*
1–4 years	10	4.2	5	2.1	7	2.9	8	3.2	3	*	2.7
5–9 years	4	1.4	3	*	2	*	1	*	2	*	*
10–14 years	2	*	3	*	2	*	0	0.0	0	0.0	*
15–17 years	0	0.0	2	*	2	*	2	*	2	*	*
Aboriginal and Torres Strait Island status											
Indigenous	3	*	3	*	1	*	1	*	1	*	*
Non-Indigenous	16	1.7	11	1.1	13	1.3	10	1.0	6	0.6	1.1
Geographical area of usual residence (ARIA+)											
Remote	4	7.5	1	*	2	*	0	0.0	0	0.0	*
Regional	8	2.0	12	3.0	6	1.5	7	1.7	3	*	1.8
Metropolitan	7	1.2	0	0.0	4	0.6	4	0.6	4	0.6	*
Socio-economic status of usual residence (SEIFA)											
Low to very low	12	2.8	11	2.6	5	1.2	5	1.1	5	1.1	1.8
Moderate	3	*	2	*	4	1.9	3	*	1	*	*
High to very high	4	1.0	0	0.0	3	*	3	*	1	*	*
Known to the child protection system											
Known to the child protection system	8	6.2	2	*	6	3.7	5	3.0	4	2.4	3.1

Data source: Queensland Child Death Register (2009–2014)

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

- Notes:
1. Data presented here are 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. 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 3 years 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 2011 (the mid-point for the period).
 6. The non-pool drowning category of 'other' includes flood-related drownings.

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Drowning: Findings, 2013–14

Between 1 July 2013 and 30 June 2014, seven children and young people drowned in Queensland, representing a rate of 0.6 deaths per 100,000 children aged 0–17 years. This was the lowest number of drowning deaths since reporting began in 2004–05,^{26,27} The highest annual number of drowning deaths was 19, and occurred in 2008–09 and 2009–10.

Types of drowning-related deaths

Five deaths occurred in non-pool water hazards (comprising rural water hazards and static and dynamic inland waterways).

The number of pool drownings recorded (2 deaths) was the lowest since the Child Death Register began in 2004. Both of the pools were private, in-ground pools with 4-sided fencing.

There were no drowning deaths in bathtubs, beaches or oceans during 2013–14.

In all instances, the deaths occurred in water hazards that were not at or around the child's usual residence. These hazards were at the homes of extended family, friends, in the neighbouring area of the child's usual residence or at another public place. Resuscitation was attempted in four 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. Neither of the pool locations was noted to have signs displayed nearby with details of the procedures for cardiopulmonary resuscitation (CPR).

One death occurred in the context of a sudden cardiac death associated with sport or other physical activity.

One additional drowning death, which is not counted here, occurred in the context of an other non-intentional injury-related incident. The death occurred following a fall from a height into water. This death is examined in Chapter 5, *Other non-intentional injury-related deaths*.

Sex

Five of the seven children and young people who drowned in 2013–14 were male. Research has generally found that males drown at up to three times the frequency of females.²⁸

Age

Children aged 1–4 years made up the largest group of drowning deaths (3 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 seven children who drowned identified as Aboriginal and Torres Strait Islander.

Geographical area of usual residence (ARIA+)

Four of the seven drownings were of children who usually resided in metropolitan areas, and three were from regional areas.

26. 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 2013–14. These figures may differ from the number of child drownings that occurred during this 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, states and territories.

27. There was one additional drowning-related death that has not been counted here as it occurred in the context of a fall from a height into water.

28. Royal Life Saving Society – Australia. *National Drowning Report 2013*.

Socio-economic status of usual residence (SEIFA)

There were five drowning deaths in low to very low socio-economic areas. One death was reported for moderate, and one for high to very high socio-economic areas.

Children known to the child protection system

Four of the seven children who drowned were known to the child protection system.

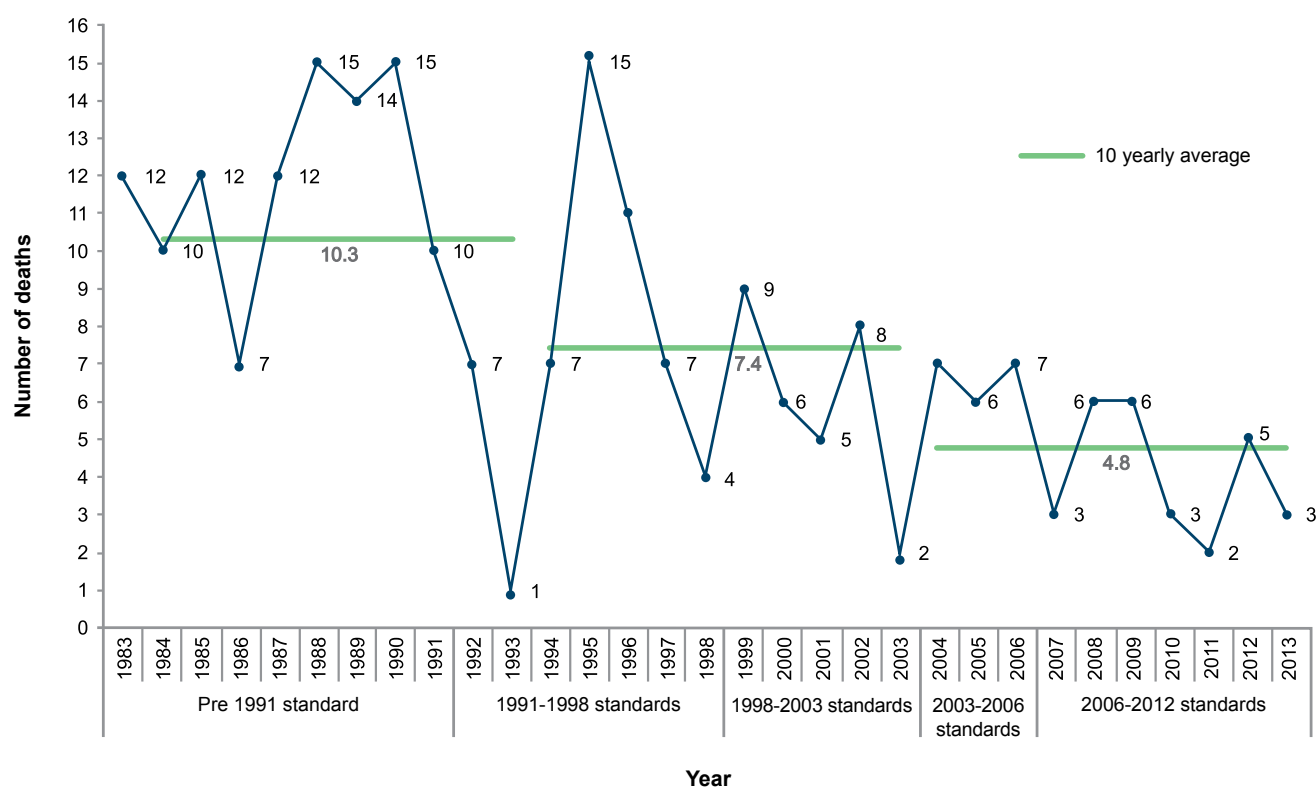
Key issues 2013–14

Swimming pool fencing

Compliant swimming pool fencing is a key contributor in reducing the risk of drowning 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 both pool drowning deaths of young children in 2013–14.

Figure 4.1 tracks the number of drowning deaths of young children over time against changes to fencing requirements. The average annual number of child drownings decreased from 10.3 in the first decade (1984–1993), to 7.4 in the second (1994–2003) and down to 4.8 in the last ten years (2004–2013).

Figure 4.1: Drowning deaths of children 0–4 years by applicable pool standard, 1983–2013



Data sources: Queensland Injury Surveillance Unit 2008, *Injury Bulletin: Domestic pool immersion in Queensland children under 5 years of age*. No. 104; Queensland Child Death Register (2004–2013).

Note: 1. The above data represents the number of deaths which 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

In 2012–13, the Commission developed a drowning supervision model to examine the supervision that occurred in drowning deaths for Queensland children under five. The model is intended to identify common breakdowns that can occur in supervision of children who drown to assist in informing drowning prevention strategies.

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
- the proximity of the supervisor to the child, and
- the 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. Changes to the compliance of pool barriers, such as pool gates being propped open or becoming non-compliant due to wear and tear can occur. Accordingly, it is essential that children under 5 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 2013–14, there were three drowning deaths of children aged under 5, who were not known to be in, on, or around water. While the capacity and proximity of the supervisor were appropriate, there was a noted breakdown in the continuity of supervision in each death (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 1 kilometre. Any water hazard should therefore be considered a potential risk regardless of its location on the property.

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, and establishing a safe play area around the family home can act as a critical means of preventing access to water hazards.

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 2013–14. 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 1–4 years or 5–9 years, three were known to have been weak or 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 2013–14

Demographics				Known risk factors						Known to child protection system	
Sex	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
1–4 years	1	1	1		3		0	2	0		3
F				pool (private)	✓	30–44 mins		✓		non-swimmer	✓
M		✓		pool (private)	✓	>60 mins		✓		not stated	✓
M	✓		✓	dynamic inland waterway	✓	15–29 mins				weak	✓
5–9 years	0	2	2				0	0	0		1
F		✓	✓	static inland waterway	n/a	n/a				competent	✓
M		✓	✓	dam	n/a	n/a				non-swimmer	
15–17 years	0	0	0				0	0	0		0
M				static inland waterway	n/a	n/a				non-swimmer	
M				dynamic inland waterway	n/a	n/a				strong	
Total	1	3	3		3		0	2	0		4

Data source: Queensland Child Death Register (2013–14)

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

Notes: 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's model for classifying caregiver supervision in infant and toddler drownings (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 5 and over are not included in the CCYPCG's 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.

Ambulance callouts for drowning and near drowning incidents

The Queensland Ambulance Service (QAS) has provided data on the number of ambulance responses to immersion incidents involving children in 2013–14, where children may have drowned or experienced near drowning. Table 4.3 shows the total number of QAS responses, and includes both fatal and non-fatal 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), 2009–2014

Age category	2009–10 <i>n</i>	2010–11 <i>n</i>	2011–12 <i>n</i>	2012–13 <i>n</i>	2013–14 <i>n</i>
Under 1 year	22	28	15	28	27
1–4 years	68	91	72	130	94
5–9 years	16	12	20	41	30
10–14 years	27	13	14	27	33
15–17 years	17	29	21	16	25
Total	150	173	142	242	209

Data source: Queensland Ambulance Service (2009–14)

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Part III: Non-intentional injury-related deaths, 2013–14

Chapter 5 - Other non-intentional injury-related deaths

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

Key findings

- In 2013–14, eight children and young people died in other non-intentional injury-related incidents, other than a drowning or transport incident, at a rate of 0.7 deaths per 100,000 children aged 0–17 years. Over the last five reporting periods the number of deaths in non-intentional injury incidents each year has ranged from four to as high as 21.
- There was one other non-intentional injury-related death as a result of fire.
- Two of the deaths were caused by accidental threats to breathing and two were caused by exposure to inanimate mechanical forces.
- Five of the other non-intentional injury-related deaths were children in the 1–4 year age group.

Child death and injury prevention activities

Data requests

The CCYPCG provided Queensland Child Death Register data for three data requests relating to other non-intentional injury-related incidents. Of these, two were for education/reporting purposes and one was for policy/program development. Data requested related to children trapped in cars and those who died after being struck by falling televisions.

Research collaborations and grants

The CCYPCG participated in a cross-government and industry research project for the collaborative development of injury surveillance data capture of product-related injuries and deaths.

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Other non-intentional injury-related deaths, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	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	11	1.0	4	0.4	21	2.0	15	1.4	8	0.7	1.1
Incident type											
Deaths from fire	0	0.0	1	*	11	1.0	0	0.0	1	*	*
Other injuries	11	1.0	3	*	10	0.9	15	1.4	7	0.6	0.9
Sex											
Female	5	1.0	2	*	12	2.3	6	1.1	4	0.8	1.1
Male	6	1.1	2	*	9	1.6	9	1.6	4	0.7	1.1
Age category											
Under 1 year	4	6.4	1	*	4	6.6	5	8.1	0	0.0	*
1–4 years	3	*	0	0.0	4	1.6	4	1.6	5	2.0	*
5–9 years	0	0.0	0	0.0	4	1.4	1	*	2	*	*
10–14 years	0	0.0	1	*	4	1.4	4	1.3	1	*	*
15–17 years	4	2.2	2	*	5	2.8	1	*	0	0.0	*
Aboriginal and Torres Strait Islander status											
Indigenous	2	*	1	*	1	*	0	1.1	1	*	*
Non-Indigenous	9	0.9	3	*	20	2.0	15	1.5	7	0.7	1.1
Geographical area of usual residence (ARIA+)											
Remote	0	0.0	1	*	0	0.0	1	*	1	*	*
Regional	7	1.8	3	*	4	1.0	7	1.7	4	1.0	1.3
Metropolitan	4	0.7	0	0.0	17	2.7	5	0.8	3	*	0.9
Socio-economic status of usual residence (SEIFA)											
Low to very low	5	1.2	2	*	14	3.2	5	1.1	4	0.9	1.4
Moderate	3	*	2	*	3	*	4	1.9	2	*	*
High to very high	3	*	0	0.0	4	0.9	4	0.9	2	*	*
Known to the child protection system											
Known to the child protection system	4	3.1	3	*	3	*	2	*	2	*	*

Data source: Queensland Child Death Register (2009–2014)

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

- Notes:
1. Data presented here are 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. 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 3 years 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 2011 (the mid-point for the period).

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Other non-intentional injury-related deaths: Findings, 2013–14

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).²⁹ Eight children and young people died in non-intentional injury-related incidents between 1 July 2013 and 30 June 2014, representing a rate of 0.7 deaths per 100,000 children aged 0–17 years.³⁰

Types of non-intentional injury-related deaths

Of the non-intentional injury-related deaths, two were caused by accidental threats to breathing and two were from exposure to inanimate mechanical forces. Of the four remaining non-intentional injury-related deaths, there was one death as a result of each of the following: fall from a height; exposure to animate mechanical forces; exposure to forces of nature; and exposure to fire, smoke and flames.

Sex

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

Age

There were five non-intentional injury-related deaths within the 1–4 year age category, two deaths within the 5–9 year age category, and one death of a 10–14 year old child.

Aboriginal and Torres Strait Islander status

One Aboriginal and Torres Strait Islander child died as a result of non-intentional injury in 2013–14.

Geographical area of usual residence (ARIA+)

Four of the children who died as a result of a non-intentional injury in 2013–14 usually resided in a regional area of Queensland, and three were from metropolitan areas. There was one death recorded of a child from a remote area.

Socio-economic status of usual residence (SEIFA)

Four of the eight 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 two were from moderate socio-economic areas.

Children known to the child protection system

Two children who died due to non-intentional injuries were known to the child protection system.

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

30. For 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, 2013–14

Chapter 6 - Suicide

This section provides details of child deaths from suicide.

Key findings

- There were 23 suicides of children and young people during 2013–14. Suicide accounted for just over half of deaths by external (non-natural) causes among children and young people aged 10–17 years.
- Nineteen suicide deaths were 15–17 year olds. Suicide was the leading external cause of death for this age group. Four suicide deaths were young people aged 10–14 years.
- There were four suicide deaths of Aboriginal and Torres Strait Islander young people. The rate of suicide among Aboriginal and Torres Strait Islander children and young people was more than twice that of their non-Indigenous peers.
- Thirteen of the 23 children and young people were identified as having previous suicidal thoughts and/or behaviours including suicidal ideation, having previously made an attempt to suicide or were engaging in self-harming behaviour.
- In six cases, the child or young person stated or implied their intent verbally, online or via text message prior to their death, with all six of the young people stating or implying intent in the 24 hours immediately preceding their death.

Child death and injury prevention activities

Data requests

The CCYPCG provided data from the Queensland Child Death Register for eleven data requests relating to suicide. Requests included suicide data to assist in research and development of programs for the Australian Institute of Suicide Research and Prevention (AISRAP); Office of the State Coroner; the Queensland Mental Health Commission and the University of Queensland Centre for Clinical Research.

Trends and Issues Papers

The CCYPCG released one Trends and Issues Paper in relation to the prevalence of youth suicide in Queensland.

Policy submissions

In 2013–14, the CCYPCG made two relevant policy submissions. One submission was made to the Coronial Council of Victoria regarding proposed amendments to coronial legislation and practice to increase standardised reporting of suicide as a benchmark for national changes to coronial practice, with a particular focus on reducing under-reporting of youth suicide. The second was a response to the National Children's Commissioner's call for submissions regarding intentional self-harm and suicidal behaviour in children. The submission outlined critical issues regarding the reporting of youth suicide, emerging risk factors and trends and recommended engagement and strategic planning with peak bodies in the sector to identify opportunities for mutual advocacy and collaboration.

Committee membership and conferences

The CCYPCG participated as a member of suicide prevention committees during the reporting period including the Queensland Advisory Group on Suicide and National Committee for the Standardised Reporting of Suicide. In September 2013, CCYPCG also presented at the World Suicide Prevention Day Forum *Stigma: A major barrier to suicide prevention*. The CCYPCG's presentation focussed on Social media's role in creating a stigma duality of youth suicide and explored evidence-based research links of stigma influencing youth suicide, strategies for practitioners to reduce stigma in the community and the influence of social media in creating unprecedented influence on suicide risk factors, such as contagion.

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Suicide, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All suicide deaths											
Suicide	20	1.9	22	2.1	19	1.8	22	2.0	23	2.1	2.0
Sex											
Female	6	2.6	10	4.4	6	2.6	7	3.0	6	2.6	3.0
Male	14	5.8	12	5.0	13	5.3	15	6.1	17	6.9	5.8
Age category											
10–17 years	20	4.3	21	4.5	19	4.0	22	4.6	23	4.8	4.4
5–9 years	0	0.0	1	*	0	0.0	0	0.0	0	0.0	*
10–14 years	2	*	4	1.4	6	2.0	12	4.0	4	1.3	1.9
15–17 years	18	10.1	17	9.5	13	7.2	10	5.5	19	10.4	8.5
Aboriginal and Torres Strait Islander status											
Indigenous	3	*	7	20.2	6	17.0	6	16.7	4	11.1	14.7
Non-Indigenous	17	3.9	15	3.4	13	3.0	16	3.6	19	4.3	3.6
Geographical area of usual residence (ARIA+)											
Remote	1	*	5	23.3	2	*	1	*	1	*	*
Regional	10	5.6	9	5.0	7	3.8	7	3.8	15	8.2	5.3
Metropolitan	9	3.4	8	3.0	9	3.3	14	5.1	7	2.6	3.5
Socio-economic status of usual residence (SEIFA)											
Low or very low	9	4.8	8	4.2	8	4.2	11	5.8	10	5.3	4.9
Moderate	5	5.3	11	11.7	5	5.3	5	5.3	8	8.5	7.2
High or very high	6	3.2	3	*	5	2.6	6	3.1	5	2.6	2.6
Known to the child protection system											
Known to the child protection system	5	3.9	11	7.3	10	6.1	11	6.6	10	6.0	5.8
Method of death											
Hanging	16	3.4	17	3.6	17	3.6	18	3.8	18	3.8	3.6
Jumping/lying in front of moving object	2	*	1	*	1	*	1	*	2	*	*
Gunshot wound	1	*	2	*	0	0.0	1	*	2	*	*
Poisoning	0	0.0	1	*	1	*	1	*	1	*	*
Jumping from a high place	0	0.0	0	0.0	0	0.0	1	*	0	0.0	*
Other	1	*	1	*	0	0.0	0	0.0	0	0.0	*

Data source: Queensland Child Death Register (2009–2014)

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

- Notes:
1. Data presented here are 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. 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. 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 3 years prior to their death.
 6. ARIA and SEIFA were not able to be calculated for children whose usual place of residence was not Queensland.
 7. Average annual rates have been calculated using the estimated resident population data at June 2011 (the mid-point for the period).

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Defining and classifying suicide

In the past, 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.³¹

In the Queensland Child Death Register, all cases where police have indicated that a death is a suspected suicide³² are assessed and categorised using the suicide classification model developed by the CCYCPG (see Appendix 6.1).

In the 2013–14 reporting period, 13 deaths were classified as ‘confirmed’ and ten deaths were categorised as ‘probable’. No deaths were classified as ‘possible or undetermined’.

Coronial findings

At the time of reporting, coronial findings had been finalised for 13 of the 23 suicides. Coroners made a clear statement that the cause of death was suicide in 11 of these cases. In the remaining two cases, suicide as a cause of death was either unable to be determined or was not addressed in the findings.

Suicide: Findings, 2013–14

Twenty-three children and young people suicided during the 2013–14 reporting period. Table 6.2 provides the sex and age breakdowns for all suicides.

Table 6.2: Suicide by sex and age category, 2013–14

Age at death	Female <i>n</i>	Male <i>n</i>	Total <i>n</i>	Rate per 100,000
10–14 years	2	2	4	1.3
12 years	0	1	1	-
13 years	1	1	2	-
14 years	1	0	1	-
15–17 years	4	15	19	10.4
15 years	3	5	8	-
16 years	0	7	7	-
17 years	1	3	4	-
Total 10–17 years	6	17	23	4.8
Rate per 100,000	2.6	6.9	4.8	

Data source: Queensland Child Death Register (2013–14)

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

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

Notes: 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.

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

32. 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 2013–14, there was one case included in the analysis that had not been identified by police as a suspected suicide.

Sex

Seventeen males suicided, at a rate of 6.9 suicides per 100,000 males aged 10–17 years, compared to six females, at a rate of 2.6 suicides per 100,000 females aged 10–17 years. This difference between the sexes is also found in adult suicides. 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.³³

Age

Suicide was the leading external cause of death for young people aged 15–17 years in Queensland (19 deaths), occurring at a rate of 10.4 per 100,000 young people in this age group.

Four children suicided in the 10–14 year age category in 2013–14. Over the last five reporting periods the numbers of suicide deaths of children aged under 15 years have ranged from two to a high of 12 in 2012–13.

Aboriginal and Torres Strait Islander status

Four out of the 23 suicide deaths were Aboriginal and Torres Strait Islander young people. The rate of suicide among Aboriginal and Torres Strait Islander young people was more than twice that of their non-Indigenous peers, with a rate of 11.1 deaths per 100,000 Indigenous people aged 10–17 years compared to 4.3 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.³⁴

Geographical area of usual residence (ARIA+)

Fifteen suicide deaths were young people who resided in regional areas of Queensland, seven were from metropolitan areas and one young person was from a remote area.

Socio-economic status of usual residence (SEIFA)

Ten young people who suicided were from areas with low to very low socio-economic status, eight were from moderate socio-economic areas and five were from high to very high 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.³⁵

Children known to the child protection system

Of the 23 children and young people who died as a result of suicide, 10 were known to the child protection system.³⁶ An increased risk of suicide has been identified among children and young people known to child protection agencies.³⁷ 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.

33. Australian Institute of Health and Welfare (2007). *Young Australians: Their health and wellbeing*.

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

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

36. For the purpose of this report, a child is deemed to have been known to the child protection system if, within 3 years 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 1999 in relation to the child.

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

Circumstances of death

Situational circumstances and risk factors

This section outlines the factors that may have influenced suicidal behaviour in the 23 suicide deaths in 2013–14. This is based on information available to the Commission 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 multifaceted 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’.³⁸ It is widely understood, and confirmed by the CCYPCG’s research, 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 2013–14.

Mental health issues and behavioural problems

Fourteen of the 23 children and young people who suicided had, or were suspected to have had, a mental health issue before their death, including a young person who had both a known and a suspected mental health issue. Depression was the main mental health issue identified (4 cases). Three young people were identified as having an anxiety disorder. Three of the 14 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. Seven young people had accessed a mental health provider prior to their deaths, including one with a known mental health issue.

Table 6.3: Mental health issues, 2013–14

Mental health issues	Total <i>n</i>
Known mental health issue	6
Known to have accessed mental health provider	6
Currently or previously prescribed medication for mental health issue	5
Suspected mental health issue	9
No mental health issue identified	9
Total	23

Data source: Queensland Child Death Register (2013–14)

- Notes:
1. ‘Known mental health issues’ will not sum accurately where young people had both accessed mental health 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. One young person was identified as having both a known mental health issue as well as a suspected undiagnosed mental health issue, therefore sub-totals will not sum accurately.
 4. Young people were recorded as not having a mental health issue where the CCYPCG did not have information to indicate otherwise. This is not an absolute finding in regards to the young person’s mental health.

Alcohol, drug and substance use

Five of the children and young people who suicided were reported to have been known alcohol, drug and/or substance users,³⁹ with alcohol as the most frequently cited substance used (5 cases). One child was reported to have also engaged in volatile substance misuse.

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

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

History of childhood abuse

Eleven young people who suicided had a history of childhood abuse. Eight of the young people were victims of emotional harm and/or neglect, five had been physically abused and one was the victim of familial sexual abuse.⁴⁰ Perpetrators of the abuse were typically from within the family, being the child's parent, step-parent or guardian. Ten of the 11 children who had a history of abuse were also known to the Department of Communities within the three years before their deaths. A history of domestic and family violence within the child's family was also identified for four young people.

Previous suicidal behaviour

Previous suicidal behaviour and/or thoughts of suicide were identified for 13 children and young people. Five young people had previously attempted suicide and of these two had attempted suicide on more than one occasion. Twelve young people were recorded as having experienced suicidal ideation and eight had previously engaged in self-harming behaviour, such as cutting.^{41,42}

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 verbally (4 deaths), via mobile phone text message (2 deaths) and/or in an online forum (1 deaths).⁴³ In all six cases, the young people stated or implied their intent in the 24 hours immediately preceding the suicide. Suicide notes were found in six 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 seven of the 23 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, 2013–14

Contagion influences	Total <i>n</i>
Contagion a clear influencing factor	7
Completed or attempted suicide of a parent	3
Completed or attempted suicide of a friend	2
Completed or attempted suicide of a family member	4
No contagion identified	16
Total	23

Data source: Queensland Child Death Register (2013–14)

Note: 1. Contagion sub-headings will not sum accurately where young people had more than one contagion influence.

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

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

42. Each young person may have experienced more than 1 suicidal behaviour. Therefore, numbers may not sum accurately.

43. Each young person may have stated or implied their intent using more than 1 communication method. Therefore, numbers may not sum accurately.

Precipitating incidents and stressful life events

Precipitating incidents

Precipitating incidents were identified in 20 of the 23 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 6.5 shows the types of precipitating incidents that occurred among children and young people who suicided in 2013–14.⁴⁴

Table 6.5: Types of precipitating incidents, 2013–14

Types of precipitating incidents	Total <i>n</i>
Precipitating incidents identified for child	20
Argument with family member, intimate partner or friend	12
Disciplinary problems with parents or family	4
Transition of residence	3
Transition of education	3
Relationship breakdown	3
Disciplinary problems with teachers or school	3
Parental separation/divorce	2
Victim of bullying	2
Other personal loss	2
Transition of work	1
Body image issues	1
Academic or achievement-related stress	1
Bereaved by suicide	1
Poor intra-familial relationships	1
Unstable accommodation or homelessness	1
Alleged offending or detention	1
Other social stress	1
No precipitating incident/s identified for child	3
Total	23

Data source: Queensland Child Death Register (2013–14)

Notes: 1. 'Precipitating incidents' will not sum accurately where more than 1 factor is identified under each heading.
2. Young people were recorded as not having an identifiable precipitating incident where the CCYPCG 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

Other stressful life events were identified in 19 of the 23 suicides. Other 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 6.6 shows the types of life stressors that occurred among children and young people who suicided in 2013–14.⁴⁵

44. Each young person may have experienced more than 1 precipitating incident and/or life stressor prior to their death. Therefore, numbers may not sum accurately.

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

Table 6.6: Types of other stressful life events, 2013–14

Types of other stressful life events	Total <i>n</i>
Life stressors identified for the child	19
Parental separation/divorce	9
Truancy or disengagement from school	4
Domestic violence	4
Relationship breakdown	3
Disciplinary problems with teachers or school	3
Poor intra-familial relationships	3
Violent or aggressive behaviour	2
Transition of residence	2
Academic or achievement-related stress	2
Alleged offending or detention	2
Family unemployment	2
Victim of bullying	1
Bereaved by death (other than suicide)	1
Bereaved by suicide	1
Transition of work	1
Disciplinary problems with parents or family	1
Abandonment or disownment	1
Family alcohol issues	1
Family mental health issues	1
No other life stressors identified for the child	4
Total	23

Data source: Queensland Child Death Register (2013–14)

Notes:

1. 'Life stressors' will not sum accurately where more than 1 factor is identified under each heading.
2. Young people were recorded as not having an identifiable life stressor where the CCYPCG did not have information to indicate otherwise. This is not an absolute finding in regards to the young person's situation.

The Queensland Ambulance Service attendance data in relation to self-harm or suicidal behaviours of children and young people is unavailable for this report. Data collection and coding procedures of ambulance service responses to psychological and emotional incidents are currently being reviewed and will be available in future editions.

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Part IV: Intentional injury-related deaths, 2013–14

Chapter 7 - Fatal assault and neglect

This section provides details of child deaths from fatal assault and neglect.

Key findings

- Four children died as a result of fatal assault and neglect in Queensland in 2013–14. There have been between four and 11 child deaths from assault and neglect each year since reporting commenced in 2004.
- In three of the four deaths the child was under the age of 1 year. One child was in the 10–14 years age group.
- Three children who were fatally assaulted in 2013–14 were alleged to have been killed by a family member.
- Three children were victims of fatal child abuse. The remaining death was due to domestic homicide.
- Three of the children were known to the children protection system prior to their death.
- Over one-third of child deaths from assault and neglect since 2004 have been of children aged under 1 year (27 of 76 deaths).
- More than half of the child deaths from fatal assault and neglect since 2004 have been of children aged under 5 years (47 of the 76 deaths).

Child death and injury prevention activities

External advice and information sharing

In 2013–14, CCYPCG provided advice to other Queensland government agencies developing new strategic plans and operational services for vulnerable children and young people. The CCYPCG also helped to inform research priorities for the academic sector and identify emerging trends.

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Fatal assault and neglect, 2013–14

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, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All fatal assault and neglect deaths											
Fatal assault and neglect	9	0.9	4	0.4	5	0.5	11	1.0	4	0.4	0.6
Sex											
Female	6	1.2	0	0.0	3	*	3	*	3	*	*
Male	3	*	4	0.7	2	*	8	1.4	1	*	*
Age category											
Under 1 year	2	*	3	*	1	*	6	9.8	3	*	*
1–4 years	1	*	1	*	2	*	3	*	0	0.0	*
5–9 years	1	*	0	0.0	1	*	0	0.0	0	0.0	*
10–14 years	2	*	0	0.0	1	*	1	*	1	*	*
15–17 years	3	*	0	0.0	0	0.0	1	*	0	0.0	*
Aboriginal and Torres Strait Islander status											
Indigenous	1	*	1	*	0	0.0	2	*	3	*	*
Non-Indigenous	8	0.8	3	*	5	0.5	9	0.9	1	*	0.5
Geographical area of usual residence (ARIA+)											
Remote	1	*	0	0.0	0	0.0	1	*	1	*	*
Regional	5	1.3	4	1.0	1	*	6	1.5	2	*	*
Metropolitan	3	*	0	0.0	4	0.6	4	0.6	1	*	*
Socio-economic status of usual residence (SEIFA)											
Low to very low	7	1.7	3	*	3	*	6	1.4	4	0.9	1.1
Moderate	1	*	1	*	0	0.0	2	*	0	0.0	*
High to very high	1	*	0	0.0	2	*	3	*	0	0.0	*
Known to the child protection system											
Known to the child protection system	4	3.1	2	*	2	*	5	3.0	3	*	*
Category of fatal assault or neglect											
Neonaticide	0	0.0	0	0.0	0	0.0	1	*	0	0.0	*
Fatal child abuse	2	*	3	*	3	*	6	0.6	3	*	*
Domestic homicide	1	*	1	*	2	*	1	*	1	*	*
Fatal neglect	1	*	0	0.0	0	0.0	1	*	0	0.0	*
Intimate partner homicide	2	*	0	0.0	0	0.0	0	0.0	0	0.0	*
Peer homicide	2	*	0	0.0	0	0.0	1	*	0	0.0	*
Acquaintance homicide	1	*	0	0.0	0	0.0	0	0.0	0	0.0	*
Stranger homicide	0	0.0	0	0.0	0	0.0	1	*	0	0.0	*

Data source: Queensland Child Death Register (2009–2014)

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

- Notes:
1. Data presented here are 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. 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 3 years 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 2011 (the mid-point for the period).
 6. Definitions of each category are listed under the Abbreviations and Definitions table presented in Appendix 1.2

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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.⁴⁶ *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.⁴⁷

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.

Fatal assault and neglect: Findings, 2013–14

Four children died as a result of fatal assault and neglect in Queensland in 2013–14. Three children and young people were victims of fatal child abuse. The remaining death was due to domestic homicide.⁴⁸

Sex

Three of the children who died were female. The remaining death was a male child.

Age

Three of the four deaths due to fatal assault and neglect were infants under 1 year. One child was aged 10–14 years.

Aboriginal and Torres Strait Islander status

Of the four fatal assault and neglect deaths, three were Aboriginal and Torres Strait Islander children.

Geographic area of usual residence (ARIA+)

Two of the four fatal assault and neglect deaths were of children who resided in regional areas of Queensland. One death was of a children from a metropolitan area and one was from a remote area.

Socio-economic status of usual residence (SEIFA)

In 2013–14, all four children who died from assault and neglect were from low to very low socio-economic areas.

Children known to the child protection system

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

Coronial findings

At the time of reporting, there were no coronial findings for any of the four child deaths. Criminal proceedings were underway for three of the deaths.

46. 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.

47. 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.

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

Level of confirmation

Screening criteria, developed by the CCYPCG, have been used to establish the level of confirmation of fatal assault and neglect that applies to relevant child deaths.⁴⁹ As indicated in Table 7.2, of the four fatal assault and neglect deaths, one was assessed as ‘confirmed’, two assessed as ‘probable’, and one assessed to be ‘possible’.⁵⁰

Table 7.2: Classification of death by level of confirmation, 2013–14

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

Data source: Queensland Child Death Register (2013–14)

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

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

Vulnerability characteristics

Vulnerability characteristics related to the deceased child, their family and the alleged perpetrator are presented in Table 7.3 below.

Table 7.3: Types of vulnerability characteristics, 2013–14

Vulnerability characteristics ⁵¹	Total <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 family⁵²	
The child's family had a child protection history ⁵³	4
The child was known to the Queensland child protection system within 3 years 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	1
At least one of the child's parents had a history of drug or alcohol abuse	1
A sibling is known to have died in the same incident as the child	0
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 ⁵⁴	1
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	1

Data source: Queensland Child Death Register (2013–14)

51. Vulnerability characteristic findings are based on information available to the Commission 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 Commission did not have evidence to suggest it from all available sources.

52. 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.

53. A child protection history refers to any history that the family had with the Department of Communities or an equivalent interstate agency in relation to child protection concerns. This history may or may not relate directly to the subject child but will involve some member of the child's family, for example, the child's siblings or parents.

54. 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.

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Part V: Sudden unexpected deaths in infancy, 2013–14

Chapter 8 - Sudden unexpected deaths in infancy

This section provides details of sudden unexpected infant deaths.

Key findings

- There were 43 cases of sudden unexpected death in infancy (SUDI) in 2013–14, a rate of 69.9 deaths per 100,000 infants (aged under 1 year). Over the last five reporting periods there have been between 43 and 55 SUDI deaths each year.
- Nineteen deaths were attributed to Sudden Infant Death Syndrome (SIDS) and undetermined causes (of the 25 SUDIs with an official cause of death). Official causes of death were still pending for 18 deaths.
- Six of the sudden and unexpected infant deaths were found, following post-mortem examination, to have an explained cause of death. All six infants died as a result of 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.
- Aboriginal and Torres Strait Islander infants are over-represented in SUDI deaths. During 2013–14, they died suddenly and unexpectedly at four times the rate of non-Indigenous infants.

Child death and injury prevention activities

Data requests

The CCYPCG provided data from the Queensland Child Death Register for one data request relating to SUDI deaths to inform research. The information included complex summaries of circumstances of slow suffocation deaths to inform safe sleeping and safe infant handling research undertaken by the University of the Sunshine Coast.

Research collaborations and grants

CCYPCG supported research activities and initiatives with a number of stakeholders including the University of Sunshine Coast trial of a safe sleep enabler, known as Pepi-Pod, for vulnerable infants in high risk shared sleep environments. The CCYPCG was also involved in the development of a survey relating to baby sling carriers for the Queensland University of Technology.

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Sudden unexpected deaths in infancy, 2013–14

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 in Queensland, 2009–2014

	2009–10		2010–11		2011–12		2012–13		2013–14		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	Total <i>n</i>	Rate per 100,000	Total <i>n</i>	Rate per 100,000	Rate per 100,000
All sudden unexpected deaths in infancy (SUDI)											
Sudden unexpected deaths in infancy	53	85.2	55	89.0	51	84.8	48	78.0	43	69.9	83.1
Sex											
Female	14	46.5	21	70.0	20	67.8	20	66.9	20	66.9	64.4
Male	39	121.7	34	107.0	31	101.1	28	88.5	23	72.7	101.1
Aboriginal and Torres Strait Islander status											
Indigenous	18	352.9	10	199.2	11	226.2	9	178.3	12	237.8	246.8
Non-Indigenous	35	61.3	45	79.3	40	72.3	39	69.1	31	54.9	68.7
Geographical area of usual residence (ARIA+)											
Remote	5	147.2	6	183.0	7	220.8	2	*	3	*	145.1
Regional	27	123.6	23	106.1	23	109.2	24	113.2	20	94.4	111.1
Metropolitan	20	54.2	25	67.9	21	58.5	20	53.7	20	53.7	59.0
Socio-economic status of usual residence (SEIFA)											
Low to very low	26	101.5	29	114.1	27	109.2	25	99.3	31	123.2	111.7
Moderate	12	97.6	12	98.3	7	59.1	9	74.6	6	49.7	77.6
High to very high	14	57.7	13	53.8	17	72.1	12	49.4	6	24.7	52.6
Known to the child protection system											
Known to the child protection system	8	6.2	14	9.3	19	11.7	10	6.0	14	8.4	8.0
Unexplained SUDI											
Unexplained SUDI	41	65.9	44	71.2	39	64.8	34	55.3	37	60.1	64.8
<i>Sudden infant death syndrome</i>	34	54.7	36	58.3	34	56.5	25	40.6	13	21.1	47.2
<i>Undetermined causes</i>	7	11.3	8	12.9	5	8.3	5	8.1	6	9.8	10.3
<i>Cause of death pending</i>	0	0.0	0	0.0	0	0.0	4	6.5	18	29.3	7.3
Explained SUDI											
Explained SUDI	12	19.3	11	17.8	12	19.9	14	22.8	6	9.8	18.3
<i>Unrecognised infant illness</i>	10	16.1	9	14.6	7	11.6	7	11.4	6	9.8	13.0
<i>Other non-intentional injury / Sleep accident</i>	2	*	1	*	4	6.6	5	8.1	0	0.0	*
<i>Fatal assault</i>	0	0.0	1	*	1	*	2	*	0	0.0	*

Data source: Queensland Child Death Register (2009–14)

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

- Notes:
1. Data presented here are 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) in each year. ARIA and SEIFA rates are calculated per 100,000 infants under 1 year.
 3. 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 3 years 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 2011 (the mid-point for the period).

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The classification of sudden unexpected deaths in infancy

Sudden unexpected death 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,⁵⁵ 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 1 year of age
- sudden in nature
- unexpected, with no previously known condition that was likely to cause death, and
- no immediately obvious cause of death.

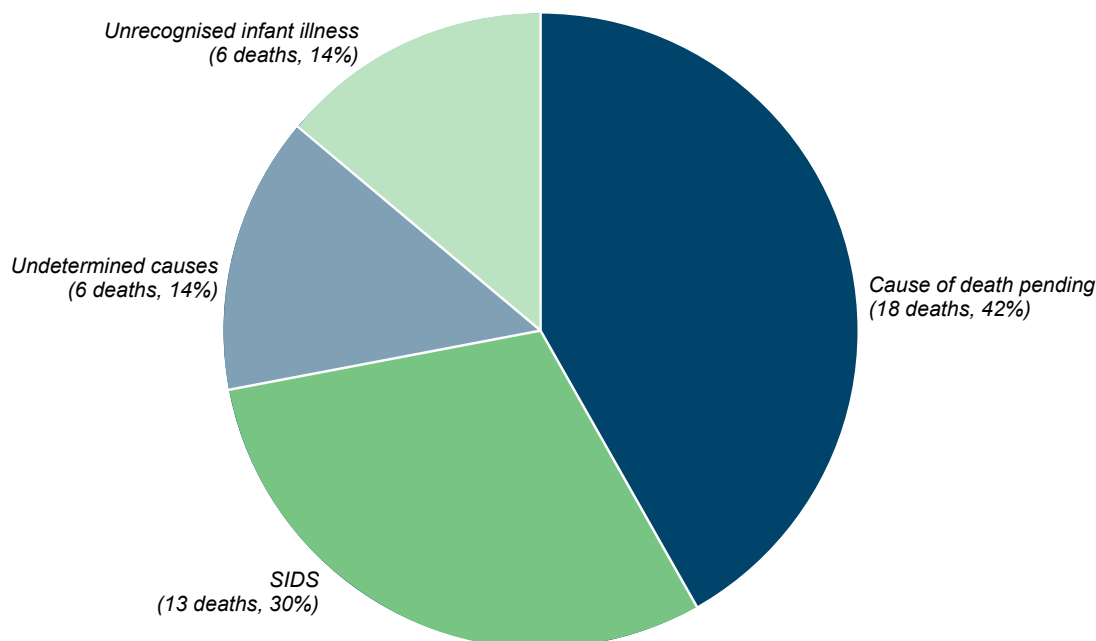
The SUDI grouping includes deaths found to be associated with infections or anatomical/ developmental abnormalities not recognised before death, sleep accidents due to inhalation of gastric contents, and deaths that initially present as sudden and unexpected but are revealed by investigations to be the result of non-accidental injury. It also includes deaths due to Sudden Infant Death Syndrome (SIDS) and infant deaths where a cause could not be determined.⁵⁶

Sudden unexpected deaths in infancy: Findings, 2013–14

There were 43 cases of SUDI in 2013–14, a rate of 69.9 deaths per 100,000 infants (an infant mortality rate of 0.7 per 1000 live births). Over the last five reporting periods there have been between 43 and 55 SUDI deaths each year.

Figure 8.1 shows the cause of death breakdown for cases of SUDI.

Figure 8.1: Sudden unexpected deaths in infancy by cause of death, 2013–14



Data source: Queensland Child Death Register (2013–14)

55. In Queensland, section 8 of the *Coroners Act 2003* 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 the clinical history.

56. 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.

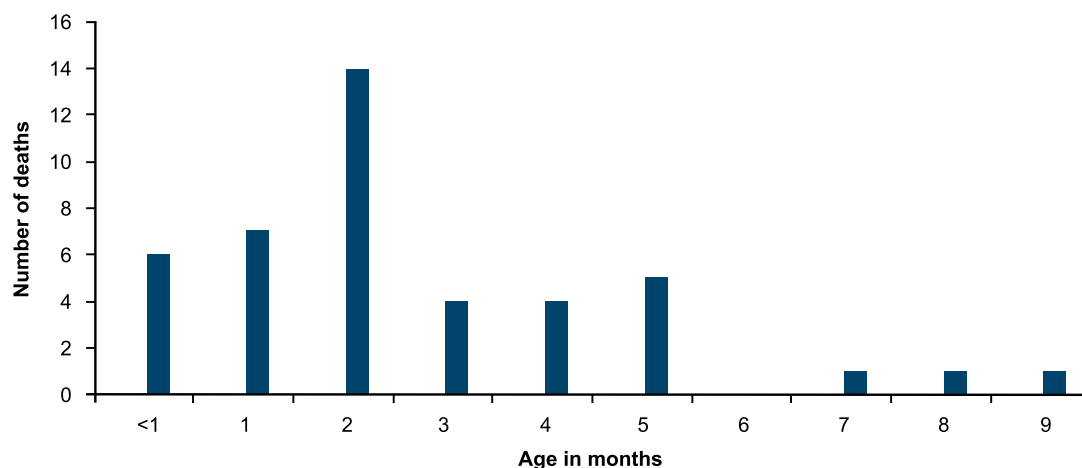
Sex

Of the 43 infants who died, 23 were male and 20 were female.

Age

Figure 8.2 shows SUDIs by age at death. Infants' age ranged from 3 days to 9 months. The majority of deaths occurred among infants aged less than six months (40 of the 43 deaths).

Figure 8.2: Sudden unexpected deaths in infancy by age at death, 2013–14



Data source: Queensland Child Death Register (2013–14)

Aboriginal and Torres Strait Islander status

Twelve of the 43 infants who died suddenly and unexpectedly were identified as Aboriginal and Torres Strait Islander (27.9%). Indigenous infants died suddenly and unexpectedly at four times the rate of non-Indigenous infants, with 237.8 deaths per 100,000 Indigenous infants, compared with 54.9 deaths per 100,000 non-Indigenous infants.

Geographical area of usual residence (ARIA+)

Twenty infants who died were from metropolitan areas of Queensland (94.4 deaths per 100,000 infants) and 20 were from regional areas (53.7 deaths per 100,000). Three SUDI deaths were 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 (31 deaths, 123.2 per 100,000). This was followed by infants from moderate socio-economic areas (6 deaths, 49.7 per 100,000). Six SUDI deaths were infants from high to very high socio-economic areas (24.7 per 100,000).

Children known to the child protection system

Of the 43 infants who died suddenly and unexpectedly, 14 were known to the child protection system (32.6%). Information sources available to the Commission also enable the identification of cases where, while the deceased infant had not come to the attention of the Department of Communities, 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

Cases of SUDI are grouped broadly into two categories:

- **Unexplained SUDIs** – 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 SUDIs** – 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 37 unexplained SUDIs from 2013–14. Nineteen infants had been classified as having an unexplained cause of death following post-mortem examination, and for a further 18 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 Australia⁵⁷ 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, or
- toxicology testing detects non-prescribed but non-lethal drugs.

Further classification of the 19 unexplained SUDIs in 2013–14 identified:

- 13 deaths were Sudden Infant Death Syndrome (SIDS), and
- 6 deaths with cause undetermined.

When considering SIDS alone, the rate of death was 21.1 per 100,000 infants (an infant mortality rate of 0.2 deaths per 1000 live births).

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, and
- history of minor viral respiratory infections and/or gastrointestinal illness in the days leading up to death.

57. 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, and
- 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, and
- some forms of shared sleeping.

A number of known SIDS risk factors were found in these deaths. Table 8.3 (over page) provides a summary of known risk factors for the 37 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, 2013–14

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	6	5	8	19
Stomach	3	0	1	4
Side	3	1	2	6
Unknown	1	0	7	8
Total	13	6	18	37
Position when found				
Back	5	2	6	13
Stomach	3	3	5	11
Side	3	0	2	5
Other	2	0	1	3
Unknown	0	1	4	5
Total	13	6	18	37

Data source: Queensland Child Death Register (2013–14)

Table 8.3: Summary of SIDS risk factors in cases of unexplained SUDI, 2013–14

Cause of death	Indigenous	Infant factors		Parental factors			Environmental factors				Known to 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 (13)	5	2	2	2	6	7	8		6	8	11	4 (5*)
SIDS					✓	✓		bassinet		✓	✓	✓
SIDS	✓			✓			✓	mattress on floor		✓	✓	
SIDS	✓				✓	✓	✓	adult bed		✓	✓	✓
SIDS	✓			✓	✓		✓	adult bed	✓	✓	✓	*
SIDS							✓	adult bed	✓			
SIDS								adult bed			✓	
SIDS					✓	✓	✓	mattress on floor		✓	✓	
SIDS	✓		✓		✓	✓	✓	mattress on floor		✓	✓	
SIDS		✓	✓		✓	✓	✓	adult bed	✓	✓	✓	✓
SIDS						✓		port-a-cot	✓		✓	
SIDS	✓	✓						port-a-cot	✓		✓	
SIDS						✓	✓	mattress on floor	✓	✓	✓	✓
SIDS								port-a-cot	unk			
Undetermined total (6)	2	1	0	0	5	4	3		1	4	5	3 (3*)
Undetermined					✓	✓	✓	mattress on floor		✓	✓	✓
Undetermined	✓				✓	✓	✓	adult bed		✓	✓	✓
Undetermined					✓	✓		bassinet		✓	✓	
Undetermined								adult bed	✓			
Undetermined		✓			✓			cot			✓	
Undetermined	✓				✓	✓	✓	adult bed		✓	✓	✓

Cause of death	Indigenous	Infant factors		Parental factors			Environmental factors				Known to 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 total (18)	3	3	3	1	2	6	8		3	9	12	5 (7*)
Pending					✓	✓		cot		✓	✓	*
Pending		✓	✓				✓	adult bed			✓	
Pending								not stated				
Pending						✓		baby bath		✓		
Pending			✓					not stated		✓	✓	✓
Pending		✓		✓				port-a-cot	✓	✓	✓	
Pending	✓					✓		bassinet		✓	✓	✓
Pending		✓					unk	unk	unk		✓	
Pending							✓	couch		✓	✓	✓
Pending								couch			✓	
Pending							✓	mattress on floor			✓	
Pending					✓			pram/stroller	✓	✓	✓	✓
Pending							✓	adult bed				
Pending	✓					✓	✓	adult bed		✓		*
Pending			✓				✓	adult bed			✓	
Pending						✓	✓	adult bed	✓			
Pending								adult bed			✓	
Pending								cot				
Pending	✓					✓	✓	adult bed		✓		✓
Total (37)	10	6	5	3	13	17	19		10	21	28	12 (15*)

Data source: Queensland Child Death Register (2013–14)

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

n/a = Not applicable – not a sleep-related incident.

unk = Information not recorded/unknown.

* 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.

Notes:

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

Nineteen of the 37 infants whose deaths were classified as unexplained SUDI were sharing a sleep surface with one or more people at the time of death (8 SIDS, 3 undetermined, 8 cause pending). Of these 19 infants:

- 6 were sharing a sleep surface with one other person, and
- 13 were sharing with two or more people.

Evidence of habitual smoking or smoking during pregnancy was found in 10 of the 19 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 11 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.⁵⁸ 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

Ten of the 37 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 four times that of non-Indigenous infants, with 198.1 deaths per 100,000 Indigenous infants, compared with 47.8 deaths per 100,000 non-Indigenous infants.

Explained sudden unexpected deaths in infancy

In 2013–14, six infants of the 43 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 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, 2013–14

Cause of death	Total <i>n</i>
Unrecognised infant illness	6
<i>Certain infectious and parasitic diseases</i>	2
Viral infection of unspecified site (B34)	1
Other sepsis (A41)	1
<i>Diseases of the circulatory system</i>	1
Cardiomyopathy (I42)	1
<i>Diseases of the respiratory system</i>	2
Bacterial pneumonia, not elsewhere classified (J15)	1
Pneumonia, organism unspecified (J18)	1
<i>Congenital malformations, deformations and chromosomal abnormalities</i>	1
Congenital malformations of cardiac septa (Q21)	1
Total	6

Data source: Queensland Child Death Register (2013–14)

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

58. 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.

Death certification

Queensland Health has advised 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).⁵⁹ 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.⁶⁰ 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 (18 of 43) pending death certification at time of reporting.

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

60. Under section 7(3)(a) of the *Coroners Act 2003* a reportable death includes a death that was not reasonably expected to be the outcome of a health procedure.

Part VI: Child death prevention activities, 2013–14

Chapter 9 - Child death prevention activities

Details the prevention activities undertaken by the Commission for Children and Young People and Child Guardian (CCYPCG) in 2013–14 and updates the progress of previous recommendations.

Key achievements in 2013–14

- Provided tailored child death data to 50 external stakeholders to inform their work in preventing child deaths and injuries.
- Published four trends and issues papers focusing on current child death and injury prevention issues impacting on the safety and wellbeing of vulnerable children and young people.
- Prepared five evidence-based submissions to inform the development of child death or injury prevention initiatives.
- Led and supported external stakeholder child death and injury prevention initiatives.

Child death prevention activities: 2013–14

Under sections 143 and 145 of the *Commission for Children and Young People and Child Guardian Act 2000* (the CCYPCG Act, repealed 1 July 2014), the CCYPCG was required to maintain a register of all child deaths in Queensland; analyse the information contained in the register; and conduct research to identify trends and patterns to help reduce the likelihood of child deaths. Section 144 of the Act also allowed for the use of information from the Queensland Child Death Register by persons conducting research to help reduce the likelihood of child deaths. It is these sections of the former CCYPCG Act that are relevant to this reporting period.

In 2014–15, the Queensland Family and Child Commission (QFCC) will also be required to produce an annual report on child deaths in Queensland under section 29 of the *Family and Child Commission Act 2014*. Further, the QFCC, like the former CCYPCG, must maintain a register of information relating to child deaths in Queensland (section 25) and classify and analyse information contained in the register as well as conduct research (section 26). Under section 28 of the *Family and Child Commission Act 2014*, information contained in register will continue to be accessible to persons conducting research to help reduce the likelihood of child deaths.

In 2013–14, the CCYPCG took the opportunity to share its data and analyses to inform the development of child death and injury prevention initiatives. A range of stakeholders (both Government and non-government) are responsible for the development and/or implementation of various prevention strategies, programs, policies and/or research initiatives, and the CCYPCG aimed to provide a solid and contemporary evidence base to support such activities.

A summary of these activities undertaken during 2013–14 is detailed below.

Trends and Issues Papers

The CCYPCG Trends and Issues Papers address topical child death and injury prevention issues. The papers are intended to increase awareness of the issues to ensure Government and non-government key stakeholders, researchers and the broader community are better informed about the factors that can affect the vulnerability of children and young people, and be better placed to drive prevention and intervention efforts to reduce child deaths. Four Trends and Issues Papers were released during 2013–14:

- **Notifiable and vaccine-preventable diseases in Queensland** – this paper advocated for parents and caregivers to make informed decisions about vaccinating their children.
- **Low speed vehicle run-overs** – this paper advocated for strategies that build layers of protection by changing driver behaviour, environmental design and vehicle safety technologies.
- **Swimming pool safety** – advocated for strategies that build layers of protection through active supervision, maintenance and compliant use of fencing and gates, and water safety awareness training.
- **Prevalence of youth suicide in Queensland** – this paper highlighted trends in youth suicides in Queensland.

To promote the papers to all areas of the community, the CCYPCG released media statements and distributed the papers to a broad stakeholder group. The release of the papers generated significant interest from a number of groups, including local and national media coverage. As illustrated in Table 9.1 the papers published during the reporting period were downloaded 11,960 times in total during the reporting period. Further, papers from the previous 2011–12 and 2012–13 reporting periods continued to generate public interest with an additional 10,477 downloads from the former CCYPCG website in 2013–14.

Table 9.1: Trends and Issues Paper by number of public downloads, 2013–14

Title of Trends and Issues Paper	Released	Downloads in 2013–14	Total downloads since release
Child deaths – suicide intent	November 2011	404	1433
Child deaths – fatal assault and neglect	January 2012	644	1823
Child deaths – bicycle safety	February 2012	78	244
Child deaths – driving in flood waters	February 2012	100	444
Child deaths – cyber bullying as a risk factor for youth suicide	March 2012	4920	10627
Child deaths – sudden cardiac deaths	March 2012	88	295
Child deaths – bathtub drowning prevention	May 2012	305	1225
Child deaths – quad bike deaths in Queensland	August 2012	1051	1828
Child deaths – rural drowning	August 2012	314	684
Child deaths – overrepresentation of Aboriginal and Torres Strait Islander youth who suicide	December 2012	473	1587
Child deaths – supervision of children under five around water hazards	December 2012	467	757
Child deaths – under-reporting of youth suicide	February 2013	1079	2940
Child deaths – supervision of children under five around transport hazards	March 2013	204	910
Child deaths – risk of death in off-road transport incidents	May 2013	350	926
Child deaths – notifiable and vaccine-preventable diseases	August 2013	3444	3444
Child deaths – low speed vehicle run-overs	December 2013	715	715
Child deaths – swimming pool safety	December 2013	1099	1099
Child deaths – prevalence of youth suicide in Queensland	January 2014	6702	6702
Total		22437	37683

Data source: Commission for Children and Young People and Child Guardian, Queensland (2011–14) as at 30 June 2014

Data requests

Now in its tenth year of operation, the Queensland Child Death Register is a highly authoritative, comprehensive and contemporary data source for monitoring and reporting on the incidence of child death in Queensland. It is also increasingly being accessed to support research into ways child deaths may be prevented.

The child death review process developed and undertaken by the CCYPCG is valuable over and above traditional statistical reporting, given its ability to investigate beyond causes of death to examine social and situational risk factors as gathered from the analysis of autopsies, coronial, child protection and police files, as well as other relevant data sources. This makes it far more contemporary than other child death data sets and is a function that will continue under the auspices of the QFCC.

As the new custodian of this unique child mortality dataset, the QFCC recognises the value of this strong evidence base in developing prevention initiatives and encourages access to the register by stakeholders to inform their work in preventing child death and injury.

The Child Death Register may be accessed at no cost to organisations or individuals conducting genuine research.⁶¹ 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.

61. '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.

During 2013–14, the CCYPCG received 50 requests for access to the Child Death Register from external stakeholders. Requests included:

- data regarding drowning deaths for provision to the Queensland Injury Surveillance Unit and Department of Housing and Public Works to inform the administration of swimming pool fencing legislation and a related immersion notification program, and to the Royal Life Saving Society – Australia to inform its *National Drowning Report* and related drowning prevention activities
- information and data regarding transport fatalities to support research initiatives conducted by Kidsafe QLD; the University of the Sunshine Coast Accident Research (USCAR); and the Queensland Injury Surveillance Unit
- complex summaries of circumstances of slow suffocation deaths to inform safe sleeping and safe infant handling research undertaken by the University of the Sunshine Coast
- suicide data to assist in research and development of programs for the Australian Institute of Suicide Research and Prevention (AISRAP); Office of the State Coroner; the Queensland Mental Health Commission; and the University of Queensland Centre for Clinical Research, and
- accidental death data including product safety surveillance data for the Australian Competition and Consumer Commission and the Centre for Accident Research and Road Safety – Queensland (CARRS-Q).

Table 9.2 provides an overview of the type of data requested in 2013–14 and the purpose for which it was used.

Table 9.2: Purpose of data request by type of data requested, 2013–14

Type of data requested	Purpose of data request			
	Research	Public education/ reporting	Policy/ program development	Total
Drowning	3	11	1	15
Transport	3	4	1	8
Suicide	4	5	2	11
Accidental	0	2	1	3
Diseases and morbid conditions	3	2	0	5
All external causes	2	0	0	2
All deaths	2	1	0	3
Interstate residents	0	3	0	3
Total	17	28	5	50

Data source: Commission for Children and Young People and Child Guardian, Queensland (2013–14)

The CCYPCG's data was used to conduct new peer reviewed research or as an authoritative source for official statistics in several areas, such as:

- child suicide⁶²
- drowning prevention^{63,64,65}
- low speed vehicle run-overs^{66,67,68}, and
- motorcycle injury.⁶⁹

62. Soole, R., Kölves, K., & De Leo, D. (2014). 'Factors related to childhood suicides: Analysis of the Queensland Child Death Register'. *Crisis* (in print).

63. Royal Life Saving Society - Australia (2013). *National drowning report 2013*. Accessed from www.royallifesaving.com.au.

64. Peden, A., & Queiroga, A.C. (2014). *Drowning deaths in Australian rivers, creeks and streams: A 10 year analysis*. Royal Life Saving Society – Australia. Accessed from www.royallifesaving.com.au.

65. Queiroga, A.C., & Peden, A. (2013). *A 10 year analysis of drowning in children and adolescents aged 5–19 years in Australia: The forgotten 50%*. Royal Life Saving Society – Australia. Access from www.royallifesaving.com.au.

66. Griffin, B., Kimble, R., Wallis, B., Watt, K., & Shields, L. (2014). 'Systematic literature review of incidence rates of low speed vehicle run over incidents in children'. *Wordviews on Evidence-Based Nursing*, 11(2), 98-106.

67. Griffin, B., Kimble, R., Wallis, B., Shields, L., & Watt, K. (2014). 'Risk factors and injury characteristics of low speed vehicle run overs in children aged 0–15 years'. *Journal of Injury Prevention* (online Jan 2014).

68. Griffin, B., Watt, K., Wallis, B., Shields, L., & Kimble, R. (2014). 'Incidence of paediatric fatal and non-fatal low speed vehicle run over events in Queensland, Australia: Eleven year analysis'. *BMC Public Health*, 14, 245.

69. Pym, A.J., Wallis, B.A., Franklin, R.C., & Kimble, R.M. (2013). Unregulated and unsafe: The impact of motorcycle trauma on Queensland children'. *Journal of Paediatrics and Child Health*, 49, 493-497.

It was also used in presentations at several national and international forums and conferences, including:

- the National Suicide Prevention Conference⁷⁰
- Australian College of Midwives Conference,⁷¹ and
- World Conference on Drowning Prevention.^{72,73}

In order to measure the usefulness of the CCYPCG's death data, including the purposes for which it is used and the efficacy of data request procedures, the CCYPCG sought feedback from all recipients of child death data.

Throughout the reporting year, the CCYPCG consistently received positive feedback from stakeholders granted access to the Queensland Child Death Register. In particular, stakeholders indicated the data was both timely and useful in advancing child death prevention initiatives. A number of agencies also commented on the quality of the information and the service provided.

"I would like to thank the Commission for its timely help and information. The availability of child death data is a fantastic and unique service offered in Queensland."

James Cook University

"We appreciate the in-depth quality of the data provided, as this is the only data that can be related to hospital trauma data to give an accurate picture of the kinds of severe trauma that affect Queensland children."

Queensland Children's Medical Research Institute, University of Queensland

In 2014–15, the QFCC will continue to promote data from the Child Death Register to recognised stakeholders and genuine researchers as an evidence base to inform prevention initiatives.

70. Soole, R., Kölves, K., & De Leo, D. (2013). Factors associated with suicide in Queensland children and adolescents: Analyses of the Queensland Child Death Register. Presentation at the National Suicide Prevention Conference, July 2013.

71. Young, J., Craigie, L., Hine, H., Kosiak, M. & Cowan, S. (2013). Safe sleep advice to safe sleep action: Trial of an innovative safe infant sleep enabler – the Pepi-Pod. Poster presentation at Australian College of Midwives 18th Biennial Conference, October 2013.

72. Peden, A., Franklin, R.C., & Scarr, J. (2013). The forgotten 50%: A 10 year analysis of drowning in children aged 0–19 years in Australia. Presentation at World Conference on Drowning Prevention, October 2013.

73. Franklin, R.C., Peden, A., Pearn, J., Watt, K., Leggat, P., Scarr, J., & Kimble, R. (2013). Drowning Deaths in Children with underlying medical conditions: Are they preventable? Presentation at World Conference on Drowning Prevention, October 2013.

Policy submissions

As well as contributing to policy and legislation amendments, the CCYPCG engaged with a number of policy and program initiatives to advocate for the best interests of Queensland children. During 2013–14, the CCYPCG completed five policy submissions based on evidence from the Queensland Child Death Register. The submissions are summarised as follows:

- a submission to the Queensland Parliament Transport, Housing and Local Government Committee Inquiry into Cycling Issues outlined specific considerations for young cyclists, including helmet use, improved road safety education and cycle path infrastructure to reduce cycling related fatalities
- a submission to the Department of Infrastructure and Transport in response to its *Driveway Safety Design Guidelines Discussion Paper*, supporting the introduction of guidelines to design driveways that are safer for young children and reduce deaths and injury from low speed vehicle run-overs
- a submission to the Coronial Council of Victoria regarding its proposed amendments to coronial legislation and practice to increase the standardised reporting of suicide as a benchmark for national changes to coronial practice with a particular focus on reducing the under-reporting of youth suicide
- a submission to the Department of Justice and Attorney-General regarding its review of the *Births, Deaths and Marriages Registration Act 2003*, supporting current and proposed strategies aimed to increase the birth and death registrations of Aboriginal and Torres Strait Islanders in Queensland as well as the benefits of transitioning to electronic registration processes, and
- a submission to the National Children's Commissioner regarding intentional self-harm and suicidal behaviour in children, in which critical issues were outlined on the reporting of youth suicide, emerging risk factors and trends, and which recommended engagement and strategic planning with peak bodies in the sector to identify opportunities for mutual advocacy and collaboration.

Committees

The CCYPCG participated as a member of various committees in this reporting period, including the:

- Australian and New Zealand Child Death Review and Prevention Group
- Queensland Council for Injury Prevention
- Queensland Advisory Group on Suicide
- National Committee for the Standardised Reporting of Suicide
- CARRS-Q Road Safety Researchers Network
- Child Restraint Safety Campaign Committee
- Queensland Births and Deaths Working Group
- Consumer Product Injury Research Advisory Group, and
- Australasian Mortality Data Interest Group.

Australian and New Zealand Child Death Review and Prevention Group⁷⁴

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.

The group is committed to working collaboratively to maximise the potential for the breadth of knowledge held in each jurisdiction to contribute to national consistency in reporting, particularly in relation to risk factor information and the promotion of consistent prevention messages.

74. See also Chapter 10, National child death statistics.

In March 2014, Victoria hosted the ANZCDR&PG's annual meeting, with the theme of building minimum national death datasets, including reviewing the outcomes of a pilot study using swimming pool drowning data. The meeting provided an opportunity to learn about emerging issues and improvements in practice in other child death review jurisdictions. It also provided a forum to promote the redeveloped Queensland Child Death Register (Egis) and the associated review of CCYPCG's child death data model.

Queensland Advisory Group on Suicide

The Queensland Advisory Group on Suicide (QAGS) was established in 2012 with its primary aim to utilise available data and the technical expertise of key stakeholders to monitor and identify suicide trends and opportunities for systemic reform.

QAGS' purpose is to:

- facilitate earlier access to suicide data for strategic analysis and review
- consider the results of death reviews which are known or suspected to be due to suicide
- identify systemic issues that may have prevented such deaths, and
- inform a coordinated cross sectoral and whole of government response to achieve improvements in suicide prevention and suicide risk reduction.

Key achievements of QAGS in 2013–14 include:

- validating media reports to ensure communities and government and non-government agencies have an accurate understanding of suicide trends and characteristics in Queensland, and
- reviewing data collections, methodologies and current applications to identify opportunities to improve the utility of suicide data reporting and meet the evolving needs of suicide prevention stakeholders.

Conferences

CCYPCG presented at the World Suicide Prevention Day Forum held in September 2013. The forum's theme was *Stigma: A major barrier to suicide prevention*. CCYPCG's presentation on *Social media's role in creating a stigma duality of youth suicide* explored evidence-based research links of stigma influencing youth suicide and explored strategies for practitioners to reduce stigma in the community. The presentation examined the specific role of social media of creating an unprecedented influence on suicide risk factors, such as contagion.

External advice and information sharing

The CCYPCG has historically actively supported initiatives and strategies that build awareness of the prevalence of child death and injury in Queensland and more widely across Australia. The CCYPCG played an important role to assist government and non-government stakeholders, as well as the broader community, in their efforts to reduce child deaths and injuries. One way the CCYPCG undertook this was the provision of advice and information.

In 2013–14, the CCYPCG was afforded opportunities to provide advice to other Queensland government agencies developing new strategic plans and operational services for vulnerable children and young people (i.e. the Queensland Mental Health and Drug Strategic Plan) or undergoing a review (i.e. the Child and Youth Mental Health Service Adaptive Response Care Redesign Project). Additionally, CCYPCG's expertise in child death and injury in Queensland has helped to inform research priorities for the academic sector and identify emerging trends in the data to inform other data custodians (e.g. reporting an emerging increased trend of suicides of children under 15 years to Queensland coroners).

The CCYPCG also regularly engaged with other child death review bodies in other jurisdictions to discuss data methodology and analysis, and to provide comparative statistics and advice regarding child death prevention policies and legislation. This work has generated an evidence base that is of value not only in Queensland but across Australian and New Zealand jurisdictions.

Provision of professional training

During 2013–14, the CCYPCG provided professional development training regarding youth suicide risk factors and prevention to social work staff at the Department of Human Services as well as the National Coordinators from StandBy Response Service. These professional development sessions provided opportunities to share information, strategies and resources held by CCYPCG to inform frontline service provision for vulnerable children and young people.

Media releases

CCYPCG continued to promote safety messages to the broader community through the release of media statements. During the reporting period, four media statements were released. These releases resulted in state-wide and national print, television and radio coverage about important child death prevention issues.

Research collaborations and grants

During 2013–14, CCYPCG continued to support and progress research activities and initiatives with a number of stakeholders, including:

- progressing an ARC Linkage Grant with the Australian Institute of Suicide Research and Prevention (AISRAP) focusing on risk factors associated with suicide in Queensland children under 15 years
- supporting a University of the Sunshine Coast trial of a safe sleep enabler, known as a Pépi-Pod, for vulnerable infants in high risk shared sleep environments, and
- participating on a cross-government and industry research project for the collaborative development of injury surveillance data capture of product-related injuries and deaths.

Examples of CCYPCG's role in providing expert advice regarding child death and injury prevention research has included:

- the development of a survey relating to baby sling carriers for the Queensland University of Technology, and
- supporting research activities through the provision of expert advice and peer review of several research manuscripts.

Recommendations

In accordance with the functions specified under section 145 of the *Commission for Children and Young People and Child Guardian Act 2000*, the CCYPCG was able to make recommendations arising from its analysis of the Queensland Child Death Register about improvements to laws, policies and practices aimed at reducing or preventing child deaths. In 2013–14, the CCYPCG did not make any formal recommendations in the annual report, however, the CCYPCG responded to various issues through active participation in responding to policy issues and the provision of data to stakeholders.

Table 9.3 below lists the outstanding recommendation made as a result of previous findings.

Table 9.3: Implementation of previous CCYPCG recommendations, 2004–2007

Agency	Recommendation	Status
2004–05		
Queensland Government	Explore and report on options and strategies to assist the rural sector to identify and address risks to children and young people posed by rural hazards. <i>Reason: The Commission is concerned about the deaths and injuries to children and young people from quad bikes⁷⁵, dams and other rural hazards, and believes that risk factors can be reduced or eliminated.</i>	Partially implemented Amendments to the <i>Rural Plant Code of Practice 2004</i> were undertaken by Workplace Health and Safety Queensland in 2011–12. A national review of the Workplace Health and Safety Codes of Practice and guidance, including managing risks of plant in rural workplaces, was completed during 2012–13.

75. In line with the recommendations of a Victorian coronial inquest into deaths as a result of four-wheel motorcycle incidents, the Commission has adopted the term 'quad bike' to describe these vehicles, rather than 'all-terrain vehicles' as used previously. This inquest identified that the description of these vehicles as all-terrain was a 'serious overstatement of their capabilities' which can create an 'impression of invincibility' for riders.

Part VII: Australian and New Zealand child death statistics: 2012 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 2012. Analysis of statistics for 2012 has shown:
 - the Northern Territory had the highest rate of child death overall (69.9 deaths per 100,000)
 - the Northern Territory had the highest rate of child death from suicide (7.9 deaths per 100,000)
 - New Zealand had the highest rate of child death from transport and other non-intentional injury (3.7 and 2.8 deaths per 100,000 respectively), and
 - Queensland had the highest rate of child death from drowning (3.4 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 Commission for Children and Young People and Child Guardian (replaced by the Queensland Family and Child Commission on 1 July 2014)
 - 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, and
 - 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, it is hoped that this dataset will be included with child death data from all Australian states and territories in the next reporting period.

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

All causes of child deaths: 2012

Table 10.1: Number and rate of child deaths by age and jurisdiction, 2012

Jurisdiction		Age category					Total
		Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
QLD	<i>n</i>	276	55	28	32	48	439
	Rate per 100,000	436.5	22.2	9.3	10.8	26.4	40.5
NSW	<i>n</i>	310	51	45	36	67	509
	Rate per 100,000	315.7	13.4	9.9	8.1	24.4	30.7
SA	<i>n</i>	63	12	10	8	13	106
	Rate per 100,000	311.9	15.2	10.4	8.2	20.9	29.8
VIC	<i>n</i>	226	56	32	37	55	406
	Rate per 100,000	302.6	19.6	9.4	11.2	26.4	32.9
TAS	<i>n</i>	25	3	1	5	6	40
	Rate per 100,000	396.3	*	*	15.4	29.2	34.5
ACT	<i>n</i>	12	<5 ^a	<5 ^a	<5 ^a	<5 ^a	20
	Rate per 100,000	227.4	-	-	-	-	24.4
NT	<i>n</i>	22	6	4	4	8	44
	Rate per 100,000	554.4	40.5	22.6	23.8	82.2	69.9
NZ	<i>n</i>	276	63	30	46	92	507
	Rate per 100,000	446.8	24.7	10.3	15.3	49.3	46.2

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

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

^a Figure not specified where number of deaths is less than 5.

- Notes:
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 age due to the potential identification of individual cases.
 4. Australian Capital Territory data does not include deaths of children and young people awaiting coroner's findings.
 5. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 at www.health.vic.gov.au/ccopmm/index.htm.
 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 2012, 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 all jurisdictions, 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 one jurisdiction.

Table 10.2: Number and rate of child deaths by sex and jurisdiction, 2012

Jurisdiction		Sex	
		Female	Male
QLD	<i>n</i>	190	249
	Rate per 100,000	35.8	44.5
NSW	<i>n</i>	205	304
	Rate per 100,000	25.5	35.7
SA	<i>n</i>	49	57
	Rate per 100,000	28.2	31.3
VIC	<i>n</i>	193	212
	Rate per 100,000	32.0	33.3
TAS	<i>n</i>	14	26
	Rate per 100,000	25.1	43.3
ACT	<i>n</i>	12	8
	Rate per 100,000	30.1	18.9
NT	<i>n</i>	21	23
	Rate per 100,000	69.4	70.3
NZ	<i>n</i>	208	295
	Rate per 100,000	38.9	52.5

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

- Notes:
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 four child deaths in New Zealand where the sex was either unknown or undetermined.
 3. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 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 2012, 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 (28.6 per 100,000), followed by Tasmania (28.5 per 100,000).

Table 10.3: Number and rate of child deaths from diseases and morbid conditions by age and jurisdiction, 2012

Jurisdiction		Age category					Total
		Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
QLD	<i>n</i>	227	30	20	16	16	309
	Rate per 100,000	359.0	12.1	6.6	5.4	8.8	28.3
NSW	<i>n</i>	267	32	31	21	25	376
	Rate per 100,000	271.9	8.4	6.8	4.7	9.1	22.7
SA	<i>n</i>	58	5	7	5	<4 ^a	78
	Rate per 100,000	287.1	6.3	7.3	5.1	*	21.9
VIC	<i>n</i>	204	34	18	30	18	304
	Rate per 100,000	273.1	11.9	5.3	9.1	8.7	24.5
TAS	<i>n</i>	22	3	1	2	5	33
	Rate per 100,000	348.7	*	*	*	24.3	28.5
ACT	<i>n</i>	-	-	-	-	-	17
	Rate per 100,000	*	*	*	*	*	20.7
NT	<i>n</i>	11	2	2	1	2	18
	Rate per 100,000	277.2	*	*	*	*	28.6
NZ	<i>n</i>	186	46	19	22	27	300
	Rate per 100,000	301.1	18.0	6.5	7.3	14.5	27.3

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

^a Figure not specified where number of deaths is less than 4.

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

- Notes:
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 were not available for age categories due to the potential identification of individual cases.
 4. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 at www.health.vic.gov.au/ccopmm/index.htm.
 5. The cause of 44 deaths in New Zealand, 3 deaths in the Northern Territory and 1 death in Queensland are yet to be finalised and are not counted 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 2012, 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 (22.2 per 100,000). New Zealand had the next highest rate of death from external causes, at 12.0 per 100,000.

New Zealand had the greatest rate of transport deaths (3.6 per 100,000) followed by Queensland (3.4 per 100,000).

Drowning deaths occurred at the greatest rate in Queensland (1.3 per 100,000), whilst the rate of suicide deaths was highest in the Northern Territory (7.9 per 100,000).

Table 10.4: Number and rate of child deaths from external causes by jurisdiction, 2012

Jurisdiction		Cause of death					Total
		Transport	Drowning	Other non-intentional injury related death	Suicide	Fatal assault and neglect	
QLD	<i>n</i>	37	14	13	16	8	88
	Rate per 100,000	3.4	1.3	1.2	1.5	0.7	8.1
NSW	<i>n</i>	37	13	17	19	3	89
	Rate per 100,000	2.2	0.8	1.0	1.1	*	5.4
SA	<i>n</i>	9	<4 ^a	<4 ^a	5	<4 ^a	21
	Rate per 100,000	2.5	*	*	1.4	*	5.9
VIC	<i>n</i>	18	<10 ^b	16	25	<10 ^b	72
	Rate per 100,000	1.5	*	1.3	2.0	*	5.8
TAS	<i>n</i>	2	0	1	1	1	5
	Rate per 100,000	*	0.0	*	*	*	4.3
ACT	<i>n</i>	-	-	-	-	-	<5 ^c
	Rate per 100,000	*	*	*	*	*	*
NT	<i>n</i>	3	2	2	5	2	14
	Rate per 100,000	*	*	*	7.9	*	22.2
NZ	<i>n</i>	40	10	30	46	6	132
	Rate per 100,000	3.6	0.9	2.7	4.2	0.5	12.0

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

* Rates have not been calculated for numbers less than 4 or less than 10 for Victorian data.

^a Figure not specified where number of deaths is less than 4.

^b Figure not specified where number of deaths is less than 10.

^c Figure not specified where number of deaths is less than 5.

- Notes:
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. Australian Capital Territory data were not available due to the potential identification of individual cases.
 4. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 at www.health.vic.gov.au/ccopmm/index.htm.
 5. The cause of 44 deaths in New Zealand, 3 deaths in the Northern Territory and 1 death in Queensland are yet to be finalised and are not counted 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 2012, 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 Sudden Infant Death Syndrome (SIDS) are outlined in Table 10.5 below.

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, or
- toxicology screening detects non-prescribed but non-lethal drugs.

The Northern Territory recorded the highest rate of unexplained infant deaths (226.8 per 100,000 infants) followed by Queensland (63.3 per 100,000).

Undetermined deaths of children over the age of 1 year

There are also cases where a cause of death is unable to be determined for children over the age of 1 year. These deaths may occur in any age category, but are most often of children in the 1–4 year age category. The circumstances of these deaths often resemble those of infants, but are precluded from a diagnosis of SIDS as they are over the age of 1.

Table 10.5: Child deaths from SIDS and undetermined causes by age and jurisdiction, 2012

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>	40	1	0	0	0	1	41
	Rate per 100,000	63.3	*	0.0	0.0	0.0	*	3.8
NSW	<i>n</i>	36	7	0	0	1	8	44
	Rate per 100,000	36.7	1.8	0.0	0.0	*	0.5	2.7
SA	<i>n</i>	4	<4 ^a				<4 ^a	7
	Rate per 100,000	19.8	*	*	*	*	*	2.0
VIC	<i>n</i>	15	10	<10 ^b	<10 ^b	<10 ^b	15	30
	Rate per 100,000	20.1	3.5	*	*	*	1.3	2.4
TAS	<i>n</i>	2	0	0	0	0	0	2
	Rate per 100,000	*	0.0	0.0	0.0	0.0	0.0	*
ACT	<i>n</i>	-	-	-	-	-	-	<5 ^c
	Rate per 100,000	*	*	*	*	*	*	*
NT	<i>n</i>	9	0	0	0	0	0	9
	Rate per 100,000	226.8	0.0	0.0	0.0	0.0	0.0	14.3
NZ	<i>n</i>	24	<3 ^d	<3 ^d	<3 ^d	5	7	31
	Rate per 100,000	38.9	*	*	*	2.7	0.7	2.8

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

* Rates have not been calculated for numbers less than 4, or less than 10 for Victorian data.

^a Figure not specified where number of deaths is less than 4.

^b Figure not specified where the number of deaths is less than 10.

^c Figure not specified where the number of deaths is less than 5.

^d Figure not specified where the number of deaths is less than 3.

- Notes:
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. Australian Capital Territory data was not available due to the potential identification of individual cases.
 4. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 at www.health.vic.gov.au/ccopmm/index.htm.
 5. The cause of 44 deaths in New Zealand, 3 deaths in the Northern Territory and 1 death in Queensland are yet to be finalised and are not counted 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 2012, and should not be used to infer the general probability of death for specific cohorts.

Deaths of Indigenous children and young people

Table 10.6: Number and rate of Indigenous child deaths by year of death and jurisdiction, 2008–2012⁷⁶

Jurisdiction		Year				
		2008	2009	2010	2011	2012
QLD	<i>n</i>	62	64	62	63	55
	Rate per 100,000	77.9	78.9	75.1	75.4	64.9
NSW	<i>n</i>	46	31	56	55	46
	Rate per 100,000	52.0	34.7	62.2	60.8	50.6
SA	<i>n</i>	11	11	8	12	13
	Rate per 100,000	74.0	73.1	52.5	77.3	83.0
VIC	<i>n</i>	12	<10 ^a	<10 ^a	<10 ^a	<10 ^a
	Rate per 100,000	62.6	*	*	*	*
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 ^b	<5 ^b	<5 ^b	<5 ^b	0
	Rate per 100,000	*	*	*	*	0.0
NT	<i>n</i>	36	32	27	50	35
	Rate per 100,000	133.0	118.6	100.6	187.6	131.2
NZ	<i>n</i>	207	240	224	203	194
	Rate per 100,000	78.9	90.5	83.5	74.8	70.9

Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

* Rates have not been calculated for numbers less than 10 for Victorian data and less than 5 for Australian Capital Territory data.

^a Figure not specified where number of deaths is less than 10.

^b Figure not specified where number of deaths is less than 5.

- Notes:
1. Rates are calculated per 100,000 Indigenous children aged 0–17 years in each jurisdiction.
 2. Victorian data in this table are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 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 2012, and should not be used to infer the general probability of death for specific cohorts.

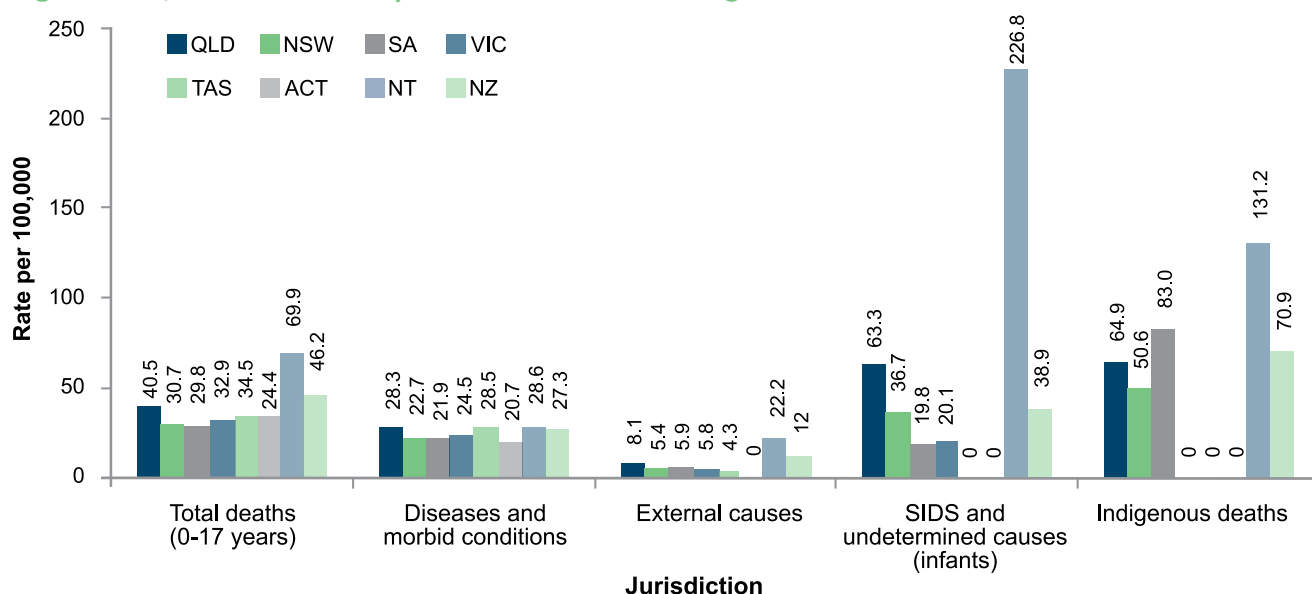
It should be noted that some jurisdictions experience difficulty with the collection of data regarding Aboriginal and Torres Strait Islander status. Challenges are also faced in obtaining accurate population data for Indigenous children and young people in Australia to enable the calculation of rates. 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 2008 to 2012 have also been included in Table 10.6. Based on the available data, in 2012 the Northern Territory had the highest rate of death for Aboriginal and Torres Strait Islander children and young people (131.2 per 100,000), followed by South Australia (83.0 per 100,000). The New Zealand rate of deaths for Māori children was 70.9 per 100,000.

76. 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 2012 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, 2012



Data source: Australian and New Zealand Child Death Review and Prevention Group (2012)

* Rates have not been calculated for numbers less than 4, numbers less than 10 for Victorian data and less than 5 for Australian Capital Territory data.

- Note:
1. Victorian data in this figure are provisional and subject to change. Full data will be available from the upcoming Annual Report for the Year 2012 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 2012, and should not be used to infer the general probability of death for specific cohorts.

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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 the former *Commission for Children and Young People and Child Guardian Act 2000*, the CCYPCG had a statutory obligation to maintain a register of all deaths of children and young people under the age of 18 registered in Queensland. The information in the register was required to be classified according to cause of death, demographic information and other relevant factors. The CCYPCG was required to maintain the register of all child deaths registered in Queensland from 1 January 2004. In this capacity, the CCYPCG had responsibility for the centralised collection and coding of mortality information for both coronial and non-coronial child deaths.

On June 30 2014, the CCYPCG ceased operations in preparation for the establishment of the new Queensland Family and Child Commission (QFCC) and enactment of the *Family and Child Commission Act 2014* (the FCC Act) on 1 July 2014. This was in line with the recommendations made by the Queensland Child Protection Commission of Inquiry in its report *Taking Responsibility: A Roadmap for Queensland Child Protection*, which included 121 recommendations to reform the Queensland child protection system.

Under Part 3 (sections 25-29) of the FCC Act, the QFCC has the responsibility formerly held by the CCYPCG for the maintenance of the Queensland Child Death Register. In line with this, the QFCC is also required to classify, analyse and conduct research, make recommendations about laws, policies, practices and services and provide access to data contained in the Child Death Register to persons undertaking research to help reduce the likelihood of child deaths. Under the FCC Act the Principal Commissioner must prepare an annual report in relation to child deaths in Queensland.

Whilst this report has been prepared by the QFCC for the period 2013–14, the data collection, research and activities referred to were all undertaken by the former CCYPCG. Further, legislation and data sharing arrangements noted in this methodology section refer to these matters as they were in place for the duration of the reporting period (that is, up until 30 June 2014).

The *Annual Report: Deaths of children and young people, Queensland, 2013–14* 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 1 or 2 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 CCYPCG.

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. From 1 July 2014 arrangements made with the former CCYPCG are to be transitioned 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* provided that the Registrar must give notice of the registration of all child deaths to the Commissioner.⁷⁷ The data provided includes the following information:

- the death registration number
- the child's name
- the child's date and place of birth
- the child's usual place of residence
- the child's age
- the child's sex
- the child's occupation, if any
- Aboriginal or Torres Strait Islander status
- the duration of the last illness, if any, had by the child
- the date and place of death
- the cause of death, and
- the mode of dying.⁷⁸

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 2003* defines a reportable death as a death where:

- the identity of the person is unknown
- the death was violent or unnatural
- the death happened in suspicious circumstances
- the death was a health care related death
- a Cause of Death Certificate was not issued or is not likely to be issued
- the death occurred in care
- the death occurred in custody, or
- the 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, or
- was a child in foster care or under the guardianship of the Department of Communities.⁷⁹

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.⁸⁰

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

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

79. Section 9 of the *Coroners Act 2003*.

80. Section 10 of the *Coroners Act 2003*.

To help the CCYCPG fulfil its child death review functions, the Coroners Act imposed an obligation on the State Coroner to notify the 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, and
- the coroner's findings and comments.⁸¹

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

Of the 446 deaths of children and young people registered in 2013–14, 32.7% were reportable under the *Coroners Act 2003* (146 deaths). At the time of reporting, coronial findings had been finalised for 38.4% (56 deaths) of reportable deaths. Autopsy reports, where performed, were provided in all finalised cases and in 40 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 78.1% (114 deaths) of reportable deaths. No cause of death information was available for 20.5% (30 deaths) of children and young people.

Access to other data sources

Section 147 of the *Commission for Children and Young People and Child Guardian Act 2000* (repealed 1 July 2014) enabled other government entities to enter into an arrangement with the CCYPCG to provide information or documents reasonably needed for the child death review functions. By providing such information, another agency does not contravene any statutory confidentiality provisions.

The CCYPCG developed agreements with the following agencies:

- Registry of Births, Deaths and Marriages⁸²
- Office of the State Coroner⁸³
- Department of Communities, Child Safety and Disability Services (including records relating to child safety)
- Queensland Police Service
- Department of Community Safety (including records relating to Emergency Services)
- 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, and
- Department of Education, Training and Employment.

81. Section 45 of the *Coroners Act 2003* provides that the Coroner must give written copies of his/her findings relating to child deaths to the 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.

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

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

Confidentiality

Accompanying the CCYPCG's privileged access to information is a duty of confidentiality specified in the *Commission for Children and Young People and Child Guardian Act 2000* (repealed 1 July 2014). Section 385 (Confidentiality of Other Information) of the Act stated:

If a person gains confidential information through involvement in this Act's administration, the person must not –

- (a) make a record of the information or intentionally disclose the information to anyone, other than under subsection (4)⁸⁴, or*
- (b) recklessly disclose the information to anyone.*

Coding cause of death

The CCYPCG 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, or
- the 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

CCYPCG staff undertook training in ICD-10 mortality coding and were responsible for the coding of all external cause deaths.

In addition, the CCYPCG 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 CCYPCG.

Classification of external cause deaths

The CCYPCG recognised that ICD-10 carries certain inherent limitations, particularly in regards 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, and
- sudden unexpected death in infancy.

To help overcome the limitations of ICD-10, the CCYPCG 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 CCYPCG 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.⁸⁵

84. Subsection 4 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.

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

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

As outlined above, discrepancies may exist between research categories and ICD-10 figures. The CCYPCG primarily reported 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.⁸⁶

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 Commonwealth 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.⁸⁷

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 Queensland⁸⁸
- **regional:** includes inner and outer regional Queensland⁸⁹, and
- **remote:** includes remote and very remote Queensland.⁹⁰

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.⁹¹

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.

86. 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.

87. 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).

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

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

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

91. 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.

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.

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 underreporting is not known and it is likely that some undercount of the number of deaths registered as Aboriginal and Torres Strait Islander continues.

The Queensland 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, completed with 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 CCYPCG developed guideline is used to determine which status will be recorded within the register.

The CCYPCG has also worked collaboratively with stakeholders addressing the undercounting of Aboriginal and Torres Strait Islander child deaths.⁹²

Children known to the child protection system

The deaths of children known to the child protection system have been analysed as a separate cohort, as the CCYPCG had distinct responsibilities in relation to these child deaths.

In addition to maintaining the Register and undertaking the research and analysis contained in this report, the CCYPCG provided full secretariat support to the Child Death Case Review Committee (CDCRC), an independent committee established to increase accountability and improve effectiveness in decision-making in the child protection system. The CDCRC and the secretariat role of the CCYPCG ceased on 30 June 2014 with the repeal of the *Commission for Children and Young People and Child Guardian Act 2000*.

Between 1 August 2004 and 30 June 2014, the Department of Communities, Child Safety and Disability Services was required to conduct a review of its involvement in each case where a child known to the child protection system died within three years of the department's last involvement with the child. The department had six months from the time it learns of the child's death to provide the CDCRC with a report.

The CDCRC was a multidisciplinary committee of experts in paediatrics, child health and welfare, and investigations. The Commissioner and Assistant Commissioner were standing members of the CDCRC, with the Commissioner permanently appointed as the chairperson.

The CDCRC considered the report and made recommendations about:

- improving policies which impact on services to children known to the child protection system
- improving relationships between the department and other agencies involved with the children and their families, and
- whether disciplinary action should be taken against any departmental staff in relation to their involvement with a child.

92. The CCYPCG participated in data quality groups such as the Indigenous Statistics Network chaired by Queensland Treasury and Trade.

The 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.

Under new arrangements from 1 July 2014, and as set out in the *Child Protection Act 1999*, a Child Death Case Review Panel will conduct reviews of the deaths of any child known to the child protection system within the year before its death.

Analysis and reporting

Analysis period

The Queensland Child Death Register was 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 446 children and young people aged from birth to 17 years, registered between 1 July 2013 and 30 June 2014.

Differences from previously published data

Information in the Queensland Child Death Register now comprises 10 years of data, and data from the last five 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 coroner's 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 2012, and used throughout the report for 2013–14 rates, are provided in the table below.

Queensland and Aboriginal and Torres Strait Islander populations by age category, 30 June 2012

Age group	Total number of children	Number of Aboriginal and Torres Strait Islander children
Under 1 year	61,519	5,047
1–4 years	248,023	20,050
5–9 years	301,000	23,658
10–14 years	296,493	22,659
15–17 years	181,927	13,293
Total 0–17 years	1,088,962	84,707

Data source: Queensland Treasury and Trade (2012)

Rates were not calculated for less than 4 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 2012 calendar year there were 63,650 live births in Queensland.⁹³

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

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.

Rates of death for children known to the child protection system

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 2013–14 financial year. This data was provided to the CCYPCG by the Department of Communities. The table below lists the denominator data provided by the Department for the last five reporting periods.⁹⁴

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 years:

- Child Concern Report
- Child Protection Notification
- Investigation and Assessment order, and/or
- 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 increase 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%

Data source: Department of Communities, provided August 2013

Note:

1. Denominator data for 2013–14 is based on the number of distinct children known to the Department of Communities in the 3-year period before the 2013–14 financial year.
2. The total population of children used to calculate rates for 2013–14 was the same as the population used for 2012–13. This was because disaggregated population estimates for 2013–14 were not available at the time of analysis. Also, note that these figures will differ from those published elsewhere due to Census 2011 revisions.

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.

94. The Department of Communities, Child Safety and Disability Services 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, but 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 Act	<i>Commission for Children and Young People and Child Guardian Act 2000 (Qld).</i>
CDCRC	Child Death Case Review Committee (Qld).
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	For the purpose of this report, a child is deemed to have been known to the child protection system if, within three years 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 <i>Child Protection Act 1999</i> in relation to the child.
CCYPCG	The Commission for Children and Young People and Child Guardian (Qld).
The Commissioner	Commissioner for Children and Young People and Child Guardian (Qld).

Communicable diseases	Communicable diseases are those capable of being transmitted from one person to another, or from one species to another. A communicable disease may be made notifiable to state health authorities if there is potential for its control, taking into consideration the overall impact of the disease on morbidity and mortality, and the availability of control measures.
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 (Qld).</i>
CPR	Cardiopulmonary resuscitation.
Death in care	A death as defined under section 9 of the <i>Coroners Act 2003</i> . This occurs when a person who had died: • had a disability and was living in a residential service provided by a government or non-government service provider or hostel • had a disability and lived in a private hostel (not aged-care) • was being detained in, taken to, or undergoing treatment in a mental health service, or • 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 <i>Coroners Act 2003</i> . 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 <i>Child Protection Act 1999</i> .
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 predominately 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).
HIV	Human Immunodeficiency Virus.
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 step-fathers 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 disease	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 Australian Bureau of Statistics (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 Organisation's recommended definition of perinatal deaths, which includes infants and fetuses 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 <i>Coroners Act 2003</i> – 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 Australian Bureau of Statistics 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.
Quad bike	Previously referred to as all-terrain vehicles (ATVs), these are four-wheeled motorcycles primarily used for agricultural purposes.
Queensland Family and Child Commission (QFCC)	Enacted by the <i>Family and Child Commission Act 2014</i> 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 <i>Coroners Act 2003</i> . This includes any death where: • the identity of the person is unknown • the death was violent or unnatural • the death happened in suspicious circumstances • the death was not a reasonably expected outcome of a health procedure • a cause of death certificate was not issued and is not likely to be issued • the death occurred in care, or • the 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 Australian Bureau of Statistics 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.
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.
STI	Sexually transmissible infection.
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 400g 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.

Suicide cluster	Suicides which occur in close geographical space and proximity to one another.
Toxicology	The analysis of drugs, alcohol and poisons in the body fluids at autopsy.
Transport deaths	Death incidents involving a vehicle of some description. Vehicles include, but are not limited to: • motor vehicles and motorcycles • quad bikes, tractors and other rural plant • bicycles, skateboards, scooters and other small-wheel devices • watercraft and aircraft, and • 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. Sudden unexpected deaths of infants 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 Sudden Infant Death Syndrome. ⁹⁵
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 <i>dynamic waterways</i> are rivers, creeks and other free moving water sources. Examples of <i>static waterways</i> are lakes and ponds where water does not freely move.
WHO	World Health Organisation.
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.

95. 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 2013–14

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 CCYPCG 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, 2013–14

Case	Cause of death	Sex	Age category	Usual place of residence
1	Diseases and morbid conditions	Female	5–9 years	Outside Australia
2	Diseases and morbid conditions	Female	Under 1 year	New South Wales
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	Victoria
7	Diseases and morbid conditions	Male	Under 1 year	New South Wales
8	Diseases and morbid conditions	Male	Under 1 year	New South Wales
9	Diseases and morbid conditions	Male	Under 1 year	Outside Australia
10	Transport	Male	5–9 years	Victoria
11	Unknown – cause of death pending	Female	Under 1 year	Outside Australia

Data source: Queensland Child Death Register (2013–14)

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

Deaths from diseases and morbid conditions, 2013–14

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	252	29	21	10	11	323
Certain conditions originating in the perinatal period (P00–P96)	145	1	0	1	0	147
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	81	7	3	1	1	93
Diseases of the nervous system (G00–G99)	3	4	8	1	4	20
Neoplasms (C00–D48)	7	1	6	5	2	21
Certain infectious and parasitic diseases (A00–B99)	5	3	1	1	2	12
Endocrine, nutritional and metabolic diseases (E00–E90)	3	4	2	0	0	9
Diseases of the respiratory system (J00–J99)	3	6	1	1	0	11
Diseases of the circulatory system (I00–I99)	3	1	0	0	2	6
Diseases of the digestive system (K00–K93)	1	0	0	0	0	1
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	1	2	0	0	0	3
SIDS and undetermined causes (infants) total	19	0	0	0	0	19
Sudden infant death syndrome (R95)	13	0	0	0	0	13
Other ill-defined and unspecified causes of mortality (R99)	6	0	0	0	0	6
Undetermined >1 year total	0	0	0	0	1	1
Other ill-defined and unspecified causes of mortality (R99)	0	0	0	0	1	1
Total	271	29	21	10	12	343

Data source: Queensland Child Death Register (2013–14)

Deaths from external causes, 2013–14

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>
Transport total	0	4	12	5	10	31
Car occupant injured in transport accident (V40–V49)	0	0	6	2	9	17
Pedestrian injured in transport accident (V01–V09)	0	4	1	1	1	7
Pedal cyclist injured in transport accident (V10–V19)	0	0	3	0	0	3
Other land transport accidents (V80–V89)	0	0	1	2	0	3
Motorcycle rider injured in transport accident (V20–V29)	0	0	1	0	0	1
Suicide total	0	0	0	4	19	23
Intentional self-harm (X60–X84)	0	0	0	4	18	22
Event of undetermined intent (Y10–Y34)	0	0	0	0	1	1
Drowning total	0	3	2	0	2	7
Accidental drowning and submersion (W65–W74)	0	3	2	0	2	7
Other non-intentional injury-related death total	0	5	2	1	0	8
Exposure to inanimate mechanical forces (W20–W49)	0	1	1	0	0	2
Other accidental threats to breathing (W75–W84)	0	1	1	0	0	2
Falls (W00–W19)	0	0	0	1	0	1
Exposure to animate mechanical forces (W50–W64)	0	1	0	0	0	1
Exposure to smoke, fire and flames (X00–X09)	0	1	0	0	0	1
Exposure to forces of nature (X30–X39)	0	1	0	0	0	1
Fatal assault and neglect total	3	0	0	1	0	4
Assault (X85–Y09)	3	0	0	1	0	4
Total	3	12	16	11	31	73

Data source: Queensland Child Death Register (2013–14)

Appendix 2.1: Notifiable diseases

Schedule of Notifiable Conditions (Public Health Regulation 2005)⁹⁶

Acquired immunodeficiency syndrome (AIDS)	Hansen's disease (leprosy)
Acute flaccid paralysis	Hepatitis A
Acute rheumatic fever	Hepatitis B (acute)
Acute viral hepatitis	Hepatitis B (chronic)
Adverse event following immunisation	Hepatitis B (not otherwise specified)
Anthrax	Hepatitis C
Arbovirus (mosquito borne) infections • alphavirus infections including: – Barmah Forest – getah – Ross River – sindbis • bunyavirus infections including: – gan gan – mapputta – termeil – trubanaman • flavivirus infections including: – alfuy – Edge Hill – kokobera – kunjin – Stratford • Other unspecified arbovirus infections NB: dengue fever, yellow fever, Japanese encephalitis and Murray Valley encephalitis are listed separately	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
	Lyssavirus (rabies)
Avian influenza	Lyssavirus (unspecified)
Botulism	Malaria
Brucellosis	Measles
Campylobacteriosis	Melioidosis
Chancroid	Meningococcal infection (invasive)
Chikungunya	Mumps
Chlamydia trachomatis infection	Murray Valley encephalitis
Cholera	Non tuberculous mycobacterial diseases
Ciguatera intoxication	Ornithosis (psittacosis)
Cruetzfeldt-Jakob disease	Paratyphoid
Cryptosporidiosis	Pertussis
Dengue fever	Plague
Diphtheria	Pneumococcal disease (invasive)
Donovanosis	Poliomyelitis (wild type and vaccine associated)
Equine morbillivirus (Hendra virus)	Q fever
Food-borne or waterborne illness in 2 or more cases	Rotavirus
Food-borne or waterborne illness in food handler	Rubella (including congenital rubella)
Gonococcal infection	Salmonellosis
Haemolytic uraemic syndrome (HUS)	Severe acute respiratory syndrome (SARS)
<i>Haemophilus influenzae</i> type b infection (invasive)	Shiga toxin and vero toxin producing <i>Escherichia coli</i> infection (SLTEC/VTEC)

96. As at 1 March 2014.

Shigellosis	Varicella – zoster virus infection (chickenpox, shingles and unspecified)
Smallpox	
Syphilis (including congenital syphilis)	Viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)
Tetanus	
Tuberculosis	Yellow fever
Tularaemia	Yersiniosis
Typhoid	

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 CCYPCG suicide classification model is used to classify all cases of suspected suicide into one of three levels of certainty.⁹⁷ In classifying these deaths, the CCYPCG considered 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.

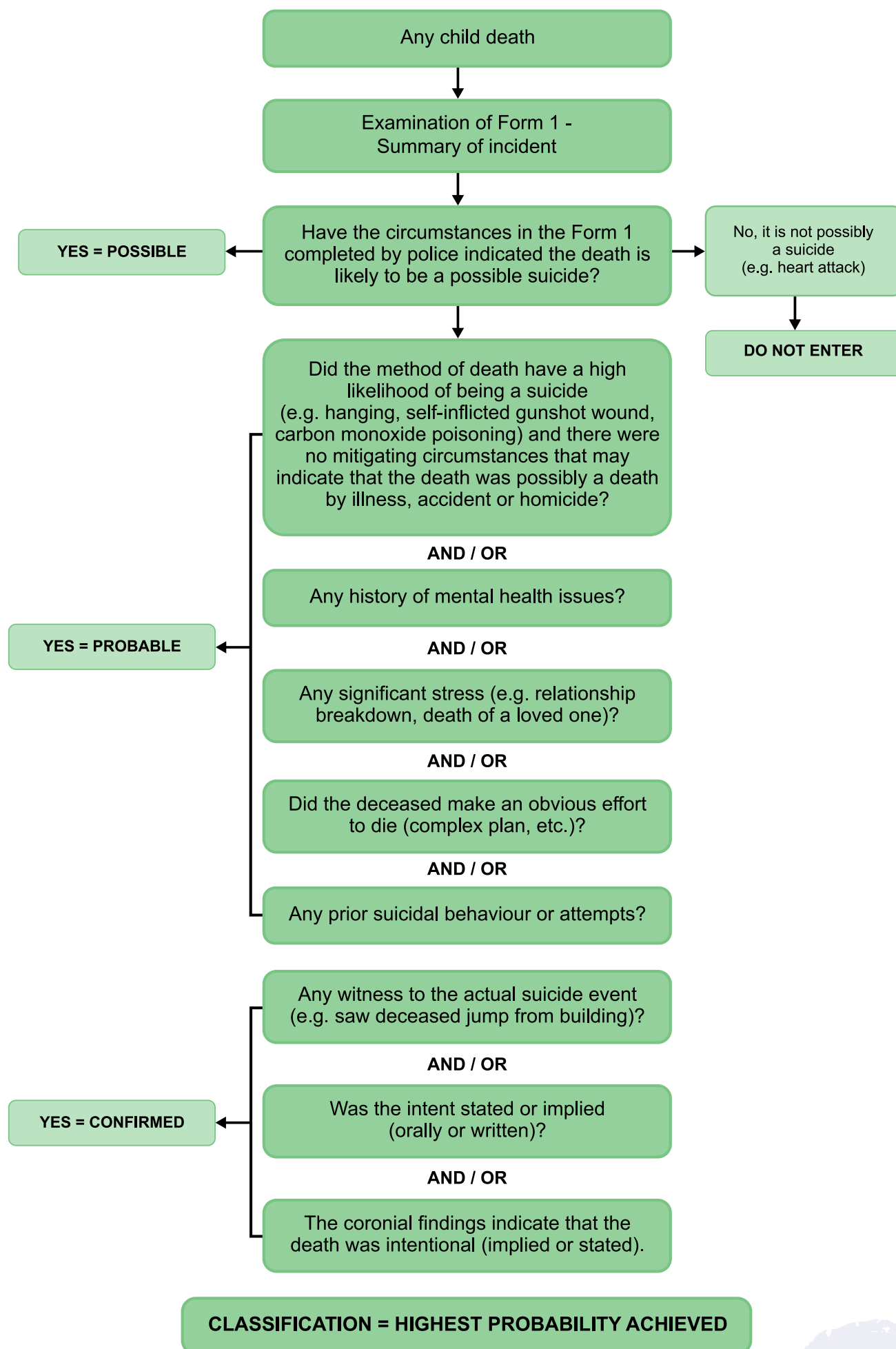
Information used to classify suicide certainty was based on data available to the CCYPCG at the time of reporting. Information is gathered from numerous records, including the Police Report of Death to a Coroner (Form 1), autopsy and coronial findings, toxicology reports, child protection system records and, for finalised cases, police briefs of evidence to the coroner (which can include witness statements, supplementary Form 15, 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 CCYPCG 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.

97. The CCYPCG 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 CCYPCG's fatal assault and neglect screening criteria is used to classify all cases of suspected fatal assault and neglect into one of three levels of certainty. In classifying these deaths, the CCYPCG considered 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 was based on data available to the CCYPCG 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 CCYPCG 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 CCYPCG 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 Commission for Children and Young People and Child Guardian (replaced by the Queensland Family and Child Commission on 1 July 2014)
- 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, and
- New Zealand Child and Youth Mortality Review Committee.

Analysis period

The analysis covers deaths that occurred during the period 1 January 2012 – 31 December 2012.

Date of registration 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 2012, 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 2012.⁹⁸ 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.⁹⁹ The table below provides details of the ERP of each jurisdiction as sourced from the Australian Bureau of Statistics and Statistics New Zealand.

98. Australian Bureau of Statistics, *Estimated Resident Population by Single Year of Age, Dec 2013*, cat. no. 3101.0; Statistics New Zealand, *Estimated Resident Population by Age and Sex (1991+)* (Annual–Jun 2012).

99. 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.

Estimated resident population by age category and jurisdiction, June 2012

Jurisdiction	Age category					Total (0–17 years)
	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	
Queensland	63,236	248,287	301,108	296,587	182,002	1,091,220
New South Wales	98,191	381,847	455,948	445,081	274,618	1,655,685
South Australia	20,199	78,880	96,396	97,808	62,140	355,423
Victoria	74,696	285,584	340,546	330,483	207,987	1,239,296
Tasmania	6,309	25,391	31,081	32,522	20,558	115,861
Northern Territory	3,968	14,813	17,670	16,778	9,736	62,965
Australian Capital Territory	5,728	19,917	22,507	21,139	13,279	82,120
New Zealand	61,770	255,370	291,710	301,420	186,670	1,096,940

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 to 2012.¹⁰⁰ Estimates for the New Zealand Māori population are based on estimated resident populations and were available by single year of age.¹⁰¹ 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 2012

Jurisdiction	Estimated Indigenous population
Queensland	84,707
New South Wales	90,840
South Australia	15,669
Victoria	20,343
Tasmania	10,418
Northern Territory	26,677
Australian Capital Territory	2,410
New Zealand	273,770

Data source: Australian Bureau of Statistics; Statistics New Zealand

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

101. Statistics New Zealand, *Total Māori estimated resident population, by single-year of age, five-year age group, broad age group, and median age, 1991–2013*.

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.

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-PDC¹⁰² and PSANZ-NDC¹⁰³ rather than ICD-10. However Victorian data provided by the council for this report have 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 400g birth weight, and
- 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 note that the data provided are provisional only. Final data will be available in the yet to be published *Annual Report for the Year 2012*. 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 10. These are represented by the figure <10 throughout the analysis.
- 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 is 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 400g) up to but not including the 18th birthday
 - 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, and
 - deaths are recorded as a suicide only when they have been found to be so after the process of Coronial review.

102. Perinatal Society of Australia and New Zealand – Perinatal Death Classification.

103. Perinatal Society of Australia and New Zealand – Neonatal Death Classification.

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