

Annual Report

Annual Report

Deaths of children and young people

Queensland

2009-10

Commission for Children and Young People
and Child Guardian



commission for
children and young people
and child guardian

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The Commission for Children and Young People and Child Guardian 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.

Suggestions:

The Commission welcomes suggestions on the information contained in this publication. Please direct your suggestions to the Commission for Children and Young People and Child Guardian at the above mailing address.

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31 October 2010

The Honourable Karen Struthers MP
Minister for Community Services and Housing and Minister for Women
Parliament House
George Street
Brisbane Qld 4000

Dear Minister

In accordance with section 146 of the *Commission for Children and Young People and Child Guardian Act 2000*, I hereby provide to you the 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 2009 – 30 June 2010, with a particular focus on external (non-natural) causes.

I draw your attention to section 146(7) of the *Commission for Children and Young People and Child Guardian Act 2000*, which requires you to table this report in the Parliament within 14 days of receipt.

Yours sincerely

Elizabeth Fraser
**Commissioner for Children and Young People
and Child Guardian**

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The Commission would also like to acknowledge the contribution of data from other Australian agencies and/or Committees who perform similar child death review functions. For the second year in a row, the Commission has utilised this data to compile an interstate overview representing further steps towards developing a nationally comparable child death review dataset.

The contribution of officers of the Commission's Systemic Monitoring and Review Program who maintained the register, analysed the data and prepared the report is also acknowledged.

Foreword

On behalf of the Commission, I would like to extend my sincere condolences to the families and friends of the 485 children and young people whose deaths have been registered by the Commission in 2009–10.

This report analyses the deaths of these children and young people, with a particular focus on the circumstances and risk factors surrounding external (non-natural) causes of death and sudden unexpected deaths in infancy.

As Commissioner, the safety and wellbeing of Queensland children is of paramount importance to me. The establishment of the Commission's child death review and reporting functions in 2004 was an important reform initiative that symbolises and strengthens Queensland's commitment to improve the safety and wellbeing of our children and young people through the process of identifying and addressing modifiable risk factors.

Significantly, the Commission's mandate to review, register, analyse and report on trends and patterns in child deaths, as embedded in Chapter 6 (Child Deaths) of the *Commission for Children and Young People and Child Guardian Act 2000* also honours Australia's commitment as a signatory to the United Nations Convention on the Rights of the Child (UNCROC). In particular, Article 24 of UNCROC requires that among other things, parties shall fully implement measures designed to achieve the highest attainable standard of health, including taking measures to diminish infant and child mortality.

Analysing the circumstances of child deaths and identifying associated risk factors is critical to the development of appropriate strategies to reduce the risk of similar fatalities in the future. Generally, achieving better outcomes for children relies on influencing behaviours and actions through a range of mechanisms, including legislation (for example, child restraint laws), and/or policy and program design, such as those raising community awareness about reducing the risks for sudden infant death.

Notwithstanding the range of statutory interventions that have been established to prevent adverse outcomes for children, the complex interplay of risk factors that ultimately contributes to the deaths of many children and young people often require a more tailored response.

A key outcome of the Commission's mandate to register, analyse and report on the incidence and risk factors associated with child deaths in Queensland is the capacity to inform injury prevention efforts at both ends of the spectrum – from promoting key prevention messages at the community level to providing authoritative advice to inform government actions.

As at 30 June 2010, the Commission's child death register held data in relation to 3111 Queensland children and young people who have died since 1 January 2004. This figure is a poignant reminder of the importance of conducting child death reviews. The deaths of young people through incidents that are, for the most part, preventable, is a tragic loss. I believe the child death review processes undertaken by my officers are increasingly helping us to better understand, and take steps to address, the risk factors contributing to the further loss of these young lives.

The Commission actively advocates at a systemic level to government through both its power to make formal recommendations about ways to prevent child deaths and through its proactive policy work and engagement with key stakeholders. As in all our work, we must be guided by evidence of what works for children, families and communities. With six years of data, the Commission's capacity to identify and report on trends, patterns and risk factors is

well established. The skills and experience of the Commission's content experts who undertake the reviews and analyses are becoming more widely recognised. I remain committed to making this wealth of knowledge accessible to individuals and organisations working towards the prevention of child death and injury.

In 2009–10 the Commission welcomed a number of opportunities to share its data and provide timely and authoritative advice to inform legislative reforms and influence the development of prevention strategies, policies and procedures. Notably, the Commission's child death register data and analysis resulted in the completion of 14 policy submissions on a range of matters across the injury prevention continuum. Examples include the provision of data and advice to inform the development of the Queensland Swimming Pool Safety Improvement strategy to prevent toddler drowning; formulating a detailed submission to inform the Senate Community Affairs References Committee's Inquiry into Suicide in Australia; and making recommendations to the World Health Organisation (WHO) for consideration in the development of the International Statistical Classification of Diseases and Other Health Problems, version 11 (ICD-11).

Another significant opportunity for the Commission in 2009–10 was appearing before the Commonwealth Senate Community Affairs References Committee. In March 2010, Commission representatives appeared before the Senate Committee and provided an overview of child and youth suicide in Queensland, and gave detailed responses to particular issues of interest to the inquiry, such as under-reporting of childhood suicide in official statistics, suicide of Aboriginal and Torres Strait Islander children and young people, and contagion and cluster suicides. The Senate Committee commented favourably on the value of the Commission's work in the area of childhood suicide.

In 2009–10 the Commission focused on promoting its capacity to share its mortality dataset to inform childhood death and injury prevention initiatives and research. In order to measure the usefulness of its data, the purposes for which it is used and the efficacy of our data request procedures, the Commission has also established a feedback process. In 2009–10 the Commission responded to 26 distinct requests for child death register data, and importantly, 100% of stakeholders providing feedback stated that the Commission's data was both timely and useful in advancing child death and prevention initiatives.

This is the Commission's sixth annual report. In keeping with previous years, this report again identifies drowning as the leading cause of death for children under the age of five, with 13 deaths in this age group. It is positive to note that this reporting period recorded the lowest number of pool drownings for 1–4 year olds, with four deaths. This is an encouraging sign that the Commission hopes will continue, following the introduction of further legislative reforms on 1 December 2010 as part of the Queensland Government's Swimming Pool Safety Improvement Strategy.

Since commencing reporting in 2004–05, the Commission has consistently identified that non-pool water hazards pose an equal risk of drowning to young children as swimming pools. The 2009–10 reporting period recorded the highest number of non-pool drownings, with the majority involving rural water hazards (such as dams and livestock dips). This year's report contains an analysis of the non-pool drownings that have occurred in the period 2004–10, and highlights that more work needs to be undertaken to prevent the further loss of lives from such circumstances.

The concept of 'safe play areas' for children on farms has been promoted by child safety advocates for many years as a means of creating a physical barrier between the home and the various hazards that exist on farms. Despite such ongoing advocacy the continued incidence of childhood drownings in rural water hazards indicates that more needs to be done to prevent these fatalities. In the year ahead, the Commission intends to consult with

relevant agencies about the range of potential options for increasing the presence of safe play areas on farms, including legislative reform.

In recent decades, a lot of positive work has been undertaken to make a difference to children and young people's lives through actioning modifiable risk factors. This work is not possible without the drive and commitment of those who work to conduct investigations and research, and translate what this data tells us into effective prevention practice. I commend all those involved in this important work. The data contained in this report provides an evidence base to inform injury prevention priorities. Importantly, it also highlights opportunities to engage critical stakeholders, and work together to better understand respective roles and responsibilities and promote actions to reduce childhood injuries and fatalities.

I look forward to continuing to work with government and community representatives in the year ahead to improve outcomes for children and young people.

Elizabeth Fraser
**Commissioner for Children and Young People
and Child Guardian**

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Executive summary

Background

The Commission for Children and Young People and Child Guardian is an independent statutory body charged with responsibility for protecting and promoting the rights, interests and wellbeing of Queensland children and young people under the age of 18.

The Commission's child death review functions began on 1 August 2004, making this the sixth annual report on child deaths in Queensland. Under Chapter 6 (Child Deaths) of the *Commission for Children and Young People and Child Guardian Act 2000*, the Commission is responsible for:

- maintaining a register of the deaths of all children and young people in Queensland
- reviewing the causes and patterns of deaths of children and young people
- conducting broad research in relation to child deaths
- making recommendations for improvements to laws, policies, procedures and practices to help reduce the likelihood of child deaths, and
- preparing an annual report to Parliament and the public regarding child deaths.

Child deaths in Queensland, 1 July 2009 – 30 June 2010

In the 12-month period from 1 July 2009 to 30 June 2010, the deaths of 485 children were registered in Queensland, a rate of 46.3 deaths per 100,000 children and young people aged 0–17 years. The below table shows the numbers and rates of child deaths registered in Queensland each year since 2004–05.

Year	Number of deaths <i>n</i>	Rate per 100,000
2004–05	481	50.1
2005–06	426	43.8
2006–07	509	50.6
2007–08	479	47.6
2008–09	519	50.7
2009–10	485	46.3

Data source: Queensland Child Death Register (2004–2010)

Of the 485 deaths registered in 2009–10:

- more than 61 percent of deaths were of males, 38.6% were female
- diseases and morbid conditions accounted for the majority of deaths (71.3%)
- over 17% of deaths were due to external causes (transport, drowning, suicide, fatal assault or other non-intentional injury), and
- Aboriginal and Torres Strait Islander children accounted for 12.6% of deaths and died at 2.1 times the rate of non-Indigenous children in Queensland.

The following table shows the total number of deaths, as well as the rate and leading natural and external cause of death for each age category.

Age category	Total number of deaths	Percentage of total deaths (0–17 years)	Rate per 100,000	Leading natural cause for age category	Leading external cause for age category
Under 1 year	326	67.2%	539.1 per 100,000	Perinatal conditions (262.9 per 100,000)	–
1–4 years	48	9.9%	21.1 per 100,000	Congenital anomalies (1.8 per 100,000)	Drowning (4.4 per 100,000)
5–9 years	28	5.8%	9.9 per 100,000	Neoplasms (3.9 per 100,000)	Drowning/Transport (1.4 per 100,000)
10–14 years	28	5.8%	9.5 per 100,000	Neoplasms (2.0 per 100,000)	Transport (1.7 per 100,000)
15–17 years	55	11.3%	30.2 per 100,000	Neoplasms (4.9 per 100,000)	Suicide (9.9 per 100,000)
Total	485	100.0%	46.3 per 100,000	Perinatal conditions (15.2 per 100,000)	Transport (2.7 per 100,000)

Data source: Queensland Child Death Register (2009–10)

– Infants under 1 year of age died almost exclusively as a result of diseases and morbid conditions. As such, no leading external cause of death has been listed for this age category.

Transport

- Children and young people died from transport incidents at a rate of 2.7 deaths per 100,000 children aged 0–17 years in Queensland (28 deaths).
- This is the fewest number of transport incidents recorded to date, and corresponds with an overall decrease in the number of transport fatalities in Queensland for 2010.
- Transport incidents accounted for 5.8% of all child deaths, and were the leading external cause of death, accounting for 33.3% of all external cause deaths.
- For the first time since reporting commenced in 2004–05, transport was not the leading cause of death for any age category.
- The greatest number of transport fatalities occurred in motor vehicles (64.3%), followed by pedestrian deaths (25.0%) and motorcycle and quad bike incidents (7.1%).

- In contrast to previous years, 10 of the 18 motor vehicle incidents occurred on a Monday or Tuesday.
- More than 83 percent of motor vehicle incidents occurred in rural areas, with two-thirds of these occurring on highways.

Commission's key prevention activities

Off-road motorcycling – since 2004, 36 children and young people have died as a result of motorcycle or quad bike crashes. Around half of these incidents occurred 'off-road' where licensing laws do not apply.

Issues associated with off-road motorcycling have been the subject of a Crime and Misconduct Commission investigation during 2009–10. The Commission is committed to collaborating with the relevant authorities to address the management of off-road motorcycling for children and young people in Queensland.

Drowning

- Children and young people drowned at a rate of 1.7 deaths per 100,000 children and young people aged 0–17 years in Queensland (18 deaths).
- Drowning accounted for 3.7% of child deaths, and 21.4% of external cause deaths.
- In line with previous findings, drowning was again the leading cause of death for children aged 1–4 years.
- The number and rate of children aged 1–4 years who drowned in 2009–10 was lower than the yearly average over the previous 6 years.
- Eleven drowning deaths occurred in non-pool locations, compared with 7 in swimming pools.

Commission's key prevention activities

Safe play areas – since 2004, 14 children under the age of 5 years have drowned in rural water hazards such as dams, troughs and livestock dips. The creation of a safe play area around the house can create a fun activity centre for children and can help keep young children safe from the hazards of the farm workplace. In the coming year, the Commission intends to consult with both Workplace Health and Safety Queensland and the Department of Infrastructure and Planning about the range of potential options for increasing the presence of safe play areas on farms, including legislative reform.

New pool safety laws for Queensland – following the introduction of new legislation in the coming year, all residential swimming pools in Queensland will be required to comply with the most recent Australian Standard for pool fencing, regardless of their date of construction. This includes the phase-out of 3-sided fencing (allowing direct access to the pool from the house) for pools built before 1991. In 2009–10 the Commission has been actively engaged in providing data to inform the Queensland Government's Swimming Pool Safety Improvement Strategy. The Commission is highly supportive of moves to introduce uniform fencing standards for residential pools as a means to prevent childhood drowning.

Other non-intentional injury-related deaths

- Deaths as a result of non-intentional injuries, other than transport or drowning incidents, occurred at a rate of 1.0 deaths per 100,000 children and young people aged 0–17 years (10 deaths).
- These incidents accounted for 2.1% of deaths and 11.9% of external cause deaths.
- The greatest number of non-intentional injury-related deaths occurred in the 15–17 year age category. This is in contrast to previous years in which children aged 1–4 years have been most at risk.

Suicide

- Suicide accounted for the deaths of 20 children and young people, a rate of 1.7 per 100,000 children and young people aged 0–17 years in Queensland.
- More than 4 percent of child deaths were of children or young people who suicided, with suicide accounting for 23.8% of external cause deaths.
- For the first time since the Commission began reporting, suicide was the leading cause of death for children aged 15–17 years. Historically, transport incidents have been the leading cause of death for this age category.
- This finding is likely a reflection of the unprecedented decrease in the number of transport fatalities this year, rather than an indication of an upward trend for suicide in this age category.
- Two children in the 10–14 year age category suicided.
- Children and young people experiencing a range of risk factors, and who were therefore known to the child protection system,¹ suicided at a rate of 3.9 per 100,000 children, compared with 1.7 per 100,000 for all Queensland children aged 0–17 years.
- Precipitating incidents were identified in 18 of the 20 suicides. The Commission is concerned with the number of children and young people suiciding following an argument or

relationship breakdown with intimate partners or parents.

- In 2009, the Commission launched the *Reducing Youth Suicide in Queensland (RYSQ) Discussion Paper* and consulted with a diverse range of experts concerned with the health and wellbeing of children and young people. In the year ahead, the Commission will be releasing the results of this consultation, and continue to work with key stakeholders to identify options for improving prevention and early intervention strategies.

Commission's key prevention activities

Senate Community Affairs References Committee Inquiry into Suicide in Australia – in 2009–10 the Commission was invited to provide evidence before the Senate Inquiry into Suicide in Australia. The Commission's submission discussed the key issues arising from its work in reviewing childhood suicide since 2004. The Committee's final report made 42 recommendations, several of which aligned with the Commission's submission and oral evidence. The Committee also commented on the value of the Commission's work in this area, and its potential to stand as a model for other jurisdictions to follow.

Impacted Children Project – during 2009–10 the Commission identified a number of Queensland regions experiencing high levels of contagion and cluster suicide among their youth population. In response to the Commission's findings, the Queensland Police Service has initiated the 'Impacted Children' project, which aims to facilitate timely delivery of support services to young people affected by suicide by promoting cross-agency communication. The Commission participated as a member of the project steering committee and is highly supportive of this initiative.

Fatal assault and neglect

- Eight of the 485 children who died were fatally assaulted or neglected, occurring at a rate of 0.8 deaths per 100,000 children and young people aged 0–17 years in Queensland.
- Due to the complex circumstances present in their lives, 4 of the 8 children were known to the child protection system.
- Two of the deaths were categorised as *peer fatal assault* and involved confrontational violence amongst male peers, while another 2 deaths were categorised as *intimate partner violence* and involved young women being killed by current or former adult intimate partners. Both peer fatal assault and intimate partner violence are categories that tend to closely resemble adult homicides.

Commission's key prevention activities

The Fatal Assault and Neglect project – the Commission is approaching the final stages of research into the fatal assault and neglect of children by their parents in Queensland. All deaths in the Queensland Child Death Register are being closely analysed (against set criteria) to identify potential ways to reduce the incidence of maltreatment-related deaths in the future. A paper detailing the Commission's findings is expected to be released in 2010–11.

Sudden unexpected deaths in infancy

- Sudden unexpected deaths in infancy (SUDI) is defined as the death of an infant under 1 year of age with no immediately obvious cause.
- SUDIs accounted for 15.6% of infant deaths (51 deaths), and occurred at a rate of 84.3 per 100,000 infants aged less than 1 year or 0.8 deaths per 1000 live births.
- While the rate of SUDI has remained relatively stable across the 6 year period, 2009–10 saw the highest number of SUDI deaths recorded to date.

- Aboriginal and Torres Strait Islander infants died suddenly and unexpectedly at 6.8 times the rate of non-Indigenous infants.
- While children known to the child protection system were over-represented compared with all Queensland children, the rate for 2009–10 was below the yearly average (6.2 per 100,000 children known to the child protection system in 2009–10 compared with an average of 11.8 per 100,000).

Commission's key prevention activities

SUDI epidemiological analysis – with a comprehensive 6 year SUDI dataset established, the Commission recognises that this very complex group of deaths would benefit from detailed epidemiological analysis. The Commission is progressing arrangements with Queensland Health to facilitate the clinical review of all SUDI deaths in Queensland, with a view to releasing a dedicated SUDI report every 3 years to highlight the trends and patterns identified during this review process.

Children known to the child protection system²

- Due to the complex circumstances often present in their lives, children known to the child protection system are a vulnerable and at-risk cohort. Overall, children known to the child protection system died at a rate of 50.2 deaths per 100,000, compared with 46.3 deaths per 100,000 for all Queensland children.
- Specifically, compared with the Queensland population aged 0–17 years, children known to the child protection system were:
 - 2.1 times more likely to suicide
 - 3.2 times more likely to drown, and
 - 2.9 times more likely to die in a transport incident.
- These increased rates represent an opportunity to draw links between new research findings about risk factors related to these causes of death and the implementation of this knowledge

within the existing assessment and case management frameworks that currently provide the service response.

Aboriginal and Torres Strait Islander status

- Of the 485 child deaths, 12.6% were of Aboriginal and/or Torres Strait Islander children (61 deaths).
- The majority of Indigenous deaths were of children under 1 year of age, accounting for 73.8%.
- Aboriginal and Torres Strait Islander children are over-represented in mortality statistics, dying at 2.1 times the rate of non-Indigenous children.
- Indigenous infants die suddenly and unexpectedly at 6.8 times the rate of non-Indigenous infants.
- The number of Aboriginal and Torres Strait Islander child deaths due to drowning has been consistently low since the Commission commenced reporting in 2004–05, in contrast to research which shows high rates of Indigenous child drowning nationally.

Commission's key prevention activities

Closing the Gap – in 2008 the Australian Government and all state and territory governments agreed to work towards 6 specific targets to significantly reduce the gap in life expectancy and outcomes between Aboriginal and Torres Strait Islander and non-Indigenous Australians. One of these targets involved halving the gap in mortality rates for Aboriginal and Torres Strait Islander children under the age of 5 years by 2018.

In support of this initiative, the Commission provides mortality data for Indigenous and non-Indigenous children to the Queensland Treasury, Office of Economic and Statistical Research for inclusion in the Queensland Government contribution to the 2010 *Closing the Gap* report.

Future directions

This is the Commission's sixth year of registering, reviewing and reporting on child deaths in Queensland, and as such the Commission's capacity to identify and report on trends, patterns and, importantly, risk factors in child deaths is now well established.

The Commission is committed to working collaboratively with stakeholders to identify opportunities for its child death data to inform policy formulation and prevention efforts at both a state and national level. This commitment is reflected by the Commission's further research in relation to childhood suicide and deaths in rural and remote areas, as well as through leading or participating in a number of prevention initiatives.

Reducing Youth Suicide in Queensland

The Commission has consistently identified child and adolescent suicide as a key concern in Queensland. On average, 16 young people suicide each year in Queensland – a rate almost twice that of the national average.³

In 2005–06 the Commission identified, for the second consecutive year, that suicide was the leading cause of death for children aged 10–14 years and the second-leading cause for adolescents aged 15–17 years in Queensland, reinforcing the need for this issue to be further investigated. In response, the Commission developed an in-depth project reviewing the suicides of Queensland children and young people.

The *Reducing Youth Suicide in Queensland* (RYSQ) project involves a detailed review of the lives and deaths of children and young people who died by suicide in Queensland between 1 January 2004 and 31 December 2007.

The project aims to provide a solid and contemporary evidence base to better inform prevention efforts targeted at children and young people with the aim of

reducing youth suicide in Queensland. The project aims to achieve four key outcomes:

1. improve knowledge and understanding around children and young people who suicide in Queensland
2. identify key risk factors and warning signs specific to these children and young people
3. enhance delivery of services to at-risk children and young people, and
4. inform prevention and early intervention strategies.

In 2009 the Commission released the RYSQ Discussion Paper. This paper presented a preliminary analysis of the common risk factors and circumstances among the 65 children and young people who suicided in Queensland between 2004 and 2007. In order to reach a diverse range of health experts, researchers, policy makers, counsellors, child safety officers, law enforcement officers and Aboriginal and Torres Strait Islander peoples, the RYSQ Discussion Paper was mailed to approximately 530 people who work with, or make decisions that affect, young people. The paper also included a questionnaire that sought responses to a series of key discussion points which could be answered online or in hard copy. Respondents could also provide comments or feedback in the form of a submission.

In the year ahead, the Commission will release an outcomes report based on the 235 responses to the RYSQ discussion paper questionnaire. This report will examine:

- the need to strengthen a collaborative approach to addressing suicide prevention
- postvention
- mental health services and referrals, and
- the most effective ways to develop cultural connections with Aboriginal and Torres Strait Islander communities and at-risk individuals.

Following the release of this report, the Commission will continue to work with key stakeholders to identify options for improving prevention and early

intervention strategies. This process will also involve consultation with the relevant government agencies that have been identified by respondents as being critical to the successful delivery of services in the future.

Keeping Country Kids Safe

In 2008–09 the Commission launched the *Keeping Country Kids Safe* initiative, a project that aims to develop a comprehensive injury prevention strategy tailored to the needs of rural communities. The Commission has found that children in country areas are 2.4 times more likely to die as a result of non-intentional injury than those in the city and face a number of risks unique to their environment, such as drowning in dams or quad bike accidents. A key factor associated with these deaths is the unique combination of the home and workplace that occurs on family farms.

The Commission is committed to working with the rural sector to identify ways to prevent child deaths and injuries occurring. The *Keeping Country Kids Safe* initiative aims to develop a comprehensive injury prevention strategy that brings together the knowledge, skills and experience of people at all levels – from government agencies through to the agricultural industry and local communities themselves.

One of the major aims of *Keeping Country Kids Safe* is to strike a balance between minimising risks and keeping the things that make country life fun for children. The Commission hopes to change the common attitude that these fatalities are ‘tragic accidents’ and promote the belief that they are indeed preventable.

Last year the Commission undertook extensive consultation with the rural sector. The *Keeping Country Kids Safe Discussion Paper*, sharing findings from the Commission’s analysis of child death data from 2004–2008, sought input from government and non-government agencies as well as rural industry. The Keeping Country Kids Safe Community Survey was also widely distributed to

residents throughout rural Queensland, and encouraged them to share their views and propose practical solutions to improve safety for children and young people in rural areas.

In 2010–11 the Commission will release a report on the outcomes of this consultation. The Commission also intends to progress further targeted consultation with the rural sector to develop an action plan to address key issues of concern identified by rural communities.

Supporting child death and injury prevention initiatives

The Commission has welcomed the opportunity to participate in a wide range of child death and injury prevention initiatives.

During 2009–10 the Commission completed 14 policy submissions based on evidence from the Child Death Register. Highlights include:

- the provision of evidence before the Senate Community Affairs References Committee Inquiry into Suicide in Australia
- submitting suggested changes to the World Health Organisation for consideration in developing the 11th revision of the International Statistical Classification of Diseases and Related Health Problems
- engagement as a key stakeholder informing the development of the Queensland Government’s Swimming Pool Safety Improvement Strategy, and
- submitting evidence to inform the Social Development Committee’s Inquiry into Addressing Cannabis Related Harm in Queensland.

The Commission provided evidence-based data and content knowledge to advance policy and program initiatives on a broad range of matters across the injury prevention continuum.

The Commission has also participated in a range of committees and working groups throughout the year, including:

- chairing the Australian and New Zealand Child Death Review and Prevention Group⁴
- participating as a member of the Queensland Injury Prevention Council (QIPC)⁵, and hosting a QIPC Seminar in March 2010
- progressing the establishment of a working group involving stakeholders from Queensland Health to undertake clinical reviews of all SUDI cases and produce a SUDI report every 3 years⁶
- participating as a member of the Australian Mortality Data Interest Group
- participating as a member of the working group responsible for the development of the Australian Water Safety Council's Rural and Remote Water Safety Plan
- contributing to the development of a communication strategy to support the introduction of mandatory Australian Standards for bunk beds
- participating as a member of the Royal Life Saving Society Queensland 'Keep Watch' Steering Committee, and
- participating as a member of the Queensland Police Service 'Impacted Children' Steering Committee in relation to suicide prevention.

Child Death Prevention Strategy

In 2009–10, the Commission progressed the development of its Child Death Prevention Strategy. The Commission recognises that 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 initiatives which require a solid and contemporary evidence base upon which to build their future direction.

The overarching aim of the strategy is to promote the information collected in the child death register to stakeholders (at both the state and national level) and identify opportunities for the Commission to engage with stakeholders and share its

dataset and key learnings, in particular those arising from its risk factor analysis, to inform ongoing prevention efforts.

During 2009–10, the Commission responded to 26 requests for data from external stakeholders, including:

- providing data regarding drowning deaths to the Department of Infrastructure and Planning; Brisbane City Council; and the Royal Life Saving Society (both national and state branches)
- providing information and data to the Royal Children's Hospital to support research into low-speed vehicle run-overs; drowning; and injury prevention
- providing data regarding transport fatalities to Workplace Health and Safety Queensland
- providing data and information on youth suicide in Queensland to the Senate Inquiry into Suicide in Australia
- providing data to the Child Advocacy Service, Queensland Health in relation to abusive head trauma, and
- providing mortality data for Indigenous and non-Indigenous children to the Office of Economic and Statistical Research for inclusion in the Queensland Government contribution to the 2010 *Closing the Gap* report.

Queensland Injury Prevention Council

In recognition of the impact of injury on the health and wellbeing of Queenslanders, in 2006, Queensland's first Trauma Plan was developed. The aim of the Trauma Plan is to identify priority areas which may benefit from co-ordinated effort to further reduce the impact of injury on the community. The 'Trauma Plan for Queensland' takes an integrated, statewide approach based on the whole of healthcare continuum – from injury prevention through to rehabilitation. The Trauma Plan also addresses a number of intersecting issues including education, research, and data quality.

One of the key recommendations arising from the Trauma Plan was the establishment of an injury prevention

council. In 2008, the Queensland Injury Prevention Council (QIPC) was established by Queensland Health. The QIPC was established to provide advice to the Director-General on injury prevention, encourage greater coordination across agencies delivering injury prevention initiatives and collaboratively and proactively progress strategic opportunities for ensuring a safer community for Queenslanders.

The QIPC represents a landmark event, in bringing together all key injury prevention stakeholders in Queensland on an ongoing basis to work strategically and collaboratively towards a common goal.

The Commission is a member of the QIPC, with four of the five QIPC priority areas aligning closely with those of the Commission:

- a safe childhood (with particular focus on unintentional injury, water safety and the safe transport of young children)
- a safe youth
- safe Aboriginal and Torres Strait Islander people, and
- safe rural and remote communities.

As a result of recommendations in the Commission's 2004–05 and 2006–07 annual reports, the QIPC has also identified low-speed vehicle run-overs of young children and childhood drowning as two key priorities and is currently funding a series of research projects in these areas.

In the short time the QIPC has been in operation, it has made an important and significant contribution towards reducing injury and supporting a safe childhood and youth in Queensland through investments in research to inform policy and practice.

In 2009–10, the QIPC has:

- supported eight existing projects to address the ongoing issue of child drowning and the emerging issue of low speed vehicle runovers
- continued to supported two post-graduate scholarships (child drowning and Aboriginal and Torres Strait

Islander injury prevention and safety promotion)

- fostered relationships with the academic sector, including the delivery of injury prevention courses and the incorporation of injury prevention modules into existing course material
- awarded scholarships, applied research projects and community based initiatives, and
- conducted an inaugural seminar, hosted by the Commission, providing an opportunity for all those involved with the work of the QIPC to share their research and findings.

In 2010–11 the Trauma Plan for Queensland is due to be reviewed following nearly 4 years of implementation. This involves reviewing the progress that has been made to inform future directions in injury prevention and trauma care.

The Commission welcomes this review and sees this process as an opportunity to reflect on what has been achieved in injury prevention, trauma care and service delivery for Queensland's children and youth, as well as to identify solutions for current challenges that are providing barriers. The Commission looks forward to continued participation in the work of the QIPC, including the provision of supporting child death data to relevant research projects.

Australia and New Zealand Child Death Review and Prevention Group

The Commission currently chairs the Australian and New Zealand Child Death Review and Prevention Group (ANZCDR&PG), which is a cooperative of agencies working to identify and action preventable child deaths by sharing information on issues and trends in reporting on child deaths.

While the ANZCDR&PG does not currently report on child mortality as a single entity, 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.

In 2009 the group was recognised by the Commonwealth in the *National Framework for Protecting Australia's Children 2009–2020*. The National Framework seeks to address issues impacting on the health and wellbeing of Australia's children from a variety of perspectives, and provides support for the ANZCDR&PG in working towards national consistency in child mortality statistics.

During 2009–10, as chair of the ANZCDR&PG, the Commission has led discussions about undertaking key research to support the Commonwealth to develop targeted prevention strategies under the National Framework. The ANZCDR&PG is currently developing a proposal for submission to the Commonwealth that will focus on collaborative research to be undertaken using state and territory child death data, with the aim of addressing modifiable risk factors for particular causes of child death at a national level.

Report structure

Chapter 1 provides a summary of the causes of deaths of the 485 children aged from birth to 17 years registered in Queensland between 1 July 2009 and 30 June 2010.

Chapter 2 provides an analysis of those deaths registered in the reporting period which were due to diseases and morbid conditions.

Chapters 3 to 7 provide analyses of the following external causes of death of children and young people in Queensland in 2009–10: transport, drowning, other non-intentional injury-related death, suicide and fatal assault and neglect.

Chapter 8 details the future direction for the reporting and analysis of SUDI in Queensland.

Chapter 9 details child death prevention activities undertaken by the Commission, and monitors the implementation of the recommendations made by the Commission in previous annual reports.

Chapter 10 gives an overview of national child death statistics for 2008 as provided by child death review mechanisms in New South Wales, Victoria, South Australia and Tasmania.

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- ¹ 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 (formerly Department of Child Safety) 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.
- ² For the purposes 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, Child Safety 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. It should be noted that the cases discussed in this report are not the same cohort of cases referred to in the Child Death Case Review Committee (CDCRC) Annual Report. The CDCRC Annual Report discusses cases of children known to the child protection system that were considered by the CDCRC during 2009–10 (which may be different to the cases that actually occurred during this period, as a result of the timeframes associated with the review process).
- ³ The national rate used for comparison is based on the Australian Institute for Health and Welfare's figures and has been compared with the rate calculated from the Commission's Child Death Register for Queensland. The rates compared were for the 2005–06 financial year, the most current national data available at the time of publication of the RYSQ findings.
- ⁴ See also Chapter 10, *National child death statistics*.
- ⁵ The QIPC was established in 2008. The goal of the QIPC is to substantially reduce injury rates and the severity of injuries in Queensland and to demonstrate national leadership in injury prevention activities. The QIPC reports to the Director-General of Queensland Health and provides high-level strategic advice in relation to injury prevention priorities, strategies and activities.
- ⁶ See also Chapter 8, *Sudden unexpected deaths in infancy*.

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Part I: Introduction and overview

Chapter 1

This section provides an overview of child deaths in Queensland for 2009–10.

Key findings

- The deaths of 485 children and young people were registered in Queensland between 1 July 2009 and 30 June 2010.
- Children in Queensland died at a rate of 46.3 per 100,000 children and young people aged 0–17 years, consistent with the 6 yearly average rate.
- The rate of death from diseases and morbid conditions was the lowest recorded in any reporting period since the Commission began reporting in 2004–05. Deaths from external causes were also slightly below average.
- The rate of sudden unexpected deaths in infancy was above average, and the highest number recorded across the last 6 years.
- Transport was the leading external cause of death followed by suicide.
- Aboriginal and Torres Strait Islander children were over-represented, dying at 2.1 times the rate of non-Indigenous children. Aboriginal and Torres Strait Islander children were most at risk of dying within the first 28 days of life. Similar patterns are evident in non-Indigenous children.
- The number of Aboriginal and Torres Strait Islander children who died from external causes in this reporting period was half the number recorded in the 2008–09 reporting period. This is more likely to be a reflection of the overall decrease in the number of external cause deaths in Queensland, rather than an actual decrease in Indigenous child mortality.
- Children and young people known to the child protection system are a vulnerable and at-risk cohort who experience a range of risk factors due to the complex circumstances in their lives. Overall, children known to the child protection system died at a rate of 50.2 deaths per 100,000, compared with 46.3 deaths per 100,000 for all Queensland children.

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Chapter 1

Deaths of Queensland children and young people, 2009–10

Table 1.1: Summary of deaths of children and young people in Queensland, 2004–2010¹

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All deaths													
Deaths of children 0–17 years	481	50.1	426	43.8	509	50.6	479	47.6	519	50.7	485	46.3	47.2
Cause of death													
Diseases and morbid conditions	380	39.6	315	32.4	382	37.9	346	34.4	396	38.7	346	33.1	35.3
<i>SIDS and undetermined causes (infants)</i>	30	3.1	16	1.6	21	2.1	19	1.9	28	2.7	14	1.3	2.1
<i>Undetermined > 1 year</i>	2	*	2	*	4	0.4	0	0.0	5	0.5	2	*	0.2
External causes	101	10.5	96	9.9	104	10.3	111	11.0	97	9.5	84	8.0	9.7
Transport	46	4.8	41	4.2	45	4.5	50	5.0	45	4.4	28	2.7	4.2
Suicide	15	1.6	15	1.5	19	1.9	21	2.1	15	1.5	20	1.9	1.7
Drowning	12	1.2	18	1.8	18	1.8	14	1.4	18	1.8	18	1.7	1.6
Other non-intentional injury-related death	19	2.0	13	1.3	12	1.2	15	1.5	15	1.5	10	1.0	1.4
Fatal assault	9	0.9	9	0.9	10	1.0	11	1.1	4	0.4	8	0.8	0.8
Cause of death pending at time of reporting	0	0.0	15	1.6	23	2.3	22	2.2	26	2.5	55	5.3	2.3
Sudden Unexpected Deaths in Infancy (SUDI)													
Sudden unexpected infant deaths	43	87.8	36	69.7	45	82.0	35	63.8	45	82.2	51	84.3	77.6
Gender													
Female	197	42.1	160	33.8	210	42.8	209	42.6	223	44.8	187 ^a	36.7	39.7
Male	284	57.6	266	53.2	299	57.9	270	52.3	296	56.4	297 ^a	55.3	54.3
Aboriginal and Torres Strait Islander status													
Indigenous	65	103.2	51	78.7	70	113.0	53	79.1	71	104.7	61	89.3	91.2
Non-Indigenous	416	46.4	375	41.3	439	46.5	426	45.3	448	46.9	424	43.3	44.1
Known to the child protection system													
Known to the child protection system	30	–	48	67.8	58	67.4	59	64.8	78	76.5	65	50.2	65.5
Age category													
Under 1 year	299	610.8	263	509.1	321	585.2	287	523.2	325	593.4	326	539.1	554.1
1–4 years	62	30.8	55	27.2	63	29.5	58	12.1	63	28.8	48	21.1	26.6
5–9 years	32	6.7	34	12.7	21	7.6	38	7.9	41	14.7	28	9.9	11.6
10–14 years	33	6.9	30	10.5	38	13.1	28	5.8	31	10.6	28	9.5	10.7
15–17 years	55	11.4	44	26.4	66	13.0	68	14.2	59	33.1	55	30.2	32.4

Data source: Queensland Child Death Register (2004–10)

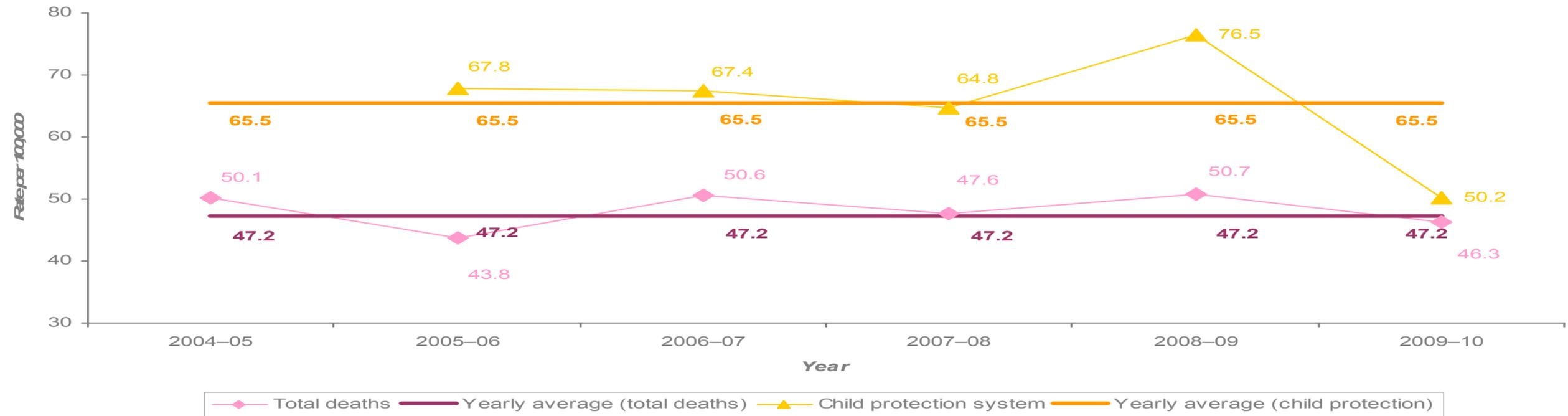
* Rates have not been calculated for numbers less than 4.

– These data were not available at the time of publication.

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

- Notes:
1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
 2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
 3. Rates are calculated per 100,000 children (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
 4. 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 is calculated per 100,000 infants under the age of 1 year in Queensland.
 5. The number of children known to the child protection system represents the number of children whose deaths were registered in the reporting period who were known to the Department of Communities in the 3 years prior to their death.
 6. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
 7. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

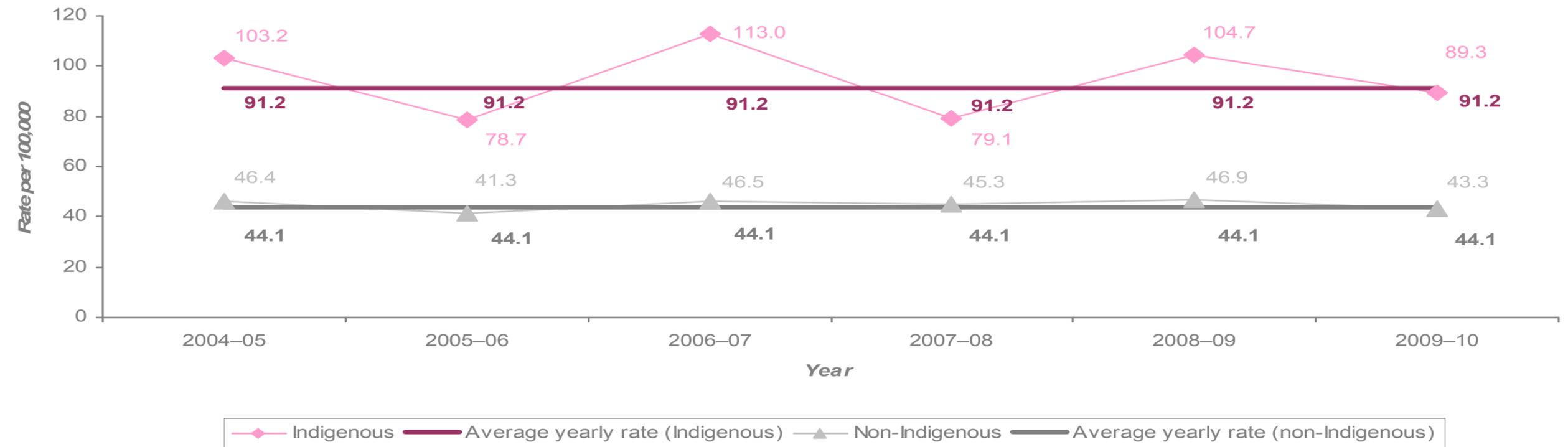
Figure 1.1: Deaths of children and young people in Queensland, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

- Notes:
1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.
 2. Rates for children known to the child protection system are calculated per 100,000 children and young people aged 0–17 years who were known to the Department of Communities in the 3 years prior to their death.

Figure 1.2: Deaths of Aboriginal and Torres Strait Islander children 2004–2010



Data source: Queensland Child Death Register (2004–2010)

- Note:
1. Rates are calculated per 100,000 Aboriginal and Torres Strait Islander and per 100,000 non-Indigenous children and young people aged 0–17 years in Queensland.

Child deaths in Queensland: findings, 1 July 2009 – 30 June 2010

Overview

Between 1 July 2009 and 30 June 2010, the deaths of 485 children and young people were registered in Queensland, a rate of 46.3 per 100,000 children and young people aged 0–17 years.

Males comprised 61.2% of child deaths in 2009–10, compared with 38.6% for females.

The majority of all child deaths were of children under 1 year of age (67.2%), occurring at a rate of 539.1 deaths per 100,000 infants in Queensland. Seventy-three percent of infant deaths occurred within the first 28 days of life. Young people aged 15–17 years had the next highest rate of death.

Table 1.2: Child deaths by gender and age category

Age category	Female	Male	Total		
	<i>n</i>	<i>n</i>	<i>n</i>	%	Rate per 100,000
Under 1 year	124	201	326 ^a	67.2	539.1
1–4 years	22	26	48	9.9	21.1
5–9 years	8	20	28	5.8	9.9
10–14 years	13	15	28	5.8	9.5
15–17 years	20	35	55	11.3	30.2
Total	187	297	485^a	100.0	46.3
Rate per 100,000	36.7	55.3	46.3		

Data source: Queensland Child Death Register (2009–10)

^a Includes the death of 1 infant of indeterminate sex.

- Notes:
1. Rates are calculated per 100,000 children and young people in each age/gender category.
 2. Total rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

Cause of death

Table 1.3 below broadly outlines the causes of death for the 485 children and young people whose deaths were registered in 2009–10. For full details of causes of death by ICD-10 mortality coding classifications, see Appendix 1.2.

Table 1.3: Cause of death by age category

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	
Diseases and morbid conditions	277	18	18	15	18	346	33.1
<i>SIDS and undetermined causes (infants)</i>	14	0	0	0	0	14	1.3
<i>Undetermined > 1 year</i>	0	2	0	0	0	2	*
External causes	8	22	9	10	35	84	8.0
Transport	1	8	4	5	10	28	2.7
<i>Motor vehicle</i>	1	4	1	5	7	18	1.7
<i>Motorcycle/quad bike</i>	0	0	0	0	2	2	*
<i>Pedestrian</i>	0	3	3	0	1	7	0.7
<i>Watercraft</i>	0	1	0	0	0	1	*
Suicide	0	0	0	2	18	20	1.9
Drowning	3	10	4	1	0	18	1.7
<i>Pool</i>	0	4	3	0	0	7	0.7
<i>Non-pool</i>	3	6	1	1	0	11	1.1
Other non-intentional injury-related death	3	3	0	0	4	10	1.0
<i>Accidental threats to breathing</i>	1	1	0	0	0	2	*
<i>Exposure to animate mechanical forces</i>	0	0	0	0	1	1	*
<i>Exposure to inanimate mechanical forces</i>	0	1	0	0	0	1	*
<i>Falls</i>	1	1	0	0	0	2	*
<i>Electrocution</i>	0	0	0	0	1	1	*
<i>Foreign body cutting/piercing</i>	0	0	0	0	1	1	*
<i>Exposure to excessive natural heat</i>	1	0	0	0	0	1	*
<i>Poisoning</i>	0	0	0	0	1	1	*
Fatal assault	1	1	1	2	3	8	0.8
Cause of death pending	41	8	1	3	2	55	5.3
Total	326	48	28	28	55	485	46.3
Rate per 100,000	539.1	21.1	9.9	9.5	30.2	46.3	

Data source: Queensland Child Death Register (2009–10)

* 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.

Diseases and morbid conditions

Deaths from diseases and morbid conditions occurred at a rate of 33.1 per 100,000 children and young people, and accounted for 71.3% of child deaths in 2009–10. The most common diseases and morbid conditions causing death were perinatal conditions and congenital malformations, deformations and chromosomal abnormalities.

Conditions originating in the perinatal period traditionally account for around twice the number of deaths caused by congenital abnormalities. The two previous reporting periods recorded comparable numbers of deaths from each of these causes. In 2009–10 this trend has not continued, with perinatal conditions once again accounting for a far greater number of deaths from diseases and morbid conditions than congenital abnormalities.

Deaths from diseases and morbid conditions were most common in infants aged under 1 year, with the majority of these occurring in infants aged less than 28 days (83.0% of infant deaths from diseases and morbid conditions).

Fourteen infants died from Sudden Infant Death Syndrome (SIDS) and other undetermined causes. SIDS and undetermined causes are considered by the World Health Organisation to be 'natural cause' deaths. Deaths from diseases and morbid conditions and SIDS and undetermined are discussed further in Chapter 2, *Deaths from diseases and morbid conditions*, and in Chapter 8, *Sudden unexpected deaths in infancy*.

External causes

External causes of death (transport, drowning, other non-intentional injury, suicide and fatal assault) accounted for 17.3% of child deaths, and occurred at a rate of 8.0 deaths per 100,000 children and young people aged 0–17 years. As shown in Table 1.1, the rate of death from external causes in 2009–10 is the lowest recorded in all reporting periods to date, and is below the average yearly rate of

9.7 deaths per 100,000 children and young people in Queensland.

Transport

Transport incidents were the leading external cause of death, occurring at a rate of 2.7 deaths per 100,000 children and young people aged 0–17 years in Queensland. While the rate of death from transport incidents has remained stable over the preceding five years, the rate of transport deaths is significantly lower than average in 2009–10.

Motor vehicle crashes were the most common type of fatal transport incident, followed by pedestrian fatalities.

Drowning

Deaths as a result of drowning occurred at a rate of 1.7 per 100,000 children aged 0–17 years in Queensland, a rate which has remained fairly constant across the last 6 years.

Drowning has historically been the leading overall cause of death for children aged 1–4 years, with the exception of the 2007–08 reporting period.

More children drowned in non-pool locations than in swimming pools. Dams were the most common non-pool drowning hazard.

Inadequate supervision was an important factor in almost all the drowning deaths of children aged less than 5 years. Eight of the 13 children under 5 years were left unsupervised for more than 5 minutes, with 6 of these unsupervised for between 15 and 30 minutes.

Other non-intentional injury-related death

Children died as a result of other non-intentional injury (that is, a non-intentional injury that is not a drowning or transport incident) at a rate of 1.0 per 100,000 children aged 0–17 years in Queensland. While the rate of non-intentional injury deaths has remained relatively stable since 2004–05, this year saw the lowest number and rate of deaths from this

cause recorded since reporting began in 2004–05.

Accidental threats to breathing and falls were the most common causes of other non-intentional injury death.

Suicide

Children and young people in Queensland suicided at a rate of 1.9 deaths per 100,000 children aged 0–17 years. The rate has remained relatively stable over the past 6 years.

Since 2004–05, suicide has represented the second-leading cause of death in young people aged 15–17 years, behind transport incidents. In 2009–10, suicide was, for the first time, the leading cause of death for young people in this age category. However, this may be the result of the unprecedented decrease in the number of transport fatalities during 2009–10.

Fatal assault

Children and young people in Queensland were fatally assaulted or neglected at a rate of 0.8 per 100,000, which is comparable to the yearly average rate of death from fatal assault and neglect over the previous 6 years.

Cause of death pending

Fifty-five of the 485 deaths registered in 2009–10 were pending an official cause of death at the time of reporting, and could not be readily classified into one of the categories discussed above.

This is the highest number of cases without a known cause of death ever recorded by the Commission at the time of reporting. Timely provision of cause of death information is essential for the analysis and reporting of mortality statistics, primarily due to its impact on formulating appropriately targeted prevention strategies. The Commission intends to discuss this matter with the relevant stakeholders.

Sudden unexpected deaths in infancy

Sudden unexpected deaths in infancy (SUDI) is not a cause of death, but a research classification that groups together the deaths of apparently normal infants who would be expected to thrive, yet for reasons often unknown do not survive.

The Commission includes infant deaths (children less than 1 year of age) in the SUDI grouping where the death:

- was sudden in nature
- was unexpected, with no previously known conditions that were likely to cause death, and
- did not have an immediately obvious cause.

Despite the wide variation in official causes of death, SUDI cases share many similarities and are grouped together for the purpose of analysis. Chapter 8, *Sudden unexpected deaths in infancy* provides further detail of SUDI deaths in 2009–10, and outlines the future direction of analysis and reporting of SUDI in Queensland. SUDI cases are also counted under the appropriate cause of death.

The deaths of 51 infants were classified as SUDI, a rate of 84.3 per 100,000 infants under 1 year (0.8 per 1,000 live births). This is above average and the highest rate of SUDI recorded across the 6 year period.

Almost two-thirds of SUDIs (62.8%) were awaiting an official cause of death. Of those infants with an official cause of death at the time of reporting, Sudden Infant Death Syndrome (SIDS) and other undetermined causes were the most commonly certified causes (23.1 per 100,000 infants; 0.2 per 1000 live births).

Cause of death by age category

Table 1.4 summarises the leading causes of death in each age category.

Table 1.4: Leading cause of death by age category

Rank	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years
1	Perinatal conditions (262.9 per 100,000)	Drowning (4.4 per 100,000)	Neoplasms (3.9 per 100,000)	Neoplasms (2.0 per 100,000)	Suicide (9.9 per 100,000)
2	Congenital anomalies (133.9 per 100,000)	Transport (3.5 per 100,000)	Drowning (1.4 per 100,000)	Transport (1.7 per 100,000)	Transport (5.5 per 100,000)
		Cause of death pending (3.5 per 100,000)	Transport (1.4 per 100,000)		
3	Cause of death pending (67.8 per 100,000)	Congenital anomalies (1.8 per 100,000)	Infectious diseases (*)	Diseases of the nervous system (*)	Neoplasms (4.9 per 100,000)
				Diseases of the respiratory system (*)	
				Cause of death pending (*)	
4	SIDS & undetermined causes (23.1 per 100,000)	Other non-intentional injury (*)	Congenital anomalies (*)	Fatal assault and neglect (*)	Other non-intentional injury (2.2 per 100,000)
		Infectious diseases (*)		Suicide (*)	
		Neoplasms (*)			
5	Diseases of the respiratory system (6.6 per 100,000)	Diseases of the circulatory system (*)	Fatal assault and neglect (*)	Drowning (*)	Fatal assault and neglect (*)
	Diseases of the nervous system (6.6 per 100,000)	Diseases of the respiratory system (*)	Diseases of the respiratory system (*)	Diseases of the circulatory system (*)	Diseases of the circulatory system (*)
	Endocrine, nutritional and metabolic diseases (6.6 per 100,000)		Diseases of the circulatory system (*)	Diseases of the digestive system (*)	Diseases of the nervous system (*)
	Undetermined > 1 year (*)	Cause of death pending (*)	Endocrine, nutritional and metabolic diseases (*)		

Data source: Queensland Child Death Register (2009–10)

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

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

Under 1 year

Conditions originating in the perinatal period were the most frequent cause of death for infants under 1 year of age, accounting for more than 48.8% of the deaths in this age category. This was followed by congenital malformations, deformations and chromosomal abnormalities (24.8% of infant deaths).

1–4 years

Drowning was once again the leading cause of death for 1–4 year olds. With the exception of the 2007–08 reporting period, drowning has consistently been the leading cause of death for children aged 1–4 years since 2005–06.

Deaths as a result of transport incidents accounted for the next highest number of deaths of 1–4 year olds. Congenital malformations, deformations and chromosomal abnormalities were the third most common cause of death in this age category.

5–9 years

Neoplasms were the leading cause of death for children aged 5–9 years. This is in line with all previous reporting periods except 2008–09, in which transport was the leading cause of death for this age category.

10–14 years

As in 2008–09, neoplasms were again the leading cause of death for this age category, followed by transport incidents. This is in contrast to earlier reporting periods in which transport and suicide consistently featured as the leading causes of death among 10–14 year olds.

15–17 years

In all previous reporting periods, transport was the leading cause of death followed by suicide, for children aged 15–17 years. For the first time, in 2009–10 suicide was the leading cause for young people in this age category. However, this may be the result of the unprecedented decrease in the number of transport fatalities during 2009–10.

Aboriginal and Torres Strait Islander status

Of the 485 children and young people who died, 57 were identified as Aboriginal or Torres Strait Islander (40 Aboriginal, 12 Torres Strait Islander and 5 both Aboriginal and Torres Strait Islander).

In 4 additional cases, the Police Report of Death to a Coroner or other documentation indicated that the child was Aboriginal or Torres Strait Islander, although this was not reflected in death registration information.

Table 1.5 outlines the causes of death by age category for the total 61 Aboriginal and Torres Strait Islander children. The greatest proportion of these children were under 1 year of age (73.8%), with 57.8% of these deaths occurring within the first 28 days of life. Similar patterns are evident in non-Indigenous children. After infants, non-Indigenous children and young people aged 15–17 years were the next most likely to die, while for Indigenous children, those in the 1–4 year age category were the next most vulnerable.

Aboriginal and Torres Strait Islander children died at 2.1 times the rate of non-Indigenous children, with a rate of 89.3 deaths per 100,000 Indigenous children aged 0–17 years, compared with 43.3 deaths per 100,000 for non-Indigenous children.

Table 1.5: Aboriginal and Torres Strait Islander deaths by cause of death and age category

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total	Rate per 100,000 Indigenous children	Rate per 100,000 non-Indigenous children
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>		
Diseases and morbid conditions	28	2	1	0	1	32	46.8	32.1
SIDS and undetermined causes (infants)	3	0	0	0	0	3	*	1.1
Undetermined > 1 year	0	0	0	0	0	0	0.0	*
External causes	2	3	1	0	3	9	13.2	7.7
Suicide	0	0	0	0	3	3	*	1.7
Drowning	1	1	1	0	0	3	*	1.5
Other non-intentional injury	1	1	0	0	0	2	*	0.8
Fatal assault	0	1	0	0	0	1	*	0.7
Transport	0	0	0	0	0	0	0.0	2.9
Cause of death pending	12	4	0	1	0	17	24.9	3.9
Total	45	9	2	1	4	61	89.3	43.3
Rate per 100,000 (Indigenous)	1079.4	58.1	*	*	36.7	89.3		
Rate per 100,000 (non-Indigenous)	499.0	18.4	9.9	9.8	29.8	43.3		

Data source: Queensland Child Death Register (2009–10)

* 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. 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, under 1 year; 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.

Deaths from external causes occurred at 1.7 times the rate in the population of Aboriginal and Torres Strait Islander children than in the non-Indigenous population. The number of deaths of Indigenous children from external causes is half the number recorded in 2008–09. This may be more likely to be a reflection of the overall decrease in the number of external cause deaths in Queensland, rather than a true decrease in Indigenous child mortality.

While transport incidents were the leading external cause of death for non-Indigenous children, the leading

external causes of death for Aboriginal and Torres Strait Islander children were suicide and drowning. The number of Aboriginal and Torres Strait Islander young people who took their own lives in 2009–10 is much lower than in previous years. While the Commission has previously reported that Indigenous young people were almost 13 times more likely to suicide than non-Indigenous young people in Queensland, the small number of Indigenous suicides this year does not facilitate the calculation of rates to enable comparisons to be made with rates of suicide in the non-Indigenous population.

However, compared with the non-Indigenous population, the number of Aboriginal and Torres Strait Islander child deaths due to drowning has been consistently low since the Commission commenced reporting in 2004–05, in contrast to research which shows high rates of Indigenous child drowning nationally.

Seventeen of the 45 deaths of Aboriginal and Torres Strait Islander infants were classified as SUDI, a rate of 407.8 per 100,000 Indigenous infants. This is 6.8 times the rate of SUDI deaths among non-Indigenous infants (60.4 deaths per 100,000 non-Indigenous infants). While the gap between the rate of SUDI death in the Indigenous and non-Indigenous infant population appears to be decreasing, this figure has returned to the high levels seen in earlier reporting periods – see Chapter 8, *Sudden unexpected deaths in infancy* for further details.

The Commission will continue to monitor any trends in the gap between Indigenous and non-Indigenous infant mortality over the coming years.

Geographical distribution (ARIA+)

Remote areas of Queensland recorded the highest rate of child death, with 58.9 deaths per 100,000 children aged 0–17 years living in remote areas. Metropolitan areas recorded the next highest rate of child death (45.6 per 100,000), followed by regional areas with 42.7 per 100,000 children.

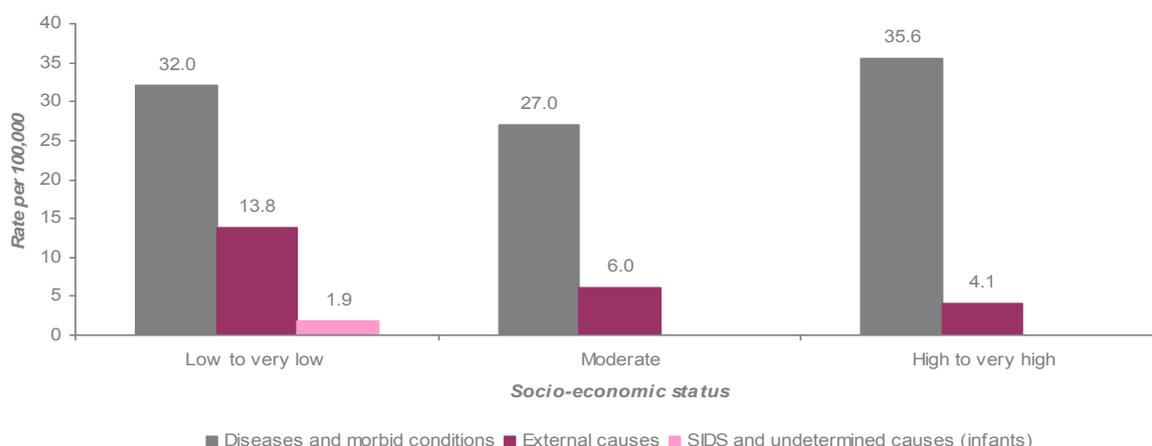
Deaths from diseases and morbid conditions were highest in metropolitan areas (34.0 per 100,000) while external causes were most common in remote areas (16.8 per 100,000).

The rate of transport incidents and drowning were much higher in remote areas than in regional or metropolitan areas. The rate of suicide was highest in regional areas.

Rates of death from diseases and morbid conditions, SIDS and undetermined causes and external causes are illustrated in Figure 1.3. For detailed findings regarding cause of death by geographic area, see Appendix 1.3.

Queensland was not the usual place of residence for 12 of the 485 children and young people who died in Queensland in 2009–10 (see Appendix 1.4).

Figure 1.3: Geographical distribution of child deaths by cause of death



Data source: Queensland Child Death Register (2009–10)

- Notes:
1. Twelve children were not classified as their usual residence was outside Queensland. For further details, see Appendix 1.4.
 2. This figure represents rates of death, not actual numbers.
 3. The number of deaths from SIDS and undetermined causes in metropolitan and remote areas was not large enough to facilitate the calculation of rates. The deaths of infants from SIDS and undetermined causes in these areas are therefore not represented here.

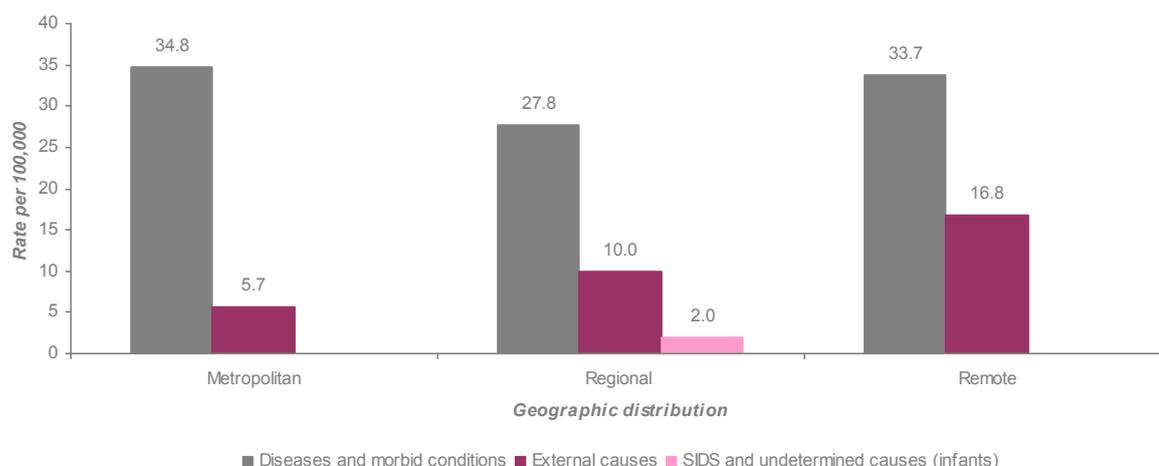
Socio-economic status (SEIFA)

Children living in low to very low socio-economic areas recorded the highest rate of child deaths (52.4 per 100,000 children). High to very high socio-economic areas recorded a rate of 44.0 per 100,000, while moderate socio-economic areas recorded the lowest rate of child death (36.8 per 100,000).

Deaths from diseases and morbid conditions were highest in high to very high socio-economic areas. Low to very low socio-economic areas recorded the highest rate of death from external causes.

These results are illustrated in Figure 1.4. For detailed findings regarding cause of death by socio-economic status, see Appendix 1.5.

Figure 1.4: Socio-economic status of child deaths by cause of death



Data source: Queensland Child Death Register (2009–10)

- Notes:
1. Twelve children were not classified as their usual residence was outside Queensland. For further details, see Appendix 1.4.
 2. This figure represents rates of death, not actual numbers.
 3. The number of deaths from SIDS and undetermined causes in moderate and high to very high socio-economic areas was not large enough to facilitate the calculation of rates. The deaths of infants from SIDS and undetermined causes in these areas are therefore not represented here.

Children known to the child protection system

Of the 485 children and young people whose deaths were registered in 2009–10, 65 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 3 years before the child's death, the Department of Communities, Child Safety 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.

Information sources available to the Commission also enable the identification of cases where, while the deceased child had not come to the attention of the

Department of Communities, the child's siblings had. In an additional 6 cases, only the deceased child's siblings were known to the child protection system.

The causes of death for children known to the child protection system are shown in Table 1.7.

Of the children known to the child protection system, 33.8% died as a result of diseases and morbid conditions, and 46.2% as a result of external causes. The leading external cause of death for children known to the child protection system was transport, closely followed by drowning.

Comparative rates of death

Families of children who have been known to the child protection system are often characterised by chaotic social circumstances such as parental substance abuse, family violence, mental illness, transience and a history of involvement with corrective services. As such, children known to the child protection system comprise a vulnerable and at-risk cohort and for this reason were represented across all causes of death with a rate of 50.2 deaths per 100,000, compared with 46.3 deaths per 100,000 for all Queensland children.²

Specifically, children known to the child protection system were:

- 2.0 times more likely to suicide
- 3.2 times more likely to drown, and
- 2.9 times more likely to die in a transport incident.

The higher rate of death of children known to the child protection system compared with those in the general population may be explained by a combination of the complex contextual factors discussed above and the increasing community capacity to identify these concerns and make the necessary referrals. From a research perspective, this represents an opportunity for the implementation of new findings about risk factors into existing assessment and case management frameworks that are currently being applied to a large number of at-risk children.

In that respect, it is preferable that children and young people who are at-risk come to the attention of the child protection system, which then provides an opportunity for assessment and intervention based upon an increasing understanding of the risk factors at play. As such, members of the community should be encouraged to continue reporting any concerns about the safety of children. If there is a reason to suspect a child in Queensland is experiencing harm, or is at risk of experiencing harm, it is important that risk factors be assessed by child protection experts. Early

intervention and prevention can make a difference.

Available data about the deaths of children known to the child protection system

This report examines the deaths of 65 children whose deaths were *registered* by the Registry of Births, Deaths and Marriages in the reporting period (1 July 2009 – 30 June 2010). This figure is different to the number of deaths that actually *occurred* in this period. For example, the death of a child that occurs in June may not be registered until July/August, carrying the review of this death to the following reporting period.

The reporting of child deaths by date of registration accords with datasets managed by the Australian Bureau of Statistics and the Australian Institute of Health and Welfare, as well as the child death data managed by other Australian states and territories.

When a child known to the child protection system dies in Queensland, an additional review is triggered that explores the quality of child protection service delivery, including whether any actions or inactions of the service system contributed to the death. This process involves an initial review by the Department of Communities and subsequent oversight by the independent Child Death Case Review Committee (CDCRC). Due to legislative mandates and timeframes associated with these review processes, figures published by the Department of Communities and the CDCRC about the number of deaths of children known to the child protection system differ in some respects. The following table explains the key differences.

Table 1.6: Available data about deaths of children known to the child protection system

Figure	Data source	Methodology
65 (Deaths registered in 2009–10)	<i>Annual Report: Deaths of Children and Young People, Queensland 2009–10</i>	Reviews risk factors in deaths of children and young people known to the child protection system in Queensland that were registered in 2009–10. The review process involves analysis of available death records, for example, police reports to Coroner (where available) and autopsy findings.
59 (Deaths that occurred in 2009–10)	Commission for Children and Young People and Child Guardian, Queensland Child Death Register	The Commission’s Child Death Register is able to report on the number of deaths of children known to the child protection system that occurred in 2009–10, that is, the child or young person died between 1 July 2009 and 30 June 2010.
64 (Deaths the department became aware of during 2009–10 that require a child death case review)	Department of Communities	Section 246D of the <i>Child Protection Act 1999</i> requires the department to conduct a review of its involvement with a child within 6 months of becoming aware of the death of a child that was known to the child protection system in the 3 years prior to their death. For the purpose of its reporting, the department does not report on the actual number of deaths that occurred during 2009–10, but instead reports on the number of deaths it became aware of in the period.

Table 1.7: Cause of death of children known to the child protection system by age category

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Child known	Siblings known	Child or siblings known	Rate per 100,000 in child protection system	Rate per 100,000 all Queensland children
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>		
Diseases and morbid conditions	5	4	4	6	3	22	1	23	17.0	33.1
SIDS and undetermined causes (infants)	2	0	0	0	0	2	1	3	*	1.3
Undetermined >1 year	0	0	0	0	0	0	0	0	0.0	*
External causes	2	10	2	3	13	30	1	31	23.2	8.0
Transport	0	2	1	2	5	10	0	10	7.7	2.7
Drowning	0	6	1	0	0	7	1	8	5.4	1.7
Suicide	0	0	0	0	5	5	0	5	3.9	1.9
Other non-intentional injury	1	2	0	0	1	4	0	4	3.1	1.0
Fatal assault	1	0	0	1	2	4	0	4	3.1	0.8
Cause of death pending	4	4	1	2	0	11	3	14	8.5	5.3
Total	13	18	7	11	16	65	6	71	50.2	46.3

Data source: Queensland Child Death Register (2009–10)

* 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 2009–10 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.

Coronial deaths

Of the 485 deaths of children and young people registered in 2009–10, 36.1% were reportable under the *Coroners Act 2003* (175 deaths). At the time of reporting, coronial findings had been finalised for 17.1% of reportable deaths. Autopsy reports were provided in 63.3% of the finalised cases and in 20 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 61.7% of reportable deaths. No cause of death information was available in 38.3% of cases.

¹ Details of the methodology used in the preparation of this report can be found in Appendix 1.1.

² Caution must be exercised when making comparisons and interpreting rates because of 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 findings when small numbers are involved.

Part II: Deaths from diseases and morbid conditions

Chapter 2

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

Key findings

- In 2009–10, the deaths of 346 children were the result of diseases and morbid conditions, a rate of 33.1 deaths per 100,000 children and young people aged 0–17 years in Queensland.
- The most common causes of death as a result of diseases and morbid conditions were certain conditions originating in the perinatal period (15.2 deaths per 100,000 children and young people aged 0–17 years), followed by congenital malformations, deformations and chromosomal abnormalities (8.4 deaths per 100,000). Together, these causes accounted for 71.4% of the deaths from diseases and morbid conditions.
- Children in their first year of life are particularly vulnerable to disease and morbid conditions. Infants accounted for 80.1% of deaths from diseases and morbid conditions.
- Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 51.2 deaths per 100,000 Indigenous children aged 0–17 years (compared with 31.8 deaths per 100,000 non-Indigenous children).
- The rate of death of Aboriginal and Torres Strait Islander children from diseases and morbid conditions has fluctuated markedly over the previous 6 years, ranging between 46.3 and 82.3 deaths per 100,000 Indigenous children.
- Children known to the child protection system had a lower rate of death from diseases and morbid conditions than the overall rate for Queensland children (18.6 deaths per 100,000 children known to the child protection system, compared with 33.1 deaths per 100,000 children in Queensland).
- No deaths occurred as a result of the H1N1 virus (swine flu)¹, human immunodeficiency virus (HIV), hepatitis or other potentially sexually transmissible infections (STIs).

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Chapter 2

Deaths from diseases and morbid conditions

Table 2.1: Summary of deaths from diseases and morbid conditions of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All deaths from diseases and morbid conditions													
Diseases and morbid conditions	380	39.6	315	32.4	382	37.9	346	34.4	396	38.7	346	33.1	35.3
Gender													
Female	165	35.3	121	38.4	159	32.4	156	31.8	175	35.1	141 ^a	27.7	30.7
Male	215	43.6	194	61.6	223	43.2	190	36.8	221	42.1	204 ^a	38.0	39.6
Aboriginal and Torres Strait Islander status													
Indigenous	50	79.3	30	46.3	51	82.3	32	47.8	51	75.2	35	51.2	61.2
Non-Indigenous	330	36.8	285	31.4	331	35.0	314	33.4	345	36.1	311	31.8	33.4
Known to the child protection system													
Known to the child protection system	17	–	24	39.8	30	34.9	22	28.6	39	38.3	24	18.6	30.2
Perinatal conditions													
Perinatal conditions	156	318.7	147	284.5	159	289.8	132	240.6	152	277.5	159	262.9	275.4
<i>Indigenous</i>	–	–	16	468.8	22	630.2	13	336.2	16	404.3	14	335.8	–
Congenital anomalies													
Congenital anomalies	83	8.6	60	6.2	92	9.1	112	11.1	107	10.5	88	8.4	8.8
<i>Indigenous</i>	–	–	3	*	6	9.7	10	14.9	11	16.2	11	16.1	–
Neoplasms (cancers and tumours)													
Neoplasms	35	3.6	24	2.5	32	3.2	31	3.1	24	2.3	31	3.0	2.9
<i>Indigenous</i>	–	–	1	*	4	6.5	3	*	4	5.9	2	*	–
Infections													
Infections	–	–	19	2.0	13	1.3	12	1.2	24	2.3	16	1.5	–
<i>Indigenous</i>	–	–	2	*	7	11.3	1	*	7	10.3	3	*	–
Communicable (nationally notifiable disease)													
Communicable diseases	–	–	5	0.5	2	*	5	0.5	3	*	5	0.5	–

Data source: Queensland Child Death Register (2004–2010)

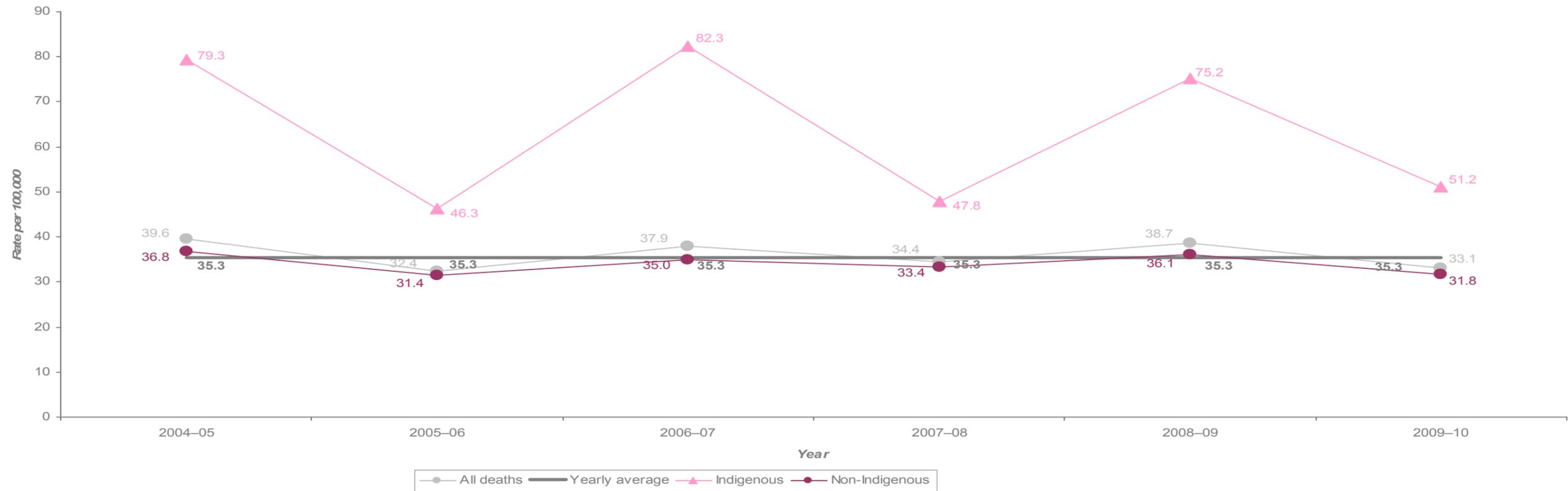
* Rates have not been calculated for numbers less than 4.

– These data were not available at the time of publication.

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

- Notes:
1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
 2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
 3. Rates are calculated per 100,000 children (in the gender/Indigenous status bracket stated) in Queensland in each year.
 4. 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.
 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. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
 7. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

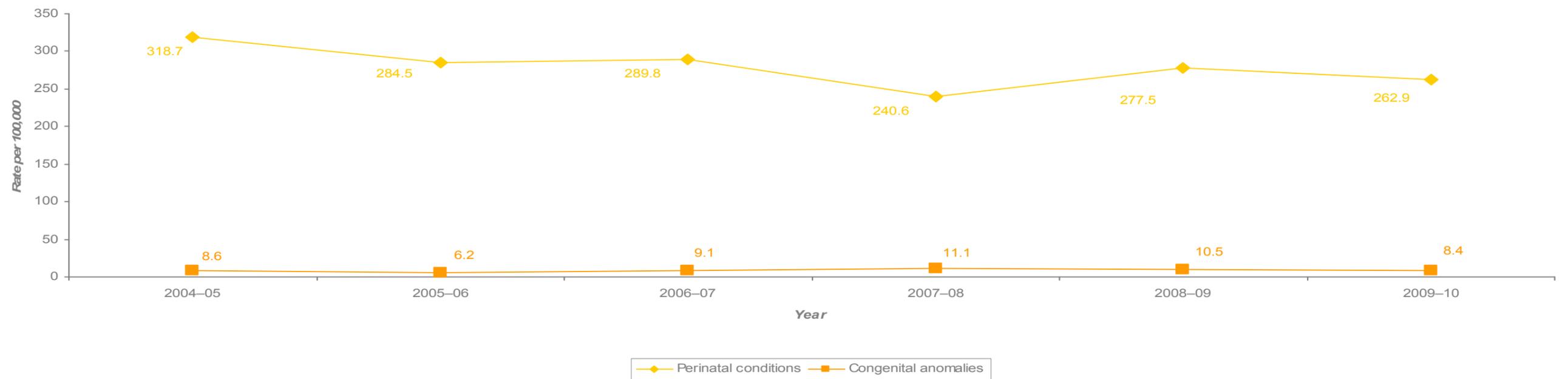
Figure 2.1: Deaths from diseases and morbid conditions, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

Notes: 1. Rates are calculated per 100,000 Aboriginal and Torres Strait Islander and per 100,000 non-Indigenous children and young people aged 0–17 years in Queensland.

Figure 2.2: Deaths from diseases and morbid conditions – leading causes, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

Note: 1. Rates for perinatal conditions are calculated per 100,000 infants under 1 year of age in Queensland.

2. Rates for congenital anomalies have been calculated per 100,000 children and young people aged 0–17 years in Queensland.

Diseases and morbid conditions: findings, 2009–10

Between 1 July 2009 and 30 June 2010, 346 children and young people died from diseases and morbid conditions in Queensland, representing 71.3% of all child deaths and a rate of 33.1 deaths per 100,000 children and young people aged 0–17 years.

Table 2.2 shows the causes of all child deaths from diseases and morbid conditions, broken down by ICD-10 chapter level classifications.

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

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total		Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	%	
Certain conditions originating in the perinatal period (P00–P96)	159	0	0	0	0	159	46.0	15.2
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	81	4	2	0	1	88	25.4	8.4
Neoplasms (C00–D48)	2	3	11	6	9	31	9.0	3.0
SIDS and undetermined causes (R95–R99)	14	2	0	0	0	16	4.6	1.5
Diseases of the nervous system (G00–G99)	4	1	0	3	3	11	3.2	1.1
Diseases of the respiratory system (J00–J99)	4	2	1	3	0	10	2.9	1.0
Certain infectious and parasitic diseases (A00–B99)	3	3	3	0	0	9	2.6	0.9
Diseases of the circulatory system (I00–I99)	2	2	1	1	3	9	2.6	0.9
Endocrine, nutritional and metabolic diseases (E00–E90)	4	1	0	1	2	8	2.3	0.8
Diseases of the digestive system (K00–K99)	2	0	0	1	0	3	0.9	*
Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism (D00–D89)	2	0	0	0	0	2	0.6	*
Total	277	18	18	15	18	346	100.0	33.1
Rate per 100,000	458.0	7.9	6.4	5.1	9.9	33.1		

Data source: Queensland Child Death Register (2009–10)

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

- Note:
1. Rates are calculated per 100,000 children and young people in each age category.
 2. 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.

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 71.4% of all deaths from diseases and morbid conditions.

Neoplasms accounted for 9.0% of deaths from diseases and morbid conditions, while SIDS and other undetermined causes accounted for 4.6%. This includes the deaths of children over the age of 1 year who died of undetermined causes.

Gender

Of the 346 children who died, 59.0% were male and 40.8% were female. Male children died from diseases and morbid conditions at a higher rate than females, with a rate of 38.0 deaths per 100,000 male children aged 0–17 years in Queensland, compared with 27.7 deaths per 100,000 female children. One infant was a child of indeterminate sex and has not been included in gender breakdowns.

Age

There is a generally 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.

Infants under 1 year

Children were significantly more likely to die from diseases and morbid conditions in the first year of life than at any other age, with infants under 1 year accounting for 80.1% of deaths due to diseases and morbid conditions, a rate of 458.0 deaths per 100,000 infants (4.3 deaths per 1000 live births).

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.

Table 2.3 shows the age and cause of infant deaths.

Half of all infant deaths from diseases and morbid conditions occurred on the day of birth and a further 20.6% had occurred by the end of the first week. In total, 83.0% of infant deaths occurred in the neonatal period, a rate of 3.5 neonatal deaths per 1000 live births.

The majority of infant deaths in the neonatal period were the result of conditions originating in the perinatal period (2.3 deaths per 1000 live births), followed by congenital malformations, deformations and chromosomal abnormalities (1.0 deaths per 1000 live births).

Infants died from diseases and morbid conditions in the post-neonatal period at a rate of 0.7 deaths per 1000 live births. Congenital malformations, deformations and chromosomal abnormalities, and SIDS and undetermined causes were the leading causes of death in the post-neonatal period.

Table 2.3: Age and cause of infant deaths

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)	98	32	18	148	8	1	0	0	0	1	0	0	0	1	0	11	159
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	37	22	9	68	4	2	2	0	2	0	1	0	0	2	0	13	81
SIDS and undetermined causes (R95–R99)	0	0	2	2	2	2	1	4	1	0	1	0	1	0	0	12	14
Diseases of the nervous system (G00–G99)	2	1	0	3	0	0	0	0	0	0	0	1	0	0	0	1	4
Endocrine, nutritional and metabolic diseases (E00–E90)	1	2	0	3	1	0	0	0	0	0	0	0	0	0	0	1	4
Diseases of the respiratory system (J00–J99)	0	0	1	1	1	0	0	0	0	0	0	2	0	0	0	3	4
Certain infectious and parasitic diseases (A00–B99)	0	0	1	1	0	1	0	0	0	0	0	0	1	0	0	2	3
Diseases of the circulatory system (I00–I99)	0	0	1	1	0	0	0	0	0	0	0	1	0	0	0	1	2
Diseases of the digestive system (K00–K99)	0	0	1	1	1	0	0	0	0	0	0	0	0	0	0	1	2
Diseases of the blood and blood forming organs and certain disorders involving the immune mechanism (D50–D89)	0	0	1	1	0	0	0	0	0	0	1	0	0	0	0	1	2
Neoplasms (C00–D48)	1	0	0	1	0	0	0	0	0	0	0	0	0	1	0	1	2
Total	139	57	34	230	17	6	3	4	3	1	3	4	2	4	0	47	277

Data source: Queensland Child Death Register (2009–10)

* 28 days to 2 months

1–4 years

Children aged 1–4 years died from diseases and morbid conditions at a rate of 7.9 deaths per 100,000 children in this age category.

The leading causes of death in this age category were congenital malformations, deformations and chromosomal abnormalities, followed by neoplasms and infectious and parasitic diseases.

5–9 years

Children aged 5–9 years died from diseases and morbid conditions at a rate of 6.4 deaths per 100,000 children aged 5–9 years.

Neoplasms accounted for the largest number of deaths in this age category, followed by infectious and parasitic diseases.

10–14 years

Children aged 10–14 years had the lowest rate of death from diseases and morbid conditions, dying at a rate of 5.1 deaths per 100,000 children aged 10–14 years.

The leading cause of death in this age category was neoplasms. This was followed by diseases of the nervous system and diseases of the respiratory system.

15–17 years

Young people aged 15–17 years were the second-most likely age category to die from diseases and morbid conditions after infants, at a rate of 9.9 deaths per 100,000 young people aged 15–17 years. This differs from the patterns observed in previous reporting periods, in which children aged 1–4 years consistently recorded the second-highest rate of death from natural causes.

The leading causes of death in this age category were neoplasms followed by diseases of the nervous system and diseases of the circulatory system.

Aboriginal and Torres Strait Islander status

Thirty-five children and young people who died from diseases and morbid conditions were Aboriginal or Torres Strait Islander. Twenty-three identified as Aboriginal, 9 as Torres Strait Islander and 3 as both Aboriginal and Torres Strait Islander.

Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 51.2 deaths per 100,000 Aboriginal and Torres Strait Islander children aged 0–17 years (compared with 31.8 deaths per 100,000 non-Indigenous children).

As shown in Table 2.1, the rate of death of Aboriginal and Torres Strait Islander children from diseases and morbid conditions has fluctuated markedly over the previous 6 years, ranging between 46.3 and 82.3 deaths per 100,000 Indigenous children.

Geographical distribution (ARIA+)

Children living in metropolitan areas of Queensland died at a rate of 34.8 deaths per 100,000 children aged 0–17 years. Remote areas recorded a similar rate at 33.7 deaths per 100,000. Regional areas had the lowest rate of death from diseases and morbid conditions with 27.8 deaths per 100,000.

Queensland was not the usual place of residence for 11 of the 346 children.

Socio-economic status (SEIFA)

The rate of death from diseases and morbid conditions was highest in high to very high socio-economic areas, with 35.6 deaths per 100,000 children aged 0–17 years, compared with 32.0 deaths per 100,000 children living in low to very low socio-economic areas and 27.0 deaths per 100,000 children living in moderate socio-economic areas.

Children known to the child protection system

Of the 346 children who died from diseases and morbid conditions, 6.9% were known to the child protection system² in the 3 years before their death (24 deaths). Children known to the child protection system died from diseases and morbid conditions at a lower rate than that of all Queensland children (18.6 deaths per 100,000 children known to the child protection system, compared with 33.1 deaths per 100,000 children in Queensland).

In a further 2 cases, the Police Report of Death to a Coroner (Form 1) indicated that the family had a history of involvement with the child protection system in relation to the deceased child's siblings only.

Deaths from diseases and morbid conditions: major causes

As discussed earlier, the main causes of mortality from diseases and morbid conditions were conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities, followed by neoplasms. These causes are considered in detail in this section.

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 conditions³ 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 birthweight, as well as disorders specific to the perinatal period such as respiratory and cardiovascular disorders, infections, and endocrine and metabolic disorders.

As all perinatal deaths occurred in infants (aged less than 1 year), all rates in this section have been given for infant populations.

Table 2.4: Deaths due to perinatal conditions by gender

Cause of death	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Foetus and newborn affected by maternal factors and by complications of pregnancy, labour and delivery (P00–P04)	42	55	98 ^a	162.0
Disorders related to length of gestation and foetal growth (P05–P08)	9	13	22	36.4
Haemorrhagic and haematological disorders of foetus and newborn (P50–P61)	4	8	12	19.8
Respiratory and cardiovascular disorders specific to the perinatal period (P20–P29)	3	8	11	18.2
Digestive system disorders of foetus and newborn (P75–P78)	3	3	6	9.9
Other disorders originating in the perinatal period (P90–P96)	4	1	5	8.3
Infections specific to the perinatal period (P35–P39)	2	1	3	*
Conditions involving the integument and temperature regulation of foetus and newborn (P80–P83)	2	0	2	*
Total	69	89	159^a	262.9
Rate per 100,000	235.4	285.6	262.9	

Data source: Queensland Child Death Register (2009–10)

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

^a Includes the death of one infant of indeterminate sex.

Note: 1. Rates are calculated per 100,000 infants under 1 year of age in Queensland.

One hundred and fifty-nine infants died from perinatal conditions, a rate of 262.9 deaths per 100,000 infants.

The majority of deaths due to perinatal conditions were caused by the foetus and/or newborn being affected by maternal factors or complications of pregnancy, labour and delivery, followed by disorders related to the length of gestation and foetal growth. Together these causes accounted for 75.5% of all deaths due to perinatal conditions.

Gender

Male infants died from perinatal conditions at a higher rate than females, with a rate of 285.6 deaths per 100,000 male infants, compared with 235.4 deaths per 100,000 female infants.

Aboriginal and Torres Strait Islander status

Around 8.8% of infants who died from perinatal conditions were Aboriginal or Torres Strait Islander (14 deaths). Aboriginal and Torres Strait Islander infants were over-represented in deaths from perinatal conditions, with a rate of 335.8 deaths per 100,000 Indigenous infants, compared with 257.5 deaths per 100,000 non-Indigenous infants.

Congenital anomalies

Congenital anomalies⁴ are mental and physical conditions present at birth that are either hereditary or caused by environmental factors.

Table 2.5: Deaths due to congenital anomalies by gender

Cause of death	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Congenital malformations of the circulatory system (Q20–Q28)	9	22	31	3.0
Congenital malformations and deformations of the musculoskeletal system (Q65–Q79)	4	8	12	1.1
Other congenital malformations (Q80–Q89)	4	8	12	1.1
Congenital malformations of the urinary system (Q60–Q64)	2	9	11	1.1
Congenital malformations of the nervous system (Q00–Q07)	5	4	9	0.9
Chromosomal abnormalities, not elsewhere classified (Q90–Q99)	4	5	9	0.9
Other congenital malformations of the digestive system (Q38–Q45)	2	1	3	*
Congenital malformations of the respiratory system (Q30–Q34)	1	0	1	*
Total	31	57	88	8.4
Rate per 100,000	6.1	10.6	8.4	

Data source: Queensland Child Death Register (2009–10)

* 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.

Eighty-eight children and young people died from congenital anomalies, a rate of 8.4 deaths per 100,000 children aged 0–17 years.

The greatest number of deaths due to congenital anomalies were caused by malformations of the circulatory system, followed by malformations and deformations of the musculoskeletal system and other congenital malformations.

Gender

Males died from congenital anomalies at a rate of 10.6 deaths per 100,000 male children aged 0–17 years, compared with 6.1 deaths per 100,000 female children.

Age

The vast majority of deaths due to congenital anomalies occurred in infants under 1 year of age (92.0%). Of the 81 infant deaths, most occurred in the neonatal period (84.0%).

Aboriginal and Torres Strait Islander status

Eleven children who died from congenital anomalies were Aboriginal or Torres Strait Islander. Aboriginal and Torres Strait Islander children died from congenital anomalies at a rate of 16.1 deaths per 100,000 Indigenous children aged 0–17 years, compared with 7.9 deaths per 100,000 non-Indigenous children.

Neoplasms (cancers and tumours)

Although these terms are not synonymous, the term ‘neoplasm’⁵ 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. 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.

Table 2.6: Deaths due to neoplasms by gender

Type of neoplasm	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Eye, brain and other parts of the central nervous system (C69–C72)	3	6	9	0.9
Malignant neoplasms, stated or presumed to be primary, of lymphoid, haematopoietic and related tissue (C81–C96)	4	4	8	0.8
Urinary tract (C64–C68)	3	0	3	*
Neoplasms of uncertain or unknown behaviour (D37–D48)	0	3	3	*
Bone and articular cartilage (C40–C41)	1	1	2	*
Digestive organs (C15–C26)	1	1	2	*
Thyroid and other endocrine glands (C73–C75)	1	1	2	*
Mesothelial and soft tissue (C45–C49)	1	1	2	*
Total	14	17	31	3.0
Rate per 100,000	2.7	3.2	3.0	

Data source: Queensland Child Death Register (2009–10)

* 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

Thirty-one children and young people died from cancers and tumours, a rate of 3.0 deaths per 100,000 children aged 0–17 years.

The most common types of neoplasms were those of the eye, brain and other parts of the central nervous system, followed by neoplasms of lymphoid, haematopoietic and related tissue. Together these accounted for 54.8% of deaths from neoplasms.

Gender

Males died from neoplasms at a slightly higher rate than females (3.2 deaths per 100,000 male children aged 0–17 years, compared with 2.7 per 100,000 female children).

Age

Children aged 5–9 years and 15–17 years recorded the highest number of deaths from neoplasms.

Aboriginal and Torres Strait Islander status

Two of the children who died of cancers were Aboriginal or Torres Strait Islander.⁶

Infections

Infections⁷ is a hybrid category composed of certain infections and parasitic diseases, diseases of the nervous system and diseases of the respiratory system.

Table 2.7: Deaths due to infections by gender

Cause of death	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Influenza and pneumonia (J09–J18)	3	3	6	0.6
Other bacterial diseases (A30–A49)	0	4	4	0.4
Tuberculosis (A15–A19)	0	2	2	*
Protozoal diseases (B50–B64)	1	0	1	*
Sequelae of infectious and parasitic diseases (B90–B94)	1	0	1	*
Other viral diseases (B25–B34)	0	1	1	*
Acute upper respiratory infections (J00–J06)	0	1	1	*
Total	5	11	16	1.5
Rate per 100,000	1.0	2.0	1.5	

Data source: Queensland Child Death Register (2009–10)

* 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

Sixteen children and young people died from infections, a rate of 1.5 deaths per 100,000 children aged 0–17 years.

The highest number of deaths due to infections were caused by influenza and pneumonia, followed by other bacterial diseases.

The Commission is concerned about the number of deaths occurring as a result of potentially preventable infections, and hopes to explore this issue in conjunction with members of the Australian and New Zealand Child Death Review and Prevention Group, through their work on preventable child deaths. For further information on the work of the ANZCDR&PG, see Chapter 9, *Child death prevention activities*.

Gender

Males died from infections at double the rate of females (2.0 deaths per 100,000 male children aged 0–17 years, compared with 1.0 per 100,000 female children).

Age

Deaths from infections generally decreased with the increasing age of the child. Just less than half of the deaths due to infections occurred in infants under 1 year. Five of the 7 deaths in this age category occurred in the post-neonatal period.

Aboriginal and Torres Strait Islander status

Three of the 16 children who died from infections were Aboriginal or Torres Strait Islander.⁸

Deaths from communicable (nationally notifiable) 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 by all states and territories. 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. See Appendix 2.1 for the complete Notifiable Disease Schedule compiled by the National Notifiable Diseases Surveillance System.

Five children and young people died of a notifiable disease as shown in Table 2.8.

Table 2.8: Notifiable diseases by gender

Cause of death	Female	Male	Total
	<i>n</i>	<i>n</i>	<i>n</i>
Tuberculosis	0	2	2
Meningococcal disease – invasive	0	1	1
Rubella	1	0	1
Shiga toxin-producing/verotoxin-producing <i>Escherichia coli</i> – STEC/VTEC	0	1	1
Total	1	4	5

Data source: Queensland Child Death Register (2009–10)

Two of the 5 children who died from notifiable diseases were aged under 1 year, 2 were aged 5–9 years and 1 was aged 1–4 years.

No deaths from notifiable conditions were due to the H1N1 virus (swine flu)⁹, human immunodeficiency virus (HIV), hepatitis or other sexually transmissible infections (STIs).¹⁰

Two of the deaths from notifiable conditions were due to vaccine-preventable conditions.¹¹

None of the children who died from notifiable conditions were Aboriginal or Torres Strait Islander.

-
- ¹ One infant was suspected of having swine flu at the time of their death. This death was pending an official cause at the time of reporting – information presented here is based on circumstances described in police reports and has not been confirmed by an autopsy report.
- ² 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 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.
- ³ 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 Commission does not currently have access to either complete death certificates or perinatal data collection forms. Death certificates for infants who die in the neonatal period include information on birthweight and gestation that may be relevant to the underlying cause of death.
- ⁴ ICD-10 Chapter XVII, *Congenital malformations, deformations and chromosomal abnormalities*.
- ⁵ ICD-10 Chapter II, *Neoplasms*.
- ⁶ Rates have not been calculated for numbers less than 4.
- ⁷ 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.
- ⁸ Rates have not been calculated for numbers less than 4.
- ⁹ One infant was suspected of having swine flu at the time of their death. This death was pending an official cause at the time of reporting – information presented here is based on circumstances described in police reports and has not been confirmed by an autopsy report.
- ¹⁰ The *Queensland HIV, Hepatitis C and Sexually Transmissible Infections Strategy 2005–2011* represents a whole-of-government approach to the management of HIV, hepatitis C and STIs across Queensland. Under this strategy the Commission has agreed to report numbers of deaths from HIV, hepatitis or other STIs.
- ¹¹ In Australia, programs of mass immunisation are mostly administered by state and territory governments. The National Health and Medical Research Council takes an advisory role on immunisation and sets a Standard Childhood Vaccination Schedule. The current schedule includes vaccinations against the following diseases: diphtheria, tetanus, pertussis (whooping cough), poliomyelitis, haemophilus influenza type b (HiB), measles, mumps and rubella. HiB vaccination has been included on the schedule since 1994; the remaining vaccinations were included on the schedule throughout the period 1982–95. Although not part of the immunisation schedule, hepatitis B and meningococcal vaccine is provided to high-risk populations.

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Part III: Non-intentional injury-related deaths

Chapter 3

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

Key findings

- In 2009–10, children and young people died in transport incidents at a rate of 2.7 deaths per 100,000 children and young people aged 0–17 years (28 deaths).
- The rate of child deaths from transport incidents is the lowest recorded for all reporting periods to date. This is reflective of an overall decrease in road fatalities in 2010.
- Despite the decrease in the number and rate of deaths, transport incidents remained the leading external cause of death overall and for children in the 10–14 year age category. For the past 5 reporting periods, transport has consistently been the leading cause of death for the 15–17 year olds, followed by suicide. In 2009–10 suicide exceeded transport fatalities for 15–17 year olds.

Off-road motorcycle incidents – the Commission has previously identified the deaths of children as a result of motorcycle and quad bike incidents as an issue of concern, particularly as around half of these incidents occur off-road where licensing laws do not apply. In 2009–10 the Commission undertook a 6-year analysis of motorcycle/quad bike fatalities, and intends to consult with relevant stakeholders to address issues arising from this analysis in the year ahead.

Peer passengers – since 2007, drivers under the age of 25 have been restricted to carrying a maximum of one passenger under the age of 21 between the hours of 11pm and 5am (excluding immediate family members). Seven of the 17 passenger deaths occurred while travelling with young drivers under 25 years of age, including 4 deaths where the driver was 17 years of age. Two of these incidents occurred between the hours of 11pm and 5am, with 1 of these being in breach of the licensing laws by carrying more than 1 peer passenger.

Keeping Country Kids Safe – in 2009 the Commission launched the *Keeping Country Kids Safe* initiative, which aims to develop a community-driven, evidence-based prevention strategy to reduce death and injury to children in country areas of Queensland. Transport incidents were the leading cause of injury death to children in country Queensland between 2004 and 2008. In the coming year, the Commission intends to collaborate with key rural sector stakeholders to develop an action plan for addressing the risks associated with transport fatalities.

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Chapter 3 Transport

Table 3.1: Summary of transport deaths of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All transport deaths													
Transport incidents	46	4.8	41	4.2	45	4.5	50	5.0	45	4.4	28	2.7	4.2
Gender													
Female	15	3.2	11	2.3	14	2.9	21	4.3	18	3.6	10	2.0	3.0
Male	31	6.3	30	6.0	31	6.0	29	5.6	27	5.1	18	3.4	5.3
Aboriginal and Torres Strait Islander status													
Indigenous	4	6.3	6	9.2	7	11.3	5	7.5	5	7.4	0	0.0	6.6
Non-Indigenous	42	4.7	35	3.9	38	4.0	45	4.8	40	4.2	28	2.9	4.0
Known to the child protection system													
Known to the child protection system	2	–	8	19.5	6	13.3	10	20.0	7	6.9	10	7.7	8.3
Age category													
Under 1 year	2	*	4	7.7	0	0.0	1	*	0	0.0	1	*	*
1–4 years	12	6.0	6	3.0	6	2.8	10	4.7	7	3.2	8	3.5	3.7
5–9 years	4	1.5	5	1.9	2	*	6	2.2	10	3.6	4	1.4	1.9
10–14 years	6	2.1	5	1.8	12	4.1	9	3.1	6	2.1	5	1.7	2.5
15–17 years	22	13.5	21	12.6	25	14.5	24	13.9	22	12.3	10	5.5	11.6
Motor vehicle													
Motor vehicle incidents	27	2.8	26	2.7	25	2.5	27	2.7	22	2.1	18	1.7	2.4
Gender													
Female	10	2.1	8	1.7	10	2.0	14	2.9	12	2.4	8	1.6	2.1
Male	17	3.4	18	3.6	15	2.9	13	2.5	10	1.9	10	1.9	2.6
Age category													
0–14 years	11	1.4	7	0.9	7	0.8	13	1.6	10	1.2	11	1.3	1.2
15–17 years	16	9.8	19	11.4	18	10.5	14	8.1	12	6.7	7	3.8	8.0
Pedestrian													
Pedestrian deaths	10	1.0	11	1.1	8	0.8	10	1.0	9	0.9	7	0.7	0.9
<i>Low speed run-overs</i>	7	–	2	*	2	*	3	*	2	*	2	*	*
Gender													
Female	3	*	2	*	3	*	4	0.8	3	*	2	*	*
Male	7	1.4	9	1.8	5	1.0	6	1.2	6	1.1	5	0.9	1.2
Age category													
Under 5 years	7	2.8	5	2.0	3	*	3	*	3	*	3	*	1.5
5–9 years	1	*	3	*	0	0.0	1	*	2	*	3	*	*
10–17 years	2	*	3	*	5	1.1	6	1.3	4	0.9	1	*	*
Motorcycle and quad bike													
Motorcycle and quad bike incidents	7	0.7	1	*	7	0.7	8	0.8	6	0.6	2	*	0.5

Data source: Queensland Child Death Register (2004–2010)

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

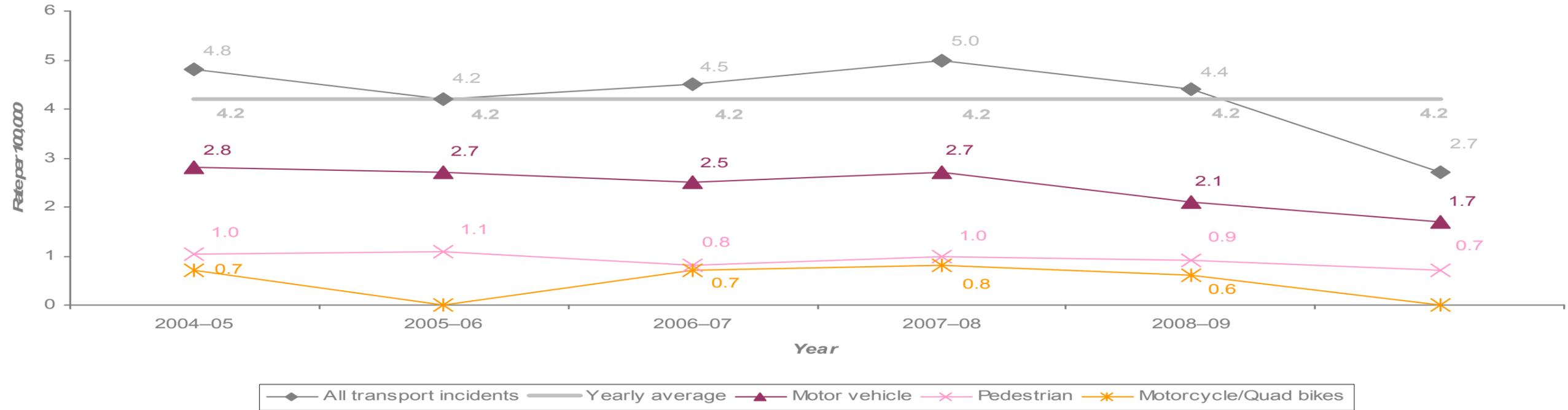
– These data were not available at the time of publication.

Notes: 1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.

2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.

3. Rates are calculated per 100,000 children (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
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. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
6. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

Figure 3.1: Transport incidents, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

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

Transport-related fatalities: findings, 2009–10

Between 1 July 2009 and 30 June 2010, 28 children and young people died as a result of transport incidents (a rate of 2.7 deaths per 100,000 children aged 0–17 years in Queensland).

The rate of child deaths as a result of transport incidents has dropped significantly in this reporting period, compared with previous years. This is in line with a general decrease in transport

fatalities across Queensland. Data from the Department of Transport and Main Roads shows that approximately 80 less deaths have occurred in 2010 compared with the same time last year.¹

Two further transport incidents, which are not counted here, occurred in the context of suicide. Both of these deaths are discussed in Chapter 6, *Suicide*.

Age and gender breakdowns for transport fatalities are given in Table 3.2.

Table 3.2: Transport incident deaths by age category and gender

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Under 1 year	1	0	1	*
1–4 years	3	5	8	3.5
5–9 years	1	3	4	1.4
10–14 years	2	3	5	1.7
15–17 years	3	7	10	5.5
Total	10	18	28	2.7
Rate per 100,000	2.0	3.4	2.7	

Data source: Queensland Child Death Register (2009–10)

* 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/gender category in Queensland.
2. Total rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.

Gender

Males accounted for 64.3% of transport deaths, with more males than females dying in transport incidents in each age category, with the exception of children aged under 1 year. Gender differences were most pronounced in the 15–17 year age category.

The rate of death for males who died in transport incidents was 1.7 times greater than that of females, consistent with previous reporting periods.

Research has established higher rates of death from injury for males, generally attributed to greater risk-taking behaviour displayed by boys. This is also true for young males as drivers, partially explaining the higher rate of male child death as a result of transport incidents.

Age

Under 1 year

One child under the age of 1 year died in a transport incident. This is consistent with previous Commission findings – children under the age of 1 are the least likely to die in transport incidents.

1–4 years

Children aged between 1 and 4 years accounted for the second-greatest number of transport deaths. Children in this age category died in transport incidents at a rate of 3.5 deaths per 100,000 children 1–4 years of age (8 deaths).

The types of transport incidents in which children aged 1–4 years were involved included being injured as pedestrians, and as passengers in motor vehicles. One child in this age category died in an incident involving a watercraft.

5–9 years

Four children in the 5–9 year age category died in transport incidents in 2009–10 (1.4 deaths per 100,000 children aged 5–9 years).

Research suggests that children in this age category are most likely to be involved in transport incidents as pedestrians, as they are increasingly mobile, yet do not have sufficiently developed skills to successfully judge speed and distance. For the first time since 2005–06, the Commission's findings this year align with this research, with 3 of the 4 children in this age category fatally injured as pedestrians.

10–14 years

Children aged 10–14 years had the second-lowest rate of death from transport incidents (1.7 deaths per 100,000 children aged 10–14 years).

All five young people died as passengers in motor vehicles.

15–17 years

Young people aged 15–17 years were at greatest risk of death as a result of involvement in a transport incident. Ten young people aged between 15 and 17 years of age were killed in transport incidents, a rate of 5.5 deaths per 100,000 15–17 year olds in Queensland.

While young people in this age category have consistently recorded the highest rates of death from transport incidents, 2009–10 has seen the lowest number of deaths of 15–17 year olds since reporting began in 2004. This is likely to be a reflection of an overall decline in the number of Queensland transport fatalities has been recorded for 2010.

In contrast with previous years, significantly less young people aged 15–17 years were involved in motor vehicle fatalities as drivers than as passengers. Only 3 of the 10 young people killed were driving at the time of the incident.

In 2007, the Queensland Government introduced a graduated licensing scheme for young drivers. Restrictions now apply to drivers under the age of 25 years, including in relation to the carrying of peer passengers, the use of mobile phones and driving high powered vehicles.

Aboriginal and Torres Strait Islander status

None of the children and young people who died in transport incidents were Aboriginal or Torres Strait Islander.

This finding is in contrast to all previous reporting periods.

Geographical distribution (ARIA+)

Children and young people who usually resided in remote areas had the highest rate of death from transport incidents at 6.7 deaths per 100,000. Children from regional areas died at a rate of 2.9 deaths per 100,000, while children from metropolitan areas had the lowest rate of transport death, at 2.1 deaths per 100,000.

To facilitate an understanding of the areas in which transport fatalities more frequently occur, the following analysis of geographical distribution has been calculated on incident location (as provided in the Police Report of Death to a Coroner), rather than usual place of residence.

The vast majority of transport incidents occurred in rural areas of Queensland, with 20 deaths occurring in regional areas, and a further 3 in remote areas. Five deaths occurred in metropolitan areas. Rates are unable to be calculated for incident location as no appropriate denominator population exists.

It is well recognised, both nationally and internationally, that road fatalities occur with greater frequency in regional and remote (or rural) areas. The Commission's findings for 2009–10 are consistent with those from all previous reporting periods, in which transport fatalities occurred more frequently in rural areas.

The Commission's *Keeping Country Kids Safe* initiative, launched in 2009, recognised the higher rate of transport fatalities in rural areas of Queensland, and aims to help understand and address this issue. See the 'Keeping Country Kids Safe' section at the end of this chapter for further details.

Socio-economic status (SEIFA)

Research has found that the most disadvantaged children are more likely to die in transport-related incidents.

The highest rate of transport deaths was for children living in low to very low socio-economic areas (5.4 per 100,000; 20 deaths).

Moderate socio-economic areas recorded the next highest rate (1.8 per 100,000; 5 deaths). Three children who usually resided in high to very high socio-economic areas died in transport incidents.²

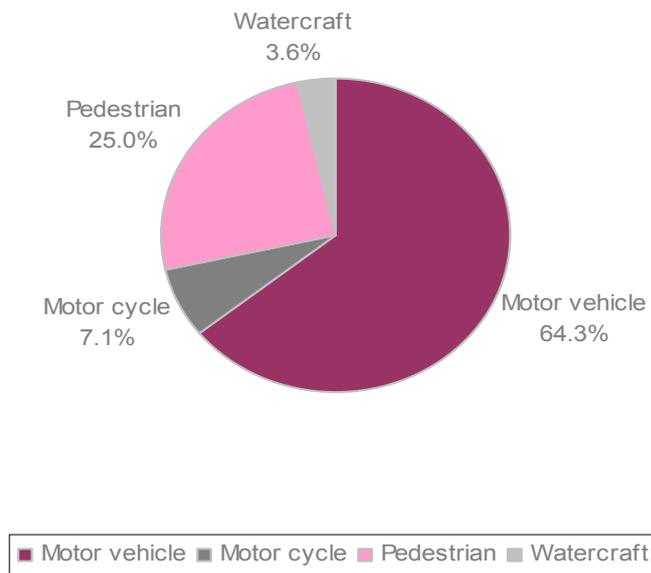
Children known to the child protection system

Of the 28 children who died in transport incidents, 10 were known to the child protection system.³ Children known to the child protection system died in transport incidents at a rate of 7.7 deaths per 100,000, compared with 2.7 deaths per 100,000 children in Queensland.

Nature of transport incident

Figure 3.2 shows the proportion of deaths by type of transport fatality.

Figure 3.2: Nature of transport fatality



Data source: Queensland Child Death Register (2009–10)

The majority of transport fatalities occurred in motor vehicles (64.3%), followed by pedestrian deaths (25.0%). This pattern is consistent with that observed in previous years.

Motor vehicle

Eighteen children and young people died in motor vehicle crashes, a rate of 1.7 deaths per 100,000 children and young people aged 0–17 years in Queensland.

The 18 children and young people were killed in 15 separate incidents. As in previous years, the majority of deaths resulted from single vehicle crashes (61.1%, 11 deaths).

The gender and age of young people who died in motor vehicle crashes, as well as their role, are given in Table 3.3.

Table 3.3: Motor vehicle incidents by role, age category and gender

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Drivers	0	1	1	*
15–17 years	0	1	1	*
Passengers	8	9	17	1.6
Under 1 year	1	0	1	*
1–4 years	2	2	4	1.8
5–9 years	0	1	1	*
10–14 years	2	3	5	1.7
15–17 years	3	3	6	3.3
Total	8	10	18	1.7
Rate per 100,000	1.6	1.9	1.7	

Data source: Queensland Child Death Register (2009–10)

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

Notes: 1. Rates are calculated per 100,000 children in each age/gender category in Queensland.

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

Gender

Males generally die in motor vehicle incidents at a higher rate than females. However, the Commission's findings for the previous two reporting periods did not support this. In 2009–10, males were once again more likely to die in motor vehicle crashes than females, but the rates of death were not markedly different.

Males died at a rate of 1.9 deaths per 100,000 male children aged 0–17 years (10 deaths), compared with 1.6 deaths per 100,000 female children (8 deaths).

Age

The majority of children involved in motor vehicle fatalities were in the 15–17 year age category (7 out of 18 deaths as a result of motor vehicle incidents). Young people in this age category typically have the greatest involvement in motor vehicle crashes, because of their newly acquired roles as drivers and peer passengers.

Geographic distribution (ARIA+)

The rate of death from motor vehicle incidents was highest for children living in regional areas (2.2 deaths per 100,000 children aged 0–17), followed by metropolitan areas, with 1.4 deaths per 100,000. One death occurred in a remote area of Queensland.⁴

In relation to the location of motor vehicle incidents, 15 out of 18 occurred in regional areas. The remaining 3 deaths occurred in metropolitan areas.⁵

Of the 15 motor vehicle incidents occurring in regional areas, 10 occurred on a highway. Five out of 15 incidents were reported as being likely to have involved speed. Alcohol or drug use was noted in 1 case. Wet roads and/or flooding due to substantial rainfalls were noted to be a factor in 3 of the motor vehicle incidents occurring in regional areas.

Socio-economic status (SEIFA)

Children living in low to very low socio-economic areas recorded the highest rate of death as a result of motor vehicle incidents, with a rate of 3.8 deaths per 100,000. Moderate socio-economic areas recorded the next highest rate (1.8 per 100,000). No children from high socio-economic areas died in motor vehicle incidents.

Place and circumstances

Teenagers aged 15–17 years are a high risk group for motor vehicle fatalities (7 deaths; 3.8 per 100,000) and for the purposes of this section have been analysed separately from the deaths of children aged 0–14 years (11 deaths; 1.3 per 100,000).

Statistics have shown young drivers to be disproportionately involved in road crashes.

Young drivers face an increased risk for a number of reasons:

- the physical coordination and perceptual capabilities necessary for control of a motor vehicle are reportedly not as highly developed in young drivers
- peer passengers may distract from driving or encourage risky behaviour
- young drivers exhibit riskier driving behaviour such as speeding, inattention and driving under the influence of alcohol, and
- late-night driving has been identified as a risk factor for young driver crashes. Teens may be less experienced at driving at night, and risky driving behaviour, such as driving under the influence of alcohol, may be more likely to occur at night.

Role of child or young person

All of the children aged 0–14 who died as a result of a motor vehicle incident were involved as passengers. Six of the 11 children were travelling in vehicles driven by their parents or other relatives.

The 7 fatalities of teens aged 15–17 years involved 6 young people as passengers and 1 as driver.

Place and time of incident

Children 0–14 years most often died in incidents occurring on highways (6 deaths). No definitive patterns were evident regarding the types of roads on which teens were more likely to be involved in motor vehicle incidents (4 highway deaths and 3 on major roads).

Ten out of 18 motor vehicle incidents occurred on a Monday or Tuesday, with 7 of these occurring between the hours of 9am and 3pm.

Speeding, drinking alcohol and other risk-taking behaviours

Risk-taking behaviour, either on behalf of the occupants of the deceased's vehicle or the occupants of other vehicles involved in the incident, was identified as a possible contributing factor in 7 of the 18 motor vehicle incidents.

Of these 7 incidents, 3 involved the death of a child aged 0–14 years. In these 3 cases, police identified exceeding the speed limit as a definite or possible factor. The use of drugs or alcohol was noted in 1 case.

Four of the 7 incidents involving risk-taking concerned teenagers 15–17 years of age. Excessive speed was considered a factor in 3 cases.

Two teens were killed in separate incidents involving high level risk-taking. One incident involved excessive speed and an overloaded vehicle, while the other involved erratic driving behaviour.

Fatigue was not identified as a factor in any motor vehicle incidents.

Seatbelts

Only 3 of the 11 children aged 0–14 years were noted to be wearing seatbelts or age-appropriate restraints.⁶ In 5 of the 7 fatalities involving teenagers, the young person was wearing a seatbelt at the time of the incident.

Peer passengers

The presence of peer passengers increases the risk of road crashes for young drivers. In 2007 the Queensland Government introduced new licensing laws for young drivers (under 25 years), which include provisions for carrying peer passengers. Young drivers may only carry one passenger under the age of 21 between the hours of 11pm and 5am (these restrictions exclude immediate family members).

The 1 instance involving the death of a 15–17 year old driver occurred while the young person was driving alone.

Seven of the 17 passenger deaths occurred while travelling with young drivers under 25 years of age, excluding immediate family members.⁷ Four of these occurred while travelling with drivers aged 17 years.

Two of the 7 incidents involving peer passengers occurred between 11pm and 5am. One of these vehicles contained 5 passengers, in breach of the current young driver licensing laws.

Multiple fatalities

Three multiple fatality incidents occurred in 2009–10, resulting in the deaths of 6 children. Two teenaged friends (16 and 17 years of age) were killed in 1 incident, while the remaining 2 incidents involved siblings in vehicles driven by family members (aged 1–4 years and 5–9/15–17 years respectively).

Pedestrians

Seven children and young people died as pedestrians, a rate of 0.7 deaths per 100,000 children and young people aged 0–17 years.

Table 3.4 shows the number of pedestrian fatalities by gender, age category and rate.

Table 3.4: Pedestrian deaths by age and gender

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Low speed vehicle run-over				
1–4 years	1	0	1	*
5–9 years	0	1	1	*
Total	1	1	2	*
Road crossing				
1–4 years	0	2	2	*
5–9 years	0	1	1	*
15–17 years	0	1	1	*
Total	0	4	4	0.4
Bystander incidents				
5–9 years	1	0	1	*
Total	2	5	7	0.7
Rate per 100,000	*	1.1	0.8	

Data source: Queensland Child Death Register (2009–10)
 * Rates have not been calculated for numbers less than 4.
 Notes: 1. Rates are calculated per 100,000 children and young people in each gender category in Queensland.

Gender

Five male pedestrians died, compared with 2 females.

Age

Research indicates that young toddlers are more likely to be injured in non-traffic situations, such as low-speed run-overs in driveways. Children between the ages of 3 and 9 are more often struck when entering the roadway, while the greater independence and mobility of older children and teenagers expose them to a higher number of risky traffic situations.

Pedestrian fatalities in 2009–10 were relatively widely spread across age categories, with no discernible pattern evident.

Place and circumstances

Low-speed vehicle run-overs of toddlers

'Low-speed vehicle run-over' (LSVRO) is a term used to describe incidents where a pedestrian is injured or killed by a slow-moving vehicle in a traffic or non-traffic area. Most of these incidents usually involve younger children (between the ages of 1 and 4 years) and occur in the driveway of their own home. Drivers tend to be members of their family, with vehicles reversing at the time of impact.

One child aged 1–4 years was involved in a LSVRO incident. In addition, 1 older child in the 5–9 year age group was also fatally injured in a LSVRO incident. Older children are less commonly involved in low-speed vehicle run-overs.

These incidents occurred in the driveway of a residential property, with the driver of the vehicle being an immediate family member. In both of the incidents the vehicle was reversing at the time. Both vehicles were four-wheel drives.

Other pedestrian fatalities

Of the remaining 6 pedestrian fatalities, 4 occurred while crossing roads. Two of the 4 road-crossing incidents occurred after children had broken away from the care of their parents.

One bystander incident involved a child and their carer being struck by a car involved in a traffic accident as they stood on a median strip.

Motorcycles

There were 2 deaths as a result of incidents involving motorcycles or quad bikes. One death occurred on each of these types of vehicles.

Both children were males aged 15–17 years.

The incident involving a quad bike occurred on private property while riding for recreation. The young person was in charge of the vehicle at the time of the incident, and was also carrying a passenger. Most quad bikes are not equipped for carrying passengers. It is unknown whether the deceased was wearing a helmet or protective clothing.

The young person killed while riding a motorcycle was travelling along an unsealed public road. While the deceased was wearing a helmet at the time of the incident, it not believed to have been fastened properly. The vehicle involved had an engine capacity of 400cc, and police reports note that the young person may not have had the required size or strength to adequately control such a large motorcycle.

As at July 2008 changes to motorcycle licensing mean that people under the age of 18 cannot hold a motorcycle licence and are therefore not permitted to enter onto a roadway while riding such a vehicle. However, previous Commission findings have highlighted that a significant number of motorcycle incidents occur off-road or on private property where licensing laws do not apply.

The Commission has examined the deaths of children and young people as a result of motorcycle and quad bike fatalities since 1 January 2004.

Motorcycle and quad bike fatalities, 2004–2010

Between 1 January 2004 and 30 June 2010, a total of 36 deaths of children aged 0–17 years occurred in the context of motorcycle or quad bike use, an average of 5.5 deaths per year. Of these:

- 2 were 1–4 years (5.6%)
- 3 were 5–9 years (8.3%)
- 8 were 10–14 years (22.2%), and
- 23 were 15–17 years (63.9%).

Issues regarding the management of motorcycle and quad bike use for children are different for on-road and off-road situations. For the purpose of the below discussion, on-road incidents are defined as those occurring on property that is dedicated or declared to be a road for public use. This includes:

- a street, esplanade, reserve for esplanade, highway, pathway, thoroughfare, track or stock route
- a bridge, causeway, culvert or other works in, on, over or under a road, or
- any part of a road.

Roads include land that are designated as roads, even if not being used for travel by vehicles or pedestrians.⁸

On-road motorcycle and quad bike incidents

Of the 36 fatalities involving motorcycles or quad bikes, 19 occurred on a public road (52.8%).

In all but 1 instance, the child was in operation of the vehicle (as opposed to travelling as a passenger). Of these, only 1 child was known to be licensed.⁹ This child's vehicle was the only motorcycle involved in an on-road incident that was known to be registered. The roadworthiness of this vehicle is unknown. Only 1 vehicle was known to be in a roadworthy condition.

The circumstances in which these children came to be riding on public roads included:

- **travelling** from one location to another (11 deaths), such as to visit friends or crossing a road to access another section of the family property
- **riding for recreation** (3 deaths), usually with peers
- **riding for “work”**¹⁰ (1 death), such as farm work, or for another dedicated purpose, and
- **risk taking** (4 deaths), including taking vehicles for joy-rides without the owners permission, riding without lights at night or in the context of alcohol or drug use.

Children riding motorcycles illegally on public roads were most often aged 15–17 years (15 deaths). The use of safety equipment such as helmets and protective clothing in these types of cases is low. In 11 cases the deceased was wearing a helmet, but in several cases police questioned whether the helmet was appropriately fitted or securely fastened. None of the children that died in an on-road incident were known to be wearing appropriate protective clothing.

Speed was considered likely or definitely to be a contributing factor in 6 of the 19 incidents. Driver ability or inexperience was identified as a potential contributing factor in 10 incidents.

Drug or alcohol use was noted in 6 cases. As confirmed by autopsy reports, 3 young people had consumed alcohol prior to the incident, with blood alcohol concentrations between 0.05 and 0.13. Cannabis and amphetamines were identified as having been consumed in 5 of the 6 incidents.

Environmental conditions were considered likely to have contributed to 3 of the incidents. Rain, flooding and poor visibility were cited.

Off-road motorcycle and quad bike incidents

Seventeen incidents occurred in 'off-road' situations, including:

- private property – farm¹¹ (9 deaths)
- private property – other acreage¹² (2 deaths)
- designated off-road motorcycle facilities (2 deaths), and
- public areas such as beaches and parks (3 deaths).

Children fatally injured during off-road riding were most commonly aged 15–17 years (8 deaths). Four children were aged 10–14 years; 3 children were aged 5–9 years; and 2 children were in the 1–4 year age category.

Children were in operation of the vehicle in all but one case. Young riders were licensed in 3 cases.¹³ One child aged 1–4 years died while travelling as a passenger on a quad bike being driven by a parent.

Nine of the 17 children were wearing a helmet at the time of the incident. Six were wearing appropriate clothing, including 2 children wearing full motocross safety equipment.

The types of activity engaged in during off-road incidents included:

- **Riding for recreation** (10 deaths), including motocross activities
- **Riding for “work”** (4 deaths), either farm work or for another dedicated purpose, and
- **Risk-taking** (3 deaths), including taking vehicles for joy-rides without the permission of the owner, riding without lights at night or in the context of alcohol or drug use.

Rider ability or inexperience was believed to be a contributing factor in 9 deaths. Drug or alcohol use was identified in 3 cases (including 1 case where a parent was in operation of the vehicle).

Poor lighting and the characteristics of the surface on which children were riding were

identified as contributing environmental factors (5 deaths).

Size of vehicle

Manufacturers recommend that children under 16 should not ride adult-sized quad bikes. Prior to 2009, even adults holding learner or provisional motorcycle licences were restricted to riding vehicles with an engine capacity of 250cc or less. However, from 1 July 2009, restrictions on the motorcycles able to be ridden by learner and provisional licence holders have changed.

According to Queensland Transport: *Due to advancements in technology, a number of modern 250mL motorcycles have performance capabilities not suited to novice riders. So the current 250mL engine capacity restriction applied to class RE licence holders will be replaced with a combined restriction based on:*

- *a maximum power to weight ratio of 150 kilowatts per tonne, and*
- *an upper engine capacity limit of 660mL.*¹⁴

Prior to the introduction of these changes, the Commission had previously identified that many children were riding vehicles likely to be too large for their size and strength, based on the engine capacity of the vehicle alone. Subsequent to these changes, the Commission has analysed its findings based on the guidelines provided above.

Queensland Transport have released a list of eligible motorcycles covered under this new scheme. While the vehicles driven by children and young people involved in motorcycle and quad bike fatalities since 2004 have ranged from 50cc engine capacity up to 650cc, under the new laws only 2 of the vehicles would be considered inappropriate for newly licensed riders.

Despite this the Commission is still concerned about young children riding large vehicles. The above guidelines

apply to vehicles considered appropriate for licensed riders who, according to licensing laws, must be at least 18 years of age. No Queensland Government guidelines stipulate the type of vehicles suitable for children under 18 years of age. Parents and carers are responsible for following manufacturers instructions as to recommended age restrictions, where available.

The Commission is committed to collaborating with the relevant authorities to address this issue. See the 'Supporting child death and injury prevention initiatives' section at the end of this chapter for further details.

Watercraft

One child aged 1–4 years died in an incident involving a watercraft, when the boat in which the child was a passenger overturned.

Queensland Ambulance Service data

With fatalities representing only a small proportion of outcomes from transport incidents, 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 in 2009–10. Table 3.5 outlines the total number of QAS responses, and includes both fatal and non-fatal injuries.

Table 3.5: Queensland Ambulance Service responses to transport incidents, 2009–10

Type of incident	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Motor vehicle	92	289	437	463	942	2223
Motorcycle	2	12	65	202	251	532
Bicycle	1	10	65	214	107	397
Pedestrian	0	17	34	41	45	137
Tractor	0	0	1	1	1	3
Unknown	10	41	107	179	278	615
Total	105	369	709	1100	1624	3907

Data source: Queensland Ambulance Service (2009–10)

As with mortality data, the number of children injured in transport incidents increases with increasing age, likely reflecting increased mobility and independence of older children. Motor vehicle collisions accounted for the greatest number of injuries overall, in line with the child death data presented in this report. Motor vehicle collisions also accounted for the greatest number of injuries within each age category.

Of interest is the comparatively low number of pedestrian injuries, given that pedestrian incidents have consistently accounted for the second-greatest proportion of transport fatalities since

2004–05. This may indicate that, while less frequently occurring than other types of transport incidents, those involving children as pedestrians are more likely to be fatal. The number of children injured as cyclists is also in contrast to patterns noted in mortality data, where bicycle incidents account for only a very small number of deaths each year.

Motorcycle incidents accounted for the second-highest number of injuries, and involved children in all age categories. The high numbers of children aged 10–14 and 15–17 years injured in motorcycle collisions reinforces the Commission's interest in further investigating prevention

initiatives for young motorcyclists not covered by licensing laws.

Keeping Country Kids Safe

In 2009 the Commission launched the *Keeping Country Kids Safe* initiative. The Commission has found that children in country areas are 2.4 times more likely to die as a result of non-intentional injury than those in the city, and seem to face a number of risks unique to their environment, such as drowning in dams or quad bike crashes. A key risk factor is the combination of the home and workplace that occurs on family farms.

Transport incidents accounted for over 65% of child injury deaths between 2004 and 2008, with 78% of these occurring on public roads. Of the deaths that occurred off-road, most occurred on acreage properties and involved motorcycles, quad bikes, tractors and other machinery.

The Commission is committed to working with the rural sector to identify ways to prevent child deaths. The *Keeping Country Kids Safe* initiative aims to help develop a comprehensive injury prevention strategy that brings together the knowledge, skills and experience of people at all levels – from government agencies through to the agricultural industry and local communities themselves.

Last year the Commission undertook extensive consultation with the rural sector. The *Keeping Country Kids Safe Discussion Paper* sought input from government and non-government agencies, as well as rural industry, while the *Keeping Country Kids Safe Community Survey* was widely distributed to residents throughout rural Queensland.

The Commission is in the process of collating the results of consultation, and is preparing to release an 'Outcomes of Consultation' report in the year ahead. In 2011 the Commission intends to progress further targeted consultation with the rural sector to develop an action plan to

address key issues associated with child deaths and injuries in rural communities.

Supporting child death and injury prevention initiatives

Queensland Injury Prevention Council

In the *Annual Report: Deaths of Children and Young People, Queensland 2004–05* the Commission identified low-speed vehicle run-overs (LSVROs) of children as an issue of concern. Accordingly, the Commission recommended that the Parliamentary Travelsafe Committee investigate and report on ways to reduce these fatalities and injuries. The subsequent Travelsafe Investigation Report made 7 recommendations focused on addressing this issue, all of which were supported by the relevant agencies.

Based on the Commission's findings and the recommendations of the Travelsafe Committee, the Queensland Injury Prevention Council¹⁵ has identified the prevention of LSVROs as one of its key priorities. In 2008–09 the QIPC provided funding, by way of research grants, to a range of research projects relating to the prevention of LSVROs.

The Commission is a member of the QIPC and in 2009–10 provided data from the Queensland Child Death Register in support of a range of QIPC research projects, including those relating to the prevention of LSVRO incidents. In the year ahead, the Commission will continue to participate on the QIPC and provide relevant child death data to support the progression of these research projects.

Statewide strategy for the management of off-road motorcycling in Queensland

The management of off-road motorcycles is an issue which has recently been investigated by the Crime and Misconduct Commission, and resulted in the April 2010 report *Sound Advice: A review of the effectiveness of police powers in reducing excessive noise from off-road motorbikes*. The report recommends, among other things, the state government development and implement a state-wide management

strategy to address issues associated with off-road motorcycling.

The Commission supports the development of such a strategy, and in the year ahead intends to work closely with all relevant stakeholders to reduce the number of deaths and injuries to children as a result of motorcycle and quad bike incidents.

- ¹ Department of Transport and Main Roads 2010, *Queensland Road Toll Weekly Report: Report No. 656, Year to Date Sunday 22 August 2010*, Department of Transport and Main Roads Brisbane, viewed 25 August 2010, <<http://www.transport.qld.gov.au/Home/Safety/Road/Statistics/>>.
- ² Rates have not been calculated for numbers less than 4.
- ³ 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, Child Safety 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.
- ⁴ Rates have not been calculated for numbers less than 4.
- ⁵ Rates are unable to be calculated for incident location as no appropriate denominator population exists.
- ⁶ Two were noted by police as *not* wearing seatbelts, while in the remaining 6 cases it is unknown whether the child was appropriately restrained.
- ⁷ An additional 2 children died while travelling with a parent who was under 25 years of age.
- ⁸ This definition is adapted from that used by the Department of Environment and Resource Management 2009, *Roads*, viewed 31 August 2010, <<http://www.derm.qld.gov.au/land/state/roads.html>>.
- ⁹ In accordance with motorcycle licensing laws in place at the time of the incident.
- ¹⁰ The classification of 'riding for "work"' discussed here does not necessarily align with definitions of work under the *Workplace Health and Safety Act 1995*.
- ¹¹ Acreage properties participating, or considered likely to be participating, in agriculture.
- ¹² Properties much larger than a regular suburban block (i.e. one acre/4000m² in size), but not considered likely to be participating in agriculture.
- ¹³ In accordance with motorcycle licensing laws in place at the time of the incident.
- ¹⁴ Department of Transport and Main Roads 2009, *New Rules for Safer Riding*, viewed 31 August 2010, <http://www.tmr.qld.gov.au/~media/safety/safety-campaigns/motorcycle-safety-campaign/pdf_new_rules_for_safer_riding_footer_may09_v2.pdf>.
- ¹⁵ The QIPC is a Cabinet endorsed committee that was established in 2008. The 'goal of the QIPC is to substantially reduce injury rates and the severity of injuries in Queensland and to demonstrate national leadership in injury prevention activities. The QIPC reports to the Director-General Queensland Health and provides high level strategic advice in relation to injury prevention priorities, strategies and activities. The Council will be the authoritative body on injury prevention in Queensland' (Queensland Injury Prevention Council, Annual Report 2008–09, Brisbane, Queensland).

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Part III: Non-intentional injury-related deaths

Chapter 4

This section provides details of child deaths as a result of drowning.

Key findings

- In 2009–10, children and young people drowned at a rate of 1.7 per 100,000 children and young people aged 0–17 years (18 deaths).
- Consistent with previous years, drowning was the leading external cause of death for children aged 1–4 years, accounting for 10 deaths (4.4 per 100,000).
- This reporting period recorded the lowest number of pool drownings for 1–4 year olds since 2004–05 (4 deaths), with 6 of the drownings in this age category occurring in non-pool locations.
- An increase was seen in the number of pool drownings in children aged 5–9 years (3 deaths). Prior to this year, only 2 children aged 5–9 years have drowned in pools since 2004–05.

Supervise – active supervision is key to preventing child drownings. None of the children under the age of 5 years was in the direct line of sight of an adult supervisor at the time of the incident. Eight of the 13 children under 5 years were left unsupervised for more than 5 minutes, with 6 of these unsupervised for between 15 and 30 minutes.

Maintain pool fences – pool fences must be compliant with relevant legislation and standards and need to be maintained in order to remain compliant. Three of the 5 private swimming pools had fences with defects which would exclude them from compliance with the relevant standard. New pool fencing legislation is due to take effect from December 2010.

Build a safe play area – rural water hazards (such as dams and livestock dips) pose an equal risk of drowning to young children as swimming pools. A safe play area – such as a securely fenced house yard – is a place where children’s social and developmental needs can be met away from the hazards of the farm workplace.

Learn CPR – as positive health outcomes after immersions depend on the early initiation of resuscitation, pool owners, parents and carers should gain current resuscitation qualifications.

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Chapter 4 Drowning

Table 4.1: Summary of drowning deaths of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All drowning deaths													
Drowning	12	1.2	18	1.8	18	1.8	14	1.4	18	1.8	18	1.7	1.6
Gender													
Female	3	*	7	1.5	6	1.2	3	*	10	2.0	6	1.2	1.2
Male	9	1.8	11	2.2	12	2.3	11	2.1	8	1.5	12	2.2	2.0
Aboriginal and Torres Strait Islander status													
Indigenous	1	*	3	*	0	0.0	1	*	3	*	3	*	*
Non-Indigenous	11	1.2	15	1.7	18	1.9	13	1.4	15	1.6	15	1.5	1.5
Known to the child protection system													
Known to the child protection system	4	–	4	5.6	3	*	2	*	7	6.9	7	5.4	5.2
Age category													
Under 1 year	0	0.0	3	*	1	*	0	0.0	0 ^a	0.0	3	*	*
1–4 years	8	4.0	15	7.4	13	6.1	6	2.8	14 ^a	6.4 ^a	10	4.4	5.0
5–9 years	1	*	0	0.0	2	*	5	1.8	1	*	4	1.4	*
10–14 years	2	*	0	0.0	1	*	0	0.0	2	*	1	*	*
15–17 years	1	*	0	0.0	1	*	3	*	1	*	0	0.0	*
Pool drownings													
Pool drownings	5	0.5	8	0.8	9	0.9	7	0.7	8	0.8	7	0.7	0.7
Public pools	1	*	1	*	3	*	2	*	1	*	2	*	*
Private pools	4	0.4	7	0.7	6	0.6	5	0.5	7	0.7	5	0.5	0.6
Age category													
Under 1 year	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0	0.0	0.0
1–4 years	5	2.5	8	4.0	7	3.3	5	2.3	8	3.7	4	1.8	2.8
5–9 years	0	0.0	0	0.0	1	*	1	*	0	0.0	3	*	*
10–14 years	0	0.0	0	0.0	1	*	0	0.0	0	0.0	0	0.0	*
15–17 years	0	0.0	0	0.0	0	0.0	1	*	0	0.0	0	0.0	*
Non-pool drownings													
Non-pool drownings	7	0.7	10	1.0	9	0.9	7	0.7	10	1.0	11	1.1	0.9
Static inland waterways	0	–	2	–	3	–	0	–	1	*	0	0.0	*
Rural water hazards	4	–	1	–	2	–	4	–	2	*	5	0.5	*
Dynamic inland waterways	0	–	0	–	1	–	3	–	3	*	1	*	*
Bathtubs	0	–	4	–	3	–	0	–	1	*	2	*	*
Beach/ocean	2	–	0	–	0	–	0	–	2	*	1	*	*
Other	1	–	3	–	0	–	0	–	1	*	2	*	*

	2004-05		2005-06		2006-07		2007-08		2008-09		2009-10		Yearly average
	Total n	Rate per 100,000	Total n	Rate per 100,000	Total n	Rate per 100,000	Rate per 100,000						
Under 1 year	0	0.0	3	*	1	*	0	0.0	0 ^a	0.0	3	*	*
1-4 years	3	*	7	3.5	6	2.8	1	*	6 ^a	2.7 ^a	6	2.6	2.2
5-9 years	1	*	0	0.0	1	*	4	1.4	1	*	1	*	*
10-14 years	2	*	0	0.0	0	0.0	0	0.0	2	*	1	*	*
15-17 years	1	*	0	0.0	1	*	2	*	1	*	0	*	*

Data source: Queensland Child Death Register (2004-10)

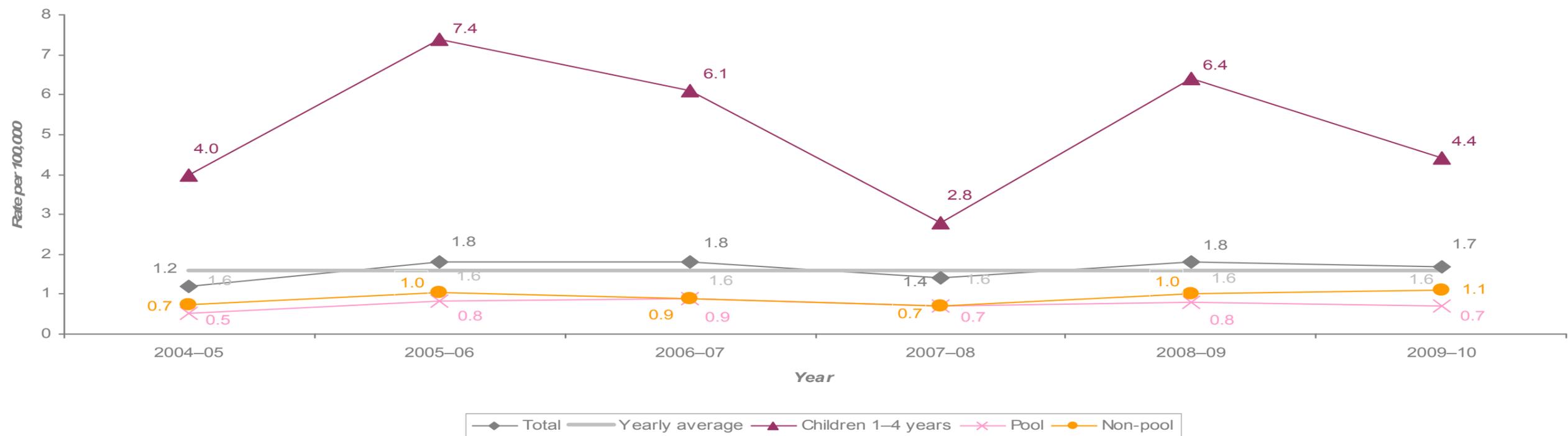
* Rates have not been calculated for numbers less than 4.

- These data were not available at the time of publication.

^a These figures have been amended subsequent to the publication of the 2008-09 Child Death Annual Report due to updated data.

- Notes:
1. Data presented here are those published in Child Death Annual Reports for the years 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10.
 2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
 3. Rates are calculated per 100,000 children (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
 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. Rates of death for children known to the child protection system for 2005-06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005-06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006-07 reporting period, the closest available data to the mid-point of the 6 year period.
 6. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

Figure 4.1: Drowning deaths, 2004-2010



Data source: Queensland Child Death Register 2004-2010

- Notes:
1. Rates are calculated per 100,000 children and young people aged 0-17 years in Queensland.
 2. Rates relating to children aged 1-4 years are calculated per 100,000 children aged 1-4 years in Queensland.

Drowning: findings, 2009–10

Between 1 July 2009 and 30 June 2010, 18 children and young people drowned, a rate of 1.7 deaths per 100,000 children and young people aged 0–17 years in Queensland. The rate of death from drowning has remained relatively stable across the 6 year period.

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 2009–10. These figures will differ from estimates of

the number of child drownings that occurred during this period.¹ 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.

Table 4.2 illustrates the age categories and gender breakdown for all drowning fatalities.

Table 4.2: Drowning deaths by gender and age category

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Under 1 year	1	2	3	*
1–4 years	4	6	10	4.4
0–4 years total	5	8	13	4.5
5–9 years	1	3	4	1.4
10–14 years	0	1	1	*
Total	6	12	18	1.7
Rate per 100,000	1.2	2.2	1.7	

Data source: Queensland Child Death Register (2009–10)

* 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/gender category in Queensland.
2. Total rate of death is calculated per 100,000 children and young people aged 0–17 years in Queensland.

Gender

Male children died from drowning at a rate of 2.2 per 100,000 male children aged 0–17 years in Queensland, compared with 1.2 per 100,000 female children.

This finding is consistent with all previous Commission findings, with the exception of the 2008–09 reporting period, in which more female children drowned than males.

Age

Drowning occurred most frequently for children 1–4 years of age (10 deaths). This finding is consistent with the findings from all previous reporting periods. Children under 5 years of age have consistently been identified as most at risk from drowning.

Types of drowning-related deaths

Table 4.3 illustrates the different types of drowning-related fatalities by gender.

Table 4.3: Types of drowning-related deaths, by gender

Type of drowning	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Swimming pool drownings	3	4	7	0.7
Non-pool drownings	3	8	11	1.1
<i>Rural water hazards (dams/troughs/livestock dips)</i>	1	4	5	0.5
<i>Objects containing water (buckets/tanks)</i>	1	1	2	*
<i>Bathtubs</i>	1	1	2	*
<i>Beach/ocean</i>	0	1	1	*
<i>Dynamic inland waterways (rivers/creeks)</i>	0	1	1	*
Total	6	12	18	1.7

Data source: Queensland Child Death Register (2009–10)

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

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

Three additional drowning deaths, which are not counted here, occurred in the context of other incidents. Two cases involved transport incidents – one occurred while crossing a flooded roadway; the other involved a watercraft which overturned. Both of these deaths are discussed in Chapter 3, *Transport*, as the underlying cause of death related to the transport incident. The remaining death occurred while swimming, but is believed to be the result of suffering an epileptic seizure.²

Aboriginal and Torres Strait Islander status

Three of the 18 children who drowned identified as Indigenous (2 identified as Aboriginal and 1 as Torres Strait Islander).

Since the Commission began reporting in 2004–05, the number of Aboriginal and Torres Strait Islander child deaths due to drowning has been consistently low. This is in contrast to research which shows that drowning in the Australian Indigenous population “is quite different from that of the population as a whole, with a very high incidence in children under five years and in the 25 to 34 years age group”.³

Geographical distribution (ARIA+)

Remote areas recorded the highest rate of drowning death, at 6.7 per 100,000. Regional areas recorded a rate of 1.7 drowning deaths per 100,000, and metropolitan areas 1.2 deaths per 100,000.

Pool drownings were more common in metropolitan areas, while non-pool drownings were more prevalent in regional and remote areas of Queensland.

Socio-economic status (SEIFA)

The incidence of drowning deaths was greatest in low to very low socio-economic areas (3.0 deaths per 100,000). High to very high socio-economic areas recorded a rate of 1.0 death per 100,000. Three deaths occurred in moderate socio-economic areas.⁴

Children known to the child protection system

Seven of the 18 children who drowned were known to the child protection system.⁵ The rate of drowning death for those known to the child protection system was 5.4 per 100,000, compared with 1.7 drowning deaths per 100,000 children aged 0–17 years in Queensland.⁶

In 1 additional case, the Department of Communities had a history of involvement with the deceased child's siblings only.

Children known to the child protection system are a vulnerable and at-risk cohort who experience a range of risk factors due to the complex circumstances present in their lives. As such, members of the community should be encouraged to continue reporting any concerns about the safety of children. If there is a reason to suspect a child in Queensland is experiencing harm, or is at risk of experiencing harm, it is important that risk factors be assessed by child protection experts.

Demographics of pool drownings

Seven deaths occurred in swimming pools. Four of these children were aged 1–4 years. This finding is consistent with the literature, which has found that children under 5 years of age are most vulnerable to drowning.

However, the number of pool drownings of children in the 1–4 year age category is the lowest recorded since reporting began in 2004–05. This reporting period has also seen a greater number of pool drownings of children aged 5–9 years (3 deaths). Only 2 children aged 5–9 years have drowned in pools since 2004–05.

Four of the children were male and 3 were female.

Circumstances of pool drownings

A number of factors have been identified as increasing the likelihood of children drowning in swimming pools. The main factors are:

- inadequate supervision
- inadequate or no fencing
- lack of gate security
- lack of effective water skills, and
- lack of resuscitation skills.

Table 4.4 provides a summary of the circumstances surrounding swimming pool drownings. Supervision definitions are outlined under the 'Supervision' section of this chapter and relate to toddler drownings only.

Table 4.4: Summary of pool drownings

Age category	Type of pool	Pool fencing	Type of fence	Fencing/gate defects	Supervision
1–4 years	Private – in-ground	Yes	3-sided	Yes Assessed as non-compliant by local government. Gate not self-closing and did not meet all standard measurements.	Inadequate Category B
1–4 years	Private – in-ground	Yes	3-sided	No Assessed by local government as compliant with legislation in place at the time of the incident.	Inadequate Category B
1–4 years	Private – in-ground	Yes	4-sided	Yes Objects within non-climbable zone of fence.	Inadequate Category B
1–4 years	Private – above-ground	No	No fencing	Yes No pool fencing present.	Inadequate Category B
5–9 years	Private – in-ground	Yes	4-sided	Unknown	Not applicable – child over 5 years of age
5–9 years	Public – in-ground	Not applicable – fencing not required	Not applicable – fencing not required	Not applicable Fencing not required.	Not applicable – child over 5 years of age
5–9 years	Public – in-ground	Not applicable – fencing not required	Not applicable – fencing not required	Not applicable Fencing not required.	Not applicable – child over 5 years of age

Data source: Queensland Child Death Register (2009–10)

Location of incident

Five of the 7 pool drownings occurred in private swimming pools – in 2 cases the incident occurred at the child's home and in 2 cases at the home of a friend or relative. In 1 case the child drowned in a pool on a neighbouring property after wandering from their home.

The remaining 2 deaths, both involving 5–9 year olds, occurred in public swimming pools. Since 2004–05, a total of 10 children have drowned in public pools in Queensland. The Royal Life Saving Society Australia (RLSSA) has developed a document titled *Guidelines for Safe Pool Operations*⁷ for use by public pool operators. The Guidelines have become a minimum standard document, similar to an Australian Standard, providing advice to the aquatics industry on the minimum requirements for particular situations. Pool operators who cannot meet these requirements set out in the guidelines (including supervision) must identify other suitable ways to prevent or minimise the risks of drowning.

Pool fencing

Since 1992, it has been mandatory for all pools in Queensland to comply with the Australian Standard for pool fencing (AS1926 Swimming pool safety). Since this time there have been a number of updates to pool fencing requirements, resulting in a large number of standards applying to pools of different ages. In order to streamline the pool fencing laws, the Queensland Government has undertaken a review of swimming pool safety in Queensland.

The final stage of the resulting legislation is due to take effect at the end of 2010, with one of the major reforms being the phase-out of 3-sided fencing.

Further details of the Queensland Government's Swimming Pool Safety Improvement Strategy can be found in Chapter 9, *Child Death Prevention Activities*, and in the 'Supporting child death and injury prevention initiatives' section at the end of this chapter.

Fencing sides

Five children drowned in private pools which were required to meet mandatory fencing standards. Of these 5 cases, only 2 of the pools had 4-sided fencing. Two pools had 3-sided fencing, while in the final case the pool was unfenced.

Fencing and gate defects

Of the 5 private swimming pool drownings, 3 had obvious fencing and/or gate defects that would exclude them from compliance with Australian Standards and therefore from compliance with pool fencing legislation.

Pool fencing is an important prevention strategy to decrease the risk of drowning in swimming pools. Fencing should be compliant with the relevant standards and be kept intact and maintained, with a gate that self-latches and closes automatically.

Supervision

Of the 4 pool drownings involving children under the age of 5 years, none of the children were being actively supervised (that is, they were not within the direct line of sight of an appropriately responsive adult carer) at the time of the incident.

The Commission has developed a model for classifying caregiver supervision in infant and toddler drowning (children aged 0–4 years). The development of this model is based on the following assumptions:

- a) line of sight supervision is necessary when the child is known to be in or around water, and
- b) the further away the carer is located from the toddler, the lower their level of supervision and capacity to respond.

On this basis, the Commission has classified the supervision of toddler drownings into the following 3 categories.

Intermittent supervision – the child was being intermittently supervised in close proximity to appropriately responsive carers. This includes cases where a child is moving between carers and where the child is not in the direct line of sight, but carers are making concerted efforts to monitor the child in other ways (such as

auditory supervision). This does *not* include cases where the child is known to be in or around a water hazard.

**Example:
Intermittent supervision**

A toddler drowned in a residential swimming pool.

The toddler was playing inside the house while the carer was attending to household chores for approximately 5 minutes in an adjacent room. The carer periodically entered the room to check on the child. At some point the child managed to exit the house and move a chair to the fence to gain enough height to manipulate the child lock and open the gate to gain access to the pool.

The pool was completely fenced and had self-latching gates at all entry points.

Inadequate supervision: Category A – the child was known to be in or around water at the time of the incident and was not in the direct line of sight of an appropriately responsive adult supervisor.

**Example:
Inadequate supervision: Category A**

A toddler drowned while bathing with a sibling (also aged less than 5 years), who had severe physical disabilities.

The children were left unsupervised in the bath while their carer attended to household chores. The toddler was found deceased by another member of the household.

Inadequate supervision: Category B – the child was left unsupervised, at some distance from an adult carer, for a period of more than 5 minutes duration, and/or the carer was considered inappropriate because of their lack of capacity to respond (for example, they were affected by alcohol or other substances), and/or the environmental barriers to the water hazard were either non-existent or grossly defective. This includes cases where the pool gate had been propped open by supervisors. Carer supervision should be heightened on that basis.⁸

**Example:
Inadequate supervision: Category B**

A child aged less than 2 years drowned on a rural property.

The child and her sibling (aged under 4 years) had been left unsupervised at the house while the parents engaged in farm-work elsewhere on the property.

The children were left unsupervised for a period of at least half an hour.

In all 4 pool drownings which involved children aged under 5 years, supervision was inadequate. In 3 of these cases, the child was left unsupervised for more than 5 minutes. In 2 of these 3 cases environmental barriers to the pool were also defective.

In 1 case, it was unknown how long the child was left unsupervised. However in this case environmental barriers to the pool were defective.

Length of time

The length of time that elapsed between when the child was last seen alive and when the child was noticed missing and/or found unresponsive is detailed in Table 4.5.

Table 4.5: Length of time unsupervised or missing

Length of time	Cases
	<i>n</i>
More than 5 minutes but less than 30 minutes	2
30 minutes or more but less than 1 hour	1
Unknown	1
Total	4

Data source: Queensland Child Death Register (2009–10)

Note: 1. Only children aged 0–4 years have been included in this table.

The majority of drownings occurred when a child had been left alone or was not seen for 5 minutes or more. Drownings can occur in the minutes when parents are not actively supervising their child, or when they become distracted.

Swimming ability

Five of the 7 children who drowned in pools were reported to have been non-swimmers. The swimming ability of the remaining 2 children was unknown.

Some research has found swimming lessons improve swimming ability in children as young as 2 years of age,⁹ while other research has found that children are more developmentally receptive to swimming lessons from 4 years of age onwards.¹⁰ However, swimming lessons should not be seen as the only means of drowning prevention – other safety precautions are essential, including ensuring that pool fencing is compliant and that young children are actively supervised by an appropriate adult.

Season

A significant proportion of the drowning literature reports that children are more likely to drown in swimming pools during the summer months. However, international research has found child drowning in warmer climates to be a perennial public health issue – while the greatest number of deaths occur in the summer months, child drownings occur with comparable frequency in all months.¹¹ As many areas of Queensland experience warm weather all year round, parents and carers should ensure they do not become complacent during the winter months.

Two of the 7 children drowned in pools during the summer months, with a further 3 occurring during spring. Two children drowned in pools during winter.

Resuscitation

Resuscitation was attempted in all pool drownings. Persons attempting resuscitation included parents/carers, lifeguards and attending ambulance officers. Four of the 5 parents/carers attempting resuscitation were known to be trained.

As positive health outcomes after immersions depend on the early initiation of resuscitation, pool owners, parents and carers should gain current resuscitation qualifications.

Demographics of non-pool drownings

Table 4.6 illustrates the types, ages and gender breakdowns for all non-pool drownings.

Table 4.6: Non-pool drownings by type, gender and age category

Type of water hazard	Under 1 year	1–4 years	5–9 years	10–14 years	Total
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Rural water hazards (dams/troughs/livestock dips)	0	5	0	0	5
Objects containing water (buckets/tanks)	1	1	0	0	2
Bathtubs	2	0	0	0	2
Beach/ocean	0	0	1	0	1
Dynamic inland waterways (rivers/creeks)	0	0	0	1	1
Total	3	6	1	1	11

Data source: Queensland Child Death Register (2009–10)

Gender

Eight males and 3 females drowned in non-pool locations (11 deaths). With the exception of the 2008–09 reporting period, males have consistently drowned in non-pool locations at more than twice the frequency of females.

Age

Over half of the children who drowned in non-pool locations were aged between 1 and 4 years (6 deaths).

Circumstances of non-pool drownings

Rural water hazards (dams/troughs/livestock dips)

The greatest number of non-pool drownings occurred in rural water hazards (5 deaths). Four drownings occurred in dams, and 1 case involved a livestock dip. All 5 children were aged 1–4 years.

In 3 cases, the children were not adequately supervised. The supervisors had no contact with the child for more than 5 minutes and in one case the child was left unsupervised in direct proximity to the dam.

The rural water hazards involved were located between 40m and 1km from the child's residence.

Objects containing water (buckets/tanks)

Two children drowned in buckets containing water. One child was aged under 1 year, and the other child was aged 1–4 years.

Bathtubs

Two children drowned in bathtubs. One child was aged under 1 year and the other was aged 1–4 years. Neither child was adequately supervised at the time of the incident. One child drowned while co-bathing.

Dynamic inland waterways (rivers/creeks)

One of the 11 non-pool drownings occurred in a dynamic inland waterway. There had been heavy rainfall prior to the incident causing a rapid rise in the level of the waterway.

Beaches/oceans

One child aged 5–9 years drowned in the ocean.

Supervision

None of the children were in the direct line of sight of an appropriately responsive adult supervisor at the time of the incident. Supervision was considered inadequate in 6 of the 9 cases of non-pool drownings involving children aged under 5 years.

In 3 cases, the child was left unsupervised for more than 5 minutes (Inadequate Category B). In 3 cases, the child was in or around water and was not being actively supervised (Inadequate Category A).

In 3 cases, the child was being intermittently supervised.

Length of time

The length of time that elapsed between when the child was last seen alive and when the child was noticed missing and/or found unresponsive is detailed in Table 4.7.

Table 4.7: Length of time unsupervised or missing

Length of time	Cases
	<i>n</i>
Up to and including 5 minutes	2
More than 5 minutes but less than 30 minutes	3
30 minutes or more but less than 1 hour	2
Unknown	2
Total	9

Data source: Queensland Child Death Register (2009–10)
Note: 1. Only children aged 0–4 years have been included in this table.

As shown in Table 4.7, more than half of the children aged 0–4 years who drowned in non-pool locations were left unsupervised for more than 5 minutes, with the actual length of time ranging

from 10 minutes up to and including 30 minutes.

Season

The vast majority of non-pool drownings occurred in summer (9 of the 11 non-pool drowning deaths). One drowning occurred in spring and 1 in winter.

Resuscitation

Resuscitation was attempted in 8 of the 11 non-pool drownings. Of the 7 cases where resuscitation was attempted by parents/carers or other witnesses, only 1 was known to be trained.

Rural water hazards, 2004–2010

Each year, the Commission has identified that non-pool water hazards pose an equal risk of drowning to young children as swimming pools. Since 2004–05 a total of 37 children aged 0–4 years have drowned in pools, compared with 36 drownings in non-pool hazards.

Of particular concern are drownings that involve rural water hazards, such as dams, troughs and livestock dips, which account for 14 of the 36 under 5s that have drowned in non-pool water hazards (38.8%).

Table 4.9 below outlines drownings that occurred in rural water hazards between 2004 and 2010.

Table 4.8: Rural water hazards, 2004–2010

Reporting period	Age category	Type of hazard	Distance from home	Type of property
2004–05	1–4 years	Culvert	300m	Farm
2004–05	1–4 years	Trough	150m	Farm
2004–05	1–4 years	Dam	200m	Farm
2005–06	1–4 years	Dam	490m	Farm
2006–07	1–4 years	Dam	200m	Farm
2006–07	1–4 years	Trough	20m	Farm
2007–08	1–4 years	Dam	Unknown	Farm
2008–09	1–4 years	Dam	150m	Farm
2008–09	1–4 years	Dam	100–200m	Other acreage
2009–10	1–4 years	Dam	Unknown	Other acreage
2009–10	1–4 years	Dam	1km	Farm
2009–10	1–4 years	Dam	250–300m	Farm
2009–10	1–4 years	Livestock dip	200m	Farm
2009–10	1–4 years	Dam	40m	Other acreage

Data source: Queensland Child Death Register (2009–10)

Note: 1. Three children aged 5–9 years and 1 young person aged 15–17 years have been excluded from this analysis.

A review of the literature¹² has identified the following factors commonly associated with dam drownings:

- victims are most commonly aged under 5 and are more likely to be males
- there is low or no carer supervision (carers are often engaged in work tasks around the property)
- children often follow an animal, such as a pet, to the dam
- the dam is within 600m of the child
- most victims of dam drowning are farm residents, and
- the property does not have a fenced safe play area.

As shown in Table 4.8, 14 children aged 0–4 years drowned in rural water hazards in Queensland between 1 July 2004 and 30 June 2010. Ten of these deaths involved dams (71.4%).

In addition, 3 children aged 5–9 years and 1 aged 15–17 years drowned in rural water hazards. However, these have been excluded from the analysis as these children had attended the water hazard for a specific purpose, and in the company of others. This is in contrast to all other children who had strayed from adult supervision. All but 1 water hazard was located within 500m of the child's residence. The average distance was less than 300m (265m).

In 10 of the 14 cases involving 0–4 year olds (71.4%), the child was not being adequately supervised. Table 4.10 details the length of time that elapsed between when the child was last seen alive and when the child was noticed missing and/or found unresponsive.

Table 4.9: Length of time unsupervised or missing

Length of time	Cases
	<i>n</i>
Up to and including 5 minutes	3
More than 5 minutes but less than 30 minutes	6
30 minutes or more but less than 1 hour	4
1 hour or more	1
Total	14

Data source: Queensland Child Death Register (2009–10)

As shown in Table 4.9, almost 80% of the children under the age of 5 who drowned in rural water hazards were left unsupervised for more than 5 minutes, with the actual length of time ranging from 10 minutes up to and including 1 hour.

Location of incident

All of the drownings in rural water hazards occurred on properties in regional and remote areas of Queensland. Eleven of the properties were classified as *farms*¹³, and 3 as *other acreage*.¹⁴

The Commission has previously identified that the combination of family home and workplace that occurs on farms presents a range of hazards for children in rural areas. Likewise, lifestyle acreage blocks, while not constituting a workplace, often feature some of the same hazards, such as dams, tractors or other machinery.

As a result, children in rural areas are more than twice as likely to die as a result of non-intentional injury as those in metropolitan areas. In recognition of this, in 2009 the Commission launched the *Keeping Country Kids Safe* initiative, aimed at developing a comprehensive injury prevention strategy for rural areas that brings together the knowledge, skills and experience of people at all levels, including government and non-government organisations, rural industry, and community members. Drowning has been identified as a key priority for the development of the strategy.

Preventing toddler drowning in rural water hazards

Supervision

Supervision is key to preventing drowning, regardless of whether a child is near a swimming pool or a dam, lake or other water hazard. As mentioned, most toddlers who drown have wandered away from their carers. A lack of direct adult supervision, even for the briefest of moments, has contributed to virtually all drownings recorded by the Commission since 2004. The potential for injury and fatality on farms is considered to be increased because children are living in work environments – parental supervision should also be heightened on this basis.

The Commission has consistently advocated for the promotion of adult supervision as the key to preventing toddler drowning. Through the *Keeping Country Kids Safe* initiative, the Commission has consulted with the rural sector in regards to issues affecting parents' ability to supervise (such as the competing priorities of farm work and the lack of child care services). Means of

supporting rural communities to identify appropriate solutions will form a fundamental part of the development of the final prevention strategy.

Safe play areas

Drowning in dams and other rural water hazards can be prevented by fencing play areas and increasing awareness of the need for supervision.

Pool fencing legislation in Queensland does not affect dams principally used for the storage of water. The Commission recognises that the fencing of dams and other rural water hazards is often not practical due to the level of access required by livestock. However, alternative means of creating a physical barrier between young children and the dangers of farm life are available.

The concept of 'safe play areas' for children on farms has been promoted by child safety advocates for many years. In 1993, a working group examining ways to prevent child deaths on farms in New South Wales recommended the creation of a safe place to play.¹⁵ In November 2004, Farmsafe Australia launched the *Child Safety on Farms* initiative, which provides information about a range of prevention strategies to parents in farming communities, including the safe play area concept.

“A safe play area – such as a securely fenced house yard – is a place where children’s social and developmental needs can be met away from the hazards of the farm workplace. The physical separation of the child and the farm workplace works the same way as a swimming pool fence by reducing the risk of a child getting into hazardous areas unsupervised”.

Farmsafe Australia 2005, *Safe play areas on farms*

Despite ongoing advocacy about the importance of safe play areas, young children continue to drown in rural water hazards in Queensland, as illustrated by the above findings. In most cases, children had wandered from (or been left unsupervised in) close proximity to the house, where child resistant perimeter fencing may have been of benefit in preventing their access to the hazard. The average age of these children was 1.6 years – while not impossible, children of this age are unlikely to possess the skills required to climb or otherwise engineer an exit from a securely fenced safe play area.

Farmsafe has reinforced the need for the farm to be seen as a workplace, and the creation of a safe play area assists in making a clear distinction between the home and the workplace for children. A safe play area can be created by the installation of child-resistant perimeter fencing around the house-yard. Families should be mindful to ensure that the yard is kept free of structures that can be placed to assist a child to climb the fence, or water hazards such as buckets or ponds.

A safe play area:

- defines the boundary between the 'home' and the 'workplace' where different standards and rules can apply
- stops a child from easily or quickly crossing that boundary without the knowledge or approval of an adult
- makes supervision of children more manageable
- helps manage child visitors who may not understand farm hazards
- is a place where adults and children can relax together
- is practical and relatively low cost, and
- helps farmers meet workplace health and safety obligations

A safe play area is:

- NOT a way of keeping children on farms wrapped in 'cotton wool' – safe play areas keep children away from the hazards of farm life until they are developmentally capable of interacting safely with them
- NOT a 'prison for kids' – it is a place where children's social and developmental needs can be met without the threats posed by hazards in the workplace
- NOT 100% effective – plan for the unexpected; understand the weaknesses and limitations of your safe play area
- NOT a place where children can remain unsupervised – supervision appropriate to the age of the child will always be necessary.

Adapted from Farmsafe Australia 2005, *Safe play areas on farms*

The introduction of pool fencing in 1992 has been effective in reducing the number of toddler drownings in Queensland swimming pools, and is the optimal standard for safe play areas. The following fencing standard is recommended:

Height	1.2m with a self-closing, self-latching gate.
Structure	Horizontal supports should be located on the outside of the structure. Supports inside the area should be no wider than 10mm to prevent them being used as footholds.
Material	Pool fencing is most suitable. Other materials should be solid panel or vertical rails with clear space less than 100mm.

Adapted from Farmsafe 2005, *Safe play areas on farms*.

Safe play areas are critical for preventing young children from accessing hazards on farms. This applies not only to water hazards, but also to other rural hazards such as chemicals and poisons, livestock and machinery.

The Australian Water Safety Council's *Rural and Remote Water Safety Plan 2010–15*¹⁶ identifies reducing drowning deaths of children under 5 as a key priority area, and recommends extending awareness of the use of safe play areas.

The Commission acknowledges the work of organisations such as the Australian Water Safety Council, Royal Life Saving Society Australia, and Farmsafe in promoting the importance of safe play areas. However, the continued incidence of childhood drownings in rural water hazards indicates that further work is required.

In the coming year, the Commission intends to consult with both Workplace Health and Safety Queensland and the Department of Infrastructure and Planning about the range of potential options for increasing the presence of safe play areas on farms, including possible legislative reform.

The Commission recognises that safe play areas can have a positive impact on reducing the number of deaths of young children in rural areas as a result of drowning and a range of other rural/workplace hazards that exist due to the combination of home and workplace on family farms. The Commission will continue to advocate for further work to be undertaken in this area.

Queensland Ambulance Service data

Analysis of injury data can provide a more complete view of the risks to children posed by water hazards. The Queensland Ambulance Service (QAS) has provided data on the number of ambulance responses to immersion incidents involving children in 2009–10.

Table 4.10 shows the total number of QAS responses, and includes both fatal and non-fatal injuries.

Table 4.10: Immersion incidents 2009–10

Age category	Immersion incidents
	<i>n</i>
Under 1 year	22
1–4 years	68
5–9 years	16
10–14 years	27
15–17 years	17
Total	150

Data source: Queensland Ambulance Service (2009–10)

Note: 1. Figures include both fatal and non-fatal immersion incidents.

In line with the child death data presented in this report, immersion incidents were most common in the 1–4 year age category. However, the second-highest number of immersions occurred in the

10–14 year age category. This is in contrast to the Commission’s findings for fatal drownings for all reporting periods to date. Child death data has historically seen very few fatal drowning incidents in children over the age of 5 years. The data presented above may indicate that while immersion incidents still occur in older age categories, they are much less likely to be fatal than those involving children under the age of 5.

Compared with QAS figures for the previous reporting period, the number of immersion incidents for 1–4 years and 5–9 years have decreased. This downward trend for these age categories is encouraging. The Commission hopes the introduction of mandatory reporting requirements for immersion incidents as part of the Queensland Government Swimming Pool Safety Improvement Strategy will see this trend continue in 2010–11. For further details on the Swimming Pool Safety Improvement Strategy, see the ‘Supporting child death and injury prevention initiatives’ section at the end of this chapter.

In 2009–10, the increase in the number of immersion incidents involving children under the age of 1 year is concerning. Twenty-two immersion incidents of infants occurred this year, compared with 9 in 2008–09. Increases were also noted in the 10–14 and 15–17 year age categories.

Supporting child death and injury prevention initiatives

Queensland Government Swimming Pool Safety Improvement Strategy

Since 2008, the Commission has been engaged as a key stakeholder to the Queensland Government’s Swimming Pool Safety Improvement Strategy. This initiative involved a comprehensive review of Queensland’s swimming pool safety laws, and resulted in a range of legislative changes aimed at improving the safety of residential pools for young children. During 2009–10 the Commission has continued to provide advice and supporting child death data to the Department of Infrastructure

and Planning in implementing the proposed strategy.

Key achievements of the strategy include:

- the introduction of uniform fencing standards for all residential pools, regardless of their date of construction
- extension of fencing laws to include hotels, motels, caravan parks and indoor pools
- removal of local government exemptions for pool fencing, except in the case of disability
- mandatory reporting of immersion incidents of young children by hospitals and ambulance staff
- provisions for alerting home buyers and lessees to the compliance or otherwise of the pool fence with legislation, and
- increased government spending on awareness-raising campaigns.

The Commission is highly supportive of moves to introduce uniform fencing standards for residential pools. Since 1983, a total of 225 children under the age of 5 years have drowned in residential pools in Queensland.¹⁷ As discussed previously, since 1992 it has been mandatory for all pools to comply with the relevant Australian Standard for fencing. Since that time, a number of upgrades or changes to pool fencing requirements have been implemented. Figure 4.2 illustrates the number of drowning deaths of children under 5 years of age, mapped against the points in time at which changes to fencing requirements were introduced.

As can be seen in Figure 4.2, the years prior to 1992 experienced high numbers of toddler drownings, followed by a marked decrease in deaths subsequent to the introduction of pool fencing legislation. However, this was a short-term decrease, with deaths again peaking in 1996.

Changes to pool fencing requirements were introduced in 1998, 2003 and 2006. While the initial mandate for fencing in 1992 was followed by a clear decline in deaths in the following years, the same

cannot be said of changes introduced in subsequent years.

Figure 4.2 should be interpreted with caution, as a number of factors impact upon the evaluation of the success of changes to pool fencing standards.

Changes to fencing requirements over time have led to the existence of multiple standards, which applied to pools of varying ages. For example, while 4-sided fencing is mandatory, until recently pools constructed prior to 1991 were exempted, with 3-sided fencing (allowing direct access from the house to the pool) accepted for these pools. It is unknown to what extent toddlers drowned in pools fenced in accordance with outdated standards.

In addition, the Commission has repeatedly identified a number of toddler drownings in which children have accessed the pool area through climbing or propping open a compliant pool fence. The standard of fencing present in pool drownings since 1992 is largely unknown. Of equal importance is the impact of human behaviour on the compliance of a pool fence. A number of drownings occur in pools with compliant fencing but in which the gate has been propped open by an adult for ease of access to the pool area.

Further, the extent to which reductions in drowning are the result of the improvements to fencing requirements, as opposed to a reflection of improved community awareness (or a combination of the two), cannot be determined. The Commission has consistently identified adult supervision as the key to preventing toddler drowning. It is possible that education campaigns associated with the introduction of legislative changes have raised parental awareness of drowning risks and subsequently increased vigilance around residential pools. This may explain the substantial decrease in drowning deaths following the overhaul of fencing laws in 1992, and the absence of this effect with later, more minor changes to requirements.

Despite this, Figure 4.2 clearly shows that the introduction of pool fencing laws has had a major impact on the number of toddler drowning deaths each year. Since 1992, the vast majority of reporting periods have seen drowning deaths below the average for the 18 year period.

The Commission hopes that the introduction of uniform fencing requirements and mandatory reporting of immersion incidents in late 2010 will continue to have a positive impact on the number of toddler drownings, and will continue to monitor long-term trends over the coming years.

Figure 4.2: Drowning deaths of children aged 0–4 years by applicable pool standard, 1983–2009



Data source: Queensland Injury Surveillance Unit 2008, *Injury Bulletin: Domestic pool immersion in Queensland children under 5 years of age, No.104*; Queensland Child Death Register 2004–2010.

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.

¹ Data according to date of death (i.e. occurrence-based) as well as date of death registration can be obtained through the Commission. All enquiries for child death data should be directed to data@ccypcg.qld.gov.au.

² This death was pending an official cause of death at the time of reporting – information presented here is based on circumstances described in the police and autopsy reports.

³ Mackie, IJ 1999, 'Patterns of drowning in Australia, 1992–1997', *Medical Journal of Australia*, vol. 171, pp. 587–90.

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

⁵ 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, Child Safety 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.

⁶ Caution must be exercised when making comparisons and interpreting rates because of 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 findings when small numbers are involved.

⁷ Royal Life Saving Society Australia 2007, *Guidelines for Safe Pool Operations*, Royal Life Saving Society Australia, viewed 14 September 2010, <<http://www.royallifesaving.com.au/www/html/198-introduction.asp>>.

⁸ According to the Royal Life Saving Society Australia, adequate supervision means keeping the child in the direct line of sight or at arm's length and being in a position to quickly respond to the child. However, this presumes that the carer is aware of the proximity of the toddler to the hazard. In households where the pool is not fenced, or the fence is known to be grossly defective, or the gate has intentionally been propped open, the Commission considers that the carer should be aware of the potential for the child to be in, or to quickly move into, close proximity to the water hazard.

⁹ Brenner, RA & Committee on Injury, Violence and Poison Prevention 2003, 'Prevention of drowning in infants, children and adolescents', *American Academy of Pediatrics*, vol. 112, no. 2, pp.440–45.

¹⁰ American Academy of Pediatrics, Committee on Sports Medicine and Fitness and Committee on Injury and Poison Prevention 2000, 'Swimming programs for infants and toddlers', *Pediatrics*, vol. 105, pp. 868–70.

¹¹ Lo, M, Hall, K, VanderWerf-Hourigan, L, Vincent, B and Pryor, R 2010, 'Correlation of pool drowning deaths with number of residential swimming pools by county in Florida 2005–2007', *International Journal of Aquatic Research and Education*, vol.4, pp.19–32.

¹² See for example: Franklin, R, Mitchell, R, Driscoll, T & Fragar, L 2000, *Farm-Related Fatalities in Australia, 1989-1992*, Australian Centre for Agricultural Health and Safety, National Occupational Health and Safety Commission, and Rural Industries Research and Development Corporation, Moree; Owens, L 2002, *Unintentional Drowning: Toddlers in Dams in Victoria. A Joint Initiative of the State Coroner's Office and the Department of Human Services, Report 1*, State Government Victoria, Melbourne; Rural and Regional Services Development Committee 2003, *Inquiry into the Cause of Fatality and Injury on Victorian Farms*, Government Printer for the State of Victoria, Melbourne.

¹³ Acreage properties participating, or considered likely to be participating, in agriculture.

¹⁴ Properties much larger than a regular suburban block (i.e. one acre/4000m² in size or larger), but not considered likely to be participating in agriculture.

¹⁵ Stiller, L. & Baker, W. (2005) *Safer Fences for Children on Farms: Effective Safe Play Area Fencing Options for Rural Properties*. Sydney: Rural Industries Research and Development Corporation.

¹⁶ Australian Water Safety Council (Draft July 2010), *Australian Rural and Remote Water Safety Plan 2010 to 2015*, Australian Water Safety Council, Sydney.

¹⁷ Commission for Children and Young People and Child Guardian, *Queensland Child Death Register 2004–2010*; Queensland Injury Surveillance Unit 2008, *Injury Bulletin: Domestic pool immersion in Queensland children under 5 years of age*, no. 104, p. 2.

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Part III: Non-intentional injury-related deaths

Chapter 5

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

Key findings

- In 2009–10, 10 children and young people died in a non-intentional injury-related incident, other than a drowning or transport incident, a rate of 1.0 per 100,000 children aged 0–17 years. This is the lowest number of deaths from other non-intentional injury-related deaths in all reporting periods to date.
- The greatest number of non-intentional injury deaths occurred in the 15–17 year age category, in contrast to previous findings which recorded greater numbers of deaths from non-intentional injury in children aged 1–4 years.
- There were no deaths as a result of fire during this reporting period.
- Two young children died as a result of falling from, out of or through a part of a building or structure.

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Chapter 5

Other non-intentional injury-related deaths

Table 5.1: Summary of other non-intentional injury-related deaths of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
Other non-intentional injury deaths													
Other non-intentional injury	17	1.8	13	1.3	12	1.2	15	1.5	15	1.5	10	1.0	1.3
Gender													
Female	6	1.3	5	1.1	8	1.6	9	1.8	3	*	5	1.0	1.2
Male	11	2.2	8	1.6	4	0.8	6	1.2	12	2.3	5	0.9	1.5
Aboriginal and Torres Strait Islander status													
Indigenous	6	9.5	2	*	1	*	2	*	1	*	2	*	*
Non-Indigenous	11	1.2	11	1.2	11	1.2	13	1.4	14	1.5	8	0.8	1.2
Known to the child protection system													
Known to the child protection system	2	–	0	0.0	3	*	6	6.6	6	5.9	4	3.1	*
Age category													
Under 1 year	2	*	2	*	3	*	3	*	1	*	3	*	*
1–4 years	10	5.0	4	2.0	5	2.3	6	2.8	8	3.7	3	*	2.7
5–9 years	2	*	4	1.5	0	0.0	2	*	4	1.4	0	0.0	*
10–14 years	2	*	1	*	0	0.0	2	*	0	0.0	0	0.0	*
15–17 years	1	*	2	*	4	2.3	2	*	2	*	4	2.2	*
Fire													
Deaths from fire	4	0.4	2	*	1	*	5	0.5	4	0.4	0	0.0	*
Deaths from other injuries													
Other injuries	13	1.4	11	1.1	11	1.1	10	1.0	11	1.1	10	1.0	1.1

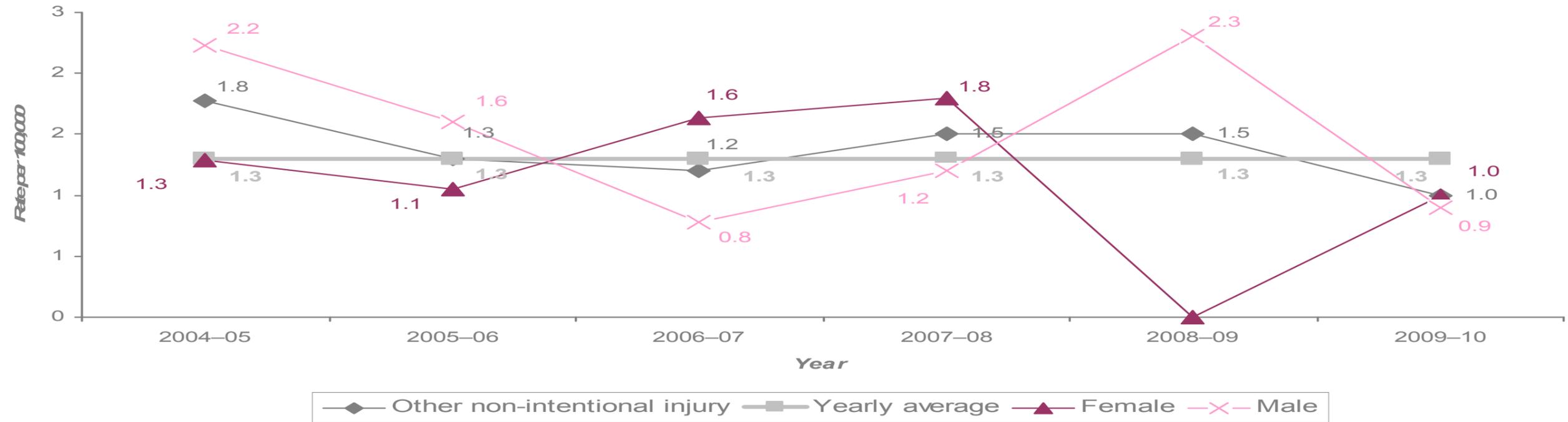
Data source: Queensland Child Death Register (2004–10)

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

– These data were not available at the time of publication.

- Notes:
1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
 2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
 3. Rates are calculated per 100,000 children (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
 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. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
 6. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

Figure 5.1: Other non-intentional injury-related deaths, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

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

Other non-intentional injury-related deaths: findings, 2009–10

The child deaths discussed in this chapter are those unintentional deaths that fall outside the scope of the non-intentional injuries covered earlier in this report (that is, transport incidents and drowning).¹

Ten children died in non-intentional injury-related incidents² in Queensland between 1 July 2009 and 30 June 2010, a rate of 1.0 per 100,000 children aged 0–17 years in Queensland.

Gender and age breakdowns are provided in Table 5.2.

Table 5.2: Non-intentional injury-related fatalities by gender and age category

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Under 1 year	3	0	3	*
1–4 years	2	1	3	*
15–17 years	0	4	4	2.2
Total	5	5	10	1.0
Rate per 100,000	1.0	0.9	1.0	

Data source: Queensland Child Death Register (2009–10)

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

Notes: 1. Rates are calculated per 100,000 children in each age/gender category in Queensland.

2. Total rate of death is calculated per 100,000 children and young people aged 0–17 years in Queensland.

Gender

An equal number of male and female children died from non-intentional injuries (5 deaths each).

Research has found that male children are more likely than female children to suffer injury-related deaths, with suggested reasons for gender differences including a greater degree of risk-taking behaviour by boys, and caregivers displaying a more permissive attitude towards boys' behaviour. While the Commission's findings have generally supported this trend, the 2006–07 and 2007–08 reporting periods recorded a higher number of female deaths from non-intentional injury.

Age

The greatest number of non-intentional injury-related deaths occurred among young people in the 15–17 year age category. In all previous reporting periods, the greatest number of non-intentional injury-related deaths occurred in the 1–4 year age category.

Prior to 2009–10, children aged 1–4 years have consistently recorded high numbers

of deaths from non-intentional injury in previous reporting periods. Children's risk of injury, and death from injury, is reportedly greater during this period because of young children's rapidly expanding motor skills coupled with an undeveloped perception of risk.

Aboriginal and Torres Strait Islander status

Two Aboriginal children died as a result of non-intentional injury during this period. One child died as a result of accidental threats to breathing, and the other died after becoming caught between two objects.

Geographical distribution (ARIA+)

The greatest rate of non-intentional injury-related deaths occurred among children residing in regional areas of Queensland (2.0 deaths per 100,000). This is consistent with findings from the previous reporting period. Two deaths were of children living in a metropolitan area.³

Research has found rates of injury deaths to be higher for children living in regional and remote areas than in metropolitan

areas. Children in regional and remote areas may be exposed to different types of injury risk (such as exposure to chemicals and hazards associated with living in a workplace, such as on a farm).

Socio-economic status (SEIFA)

The rate of child death in low to very low socio-economic areas was 1.4 deaths per 100,000. Three deaths were of children living in moderate socio-economic areas, while 2 deaths were of children living in high to very high socio-economic areas.⁴

Children known to the child protection system

Four of the 10 children were known to the child protection system.⁵ Children known to the child protection system are a vulnerable and at-risk cohort who often experience a range of risk factors due to the complex circumstances in their lives. The rate of non-intentional injury-related death for children known to the child protection system is greater than the rate for all children in Queensland (3.1 deaths per 100,000 children known to the child protection system, compared with 1.0 deaths per 100,000 for all Queensland children).⁶

Members of the community should be encouraged to continue reporting any concerns about the safety of children. If there is a reason to suspect a child in Queensland is experiencing harm, or is at risk of experiencing harm, it is important that risk factors be assessed by child protection experts.

Circumstances of non-intentional injury-related deaths

Types of non-intentional injury-related deaths

Table 5.3 outlines the types of non-intentional injury-related deaths that occurred, by gender and age category.

Table 5.3: Types of non-intentional injury-related deaths by gender and age category

Age category	Female	Male	Total
	<i>n</i>	<i>n</i>	<i>n</i>
Accidental threats to breathing	2	0	2
Under 1 year	1	0	1
1–4 years	1	0	1
Falls	1	1	2
Under 1 year	1	0	1
1–4 years	0	1	1
Other	2	4	6
Under 1 year	1	0	1
1–4 years	1	0	1
15–17 years	0	4	4
Total	5	5	10

Data source: Queensland Child Death Register (2009–10)

Accidental threats to breathing

Two children died as a result of accidental threats to breathing. One child was aged under 28 days and died while being carried in a baby sling. The Office of Fair Trading has previously issued a warning against using baby slings for babies under 4 months of age. Recommendations in relation to the use of baby slings are discussed further in Chapter 8, *Sudden unexpected deaths in infancy*.

The other child was aged 1–4 years and died as a result of asphyxia after contact with an item of furniture caused an obstruction to their airway.

Falls

Two children died as a result of a fall from or through balconies. One child was aged under 1 year, and the other child was aged 1–4 years.

Other

Six children and young people died from non-intentional injury-related causes not discussed above. The following causes accounted for one death each:

- Electrocution
- Foreign body cutting/ piercing
- Exposure to animate mechanical forces
- Exposure to inanimate mechanical forces
- Exposure to excessive heat
- Poisoning

One young person aged 15–17 years died as a result of electrocution while working. The young person's employer was charged with *failure to conduct a business or undertaking in a way that is electrically safe* and *failure to ensure workers are protected from falls from height*.

One young person aged 15–17 years died as a result of a laceration from broken glass.

One young person aged 15–17 years died from a head injury obtained while playing sport.

One child aged 1–4 years died after becoming caught between 2 items of furniture.

One child aged under 1 year died as a result of exposure to excessive natural heat after being left unattended in a car. The child's carer has been charged with *manslaughter* and *leaving a child under the age of 12 years unattended*.

One young person aged 15–17 years died as a result of poisoning.⁷

Place of incident

Two of the 10 deaths from non-intentional injuries occurred at the child's home. This is in contrast to the findings both from the literature and from previous Commission research which state that the majority of non-intentional child injuries occur at home.

Four deaths occurred at the home of a friend or relative, while a further 3 occurred in public areas such as schools, shopping centres and holiday resorts.

-
- ¹ Refer to Appendix 5.1 for a comprehensive outline of categories of death constituting 'other non-intentional injury-related deaths'.
- ² For the purposes of this chapter, other non-intentional injury-related deaths will be referred to as deaths caused by 'non-intentional injury'.
- ³ Rates have not been calculated for numbers less than 4.
- ⁴ Rates have not been calculated for numbers less than 4.
- ⁵ 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, Child Safety 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.
- ⁶ Caution must be exercised when making comparisons and interpreting rates because of 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 findings when small numbers are involved.
- ⁷ This case is currently pending an official cause of death – information presented here is based on circumstances described in police and autopsy reports.

Part IV: Intentional injury-related deaths

Chapter 6

This section provides details of child deaths from suicide.

Key findings

- Suicide accounted for almost one quarter of the external causes of death among children and young people aged 10–17 years (23.8%) and was the leading cause of death for 15–17 year olds.
- Ten of the 20 children and young people who suicided in 2009–10 were males aged 17 years.
- Five of the 20 children and young people who suicided were known to the child protection system in the 3 years prior to their death.
- Twelve of the 20 children and young people were identified as having previous suicidal thoughts and/or behaviour including suicidal ideation, attempted suicide, threatened suicide and engaging in self-harming behaviour, such as cutting.
- In 10 cases the child or young person stated or implied their intent prior to their death. Four of the 10 stated or implied their intent in the hour immediately preceding their death.
- Precipitating incidents were identified in 18 of the 20 suicides. For 15 of the young people, an argument with a significant other preceded the suicide.
- Ten young people had a recent (or anticipated) relationship breakdown with either a boyfriend/girlfriend, close friend or parent(s). In 4 cases, the relationship breakdown occurred within the 24 hours prior to their death.

Take threats seriously – half of the children and young people who suicided stated or implied their intent to someone prior to their death. It is important that all threats or talk of suicide are taken seriously.

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Chapter 6 Suicide

Table 6.1: Summary of suicide deaths of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All suicide deaths													
Suicide	15	1.6	15	1.5	19	1.9	21	2.1	15	1.5	20	1.9	1.7
Gender													
Female	4	1.9	6	2.7	7	3.1	6	2.7	6	2.6	6	2.6	2.5
Male	11	4.8	9	3.9	12	5.1	15	6.3	9	3.7	14	5.7	4.8
Aboriginal and Torres Strait Islander status													
Indigenous	3	*	3	*	6	22.2	5	17.0	7	23.8	3	*	15.3
Non-Indigenous	12	2.9	12	2.8	13	3.0	16	3.6	8	1.8	17	3.8	2.9
Known to the child protection system													
Known to the child protection system	2	*	5	7.1	4	4.6	5	5.5	11	10.8	5	3.9	6.2
Age category													
10–17 years	15	3.4	15	3.3	19	4.1	21	4.5	15	3.2	20	4.2	3.7
10–14 years	6	2.1	5	1.8	8	2.8	0	0.0	1	*	2	*	*
15–17 years	9	5.5	10	6.0	11	6.4	21	12.2	14	7.8	18	9.9	7.7
Method of death													
Hanging	13	-	13	-	17	-	18	-	9	-	16	-	-
Poisoning	0	-	1	-	1	-	1	-	1	-	0	-	-
Gunshot wound	0	-	1	-	0	-	1	-	2	-	1	-	-
Jumping in front of moving object	1	-	0	-	1	-	1	-	2	-	2	-	-
Jumping from a high place	1	-	0	-	0	-	0	-	1	-	0	-	-
Self-immolation	0	-	0	-	0	-	0	-	0	-	1	-	-

Data source: Queensland Child Death Register (2004–10)

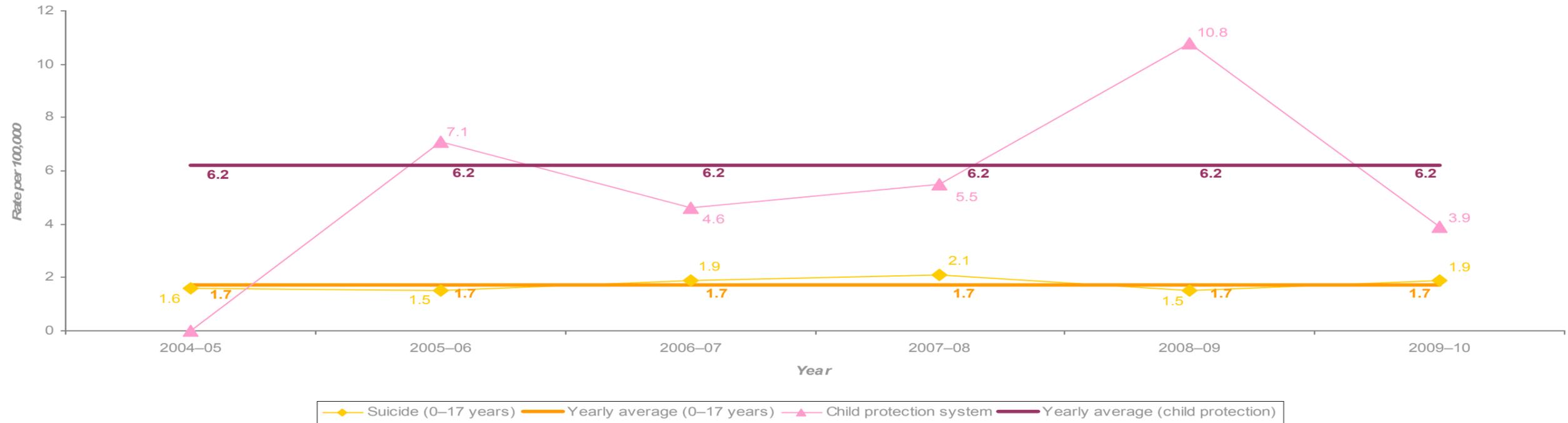
* Rates have not been calculated for numbers less than 4.

- These data were not available at the time of publication.

Notes:

1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
3. Overall suicide rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.
4. All other rates are calculated per 100,000 children aged 10–17 years (in the gender/Indigenous status bracket stated) 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. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
7. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

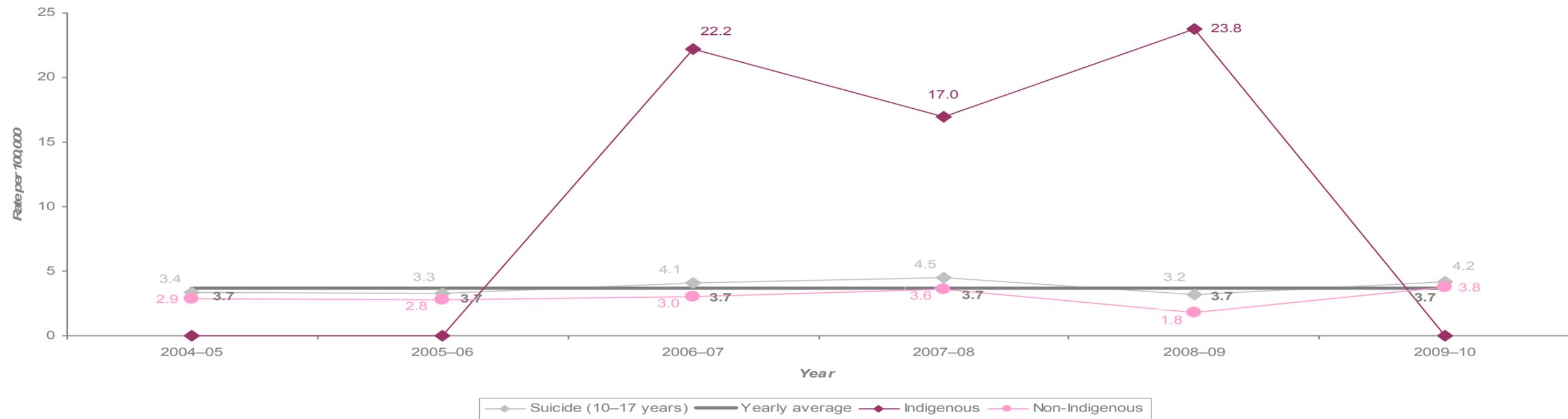
Figure 6.1: Suicide of children known to the child protection system (0–17 years), 2004–2010



Data source: Queensland Child Death Register 2004–2010

Note: 1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland, and per 100,000 children and young people aged 0–17 years known to the child protection system.

Figure 6.2: Indigenous and non-Indigenous suicide (10–17 years), 2004–2010



Data source: Queensland Child Death Register 2004–2010

Note: 1. Rates are calculated per 100,000 Aboriginal and Torres Strait Islander and per 100,000 non-Indigenous children and young people aged 10–17 years in Queensland.

Defining and classifying suicide

In Queensland, a high standard of proof is generally needed for a suicide to be labelled as such. The substantial evidence required for suicide classifications often results in deaths that would ordinarily, in clinical or research situations, be categorised as suicides not meeting the threshold for a legal classification. Consequently, in cases where a suicide is suspected but intent is unclear (that is, the deceased did not leave a suicide note and did not state their intent before death), the cases are often coded as accidents. This has resulted in childhood and adolescent suicide being under-reported in official statistics, with a large proportion mistakenly recorded as accidental deaths.¹

The Commission has endeavoured to reduce the likelihood of suicides being undercounted by examining all cases where police have indicated that a death is a suspected suicide.² In addition, to enable further categorisation of these deaths, the Commission has developed a suicide classification model (see Appendix 6.1).³

Suicide classification model

The Commission's suicide classification model is used to classify all cases of suspected suicide into 1 of 3 levels of certainty. In classifying these deaths, the Commission considers a number of factors, including whether intent was stated previously, the presence of a suicide note, witnesses to the event, previous suicide attempts and any significant precipitating factors or life stressors.

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

the coroner (which can include witness statements, supplementary Form 1s, additional police reports and suicide notes).

Levels of classification are as follows:

- **Beyond reasonable doubt:** The available information refers to at least 1 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 beyond reasonable doubt, 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 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.

In the reporting period, 13 deaths were classified by the Commission as 'beyond reasonable doubt' and 7 deaths were categorised as 'probable'. No deaths were classified as 'possible/undetermined'.

Suicide: findings, 2009–10

Twenty children and young people were suspected of suiciding during the 2009–10 reporting period. Table 6.2 illustrates the gender and age breakdowns for all youth suicides.

Table 6.2: Suicide by gender and age category

Age at death	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
10–14 years	1	1	2	*
14 years	1	1	2	–
15–17 years	5	13	18	9.9
15 years	4	1	5	–
16 years	0	2	2	–
17 years	1	10	11	–
Total 10–17 years	6	14	20	4.2
Rate per 100,000	2.6	5.7	4.2	

Data source: Queensland Child Death Register (2009–10)

* 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 and young people in each age/gender category in Queensland.

2. Total rate of death is calculated per 100,000 children and young people aged 10–17 years in Queensland.

Gender

Consistent with findings from all previous Child Death Annual Reports and national suicide findings, more male than female children and young people suicided. The rate of suicide was also greater for males, with 5.7 males per 100,000 males aged 10–17 years in the population taking their own lives, compared with 2.6 females per 100,000.

Research has identified that the gender differences in youth suicide are most likely due to the greater likelihood of males experiencing multiple risk factors, such as co-morbid mood and alcohol abuse disorders, and higher levels of aggression, as well as males choosing more lethal suicide methods compared with those chosen by females. This is in contrast to the higher suicidal ideation and attempt rates reported among adolescent females.

Age

Eighteen deaths involved the suicide of adolescents aged 15–17 years. Suicide was identified as the leading cause of death for young people aged 15–17 years, and occurred at a rate of 9.9 per 100,000 young people in this age group.

Aboriginal and Torres Strait Islander status

Three of the 20 children and young people who took their own lives were identified as Aboriginal and/or Torres Strait Islander. All of the Aboriginal and Torres Strait Islander suicides in 2009–10 occurred among males.

The Commission's research in previous years has identified a significant concern regarding the young age of Aboriginal and Torres Strait Islander children taking their own lives in Queensland. In terms of prevention, of critical importance is the need to differentiate between the distinct factors associated with Aboriginal and Torres Strait Islander compared with non-Indigenous suicides. These issues were considered in the Commission's *Reducing Youth Suicide in Queensland* (RYSQ) project. Details of the Commission's consultation on this issue will be discussed in the upcoming RYSQ 'Outcomes Report', due for release in the coming year.

Geographical distribution (ARIA+)

The greatest number of youth suicides occurred in regional areas with a rate of 5.2 deaths per 100,000 young people aged 10–17 years. This was followed by metropolitan areas, with a rate of 3.5 per 100,000. One young person usually resided in a remote area.⁴

Socio-economic status (SEIFA)

Children and young people living in low to very low socio-economic areas suicided at a rate of 5.4 deaths per 100,000 youth aged 10–17 years, compared with 3.8 per 100,000 in moderate socio-economic areas and 3.3 per 100,000 for young people living in high to very high socio-economic areas.

Research has found that risk of suicidal behaviour is increased for individuals (including youths) from socially disadvantaged backgrounds, characterised by low socio-economic status and low income.

Children known to the child protection system

Of the 20 children and young people who died as a result of suicide, 5 were known to the child protection system.⁵ The rate of suicide for children and young people known to the child protection system is greater than that for all youth in Queensland,⁶ with 3.9 deaths per 100,000 children, compared with 1.9 suicides per 100,000 for all Queensland children aged 0–17 years.⁷

An increased risk of suicide has been identified among children and young people known to child protection agencies. This is because children known to these agencies may often be living in circumstances that are characterised by substance abuse, mental health problems, lack of attachment to significant others, conduct disorder or a history of abuse, all of which are risk factors for suicide and heighten the importance of increasing community capacity to identify potential concerns and make the necessary referrals to the service system established to assess the risk.

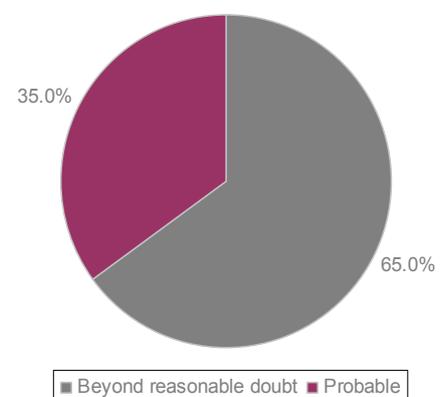
From a research perspective, increasing community capacity to connect at-risk children and young people with support services represents an opportunity to implement new findings about risk factors in assessment and case management frameworks. In that respect, it is preferable that children and young people who are at-risk continue to come to the attention of the child protection system, which then provides an opportunity for assessment based upon an increasing understanding of the risk factors at play.

Reducing suicide is a key priority of the Commission through the RYSQ project. The project aims, among other things, to help strengthen assessment frameworks and identify points where intervention can be targeted, including by exploring the potential for agency partnerships to better identify risks and provide effective and co-ordinated early services and supports. The Commission considers the child protection system to be a key stakeholder of the RYSQ project and will be working closely with the Department of Communities in this regard.

Suicide classification

Figure 6.3 shows the breakdown of suspected suicide deaths by their assessed probability as confirmed suicides. The majority of cases were classified by the Commission as beyond reasonable doubt (13 deaths), with only 7 classified as being of probable likelihood.

Figure 6.3: Percentage of suspected suicide deaths by classification



Data source: Queensland Child Death Register (2009–10)

Circumstances of death

Method of death

Table 6.3 presents the methods of suicide used by children and young people by gender. Hanging was the most frequently used method of suicide for both males and females (16 deaths). Other suicide methods included gunshot (1 death), jumping in front of a moving object (2 deaths), and self-immolation (1 death). These findings are consistent with those of all previous Child Death Annual Reports.

Hanging

Despite the fact that hanging is the single most common mode of suicide for children and young people in Queensland, there are currently no clear interventions to reduce the use of this method.

Hanging is a mode of suicide to which it is virtually impossible to restrict access, because of the easy availability of hanging ligatures. Therefore, the method that accounts for the greatest number of youth suicides is also the least amenable to change.

Table 6.3: Method of suicide death by gender

Age at death	Female	Male	Total
	<i>n</i>	<i>n</i>	<i>n</i>
Hanging	5	11	16
Gunshot	1	0	1
Jumping in front of a moving object (e.g. train or car)	0	2	2
Self-immolation	0	1	1
Total	6	14	20

Data source: Queensland Child Death Register (2009–10)

Coronial findings

At the time of reporting, coronial findings had been finalised for 6 of the 20 suicides. Table 6.4 shows the coroner's findings for each of these cases, and the classification assigned by the Commission using the suicide classification model.

Table 6.4: Coronial findings and classifications of suspected suicides

Coronial findings	Intent clearly stated in findings	Suicide classification
Hanging	Yes	Beyond reasonable doubt
Self inflicted gunshot wound to the head	Yes	Beyond reasonable doubt
1) Anoxia due to hanging 2) Depression	Yes	Beyond reasonable doubt
Hanging	No	Beyond reasonable doubt
Suicidal Hanging	Yes	Beyond reasonable doubt
Hanging	No	Beyond reasonable doubt

Data source: Queensland Child Death Register (2009–10)

Situational circumstances and risk factors

This section outlines the factors that may have triggered suicidal behaviour in Queensland youth, where that information is available to the Commission.⁸ The numbers may therefore under-represent the true number of circumstances and risk factors for some of the children and young people who took their own lives during 2009–10.

Suicidal behaviours in children and young people are often not the result of a single cause, but are multiplicative and frequently occur at the end point of adverse life sequences in which several interacting risk factors combine, resulting in feelings of hopelessness and a desire to ‘make it all go away’. It is widely understood, and confirmed by the Commission’s research, that a number of common risk factors and adverse life circumstances may lead to suicidal behaviour in children and young people.

Mental health and behavioural problems⁹

Nine of the children and young people who suicided had a mental health issue before their death. Of these 9 young people, 7 had previously seen a mental health professional.¹⁰ Information available to the Commission indicates that 2 young people saw a counsellor or mental health professional for the treatment of depression, while other young people were previously treated for:

- self-harming behaviours (3 cases)
- eating disorders (1 case), and
- co-morbid developmental and tic disorders (Tourette’s and Asperger’s disorders – 1 case).

Based on the testimony of family and friends, a further 4 children were suspected of having a mental health issue. Table 6.5 outlines the number of children with confirmed or suspected mental health issues, and the sources of information on which this assessment has been based.

Table 6.5: Mental health issue

Mental health issue	
Yes	9
Self-harm evident	2
Known to have accessed mental health provider	6
Stated in coronial finding	1
Suspected mental health issue	4
No or unknown	7
Total	20

Data source: Queensland Child Death Register (2009–10)

- Notes: 1. ‘Suspected mental health issue’ refers to information from family members or friends that believed the young person to be experiencing a mental health issue.
2. Young people were recorded as *not* having a mental health issue where the Commission did not have information to indicate otherwise. This is not an absolute finding in regards to the young person’s mental health.

One young person was noted to have been taking prescribed medication for their condition/s, but it is unknown if they were compliant with their medication at the time of their death.

Research suggests that mental health problems play a major role in youth suicidality. Mental health problems most frequently associated with youth suicide include depression, anxiety, substance dependence and antisocial behaviour, with multiple or co-morbid conditions suggested to occur frequently in young people who suicide. Early identification and treatment of mental health and behavioural problems are essential in preventing child and adolescent suicides.

Previous suicidal behaviour

Previous suicidal behaviour and/or thoughts of suicide were identified for 11 children and young people. Of these 11 young people, 2 had previously attempted suicide and 2 had threatened suicide. Eight young people were recorded as having experienced suicidal ideation.¹¹ A total of 7 young people had engaged in self-harming behaviour, such as cutting.¹²

Research suggests that a previous suicide attempt is the single most potent risk factor predicting youth suicide. The most common methods of self-harm reported by research are cutting and burning.

Intent stated or implied (orally or written)

In 10 cases, children and young people stated or implied their intent to a family member, friend, ex-boy/girlfriend, a health professional or to an unknown person online. Intent was most commonly communicated verbally (7 deaths), although some young people stated or implied their intent to suicide via text message (3 deaths) or in online chat rooms (1 death).¹³ Six of these young people stated or implied their intent in the 24 hours before the incident, including 4 young people communicating intent in the hour before their death.

Suicide notes were found in 6 cases. Three of these young people had also stated or implied intent prior to their suicide.

The fact that half of these children and young people stated their intent before suiciding highlights the importance of taking threats or talk of suicide seriously. Parents, carers and others need to recognise that children know enough to attempt suicide, regardless of whether or not they appreciate the finality and permanence of death.

Studies estimate that approximately 80% of children and young people who complete suicide communicate suicidal thoughts and feelings and their intent to kill themselves to someone before their death. However, it is often difficult to tell what some of the signs may mean, or indications may be so subtle that they go unrecognised. Significant changes in behaviour may be easier to identify. Knowledge of risk factors for suicide may help parents, friends and families to intervene and take appropriate action.

In some cases the desire to die may be so strong that even when interventions are initiated they are unsuccessful. Documented interventions by family, friends or physicians were noted in 4 cases¹⁴ and yet the individuals still took their own lives. It is essential to recognise the potential for suicide among children and to take all threats of suicide seriously.

History of childhood abuse

Four of the young people had a history of childhood abuse (20%). All four were noted to have experienced emotional abuse or neglect. Two of the 4 young people were victims of physical abuse. Perpetrators of the abuse were from within the family, being either the child's parent, step-parent or guardian. Three of the four children who had a history of abuse were known to the Department of Communities within the three years before their deaths.

In addition, 2 young people came from families that had a history of domestic violence.

Research in this field has found that children and young people who are abused in childhood are at a significantly greater risk of suiciding compared to children with no history of abuse, with some research finding a direct link between abuse and suicidal behaviour. Likewise, research indicates that family violence may also influence childhood suicide behaviours

Precipitating incidents and stressful life events

Precipitating incidents

Precipitating incidents were identified in 18 of the 20 suicides. For 15 of the young people, an argument with a significant other preceded the suicide. This included arguments with:

- a parent (5 cases)
- a boy/girlfriend (2 cases)
- an ex-boy/girlfriend (2 cases)
- another family member (4 cases)
- friends (3 cases), and
- an unknown person (1 case).¹⁵

Ten young people had a recent (or anticipated) relationship breakdown with either a boy/girlfriend, close friend or parent(s). In 4 cases, the relationship breakdown occurred within the 24 hours prior to their death. As in previous years, arguments and relationship breakdowns with significant others represent the most likely precipitating incidents to occur before a suicide.

These findings are consistent with research which identifies that precipitating incidents most commonly associated with suicide are arguments with partners, family or friends; relationship breakdowns; bereavement as a result of a death; and disciplinary troubles at school or with police.

The Commission is concerned by the number of young people taking their lives following an argument or relationship breakdown in 2009–10. Table 6.6 outlines the number of young people who were involved in arguments prior to their suicide over the past 6 reporting periods. The Commission is concerned with the increasing number of children suiciding

following an argument or relationship breakdown with a boy/girlfriend.

Other precipitating incidents identified among children and young people who suicided in 2009–10 included:

- recent offence-related contact with police
- bereavement by the death of a parent
- victim of school or workplace bullying
- body image issues
- being a victim of crime
- possible pregnancy
- financial stress
- moving to a new area
- school problems or stress, and
- living away from home.

Table 6.6: Precipitating incidents by gender and age, 2004–2010

Precipitating Incident	2004–10			
	Males 10–14 years	Males 15–17 years	Females 10–14 years	Females 15–17 years
Arguments	9	22	3	16
Parents	4	12	2	8
Boy/girlfriend	1	6	0	3
Sibling	1	2	0	0
Other Relatives	2	0	1	2
Friend	1	1	1	2
Other	1	1	0	3
Relationship Breakdown	5	16	3	11
Parents	2	4	1	4
Boy/girlfriend	4	11	1	5
Sibling	0	0	0	0
Other Relatives	0	0	0	0
Friend	0	1	1	0
Other	0	0	0	2

Data source: Queensland Child Death Register (2009–10)

Notes: 1. Each child and/or young person may have experienced a relationship breakdown or argument with more than 1 person. Therefore numbers may not sum accurately to equal the total number of suicides.

2. 'Other' refers to school authorities, employers, community members and unknown persons.

As shown in Table 6.6, arguments and relationship breakdowns with boy/girlfriends are the most commonly noted precipitating incident for 15–17 year old males, closely followed by arguments with parents. Suicides of 15–17 year old females appear to be more often precipitated by arguments or relationship breakdowns with parents than with intimate partners. From this analysis, it is clear that suicide prevention efforts may need to consider the potential impact of negative partner or family interaction on young males differently from that of young females.

Other stressful life events

A number of long-term stressors¹⁶ were also identified for 9 children and young people who took their own lives. Stressful life events identified among children and young people who suicided included:

- diagnosis of eating disorder
- offence-related contact with police
- residing in a chaotic family situation
- having a poor parent-child relationship
- parental alcoholism
- moving to a new area
- school problems
- financial stress, and
- unstable employment.

More than 1 life stressor was identified for 4 of the children and young people. Young people who suicide have often experienced a higher rate of adverse or stressful life events in the period preceding the suicide, compared with other people of the same age. Further, evidence suggests that stressful events are particularly likely to provoke suicidal behaviour in vulnerable individuals.

Alcohol, drug and substance use

Six of the children and young people who suicided were reported to have been known alcohol, drug and/or substance users.¹⁷

Consistent with the findings from previous Child Death Annual Reports, alcohol was the most frequently cited substance used (4 cases). Two young people were also

noted to have used cannabis, with 1 also known to have used amphetamines.

Of the 6 children and young people identified as alcohol, drug or substance users, 1 had been diverted for cannabis possession by police. In addition, 2 young people were suspected of being heavy alcohol and/or drug users, but had not been diagnosed as substance dependent.¹⁸

Further, 3 of the 6 children and young people were also recorded to have possibly used alcohol and/or drugs just before their death. In 2 of these cases, the young person was identified, either by family and friends or from toxicology reports, as having been intoxicated at the time of their suicide. In the third case, the young person was found to be in possession of the drug at the time of their suicide. Toxicology results remain outstanding for 5 of the 6 children who allegedly used substances before their death.

Research suggests that use of alcohol and other drugs increases the risk of suicide. Increased risk could be attributed, in the short term, to the indirect effects of intoxication on behaviour.

Contagion

Contagion is defined as the process by which a prior suicide facilitates or influences the occurrence of subsequent suicides. Contagion was identified as a key risk factor for 3 of the 20 young people who suicided during this period. In 2 cases, another young person had recently suicided within their local school community, and in another case a young person suicided a short time after the suicide of a community member. In all 3 cases, the method of suicide used by the first young person to suicide was the same method used by the child or young person.

There is considerable evidence to suggest that the suicide of 1 person may trigger suicidal behaviour in those associated with that person, or in vulnerable people who become aware of the suicide. This can occur in a number of ways, including:

- seeing the person who completed suicide and being involved in the aftermath
- having talked with or seen the person on the day of the suicide
- belonging to the family of the person
- being in the same school or a neighbouring school
- learning of the attempted or completed suicide of a role model or respected community member, and
- reading or hearing about the death in the media.

In contrast to previous years, none of the suicides of children and young people in 2009–10 were known to have followed the suicide or attempted suicide of a family member.

The contagion process that leads to suicide clusters among youth is something that requires heightened recognition. Some young people, especially those who may already be experiencing difficulties, may identify with the suicide victim, raising the notion of suicide as an option. It is therefore essential that any postvention response involves not only those children who were directly known to the suicide victim, but also those who may not have known the young person but who may have heard about the suicide. The occurrence of contagion-related deaths reinforces the importance of having detailed suicide prevention, intervention and postvention guidelines available, and the need for co-ordinated postvention responses.

Table 6.8 illustrates a number of circumstances and risk factors common to children and young people who suicided in Queensland. As shown, many of the youth experienced multiple factors that place individuals at a higher risk of suicidal behaviours.

Other significant factors

Place of incident

Twelve of the 20 suicides occurred at the young person's place of residence, with 4 of the incidents taking place inside the young person's bedroom and 8 outside of the house another out-building or structure. Other places where suicide occurred included:

- parks and sporting fields (3 cases)
- main roads or walking tracks (2 cases)
- vacant land
- railway station, and
- outside an unrelated residence.

Day of incident

Children and young people were more likely to suicide on the weekend (10 cases between Friday evening and early Monday morning).

School terms

An analysis of suicide deaths between 2004–2010 has found that suicides of children and young people are evenly spread throughout the school year, with the number of deaths in each school term being comparable. This finding reinforces the need for increased community awareness of risk factors for youth suicide, including an appreciation that it can occur at any time.

Compared with deaths occurring during school terms, very few young people suicided during school holiday periods. The greatest number occurred during the Christmas break. This time of year can be difficult for many young people, particularly those living in chaotic family situations.

Table 6.7: Suicide by school term, 2004–2010

School term	Number	%
Christmas Holidays	10	9.5%
Term 1	20	19.0%
Holidays Term 1–2	1	*
Term 2	23	21.9%
Holidays Term 2–3	2	*
Term 3	24	22.9%
Holidays Term 3–4	1	*
Term 4	24	22.9%
Total	105	100%

Data source: Queensland Child Death Register (2009–10)

- Notes:
1. All children and young people whose deaths were registered between 2004–05 and 2009–10 were included in this analysis, irrespective of whether they attended school.
 2. School terms were calculated for each year using the Brisbane Metropolitan District school term dates 2004–2010.

Trades and apprenticeships

In 2009–10 the Commission became concerned that there had been a number of suicides since 2004–05 of young people employed in a trade or undertaking an apprenticeship. In the period 2004–2010, 17 young people aged between 15–17 years were working in an apprenticeship or a trade at the time of their suicide.

The Commission acknowledges that suicides generally involve multiple risk factors and no direct correlation can be drawn between young people who suicide and the impact of their employment. However, the transition from school to work can be a difficult stage for many young people and the loss of support networks in the school environment may cause young people to feel isolated. The Commission intends to consult with relevant stakeholders about this issue in the coming year.

Table 6.8: Summary of characteristics of all children and young people who suicided in 2009–10

Demographics					Known risk factors						Known to child protection system
Gender*	Age	Aboriginal or Torres Strait Islander status	Regional/remote	Low SES	Mental health issues	Previous suicidal behaviour/thoughts	History of childhood abuse	Precipitating incident	Alcohol/drug use	Contagion	
F	14		✓	✓				✓			
M	14				✓			✓			
F	15		✓	✓	✓	✓	✓	✓			✓
M	15	✓									
F	15				✓	✓		✓			
F	15		✓		✓			✓			
F	15				✓			✓			✓
M	16		✓	✓	✓	✓		✓	✓		✓
M	16							✓		✓	
M	17		✓		✓	✓		✓			
M	17							✓			
M	17		✓		✓	✓		✓	✓		
M	17					✓		✓		✓	
M	17		✓	✓	✓			✓			
M	17	✓	✓	✓			✓	✓			✓
M	17	✓	✓	✓	✓	✓		✓	✓		
M	17		✓	✓	✓	✓		✓	✓		
M	17			✓		✓		✓	✓		
F	17				✓	✓	✓	✓	✓		
M	17		✓	✓	✓	✓	✓	✓		✓	✓
Total	20	3	11	9	13	11	4	18	6	3	5

Data source: Queensland Child Death Register (2009–10)

✓ = Yes, the child had this risk factor.

Note: 1. Low SES refers to children and young people who had been classified as residing in either a low or very low socio-economic area.

Reducing Youth Suicide in Queensland (RYSQ) project

The Commission has consistently identified child and adolescent suicide as a key concern in Queensland. On average, 16 young people suicide each year in Queensland – a rate almost twice that of the national average.¹⁹

In 2005–06 the Commission identified, for the second consecutive year, that suicide was the leading cause of death for children aged 10–14 years and the second-leading cause for adolescents aged 15–17 years in Queensland, reinforcing the need for this issue to be further investigated. In response, the Commission developed an in-depth project reviewing the suicides of Queensland children and young people.

The *Reducing Youth Suicide in Queensland* (RYSQ) project involves a detailed review of the lives and deaths of children and young people who died by suicide in Queensland between 1 January 2004 and 31 December 2007.

The project aims to provide a solid and contemporary evidence base to better inform prevention efforts targeted at children and young people with the aim of reducing youth suicide in Queensland.

The project aims to achieve four key outcomes:

1. improve knowledge and understanding around children and young people who suicide in Queensland
2. identify key risk factors and warning signs specific to these children and young people
3. enhance delivery of services to at-risk children and young people, and
4. inform prevention and early intervention strategies.

In 2009, the Commission released the RYSQ Discussion Paper. This paper presented a preliminary analysis of the common risk factors and circumstances among the 65 children and young people who suicided in Queensland between 2004 and 2007. In order to reach a diverse range of health experts, researchers, policy makers, counsellors, child safety officers, law enforcement officers and Aboriginal and Torres Strait Islander peoples, the RYSQ Discussion Paper was mailed to approximately 530 people who work with, or make decisions that affect, young people. The paper also included a questionnaire that sought responses to a series of key discussion points which could be answered online or in hard copy. Respondents could also provide comments or feedback in the form of a submission.

In the year ahead, the Commission will release an outcomes report based on the 235 responses to the RYSQ discussion paper questionnaire. This report will examine:

- the need to establish a collaborative approach to addressing suicide prevention
- postvention
- mental health services and referrals, and
- the most effective ways to develop cultural connections with Aboriginal and Torres Strait Islander communities and at-risk individuals.

Following the release of this report, the Commission intends to work with key stakeholders to identify options for improving prevention and early intervention strategies. This process will also involve consultation with the government agencies that have been identified by respondents as being critical to the successful delivery of services in the future.

Senate Community Affairs References Committee Inquiry into Suicide in Australia

In November 2009 the Commission made a detailed submission to the Commonwealth Senate Community Affairs Reference Committee Inquiry into Suicide in Australia. The Commission's submission discussed the key issues arising from its work in reviewing childhood suicide since 2004, including:

- the under-reporting of suicide in official statistics
- the prevalence of contagion suicide and other risk factors, and
- the over-representation of Aboriginal and Torres Strait Islander young people in suicide statistics.

The Commission was subsequently invited to appear before the Senate Committee and provide oral evidence on the issue of youth suicide in Queensland.

The Commission is pleased to note that the Committee's final report, *The Hidden Toll*, made 42 recommendations concerned with:

- addressing the under-reporting of suicide in official statistics
- the provision of suicide risk assessment and prevention training for front line workers
- new directions for suicide prevention campaigns
- improved access to suicide prevention and support services
- targeted approaches to at-risk groups, and
- the doubling of national funding for suicide prevention by the Commonwealth government.

The Commission was also pleased to receive favourable comments from the Senate Committee about the value of the Commission's work in the area of childhood suicide.

"...the work that has been done by your office is exceptional. I think it could be a model for other places."

Senator Claire Moore, Senate Community Affairs
References Committee Inquiry into Suicide in Australia

"Your submission and your evidence have been extremely enlightening and useful."

Senator Rachael Siewert, Senate Community Affairs
References Committee Inquiry into Suicide

"The Committee was also impressed by the important work being undertaken by the Queensland Commission for Children and Young People and Child Guardian in studying the factors influencing child deaths..."

The Hidden Toll: Suicide in Australia (2010 p.114)

Impacted Children Project

Through the Commission's analysis of youth suicide, a number of Queensland regions experiencing high levels of contagion and cluster suicides among their youth populations have been identified. In response to the Commission's findings, the Queensland Police Service has initiated the development of the 'Impacted Children' project. The overarching objective of this project is to facilitate timely service delivery to children and young people impacted by suicide by promoting cross-agency communication.

The Impacted Children Project Steering Committee, chaired by the Queensland Police Service, and established to oversee the development and scope of the project, consists of several government and non-government agencies.

Representatives include:

- Queensland Health
- Department of Education and Training
- Department of Communities
- Queensland Catholic Education Commission
- Brisbane Catholic Education
- Association of Independent Schools Queensland, and
- the Commission.

The project aims to structure a whole-of-government co-ordinated postvention strategy to reduce the incidence of contagion and cluster youth suicides. Information sharing between relevant agencies is designed to assist in the identification of 'impacted children' and the delivery of co-ordinated postvention support services. The project is being piloted at two key regional centres in Mackay and Toowoomba, where localised hubs will be formed by relevant officers of the partner organisations, who will convene to identify what postvention supports, if any, are required in their community in the wake of a child or youth suicide.

The Commission is highly supportive of this initiative and has received positive feedback regarding the processes established. The Commission hopes that this initiative can be expanded in future years to target other regional areas across the state. The Commission commends the Queensland Police Service for leading this initiative.

¹ In 2009, in line with the Commission's 2005–06 recommendation, the Australian Bureau of Statistics (ABS) revised their processes in relation to classifying suicide. It is hoped these changes will assist in improving the accuracy of reporting suicide nationally.

² As identified in the Police Report of Death to a Coroner (Form 1). In circumstances where the Commission is notified of cases where a child may have suicided, but this information was not recorded on the Form 1, these cases will be included in this chapter. In 2009–10, there were no cases included in the analysis that had not been identified by police as a suspected suicide.

³ The Commission's classification model is an amended version of the Australian Institute for Suicide Research and Prevention's (AISRAP) suicide classification flow chart.

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

⁵ 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, Child Safety 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.

⁶ Rates of children in the child protection population are calculated on the total child protection population aged 0–17 years as age breakdowns are unavailable. These are compared with rates in the total Queensland population aged 0–17 years.

⁷ Caution must be exercised when making comparisons and interpreting rates because of 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 findings when small numbers are involved.

⁸ Section 147 of the *Commission for Children and Young People and Child Guardian Act 2000* provides that a government entity may provide the Commissioner with information reasonably required to perform the Commission's child death research functions under Chapter 6, Part 2 of the Act. As the identification of suicide risk factors requires full case records from a number of government agencies, the Commission has negotiated agreements with the agencies responsible for health, police, education and child protection.

⁹ Information contained in this section is based on Police Report of Death to a Coroner (Form 1) or information obtained from Queensland Health records.

¹⁰ This finding includes access at any time in the child or young person's life.

¹¹ 'Suicidal ideation' refers to the explicit communication of having thoughts of suicide.

¹² Each young person may have experienced more than 1 suicidal behaviour. Therefore, numbers may not sum accurately.

¹³ One young person stated their intent both verbally and via text. As a result, numbers may not sum accurately.

¹⁴ Interventions counted were specifically in relation to mental health problems and suicide risk, and included counselling and contact with mental health services.

¹⁵ Each young person may have experienced an argument with more than one person prior to their death. Therefore, numbers may not sum accurately.

¹⁶ 'Stressful life event' refers to life stressors that occurred more than six months prior to death.

¹⁷ Previous or current use of alcohol or drugs identified by friends or family members or in toxicology findings.

¹⁸ 'Heavy User' refers to those children and young people who were known to use large quantities of alcohol and/ or other drugs frequently or to be in possession of large quantities of drugs at the time of their suicide.

¹⁹ The national rate used for comparison is based on the Australian Institute for Health and Welfare's figures and has been compared with the rate calculated from the Commission's Child Death Register for Queensland. The rates compared were for the 2005–06 financial year, the most current national data available at the time of publication of the RYSQ findings.

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Part IV: Intentional injury-related deaths

Chapter 7

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

Key findings

- In 2009–10, assault and neglect accounted for the deaths of 8 children and young people, a rate of 0.8 per 100,000 children and young people aged 0–17 years in Queensland.
- In contrast to previous years, the victims of fatal assault and neglect in 2009–10 were relatively evenly spread across age categories. While children aged 0–4 years have consistently been identified as at particular risk of lethal violence, only 2 of the 8 children were less than 5 years of age.
- Two of the deaths of children in 2009–10 were categorised as *peer fatal assault* and involved confrontational violence amongst male peers, while another 2 deaths were categorised as *intimate partner violence* and involved young women being killed by current or former adult intimate partners. Both peer fatal assault and intimate partner violence are categories that tend to closely resemble adult homicides.

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Chapter 7

Fatal assault and neglect

Table 7.1: Summary of deaths from assault and neglect of children and young people in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	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	8	0.8	10	1.0	11	1.1	4	0.4	8	0.8	0.8
Gender													
Female	3	*	4	0.8	5	1.0	4	0.8	2	*	5	1.0	*
Male	6	1.2	4	0.8	5	1.0	7	1.4	2	*	3	*	0.9
Aboriginal and Torres Strait Islander status													
Indigenous	1	*	0	0.0	2	*	2	*	1	*	1	*	*
Non-Indigenous	8	0.9	8	0.9	8	0.8	9	1.0	3	*	7	0.7	0.7
Known to the child protection system													
Known to the child protection system	3	–	5	7.1	7	8.1	9	9.9	2	*	4	3.1	5.8
Age category													
Under 1 year	2	*	1	*	3	*	5	9.1	0	0.0	1	*	*
1–4 years	2	*	3	*	3	*	3	*	2	*	1	*	*
5–9 years	0	0.0	1	*	0	0.0	1	*	1	*	1	*	*
10–14 years	1	*	1	*	0	0.0	2	*	0	0.0	2	*	*
15–17 years	4	2.5	2	*	4	2.3	0	0.0	1	*	3	*	*
Method of assault													
Physical assault without weapon	1	–	1	–	2	–	7	–	1	–	2	–	*
Blunt force trauma/object	2	–	1	–	1	–	1	–	0	–	1	–	*
Stabbing	2	–	2	–	2	–	1	–	1	–	3	–	*
Smothering/suffocation	1	–	1	–	0	–	0	–	0	–	0	–	*
Carbon monoxide poisoning	2	–	0	–	1	–	0	–	0	–	0	–	*
Sexual assault	1	–	0	–	1	–	2	–	0	–	0	–	*
Neglect	0	–	1	–	1	–	0	–	2	–	0	–	*
Other/unknown	0	–	2	–	2	–	0	–	0	–	2	–	*
Victim-offender relationship													
Assault by family member	6	–	6	–	5	–	11	–	4	–	3	–	0.6
Assault by non-family member, or assailant unknown	3	–	2	–	5	–	0	–	0	–	5	–	*

Data source: Queensland Child Death Register (2004–10)

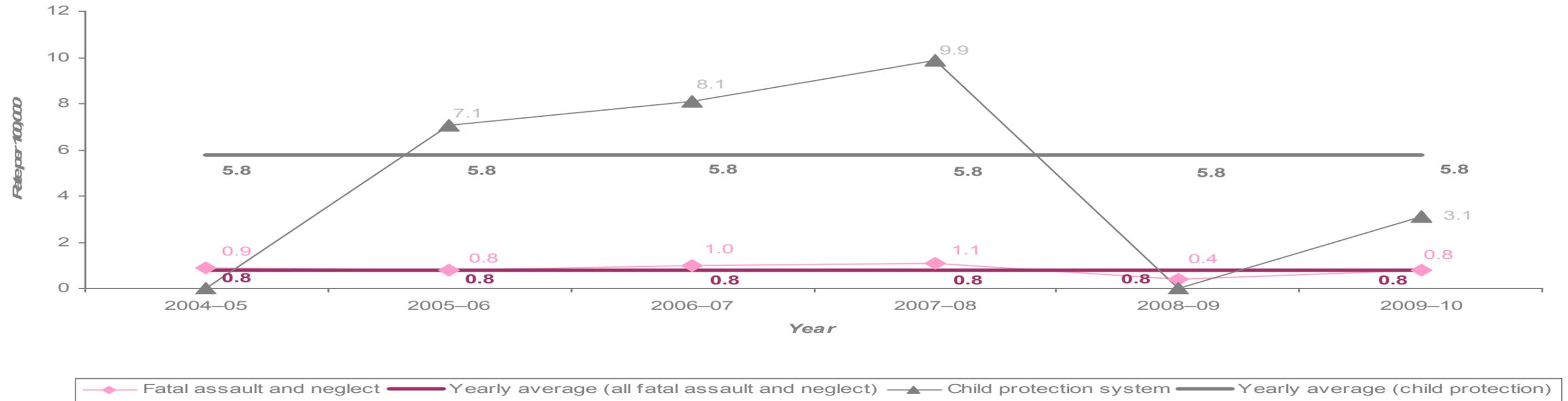
* Rates have not been calculated for numbers less than 4.

– These data were not available at the time of publication.

Notes:

1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
3. Total rates are calculated per 100,000 children (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
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. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the mid-point of the 6 year period.
6. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

Figure 7.1: Deaths from fatal assault and neglect, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

- Notes:
1. Rates are calculated per 100,000 children and young people aged 0–17 years in Queensland.
 2. Rates for children known to the child protection system are calculated per 100,000 children and young people aged 0–17 years known to the child protection system in Queensland.

Defining fatal child assault and neglect

The Commission defines *fatal child assault* as the death of a child resulting from acts of violence perpetrated by another person.

Further, the Commission defines *fatal child neglect* as the death of a child resulting from a carer's failure to provide essential care necessary for the child's survival. This may involve acts or omissions on the part of a caregiver that are either deliberate or extraordinarily irresponsible or reckless.

Both definitions include cases where the Commission has information that a perpetrator has been charged with responsibility for a death regardless of whether the charge resulted in a successful criminal conviction.¹

These definitions are intended to be child-focused insofar as the perpetrator's intention is not relevant – the definition includes 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.²

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. Moreover, the ultimate fatal event may combine aspects of both assault and neglect, such as when a parent violently shakes their infant child, then fails to seek timely and appropriate medical assistance.

The Commission is approaching the final stages of in-depth research into the fatal assault and neglect of children and young people in Queensland. In the interim, it is intended that these definitions are a minimum criterion for the inclusion of cases in the fatal assault and neglect research category.

It is anticipated that a more inclusive set of criteria will be developed as part of the Commission's research into fatal child assault and neglect. The development of screening procedures applicable to the Queensland context will enable greater identification of child deaths from assault and neglect, and those that occur in suspicious or concerning circumstances, for analysis in future reports.

Fatal assault and neglect: findings, 2009–10

Between 1 July 2009 and 30 June 2010, 8 children and young people died as a result of assault and neglect, a rate of 0.8 per 100,000 children and young people aged 0–17 years in Queensland. In all deaths, the primary mechanism was assault-based.

Table 7.2: Fatal assault and neglect by victim gender and age category

Age category	Female	Male	Total	Rate per 100,000
	<i>n</i>	<i>n</i>	<i>n</i>	
Under 1 year	1	0	1	*
1–4 years	0	1	1	*
5–9 years	1	0	1	*
10–14 years	1	1	2	*
15–17 years	2	1	3	*
Total	5	3	8	0.8
Rate per 100,000	1.0	*	0.8	

Data source: Queensland Child Death Register (2009–10)
 * 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/gender category in Queensland.

Gender

Five female and 3 male children and young people died as a result of being assaulted. This is the first year that more females than males were fatally assaulted.

Age

The children who died ranged in age from 2 weeks to 17 years. The highest number of fatal assaults was in the 15–17 year age category (3 deaths).

Research suggests that when adolescent children are the victims of lethal violence, the circumstances are likely to resemble those of adult homicides. Of the three children aged between 15 and 17 years who were fatally assaulted, 2 were murdered by adult intimate partners and 1 by a fellow adolescent unknown to the victim.

Two of the children who died were under 5 years of age. On the whole, despite the low numbers of children in this age category in 2009–10, the very youngest children remain the most at risk from fatal assault and neglect, due to their small size, vulnerability and total dependence upon carers for survival.

Aboriginal and Torres Strait Islander status

One Aboriginal and Torres Strait Islander young person died as a result of fatal assault during this reporting period.

Geographic distribution (ARIA+)

Children living in regional areas had the highest rate of death from fatal assault, at 1.0 per 100,000 (4 deaths). Three children were living in metropolitan areas and 1 in a remote area.³

Socio-economic status (SEIFA)

Six deaths were of children living in low to very low socio-economic areas, a rate of 1.6 per 100,000. One child lived in a moderate area, while another lived in a high to very high socio-economic area.⁴

The Commission, through its current research into fatal assault and neglect, is concerned with attempting to better identify those circumstances which may place children living in lower socio-economic environments at greater risk of life-threatening intentional injury.

Children known to the child protection system

Of the 8 children who died as a result of fatal assault and neglect, 4 were known to the child protection system⁵ due to the complex interplay of risk factors present in their lives. Children known to the child protection system were over-represented in deaths from assault and neglect, dying at a rate of 3.1 per 100,000 children aged 0–17 years known to the child protection system, compared with 0.8 deaths per 100,000 for all Queensland children.⁶

It is preferable that all children in circumstances placing them at risk of assault or neglect come to the attention of the child protection system, which then provides an opportunity for assessment based upon the risk factors at play. Research into these risk factors is critical in building upon the understanding of how they should be assessed and the most appropriate service response.

Members of the community should be encouraged to continue reporting any concerns about the safety of children.

Circumstances of fatal assault and neglect

Category of event

Table 7.3 classifies the deaths according to the major categories of event.

Table 7.3: Category of event by perpetrator and age category

Age category	Perpetrator	Charges
Fatal child abuse		
Under 1 year	Parent or step-parent	Yes
1–4 years	Parent or step-parent	Yes
Peer fatal assault		
10–14 years	Friend or acquaintance	Yes
15–17 years	Stranger	Yes
Domestic homicide		
10–14 years	Parent or step-parent	Yes
Intimate partner violence		
15–17 years	Intimate partner	Yes
15–17 years	Intimate partner	Yes
Unspecified fatal assault		
5–9 years	Family friend	Yes

Data source: Queensland Child Death Register (2009–10)

Fatal child abuse

Fatal child abuse includes events in which the child is killed either by a one-off assault or as a result of escalating physical violence over time. Fatal child abuse occurs predominantly in infants and very young children (0–4 years). The category is primarily used to identify those deaths that are caused by the violent act of a parent or carer upon whom the child is totally reliant for care and protection.

Two children aged 0–4 years were the victims of fatal child abuse. In 1 instance a child aged less than 1 year was shaken by a parent/carer, while in the other case the circumstances of the event are unknown.

Peer fatal assault

Peer fatal assault usually involves older children and more closely resembles adult homicides, with confrontational violence occurring between friends, acquaintances and strangers. Two young people were killed by peers in 2009–10. In both cases a bladed instrument was used.

Intimate partner violence

Two young women died as the result of violence at the hands of their current or recent intimate partners. As with peer fatal assault, intimate partner violence usually involves older children and tends to resemble adult homicide.

Domestic homicide

Domestic homicides are usually precipitated by a breakdown or termination of the parents' relationship and are premeditated events. While often followed by the suicide of the perpetrator (i.e. murder-suicide events), the domestic homicide which occurred in 2009–10 did not result in the death of the perpetrator.

Unspecified fatal assault

In 1 case the information available was insufficient to enable categorisation. From the information available it appears that the child may have been abducted from her home prior to the assault.

Method of assault

Table 7.4 shows the method of assault or neglect.

Table 7.4: Method of assault or neglect by age category

Method of assault	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Stabbing	0	0	0	1	2	3
Physical assault (no weapon)	1	0	0	0	1	2
Blunt force injury	0	1	0	0	0	1
Gunshot	0	0	0	1	0	1
Unspecified	0	0	1	0	0	1
Total	1	1	1	2	3	8

Data source: Queensland Child Death Register (2009–10)

Victim-offender relationship

Three children who were fatally assaulted were killed by a parent or step-parent. Research has established that the greatest risk of fatal assault and neglect to young children is from family members, usually a parent, and that killings by people unknown to the child are relatively rare.

Two children were the victims of peer fatal assault. While the perpetrator was known to the victim in one instance, in the other, the young person was stabbed by an unknown perpetrator in an allegedly unprovoked attack.

Two young people were killed by their current or recent partners.

Location

Three of the incidents occurred on residential premises, all at the victim's own home. In a further incident, the child victim was abducted from the home by an

unknown adult person, and killed at another location. Four deaths occurred outside of residential premises, including schools, car parks, commercial premises and bushland.

Academic literature and previous Commission research have both found child deaths from assault and neglect to be most likely to occur in the family home.

The Fatal Assault and Neglect project

The Commission is approaching the final stages of research into the fatal assault and neglect of children by their parents in Queensland. A total of 132 child deaths – occurring between the years 2004 and 2008 – are currently being closely analysed to identify data trends and potential ways to reduce the incidence of maltreatment-related deaths in the future. It is anticipated that the Commission will publish a final report arising out of this project in the 2010–11 reporting period.

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- ¹ Cases where a person has been charged with driving offences resulting in the death of a child are currently excluded from the Commission's definition of fatal assault and neglect. These cases are counted in Chapter 3, *Transport*.
- ² These definitions have been adapted from Lawrence, R 2004, 'Understanding fatal assault of children: a typology and explanatory theory'. *Children & Youth Services Review*, vol. 26 pp. 837-852.
- ³ Rates have not been calculated for numbers less than 4.
- ⁴ Rates have not been calculated for numbers less than 4.
- ⁵ 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 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.
- ⁶ Caution must be exercised when making comparisons and interpreting rates because of 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 findings when small numbers are involved.

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Part V: Sudden unexpected deaths in infancy

Chapter 8

This section details the future direction for the reporting and analysis of sudden unexpected infant deaths in Queensland.

Key findings

- In 2009–10, there were 51 cases of sudden unexpected death in infancy (SUDI), a rate of 84.3 deaths per 100,000 infants. This is the greatest number of SUDI deaths recorded in any reporting period to date.
- Male infants died suddenly and unexpectedly at more than 3 times the rate of female infants. While research has consistently identified males to be more at risk of death from Sudden Infant Death Syndrome (SIDS), this is the greatest disparity noted between rates of male and female SUDI deaths since the Commission began reporting in 2004–05.
- Almost two-thirds of SUDIs were awaiting an official cause of death at the time of reporting. This is almost three times the number of outstanding causes of death usually recorded. This has direct implications for the Commission's ability to monitor trends and patterns in infant deaths. The Commission intends to discuss this matter with the relevant stakeholders in the coming year.
- Of the 19 SUDIs with an official cause of death, 14 were attributed to Sudden Infant Death Syndrome (SIDS) and undetermined causes (73.7%).
- Aboriginal and Torres Strait Islander infants continue to be over-represented in SUDI statistics. In 2009–10, Aboriginal and Torres Strait Islander infants died suddenly and unexpectedly at 6.8 times the rate of non-Indigenous infants. The rate of SUDI for Indigenous infants this year was 1.5 times the yearly average (407.8 deaths per 100,000 Indigenous infants in 2009–10 compared with an average of 278.0 per 100,000).
- Children known to the child protection system¹ are an at-risk cohort who experience a range of risk factors. While infants known to the child protection system that died suddenly and unexpectedly were over-represented compared with all Queensland children, the rate for 2009–10 was below the yearly average (6.2 per 100,000 children known to the child protection system in 2009–10 compared with an average of 11.8 per 100,000).
- The Commission is currently progressing arrangements to facilitate the clinical review of SUDI cases and prepare a report every 3 years.

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Chapter 8

Sudden unexpected deaths in infancy

Table 8.1: Summary of sudden unexpected deaths in infancy in Queensland, 2004–2010

	2004–05		2005–06		2006–07		2007–08		2008–09		2009–10		Yearly average
	Total <i>n</i>	Rate per 100,000	Rate per 100,000										
All Sudden Unexpected Deaths in Infancy (SUDI)													
Sudden unexpected deaths in infancy	43	87.8	36	69.7	45	82.0	35	63.8	45	82.2	51	84.3	77.6
Gender													
Female	17	71.3	15	59.7	15	56.3	16	60.1	19	71.5	12	40.9	58.9
Male	26	103.5	21	79.2	30	106.3	19	67.3	26	92.2	39	125.1	95.2
Aboriginal and Torres Strait Islander status													
Indigenous	12	367.6	12	351.6	11	315.1	8	206.9	6	151.6	17	407.8	278.0
Non-Indigenous	31	67.9	24	49.7	34	66.2	27	53.0	39	76.8	34	60.4	62.0
Known to the child protection system													
Known to the child protection system	6	–	7	9.9	18	15.1	11	8.8	11	10.8	8	6.2	11.8
All Queensland children	43	4.5	36	3.7	45	4.5	35	3.5	45	4.4	51	4.9	4.2
Unexplained SUDI													
Unexplained SUDI	30	61.3	24	46.5	32	58.3	29	52.9	39	71.1	46	76.1	60.9
<i>Sudden infant death syndrome</i>	28	57.2	11	21.3	16	29.2	14	25.5	24	43.8	11	18.2	31.6
<i>Undetermined causes</i>	2	*	5	9.7	5	9.1	4	7.3	4	7.3	3	*	*
<i>Cause of death pending</i>	0	0.0	8	15.5	11	20.1	11	20.1	11	20.1	32	52.9	22.2
Explained SUDI													
Explained SUDI	13	26.6	12	23.2	13	23.7	6	10.9	6	11.0	5	8.3	16.7
<i>Unrecognised infant illness</i>	10	20.4	9	17.4	11	20.1	4	7.3	6	11.0	4	6.6	13.4
<i>Sleep accident</i>	3	*	2	*	2	*	2	*	0	0.0	1	*	*
<i>Other</i>	0	0.0	1	*	0	0.0	0	0.0	0	0.0	0	0.0	*

Data source: Queensland Child Death Register (2004–10)

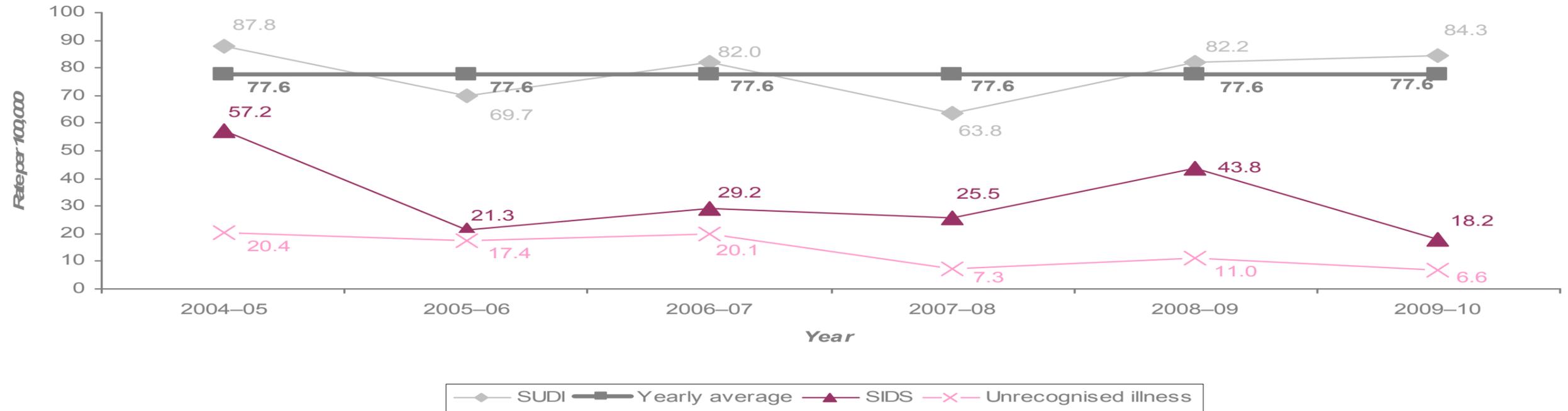
* Rates have not been calculated for numbers less than 4.

– These data were not available at the time of publication.

Notes:

1. Data presented here are those published in Child Death Annual Reports for the years 2005–06, 2006–07, 2007–08, 2008–09 and 2009–10.
2. Rates that were not published in previous reports have been re-calculated based on the denominator data used for the preparation of the relevant report.
3. Rates are calculated per 100,000 infants under the age of 1 year (in the age/gender/Indigenous status bracket stated) in Queensland in each year.
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. Rates of SUDI for 'all Queensland children' are calculated per 100,000 children and young people 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 for children known to the child protection system.
6. Rates of death for children known to the child protection system for 2005–06 differ from those published in the Child Death Annual Report for that year. Rates have been re-calculated to reflect improved denominator data made available subsequent to the publication of the 2005–06 report. Six yearly rate averages for children known to the child protection system have been calculated using denominator data from the 2006–07 reporting period, the closest available data to the midpoint of the 6 year period.
7. Six yearly rate averages have been calculated using the estimated resident population data at June 2007, the closest available data to the mid-point of the 6 year period.

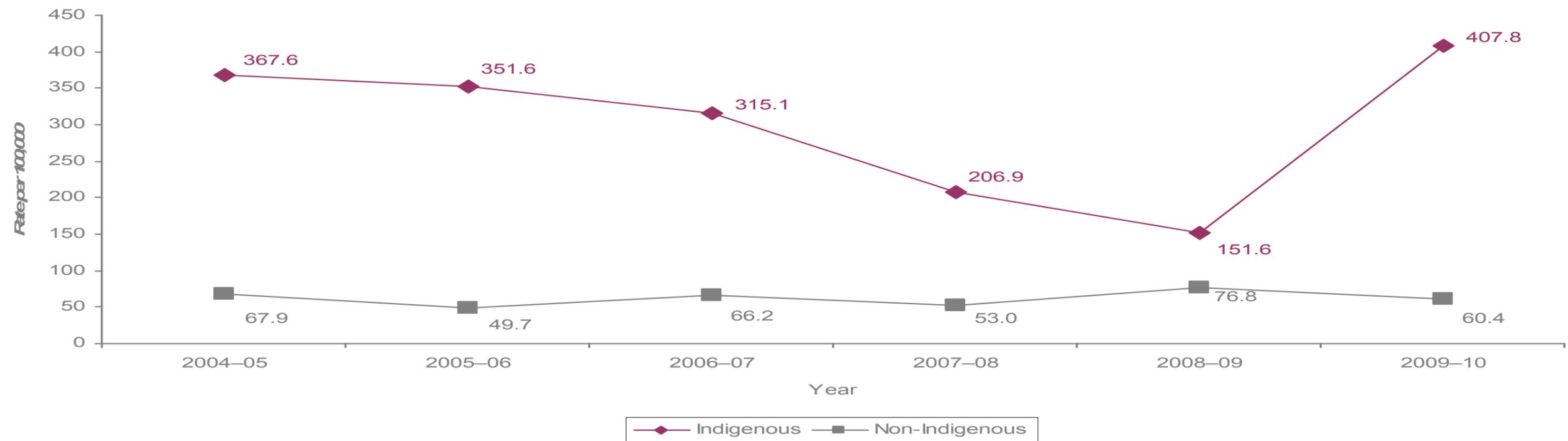
Figure 8.1: Sudden unexpected deaths in infancy – major causes, 2004–2010



Data source: Queensland Child Death Register (2004–2010)

Notes: 1. Rates are calculated per 100,000 infants under 1 year of age in Queensland.

Figure 8.2: Sudden unexpected deaths of Aboriginal and Torres Strait Islander infants, 2004-2010



Data source: Queensland Child Death Register (2004–2010)

Note: 1. Rates are calculated per 100,000 Aboriginal and Torres Strait Islander and per 100,000 non-Indigenous infants under 1 year of age in Queensland.

The classification of sudden unexpected deaths in infancy

Sudden unexpected deaths in infancy (SUDI) is a research classification and does not correspond with any single medical definition or categorisation. Rather, the aim of this grouping is to report on the deaths of apparently normal infants who would be expected to thrive yet, for reasons often unknown, do not survive. 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 Commission classifies a death as SUDI using the Police Report of Death to a Coroner (Form 1), which includes a narrative providing a summary of the circumstances surrounding the death as initially reported.²

The Commission has adopted the following working criteria for the inclusion of cases in the SUDI grouping – deaths of infants less than 1 year of age that:

- were sudden in nature
- were unexpected, with no previously known condition that was likely to cause death, and
- have no immediately obvious cause of death.

The SUDI grouping includes deaths associated with infections or anatomical or developmental abnormalities not recognised before death, sleep accidents due to unsafe sleep environments, 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.³

Sudden unexpected deaths in infancy: findings, 2009–10

In the 2009–10 reporting period, there were 51 cases of SUDI, a rate of 84.3 deaths per 100,000 infants (0.8 per 1000 live births). The rate of SUDI deaths has remained relatively stable since 2004–05, as outlined in Table 8.1.

Of the deaths identified as meeting the criteria for SUDI, almost two-thirds were awaiting an official cause of death at the time of reporting (32 deaths). Of the 19 cases with an official cause of death:

- 4 were fully explained after a post-mortem examination as a consequence of an illness or condition, the severity of which was not recognised before death
- 1 was determined to be the result of a sleep accident, and
- 14 were attributed to SIDS and undetermined causes.

Male infants died suddenly and unexpectedly at more than 3 times the rate of female infants. While research has consistently identified males to be more at risk of death from SIDS, this is the greatest disparity noted between rates of male and female SUDI deaths since the Commission began reporting in 2004–05.

Product safety alert: baby slings

One infant aged under 28 days died as the result of a sleep accident which occurred while being carried in a baby sling.

Concerns over the safety of baby slings have been raised overseas, with a number of deaths associated with these products having been recorded in the United States of America. The primary concern with these products is the potential for posing a suffocation hazard to babies. The fabric of the sling can press against the infant's nose and mouth, which can quickly threaten an infant's breathing. In other instances, particularly with young infants, the child may be cradled in a curved position – babies that do not yet have

strong neck control may become positioned 'chin-to-chest', restricting their ability to breathe, or to cry for help.

The Commission is aware that the Australian Competition and Consumer Commission is undertaking an investigation into these products, and in March this year advised parents and carers to be cautious when using baby slings for infants younger than 4 months of age. The Queensland Office of Fair Trading has issued similar warnings.

This is the first infant death associated with a baby sling that has occurred in Queensland since the Commission commenced reporting in 2004.

The Commission will continue to monitor the incidence of SUDI deaths associated with any nursery products.

Death certification

The Commission is concerned about the number of SUDI cases with outstanding causes of deaths (32 deaths). This is almost 3 times the number outstanding in previous reporting periods. This has direct implications for the Commission's ability to monitor trends and patterns in infant deaths.

Over the coming year, the Commission intends to link closely with Queensland Government bodies responsible for the certification and registration of deaths in order to address this issue.

In addition, throughout 2009–10 the Commission has become concerned about the number of deaths certified as being the result of a disease or morbid condition, where the child had been put at risk by a poor sleep environment. Examples include infants found in situations with bedding covering their head and constituting a clear threat to breathing, yet certified as the result of a respiratory infection. The Commission does not dispute clinical findings highlighting the presence of a bacterial or viral infection. However,

the Commission is keen to progress discussion with relevant experts in the coming year in relation to the extent to which sleep environments are taken into consideration. The Commission intends to undertake further investigation into this potential issue over the coming year.

SUDI epidemiological analysis and triennial SUDI report

As part of its child death mandate, the Commission analyses all SUDIs and has reported on these deaths in the 5 annual reports it has released to date. The reporting of SUDI by the Commission on an annual basis is limited to an analysis of demographic and environmental risk factors, due to the short statutory timeframe governing the release of the annual report and associated delays with infant autopsies being available within this reporting timeframe.

Notwithstanding these issues, the Commission's SUDI evidence base has been of significant benefit to stakeholders, including Queensland Health. Recommendations contained in the *Annual Report: Deaths of children and young people, Queensland 2004-05* addressed the need for improvements in the delivery of safe sleeping messages to new and expectant parents.

With a comprehensive 6 year dataset established, the Commission acknowledges that this very complex group of deaths would benefit from more detailed epidemiological analysis. In order to progress collaborative efforts between the Commission and Queensland Health arrangements are being progressed to facilitate the clinical review of SUDI deaths.

The Commission will release a dedicated SUDI report every 3 years to highlight trends and patterns identified during this review process.

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- ¹ 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, Child Safety 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.
- ² 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.
- ³ Cases of SUDI that were explained at post-mortem are counted and discussed in the chapter appropriate to their cause of death. Cases of SUDI found at autopsy to be caused by accidental suffocation in bed are counted in Chapter 5, *Other non-intentional injury-related deaths*. 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*.

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Part VI: Child death prevention activities

Chapter 9

Details the prevention activities undertaken by the Commission in 2009–10 and updates the progress of previous recommendations.

Key achievements in 2009–10

- Providing child death data to a wide range of external stakeholders to inform their work in preventing child deaths and injuries.
- Providing evidence on youth suicide in Queensland before the Senate Community Affairs References Committee Inquiry into Suicide in Australia.
- Submitting recommendations for changes to the World Health Organisation's *International and Statistical Classification of Diseases and Other Health Problems*.
- Providing ongoing support and advice to the Department of Infrastructure and Planning in regards to the implementation of the Queensland Government's Swimming Pool Safety Improvement Strategy.
- Giving evidence before the Social Development Committee's Inquiry into Addressing Cannabis-Related Harm in Queensland.
- Chairing the Australian and New Zealand Child Death Review and Prevention Group.
- Participating as a member of, and providing supporting evidence for, the Queensland Police Service Impacted Children Project addressing suicide contagion.
- Progression of research projects into suicide, fatal assault and neglect and the deaths of children from injury in rural areas of Queensland.

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Chapter 9

Child death prevention activities

Child death prevention activities: 2009–10

Under sections 143 and 145 of the *Commission for Children and Young People and Child Guardian Act 2000* (the Act), the Commission must 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.

In 2009–10 the Commission has welcomed the opportunity to share its data and analyses to inform the development of numerous strategies, policies and procedures. These are detailed below.

Data requests

Now in its sixth year of operation, the Queensland Child Death Register (the Register) is a highly authoritative, comprehensive and contemporary data source not only for monitoring and reporting on the incidence of child death in Queensland, but also for research into ways in which child deaths may be prevented in the future.

The child death review process undertaken by the Commission is valuable over and above traditional statistical reporting. It probes 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.

As the custodians of this unique child mortality dataset, the Commission recognises the value of this strong evidence base in developing prevention initiatives. The Commission has developed the *Child Death Prevention Strategy*, which is aimed at increasing access to the Register by stakeholders to inform their work in preventing child death and injury.

The Register may be accessed at no cost by organisations or individuals conducting genuine research.¹ Stakeholders wishing to access the Register to support their research, policy or program initiatives may contact the Commission by emailing data@ccypcg.qld.gov.au.

In 2009–10 the Commission responded to 26 requests for access to the Register from external stakeholders including:

- providing data regarding drowning deaths to the Department of Infrastructure and Planning; Brisbane City Council; and the Royal Life Saving Society (both national and state branches)
- providing information and data to the Royal Children's Hospital to support research into low-speed vehicle run-overs; drowning; and injury prevention
- providing data regarding transport fatalities to Workplace Health and Safety Queensland
- providing data and information on youth suicide in Queensland to the Senate Inquiry into Suicide in Australia
- providing data to the Child Advocacy Service, Queensland Health in relation to abusive head trauma, and
- providing mortality data for Indigenous and non-Indigenous children to the Office of Economic and Statistical Research for inclusion in the Queensland Government contribution to the 2010 *Closing the Gap* report.

Table 9.1 provides an overview of the type of data requested in 2009–10 and the purpose for which it was used.

Table 9.1: Purpose of data request by type of data requested, 2009–10

Type of data requested	Purpose of data request			
	Research	Public education/reporting	Policy/program development	Total
Transport	4	0	0	4
Drowning	1	2	9	12
Suicide	0	2	0	2
Fatal assault and neglect	1	0	0	1
Diseases and morbid conditions	0	0	1	1
Aboriginal and Torres Strait Islander status	1	1	0	2
Children known to the child protection system	0	1	0	1
Interstate residents	0	1	0	1
All non-natural causes	1	0	0	1
All deaths	0	1	0	1
Total	8	8	10	26

Data source: Commission for Children and Young People and Child Guardian, Queensland (2009–10)

In order to measure the usefulness of the Commission’s death data, the purposes for which it is used and the efficacy of our data request procedures, the Commission collects feedback from all recipients of child death data.

Throughout the year, 100% of stakeholders provided feedback that the Commission’s data was both timely and useful in advancing child death and prevention initiatives. A number of agencies also commented on the quality of the information.

“Thank you for getting back to me so promptly. It is an extremely valuable addition to our presentation.”

Burns and Trauma Research Group,
Royal Children’s Hospital

“The information was high quality and initiative was exercised [by the Commission] in providing more material than we requested, the further material was very useful in ensuring that our Minister and, through the Minister the Parliament, was well informed about child death data for the purposes of the Parliamentary debate.”

Department of Infrastructure and Planning

In 2010–11 the Commission will continue to promote data from the Child Death Register to recognised stakeholders and genuine researchers as an evidence base to inform prevention initiatives.

Policy submissions

During 2009–10 the Commission completed 14 policy submissions based on evidence from the Child Death Register. These include:

- submitting feedback to the Department of Justice and Attorney-General for consideration in relation to the Coronial Recommendations Response Report (2003–2008)
- providing support to the Office of Regulatory Policy and the Department of Employment, Economic Development and Innovation regarding the Combined Bunk Bed Safety Regulatory Impact Statement and Public Benefit Test, for a combined regulation and education program regarding the extension of the mandatory Australian Standard to apply to bunk beds in rental accommodation
- providing feedback on the Queensland Government Suicide Prevention Strategy Steering Committee Discussion Paper, and

- supporting the Office of Fair Trading in initiatives targeting the sale of inflatable swimming pools.

The Commission has engaged with a number of policy and program initiatives to advocate for the best interests of Queensland children. Particular highlights for the Commission are discussed below.

Senate Community Affairs References Committee Inquiry into Suicide in Australia

In 2009–10 the Commission received an invitation from the Commonwealth Senate Community Affairs Reference Committee to provide evidence before its inquiry into suicide in Australia. In March 2010 Commission representatives appeared before the Senate Committee and provided an overview of child and youth suicide in Queensland, and gave detailed responses to particular issues of interest to the inquiry, such as under-reporting of childhood suicide in official statistics, suicide of Aboriginal and Torres Strait Islander children and young people, and contagion and cluster suicides. The Committee made a number of recommendations that align with the Commission’s submission and oral evidence. The Committee also commented favourably on value of the Commission’s work in the area of childhood suicide.

“...the work that has been done by your office is exceptional. I think it could be a model for other places.”

Senator Claire Moore, Senate Community Affairs
References Committee, Inquiry into Suicide in Australia

“Your submission and your evidence have been extremely enlightening and useful.”

Senator Rachael Siewert, Senate Community Affairs
References Committee, Inquiry into Suicide in Australia

“The Committee was also impressed by the important work being undertaken by [the Queensland Commission for Children and Young People and Child Guardian in studying the factors influencing child deaths...”

The Hidden Toll: Suicide in Australia (2010, p.114)

World Health Organisation re-development of International Statistical Classification of Diseases

The World Health Organisation (WHO) is currently in the process of revising their International Statistical Classification of Diseases and Related Health Problems for its 11th release (ICD-11). In 2010 the Commission submitted a range of suggested classification changes to the WHO for their consideration. Suggested reforms included revisions to codes used to identify quad bike accidents; low speed vehicle run-overs; dam drowning; sudden unexpected death in infancy; and suicide intent. The Commission’s paper is currently being considered by advisory groups to the ICD revision process at a national level.

“...we have passed on your feedback to the various Topic Advisory Groups [TAG] and ...the Chair of the Injuries and External Causes TAG has specifically asked me to pass on his thanks for the document.”

Director, National Centre for Health Information Research and Training

Queensland Government Swimming Pool Safety Improvement Strategy

Since 2008, the Commission has been engaged as a key stakeholder to the Queensland Government’s Swimming Pool Safety Improvement Strategy. The 2009–10 financial year has seen the Commission continue to provide advice and supporting child death data to the Department of Infrastructure and Planning in implementing the Government’s proposed strategy.

Key achievements of the strategy include:

- the introduction of uniform fencing standards for all residential pools, regardless of their date of construction
- extensions of fencing laws to include hotels, motels, caravan parks and indoor pools
- removal of local government exemptions for pool fencing, except in the case of disability
- mandatory reporting of immersion incidents of young children by hospitals and ambulance staff

- provisions for alerting home buyers and lessees to the compliance or otherwise of the pool fence with legislation, and
- increased government spending on awareness-raising campaigns.

The final stage of the legislative reforms are due to take effect in December 2010. The Commission will continue to monitor drowning trends and patterns and hopes to observe reductions in drowning deaths in light of the preventative measures that have been taken through the implementation of this strategy.

“[The Department] is grateful to the Commission in its readiness to supply timely drowning data and offer expertise in the development of the new pool safety laws”.

Department of Infrastructure and Planning

Social Development Committee Inquiry into Addressing Cannabis-Related Harm in Queensland

In March 2010 the Social Development Committee invited the Commission to provide evidence to inform the Inquiry into Addressing Cannabis-Related Harm in Queensland.

The Commission provided evidence from the review of 65 children and young people who suicided in Queensland, undertaken as part of the Commission’s *Reducing Youth Suicide in Queensland* (RYSQ) initiative. While the RYSQ project identified cannabis use in 27 of the 65 young people who suicided, it is impossible to determine the extent to which their drug use impacted on their decision to suicide. Suicidal behaviours in children and young people are not often the result of a single cause but are multiplicative and frequently occur at the end point of adverse life consequences in which several interacting risk factors combine.

Committees

The Commission participated as a member of numerous committees in this reporting period. These include:

- chairing the Australian and New Zealand Child Death Review and Prevention Group²
- participating as a member of the Queensland Injury Prevention Council (QIPC)³, and hosting a QIPC Seminar in March 2010
- progressing the establishment of a working group involving stakeholders from Queensland Health to undertake clinical reviews of all SUDI cases and produce a SUDI report every 3 years⁴
- participating as a member of the Australian Mortality Data Interest Group
- participating as a member of the working group responsible for the development of the Rural and Remote Water Safety Plan
- contributing to the development of a communication strategy to support the introduction of mandatory Australian Standards for bunk beds
- participating as a member of the Royal Life Saving Society Queensland ‘Keep Watch’ Steering Committee, and
- participating as a member of the Queensland Police Service ‘Impacted Children’ Steering Committee in relation to suicide postvention.

Australian and New Zealand Child Death Review and Prevention Group

Most 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

Commission is the current chair of the ANZCDR&PG.

While the ANZCDR&PG does not currently report on child mortality as a single entity, 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.

In 2009 the group was recognised by the Commonwealth in the *National Framework for Protecting Australia's Children 2009–2020*. The National Framework seeks to address issues impacting on the health and wellbeing of Australia's children from a variety of perspectives, and provides support for the ANZCDR&PG in working towards national consistency in child mortality statistics.

During 2009–10, as chair of the ANZCDR&PG, the Commission led discussions in regards to undertaking key research to support the Commonwealth to develop targeted prevention strategies under the National Framework. The ANZCDR&PG is currently developing a proposal for submission to the Commonwealth that will focus on collaborative research to be undertaken using state and territory child death data, with the aim of addressing modifiable risk factors for particular causes of child death at a national level.

SUDI epidemiological analysis

The Commission has analysed and reported on all sudden and unexpected infant deaths in the 5 annual reports it has released to date. The Commission's SUDI evidence base has been of significant benefit to stakeholders, including Queensland Health in developing staff training modules to ensure the delivery of consistent safe sleeping messages to new and expectant parents.

However, the Commission recognises that the reporting of SUDI on an annual basis

is limited to an analysis of demographic and environmental risk factors, due to the short statutory timeframe governing the release of the annual report and associated delays with infant autopsies being available within this reporting timeframe. The Commission acknowledges that this very complex group of deaths would benefit from more detailed retrospective epidemiological analysis.

The Commission has progressed discussions with Queensland Health in relation to the establishment of a process to facilitate the clinical review of SUDI deaths in Queensland with a view to releasing a dedicated SUDI report every 3 years to highlight trends and patterns identified during the review process.

Impacted Children Project

Through the Commission's analysis of youth suicide, a number of Queensland regions experiencing high levels of contagion and cluster suicides among their youth populations have been identified. In recognition of this, the Queensland Police Service has led the development of the *Impacted Children Project*. The overarching objective of the project is to facilitate service delivery to children and young people impacted by suicide by promoting cross-agency communication.

The Impacted Children Project Steering Committee, chaired by the Queensland Police Service, and established to oversee the development and scope of the project, consists of several government and non-government agencies. Representatives include:

- Association of Independent Schools Queensland
- Brisbane Catholic Education
- Department of Communities
- Department of Education and Training
- Queensland Catholic Education Commission
- Queensland Health, and
- the Commission.

The project aims to structure a whole-of-government coordinated postvention

strategy to reduce the incidence of contagion and cluster youth suicides. Information sharing between relevant agencies is designed to assist in the identification of 'impacted children' and the delivery of postvention support services. The project is being piloted at 2 key regional centres in Mackay and Toowoomba, where localised hubs have been formed by relevant officers of the partner organisations, who will convene to identify what postvention supports, if any, are required in their community in the wake of a child or youth suicide.

The Commission is highly supportive of this initiative and has received positive feedback regarding the processes established. The Commission hopes that this initiative can be expanded in future years to target other regional areas across the state.

Research projects

The Commission progressed several research projects in the 2009–10 reporting period.

Keeping Country Kids Safe

In 2008–09 the Commission launched the *Keeping Country Kids Safe* initiative, a project that aims to develop a comprehensive injury prevention strategy tailored to the needs of rural communities. The Commission has found that children in country areas are 2.4 times more likely to die as a result of non-intentional injury than those in the city and face a number of risks unique to their environment, such as drowning in dams or quad bike accidents. A key factor associated with these deaths is the unique combination of the home and workplace that occurs on family farms.

The Commission is committed to working with the rural sector to identify ways to prevent child deaths and injuries occurring. The *Keeping Country Kids Safe* initiative aims to develop a comprehensive injury prevention strategy that brings together the knowledge, skills and experience of people at all levels – from government agencies through to the agricultural industry and local communities themselves.

One of the major aims of *Keeping Country Kids Safe* is to strike a balance between minimising risks and keeping the things that make country life fun for children. The Commission hopes to change the common attitude that these fatalities are 'tragic accidents' and promote the belief that they are indeed preventable.

Last year the Commission undertook extensive consultation with the rural sector. The *Keeping Country Kids Safe Discussion Paper*, sharing findings from the Commission's analysis of child death data from 2004–2008, sought input from government and non-government agencies as well as rural industry. The *Keeping Country Kids Safe Community Survey* was also widely distributed to residents throughout rural Queensland, and encouraged them to share their views and propose practical solutions to improve safety for children and young people in rural areas.

The Commission is in the process of collating the results of consultation, and is preparing to release an 'Outcomes of Consultation' report in the year ahead. In 2011 the Commission intends to progress further targeted consultation with the rural sector to develop an action plan to address key issues associated with child deaths and injuries in rural communities.

Reducing Youth Suicide in Queensland

The Commission's Child Death Annual Reports have consistently identified child and adolescent suicide as a key concern in Queensland. On average, 16 young people suicide each year in Queensland – a figure which places Queensland at a rate almost twice that of the national average.⁵

In 2005–06 the Commission identified, for the second consecutive year, that suicide was the leading cause of death for children aged 10–14 years and the second leading cause for adolescents aged 15–17 years in Queensland. The repetition of the high numbers and young ages of children suiciding in Queensland reinforced the need for this issue to be further investigated. In response, the Commission commenced working on an

in-depth project reviewing the suicides of Queensland children and young people.

The *Reducing Youth Suicide in Queensland* (RYSQ) project involves a detailed review of the lives and deaths of 65 children and young people who died by suicide in Queensland between 1 January 2004 and 31 December 2007. The project aims to provide a solid and contemporary evidence base to better inform prevention efforts targeted at children and young people, with the aim of reducing youth suicide in Queensland. The project aims to achieve 4 key outcomes:

1. improve knowledge and understanding around children and young people who suicide in Queensland
2. identify key risk factors and warning signs specific to these children and young people
3. enhance delivery of services to at-risk children and young people, and
4. inform prevention and early intervention strategies.

The first stage of the project involved the release of a Discussion Paper in August 2009, detailing the preliminary findings of the Commission's analysis of all available case file information for the children and young people who suicided. The Commission consulted with a wide range of key stakeholders from government and non-government agencies, researchers, academics and experts to seek feedback in relation to key discussion points about improving services and preventing youth suicides.

In 2009–10 the Commission collated the extensive responses of individuals and organisations to the RYSQ Discussion Paper. A total of 235 respondents completed the RYSQ survey, while an additional 48 submissions were received from individuals or key stakeholders. The vast majority of respondents (97%) supported the establishment of a collaborative program that involved sharing information and services between a number of agencies to help better identify, monitor and support children and young people at risk of suicide.

In the year ahead, the Commission will release a report detailing the outcomes arising from the response. In addition, the Commission will also prepare a final in-depth report on its analysis of the 65 cases considered as part of the project to help create new pathways in suicide prevention.

The Fatal Assault and Neglect Project

The Commission is approaching the final stages of research into the fatal assault and neglect of children by their parents in Queensland. A total of 132 child deaths – occurring between the years of 2004 and 2008 – are currently being closely analysed to identify data trends and potential ways to reduce the incidence of maltreatment-related deaths in the future. The Commission is currently preparing to undertake targeted consultation with experts in the fields of health, child protection, policing and the coronial system, and will release a discussion paper detailing preliminary findings. It is anticipated that the Commission will publish a final report arising out of this project in the 2010–11 reporting period.

Recommendations

In accordance with the functions specified under s.145 of the Act, the Commission can make recommendations arising from its analysis of the Child Death Register about the improvement of laws, policies and practices aimed at reducing or preventing child deaths.

This year it has not been necessary for the Commission to make any formal recommendations in the annual report. While issues requiring action have arisen throughout the year, the Commission has actively responded to these as each issue has been identified. For example, throughout 2009–10 the Commission has provided ongoing support, advice and data to the Department of Infrastructure and Planning in regards to the implementation of the Queensland Government's Swimming Pool Safety Improvement Strategy, particularly concerning the need for mandatory reporting of immersion incidents.

The Commission is also currently progressing in-depth research projects in relation to childhood suicide, fatal assault and neglect, and rural and remote deaths, all of which will result in significant recommendations focused on reducing the incidence of these fatalities.

Monitoring of previous recommendations: 2004–2007

The Commission would like to acknowledge and thank the organisations that have committed their skills and resources to the ongoing implementation of recommendations arising from previous reports.

Table 9.2 below lists recommendations made as a result of findings of the Child Death Annual Reports from 2004–05 to present, and details of their implementation by relevant agencies.

Table 9.2: Implementation of previous Commission recommendations, 2004–2007

Agency	Recommendation	Status
2006–07		
Queensland Health; former Department of Emergency Services, now Department of Community Safety; former Department of Local Government, Planning, Sport and Recreation, now Department of Infrastructure and Planning	<p>Work with the Commission to identify the most appropriate means to promote the importance of supervision for drowning prevention, and provide advice to the government on long-term strategies, including the resource implications, to raise community awareness about the importance of supervision in preventing drowning fatalities to children.</p> <p><i>Reason: Drowning is the leading cause of death for children under 5 years of age, and the Commission has identified a lack of adequate parental and/or adult supervision as a key contributing factor. There is a need to increase the promotion of supervision as a key public health and safety message for the prevention of these incidents. A coordinated cross-agency approach drawing upon the collective expertise of these agencies, assisted by the Commission's contemporary research data, will better inform efforts to promote public health and safety messages aimed at preventing childhood drowning.</i></p>	<p>Underway</p> <p>The Queensland Injury Prevention Council (QIPC) was identified as the appropriate mechanism for actioning the Commission's recommendation. The QIPC is currently undertaking a number of injury prevention research projects including in relation to the prevention of childhood drowning.</p>

Agency	Recommendation	Status
2005–06		
Registry of Births, Deaths and Marriages (BDM)	<p>Identify options to provide updated cause of death data to the Commission resulting from the receipt of Autopsy Certificates.</p> <p><i>Reason: Updated cause of death information (from Autopsy Certificates) received by the Registry after the initial provision of information to the Commission should also be supplied in the interests of maintaining accurate public health records.</i></p> <p>Maximise the timely capture of deaths reported by the State Coroner in death registration data, and develop an organisational policy/procedure to this effect.</p> <p><i>Reason: The Commission has identified a number of reportable deaths identified by the State Coroner that remained unregistered with the Registry of Births, Deaths and Marriages. The Registrar should investigate using relevant sections of the Births, Deaths and Marriages Act 2003 to register these deaths.</i></p>	<p>Implemented</p> <p>The Registry of Births, Deaths and Marriages now provides the Commission with updated cause of death information.</p> <p>Implemented</p> <p>The policy of the Registrar-General now states that a death can be registered without a death registration application if the coroner has made a finding as to the identity of the person and the location and date of death.</p>
Australian Bureau of Statistics (ABS)	<p>Work with training bodies, mortality coders, Australian child death review teams and coronial system representatives to develop a method of coding intentional self-harm that more accurately reflects the cause of death in the absence of a clear statement of intent from a coroner.</p> <p><i>Reason: Suicides have traditionally been under-reported, partly as a result of the reluctance of coroners to provide clear statements as to whether the injuries leading to death were intentionally self-inflicted. A national approach to the coding of intentional self-harm in such instances is imperative to ensure child suicides are accurately reported.</i></p>	<p>Implemented</p> <p>In 2006, the ABS convened a Suicide Coding Working Group to assist in improving the quality of national suicide data. Significant changes have now been made by the ABS to improve suicide reporting nationally, including:</p> <ul style="list-style-type: none"> • no longer automatically coding suicides to accidental when coroners fail to stipulate intent • considering police identification that a death is a suspected suicide and giving greater weight to the presence of risk factors • developing guidelines to ensure consistent reporting, and • revising causes of death in future publications where a death is reported without coronial findings. <p>These changes will vastly improve the accuracy of suicide reporting nationally.</p>

Agency	Recommendation	Status
Australian Bureau of Statistics (ABS) (cont.)	<p>Publicly report on suicides of children and young people under 15 years of age.</p> <p><i>Reason: The ABS does not report on suicides for children under 15 years of age. The Commission has identified this as a contributing factor to the under-appreciation of childhood suicide.</i></p>	<p>Implemented</p> <p>The ABS publication <i>Suicides Australia</i>, published in March 2007, contained aggregate information on the suicides of children under 15 years during the period 1995–2005. An additional information paper regarding the quality of external cause of death data was published in April 2007 to explain concerns regarding small numbers when reporting suicides of children. The ABS does not report on deaths of children aged under 15 years as a separate age category, but includes an explanatory note in its publications outlining the low number of child suicides which occur in Australia.</p>
Former Department of Child Safety, now Department of Communities	<p>Review the Child Safety Practice Manual to determine whether child death reviews may be applied to the deaths of siblings of children known to the department within the previous 3 years.</p> <p><i>Reason: The Commission has identified a number of deaths in which, while the deceased child was not known to the DChS, siblings of the child had been the subject of departmental involvement. In cases where the child was not known only due to an administrative error on behalf of the DChS, there appears to be scope to examine these cases under existing legislative requirements. Where DChS involvement took place before the deceased child's birth or conception, the DChS may wish to consider expanding the scope of the reviews to include such children. Extending current review practice may assist in identifying risk factors and intervention points to inform future practice and policy development.</i></p>	<p>Implemented</p> <p>The need for reviews in these circumstances will be considered on a case-by-case basis.</p>
2004–05		
Parliamentary Travelsafe Committee	<p>Investigate and report on ways to reduce fatalities and injuries to children from low-speed driveway run-overs in Queensland.</p> <p><i>Reason: Queensland has a significantly higher rate of low-speed run-overs than the rest of Australia. A lead agency needs to take responsibility for initiatives to prevent these fatalities on private properties. A detailed investigation and analysis of the most appropriate strategies for preventing fatalities in Queensland is also required.</i></p>	<p>Implemented</p> <p>The Parliamentary Travelsafe Committee report of this investigation was tabled in Parliament in September 2007. This report made a number of recommendations to reduce low-speed run-overs in Queensland, all of which have been supported by the target</p>

Agency	Recommendation	Status
Parliamentary Travelsafe Committee (cont.)		agencies. In accordance with the report recommendations, the Queensland Injury Prevention Council is currently funding further research in relation to the incidence and prevention of low-speed run-overs as one of its key priority areas. This research is currently being undertaken by the Burns and Trauma Research Group of the Royal Children's Hospital.
Queensland Government	<p>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.</p> <p><i>Reason: The Commission is concerned about the deaths and injuries to children and young people from quad bikes⁶, dams and other rural hazards, and believes that risk factors can be reduced or eliminated.</i></p>	<p>Underway In 2008–09 the Commission launched the <i>Keeping Country Kids Safe</i> initiative, an initiative aimed at developing, in consultation with the rural sector, a comprehensive prevention strategy to reduce death and injury to children in country areas of Queensland.</p>
Queensland Health	<p>Develop and implement a statewide policy, to be followed by all relevant staff including midwives and health workers, in relation to information provided to new and expectant parents about safe sleeping practices (such as the UNICEF UK Baby Friendly Initiative).</p> <p><i>Reason: Health professionals are in a position to educate, promote and influence safe sleeping practices to parents.</i></p> <p>Following the development of the above policy, it is recommended that Queensland Health:</p> <ul style="list-style-type: none"> • develop a training package in relation to the policy, and • develop culturally appropriate communication strategies that convey consistent and appropriate messages about safe sleeping to all new and expectant parents, particularly those at high risk. <p><i>Reason: To ensure consistent messages are being communicated to Queensland Health staff, particularly parents of high-risk infants.</i></p>	<p>Implemented Queensland Health has developed a comprehensive educational resource package to be delivered to health professionals. In 2010 Queensland Health launched an online training module for nurse educators to further encourage the uptake of this training.</p>

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- ¹ 'Genuine research' is defined by the Commission 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.
- ² See also Chapter 10, *National child death statistics*.
- ³ The QIPC was established in 2008. The goal of the QIPC is to substantially reduce injury rates and the severity of injuries in Queensland and to demonstrate national leadership in injury prevention activities. The QIPC reports to the Director-General of Queensland Health and provides high-level strategic advice in relation to injury prevention priorities, strategies and activities.
- ⁴ See also Chapter 8, *Sudden unexpected deaths in infancy*.
- ⁵ The national rate used for comparison is based on the Australian Institute for Health and Welfare's figures and has been compared with the rate calculated from the Commission's Child Death Register for Queensland. The rates compared were for the 2005–06 financial year, the most current national data available at the time of publication of the RYSQ findings.
- ⁶ 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: National child death statistics: An interstate comparison, 2008 calendar year

Chapter 10

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
- New South Wales Child Death Review Team, Commission for Children and Young People
- South Australian Child Death and Serious Injury Review Committee
- Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity, and
- Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity.

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Chapter 10

National child death statistics: An interstate comparison, 2008 calendar year

National 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.

The stated aim of the Australian and New Zealand Child Death Review and Prevention Group 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.

At present, 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 comparison is still achievable.

The Australian and New Zealand Child Death Review and Prevention Group is currently progressing a body of work to establish national benchmarks for risk factors associated with child deaths.

Previously, the Commission has used national mortality statistics compiled by the Australian Bureau of Statistics (ABS) and summarised by the Australian Institute of Health and Welfare (AIHW) to provide an overview of rates of child deaths from various causes across Australian jurisdictions. While this data, as published in previous reports, has been useful in establishing basic variances in child death rates between Australian states and territories, the detailed information held by

agencies with child death review functions presents a significant opportunity, and will ultimately lead to an ability to compare and contrast risk factors and prevention efforts for different causes of death.

A number of the agencies within Australia are at a stage where it is possible to provide a comparable level of child death data. The following overview represents the second attempt to draw together the data held by member jurisdictions of the Australian and New Zealand Child Death Review and Prevention Group and draw meaningful comparisons. Currently, the jurisdictions with the capacity to share detailed child death data are Queensland, New South Wales, Victoria, South Australia and Tasmania. As other jurisdictions further develop their data collection and reporting capacity, it is hoped that this dataset will evolve to include child death data from all Australian states and territories, as well as New Zealand.

The Australian and New Zealand Child Death Review and Prevention Group is working collaboratively to collect and report consistently on common risk factors for certain categories of child death. As this dataset is under development, the comparative overview provided in the Commission's Child Death Annual Reports will include progressively more discussion of the prevalence of risk factors for death in each jurisdiction. The methodology used in compiling the data in this chapter is outlined in Appendix 10.1.

All causes of child deaths: 2008

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

Age category	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000
Under 1 year	305	504.3	391	449.8	71	352.0	23	343.7	272	372.2
1–4 years	62	27.3	69	19.6	12	16.2	4	15.7	48	18.1
5–9 years	31	11.0	49	11.1	12	12.7	3	*	29	9.0
10–14 years	27	9.2	92	12.5	5	5.0	2	*	30	8.9
15–17 years	61	33.5			20	31.5	7	33.5	59	28.0
Total	486	46.4	601	37.2	120	34.0	39	33.0	438	36.3

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

* 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 in each jurisdiction.
 2. Comparable rates for the 10–14 and 15–17 year age categories for New South Wales are not able to be calculated due to the age breakdowns reported by the New South Wales Child Death Review Team, which consider children aged 10–13 years; 14–15 years; and 16–17 years. The number of deaths of children in these age breakdowns have been grouped together for the purposes of Table 10.1 to show a total figure for children aged 10–17 years in New South Wales.
 3. Total rates are calculated per 100,000 children and young people aged 0–17 years in each jurisdiction.
 4. The causes of 4 deaths in Victoria are yet to be finalised and these deaths are not included in any of the following tables 10.3, 10.4 or 10.5.

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 age until the late teen years, when it increases sharply. In most jurisdictions, numbers and rates of death began to rise again in the 15–17 year age category.

Table 10.2 below shows the number and rate of child deaths in each state and territory by gender.

Table 10.2: Number and rate of child deaths by gender and jurisdiction

Gender	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000								
Female	209	41.0	237	30.1	47	27.2	19	33.1	187	31.8
Male	277	51.6	364	44.0	73	40.4	20	33.0	251	40.5

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

Note: 1. Rates are calculated per 100,000 females and per 100,000 males aged 0–17 years in each jurisdiction.

Males experienced higher rates of death in 4 of the 5 jurisdictions, with the rate of female deaths being comparable to that for males in Tasmania. In general, males died at between 1.3 and 1.6 times the rate of females.

Diseases and morbid conditions

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.

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

Age category	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000
Under 1 year	268	443.1	355	408.3	60	297.5	4 ^a	59.8	245	335.3
1–4 years	34	15.0	36	10.2	6	8.1	2	*	31	11.7
5–9 years	16	5.7	39	8.9	8	8.4	2	*	24	7.4
10–14 years	17	5.8	37	5.0	3	*	1	*	18	5.4
15–17 years	12	6.6			9	14.2	2	*	21	10.0
Total	347	33.2	479	29.7	86	24.3	11	9.3	339	28.1

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

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

^a At time of publication, cause of death breakdowns were not available for neonatal deaths. Number and rate of deaths for infants under 1 year of age (Tasmania) represents the deaths of infants in the post neonatal period only (29–364 days).

- Notes:
1. Rates are calculated per 100,000 children and young people in each age category in each jurisdiction.
 2. Total rates are calculated per 100,000 children and young people aged 0–17 years in each jurisdiction.
 3. Comparable rates for the 10–14 and 15–17 year age categories for New South Wales are not able to be calculated due to the age breakdowns reported by the New South Wales Child Death Review Team, which consider children aged 10–13 years, 14–15 years and 16–17 years. The number of deaths of children in these age breakdowns have been grouped together for the purposes of Table 10.3 to show a total figure for children aged 10–17 years in New South Wales.
 4. The causes of 4 deaths in Victoria are yet to be finalised and these deaths are only included in Table 10.1.

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 the five jurisdictions.

Deaths from external causes occurred at a higher rate in Queensland than in any other state (9.7 per 100,000). South Australia had the next highest rate of death from external causes, at 7.1 per 100,000.

While Queensland recorded a far greater number of transport fatalities (52 deaths) than other states, the *rate* of fatal transport incidents was similar to that of Tasmania, which recorded only 6 deaths.¹

Queensland recorded the highest rate of drowning death, closely followed by New South Wales. Youth suicide was most prevalent in Queensland, while the rate of fatal assault was highest in South Australia.

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

Cause of death	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000
Transport	52	5.0	26	1.6	11	3.1	6	5.1	23	1.9
Drowning	15	1.4	20	1.2	2	*	1	*	≤5 ^a	*
Other non-intentional Injury-related death	11	1.1	–	–	6	1.7	0	0.0	9	0.7
Suicide	17	1.6	12	0.7	2	*	0	0.0	15	1.2
Fatal assault	7	0.7	12	0.7	5	1.4	0	0.0	≤5 ^a	*
Total	102	9.7	70	4.3	26	7.4	7	5.9	56	4.6

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

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

– Number of deaths not provided.

^a Figure not specified where number of deaths is less than or equal to 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 and young people aged 0–17 years in each jurisdiction.

3. The causes of 4 deaths in Victoria are yet to be finalised and these deaths are only included in Table 10.1.

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.

While Tasmania recorded the lowest number of unexplained infant deaths, the rate of death per 100,000 infants was the highest of any of the jurisdictions considered, followed by Queensland.

Undetermined deaths of children over the age of 1 year

Each year, the deaths of a number of children over the age of 1 are registered for whom a cause of death is unable to be determined. 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.

While historically, undetermined deaths of children over the age of 1 year occur fairly infrequently, 2008 saw an unusually large number of undetermined deaths of children aged 1–17 years, particularly in Victoria and Queensland.

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

Age category	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000
Under 1 year	31	51.3	26	29.9	6	29.8	4	59.8	26	35.6
1–4 years	2	*	0	0.0	–	–	1	*	≤5 ^a	*
5–9 years	0	0.0	0	0.0	–	–	0	0.0	≤5 ^a	*
10–14 years	2	*	0	0.0	–	–	0	0.0	0	0.0
15–17 years	1	*	0	0.0	–	–	1	*	7	3.3
1–17 years total	5	0.5	0	0.0	2	–	2	*	13	1.1
Total	36	3.4	26	1.6	8	2.3	6	5.1	39	3.2

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

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

– Number of deaths not provided.

^a Figure not specified where number of deaths is less than or equal to 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 and young people aged 0–17 years in each jurisdiction.

3. The causes of 4 deaths in Victoria are yet to be finalised and these deaths are only included in Table 10.1.

Deaths of Aboriginal and Torres Strait Islander children and young people

Table 10.6: Number and rate of Indigenous child deaths by jurisdiction

Year	QLD		NSW		SA		TAS		VIC	
	<i>n</i>	Rate per 100,000								
2007	52	79.4	N/A	–	12	99.0	N/A	–	8	54.9
2008	67	102.3	N/A	–	11	90.8	0	0.0	12	82.3

Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

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

It should be noted that a number of states 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 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 from 2007 have also been included in Table 10.6. The Commission hopes to monitor long-term trends in Indigenous child mortality across Australia, in line with the Commonwealth *Closing the Gap* initiative, which aims to reduce disparity in mortality rates between Indigenous and non-Indigenous children. This initiative commenced in 2008, and it is hoped that improvements in the rate of

Indigenous child mortality will be observed in future reports. Based on the available data, in 2008 Queensland had the highest rate of death for Aboriginal and Torres Strait Islander children and young people, followed by South Australia.

National child death statistics: findings and conclusions

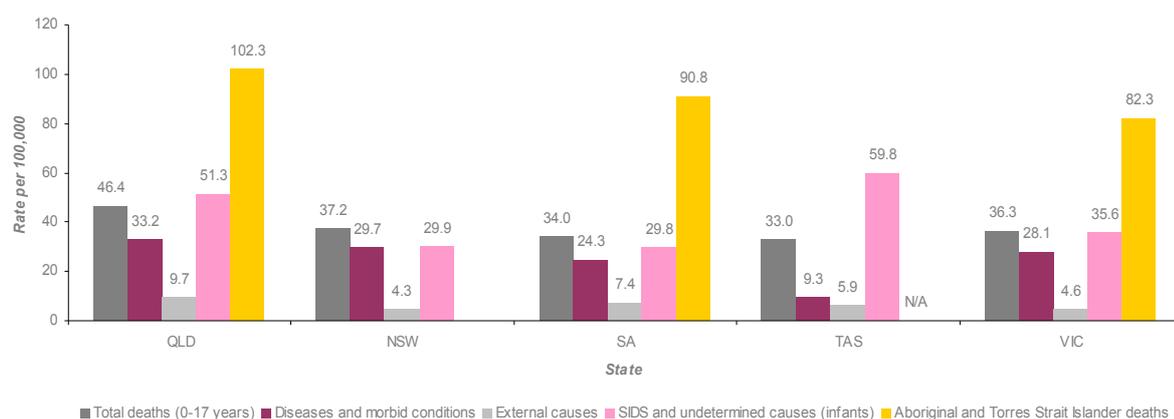
The information presented above is a snapshot of child mortality in various Australian states in 2008. Analysis of statistics for this year has shown:

- Queensland had the highest rate of child death overall. Differences in death rates between jurisdictions were particularly noticeable for infants and children aged 1–4 year

- Queensland also had the highest rate of death from drowning and youth suicide
- Tasmania had the highest rate of death from transport, but the rate for Queensland was comparable
- South Australia had the highest rate of death from other non-intentional injury, and
- Tasmania had the highest rate of unexplained infant death.

Selected findings are highlighted in Figure 10.1 below.

Figure 10.1: Interstate comparisons – selected findings



Data source: Australian and New Zealand Child Death Review and Prevention Group (2008)

The comparison of child death data across jurisdictions as undertaken for the first time in the Child Death Annual Report 2008–09 represented a significant first step in the journey towards developing nationally comparable data. The Commission was pleased to be able to continue this initiative in 2009–10, and notes the addition of data for Tasmania this year. It is hoped that future years will see the inclusion of data from other states and territories as the development of their child death review mechanisms progress.

Findings from this year have highlighted that, at a national level, further efforts need to be invested in addressing risk factors for sudden unexpected deaths in infancy, external cause deaths and factors and circumstances affecting life expectancy for Aboriginal and Torres Strait Islander children and young people.

While the findings of these early analyses have provided some direction for prevention activities, more meaningful

conclusions and specific targeting of prevention initiatives will become more apparent through future analysis of data over multiple years. Long-term data analysis is imperative for the accurate identification of trends and patterns in child mortality. In addition, as the reporting capabilities of review mechanisms throughout Australia continue to develop, the analysis of social, situational and risk factor information is likely to become available to further inform prevention efforts.

The Commission greatly appreciates the efforts of the New South Wales Child Death Review Team, the South Australian Child Death and Serious Injury Review Committee, the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity and the Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity in contributing to this report, and looks forward to continued collaboration in an effort to reduce child mortality from preventable causes.

¹ Caution must be exercised when making comparisons and interpreting rates because of the small number of deaths analysed.

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Appendix 1.1: Methodology

This chapter provides an overview of the methodology employed by the Commission in producing this report. It also explains the process of maintaining the Child Death Register and the methods used for the analysis of trends and patterns in the data.

Child Death Register

Under the *Commission for Children and Young People and Child Guardian Act 2000* (the Act), the Commission has a statutory obligation to maintain a register of all deaths of children and young people under the age of 18 that are registered in Queensland. The information in the register is required to be classified according to cause of death, demographic information and other relevant factors. The Commission is required to maintain the register of all child deaths from 1 January 2001. In this capacity, the Commission has responsibility for the centralised collection and coding of mortality information for both coronial and non-coronial child deaths.

The Commission analyses information in the Child Death Register to identify and report on patterns of child mortality and make recommendations about policies, practices and procedures aimed at reducing or preventing child deaths.

As the Queensland Child Death 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 Commission and the information contained in the Child Death Register.

Rates and percentages cited in this report have been quality assured.

The *Annual Report: Deaths of children and young people, Queensland, 2009–10* 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 young people and children known to the child protection system. However, as noted throughout the report, caution must be exercised 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 findings when small numbers are involved.

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.

Registry of Births, Deaths and Marriages

The information contained in the Child Death Register is based on death registration data from the Queensland Registry of Births, Deaths and Marriages. To help the Commission fulfil its child death functions, the *Births, Deaths and Marriages Registration Act 2003* provides that the Registrar must give notice of the registration of all child deaths to the Commissioner.¹ The data provided includes the following information:

- the 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.²

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 general 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 not a reasonably expected outcome of a health procedure
- a Cause of Death Certificate was not issued or is not likely to be issued
- the death occurred in care, or
- the death occurred in custody.

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

- had a disability (as defined under the *Disability Services Act 1992*) 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.³

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.⁴

To help the Commission fulfil its child death research functions, the Coroners Act imposes 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.⁵

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.

Access to other data sources

Section 147 of the Commission's Act enables other government entities to enter into an arrangement with the Commission to provide information or documents reasonably needed for the child death research functions. By providing such information, another agency does not contravene any statutory confidentiality provisions.

The Commission has developed agreements with the following agencies:

- Registry of Births, Deaths and Marriages⁶
- Office of the State Coroner⁷
- Department of Communities (including records relating to child safety, housing and youth justice)
- 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)
- Australian Bureau of Statistics

- Queensland Health, and
- Department of Education and Training.

Access to information held by these agencies provides valuable insights into the lives of, and circumstances leading to the deaths of, some of Queensland's most vulnerable children.

Confidentiality

Accompanying the Commission's privileged access to information is a duty of confidentiality that is specified in legislation. Section 385 (Confidentiality of Other Information) of the Act states:

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)⁸, or*
- (b) *recklessly disclose the information to anyone.*

Coding cause of death

The Commission uses 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 train 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

Commission staff have undertaken training in ICD-10 mortality coding and are responsible for the coding of all external cause deaths.

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

Classification of external cause deaths

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

- dam drowning
- driveway run-overs of toddlers
- four-wheel motorcycle (quad bike) incidents, and
- sudden unexpected death in infancy.

To help overcome the limitations of ICD-10, the Commission primarily classifies deaths according to their circumstances. Based on the information contained in the Police Report of Death to a Coroner (Form 1), such classification enables the Commission to discuss deaths occurring in similar circumstances, even where an official cause of death has not yet been established⁹, or where the ICD-10 code does not accurately reflect the circumstances of death.

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

As outlined above, discrepancies may exist between research categories and ICD-10 figures. The Commission primarily reports 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 1.2.

Geographical distribution (ARIA+)

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

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 on the basis of 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.¹⁰

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 Queensland¹¹
- **regional:** includes inner and outer regional Queensland¹², and
- **remote:** includes remote and very remote Queensland.¹³

Socio-economic status (SEIFA)

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

Variables associated with advantage include the proportion of families with high incomes, the proportion of people with a degree or higher, and the proportion of people with skilled occupations. Variables associated with disadvantage include the proportion of families with low incomes, the proportion of persons with relatively low levels of education and the proportion of people in low-skilled occupations.

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

Aboriginal and Torres Strait Islander status

Although the identification of the deaths of Aboriginal and Torres Strait Islander people has improved considerably in recent years, it is not known how many Indigenous deaths are not identified. Therefore, the number of deaths registered as Aboriginal or Torres Strait Islander in a given year is expected to be an undercount of the actual number of deaths of Indigenous people.

The Child Death Register captures Aboriginal and Torres Strait Islander status as recorded both in the death registration data and on the Form 1, or other documentation available to the Commission. Several cases have been identified where a child has been identified as Indigenous by the reporting officer in completing the Form 1, but family

members did not identify as Indigenous when registering the death.

The Commission recognises that, in Queensland, Aboriginal and Torres Strait Islander children and young people aged 0–17 comprise approximately 45.1% of the Aboriginal and Torres Strait Islander population¹⁴, and will continue to work collaboratively with stakeholders in addressing the undercounting of Aboriginal and Torres Strait Islander child deaths.¹⁵

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 Commission has distinct responsibilities in relation to these child deaths.

In addition to maintaining the Child Death Register and the research and analysis contained in this report, the Commission provides 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.

Since 1 August 2004, the Department of Communities, Child Safety Services has been required to conduct a review of its involvement in each case where a child known to the child protection system dies within 3 years of the Department's last involvement with the child. The Department of Communities has 6 months from the time it learns of the child's death to provide the CDCRC with a report.

The CDCRC considers this report and makes recommendations about:

- improving policies which impact on services to children known to the child protection system
- improving relationships between the Department of Communities 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.

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

The Queensland Child Death Register captures information regarding whether the child was known to the child protection system, or whether their siblings were known to the child protection system.

Due to the complex circumstances present in their lives, children known to the child protection system often experience a range of risk factors and represent a vulnerable and at-risk cohort. Overall, children known to the child protection system died at a rate of 50.2 deaths per 100,000, compared with 46.3 deaths per 100,000 for all Queensland children.

Analysis and reporting

Analysis period

The 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 485 children and young people aged from birth to 17 years, registered between 1 July 2009 and 30 June 2010.

Incidence

This report analyses the rate of death for various sections of the child population in Queensland. These rates show the number of deaths per 100,000 children in each age and/or gender category in the

population. Rates allow comparisons over time, across states and internationally.

The death rates used in this report have been calculated using the Queensland Treasury Experimental Indigenous Estimated Resident Population for Queensland Statistical Local Areas, 30 June 2008. This was the latest population data available at the time of publication.¹⁶

For infants under 1 year, rates per 1000 live births were also calculated. Births data are based on medium series Queensland Government Population Projections for 2009–10.

Rates were not calculated where cases numbered less than 4 because of the unreliability of such calculations.

Aboriginal and Torres Strait Islander child death rates

In comparing Indigenous child death rates across reporting periods, it should be taken into account that previously published figures were based on ABS experimental estimates and projections of the Indigenous population, rather than those produced by Queensland Treasury as used in this publication.¹⁷

Rates were not calculated where cases numbered less than 4 because of the unreliability of such calculations.

Rates of death for children known to the child protection system

The Commission reports on the number of deaths where the deceased child was 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 3 years before the child’s death, the Department of Communities, Child Safety 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.

Rates of death for children known to the child protection system are calculated on the number of distinct children known to the child protection system in the three-year period before the 2009–10 financial year. This data was provided to the Commission by the Department of Communities.

The table below lists the denominator data provided by the Department of Communities for the last 5 reporting periods.¹⁸

Distinct children known to the child protection system

Reporting period	Number of distinct children known to the child protection system
2005–06	70,803
2006–07	86,041
2007–08	91,068
2008–09	101,899
2009–10	129,361

Data source: Department of Communities, Performance and Analysis Branch, 30 July 2010.

Note: 1. Denominator data for 2009–10 is based on the number of distinct children known to the Department of Communities in the 3-year period before the 2009–10 financial year.

The denominator data represent 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 3 years:

- Child Concern Report¹⁹
- notification
- investigation and assessment
- order, and/or
- placement.

A higher proportion of children known to the child protection system die than children in the overall population. The complexity of the issues faced by families of ‘at-risk’ children are likely to contribute to the disparity between outcomes for children known to the child protection system and those for other Queensland children. The fact that this group comes to the attention of an established service system means that ongoing analysis of risk factors related to their deaths will be well targeted and will help inform the design of supports and interventions.

Child death rates across Australian states and territories

Chapter 10, *National child death statistics: an interstate comparison 2008*, provides a comparative analysis of child mortality across selected Australian states. Data was supplied by the following members of the Australian and New Zealand Child Death Review and Prevention Group:

- Queensland Commission for Children and Young People and Child Guardian
- New South Wales Child Death Review Team, Commission for Children and Young People
- South Australian Child Death and Serious Injury Review Committee
- Tasmanian Council of Obstetric & Paediatric Mortality & Morbidity, and
- Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity.

Rates are based on population data as at June 2008 in each state and territory, as sourced from the Australian Bureau of Statistics.

Statistics for Indigenous children have also been provided. As discussed earlier, data regarding Aboriginal and Torres Strait Islander people are unreliable and likely to be an undercount of actual figures. Rates for the deaths of Aboriginal and Torres Strait Islander children were based on experimental estimates at June 2006.

Rates were not published where cases numbered less than 4 because of the unreliability of such calculations. Further detail of the methodology used in compiling Chapter 10 can be found in Appendix 10.1.

Abbreviations and dictionary

ABS	Australian Bureau of Statistics
AIHW	Australian Institute of Health and Welfare
AISRAP	Australian Institute for Suicide Research and Prevention
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 provides detailed information about the person's health and gives an understanding of the various factors which may have contributed to their death.
Births, Deaths and Marriages Registration Act	<i>Births, Deaths and Marriages Registration Act 2003</i> (Qld)
Commission for Children and Young People and Child Guardian Act	<i>Commission for Children and Young People and Child Guardian Act 2000</i> (Qld)
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 they or their siblings were known to the child protection system and/or Form 1 information indicates that the family had a history of criminal activities (including drug abuse) and/or domestic violence and/or mental health problems.
Child	A person aged 0–17 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 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.
The Commission or CCYPCG	The Commission for Children and Young People and Child Guardian (Qld)
The Commissioner	Commissioner for Children and Young People and Child Guardian (Qld)
Congenital anomalies	Congenital anomalies (ICD-10 Chapter XVII, Congenital malformations, deformations and chromosomal abnormalities) are mental and physical conditions present at birth that are either hereditary or caused by environmental factors.
Coroners Act	<i>Coroners Act 2003</i> (Qld)
CPR	Cardiopulmonary resuscitation
Death in care	A death as defined under section 9 of the <i>Coroners Act 2003</i> .
Death in custody	A death as defined under section 10 of the <i>Coroners Act 2003</i> .
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 child assault	Fatal assault is defined as the death of a child from "acts of violence perpetrated upon him or her by another person" even when the perpetrator may not have intended the outcome.

Fatal child neglect	The death of a child resulting from a carer's failure to provide essential care necessary for the child's survival. This may involve acts or omissions on the part of a caregiver that are either deliberate or extraordinarily irresponsible or reckless.
GISCA	National Centre for the Social Applications of Geographic Information Systems
HIV	Human Immunodeficiency Virus
ICD-10	International Statistical Classification of Diseases and Related Health Problems, Tenth Revision
Indigenous	Refers to children identified as Aboriginal and/or Torres Strait Islander
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 heart beat. This is the definition used by the Australian Bureau of Statistics in all cause of death publications.
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.
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' injury-related deaths that are not discussed elsewhere in the report – that is, drowning and transport incidents.
OESR	Office of Economic and Statistical Research (Qld)
QIPC	Queensland Injury Prevention Council
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 birthweight, 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 includes foetuses and infants delivered weighing at least 400 grams or having a gestational age of 20 weeks, whether alive or dead. This is 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 foetuses weighing at least 500 grams or having a gestational age of 22 weeks or a body length of 25 centimetres crown–heel.
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.
Quad bike	Previously referred to as all-terrain vehicles (ATVs), these are four-wheeled motorcycles primarily used for agricultural purposes.
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> .
SEIFA	Socio-Economic Indexes for Areas 2006. Developed by the Australian Bureau of Statistics using data derived from the 2006 Census of Population and Housing, SEIFA 2006 provides a range of measures to rank areas based on their relative social and economic wellbeing.
SIDS	Sudden Infant Death Syndrome
STI	Sexually transmissible infection
SUDI	Sudden unexpected death in infancy
Toxicology	The analysis of drugs, alcohol and poisons in the body fluids at autopsy.
Undetermined	Death certified as 'undetermined' refer 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. ²⁰
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.
WHO	World Health Organisation

¹ Section 48A (details of stillborn children are not included in the information given to the Commission).

² Section 48B of the Births, Deaths and Marriages Registration Act 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.

³ Section 9 of the *Coroners Act 2003*.

⁴ Section 10 of the *Coroners Act 2003*.

⁵ 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.

⁶ The agreement between the Registry of Births, Deaths and Marriages and the Commission has been developed in accordance with the provisions of section 48B of the *Births, Deaths and Marriages Registration Act 2003*.

⁷ The agreement between the Office of the State Coroner and the Commission has been developed in accordance with the provisions of section 54A of the *Coroners Act 2003*.

⁸ Subsection 4 permits 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.

⁹ Where cases have not received an official cause of death as established at autopsy, they are unable to be coded according to ICD-10.

¹⁰ 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).

¹¹ Relatively unrestricted accessibility to a wide range of goods and services and opportunities for social interaction.

¹² Significantly restricted accessibility of goods, services and opportunities for social interaction.

¹³ Very restricted accessibility of goods, services and opportunities for social interaction.

¹⁴ Commission for Children and Young People and Child Guardian 2009, *Snapshot 2009: Children and young people in Queensland*, Brisbane: Commission for Children and Young People and Child Guardian.

¹⁵ In New South Wales, for example, when an Aboriginal member of the Child Death Review Team can identify the family as an Aboriginal family, the child is coded as Aboriginal (New South Wales Child Death Review Team, 2000–2001 Report, Sydney: New South Wales Commission for Children and Young People, 2001).

¹⁶ Rates of death reported in Child Death Annual Reports from 2004–05 to 2006–07 are based on ABS population projections from the 2001 Census. Caution should be exercised in comparing rates across years.

¹⁷ The ABS experimental estimates and projections used in 2004–05 and 2005–06 were based on high series projections, while those used in 2006–07 related to low series projections as per a whole-of-government policy change. Experimental Indigenous estimated resident populations developed by the Queensland Treasury, Office of Economic and Statistical Research were used from 2007–08 onwards. For this reason, caution should be exercised when comparing Indigenous child death rates across reporting periods.

¹⁸ The Department of Communities has improved the methodology used for calculating denominator data. This methodology was employed for denominator data used in all Child Death Annual Reports from 2006–07 onwards. Comparisons should therefore not be drawn between the rates of death in the child protection system presented in these reports and those given in the 2005–06 report. Updated denominator data for the 2005–06 period has been provided and is included in the table above.

¹⁹ Before 2006–07, data regarding Child Concern Reports were not available. The inclusion of Child Concern Reports in the 2006–07 denominator data primarily accounts for the large increase between 2005–06 and 2006–07 figures.

²⁰ 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*, vol. 21, no. 4, pp. 311–14.

Appendix 1.2: Cause of death by ICD-10 mortality coding classification

Deaths from diseases and morbid conditions, 2009–10

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Certain conditions originating in the perinatal period (P00–P96)	159	0	0	0	0	159
Congenital malformations, deformations and chromosomal abnormalities (Q00–Q99)	81	4	2	0	1	88
Neoplasms (C00–D48)	2	3	11	6	9	31
Diseases of the nervous system (G00–G99)	4	1	0	3	3	11
Diseases of the respiratory system (J00–J99)	4	2	1	3	0	10
Certain infectious and parasitic diseases (A00–B99)	3	3	3	0	0	9
Diseases of the circulatory system (I00–I99)	2	2	1	1	3	9
Endocrine, nutritional and metabolic diseases (E00–E90)	4	1	0	1	2	8
Diseases of the digestive system (K00–K93)	2	0	0	1	0	3
Diseases of the blood and blood-forming organs and certain disorders involving the immune mechanism (D50–D89)	2	0	0	0	0	2
Diseases and morbid conditions total	263	16	18	15	18	330
Sudden infant death syndrome (R95)	11	0	0	0	0	11
Other ill-defined and unspecified causes of mortality (R99)	3	0	0	0	0	3
SIDS and undetermined causes (infants) total	14	0	0	0	0	14
Other ill-defined and unspecified causes of mortality (R99)	0	2	0	0	0	2
Undetermined > 1 year total	0	2	0	0	0	2
Total	277	15	18	18	18	346

Data source: Queensland Child Death Register (2009–10)

Deaths from external causes, 2009–10

Cause of death	Under 1 year	1–4 years	5–9 years	10–14 years	15–17 years	Total
	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>	<i>n</i>
Car occupant injured in transport accident (V40–V49)	1	4	1	4	7	17
Pedestrian injured in transport accident (V01–V09)	0	3	3	0	1	7
Motorcycle rider injured in transport accident (V20–V29)	0	0	0	0	1	1
Other land transport accidents (V80–V89)	0	0	0	1	0	1
Occupant of heavy transport vehicle injured in transport accident (V60–V69)	0	0	0	0	1	1
Water transport accidents (V90–V94)	0	1	0	0	0	1
Transport total	1	8	4	5	10	28
Intentional self-harm (X60–X84)	0	0	0	2	17	19
Event of undetermined intent (Y10–Y34)	0	0	0	0	1	1
Suicide total	0	0	0	2	18	20
Accidental drowning and submersion (W65–W74)	2	7	1	1	0	11
Cause of death pending	1	3	3	0	0	7
Drowning total	3	10	4	1	0	18
Falls (W00–W19)	1	1	0	0	0	2
Exposure to inanimate mechanical forces (W20–W49)	0	1	0	0	1	2
Other accidental threats to breathing (W75–W84)	1	1	0	0	0	2
Exposure to animate mechanical forces (W50–W64)	0	0	0	0	1	1
Exposure to electric current, radiations and extreme ambient air temperature and pressure (W85–W99)	0	0	0	0	1	1
Cause of death pending	1	0	0	0	1	2
Other non-intentional injury-related death total	3	3	0	0	4	10
Assault (X85–Y09)	0	1	0	2	2	5
Cause of death pending	1	0	1	0	1	3
Fatal assault and neglect total	1	1	1	2	3	8
Total	8	22	9	10	35	84

Data source: Queensland Child Death Register (2009–10)

Appendix 1.3: Geographic distribution by cause of death

Geographic distribution of child deaths by cause of death, 2009–10

Cause of death	Metropolitan		Regional		Remote		Outside Queensland	Total	
	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	Rate per 100,000	<i>n</i>	<i>n</i>	Rate per 100,000
Diseases and morbid conditions	201	34.8	114	27.8	20	33.7	11	346	33.1
SIDS and undetermined causes (infants)	3	*	8	2.0	2	*	1	14	1.3
Undetermined > 1 year	2	*	0	0.0	0	0.0	0	2	*
External causes	33	5.7	41	10.0	10	16.8	0	84	8.0
Transport	12	2.1	12	2.9	4	6.7	0	28	2.7
Suicide	9	1.6	10	2.4	1	*	0	20	1.9
Drowning	7	1.2	7	1.7	4	6.7	0	18	1.7
Accidental	2	*	8	2.0	0	0.0	0	10	1.0
Fatal assault and neglect	3	*	4	1.0	1	*	0	8	0.8
Cause of death pending	29	5.0	20	4.9	5	8.4	1	55	5.3
Total	263	45.6	175	42.7	35	58.9	12	485	46.3

Data source: Queensland Child Death Register (2009–10)

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

- Notes:
1. Twelve children were not classified as their usual residence was outside Queensland. For further details, see Appendix 1.4.
 2. Rates are calculated per 100,000 children and young people aged 0–17 years in metropolitan, regional and remote areas of Queensland.

Appendix 1.4: Interstate and international residents 2009–10

Interstate and international residents, 2009–10

Case	Cause of death	Gender	Age category	Usual place of residence
1	Diseases and morbid conditions	Male	15–17 years	New South Wales
2	Diseases and morbid conditions	Male	Under 1 year	New South Wales
3	Diseases and morbid conditions	Male	Under 1 year	New South Wales
4	Diseases and morbid conditions	Male	Under 1 year	New South Wales
5	Diseases and morbid conditions	Female	15–17 years	New South Wales
6	Diseases and morbid conditions	Female	Under 1 year	New South Wales
7	Diseases and morbid conditions	Male	Under 1 year	New South Wales
8	Diseases and morbid conditions	Male	5–9 years	Papua New Guinea
9	Diseases and morbid conditions	Male	1–4 years	Papua New Guinea
10	Diseases and morbid conditions	Female	Under 1 year	New South Wales
11	SIDS and undetermined	Female	Under 1 year	New South Wales
12	Cause of death pending	Female	Under 1 year	Western Australia

Data source: Queensland Child Death Register (2009–10)

Appendix 1.5: Socio-economic status of child deaths by cause of death

Socio-economic status of child deaths by cause of death, 2009–10

Cause of death	Low to very low		Moderate		High to very high		Outside Queensland	Total	
	Total n	Rate per 100,000	Total n	Rate per 100,000	Total n	Rate per 100,000		Total n	Rate per 100,000
Diseases and morbid conditions	118	32.0	77	27.0	140	35.6	11	346	33.1
SIDS and undetermined	7	1.9	3	*	3	*	1	14	1.3
Undetermined > 1 year	0	0.0	0	0.0	2	*	0	2	*
External causes	51	13.8	17	6.0	16	4.1	0	84	8.0
Transport	20	5.4	5	1.8	3	*	0	28	2.7
Suicide	9	2.4	5	1.8	6	1.5	0	20	1.9
Drowning	11	3.0	3	*	4	1.0	0	18	1.7
Accidental	5	1.4	3	*	2	*	0	10	1.0
Fatal assault and neglect	6	1.6	1	*	1	*	0	8	0.8
Cause of death pending	26	7.1	11	3.9	17	4.3	1	55	5.3
Total	193	52.4	105	36.8	173	44.0	12	485	46.3

Data source: Queensland Child Death Register (2009–10)

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

- Notes:
1. Twelve children were not classified as their usual residence was outside Queensland. For further details, see Appendix 1.4.
 2. Rates are calculated per 100,000 children and young people aged 0–17 years in low to very low, moderate and high to very high socio-economic areas of Queensland.

Appendix 2.1: Notifiable diseases

Complete Notifiable Diseases Schedule (*Public Health Act 2005*)

acquired immune deficiency syndrome (AIDS)	hepatitis E
acute flaccid paralysis	hepatitis (other)
acute rheumatic fever	human immunodeficiency virus infection (HIV)
acute viral hepatitis	influenza
adverse event following vaccination	invasive Group A Streptococcal infection
anthrax	lead exposure
arbovirus infections – <ul style="list-style-type: none"> • alphavirus infections, including Barmah Forest, getah, Ross River and sindbis viruses • bunyaviruses infections, including gan gan, mapputta, termeil and trubanaman viruses • flavivirus infections, including alfuy, Edge Hill, Japanese encephalitis, kokobera, kunjin, Murray Valley encephalitis, Stratford and other unspecified flaviviruses (excluding dengue fever and yellow fever) • any other arbovirus infection (excluding dengue fever and yellow fever) 	legionellosis
atypical mycobacterial infection	leptospirosis
avian influenza	listeriosis
botulism (food-borne)	lyssavirus (Australian bat)
botulism (intestinal – adult)	lyssavirus (Australian bat), potential exposure
botulism (intestinal – infantile)	lyssavirus (rabies)
botulism (wound)	lyssavirus (other)
brucellosis	malaria
campylobacteriosis	measles
chancroid	melioidosis
chlamydia trachomatis infection (anogenital)	meningococcal infection (invasive)
chlamydia trachomatis infection (lymphogranuloma venereum)	mumps
chlamydia trachomatis infection (non-anogenital)	ornithosis (psittacosis)
cholera	paratyphoid
ciguatera intoxication	pertussis
Creutzfeldt-Jakob disease	plague
cryptococcosis	pneumococcal disease (invasive)
cryptosporidiosis	poliomyelitis – wild type and vaccine associated
dengue fever	Q fever

diphtheria	rotavirus infection
donovanosis echinococcosis (hydatid disease)	rubella, including congenital rubella
equine morbilivirus (Hendra virus) infection	salmonellosis
food-borne or waterborne illness in 2 or more cases	severe acute respiratory syndrome (SARS)
food-borne or waterborne illness in food handler	shiga toxin and vero toxin producing <i>escherichia coli</i> infection SLTEC/VTEC
gonococcal infection (anogenital)	shigellosis
gonococcal infection (non-anogenital)	smallpox
haemolytic uraemic syndrome (HUS)	syphilis, including congenital syphilis
haemophilus influenzae type b (invasive)	tetanus
Hansen's disease (leprosy)	tuberculosis
hepatitis A	tularaemia
hepatitis B (acute)	typhoid
hepatitis B (chronic)	varicella – zoster virus infection (chickenpox, shingles or unspecified)
hepatitis B (not otherwise specified)	viral haemorrhagic fevers (Crimean-Congo, Ebola, Lassa fever and Marburg viruses)
hepatitis C	yellow fever
hepatitis D	yersiniosis

Appendix 5.1:

Inclusions within the other non-intentional injury-related death category

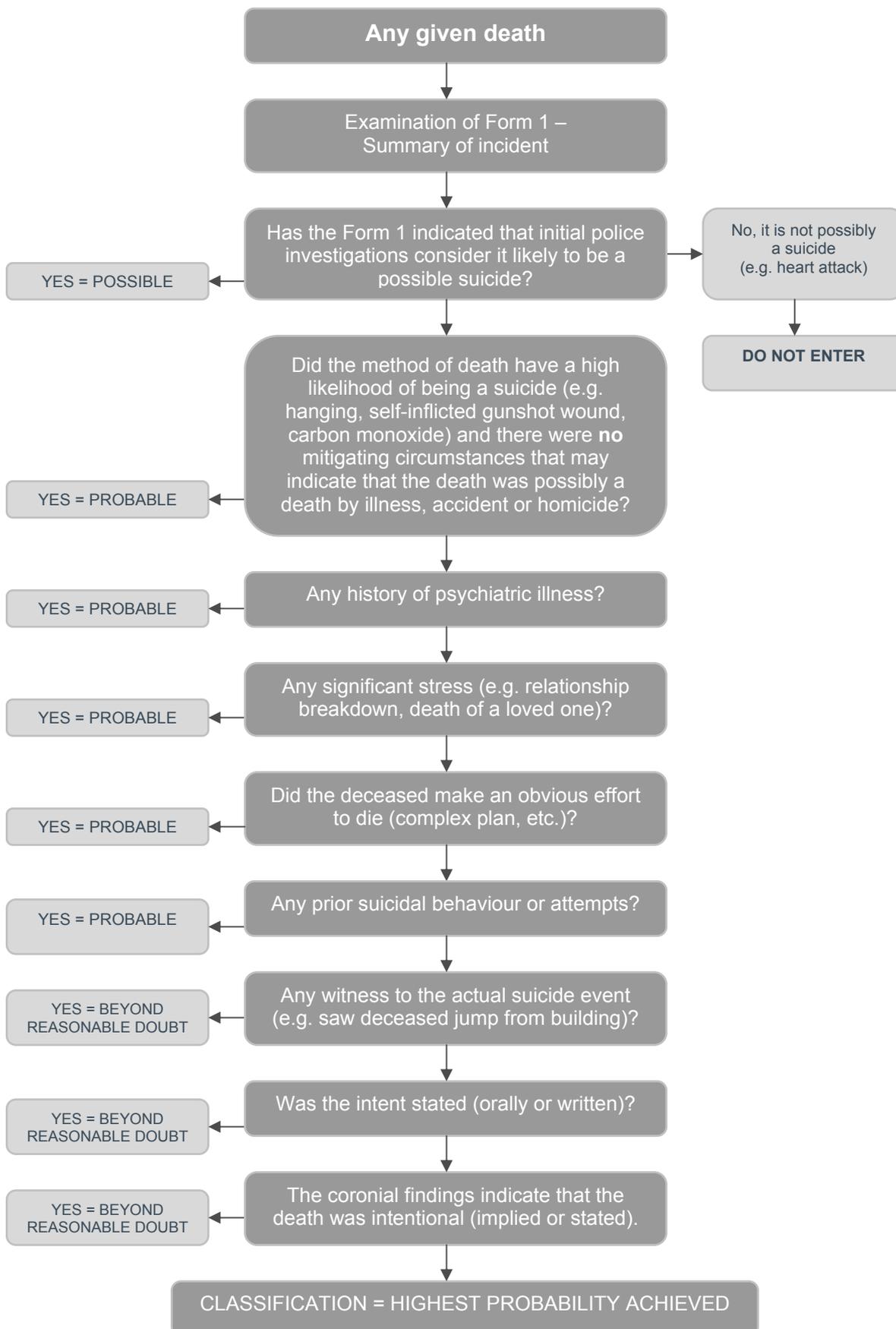
Causes of death included in other non-intentional injury-related death category

- poisonings
- falls
- non-intentional threats to breathing, including accidental suffocation and strangulation in bed; other accidental hanging and strangulation; threats to breathing due to cave-in falling earth and other substances; inhalation of gastric contents, food or other object causing obstruction of respiratory tract
- exposure to electrical current, and
- fire.

Other inclusions within this category

- misadventure to patients during medical or surgical care
- drugs, medicaments and biological substances causing adverse effects in therapeutic use
- surgical and other medical procedures as the cause of abnormal reaction of the patient, or of later complication, without mention of misadventure at the time of the procedure
- sequelae with surgical and medical care as external
- lightning
- cataclysmic storms and floods resulting from storms
- exposure to forces of nature (for example, excessive natural heat)
- contact with venomous marine animals and plants
- injury caused by animals
- struck by falling object or striking against or struck by other objects
- striking against or bumped into by another person
- caught, crushed, jammed between objects
- injury caused by machinery (for example, agricultural machinery)
- unintentional injury caused by cutting, piercing instruments or objects
- foreign body entering into or through eye, other orifice or skin
- unintentional injury caused by firearms
- contact with heat and hot substances, and
- late effects of accidental injury (excluding transport accidents).

Appendix 6.1: Suicide classification model¹



¹ Modified from De Leo, D & Evans, R 2002, *Suicide in Queensland 1996–1998: Mortality rates and related data*, Australian Institute for Suicide Research and Prevention, Brisbane.

Appendix 10.1:

Methodology for national child death statistics

Data sources

Interstate 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 limited to that provided by the:

- Queensland Commission for Children and Young People and Child Guardian
- New South Wales Child Death Review Team, Commission for Children and Young People
- South Australian Child Death and Serious Injury Review Committee
- Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity, and
- Victorian Consultative Council on Obstetrics and Paediatric Mortality and Morbidity.

Analysis period

This analysis covers the period 1 January–31 December 2008.

Date of registration and place of residence

Queensland, New South Wales, and Tasmania provided raw numbers of the deaths of all children from birth up to, but not including, 18 years of age registered with the Registry of Births, Deaths and Marriages in each state in 2008, irrespective of the child's place of usual residence. South Australia and Victoria report on the number of deaths *occurring* in 2008, independent of when these deaths were registered with the Registry of Births, Deaths and Marriages.

Capturing deaths based on the state 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 in New South Wales.

Population data

The population figures used in the following analysis are estimated resident populations (ERP) for each state, as at June 2008.¹ To ensure comparability of child death rates between states, all rates have been calculated on this population data, and therefore may differ from those previously published in the reports of individual agencies.² The table below provides details of the ERP of each state as sourced from the Australian Bureau of Statistics and as used for the calculation of rates of death in the following analysis.

Estimated resident population by age category and state

Age category	Queensland	New South Wales	South Australia	Tasmania	Victoria
Under 1 year	60,478	86,936	20,168	6,692	73,079
1–4 years	227,196	352,698	74,116	25,404	264,783
5–9 years	282,088	439,831	94,738	31,288	323,326
10–14 years	294,786	734,249	100,898	33,735	336,313
15–17 years	182,030		63,414	20,919	210,429
Total (0–17 years)	1,046,578	1,613,714	353,334	118,038	1,207,930

Data source: Australian Bureau of Statistics (2009)

Note: 1. Age breakdowns reported by the New South Wales Child Death Review Team consider children aged 10–13 years; 14–15 years and 16–17 years. Population estimates of children in these age breakdowns have been grouped together for the purpose of calculating rates throughout the analysis.

Estimates for the Indigenous child population are based on experimental estimates at June 2006.³ It should be noted that these estimates were only available in 5-year age brackets. Therefore, the population of Indigenous young people aged 15–17 has been estimated by calculating 60.0% of the total population figure in the 15–19 year block. The below table provides details of estimates of the Indigenous child population in each state as used in the calculation of death rates in the following analysis. New South Wales was unable to provide data for this comparison and was therefore not included in these estimates.

Estimated Aboriginal and Torres Strait Islander child population by state

State	Estimated Indigenous population
Queensland	65,484
South Australia	12,121
Tasmania	8,087
Victoria	14,578

Data source: Australian Bureau of Statistics (2006)

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.

However, it is important to recognise that the deaths counted under each category are as per the 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) classifications.

Notable differences include:

- usual coding of neonatal (0–28 days) deaths according to PSANZ-PDC⁴ and PSANZ-NDC⁵ rather than ICD-10 by the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity
- the inclusion of only deaths occurring in 2008 (whether registered in 2008 or 2009) by the Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity for ages from 28 days up to (but not including) the 18th birthday
- the inclusion by Victoria of the deaths of all neonates (0–27 days) born in 2008, regardless of whether the death occurred in 2008 or 2009
- South Australia reports on deaths occurring in that years, independent of when they were registered with the Office of Births, Deaths and Marriages

- the exclusion of 48 neonatal deaths as the result of terminations of pregnancy or that were less than 20 weeks gestation from Victorian figures for infant deaths, and
- classification of external cause deaths by the South Australian Child Death and Serious Injury Review Committee according to the following guidelines:
 - **Transport:** includes deaths from incidents involving a device used for, or designed to be used for, moving people or goods from one place to another. These incidents may involve pedestrians and include railway or water transport. Incidents may occur on public highways or places other than a public highway.
 - **Accidents:** excludes deaths attributed to transport incidents, fires or drowning. Also referred to as deaths from unintentional injuries, accidents most commonly include suffocation, strangulation and choking, falls and poisoning.
 - **Suicide:** the Committee classifies a death as suicide where the intent of the child was clearly established. It also attributes a death to suicide if careful examination of coronial, police, health and education records indicated a probable intention to die.
 - **Fatal assault:** the Committee characterises a fatal assault as ‘the death of a child from acts of violence perpetrated upon him or her by another person’ (Lawrence, 2004; p. 842).

A number of additional issues affecting data in particular states and territories should also be noted:

- The Victorian Consultative Council on Obstetric and Paediatric Mortality and Morbidity (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 2008*. This will be available from <www.health.vic.gov.au/ccopmm/index.htm>.
- The Victorian CCOPMM does not specify raw figures where these are equal or less than 5. These are represented by the figure ≤5 throughout the analysis.
- The Tasmanian Council of Obstetric and Paediatric Mortality and Morbidity note that breakdowns by cause of death are currently unavailable for neonatal deaths. All figures pertaining to cause of death breakdowns for infants less than 1 year of age represent infants in the post-neonatal period only.
- The New South Wales Child Death Review Team (CDRT) note that different methodologies have been applied in the calculation of rates in this analysis compared with that used in the New South Wales CDRT reports. While crude rates have been used in this analysis, the New South Wales CDRT report Direct Standardised Mortality Rates.⁶

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- ¹ Australian Bureau of Statistics 2009, *Population by age and sex, Australian states and territories, June 2008*, (cat. no. 3201.0), Australian Bureau of Statistics, Canberra.
- ² 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.
- ³ Australian Bureau of Statistics 2008, *Experimental estimates of Aboriginal and Torres Strait Islander Australians, June 2006*, (cat. no. 3238.0.55.001), Australian Bureau of Statistics, Canberra.
- ⁴ Perinatal Society of Australia and New Zealand – Perinatal Death Classification.
- ⁵ Perinatal Society of Australia and New Zealand – Neonatal Death Classification.
- ⁶ Details of the methodology used in the calculation of mortality rates used by the New South Wales Child Death Review Team can be found in Chapter 19, Methods, of the Child Death Review Team Annual Report 2008, available at: <http://kids.nsw.gov.au/kids/resources/publications/childeathreview.cfm>.



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