

Executive summary

CHILD DEATHS IN QUEENSLAND, FINDINGS IN 2015 – 16 AND TRENDS SINCE 2004

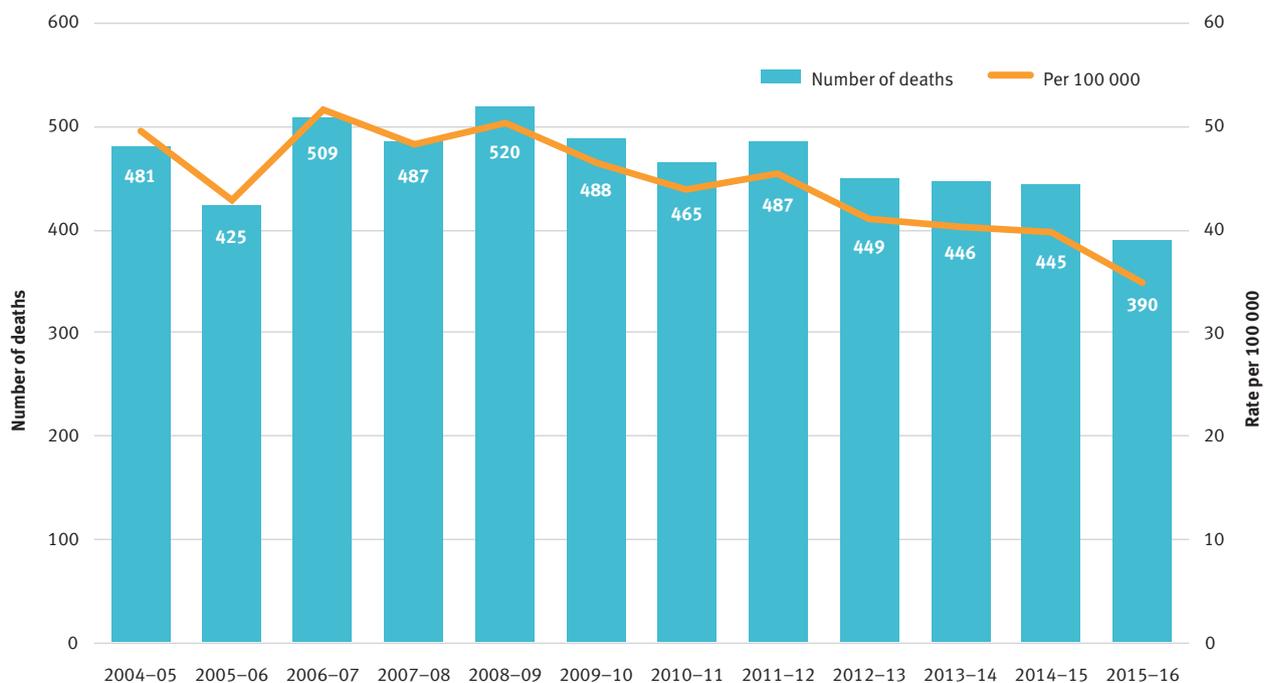
In the 12 month period from 1 July 2015 to 30 June 2016, the deaths of 390 children and young people were registered¹ in Queensland, a rate of 34.9 deaths per 100 000 children aged 0–17 years.

The total number of deaths decreased by 12% from 445 deaths in 2014 – 15, the largest annual change since reporting began in 2004.

Infant mortality in Queensland was 3.7 deaths per 1000 live births, down from 4.5 deaths per 1000 in 2014 – 15.

Year to year fluctuations in numbers of registered deaths are typical. However, in 2015 – 16 there were decreases across all of the main causes of death, including the two largest contributors of natural causes of death, perinatal conditions² and congenital anomalies (down 18% and 15% respectively). External (non-natural) causes of death also decreased (down 28%), with decreases in suicide, transport, drowning and fatal assault and neglect.

Number and rate of deaths of children and young people in Queensland 2004 – 16



Data source: Queensland Child Death Register (2004 – 16)

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

2 Diseases and conditions that originate during pregnancy or the neonatal period (first 28 days of life).

Leading causes of child deaths

The table broadly outlines the causes of death by age group for the 390 registered deaths.

- Deaths from diseases and morbid conditions (natural causes) accounted for the majority of deaths of children registered in 2015 – 16 (291 deaths or 75%), occurring at a rate of 26.0 deaths per 100 000 children.
- External causes of death (transport, drowning, other non-intentional injury, suicide and fatal assault and neglect) accounted for 64 deaths (16%), and occurred at a rate of 5.7 deaths per 100 000 children. Suicide was the leading external (non-natural) cause of death, occurring at a rate of 1.8 deaths per 100 000 children.
- Transport has been the leading external cause for the first 10 periods of the Queensland Child Death Register. With recent decreases in transport-related deaths, suicide has been the leading external cause of death for 0–17 year-olds for the past two years.

Cause of death by age category 2015 – 16

Cause of death	Under 1 year <i>n</i>	1–4 years <i>n</i>	5–9 years <i>n</i>	10–14 years <i>n</i>	15–17 years <i>n</i>	Total <i>n</i>	Rate per 100 000
Diseases and morbid conditions	212	17	18	23	21	291	26.0
Explained diseases and morbid conditions	207	17	18	22	21	285	25.5
Unexplained diseases and morbid conditions	5	0	0	1	0	6	0.5
<i>SIDS and undetermined causes (infants)</i>	5	0	0	0	0	5	0.4
<i>Undetermined > 1 year</i>	0	0	0	1	0	1	*
External causes	2	16	3	12	31	64	5.7
Suicide	0	0	0	4	16	20	1.8
Transport	0	5	1	3	9	18	1.6
<i>Motor vehicle</i>	0	1	0	0	9	10	0.9
<i>Pedestrian</i>	0	4	1	0	0	5	0.4
<i>Motorcycle</i>	0	0	0	1	0	1	*
<i>Other</i>	0	0	0	2	0	2	*
Drowning	0	5	0	1	2	8	0.7
<i>Non-pool</i>	0	3	0	0	2	5	0.4
<i>Pool</i>	0	2	0	1	0	3	*
Fatal assault and neglect	1	1	2	3	2	9	0.8
Other non-intentional injury-related death	1	5	0	1	2	9	0.8
<i>Threats to breathing</i>	1	1	0	0	1	3	*
<i>Exposure to smoke, fire and flames</i>	0	2	0	1	0	3	*
<i>Exposure to inanimate mechanical forces</i>	0	2	0	0	0	2	*
<i>Poisoning by noxious substances</i>	0	0	0	0	1	1	*
Cause of death pending	21	8	2	3	1	35	3.1
Total	235	41	23	38	53	390	34.9
Rate per 100 000	378.1	16.1	7.3	12.6	29.0	34.9	

Data source: Queensland Child Death Register (2015 – 16)

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

1. Rates are based on the most up-to-date denominator data available and are calculated per 100 000 children aged 0–17 years in Queensland each year. Rates for the 2015 – 16 period use the estimated resident population (ERP) data as at June 2014.
2. Rates for age categories are calculated per 100 000 children in each age category. Age-specific death rates are discussed in the chapters relating to each cause of death.

By age and sex

- In 2015 – 16, the mortality rate for males aged 0–17 years was higher than that for females, with a rate of 38.9 deaths per 100 000 males compared to 30.7 deaths per 100 000 females.
- Diseases and morbid conditions were the most frequent cause of death for infants under 1 year of age, accounting for 90% of the deaths in this age category (212 of 235 deaths).
- The leading cause of death for 1–4 year-olds was diseases and morbid conditions (17 deaths), followed by 5 deaths each from transport, drowning and other non-intentional injury-related deaths.
- The leading cause of death for 5–9 year-olds was diseases and morbid conditions (18 deaths). Three children aged 5–9 years died from external causes, a much smaller number than in previous years. Two deaths were from assault and neglect and one death was transport-related.
- The leading cause of death for 10–14 year-olds was diseases and morbid conditions (23 deaths). The leading external cause of death for 10–14 year-olds was suicide (4 deaths).
- The leading cause of death for 15–17 years olds was diseases and morbid conditions (21 deaths). Suicide was the leading external cause of death in this age category (16 deaths). Nine 15–17 year-olds died from transport-related incidents which is, along with 9 deaths in 2014 – 15, the lowest recorded since the commencement of the child death register in 2004.

Aboriginal and Torres Strait Islander children

- Fifty-two Aboriginal and Torres Strait Islander children died in 2015 – 16, a decrease of 30% from 74 deaths in 2014 – 15.
- The mortality rate for Aboriginal and Torres Strait Islander children was 1.8 times the rate for non-Indigenous children (60.0 deaths per 100 000 Indigenous children, compared with 32.8 deaths per 100 000 non-Indigenous children).
- The infant mortality rate for Aboriginal and Torres Strait Islander children was 6.0 deaths per 1000 live births compared to the non-Indigenous rate of 3.5 deaths per 1000 live births.
- Indigenous child mortality rates have decreased over the last decade. Based on three-year averages, between 2007 and 2016 infant mortality for Indigenous children decreased from 11.4 to 7.7 deaths per 1000 live births. The mortality rate for Indigenous children aged 1–17 years decreased from 38.6 to 29.9 deaths per 100 000 children. However, Aboriginal and Torres Strait Islander child mortality continues to be twice the rate for non-Indigenous children, as decreases in Indigenous mortality have been matched by decreases in non-Indigenous mortality.
- Queensland's infant mortality rates are higher than the most recently available national averages. In 2014, the national Indigenous infant mortality rate was 5.6 deaths per 1000 live births, while the non-Indigenous infant mortality rate was 3.2 deaths per 1000 live births.
- There were 4 suicide deaths of Aboriginal and Torres Strait Islander young people during 2015 – 16. Over the last three years, the suicide rate among Aboriginal and Torres Strait Islander young people was 3.1 times the rate of their non-Indigenous peers.
- Aboriginal and Torres Strait Islander infants are over-represented in SUDI. Over the last three years, Indigenous infants died suddenly and unexpectedly at 3.4 times the rate of non-Indigenous infants.
- Encouragingly the Aboriginal and Torres Strait Islander SUDI cases in 2015 – 16 (4 deaths) was the lowest number recorded since 2004.

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

- Of the 390 child deaths, 46 children were known to the child protection system, representing a rate of 54.6 deaths per 100 000, compared with 34.9 deaths per 100 000 for all Queensland children.
- Seventeen children died as a result of diseases and morbid conditions and 17 as a result of external causes.
- Five deaths of children known to the child protection system were suicides, 4 were fatal assault and 4 were other non-intentional injuries.

Diseases and morbid conditions

- In 2015 – 16, the deaths of 291 children and young people were the result of diseases and morbid conditions, a rate of 26.0 deaths per 100 000 children aged 0–17 years. Both the number and rate of deaths from diseases and morbid conditions in 2015 – 16 are the lowest recorded over the 12 years since 2004.
- Deaths of children from diseases and morbid conditions are most likely to occur in the first weeks and months of life, with infants accounting for 73% of deaths from diseases and morbid conditions in 2015 – 16.
- Infant deaths from the two most common diseases and morbid conditions—conditions originating in the perinatal period and congenital malformations, deformations and chromosomal abnormalities (187 deaths combined)—make up the largest proportion of all deaths of children and young people (64% of all 291 deaths from diseases and morbid conditions and 48% of the 390 deaths from all causes).
- Aboriginal and Torres Strait Islander children died from diseases and morbid conditions at a rate of 43.8 per 100 000 children (compared with 24.5 deaths per 100 000 non-Indigenous children). Over the last 12 reporting periods, the Indigenous mortality rates from diseases and morbid conditions have generally been 1.5–2 times the rates for non-Indigenous children.
- Six children and young people died with notifiable conditions, 3 of which were from diseases potentially preventable by vaccines. Over the last three years, 11 children have died from vaccine preventable diseases, with the most common of these including invasive meningococcal disease, invasive pneumococcal disease, and influenza.

Transport-related deaths

- Eighteen children and young people died in transport incidents in 2015 – 16, at a rate of 1.6 deaths per 100 000 children aged 0–17 years. This is the lowest number of transport-related fatalities since reporting commenced in 2004.
- Motor vehicle incidents accounted for 10 deaths, the largest type of transport-related deaths, with 7 of these being males aged 15–17 years.
- For 6 deaths of 15–17 year-olds in motor vehicles, the vehicle was operated either by the young person or another male driver aged under 21.
- Three children aged 1–4 years died in low speed vehicle run-overs.
- Male children are almost twice as likely to be involved in a fatal transport-related incident as female children.
- Children from remote and regional areas are over-represented in transport-related deaths.

Drowning

- Eight children and young people drowned in Queensland in 2015 – 16 (rate of 0.7 deaths per 100 000 children aged 0–17 years) compared to 16 deaths in 2014 – 15 and 7 in 2013 – 14.
- Three children drowned in swimming pools in 2015 – 16, 4 drowned in inland waterways (rivers, lakes or ponds), and 1 in a bathtub.
- Children aged 1–4 years made up the largest group of drowning deaths (5 deaths), a pattern that has been found in all previous reporting periods, and an indication of the particular vulnerability of this age group.
- Pool fencing standards were introduced in 1991 and have been incrementally strengthened over time, with the latest changes occurring in December 2015. The numbers of private pool drowning deaths of children aged under 5 have fluctuated from year to year; however, numbers before the introduction of pool fencing requirements were generally higher than those seen since the introduction of standards, and especially in the last decade.
- In the five years up to the 1991 introduction of pool fencing laws, between 7 and 15 children aged under 5 drowned in private pools each year, whereas in the last five years private pool drowning deaths have been between 2 and 5 each year.
- During 2015 – 16 there were no deaths due to defective pool fencing.

Fire and other non-intentional injuries

- Nine children and young people died in non-intentional injury-related incidents in 2015 – 16, with 5 deaths in the 1–4 year age group (rate of 0.8 deaths per 100 000 children aged 0–17 years).
- Causes of the deaths included threats to breathing, house fires and accidental poisoning.
- Thirty-two children died in 20 house or dwelling fires in Queensland over the 12-year period 2004 – 2015. Young children are at particular risk in house fires with 16 of the deaths being of children aged 1–4 years.
- The *Fire and Emergency Services (Domestic Smoke Alarms) Amendment Act 2016* will come into effect in January 2017, and will make smoke alarms mandatory in all bedrooms.

Suicide

- Twenty young people died of suspected or confirmed suicide during 2015 – 16 (rate of 1.8 deaths per 100 000 children aged 0–17 years). The number of suicide deaths recorded over the 12 years since 2004 ranges from 15 to 26, with an average of 19.8 per year.
- Male suicides for young people usually outnumber female suicides. Over the most recent three-year period, the suicide rate for males was 1.5 times the rate for females.
- Sixteen suicide deaths were of 15–17 year-olds. Suicide was the second-leading cause of death for this age group (after 21 deaths caused by diseases and morbid conditions). Four suicide deaths were of young people aged 10–14 years.
- There were 4 suicide deaths of Aboriginal and Torres Strait Islander young people. Over the most recent three-year period, the suicide rate among Aboriginal and Torres Strait Islander young people was 3.1 times the rate of their non-Indigenous peers.
- Five of the young people who died as a result of suicide were known to the Queensland child protection system in the twelve months prior to their death.

Fatal assault and neglect

- Nine children and young people died as a result of suspected or confirmed assault and neglect in Queensland in 2015 – 16 (rate of 0.8 deaths per 100 000 children aged 0–17 years).
- Six children were alleged to have been killed by a family member and 2 children were alleged to have been killed by a non-family member. The category for the remaining death was yet to be determined. Over the last three reporting periods, 25 of the 29 fatal assault and neglect cases were classified as intra-familial (86%).
- Of the 2 children alleged to have been killed by a non-family member, these deaths were identified as peer or acquaintance homicides.
- Four of the children were known to the child protection system in the 12 months prior to their death.

Sudden unexpected deaths in infancy and SIDS

- Sudden unexpected death in infancy (SUDI) is a category of deaths where an infant (aged under 1 year) dies suddenly with no immediately obvious cause. Predominantly, deaths from SUDI are recorded as cause pending until the outcomes of coroners' investigations or post-mortem examinations are concluded and cause of death is determined.
- There were 29 SUDI cases in 2015 – 16, a rate of 46.7 deaths per 100 000 infants (aged under 1 year). The number of SUDI cases have fluctuated over the last 12 reporting periods; however, the 2015 – 16 number of deaths is the lowest recorded since reporting began in 2004.
- Aboriginal and Torres Strait Islander infants are over-represented in SUDI cases. Over the last three years, Indigenous infants died suddenly and unexpectedly at 3.4 times the rate of non-Indigenous infants.
- Five deaths were, following post-mortem examination, attributed to Sudden Infant Death Syndrome (SIDS) and undetermined causes (of the 12 SUDIs with an official cause of death). Official causes of death were still pending for 17 deaths.

- Seven of the SUDI cases were found to have an explained cause of death. Six children died as a result of infant illnesses unrecognised prior to their deaths and 1 was a sleep accident.
- Looking at the 2013 — 14 period, where all but one SUDI case had recorded causes of death, the rate of death for SIDS and undetermined causes was 45.5 per 100 000 infants (10% of infant deaths), representing the third highest cause of death after perinatal conditions and congenital anomalies.
- Further, SIDS and undetermined causes was the leading cause of infant death in the post-neonatal period (from 1–11 months), representing over a quarter of deaths in this group in 2013 — 14 (28%—24 of the 87 post-neonate deaths).

QUEENSLAND CHILD DEATH REGISTER ACCESS AND DATA REQUESTS

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

Chapter 9 presents a summary of the child death data provided to researchers.

REPORT STRUCTURE

The report structure is divided into nine chapters as follows:

Chapter 1—Child deaths in Queensland

Chapter 2—Deaths from diseases and morbid conditions

Chapter 3—Transport-related deaths

Chapter 4—Drowning

Chapter 5—Other non-intentional injury-related deaths

Chapter 6—Suicide

Chapter 7—Fatal assault and neglect

Chapter 8—Sudden unexpected deaths in infancy

Chapter 9—Child death prevention activities

List of Abbreviations

Supplementary information

The following information is available on the 2015 — 16 Child Death Annual Report page at www.qfcc.qld.gov.au:

- Methodology
- Abbreviations and definitions
- Cause of death by ICD-10 mortality coding classification
- Notifiable diseases
- Inclusions within the other non-intentional injury-related death category
- Suicide classification model
- Fatal assault and neglect screening criteria
- Australian and New Zealand child death statistics
- Methodology for Australian and New Zealand child death statistics