CHAPTER 4

Drowning

This chapter provides details of child deaths from drowning.

KEY FINDINGS

- Eight children and young people drowned in Queensland in 2015 — 16 (rate of 0.7 per 100 000 children aged 0–17 years) compared to 16 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 one 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. The number 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.
- The pool safety standards were updated in 2015, and require all pools to meet the following requirements:
  - compliant fencing is required for all pools and spas—including portable pools and spas capable of being filled with 300 millimetres or more of water
  - the latest Cardiopulmonary resuscitation (CPR) sign must be displayed and be easily visible to people in or near the pool
  - all pools must be registered on the pools safety register
  - mandatory inspections of pools by local governments for all immersion incidents involving children under the age of 5.
- Swimming pool fencing and diligence in keeping pool gates closed, appropriate supervision of young children in bathtubs or where pools and water hazards are in the vicinity, and establishing safe play areas on rural properties and acreage where hazards are nearby are recommended approaches to reducing the risk of drowning for young children.

DROWNING 2013 — 16

An expanded version of Table 4.1 containing data since 2004 is available online at www.qfcc.qld.gov.au.

Table 4.1: Summary of drowning deaths of children and young people in Queensland 2013 — 16

	2013 — 14		2014 — 15		2015 — 16		Yearly average
	Total *n*	Rate per 100 000	Total *n*	Rate per 100 000	Total *n*	Rate per 100 000	Rate per 100 000
All drowning deaths							
Drowning	7	0.6	16	1.4	8	0.7	0.9
Pool drownings							
Pool drowning deaths	2	*	5	0.4	3	*	0.3
Private pools	*2*	*	*5*	*0.4*	*1*	*	*0.2*
Public pools	*0*	*0.0*	*0*	*0.0*	*2*	*	*
Non-pool drownings							
Non-pool drowning deaths	5	0.5	11	1.0	5	0.4	0.6
Bathtubs	*0*	*0.0*	*1*	*	*1*	*	*
Beach or ocean	*0*	*0.0*	*1*	*	*0*	*0.0*	*
Dynamic waterway	*2*	*	*1*	*	*2*	*	*0.1*
Floodwater	*0*	*0.0*	*1*	*	*0*	*0.0*	*
Rural water hazard (dams)	*1*	*	*5*	*0.4*	*0*	*0.0*	*0.2*
Static inland waterways (lakes, ponds or quarries)	*2*	*	*2*	*	*2*	*	*0.2*
Sex							
Female	2	*	5	0.9	3	*	0.6
Male	5	0.9	11	1.9	5	0.9	1.2
Age category							
Under 1 year	0	0.0	1	*	0	0.0	*
1–4 years	3	*	10	3.9	5	2.0	2.4
5–9 years	2	*	5	1.6	0	0.0	0.7
10–14 years	0	0.0	0	0.0	1	*	*
15–17 years	2	*	0	0.0	2	*	0.7
Aboriginal and Torres Strait Islander status							
Indigenous	1	*	1	*	2	*	1.5
Non-Indigenous	6	0.6	15	1.5	6	0.6	0.9
Geographical area of usual residence (ARIA+)							
Remote	0	0.0	2	*	0	0.0	*
Regional	3	*	8	1.9	4	1.0	1.2
Metropolitan	4	0.6	5	0.8	3	*	0.6
Socio-economic status of usual residence (SEIFA)							
Low to very low	5	1.1	8	1.8	4	0.9	1.3
Moderate	1	*	4	1.8	2	*	1.1
High to very high	1	*	3	*	1	*	0.4
Known to the child protection system							
Known to the child protection system	4	2.4	2	*	2	*	..

Data source: Queensland Child Death Register (2013 — 16)

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

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

1. Data presented here is current in the Queensland Child Death Register as at August 2016 and thus may differ from those presented in previously published reports.
2. Rates are based on the most up-to-date denominator data available and are calculated per 100 000 children (in the sex/age/Indigenous status/ARIA+ region/SEIFA region) in Queensland each year. Rates for the 2013 — 14 period use the ERP data as at June 2013 and rates for the 2014 — 15 and 2015 — 16 periods use the ERP data as at June 2014.
3. For 2013 — 14, 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 DCCSDS within the three-year period prior to their death. From 2014 — 15 on, this relates to the deaths of children known to the DCCSDS within the one-year period prior to their death. The denominator for calculating rates is the number of children aged 0–17 who were known to the DCCSDS, through either being subject to a child concern report, notification, investigation and assessment, ongoing intervention, orders or placement, in the one-year period prior to the reporting period.
4. ARIA+ and SEIFA exclude the deaths of children whose usual place of residence was outside Queensland.
5. Yearly average rates have been calculated using the ERP data as at June 2014.

DROWNING: FINDINGS 2015 — 16

During 2015 — 16, the drowning deaths of 8 children and young people were registered in Queensland, at a rate of 0.7 deaths per 100 000 children aged 0–17 years.[21] The number of drowning deaths registered since reporting commenced in 2004, ranges from 7 to 19 per year, with an average of 14.3 per year.[22]

Types of drowning-related deaths

During 2015 — 16, 5 deaths occurred in non-pool water hazards (4 drowned in inland waterways such as rivers, lakes or ponds, and 1 in a bathtub). Three pool drownings were recorded for the period with 1 occurring in a private pool and 2 in public pools.

Of the children aged under 10 years, 2 were known to have been non-swimmers, 1 was considered to be a weak swimmer and in 2 cases the swimming ability of the child was not specified.

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

Sex

During 2015 — 16, there were 3 drowning deaths of female children, compared to 5 male children.

Over the last three reporting periods, the average annual mortality rate from drowning for males was 2.0 times the rate for females (1.2 deaths per 100 000 male children aged 0–17 years, compared to 0.6 deaths per 100 000 female children). Males continue to be over-represented in childhood drowning data, both within Queensland and throughout Australia.[23]

Age

During 2015 — 16, 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.

Aboriginal and Torres Strait Islander status

Of the 8 drowning deaths during 2015 — 16, 2 were of Aboriginal and Torres Strait Islander children.

Over the last three reporting periods, the average annual mortality rate from drowning for Indigenous children was 1.7 times the rate for non-Indigenous children (1.5 deaths per 100 000 Indigenous children aged 0–17 years, compared to 0.9 deaths per 100 000 non-Indigenous children).

21 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 2015 — 16. These figures may differ from other data collections by date of death occurrence.

22 Tables with data for 2004 — 16 are available online at www.qfcc.qld.gov.au

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

Geographical area of usual residence (ARIA+)

Of the 8 drowning deaths during 2015 — 16, none were of children who resided in a remote area of Queensland, 4 were of children from regional areas and 3 were of children from metropolitan areas.

Over the last three reporting periods, the average annual mortality rate from drowning for children from regional areas was 2.0 times the rate for children residing in metropolitan areas (1.2 deaths per 100 000 children aged 0–17 years from regional areas, compared to 0.6 deaths per 100 000 children from metropolitan areas).

Socio-economic status of usual residence (SEIFA)

Of the 8 drowning deaths during 2015 — 16, 4 were of children who resided in low to very low SES areas of Queensland, 2 were of children from moderate SES areas and 1 was of a child from a high to very high SES area.

Over the last three reporting periods, the average annual mortality rates from drowning for children from low to very low and moderate SES areas were approximately three times the rate for children from high to very high SES areas (1.3 and 1.1 deaths per 100 000 children aged 0–17 years from low to very low or moderate SES areas, compared to 0.4 deaths per 100 000 children from high to very high SES areas).

Children known to the child protection system

Of the 8 drowning deaths during 2015 — 16, 2 were of children known to the Queensland child protection system within the year before their death.

KEY ISSUES

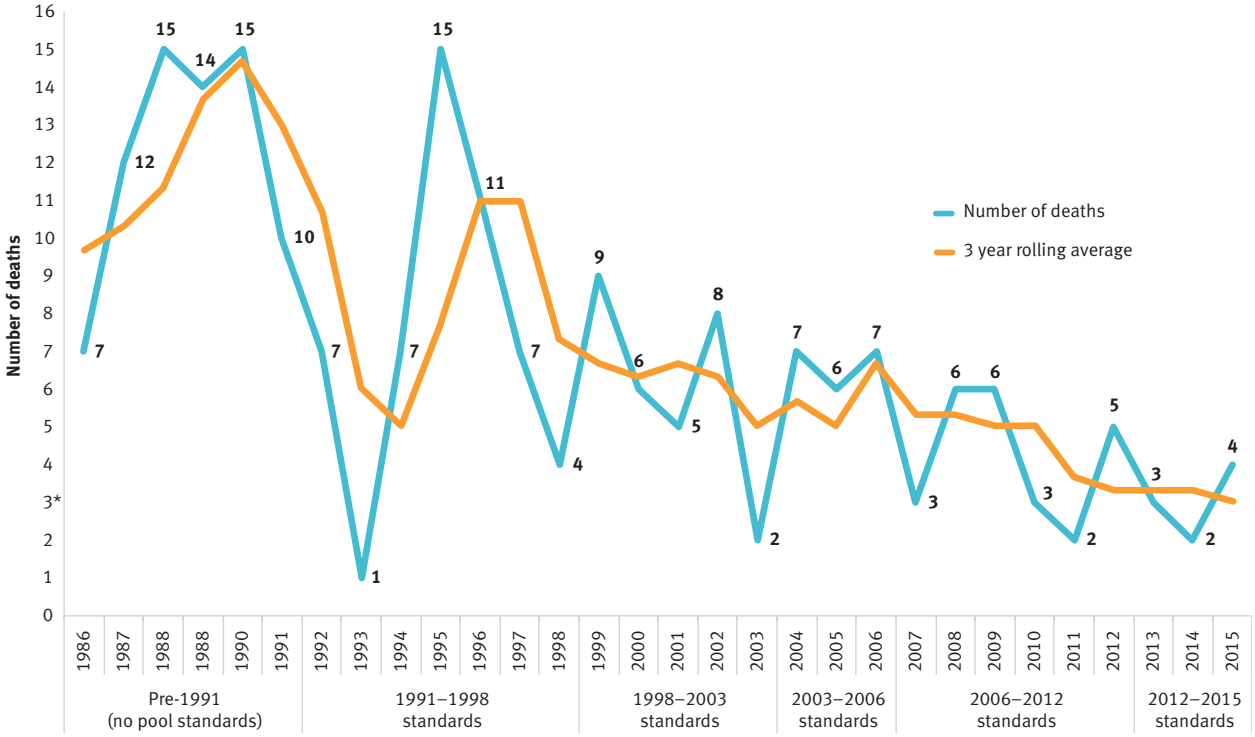
Private swimming pools

Children under the age of 5 are most at risk of drowning. Compliant swimming pool fencing is a key contributor in reducing the risk of drowning for this age group but should not be over-relied upon, as other factors are also important. These include active supervision and water safety education. The effectiveness of swimming pool fencing is dependent upon fencing and gates being compliant with the regulation, in good working order and used correctly (such as not propping open a pool gate). However, pool fence defects were not responsible for any drowning deaths in 2015 — 16.

Figure 4.1 tracks the number of drowning deaths of children aged under 5 in Queensland private pools over time against changes to fencing requirements. A number changes in pool fencing standards have occurred—from no standards in place prior to 1991, to requirements for new pools to have fencing, later extended to existing pools, changes in requirements such as fence height, and more recently compliance requirements for registration and inspections.

The average annual number of drowning deaths fluctuated in the period to 1995, before gradually declining over the last two decades (1996 — 2015). Prior to 1991, the three-year annual average number of drownings for children aged under 5, ranged between 9.7 and 14.7. Whereas the average was 5.0 by 2009, falling to 3.0 by 2015. Data presented in Figure 4.1 are by calendar year by date of death, and will therefore be different from those published in the rest of this report.

Figure 4.1: Drowning deaths of children 0–4 years in Queensland private pools by applicable pool standard 1986 — 2015



Data sources: Queensland Injury Surveillance Unit 2008, *Injury Bulletin: Domestic pool immersion in Queensland children under five years of age.* No.104; Queensland Child Death Register (2004 — 15)

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

Pool fencing laws

Pool fencing laws introduced in November 2015 have increased the obligation on pool owners to enhance the safety of pool areas. These changes include:

- compliant fencing is required for all pools and spas—including portable pools and spas capable of being filled with 300 millimetres or more of water
- the latest CPR sign must be displayed and be easily visible to people in or near the pool
- all pools must be registered on the pools safety register
- mandatory inspections of pools by local governments for all immersion incidents involving children under the age of 5.

Supervision

In 2015 — 16, there were 5 drowning deaths of children aged under five, who were known to be in, on, or around water. A child is known to be in, on or around water when the child is known by carers to be actively swimming, paddling, wading, playing, bathing in water or on a watercraft, or the carers are aware of the existence of a nearby water hazard, and a reasonable person could foresee that the child could quickly or easily gain access to it (i.e. no barrier or a defective barrier). An example includes where a carer leaves the child playing in the backyard but has propped open the pool gate. A combination of factors, including ineffective barriers to water hazards, proximity of the supervisor and continuity of supervision were identified as being relevant to these deaths.

Lapses in supervision of young children in or near water hazards has been found to be a factor in drowning deaths of young children. The key elements of supervision are the:

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

When a child is not known to be in, on or around water, it is still important to provide a level of supervision to ensure that the child is protected from all hazards. Young children are unable to appropriately identify and negotiate risks, yet can be highly mobile. Reliance only on pool fences and gates to prevent drowning is not recommended, as breakdowns in protections can occur, such as pool gates being propped open or becoming non-compliant due to wear and tear. Accordingly, it is essential that children aged under 5 years are regularly checked on by an active supervisor and that there are other protections to reduce the risk of drowning (or access to other hazards) should there be a lapse in supervision.

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

The role of safe play areas in reducing rural drownings

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

None of the drownings in 2015 — 16 were associated with rural water hazards. However there have been 27 deaths of children aged 0–17 in rural water hazards since 2004.

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