

RESEARCH & POLICY SUMMARY:

REDUCING DROWNING DEATHS IN CHILDREN AGED 0-14



EVERYONE CAN BE A LIFESAVER



Royal Life Saving

ROYAL LIFE SAVING SOCIETY - AUSTRALIA

CHILDREN 0-4 YEARS

407 TOTAL DROWNING DEATHS (2002/03-2014/15)

CHILDREN 5-14 YEARS

171 TOTAL DROWNING DEATHS (2002/03-2014/15)

GENDER



LOCATION



15% BATHTUB/SPA BATH
13% OTHER
10% LAKE/DAM/LAGOON
10% RIVER/CREEK/STREAM



22% SWIMMING POOL
18% LAKE/DAM/LAGOON
11% BEACH
8% OTHER
6% BATHTUB/SPA BATH

ACTIVITY



15% BATHING
4% SWIMMING & RECREATING
3% OTHER



25% FALLS
11% NON-AQUATIC TRANSPORT
11% OTHER
9% WATERCRAFT
6% BATHING

FACTORS & STRATEGIES

CHILDREN 0-4 YEARS

CAUSAL FACTORS

- Intermittent or entirely absent active adult supervision
- Pool gates propped open
- Faults with barriers (fences, gates)
- Natural attraction to water
- Unaware of consequences of actions
- Little to no swimming ability
- Lack of knowledge of resuscitation (CPR)

PREVENTION STRATEGIES

- Active adult supervision
- Adequate and well maintained pool fences and gates
- Water familiarisation
- Resuscitation (CPR)

CHILDREN 5-14 YEARS

CAUSAL FACTORS

- Lack of adult supervision
- Influence of peers
- New or unfamiliar aquatic locations
- Diverse range of activities prior to drowning

PREVENTION STRATEGIES

- Basic swimming skills and water safety knowledge
- Swim with a friend
- Regular adult supervision
- Resuscitation (CPR)

Background

Drowning is a leading cause of preventable death in children worldwide^{1,2}, with children under five having the highest drowning rates³. In Australia, just over half of all child drowning deaths occur in this age group⁴. However, a large proportion also occur in children aged 5-14 years and the Australian Water Safety Strategy has identified the 0-14 years age group as a key life stage where reductions in drowning are required⁵.

Previous research has identified risk factors related to drowning in different aquatic environments. For example, drowning deaths in swimming pools were related to a lack of supervision, faults with barriers, such as fences and gates and the behaviour of children, while the main factor related to bathtub drowning deaths was a lack of supervision, whether the child was left alone or with another child in the bath⁶. Drowning prevention strategies such as water safety education, swimming lessons, awareness campaigns and pool fencing have been evaluated, with no one strategy effective in preventing all drowning deaths in children¹.

Drowning circumstances vary with age, with risks emerging and changing as children grow and develop over time. Infants less than one year of age are generally unable to gain access to water independently, compared to older children who are more active and able to wander away from carers³. Although water is more readily accessible to older children, they have not yet gained an appreciation of the danger of drowning or developed the ability to avoid hazards³.

This report presents overall statistics for children aged 0-14 years, followed by a breakdown by age to examine the differences between drowning in children 0-4 years and 5-14 years.

Methods

Information for this report has been collected from the Australian National Coronial Information System (NCIS), State and Territory Coronial Offices and media reports. Royal Life Saving uses a media monitoring service (electronic and print media) throughout the year to identify all drowning cases reported in the media. This information is then corroborated with data from the NCIS, police and Royal Life Saving State and Territory Member Organisations before being included in this report. Analysis has been conducted for all cases of drowning in children aged 0-14 years.

The data was collated into the Royal Life Saving National Fatal Drowning Database. All deaths resulting from drowning or immersion-related incidences have been included. Exclusions from this data include: suicide, homicide, deaths from natural causes, shark or crocodile attack and hypothermia.

All care was taken to ensure that the information is as accurate as possible. Please note that the figures from more recent financial years may change depending upon the outcomes of ongoing coronial investigations. Data correct as of 17th August 2015. As of this date, 82% of cases analysed were closed (i.e. no longer under coronial investigation).

References

- ¹ Wallis B, Watt K, Franklin R, et al. Interventions associated with drowning prevention in children and adolescents: systematic literature review. *Inj Prev* 2015;21(3):195-204.
- ² World Health Organization. *Global Report on Drowning: Preventing a Leading Killer* Geneva: World Health Organisation, 2014.
- ³ World Health Organisation. *World Report on Child Injury Prevention*. In: Peden M, Oyegbite K, Ozanne-Smith J, et al., eds. Geneva: World Health Organisation, 2008.
- ⁴ Queiroga AC, Peden A. *A 10 Year Analysis of Drowning in Children and Adolescents aged 5-19 years in Australia: The Forgotten 50%*. Sydney: Royal Life Saving Society - Australia, 2013.
- ⁵ Council AWS. *Australian Water Safety Strategy 2016-2020*, 2015.
- ⁶ Williamson A, Irvine P, Sadural S. *Analysis of drownings involving children aged five years and under in NSW*. Sydney: NSW Injury Risk Management Research Centre, 2002:34.

Swim and Survive

Swim and Survive is a comprehensive swimming and water safety initiative of Royal Life Saving that seeks to increase the swimming and water safety skills of all Australian children in order to prevent drowning and increase participation in safe aquatic activity.

Wonder, Courage and Active have been chosen as the Swim and Survive program titles to reflect the hopes and aspirations of children and families as they embark on a lifetime of fun and safety in the water. Each program is structured into skill strands that ensure a balanced, comprehensive, instructional approach to a child's aquatic education.

- **Wonder** – a water familiarisation program for parents and their children aged 6 to 36 months
- **Courage** - a program that builds water confidence for preschool aged children between the ages of 3-5 years
- **Active** - a swimming and water safety program for school aged children between the ages of 5-14 years

Swim and Survive is delivered in pools, schools and other aquatic locations across the country by qualified swimming and water safety instructors.

For more information visit www.swimandsurvive.com.au

Results

Overall

There have been 578 drowning deaths of children aged 0-14 years in Australia between 1 July 2002 and 30 June 2015 (a period of 13 financial years). Males accounted for 65% of drowning deaths in this age group.

NSW recorded the highest number of drowning deaths in this age group (178), followed by Queensland (176). Almost half of all deaths took place in major cities (43%), with a further 26% occurring in inner regional locations. The majority of these victims (87%) were not visitors to the location where they drowned.

Most children drowned in swimming pools (44%), followed by rivers, creeks and streams (17%) and bathtubs and spa baths (13%). The majority of deaths occurred after a fall into water (62%), while swimming and recreating (14%) or bathing (12%).

The most common season for drowning deaths to occur in was Summer (43%), followed by Spring (26%), Autumn (17%) and Winter (14%). The days with the highest proportion of deaths were Sunday (20%) and Saturday (19%).

Children aged 0-4 years

There were 407 deaths among children aged 0-4 years during this period, with most fatalities occurring in males (63%).

Swimming pools accounted for more than half of deaths (53%) in this age group, with bathtubs and spa baths the second most common location (15%). Most incidents occurred following a fall into water (78%) or bathing (15%). Of those drowning deaths which occurred after a fall, most fell into swimming pools (64%).

Most drowning deaths occurred in Summer (41%) and Spring (28%). The day with the highest proportion of deaths was Sunday (18%), followed by Saturday (16%).

Children aged 5-14 years

There were 171 deaths among children aged 5-14 years during this period, with males accounting for 70% of these cases.

In contrast to younger children, rivers, creeks and streams accounted for the largest proportion of fatalities in older children (35%), with swimming pools the second most common location (22%). Bathtubs and spa baths did not feature prominently in this age group, accounting for only 6% of deaths.

The most common activity prior to drowning was swimming and recreating (38%), followed by a fall into water (25%). Of those who were swimming and recreating, over a third were doing so in swimming pools (37%), while those who fell were most likely to fall into lakes, dams and lagoons (36%).

Half of all drowning deaths occurred in Summer (50%), with a further 20% taking place in Spring. The days with the highest proportion of deaths in this age group were Saturday (25%) and Sunday (24%).

407

DEATHS AMONG CHILDREN
AGED 0-4 YEARS BETWEEN
1 JULY 2002 AND 30 JUNE 2015

171

DEATHS AMONG CHILDREN
AGED 5-14 YEARS BETWEEN
1 JULY 2002 AND 30 JUNE 2015



Discussion

Children aged 0-4 years most commonly drown in swimming pools. The majority of deaths in this group resulted from falls into water, most commonly into pools, highlighting the need for barriers between children and water.

New South Wales and Queensland have joined Western Australia and Northern Territory in strengthening pool fencing legislation and compliance programs in order to reduce the number of deaths in domestic swimming pools. Correctly installed and well maintained pool fences and gates reduce the risk of children gaining access to swimming pools unaccompanied.

Most drowning deaths in children aged 5-14 years occurred in rivers, creeks and streams, with swimming the most common activity prior to drowning. Older children should have basic swimming and water safety skills. As they progress through high school they will spend more time with peers and visit new aquatic environments.

They will need to keep themselves and their friends safe at a time when peer pressure is being introduced. Children are better equipped to manage these situations if they have the necessary swimming and water safety skills.

Basic swimming and water safety education should be available to all Australian children. Children from Culturally and Linguistically Diverse (CALD) communities may miss out on swimming lessons so ensuring they have access to basic lessons should be a priority.

Recommendations

1. Promote swimming and water safety education for all Australian children, particularly for those who might otherwise not receive this opportunity
2. Support the Keep Watch program, ensuring all parents are aware of the importance of active supervision and barriers between children and water
3. Investigate opportunities for benchmarking children's survival swimming skills at a national level
4. Encourage governments to strengthen pool fencing legislation, including measures of compliance at a state and local level
5. Promote community life saving and resuscitation skills, particularly among parents, teachers and pool owners

Keep Watch

The Keep Watch program is Australia's most comprehensive drowning prevention and water safety program for parents and carers of children under five. For over 20 years, the Keep Watch program has been educating Australian parents and carers on how to keep their children safe when in, on or around the water across locations such as the swimming pool, the bathtub, on farms and at public pools.

The program has four key drowning prevention actions. These should not be used individually but together to maximise child safety. If one line of defence fails, the other prevention measures will be actively working to prevent your child from drowning.

The four key actions are:

- Supervise
- Restrict Access
- Water Awareness
- Resuscitation

More information visit www.keepwatch.com.au

