276 PEOPLE DROWNED IN AUSTRALIAN WATERWAYS
As we present the National Drowning Report for 2019, we remain ever mindful of the fact that the stories in this report are of real people whose lives have been lost or impacted for life through drowning, including the many families affected by the loss or long-term injury of a loved one.

This report highlights our research and analysis of fatal and non-fatal drowning across Australia between 1st July 2018 and 30th June 2019. During this time, 276 people lost their lives to drowning and we estimate a further 584 people experienced a non-fatal drowning incident.

This year’s findings show that:

- The total number of drowning deaths over the past year increased by 10% on the previous year;
- The hottest summer on record led to a 17% increase in summer drowning deaths when compared with the 10-year average;
- Rivers accounted for 29% of all drowning deaths, more than any other location;
- There was a 39% increase in multiple fatality events, that is multiple people drowning in one incident, compared with the 10-year average;
- People aged 45 to 55 years accounted for 15% of the total number of drowning deaths, the most of any age group.

This report also shows that drowning deaths in children aged 0-4 years decreased by 30% when compared with the 10-year average, and that children aged 5-14 years remain the lowest age group for drowning (3% of all drowning deaths).

Consistently low numbers of drowning deaths in children in recent years are encouraging, showing that our Keep Watch messages, which highlight the importance of active supervision, physical barriers to water and water familiarisation, are hitting home and helping to keep children safe.

Our work at Royal Life Saving continues to focus on understanding the impact of both fatal and non-fatal drowning. Through this work, we aim to educate, inform and advocate best practice, working with partners and policy makers, to develop robust national drowning prevention and water safety strategies.

AT-RISK COMMUNITIES AND GROUPS

In reviewing our findings, we can see that certain communities and demographic groups continue to be at a higher risk of drowning. In this report, we take an in-depth look at these high-risk groups to better understand the risk factors and how they might be addressed in future drowning prevention programs, campaigns, partnerships and research.

For example, those from multicultural, Aboriginal and Torres Strait Islander and low socioeconomic backgrounds, as well as those living in remote areas, remain at greater risk of drowning. We know that the cost of swimming lessons and water safety education, access to appropriate local aquatic facilities and cultural differences are often barriers to learning these lifesaving skills in many of these communities.

We are working hard with the support of the Australian Government and corporate partners to reach out to these communities by providing comprehensive swimming and water safety education programs across the country.

In addition, men aged 25 to 34, and older Australians over the age of 65, are at greater risk of drowning. In the case of men, alcohol and drugs while recreating around water remain a concern and the central focus of many of our campaigns. For older Australians, we’ve been working to highlight the part played by pre-existing medical conditions and multi-drug interactions in drowning incidents in this group.

PARTNERSHIPS AND COLLABORATIONS

The findings and analysis in this report are based on data collected over the past 17 years in the Royal Life Saving National Fatal Drowning Database. In addition, we work with Federal, State and Local Governments, coroners, institutions and other industry bodies to inform the development of future drowning prevention policies.

As always, this report serves as an important reminder that drowning can affect everyone. Our job at Royal Life Saving is to ensure that all Australians can continue to enjoy our beautiful rivers, beaches, and community and backyard swimming pools, while staying safe and mindful of the risks.

As we approach 2020, we will therefore be working with our partners on the Australian Water Safety Council to develop the next Australian Water Safety Strategy for the coming years, helping this vision come to fruition.

JUSTIN SCARR
Chief Executive Officer
Royal Life Saving Society – Australia
NATIONAL DROWNING REPORT 2019

276 people drowned in Australia waterways

1st July 2018 - 30th June 2019

Sex
81% Male
19% Female

Top 3 age groups
13% 18-24 years
15% 25-34 years
13% 45-54 years

Top 3 locations
26% Beach
11% Swimming pool
29% River, creek, stream

Top 3 activities
13% Fall
11% Boating
29% Swimming & recreating

Season
45% Summer
21% Autumn
21% Winter
13% Spring

Visitor status
70% Not a visitor
5% Visitor - interstate
6% Visitor - overseas
15% Visitor - intrastate

State and Territory breakdown

<table>
<thead>
<tr>
<th>State</th>
<th>Drowned People</th>
</tr>
</thead>
<tbody>
<tr>
<td>WA</td>
<td>32</td>
</tr>
<tr>
<td>NT</td>
<td>6</td>
</tr>
<tr>
<td>QLD</td>
<td>64</td>
</tr>
<tr>
<td>SA</td>
<td>14</td>
</tr>
<tr>
<td>NSW</td>
<td>56</td>
</tr>
<tr>
<td>ACT</td>
<td>2</td>
</tr>
<tr>
<td>TAS</td>
<td>4</td>
</tr>
<tr>
<td>QLD</td>
<td>64</td>
</tr>
<tr>
<td>NSW</td>
<td>98</td>
</tr>
<tr>
<td>ACT</td>
<td>2</td>
</tr>
<tr>
<td>TAS</td>
<td>4</td>
</tr>
<tr>
<td>VIC</td>
<td>56</td>
</tr>
</tbody>
</table>

Remoteness of drowning location

<table>
<thead>
<tr>
<th>Remote Type</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Major cities</td>
<td>24%</td>
</tr>
<tr>
<td>Inner regional</td>
<td>20%</td>
</tr>
<tr>
<td>Outer regional</td>
<td>6%</td>
</tr>
<tr>
<td>Remote</td>
<td>5%</td>
</tr>
<tr>
<td>Very remote</td>
<td>5%</td>
</tr>
</tbody>
</table>
## Overview

Based on statistical modelling of the relationship between numbers of fatal and non-fatal incidents for each age group between 2002/03 and 2014/15, we estimate that there were 584 non-fatal drowning incidents resulting in a hospitalisation in 2018/19, assuming that the historical ratios between the number of fatal and non-fatal incidents held constant.

When fatal and non-fatal drowning incidents are combined, a total of 860 drowning incidents occurred in Australia, representing a crude drowning rate of 3.42 drowning incidents per 100,000 population.

### Unintentional drowning deaths and death rates from 2008/09 to 2018/19 and the 10-year average

<table>
<thead>
<tr>
<th>Year</th>
<th>Crude rate</th>
<th>Number of drowning deaths</th>
<th>10-year average crude rate</th>
<th>10-year average drowning deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>4.48</td>
<td>671</td>
<td>4.79</td>
<td>651</td>
</tr>
<tr>
<td>2009/10</td>
<td>4.79</td>
<td>752</td>
<td>4.37</td>
<td>733</td>
</tr>
<tr>
<td>2010/11</td>
<td>4.69</td>
<td>703</td>
<td>4.37</td>
<td>680</td>
</tr>
<tr>
<td>2011/12</td>
<td>4.63</td>
<td>726</td>
<td>4.37</td>
<td>696</td>
</tr>
<tr>
<td>2012/13</td>
<td>4.54</td>
<td>822</td>
<td>4.37</td>
<td>804</td>
</tr>
<tr>
<td>2013/14</td>
<td>3.82</td>
<td>645</td>
<td>4.37</td>
<td>623</td>
</tr>
<tr>
<td>2014/15</td>
<td>4.03</td>
<td>703</td>
<td>4.37</td>
<td>684</td>
</tr>
<tr>
<td>2015/16</td>
<td>3.20</td>
<td>543</td>
<td>4.37</td>
<td>524</td>
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<tr>
<td>2016/17</td>
<td>3.42</td>
<td>584</td>
<td>4.37</td>
<td>565</td>
</tr>
<tr>
<td>2017/18</td>
<td>4.53</td>
<td>712</td>
<td>4.37</td>
<td>693</td>
</tr>
<tr>
<td>2018/19</td>
<td>3.82</td>
<td>726</td>
<td>4.37</td>
<td>704</td>
</tr>
</tbody>
</table>

### Comparison of fatal and non-fatal incidents and crude rate of drowning incidents from 2008/09 to 2018/19 and the 10-year average

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatal</th>
<th>Non-fatal</th>
<th>Total drowning incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>2008/09</td>
<td>19</td>
<td>671</td>
<td>690</td>
</tr>
<tr>
<td>2009/10</td>
<td>6</td>
<td>752</td>
<td>814</td>
</tr>
<tr>
<td>2010/11</td>
<td>2</td>
<td>703</td>
<td>725</td>
</tr>
<tr>
<td>2011/12</td>
<td>8</td>
<td>726</td>
<td>834</td>
</tr>
<tr>
<td>2012/13</td>
<td>5</td>
<td>822</td>
<td>874</td>
</tr>
<tr>
<td>2013/14</td>
<td>5</td>
<td>645</td>
<td>700</td>
</tr>
<tr>
<td>2014/15</td>
<td>8</td>
<td>703</td>
<td>791</td>
</tr>
<tr>
<td>2015/16</td>
<td>5</td>
<td>543</td>
<td>604</td>
</tr>
<tr>
<td>2016/17</td>
<td>3</td>
<td>584</td>
<td>617</td>
</tr>
<tr>
<td>2017/18</td>
<td>2</td>
<td>712</td>
<td>734</td>
</tr>
<tr>
<td>2018/19</td>
<td>4</td>
<td>726</td>
<td>780</td>
</tr>
</tbody>
</table>

### WHO DROWNS?

#### Overview

- **81% of drowning deaths were male**
- **45-54 years age group recorded the largest number of drowning deaths**
- **30% reduction in 0-4 years age group compared with the 10-year average**

#### Drowning deaths by age group in 2018/19 compared with the 10-year average

<table>
<thead>
<tr>
<th>Age Group</th>
<th>Drowning Deaths</th>
<th>10-Year Average Drowning Deaths</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-4 years</td>
<td>19</td>
<td>27</td>
</tr>
<tr>
<td>5-9 years</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>10-14 years</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>15-17 years</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>18-24 years</td>
<td>28</td>
<td>37</td>
</tr>
<tr>
<td>25-34 years</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>35-44 years</td>
<td>31</td>
<td>38</td>
</tr>
<tr>
<td>45-54 years</td>
<td>37</td>
<td>41</td>
</tr>
<tr>
<td>55-64 years</td>
<td>35</td>
<td>36</td>
</tr>
<tr>
<td>65-74 years</td>
<td>33</td>
<td>36</td>
</tr>
<tr>
<td>75+ years</td>
<td>27</td>
<td>29</td>
</tr>
</tbody>
</table>

Drowning deaths have decreased in the 0-4 years age group by 30% compared to the 10-year average.
Accidental falls into water remain the leading activity prior to drowning among this age group, accounting for 84% of all deaths. Falls decreased by 24% when compared with the 10-year average.

Swimming and recreating was the leading activity immediately prior to drowning, accounting for 50% of all deaths in this age group. Swimming and recreating decreased by 20% against the 10-year average.

68% of all drowning deaths in this age group were males.

75% of all drowning deaths in this age group were males.
Drowning deaths of young people aged 15-24 years from 2008/09 to 2018/19 and the 10-year average

89% of all drowning deaths in this age group were males.

84 young people aged 15-24 years drowned in Australia in 2018/19


YOUNG PEOPLE AGED 15-24 YEARS

Drowning deaths of males aged 25-64 years from 2008/09 to 2018/19 and the 10-year average

118 males aged 25-64 years drowned in Australia in 2018/19


MALES AGED 25-64 YEARS

Drowning deaths of young people aged 15-24 years by location in 2018/19 compared with the 10-year average

Drowning deaths of males aged 25-64 years by location in 2018/19 compared with the 10-year average

Drowning deaths of young people aged 15-24 years by activity in 2018/19 compared with the 10-year average

Drowning deaths of males aged 25-64 years by activity in 2018/19 compared with the 10-year average

Swimming and recreating was the leading activity immediately prior to drowning. When compared with the 10-year average, drowning deaths as a result of swimming and recreating increased by 38% in 2018/19, whereas boating and diving decreased.

Swimming and recreating was the leading activity immediately prior to drowning. When compared with the 10-year average, drowning deaths due to swimming and recreating and non-aquatic incidents increased, whereas boating and diving decreased.
Swimming and recreating was the leading activity immediately prior to drowning, accounting for 27% of all deaths in this age group. Drowning deaths due to swimming and recreating increased by 33% against the 10-year average.

PEOPLE AGED 65 YEARS AND OVER

60 people aged 65 years and over drowned in Australia in 2018/19

78% of all drowning deaths in this age group were males

Drowning deaths of people aged 65 years and over from 2008/09 to 2018/19 and the 10-year average

This is an 18% increase on 2017/18

and a 2% reduction on the 10-year average

Drowning deaths of people aged 65 years and over by location in 2018/19 compared with the 10-year average

Drowning deaths of people aged 65 years and over by activity in 2018/19 compared with the 10-year average

This is an 18% increase on 2017/18

and a 2% reduction on the 10-year average

Drowning deaths of people aged 65 years and over by location in 2018/19 compared with the 10-year average

Drowning deaths of people aged 65 years and over by activity in 2018/19 compared with the 10-year average

Swimming and recreating was the leading activity immediately prior to drowning, accounting for 27% of all deaths in this age group. Drowning deaths due to swimming and recreating increased by 33% against the 10-year average.

Drowning deaths of people aged 65 years and over by location in 2018/19 compared with the 10-year average

Drowning deaths of people aged 65 years and over by activity in 2018/19 compared with the 10-year average
SUMMER DROWNING DEATHS

Of the total drowning deaths in 2018/19, 45% occurred in summer. Over half (54%) of all beach drowning deaths in 2018/19 occurred in summer, 2.6 times more than the next closest season (spring 21%).

30% of all people who drowned during summer in 2018/19, were a visitor to their drowning location. Half (50%) of all drowning deaths of overseas tourists occurred in summer.

Royal Life Saving research has reported an increased risk for drowning during public holidays and school holidays. During the summer there are three national public holiday days (Christmas Day, Boxing Day and Australia Day), as well as individual State/Territory public holiday and school holiday periods.

**IN FOCUS**

**SUMMER DROWNING DEATHS**

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**WHEN DO DROWNING DEATHS OCCUR?**

- **Time of the day**
  - Almost half (44%) of all drowning deaths in 2018/19 took place in the afternoon.
  - 54% in the afternoon (12:01pm to 6pm)
  - 21% in the early morning (12:01am to 6am)
  - 8% in the evening (6:01pm to 12am)
  - 2% in the morning (6.01am to 12pm)
  - 17% unknown

- **Location**
  - River/creek/stream: 123
  - Beach: 54
  - Swimming pool: 38
  - Swimming & recreating: 11
  - Fall: 11
  - Boating: 85

- **Day of the week**
  - Sunday continues to be the most common day of the week for fatal drowning, accounting for 19% of all deaths.

**Drowning deaths in summer from 2008/09 to 2018/19 and the 10-year average**

- 2008/09: 105
- 2009/10: 122
- 2010/11: 119
- 2011/12: 90
- 2012/13: 105
- 2013/14: 95
- 2014/15: 85
- 2015/16: 111
- 2016/17: 103
- 2017/18: 123
- 2018/19: 105

**10-year average**

- 123 drowning deaths occurred in summer

**Gender**

- 85% Male
- 15% Female

**Age group**

- 0-4: 6
- 5-9: 3
- 10-14: 1
- 15-17: 3
- 18-24: 23
- 25-34: 20
- 35-44: 13
- 45-54: 21
- 55-64: 10
- 65-74: 13
- 75+: 10

**Drowning deaths in summer by age group in 2018/19**

**Month**

- By month, fatal drowning peaked in January with 48 deaths, followed by December with 46 drowning deaths.
WHERE AND HOW DO DROWNING DEATHS OCCUR?

Location

- Beach: 71
- Swimming pool: 31
- Ocean/harbour: 23
- Rocks: 22
- Other: 10
- River/creek/stream: 80
- Bathtub/spa bath: 18

Activity

- Swimming & recreating: 80
- Boating: 29
- Fishing: 3
- Jumped in: 6
- Swept away/in: 6
- Rescue: 9
- Rock fishing: 5
- Diving: 16
- Non-aquatic transport: 27
- Watercraft: 19
- Bathing: 19

Remoteness

The largest proportion of drowning incidents occurred in areas classified as major cities (45%), with a decreasing number of incidents occurring as remoteness increased.

Visitor status

- Not a visitor: 192
- Visitor – intrastate: 42
- Visitor – interstate: 16
- Visitor – overseas: 13
- Unknown: 13

Most of those who drowned in 2018/19 (70%) were not visitors, that is, they drowned within 100km of where they lived.

In 71 cases (26%) the person who drowned was known to be a visitor to the location where they drowned. Visitors were commonly male (92%) and most commonly aged 18-24 years (18%).

Of those who were known to be visitors, 42 people drowned within their own State or Territory in a postcode that was 100km or further from their residential postcode.

A further 13 people were visiting a different State or Territory when they drowned.

This year, 16 people who drowned were overseas tourists, predominantly from Asia, Europe and North America.

Beaches recorded a 42% increase in drowning deaths against the 10-year average, while ocean/harbour locations and swimming pools recorded a 50% and 23% decrease, respectively, against the 10-year average.

Rivers, creeks and streams continue to be the location with the largest number of drowning deaths, accounting for 29% of all drowning deaths in 2018/19.

Drowning deaths among overseas tourists by region of origin in 2018/19

Location

- Major cities: 52
- Inner regional: 9
- Outer regional: 6
- Remote: 18
- Very remote: 11

Activity

- Swimming & recreating: 47
- Diving: 4
- Non-aquatic transport: 12
- Swimming & recreating: 11
- Swimming & recreating: 5
- Swimming & recreating: 12
- Fall: 30
- Fall: 47
- Fall: 3
- Fall: 12
DROWNING DEATHS BY KEY LOCATIONS

River/creek/stream

80 drowning deaths occurred in river/creek/stream locations in 2018/19.

5% increase on the 10-year average.

Sex/Age

- 85% Male
- 15% Female
- 15 18-24 years
- 20 Non-aquatic transport
- 15 Unknown
- 8 Fall

Activity

- 19 Swimming & recreating
- 20 Boating
- 8 Watercraft
- 8 Diving
- 2 Fall Boating

Drowning deaths at beaches from 2008/09 to 2018/19

- 71 drowning deaths occurred at beaches in 2018/19.

42% increase on the 10-year average.

Swimming pool

31 drowning deaths occurred in swimming pools in 2018/19.

23% reduction on the 10-year average.

Sex/Age

- 74% Male
- 26% Female
- 12 0-4 years
- 15 Fall
- 9 Swimming & recreating
- 2 Boating
- 1 Falling

Activity

- 15 Boating
- 1 Watercraft
- 2 Fall Boating
- 9 Swimming & recreating
- 4 Diving
- 1 Fall

Ocean/harbour

23 drowning deaths occurred in ocean/harbour locations in 2018/19.

45% reduction on the 10-year average.

Sex/Age

- 96% Male
- 4% Female
- 12 25-34 years
- 7 65-74 years
- 4 45-54 years

Activity

- 15 Boating
- 1 Watercraft
- 2 Fall Boating
- 9 Swimming & recreating
- 4 Diving
- 1 Rescue

Drowning deaths in river/creek/stream locations from 2008/09 to 2018/19

- 79 drowning deaths occurred in river/creek/stream locations in 2008/09.

23% reduction on the 10-year average.

Drowning deaths in swimming pools from 2008/09 to 2018/19

- 26 drowning deaths occurred in swimming pools in 2008/09.

45% reduction on the 10-year average.

Drowning deaths in ocean/harbour locations from 2008/09 to 2018/19

- 23 drowning deaths occurred in ocean/harbour locations in 2008/09.

45% reduction on the 10-year average.

Drowning deaths at beaches from 2008/09 to 2018/19

- 71 drowning deaths occurred at beaches in 2008/09.

23% reduction on the 10-year average.

Swimming pool

- 49 drowning deaths occurred in swimming pools in 2008/09.

31% reduction on the 10-year average.

Drowning deaths in swimming pools from 2008/09 to 2018/19

- 31 drowning deaths occurred in swimming pools in 2018/19.

71% reduction on the 10-year average.

Drowning deaths in ocean/harbour locations from 2008/09 to 2018/19

- 31 drowning deaths occurred in ocean/harbour locations in 2008/09.

80% reduction on the 10-year average.

Swimming pool

- 67 drowning deaths occurred in swimming pools in 2008/09.

57% reduction on the 10-year average.

Drowning deaths in ocean/harbour locations from 2008/09 to 2018/19

- 56 drowning deaths occurred in ocean/harbour locations in 2008/09.

26% reduction on the 10-year average.

Drowning deaths at beaches from 2008/09 to 2018/19

- 49 drowning deaths occurred at beaches in 2008/09.

71% reduction on the 10-year average.

Swimming pool

- 57 drowning deaths occurred in swimming pools in 2008/09.

36% reduction on the 10-year average.

Drowning deaths in swimming pools from 2008/09 to 2018/19

- 43 drowning deaths occurred in swimming pools in 2018/19.

53% reduction on the 10-year average.

Drowning deaths in ocean/harbour locations from 2008/09 to 2018/19

- 56 drowning deaths occurred in ocean/harbour locations in 2008/09.

26% reduction on the 10-year average.
**IN FOCUS**

**NON-AQUATIC TRANSPORT INCIDENTS**

In 2018/19, non-aquatic transport accounted for 10% of all deaths. It was the fourth leading activity immediately prior to drowning.

- **27** drowning deaths occurred due to non-aquatic transport
- **35%** increase on the 10-year average

**Location**

- 20 River/creek/stream
- 5 Lake/dam/lagoon
- 2 Other

**Visitor status**

- 19 Not a visitor
- 7 Visitor – interstate
- 7 Visitor – intrastate

**Age**

- 7 18-24 years
- 7 45-54 years
- 5 75+ years

**Sex**

- 67% Male
- 33% Female

**IN FOCUS**

**FLOOD-RELATED DROWNING**

In 2018/19, all drowning deaths in known flood-related incidents occurred in Queensland, in a river, creek or stream.

- **7** drowning deaths in flood-related incidents
- **53%** reduction on the 10-year average

**Location**

- 35% Male
- 65% Female

**Location**

- Queensland
- River/creek/stream

**Visitor status**

- 5 Not a visitor
- 2 Visitor – intrastate

**Activity**

- 3 Swimming & recreating
- 2 Fall
- 1 Boating

**Age**

- 3 18-24 years
- 2 5-9 years
- 1 0-4 years
- 1 25-34 years

**Sex**

- 86% Male
- 14% Female
IN FOCUS

MULTIPLE FATALITY EVENTS

39 drowning deaths across 17 multiple fatality events

This is a 39% increase on the 10-year average

Sex

92% Male
8% Female

Location

16 River/ creek/ stream
16 QLD

Visitor status

20 Not a visitor
10 Visitor – intrastate
6 Visitor – overseas

Activity

14 Swimming & recreating
8 Non-aquatic transport
6 Boating

Age

6 25-34 years
5 45-54 years
10 18-24 years
7 Beach

Drowning deaths related to multiple fatality events from 2008/09 to 2018/19 and the 10-year average

92% Male
8% Female

Visitor status

20 Not a visitor
10 Visitor – intrastate
6 Visitor – overseas

Activity

14 Swimming & recreating
8 Non-aquatic transport
6 Boating

Age

6 25-34 years
5 45-54 years
10 18-24 years
7 Beach

Location

16 River/ creek/ stream
16 QLD

Drowning deaths related to multiple fatality events from 2008/09 to 2018/19 and the 10-year average
In 2018/19, the most common pre-existing medical conditions among those who drowned were cardiac conditions (such as ischaemic heart disease and coronary artery atherosclerosis), followed by epilepsy, autism, diabetes and Alzheimer’s disease.

Pre-existing medical conditions commonly occurred among those who drowned at the beach (28% of all drowning deaths with known pre-existing medical conditions) and those who were swimming and recreating prior to drowning (30%).

In 84% of the drowning deaths with known pre-existing medical conditions, the medical condition was deemed to have contributed to the chain of events that led to the drowning incident.

Alcohol was deemed to be a contributory factor in 89% of these cases. The highest BAC recorded among those who drowned in 2018/19 was 0.30%. At the time of publication, alcohol influence was still unknown in 82% of all cases.

At the time of publication, presence of drugs was unknown in 82% of all cases. 29 drowning deaths were known to involve drugs in 2018/19. Illegal commonly MDMA (ecstasy), methylamphetamine and cannabis.

221 Unknown
19 Yes
36 No

226 Unknown
17 Yes
2 No

21 No
24 Yes
5 No

19 drowning deaths were known to involve alcohol in 2018/19
29 drowning deaths were known to involve drugs in 2018/19

Drug type

Legal (i.e., medication)

Illegal commonly MDMA (ecstasy), methylamphetamine and cannabis

21 No
29 Yes

24 Yes

5 No
New South Wales recorded the highest number of drowning deaths with 98, followed by Queensland with 64 drowning deaths. Victoria recorded a 33% increase against the 10-year average of 42 drowning deaths, while all other States recorded a decrease against the 10-year average.

Northern Territory recorded the highest fatal drowning rate at 2.43 per 100,000 population. Australian Capital Territory recorded the lowest fatal drowning rate at 0.48 per 100,000 population.
NEW SOUTH WALES

98 drowning deaths occurred in NSW in 2018/19
This is a 20% increase on 2017/18 and a 1% reduction on the 10-year average

79% of those who drowned in New South Wales were male

Location
River/creek/stream: 28
Beach: 26
Lake/dam/lagoon: 9
Bathtub/spa bath: 3
Rocks: 2

Activity
Swimming & recreating: 30
Rock fishing: 8
Boating: 9
Bathing: 8

Season
Summer: 46
Spring: 20
Autumn: 18
Winter: 14

Age
10-14 years: 14
15-17 years: 17
18-24 years: 14
25-34 years: 10
35-44 years: 11
45-54 years: 12
55-64 years: 11
65-74 years: 5
75+ years: 3

ACT SWIM 4 LIFE PROGRAM 2018-19

The Swim 4 Life holiday program provides access opportunities for ACT children to participate in a variety of aquatic programs regardless of their background or financial situation. Participants come from a variety of backgrounds including Indigenous Australians, non-English speaking families, and new arrivals to Australia. Many children come from low income families who do not have the resources to pay for participation in formal swimming and water safety programs. Children and their families learn essential water safety and survival skills, such as identifying natural dangers and hazards in inland aquatic environments, and resuscitation.

“...My son has learnt survival skills and techniques that will enable him to respond in a number of different scenarios around water. It is incredibly rewarding to witness the development of water safety knowledge and survival skills in all of the children. They grow with confidence, self-awareness, and social skills as well. This is truly a remarkable and unique program.”
— Jackie Rousseau, program coordinator

OUTCOME
Since 2010 OVER 1000 children have participated in the Swim 4 Life program who otherwise may have missed out on basic water safety education.

PROGRAM
Swim 4 Life is the ACT’s only structured river/lake-based water safety program.

10-day program with 50% of sessions delivered onsite at popular local open-water swimming locations.

490 children participated in 2018/19

109 106 103 102 105 92 98 96 97 82 98

Drowning deaths and death rates in New South Wales from 2008/09 to 2018/19 and the 10-year average
**SOUTH AUSTRALIA**

- **14** drowning deaths occurred in SA in 2018/19
- **86%** of those who drowned in South Australia were male

**Location**

- **1 River/creek/stream**
- **1 Ocean/harbour**
- **3 Rocks**
- **9 Beach**

**Age**

- **1 55-64 years**
- **1 75+ years**
- **1 15-17 years**
- **2 18-24 years**
- **2 25-34 years**
- **1 35-44 years**
- **1 45-54 years**
- **1 5-9 years**
- **1 65-74 years**

**Activity**

- **1 Swept away/in Boating**
- **1 Swept away/in Diving**
- **1 Watercraft Rescue**
- **2 Swimming & recreating**

**Season**

- **3 Spring**
- **1 Winter**
- **3 Autumn**
- **1 Summer**

**Crude rate**

- **2008/09**: 1.57
- **2009/10**: 0.75
- **2010/11**: 0.86
- **2011/12**: 0.91
- **2012/13**: 0.91
- **2013/14**: 1.01
- **2014/15**: 0.76
- **2015/16**: 0.88
- **2016/17**: 0.87
- **2017/18**: 0.81
- **2018/19**: 0.84

Drowning deaths and death rates in South Australia from 2008/09 to 2018/19 and the 10-year average

**TASMANIA**

- **4** drowning deaths occurred in TAS in 2018/19
- **75%** of those who drowned in Tasmania were male

**Location**

- **1 Other**
- **2 Beach**
- **1 River/creek/stream**
- **1 Watercraft**

**Age**

- **1 55-64 years**
- **1 75+ years**
- **1 65-74 years**
- **1 75+ years**

**Activity**

- **1 Fishing**
- **1 Watercraft**
- **1 Swimming & recreating**
- **1 Non-aquatic transport**

**Season**

- **1 Summer**
- **1 Winter**
- **1 Autumn**
- **1 Spring**

**Crude rate**

- **2008/09**: 3.01
- **2009/10**: 2.58
- **2010/11**: 2.36
- **2011/12**: 2.93
- **2012/13**: 2.34
- **2013/14**: 1.76
- **2014/15**: 1.75
- **2015/16**: 1.75
- **2016/17**: 2.51
- **2017/18**: 1.91
- **2018/19**: 0.76

Drowning deaths and death rates in Tasmania from 2008/09 to 2018/19 and the 10-year average
**VICTORIA**

- **56** drowning deaths occurred in VIC in 2018/19
- **80%** of those who drowned in Victoria were male

**WESTERN AUSTRALIA**

- **32** drowning deaths occurred in WA in 2018/19
- **81%** of those who drowned in Western Australia were male

---

**Drowning deaths and death rates in Victoria from 2008/09 to 2018/19 and the 10-year average**

- **Crude rate**: 0.72
- **Number of drowning deaths**: 56
- **10-year average crude rate**: 0.75

**Drowning deaths and death rates in Western Australia from 2008/09 to 2018/19 and the 10-year average**

- **Crude rate**: 1.48
- **Number of drowning deaths**: 32
- **10-year average crude rate**: 1.23
Royal Life Saving Society – Australia research aims to understand who, where, how and why fatal and non-fatal drowning occurs so that we can develop appropriate drowning prevention and water safety strategies to keep people safe.

This section focuses on research and drowning data from the past 10 years, which identifies high-risk populations and contributing factors to drowning. This work will inform future drowning prevention policies and ensure appropriate messaging targeted at those most at risk.
OLDER AUSTRALIANS

Drowning data for people aged 65 years and over

- **2018/19**
  - 60 deaths
  - 1.5 deaths per 100,000
- **2017/18**
  - 51 deaths
  - 1.3 deaths per 100,000
- **10-YEAR AVERAGE**
  - 61 deaths
  - 1.9 deaths per 100,000

NON-FATAL DROWNING INCIDENTS

- **2018/19**
  - 57 incidents
- **2017/18**
  - 47 incidents
- **10-YEAR AVERAGE**
  - 55 incidents

SEX

- **2018/19**
  - 78% male
  - 22% female
- **2017/18**
  - 75% male
  - 25% female
- **10-YEAR AVERAGE**
  - 77% male
  - 23% female

Pre-existing medical condition

- **2018/19**
  - 40%* (63%)
- **2017/18**
  - 5%* (14%)
- **10-YEAR AVERAGE**
  - 12%* (29%)

Alcohol

- **2018/19**
  - 5%* (14%)
- **2017/18**
  - 14%* (14%)
- **10-YEAR AVERAGE**
  - 12%* (29%)

Medication

- **2018/19**
  - 29% (29%)
- **2017/18**
  - 29% (29%)
- **10-YEAR AVERAGE**
  - 29% (29%)

*Risk factor data presented for 2018/19 is pending closure of coronial cases and therefore will be underreported above.
OLDER AUSTRALIANS

As with any group, older Australians come from different socioeconomic backgrounds, with varying life experiences and lifestyles. These factors all influence the individual ageing process, and also reflect the risk of drowning for each individual.

Many older Australians have not received or were not exposed to the level of water safety education that most Australians receive today. This highlights the importance of introducing water skills and education for older Australians, as well as promoting the health benefits of recreating safely in aquatic environments.

For the 10-year period, 1st July 2008 to 30th June 2018, the crude drowning death rate for older Australians (1.9 drowning deaths per 100,000 older population) was greater than the national Australian crude drowning rate (1.3 drowning deaths per 100,000 population).

When compared with the national average, older Australians have a higher crude drowning death rate in all locations except for outer regional areas. Older Australians are 13 times more likely to drown if they reside in a very remote location when compared with older people living in major cities. The locations with the largest or most significant differences are remote and very remote locations.

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As people age, changes occur in the way their bodies process medications, and the benefit/risk profile of a medication can change. Chronic medical conditions are more common in ageing populations\(^\text{10}\) which means older people are more likely to be prescribed several medications.\(^\text{10-11}\) Multiple drug interactions can be complex and can increase the incidence of side effects in older individuals,\(^\text{11-12}\) which can increase the risk of drowning in this group.

Drowning data from 2008/09 to 2017/18 suggests that, for unintentional fatal drownings in older people, an estimated 36% were taking some form of medication or drug. Of these, 65% of drownings involved multiple drugs. Of these individuals, 72% involved medication that is a known or conditional risk of propagating drug-induced long QT syndrome and Torsades de Pointes.\(^\text{13-14}\)

Recent international studies have linked unexplained drowning deaths and conditions involving cardiac arrhythmias\(^\text{15-17}\) to unintentional swimming drowning deaths. Torsades de Pointes is an abnormal cardiac rhythm associated with a prolongation of the QT interval. Although in most cases it spontaneously returns to a normal rhythm, Torsades de Pointes and long QT syndrome can lead to sudden cardiac death, along with symptoms of fatigue, syncope and loss of consciousness.\(^\text{15-16, 18-20}\) Long QT syndrome is known to have a congenital cause but medications are also a known risk factor.\(^\text{12-14}\) It is evident that older patients are more susceptible to experiencing drug side effects, especially with prolonged use of medications.\(^\text{10,14}\) Older patients taking psychiatric drugs are at higher risk.\(^\text{14,18}\)

**Health Benefits of Swimming**

Physical activity in the later years of life is essential to promote a healthy ageing process and independent functioning. Swimming has been shown to help prevent or manage many chronic diseases, as well as improving overall physiological and psychological health.

- **Builds** endurance, muscle strength and tone
- **Improves** immune system and decreases inflammation
- **Improves** cardiovascular fitness and health
- **Improves** coordination, balance and posture
- **Improves** respiratory capacity and function
- **Improves** stress, and improves general mental health and wellbeing
- **Keeps** joints flexible
- **Improves** immunity and decreases inflammation
- **Improves** cardiovascular fitness and health
- **Improves** respiratory capacity and function
- **Improves** coordination, balance and posture
- **Improves** cardiovascular fitness and health
- **Improves** stress, and improves general mental health and wellbeing
- **Keeps** joints flexible

**72%** of these involved people taking medication that had a known or conditional risk of propagating drug-induced long QT syndrome and Torsades de Pointes.

**36%** of drowning deaths among older people involved some form of medication or drug. **65%** of these drowning deaths involved multiple medication. **36%** of drowning deaths among older people involved some form of medication or drug. **65%** of these drowning deaths involved multiple medication.

See references.\(^\text{2-9}\)\(^\text{39}\)\(^\text{40}\)
Encourage safe aquatic activity at public aquatic facilities to improve overall physical and mental health and wellbeing among older people.

Review the role of medication in increasing the risk of drowning in older people.

Investigate the potential link between drowning and medication known to propagate long QT syndrome and Torsades de Pointes ventricular tachycardia.

Target drowning prevention interventions and advocacy messaging to older people to highlight the risks of recreating in and around water alone.

Focus drowning prevention interventions and advocacy on the issue of pre-existing medical conditions, and the potential side effects of prescription medication that could increase the risk of drowning.

Use current data to target drowning prevention interventions to people aged 65 years and older in the local areas where they reside, particularly in remote and very remote locations.

Encourage safe aquatic activity at public aquatic facilities to improve overall physical and mental health and wellbeing among older people.

RECOMMENDATIONS
MULTICULTURAL POPULATIONS

Drowning data for people born overseas, visiting or living in Australia

<table>
<thead>
<tr>
<th>Year</th>
<th>Residents (on holiday or visiting friends/relatives in Australia)</th>
<th>Overseas Visitors</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017/18</td>
<td>49 (36%)</td>
<td>5 (36%)</td>
</tr>
<tr>
<td>2016/17</td>
<td>76 (55%)</td>
<td>13 (55%)</td>
</tr>
<tr>
<td>10-YEAR AVERAGE</td>
<td>69 (44%)</td>
<td>11 (44%)</td>
</tr>
</tbody>
</table>

*Year data most currently available for.

SEX

- Residents: 68% Male, 32% Female
- Overseas Visitors: 78% Male, 22% Female

- Residents: 66% Male, 22% Female
- Overseas Visitors: 80% Male, 20% Female

*Year data most currently available for.
The highest growth in visitor numbers over the past decade was from:
- China (309%)
- India (189%)
- Hong Kong (153%)

In 2017/18, the top three nationalities that transitioned from a student visa to a permanent visa were:
- China
- India
- Vietnam

22% 10% 8%

MULTICULTURAL POPULATIONS

Swimming skills and water safety knowledge among overseas visitors is known to be less robust than those who have grown up in Australia. An increase in new residents from a range of countries and cultures in recent years has important implications for drowning prevention strategies to ensure everyone recreating in and around Australia’s waterways remains safe.

There is, therefore, a need for tailored water safety strategies to target multicultural communities appropriately using clear messaging that is both culturally sensitive and educational. This requires specific information aimed at overseas transient populations (such as holiday makers, seasonal workers or those visiting on short-term business), new permanent residents and international students.

One element of this targeted approach is to encourage greater cultural diversity among those working in the aquatic industry in Australia, which can help to engage multicultural populations.

794 People
drowned in Australian waterways
who were born overseas
1st July 2008
30th June 2018

27% of total drowning deaths during the 10-year period
83% were permanent residents in Australia at the time of death rather than visitors

77% Male
23% Female
24% were aged 25-34 years
658 people

EMERGING COMMUNITIES AT RISK

Taiwan 22 (6.1)
Sudan 10 (4.5)
South Korea 30 (3.6)
Nepal 10 (1.6)
Ireland 18 (2.4)

Countries with the highest number of drowning deaths from 2008/09 to 2017/18

United Kingdom 90 (14%)
South Korea 30 (10%)
China 64 (10%)
India 29 (5%)
New Zealand 46 (7%)

Overseas-born residents
Overseas visitors
International students

Average drowning deaths per year
66
11
3

Average age
43 years
57 years
23 years

Top 3 countries
- United Kingdom
- China
- New Zealand

Top locations
- Beach 23%
- River/ creek/ stream 22%
- Ocean/ harbour 41%
- Rocks 22%
- Fall 12%
- Swimming & recreating 27%
- Diving 42%
- Rockpool 48%

EMERGING COMMUNITIES AT RISK

Overseas-born residents
Overseas visitors
International students

Average drowning deaths per year
66
11
3

Average age
43 years
57 years
23 years

Top 3 countries
- United Kingdom
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Top locations
- Beach 23%
- River/ creek/ stream 22%
- Ocean/ harbour 41%
- Rocks 22%
- Fall 12%
- Swimming & recreating 27%
- Diving 42%
- Rockpool 48%

Key groups within the overseas-born population

CURRENT TRENDS IN MIGRATION

2017/18

Overseas visitors in 2017/18 were most commonly from:
- China
- United Kingdom
- United States of America

The highest growth in visitor numbers over the past decade was from:
- China (309%)
- India (189%)
- Hong Kong (153%)

Residents
New permanent residents were most commonly from:
- India
- China
- United Kingdom

In 2017/18, the top three nationalities that transitioned from a student visa to a permanent visa were:
- China (22%)
- India (10%)
- Vietnam (8%)

INTERNATIONAL STUDENTS

Numbers have increased by 10% from 2016/17. They are most commonly from:
- China
- India
- Nepal

27% of total drowning deaths during the 10-year period
1st July 2008 30th June 2018

45
Promote, reinforce and encourage implementation of the action statements outlined in the 2018 Symposium on Addressing Drowning Among Multicultural Communities.

Incorporate culturally diverse drowning perspectives into future Australian Water Safety strategies and drowning reports.

Promote stronger cross-sector collaboration to reduce fatal and non-fatal drowning among multicultural communities across Australia.

Ensure greater opportunities to increase water safety knowledge and skills are made available to high-risk populations.

Continue to advocate the value of learning swimming and water safety skills, and knowledge of drowning prevention among culturally diverse populations of all ages and communities.

Increase engagement with ethnic media to ensure that key messages are being disseminated effectively and in a culturally appropriate manner across multicultural communities.

Develop strategies to increase the cultural diversity of staff across the aquatic industry to reflect the local community.

Engage with tourism agencies and operators to increase water safety awareness and knowledge among overseas tourists.
ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

Drowning data for Indigenous Australians

2017/18*
9
Deaths
1.1 Deaths per 100,000

2016/17
14
Deaths
1.7 Deaths per 100,000

10-YEAR AVERAGE
14
Deaths
1.9 Deaths per 100,000

SEX

Drowning deaths among Aboriginal and Torres Strait Islander people from 2008/09 to 2017/18

STATE AND TERRITORY BREAKDOWN

Crude rate per 100,000 Aboriginal and Torres Strait Islander population per State or Territory

Drowning deaths

*Year data most currently available for.
ABORIGINAL AND TORRES STRAIT ISLANDER PEOPLE

SWIMMING AND WATER SAFETY SKILLS

Children from Aboriginal and Torres Strait Islander backgrounds have previously been found to have lower levels of swimming and water safety skills and are less likely to achieve the skills identified in the National Swimming and Water Safety Framework due to various reasons, including cost, access, medical conditions and cultural barriers.

WIDER HEALTH AND WELLBEING BENEFITS

Establishing swimming and water safety programs, and pools in communities is not just about drowning prevention outcomes. Swimming pools provide wider health, wellbeing and social benefits to individuals and the community. Research investigating the value of swimming pools in remote communities has reported decreased skin, ear and nose infections, and increased physical activity and hygiene. Anecdotally, increased school attendance has also been recorded in areas where pools and swimming programs have been introduced.

ECONOMIC BENEFITS

Research has found that one visit to a swimming pool by an individual has a health economic value of $26.39 in improved health outcomes and consequent reductions in health spending. Anecdotally, increased school attendance has also been recorded in areas where pools and swimming programs have been introduced.

CHALLENGES

Delivery of programs is very resource intensive, both from a staffing and financial perspective, especially in remote locations. Ensuring that programs and services are culturally appropriate, including the provision of a diverse workforce that includes Aboriginal staff.

Access to remote communities can be difficult (both physically and in terms of gaining approval from Aboriginal communities). Many pools in remote communities are ageing and require substantial work and funding to maintain.

Governments should recognise that these pools are essential for improving health and social outcomes among people of all ages in Aboriginal and Torres Strait Islander, and remote communities.

Ensuring that programs are relevant, sustainable and achieve real outcomes that are valued by the community.

Cultural commitments and traditions need to be respected even if the program is interrupted and not able to be completed.

Ensuring that programs and services are sustainable and achieve real outcomes that are valued by the community.

Ensuring that programs and services are sustainable and achieve real outcomes that are valued by the community.

REMOTENESS

Research shows there is a greater risk of drowning in rural and remote locations, due to the greater distance from essential services. Drowning deaths among Aboriginal and Torres Strait Islander people most commonly occur in remote locations, despite only 18% of Aboriginal and Torres Strait Islander people living in remote areas.

A Queensland study reported that all drowning events among Aboriginal and Torres Strait Islander children occurred in regional or remote locations, compared with most non-Aboriginal children drowning in major cities.

Previous research has found that Aboriginal and Torres Strait Islander children have an incidence rate of drowning (fatal and non-fatal) 44% higher than non-Aboriginal and Torres Strait Islander children (0 – 19 years), with swimming pools identified as the leading location.
RECOMMENDATIONS

Plan and develop culturally appropriate strategies and programs with Aboriginal and Torres Strait Islander people.

Increase employment opportunities throughout the aquatic industry.

Develop partnerships to engage with Aboriginal and Torres Strait Islander communities for drowning prevention planning and implementation.

Incorporate swimming and water safety education with other health promotion programs/agendas.

Work with other agencies and partners to deliver programs in a culturally appropriate manner.

Align approach with other strategies and frameworks (eg, Closing the Gap, Indigenous Advancement Strategy).

Improve drowning data pertaining to Aboriginal and Torres Strait Islander people, including non-fatal data.

Develop a Reconciliation Action Plan for engaging and working with Aboriginal and Torres Strait Islander communities.

ROYAL LIFE SAVING WA TALENT POOL PROGRAM

Royal Life Saving Society WA’s Talent Pool Program is a youth engagement, training and employment initiative that uses the local community swimming pool as a vehicle to engage and develop first-time employment opportunities for Aboriginal youth throughout Western Australia. Talent Pool strives to provide real employment outcomes for graduates. These outcomes are achieved through the engagement of a range of stakeholders that work to support Talent Pool participants at all stages of their journey into employment.

CHALLENGES

30% of participants were unable to complete the swim requirements of the Bronze Medallion qualification. This has driven change to the way the program is delivered to allow for week to week modulation to promote improved stroke technique and fitness conditioning.

KEY OUTCOMES

- Network of aquatic trainers established across three regions to reduce the need for “fly in, fly out” instructors, and build capacity and capability of regional centres to teach and assess candidates up to Bronze Medallion qualifications.
- Allows capacity and opportunity to offer flexible programming and tailor training to meet local needs. Of the 13 instructors, five were Aboriginal.
- 75 program participants with combined 82 actual course graduates (some completed more than one course) with 88% completion rate.
- The Talent Pool Program has supported 26 participants to secure real employment or ‘pending employment’ opportunities on completion of qualifications – includes lifeguard, pool operator, pool attendant, swim instructor, aquatic trainer, project officer and events officer roles.

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INLAND WATERWAYS

Drowning data for rivers/creeks/streams and lakes/dams/lagoons

2018/19
101 DEATHS
0.4 Deaths per 100,000

2017/18
80 DEATHS
0.2 Deaths per 100,000

10-YEAR AVERAGE
102 DEATHS
0.4 Deaths per 100,000

Rivers/creeks/streams

2018/19
80
2017/18
59
10-YEAR AVERAGE
76

Lakes/dams/lagoons

2018/19
21
2017/18
21
10-YEAR AVERAGE
26
INLAND WATERWAYS

Swimming and aquatic recreation activities have become synonymous with the Australian identity. Given Australia’s vast landscape and the remote nature of a large portion of the Australian population, inland waterways such as rivers, creeks, streams, lakes, dams and lagoons have become common areas for recreation. Recreational uses of these areas vary greatly from swimming, recreating and boating, to enjoying picnics and fishing. Natural aquatic environments do, however, increase the risk of drowning. This is due to changeable conditions and added risks such as geographical remoteness, lack of supervision of children and alcohol consumption. Over the past 10 years, Australia has experienced consistently high numbers of drowning deaths in inland waterway locations.

Drowning deaths in rivers, creeks and streams have previously been examined in detail, with lakes, dams and lagoons reviewed more recently.

Inland waterways recorded the largest proportion of drowning deaths in Australia and showed the second greatest reduction in drowning deaths (22%).

Risk factors:
- Alcohol: 42%
- Medication: 38%
- Pre-existing medical conditions: 45%
- Non-aquatic transport: 20%
- Fall: 19%

Index of relative socioeconomic advantage and disadvantage (IRSAD) 42% of people drowning in inland waterways reside in areas of low IRSAD (indicating high socioeconomic disadvantage) compared with an overall average of 30% drowning regardless of where they drowned.
**Recommendations**

- Develop partnerships with governments, communities, industry, private sector bodies and public health agencies to address drowning in specific inland waterway environments.

- Enhance and build on existing communication strategies and campaigns to promote the dangers of using alcohol and drugs when recreating around water.

- Ensure that young children are actively supervised around any aquatic environment, especially in natural waterways where environmental conditions can change quickly and easily.

- Engage rural and remote communities to ensure that key messages are being disseminated effectively to acknowledge the differences between rural and remote residents and city dwellers.

- Ensure that children under the age of five years living in rural and remote communities have access to swimming and water safety education.
RISK TAKING

Effects of alcohol and drug consumption on drowning

2018/19
19* ALCOHOL-RELATED DEATHS
29* DRUG-RELATED DEATHS (including legal and illegal drugs)

2017/18
48 ALCOHOL-RELATED DEATHS
54 DRUG-RELATED DEATHS (including legal and illegal drugs)

10-YEAR AVERAGE
69 ALCOHOL-RELATED DEATHS
80 DRUG-RELATED DEATHS (including legal and illegal drugs)

DROWNING DEATHS KNOWN TO INVOLVE ALCOHOL**

- **Location**: 42% River/creek/stream
- **Activity**: 26% Swimming & recreating
- **Sex**: 19% Female, 81% Male
- **Age**: 16% 45-54 years, 16% 35-44 years, 21% 25-34 years

DROWNING DEATHS KNOWN TO INVOLVE ILLEGAL DRUGS**

- **Location**: 34% River/creek/stream
- **Activity**: 25% Swimming & recreating
- **Sex**: 13% Female, 87% Male
- **Age**: 23% 18-24 years, 27% 35-44 years

*Based on available data (pending closure of coronial cases)
**10-year data breakdown
**RISK TAKING**

Alcohol can significantly increase the risk of drowning by increasing risk-taking behaviour, reducing coordination and impairing judgement and reaction time. Similarly, drugs can also increase the risk of drowning. This includes prescription medication, which may cause drowsiness or dizziness, as well as illegal drugs, which may reduce inhibition, numb the senses and distort the perception of risk.

Royal Life Saving recommends staying out of the water if alcohol has been consumed. It is best to participate in aquatic activities before drinking and not re-enter the water afterwards. Prescription medication should be taken as directed. A doctor or pharmacist can advise on potential side effects, including whether a medication could impact someone’s ability in the water.

**HIGH RISK TIMES**

Drowning is known to peak at certain times during the year. For example, during SUMMER AND WEEKENDS.

<table>
<thead>
<tr>
<th>Date</th>
<th>Blood alcohol concentration (BAC) greater than or equal to 0.05%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Dec</td>
<td>2.07</td>
</tr>
<tr>
<td>28 Feb</td>
<td>2.85</td>
</tr>
</tbody>
</table>

Australians are 1.73 times more likely to drown on a public holiday compared with any other day. 2.40 BAC ≥ 0.05% 18-24 years 2.44 25-34 years 2.28 Interstate

**HIGH RISK ACTIVITIES**

- Jumping or diving into water of unknown depth
- Swimming alone
- Check the depth of water before entering using a stick or similar
- Look for submerged objects such as rocks and tree branches

**ALCOHOL CONSUMPTION AND ATTITUDES TO RISK AMONG RIVER USERS**

Study participants more likely to record a BAC ≥ 0.050%

- 684 study participants
- 575 recorded no alcohol consumption
- 60 BAC 0.001% to 0.049%
- 49 BAC ≥ 0.050%

Royal Life Saving researchers breathalysed river users at four locations (Murray River, Murrumbidgee River, Hawkesbury River and Alligator Creek) over summer to examine alcohol consumption and attitudes to drowning risk.

**RECOMMENDATIONS**

- Raise awareness of the risks of alcohol and drug consumption at high-risk locations, including inland waterways, such as rivers and lakes, and while undertaking high-risk activities such as swimming, boating and recreating alone.
- Deliver key water safety messages at times of heightened risk, including summer, public holidays and weekends.
- Promote the dangers of risk-taking behaviour in aquatic environments using novel avenues of promotion, such as strategic venue advertising and targeted social media.
- Explore the decision-making process of young people to better understand attitudes to risk taking and how this influences behaviour around water.
- Investigate opportunities for collaboration with other areas of injury prevention, as well as alcohol and drug harm reduction.
- Build partnerships outside of the drowning prevention sector to effectively engage the target demographic via, for example, mass media and the broader sport sector.
- Further investigate the role of alcohol and drug use in drowning, including a detailed analysis of alcohol use across all aquatic locations and a comparison of legal and illegal drug use across key life stages.
Swimming and water safety education

BENEFITS OF SWIMMING AND WATER SAFETY LESSONS

**Survival Skills**
- Lowers risk of drowning
- Increases stamina and strength

**Brain Booster**
- Increases mathematical problem-solving performance
- Increases rate of language development

**Visual-Motor Skills**
- Improves hand-eye coordination, and gross and fine motor skills

**Emotional Wellbeing**
- Builds perseverance and assists in time management skills
- Reduces stress and depression

**Social Skills**
- Increases confidence and self-esteem
- Provides social and support networking opportunities

39% Non-swimmer
27% Poor swimmer
27% Competent swimmer
7% Strong swimmer

Drowning deaths from 2008/09 to 2017/18 where swimming ability was known

Royal Life Saving Australia believes that every individual should have access to a balanced water safety, personal survival and swimming education. After years of research into the achievement levels and the concern over declining swimming and water safety skills, Royal Life Saving formed a National Swimming and Water Safety Education Reference Group to consult and collaborate with industry, government and the education sector to revise the National Swimming and Water Safety Framework. The National Swimming and Water Safety Framework aims to enable individuals to develop the skills, knowledge and understanding, attitudes and behaviours required to lead safe and active lives in, on and around a range of aquatic environments.

The Framework supports a structured and consistent understanding of swimming and water safety education across Australia. It provides parents, aquatic educators, educational institutions and government bodies with a basis for developing, providing and selecting a balanced and comprehensive swimming and water safety program.

See references.
Recent research from Royal Life Saving investigated swimming and water safety skills of children aged two to 15 years old attending lessons at commercial swim schools, outside of school or vacation-based programs across New South Wales, South Australia, Victoria and Queensland between July 2014 and December 2016. This research provided insights into the skills being taught in commercial swim schools and the achievements in relation to the Framework.

**Benchmarking research**

Advocate for all Australians, regardless of age or background, to access quality swimming and water safety education and increase participation among high-risk populations.

Advocate for investments in swimming and water safety education, including the provision of swimming and water safety lessons, such as school-based and vacation programs.

Investigate opportunities to collect, analyse and benchmark data on swimming and water safety skills, and knowledge competencies against the Framework, including measuring retention of skills over time.

Evaluate swimming and water safety programs (including school, vacation and commercial) to ascertain best practice and outcomes for participants.

Consolidate terminology when referring to and discussing ‘swimming lessons’, ‘learn to swim’, ‘water safety’, ‘survival skills’ and ‘lifesaving skills’.

Advocate for development and redevelopment of aquatic facilities, and work with industry to improve access for all Australians.

Investigate the effectiveness of drowning prevention, water safety and lifesaving initiatives for teenagers and adults, and how best to increase participation.

---

**CHILDREN AGED 2-4 YEARS**

- 56% of children aged 2 to 4 years attending lessons are living in areas of high socioeconomic status.
- Children aged 2-4 years make up approximately 25% of children attending private swim schools.
- The average age of starting lessons for a four-year-old was 3.3 years of age.

- 79% of children aged 4 years old.
- 95% from major cities.

**Top categories of skills being taught are:**

- Flotation/ buoyancy
- Breath control (blowing bubbles)
- Water familiarisation (including submersion)
- Safe entries and exits

- 4-year-old children attended an average of 24 lessons, over approximately 5.6 months.
- 4-year-old children accounted for the highest number of children in lessons.

**CHILDREN AGED 5-12 YEARS**

- 53% of children attending private swim schools are between 5-7 years old.
- 57% of children attending lessons are living in areas of high socio-economic status.
- Equal number of males and females attend private swim schools.
- Children from higher socioeconomic areas are attending private swim schools at a younger age than children from lower socioeconomic areas.
- At least 50% of 11- and 12-year-old children could achieve the benchmark in freestyle, backstroke, survival backstroke and breaststroke.

- The average age children achieve the benchmark (the standard for those aged 9-10 years) is:
  - **50m freestyle**
  - 9.2 yrs
  - **50m backstroke**
  - 9.6 yrs
  - **25m breaststroke**
  - 10.0 yrs
  - **25m breaststroke**
  - 10.4 yrs

**CHILDREN AGED 13-15 YEARS**

- 2% of children attending private lessons are between 13 and 15 years old.
- 52% of children attending lessons are living in areas of high socioeconomic status.
- Very few teenagers enrolled in swimming lessons are achieving the minimum competencies outlined in the National Swimming and Water Safety Framework.
- Drowning rates increase from the age of 15 years.
- The location for drowning changes from the home environment in the childhood group (0 to 14 years) to open water environments where there are more natural hazards.

**ADULTS**

- 41 adults drowned as a result of rescuing a child in the water in the past 15 years.

- Some adult Australians have never had the opportunity to learn how to swim. This may be due to the cost of learning to swim, a lack of appropriate or local aquatic facilities, or cultural differences.
- Many adults drowned due to a combination of factors, including lack of swimming skills and water safety awareness, inexperience and risk-taking behaviour.
- Some adults may not have the level of swimming or water safety skills and knowledge to help themselves or others in the event of an aquatic emergency.
- It is never too late to learn to swim and enjoy the health and social benefits that swimming brings.

Some adults may not have the level of swimming or water safety skills and knowledge to help themselves or others in the event of an aquatic emergency. It is never too late to learn to swim and enjoy the health and social benefits that swimming brings.
NON-FATAL DROWNING

Data trends and impact of non-fatal drowning in Australia

LONG-TERM TRENDS IN NON-FATAL DROWNING (2002/03 TO 2014/15)

**Fatal to Non-fatal Drowning Ratio**

<table>
<thead>
<tr>
<th>Year</th>
<th>Fatal Drowning</th>
<th>Non-fatal Drowning</th>
</tr>
</thead>
<tbody>
<tr>
<td>2018/19</td>
<td>34%</td>
<td>66%</td>
</tr>
<tr>
<td>2017/18</td>
<td>36%</td>
<td>64%</td>
</tr>
<tr>
<td>10-Year Average</td>
<td>36%</td>
<td>64%</td>
</tr>
</tbody>
</table>

Top Age Group: 0-4 years (42%)

Top Location: Swimming pool (36%)

NON-FATAL DROWNING INCIDENTS

Overall: 543 incidents

Children 0-4 years: 343 incidents (63%)

Swimming pool: 205 incidents (38%)

2018/19: 584 incidents

2017/18: 543 incidents

10-Year Average: 712 incidents (down 18%)

NON-FATAL DROWNING INCIDENTS 2018/19: 584

NON-FATAL DROWNING INCIDENTS 2017/18: 543

NON-FATAL DROWNING INCIDENTS 10-Year Average: 712
NON-FATAL DROWNING

Fatal drowning has long been the focus of the drowning prevention community in Australia, but prevention of drowning deaths is only one part of the sector’s role.

Royal Life Saving is working to raise awareness of non-fatal drowning, alongside research, policy and programs to reduce fatal drowning. As with fatal drowning, non-fatal drowning incidents occur in all aquatic locations and among people of all ages.

The updated drowning definition describes three possible outcomes: death, drowning with morbidity and drowning without morbidity. Using the correct terminology acknowledges the full burden of drowning, including those who survive a drowning incident with long-term health complications or life-changing injuries.

Keep Watch Community Help Grants

Royal Life Saving Western Australia is supporting families affected by non-fatal drowning through Keep Watch Community Help Grants. These grants, worth up to $2500 each, are designed to provide financial assistance for families to help with the cost of counselling and therapy, equipment, as well as vehicle or housing modifications, technology purchases and other necessary resources that will help to make a difference to families impacted by non-fatal drowning.

Keep Watch Community Help Grants are available to the family or legal guardian of a child that has been impacted by a drowning, or to a child who is still under 18 years of age and who has suffered life-changing injuries as a result of a non-fatal drowning incident.

RECOMMENDATIONS

- Increase awareness of non-fatal drowning by continuing to promote the correct use of terminology among policymakers, researchers, journalists and the general public.
- Incorporate non-fatal drowning statistics into future Australian Water Safety strategies and drowning reports to highlight the full burden of drowning.
- Provide leadership to the drowning prevention sector by encouraging all water safety agencies to consider the full burden of drowning when developing and implementing prevention strategies.
- Investigate the long-term outcomes of non-fatal drowning, including the impacts on the individual, their family and community, as well as their rescuers.
- Explore opportunities for enhanced data surveillance, such as ambulance calls and Emergency Department presentations to further develop our understanding of non-fatal drowning.
- Support families affected by non-fatal drowning by continuing to run programs such as the Keep Watch Community Help Grants and encourage those in need to seek assistance.
- Highlight the value of first responders in an emergency situation. Encourage all members of the public to learn basic rescue and resuscitation techniques.
DROWNING PREVENTION

Working towards a nation free from drowning

RESEARCH
- Data and insights
- Innovation
- Theory and knowledge
- Building and testing solutions
- Change in knowledge, policy and practice

ADVOCACY
- Policy analysis
- Advice, engagement with policy makers
- Facilitating policy forums
- Developing, guiding strategies, plans and actions
- Change in awareness, policy and behaviours

PARTNERSHIP
- Community
- Vulnerable populations to drowning
- Government at all tiers and portfolios
- Water safety and aquatic sector
- Change in awareness, policy and practices

CAMPAIGNS
- Media campaigns
- Community service announcements
- Social media and communications
- Change in awareness and behaviour

SAFE VENUES
- Industry partnership
- Informing safety culture
- Standards and guidelines
- Process improvement
- Changes in policies, practice and behaviours

EDUCATION
- Swimming and water safety skills
- Lifesaving and survival skills
- Classroom and community
- Workforce training

lé

- Supervise children
- Wear a life jacket
- Avoid alcohol and drugs around water
- Learn first aid and lifesaving skills
**The Talk**
The Talk campaign encourages a conversation with older Australians to discuss water safety and drowning risks to raise awareness about knowing your limitations when swimming and recreating around water, and understanding the impact of pre-existing medical conditions.

The Talk outlines five key messages:
1. **Know your limitations**
2. **Wear a lifejacket**
3. **Be aware of strong currents**
4. **Don’t drink alcohol before entering water**
5. **Learn lifesaving skills**

**Respect the River**
Respect the River educates the public about inland waterway safety. This campaign recommends that people should:

- **Never swim alone**
- **Avoid drugs and alcohol around water**
- **Be aware of strong currents**
- **Check the depth of the water and look for submerged objects**
- **Wear a lifejacket**
- **Learn lifesaving skills, such as first aid and CPR**

**Swim Ready**
Swim Ready raises awareness among older people about the links associated with taking medication and an increased risk of drowning.

This campaign advocates a few simple steps people can take before enjoying the health benefits of swimming:

1. **Chat to your doctor about your health**
2. **Check the effects of any medication you are taking**
3. **And remember it’s safer to swim in a supervised area**

**Keep Watch**
Keep Watch aims to prevent drowning deaths of children under five years of age in all aquatic locations. Parents and carers are urged to:

- **Actively supervise children**
- **Restrict children’s access to water**
- **Teach children water safety skills**
- **Learn CPR**

**Swim Skills**
Swim and Survive

Swim and Survive is a national swimming and water safety initiative that seeks to teach children swimming and water safety skills to prevent drowning and increase participation in safe aquatic activity.

Royal Life Saving’s Swim and Survive Fund provides learn to swim and water safety education for at-risk community groups, including people from multicultural, Indigenous and low socioeconomic backgrounds.

**Don’t Let Your Mates Drink and Drown**
The Don’t Let Yor Mates Drink and Drown campaign urges men to look out for their mates and not to give into peer-group pressure that can encourage risk-taking and lead to accidents and drowning.

**Swim and Survive Fund**
www.swimandsurvive.com.au

**Respect the River**

**Keep Watch**

**Swim Ready**

**The Talk**

**Swim Skills**
www.swimandsurvive.com.au

**Keep Watch**

**Swim Ready**

**The Talk**

**Swim Skills**
www.swimandsurvive.com.au
METHODS

The information presented in the Royal Life Saving National Drowning Report 2019 has been collated from the National Coronial Information System (NCIS), State and Territory Coronial offices and year-round media monitoring. Cases are collated in partnership with Royal Life Saving State and Territory Member Organisations (STMOs) and Surf Life Saving Australia, and analysed by Royal Life Saving Society – Australia.

Royal Life Saving uses a media monitoring service for broadcast, print and online all year round to identify drowning deaths reported in the media. This information is then corroborated with information from the NCIS, police reports and Royal Life Saving STMOs before being included in the National Drowning Report.

Great care is taken to ensure that the information in this report is as accurate as possible. Figures may change depending on ongoing coronial investigations and findings, as 82% of cases are still under investigation (ie, open) as this report went to press. Royal Life Saving regularly publishes ongoing studies, which provide detailed information on long-term data trends.

Information on all cases is correct as of 7 July 2019. Historical drowning data are correct as of 1 July 2019 in accordance with Royal Life Saving’s ongoing data quality assurance policy. All cases in the Royal Life Saving National Fatal Drowning Database are checked against those in the NCIS on a regular basis and figures are updated in annual National Drowning Reports as cases close. The 10-year averages in this report are calculated from drowning death data from 2008/2009 to 2017/2018 inclusive.

Drowning rates per 100,000 population are calculated using population data from the Australian Bureau of Statistics (ABS) publication ‘Australian Demographic Statistics’ (Cat 3101.0). Percentages and averages are presented as whole numbers and have been rounded up or down accordingly. Additional ABS datasets used in the key issues sections in this report include Australian Historical Population Statistics (Cat 3105.0.65.001) and Regional Population Growth, Australia (Cat 3218.0).

EXCLUSIONS AND CATEGORISATION

Drowning deaths as a result of suicide or homicide, deaths from natural causes, shark and crocodile attacks, or hypothermia have been excluded from this report. All information presented in this report relates to drowning deaths or deaths where drowning is a contributory cause of death.

‘Non-aquatic transport’ relates to drowning deaths involving a means of transport that is not primarily designed or intended for aquatic use such as cars, motorbikes, bicycles and aeroplanes among others.

Means of transport primarily used for aquatic purposes are categorised under “boating” (water-based wind or motor powered vessels, boats, ships and personal watercraft, such as boats, jet skis, sail boats and yachts).

‘Watercraft’ refer to water-based non-powered recreational equipment such as those that are rowed or paddled (eg, rowboats, surfboards, kayaks, canoes, boogie boards).

Within this report, ‘swimming pool’ includes home swimming pools, public swimming pools, hotel and motel pools, and portable swimming pools among others.

NON-FATAL DROWNING

In the absence of up-to-date data on non-fatal drowning, non-fatal drowning incidents in 2015/2016, 2016/2017, 2017/2018 and 2018/2019 were estimated using the observed ratios of fatal to non-fatal incidents for each age group and sex between 2002/2003 and 2014/2015. The applicable average ratio of fatal to non-fatal incidents over that period was then used to project the likely number of non-fatal incidents based on the number of fatal incidents for that age group and sex in 2015/2016, 2016/2017, 2017/2018 and 2018/2019, respectively.

Since available counts of non-fatal incidents do not include all drowning incidents, the proportion of missing incidents was estimated based on a four-year sample of fatal incident data which compared incident counts using both broad and restrictive definitions of ‘drowning’. The estimated proportion of drowning incidents not captured in existing non-fatal data for each age group was then used to scale-up estimates of non-fatal incidents to arrive at a projection comparable with the broad definition of drowning used to count fatal drowning incidents in this report.

ACKNOWLEDGEMENTS

Royal Life Saving would like to thank the following people and organisations for their assistance in producing the Royal Life Saving National Drowning Report 2019:

- Royal Life Saving State and Territory Member Organisations (STMOs)
- The National Coronial Information System (NCIS)
- Surf Life Saving Australia (SLSA)
- The Queensland Family and Child Commission (QFCC)
- Shane Daw (SLSA)
- Jaz Lawes (SLSA)
- Leanne Daking (NCIS)
- Bernadette Matthews (LSV)
- Lauren Nimmo (RLSSWA)
- Datalabs
- The drowning prevention research of the Royal Life Saving Society – Australia is supported by the Australian Government.

Data in this report was compiled by Amy Peden, Senior Research Fellow, Stacey Pidgeon, National Manager – Research and Policy and Danielle Taylor, Senior Project Officer – Research and Policy. Royal Life Saving Society – Australia. The report was written by Amy Peden, Stacey Pidgeon, Danielle Taylor and Alison Mahony. Editing and publishing by Kavita Bowry.
REFERENCES

FOR MORE INFORMATION
Call 02 8217 3111
Email info@rlssa.org.au

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