NATIONAL DROWNING REPORT

2019

Research and policy insights for drowning prevention and water safety

ROYAL LIFE SAVING AUSTRALIA

SUPPORTED BY

Australian Government

FOREWORD

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.

> **"OUR VISION IS A WATER-LOVING NATION FREE FROM DROWNING."**

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

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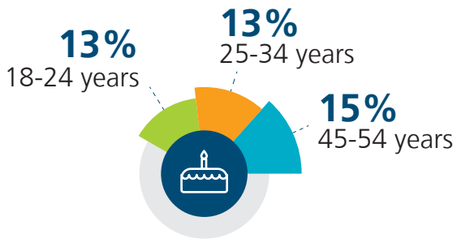
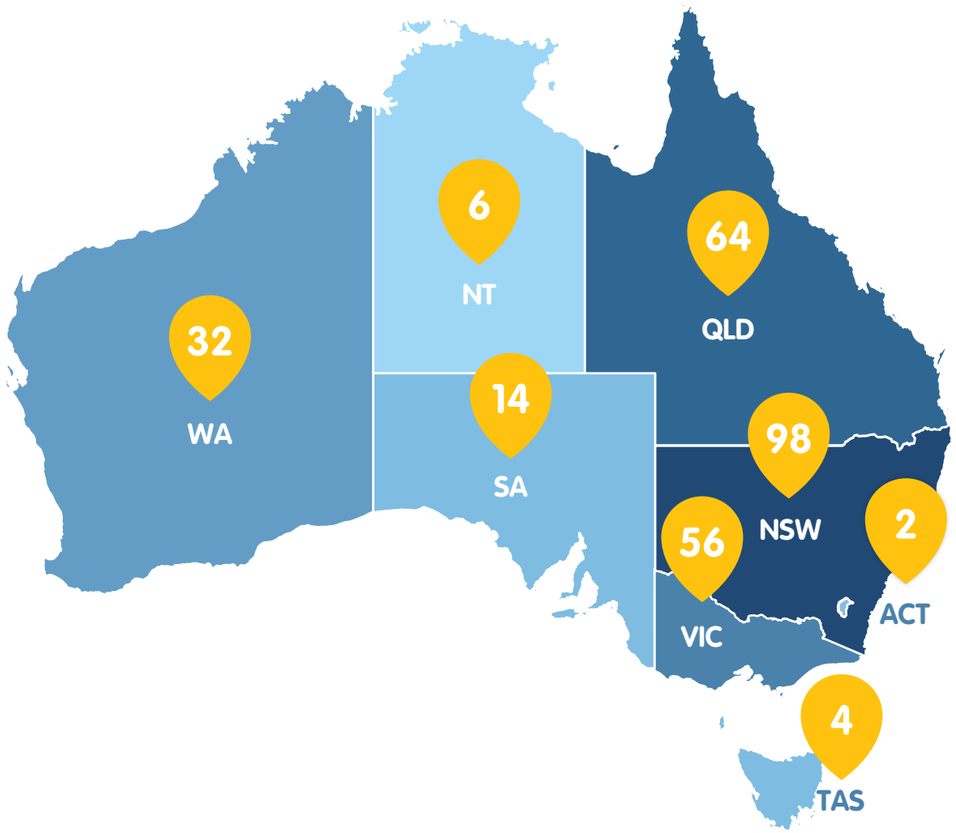
NATIONAL DROWNING REPORT 2019

Sex

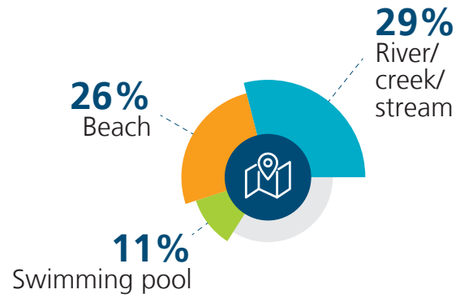
Top 3 age groups



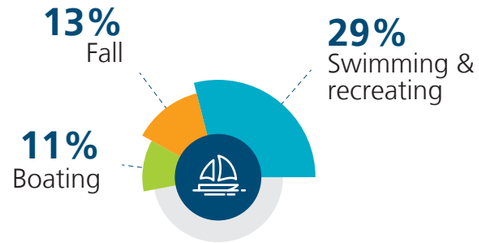
State and Territory breakdown



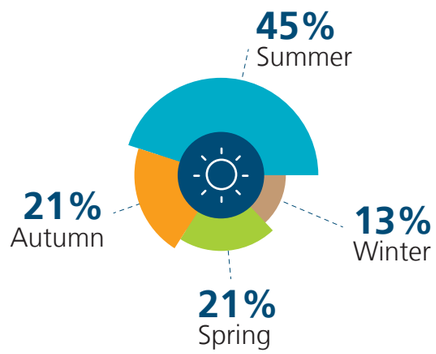
Top 3 locations



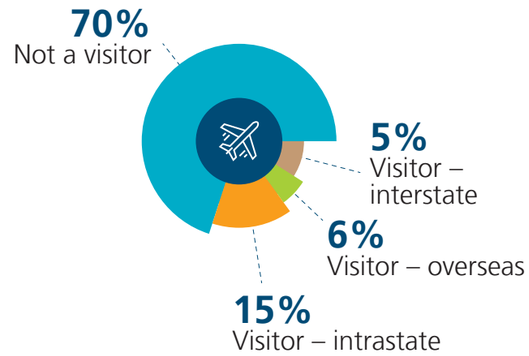
Top 3 activities



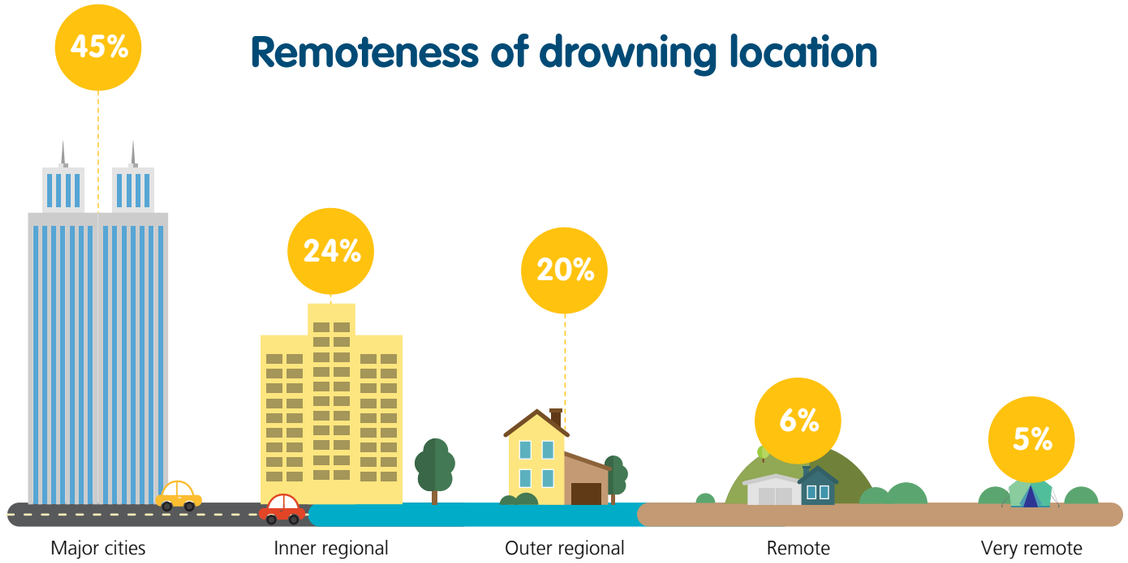
Season



Visitor status



Remoteness of drowning location

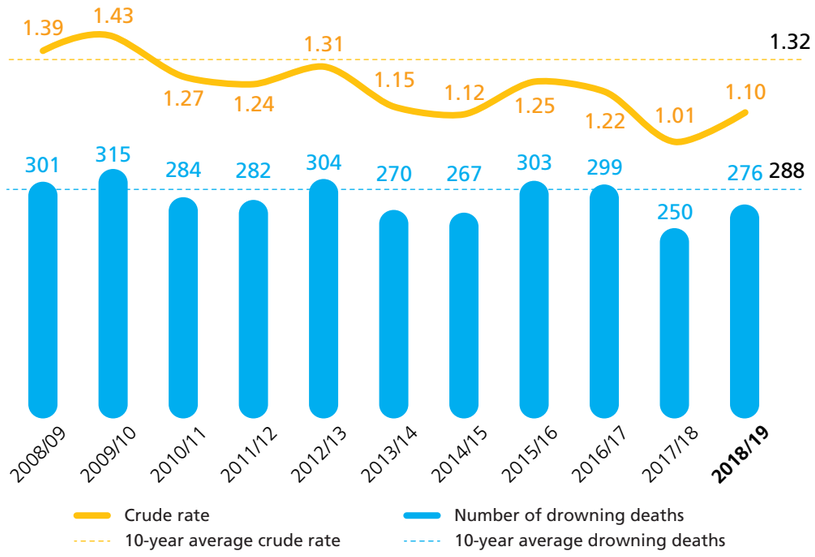


FATAL AND NON-FATAL DROWNING IN AUSTRALIA

276 people drowned in aquatic locations in 2018/19

This is a **10% increase** on 2017/18

and a **4% reduction** on the 10-year average



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

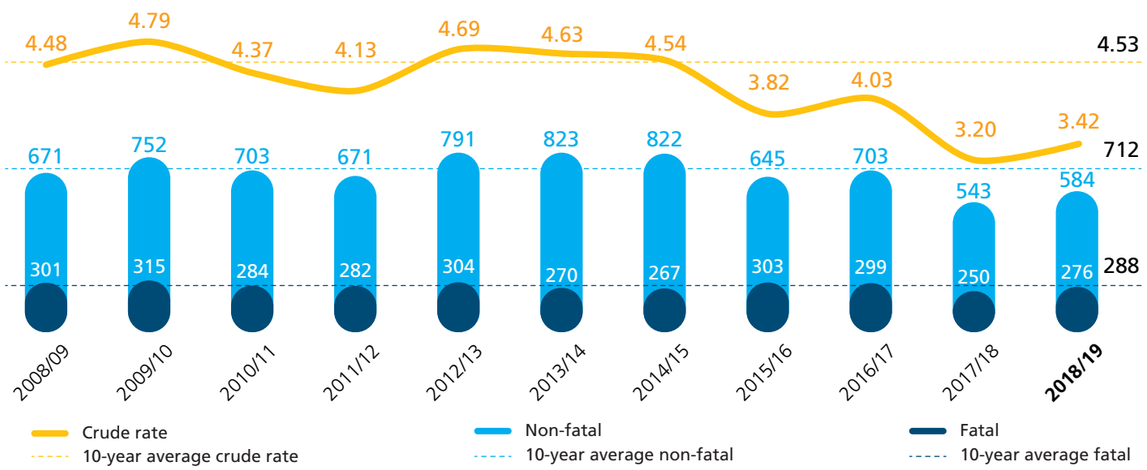
Based on statistical modelling of the relationship between numbers of fatal and non-fatal incidents for each age group between 2002/03 and 2014/15, we estimate that there were 584 non-fatal drowning incidents resulting in a hospitalisation in 2018/19, assuming that the historical ratios between the number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

584 non-fatal

276 fatal

860 total drowning incidents

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.



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

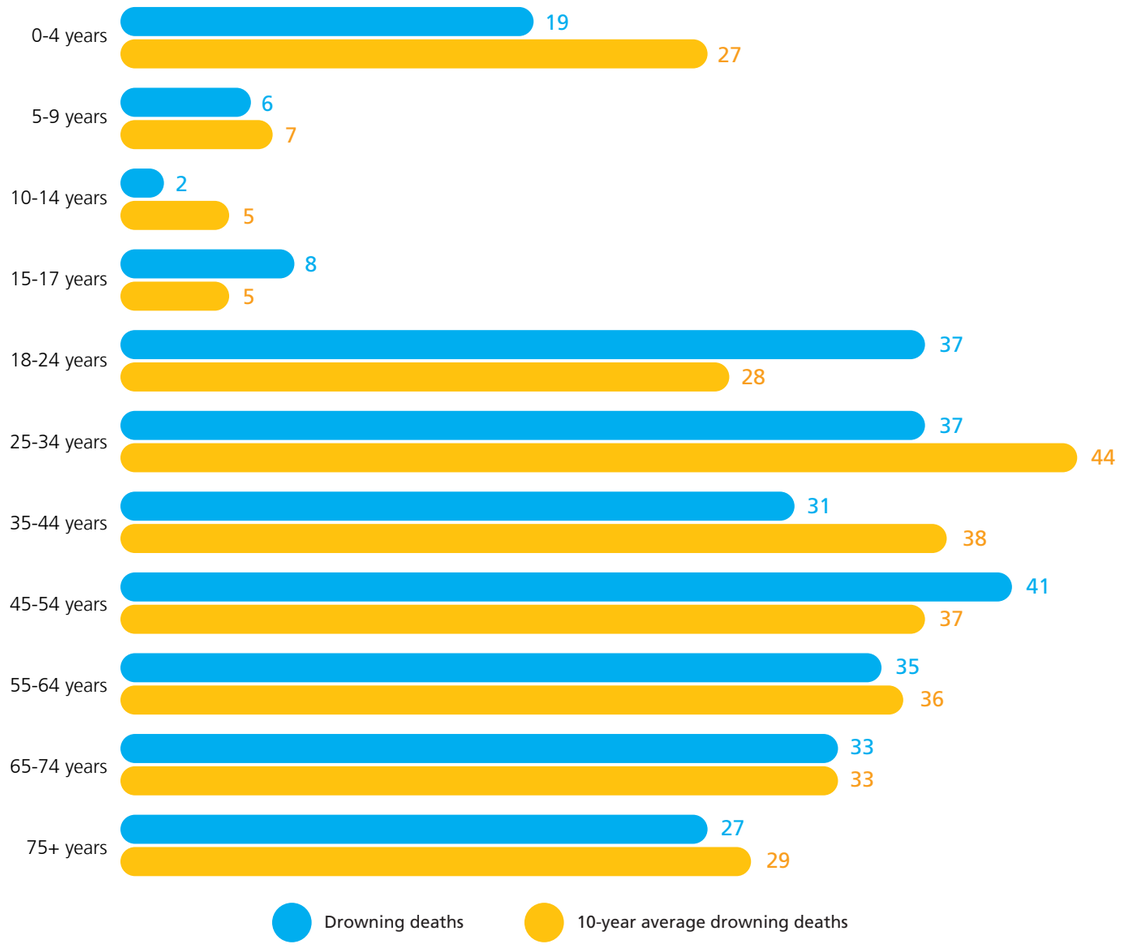
WHO DROWNS?

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

DROWNING DEATHS BY LIFE STAGES

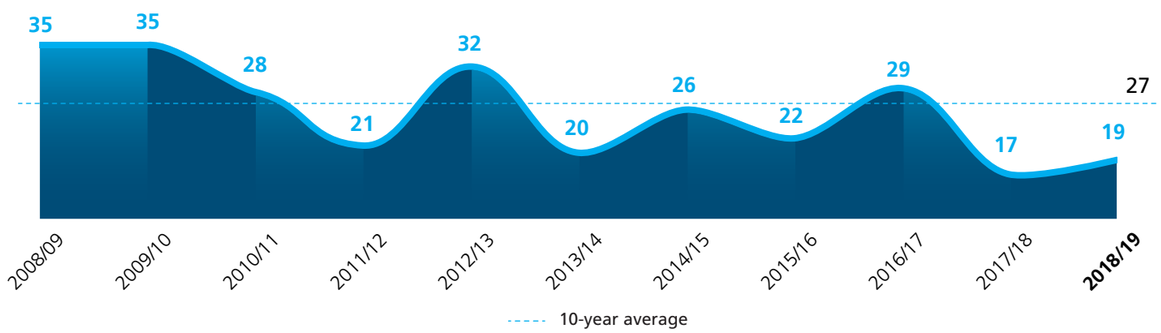
CHILDREN AGED 0-4 YEARS

19 children aged 0-4 years drowned in Australia in 2018/19

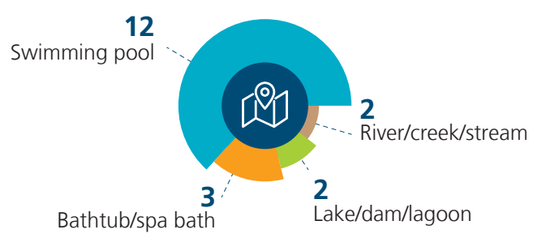
This is a **12% increase** on 2017/18

and a **30% reduction** on the 10-year average

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



Drowning deaths of children aged 0-4 years from 2008/09 to 2018/19 and the 10-year average



10-YEAR AVERAGE
(Arrow reflects 2018/19 change against the 10-year average)

14 ↓ 3 ↓
5 ↓ 2 –

Drowning deaths of children aged 0-4 years by location in 2018/19 compared with 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.

10-YEAR AVERAGE
(Arrow reflects 2018/19 change against the 10-year average)

21 ↓ 5 ↓

Drowning deaths of children aged 0-4 years by activity in 2018/19 compared with the 10-year average

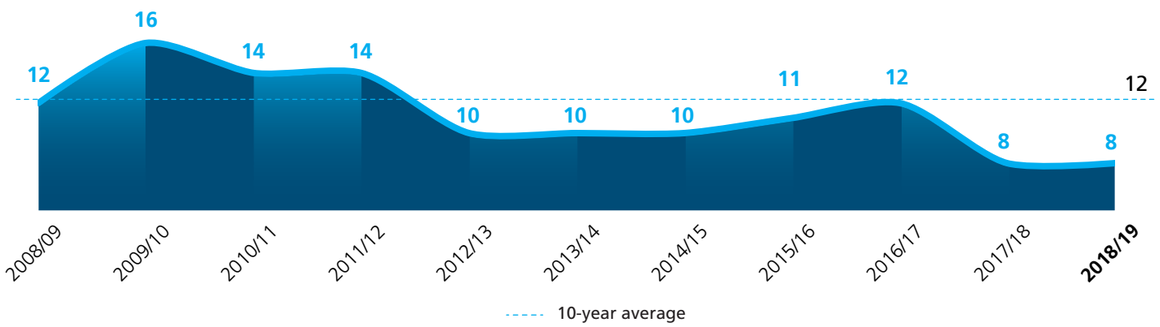
CHILDREN AGED 5-14 YEARS

8 children aged 5-14 years drowned in Australia in 2018/19

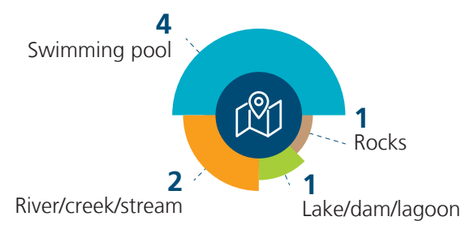
This is the **same** as 2017/18 –

and a **33% reduction** on the 10-year average

75% of all drowning deaths in this age group were males



Drowning deaths of children aged 5-14 years from 2008/09 to 2018/19 and the 10-year average



10-YEAR AVERAGE
(Arrow reflects 2018/19 change against the 10-year average)

3 ↑ 2 ↓
3 ↓ 0 –

Drowning deaths of children aged 5-14 years by location in 2018/19 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.

10-YEAR AVERAGE
(Arrow reflects 2018/19 change against the 10-year average)

5 ↓

Drowning deaths of children aged 5-14 years by activity in 2018/19 compared with the 10-year average

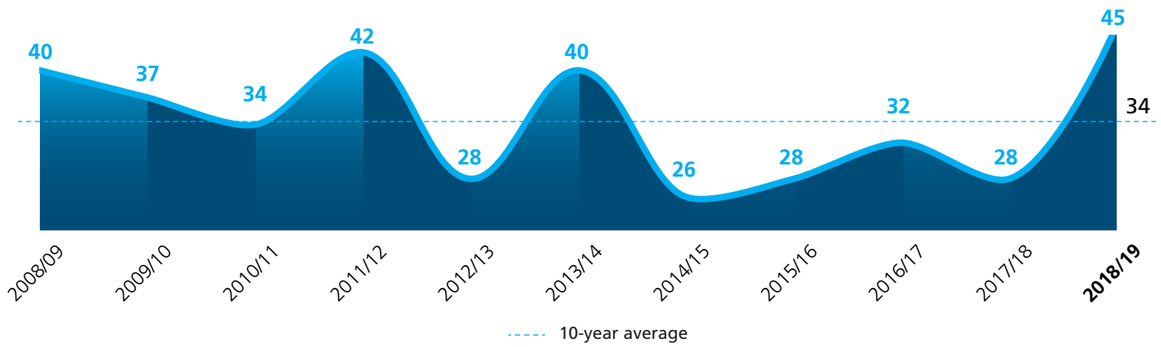
YOUNG PEOPLE AGED 15-24 YEARS

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

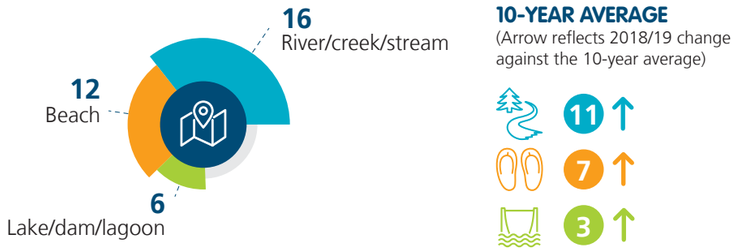
This is a **61% increase** on 2017/18

and a **32% increase** on the 10-year average

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

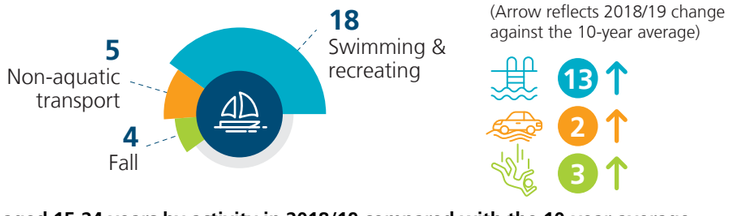


Drowning deaths of young people aged 15-24 years from 2008/09 to 2018/19 and the 10-year average



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

Swimming and recreating was the leading activity immediately prior to drowning, accounting for 40% of all deaths in this age group. Drowning deaths due to swimming and recreating increased by 38% in 2018/19, compared with the 10-year average.



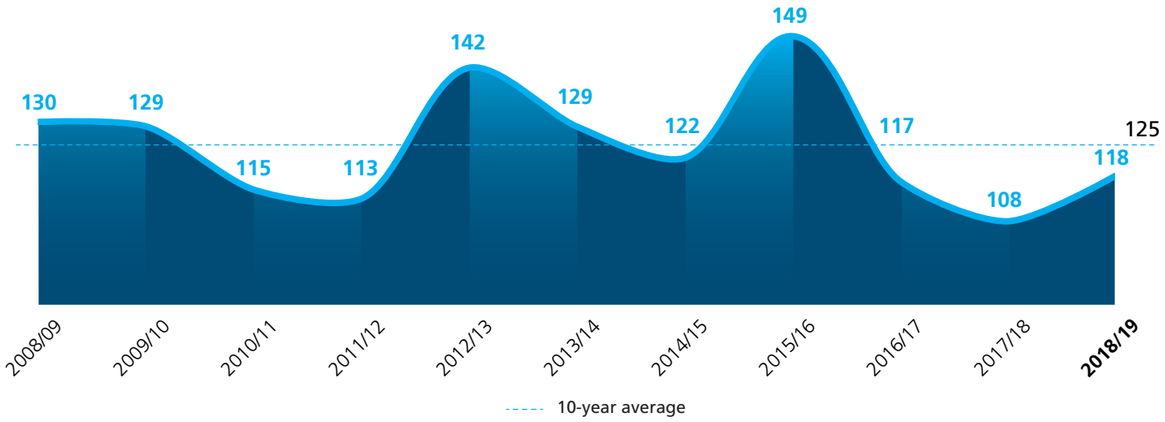
Drowning deaths of young people aged 15-24 years by activity in 2018/19 compared with the 10-year average

MALES AGED 25-64 YEARS

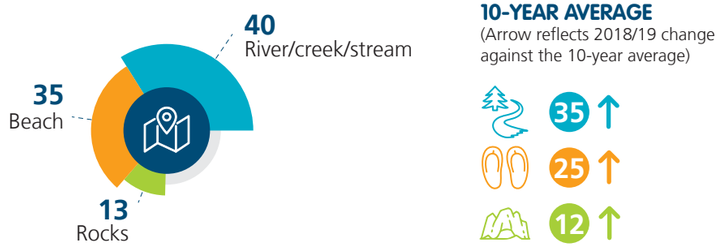
118 males aged 25-64 years drowned in Australia in 2018/19

This is a **9% increase** on 2017/18

and a **6% reduction** on the 10-year average

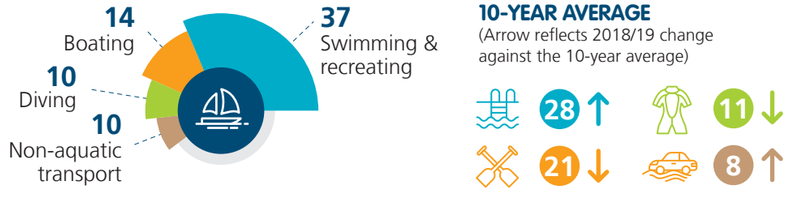


Drowning deaths of males aged 25-64 years from 2008/09 to 2018/19 and the 10-year average



Drowning deaths of males aged 25-64 years by location 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 and non-aquatic incidents increased, whereas boating and diving decreased.



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

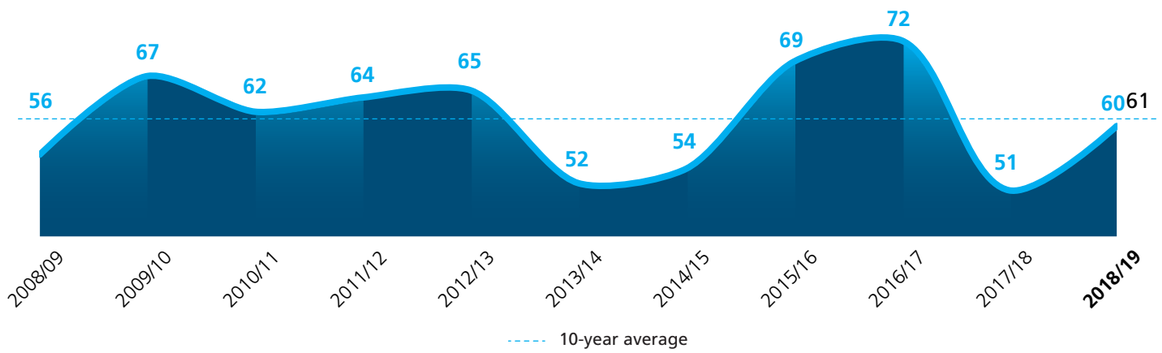
PEOPLE AGED 65 YEARS AND OVER

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

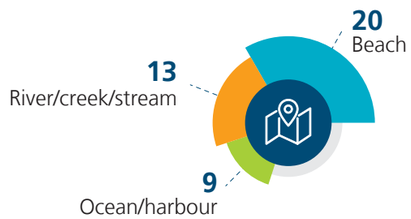
This is an **18% increase** on 2017/18

and a **2% reduction** on the 10-year average

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



10-YEAR AVERAGE
(Arrow reflects 2018/19 change 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

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.

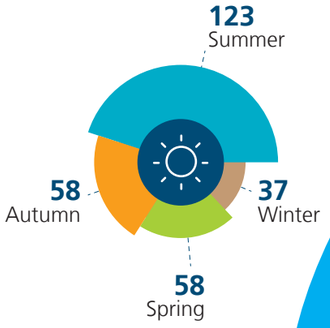
10-YEAR AVERAGE
(Arrow reflects 2018/19 change against the 10-year average)

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

WHEN DO DROWNING DEATHS OCCUR?

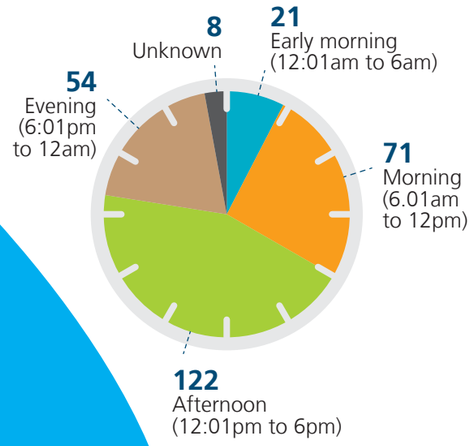
Season

Drowning deaths occur in all seasons, with the largest proportion occurring in the summer months (45%).



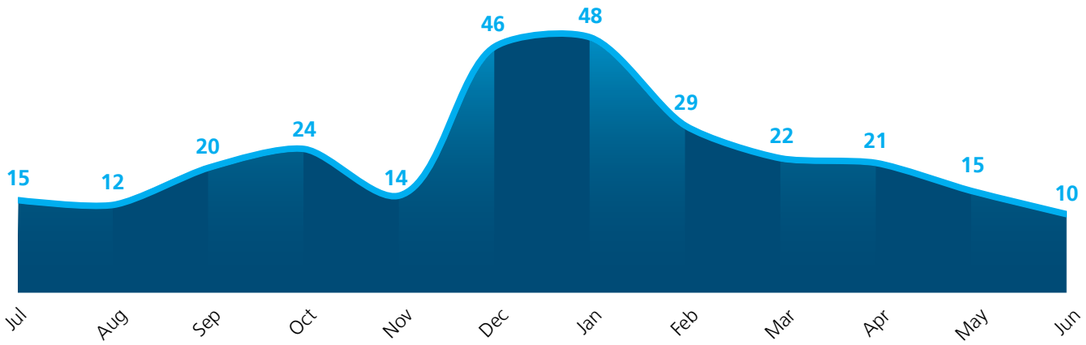
Time of the day

Almost half (44%) of all drowning deaths in 2018/19 took place in the afternoon.



Month

By month, fatal drowning peaked in January with 48 deaths, followed by December with 46 drowning deaths.



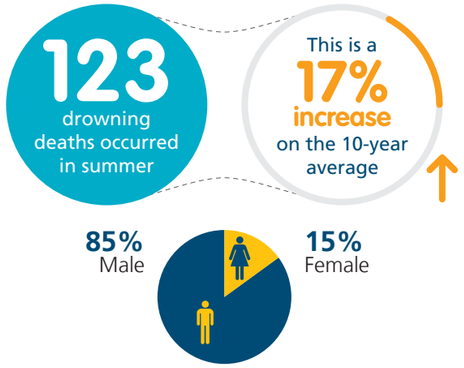
Day of the week

Mon	Tue	Wed	Thu	Fri	Sat	Sun
43	32	28	37	38	45	53

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

IN FOCUS

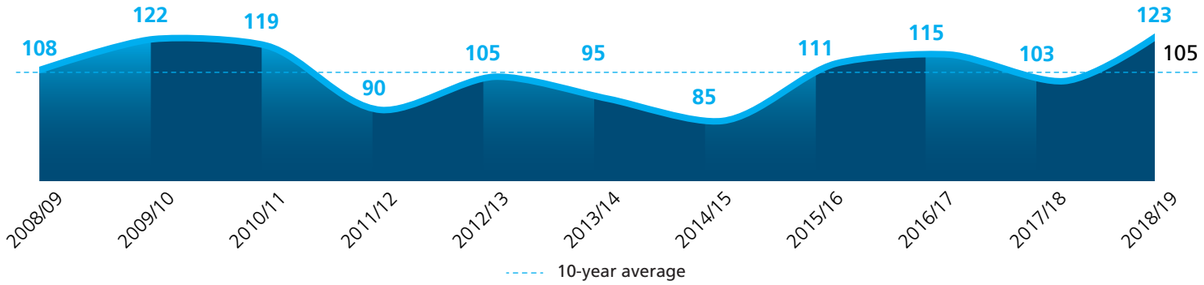
SUMMER DROWNING DEATHS



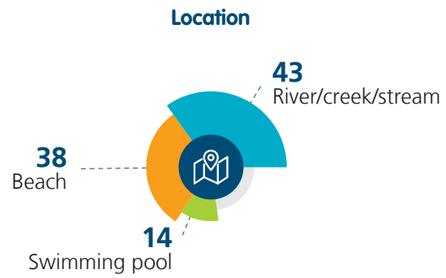
Of the total drowning deaths in 2018/19, 45% occurred in summer. Over half (54%) of all beach drowning deaths in 2018/19 occurred in summer, 2.6 times more than the next closest season (spring 21%).

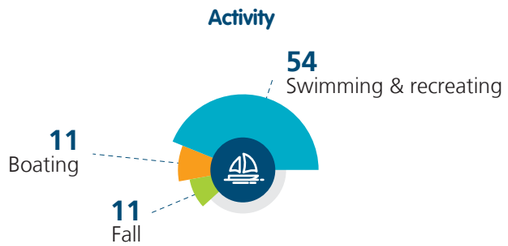
30% of all people who drowned during summer in 2018/19, were a visitor to their drowning location. Half (50%) of all drowning deaths of overseas tourists occurred in summer.

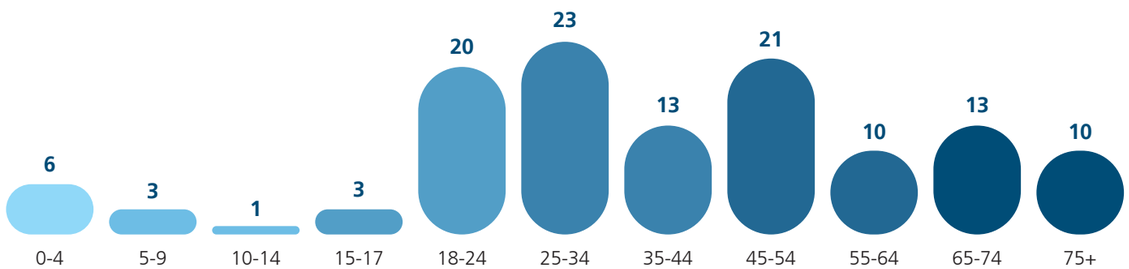
Royal Life Saving research has reported an increased risk for drowning during public holidays and school holidays. During the summer there are three national public holiday days (Christmas Day, Boxing Day and Australia Day), as well as individual State/Territory public holiday and school holiday periods.



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

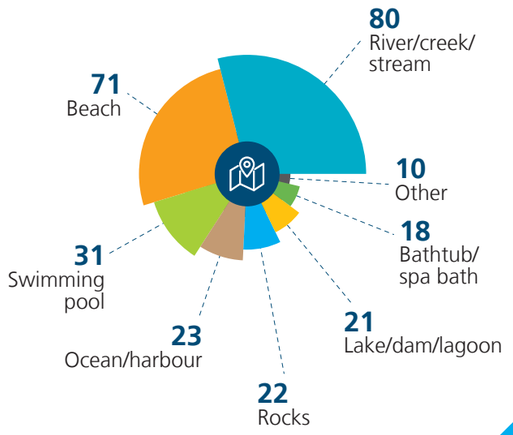




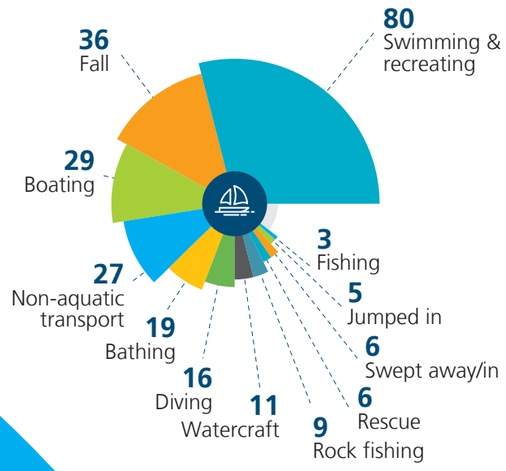


Drowning deaths in summer by age group in 2018/19

Location



Activity



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.

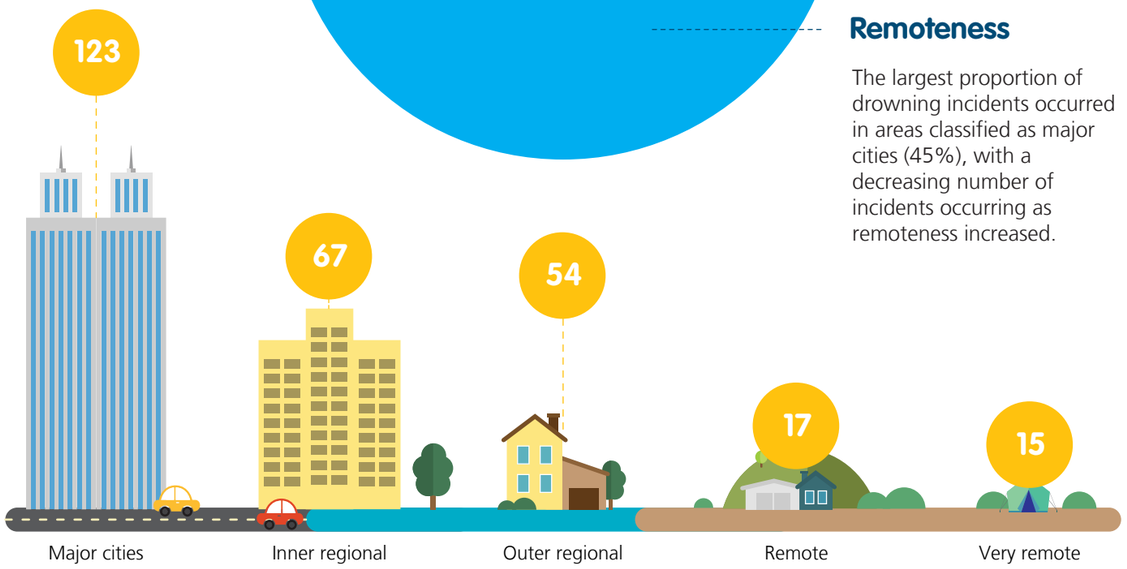
Beaches recorded a 42% increase in drowning deaths against the 10-year average, while ocean/harbour locations and swimming pools recorded a 50% and 23% decrease, respectively, against the 10-year average.

Swimming and recreating was the leading activity being undertaken immediately prior to drowning (29%), followed by a fall into water (13%).

WHERE AND HOW DO DROWNING DEATHS OCCUR?

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

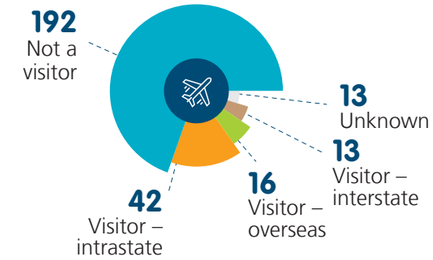
Most of those who drowned in 2018/19 (70%) were not visitors, that is, they drowned within 100km of where they lived.

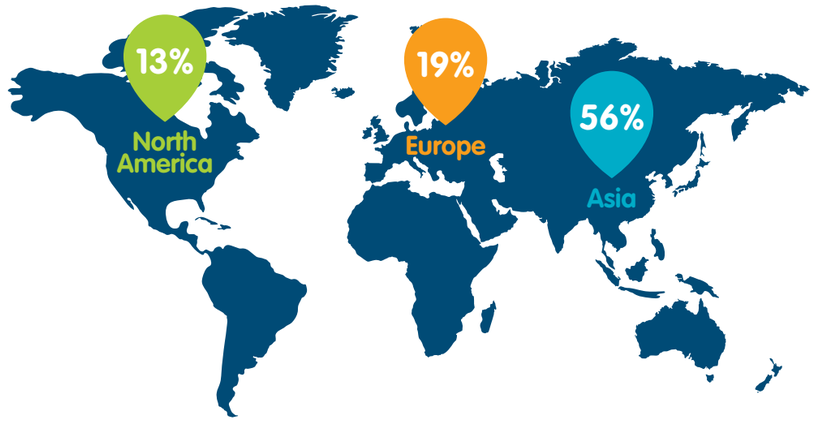
In 71 cases (26%) the person who drowned was known to be a visitor to the location where they drowned. Visitors were commonly male (92%) and most commonly aged 18-24 years (18%).

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, predominately from Asia, Europe and North America.

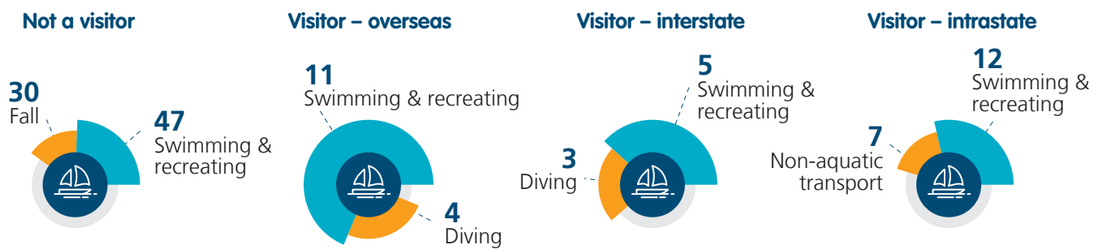




Drowning deaths among overseas tourists by region of origin in 2018/19

Location

Activity

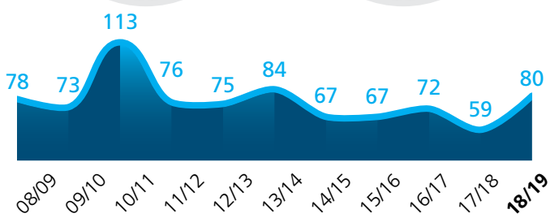


DROWNING DEATHS BY KEY LOCATIONS

River/creek/stream

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

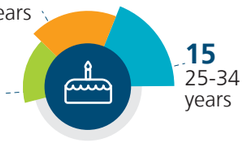
5% increase on the 10-year average



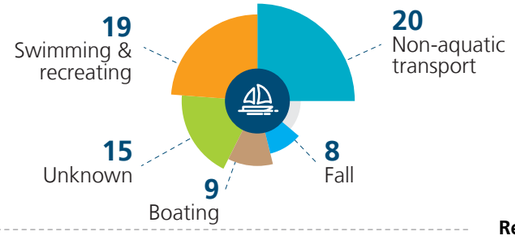
Drowning deaths in river/creek/stream locations from 2008/09 to 2018/19

Sex/Age

85% Male
15% Female



Activity



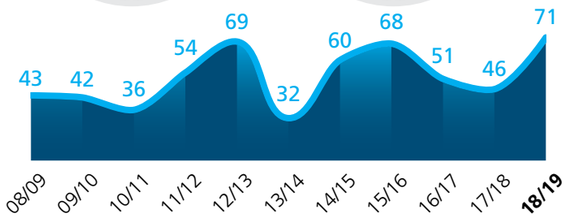
Remoteness

Visitor status

Beach

71 drowning deaths occurred at beaches in 2018/19

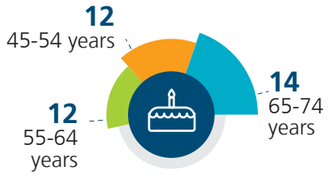
42% increase on the 10-year average



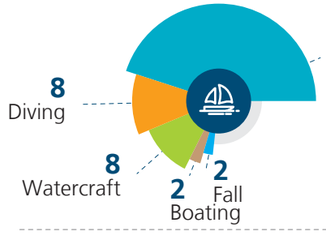
Drowning deaths at beaches from 2008/09 to 2018/19

Sex/Age

87% Male
13% Female



Activity



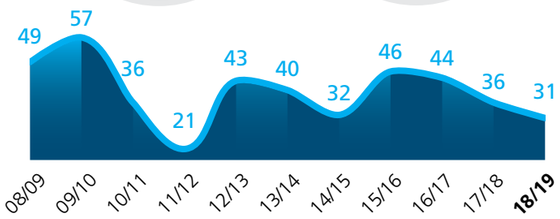
Remoteness

Visitor status

Swimming pool

31 drowning deaths occurred in swimming pools in 2018/19

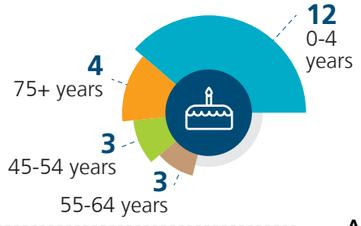
23% reduction on the 10-year average



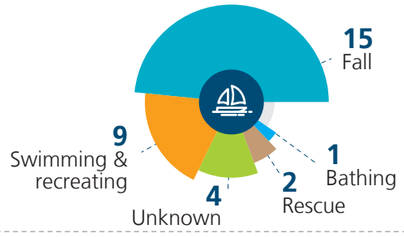
Drowning deaths in swimming pools from 2008/09 to 2018/19

Sex/Age

74% Male
26% Female



Activity



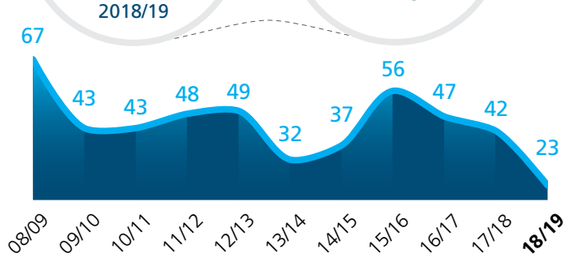
Remoteness

Visitor status

Ocean/harbour

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

45% reduction on the 10-year average



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

Sex/Age

96% Male
4% Female

Activity

Remoteness

Visitor status

IN FOCUS

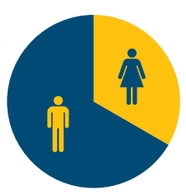
NON-AQUATIC TRANSPORT INCIDENTS

27 drowning deaths occurred due to non-aquatic transport

This is a **35% increase** on the 10-year average

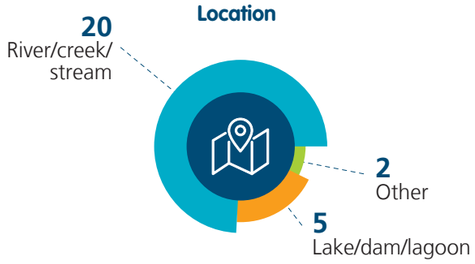
In 2018/19, non-aquatic transport accounted for 10% of all deaths. It was the fourth leading activity immediately prior to drowning.

Sex

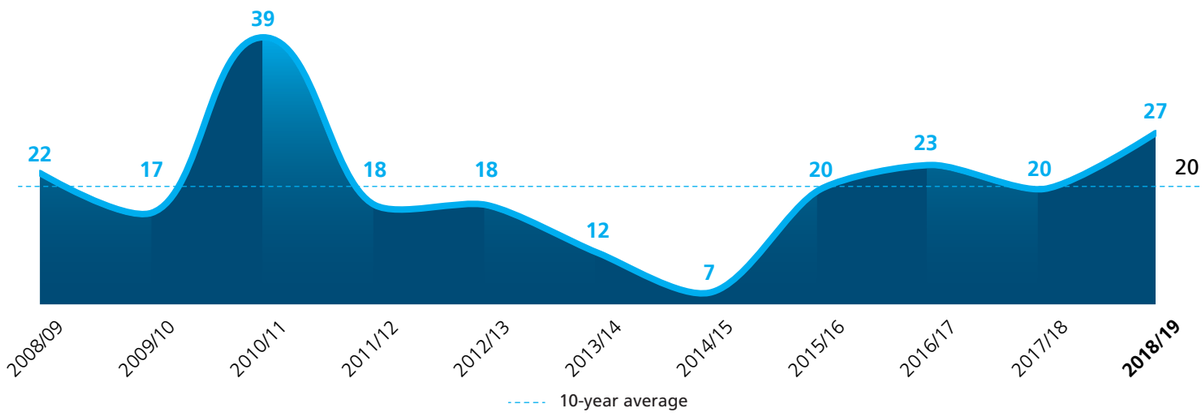


Age

Location



Visitor status



Drowning deaths related to non-aquatic transport from 2008/09 to 2018/19 and the 10-year average

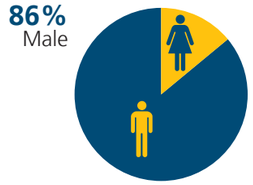
IN FOCUS

FLOOD-RELATED DROWNING

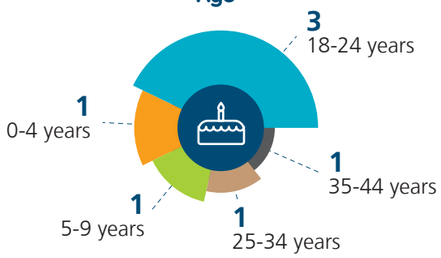
7 drowning deaths in flood-related incidents

This is a **53% reduction** on the 10-year average

Sex

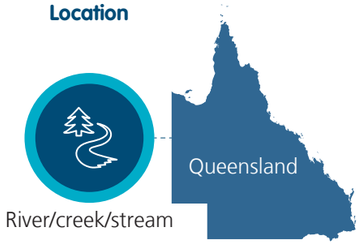


Age

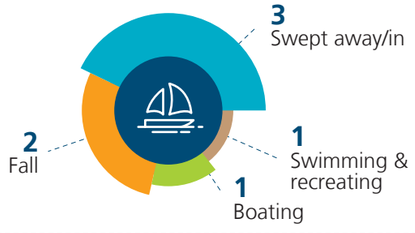


In 2018/19, all drowning deaths in known flood-related incidents occurred in Queensland, in a river, creek or stream.

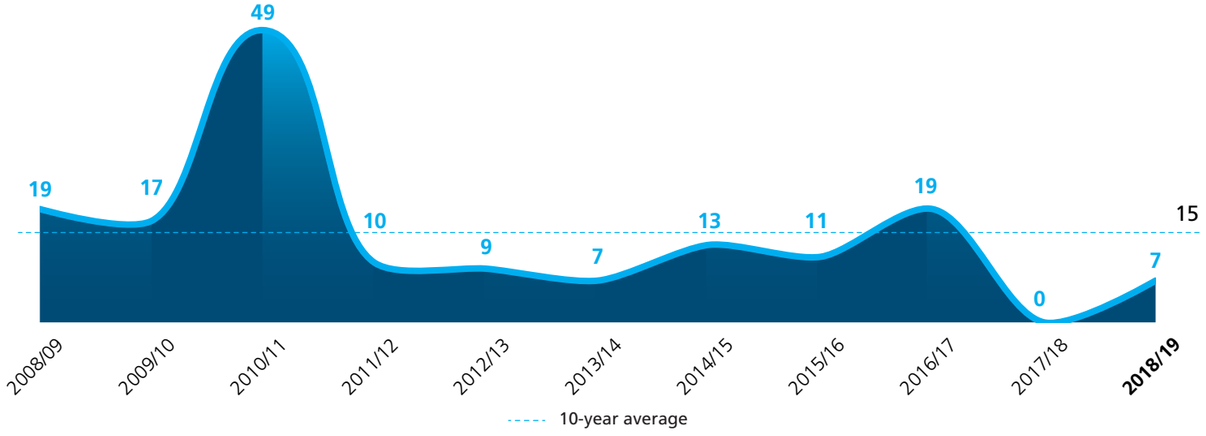
Location



Activity



Visitor status



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

IN FOCUS

MULTIPLE FATALITY EVENTS

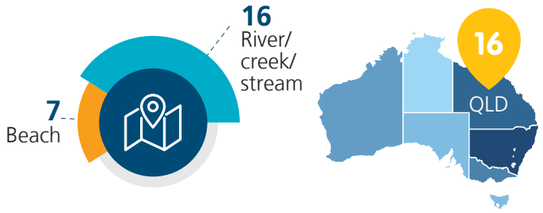
39 drowning deaths across 17 multiple fatality events

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

Sex

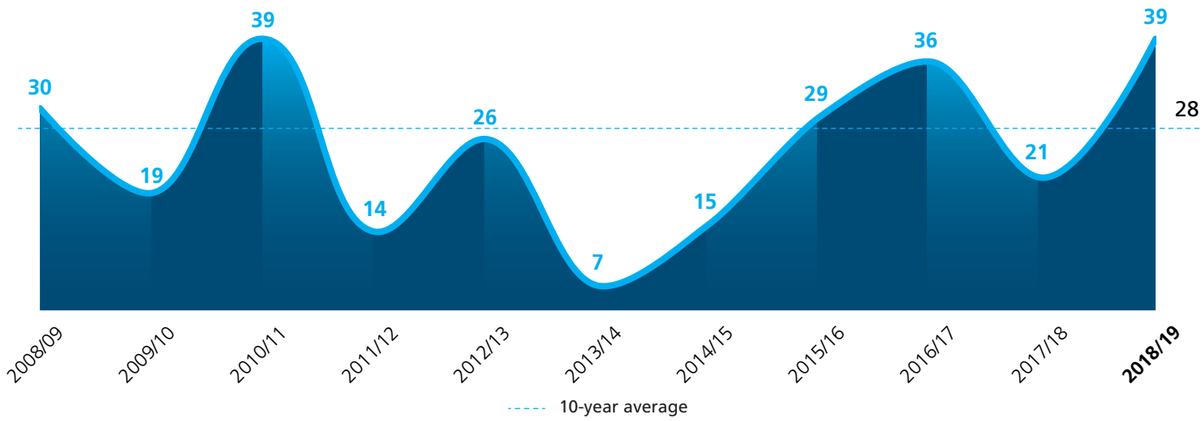
Age

Location



Activity

Visitor status

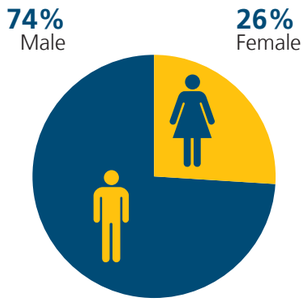


Drowning deaths related to multiple fatality events from 2008/09 to 2018/19 and the 10-year average

FATAL DROWNING RISK FACTORS

PRE-EXISTING MEDICAL CONDITIONS

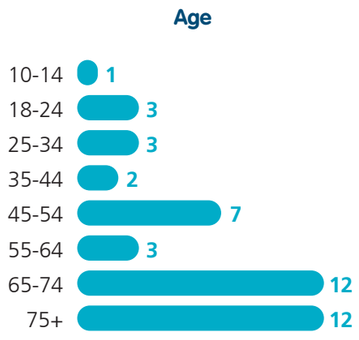
43 drowning deaths were known to involve a pre-existing medical condition in 2018/19

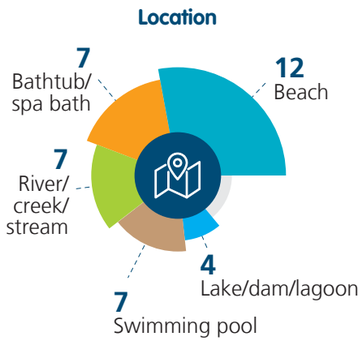


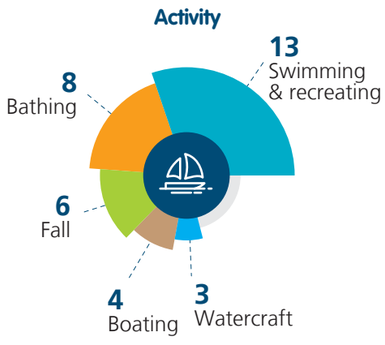
In 2018/19, the most common pre-existing medical conditions among those who drowned were cardiac conditions (such as ischaemic heart disease and coronary artery atherosclerosis), followed by epilepsy, autism, diabetes and Alzheimer's disease.

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

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

Alcohol was deemed to be a contributory factor in **89%** of these cases

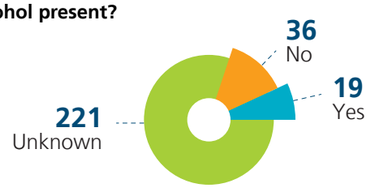
10 of these had information available on their blood alcohol concentration (BAC)

The highest BAC recorded among those who drowned in 2018/19 was **0.30%**

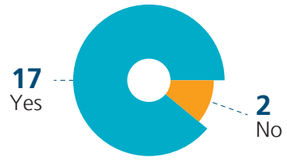
90% of these recorded a BAC ≥0.05%

At the time of publication, alcohol influence was still unknown in **80%** of all cases

Alcohol present?



Alcohol relevant (BAC≥0.05%)?



DRUGS

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

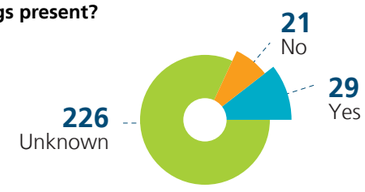
Drug type

83% **Legal** (ie, medication)

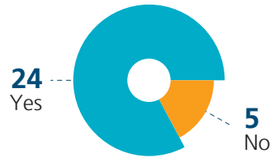
17% **Illegal** commonly MDMA (ecstasy), methylamphetamine and cannabis

At the time of publication, presence of drugs was unknown in **82%** of all cases

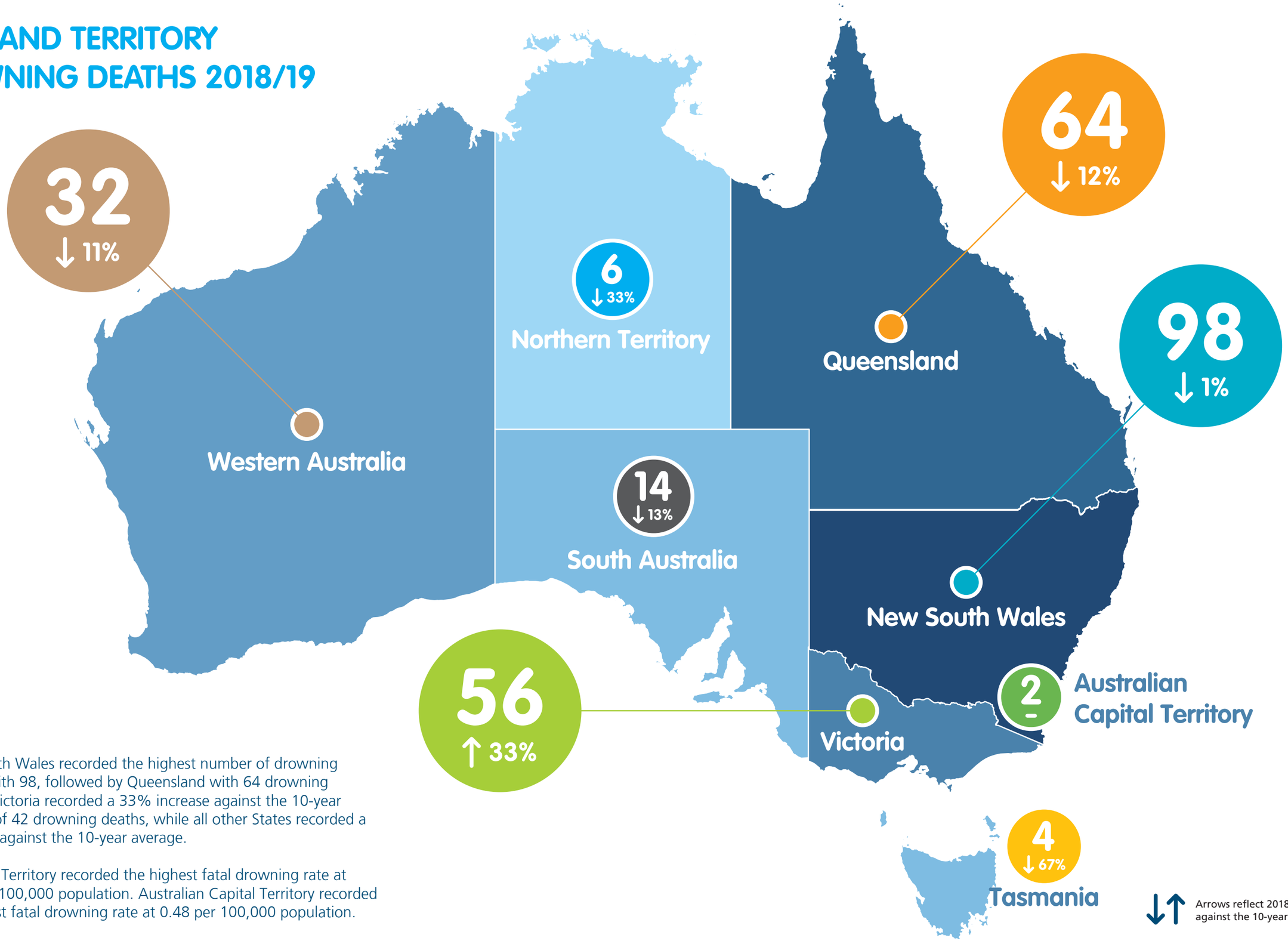
Drugs present?



Drugs legal?



STATE AND TERRITORY DROWNING DEATHS 2018/19



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.

↓↑ Arrows reflect 2018/19 change against the 10-year average

AUSTRALIAN CAPITAL TERRITORY

2 drowning deaths occurred in ACT in 2018/19

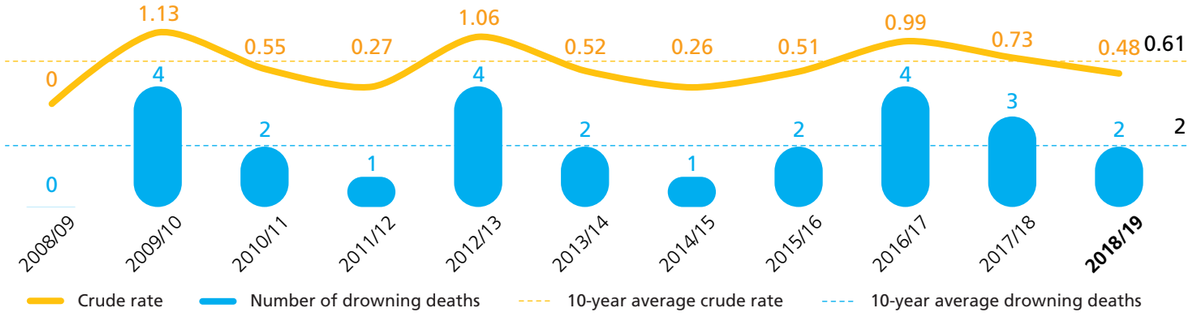
This is a **33% reduction** on 2017/18

and the **same** on the 10-year average

100% Male

100% Swimming & recreating

100% Summer



Drowning deaths and death rates in Australian Capital Territory from 2008/09 to 2018/19 and the 10-year average

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.

PROGRAM

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

Aimed at children **4-14**

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

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.

490 children participated in 2018/19

> 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

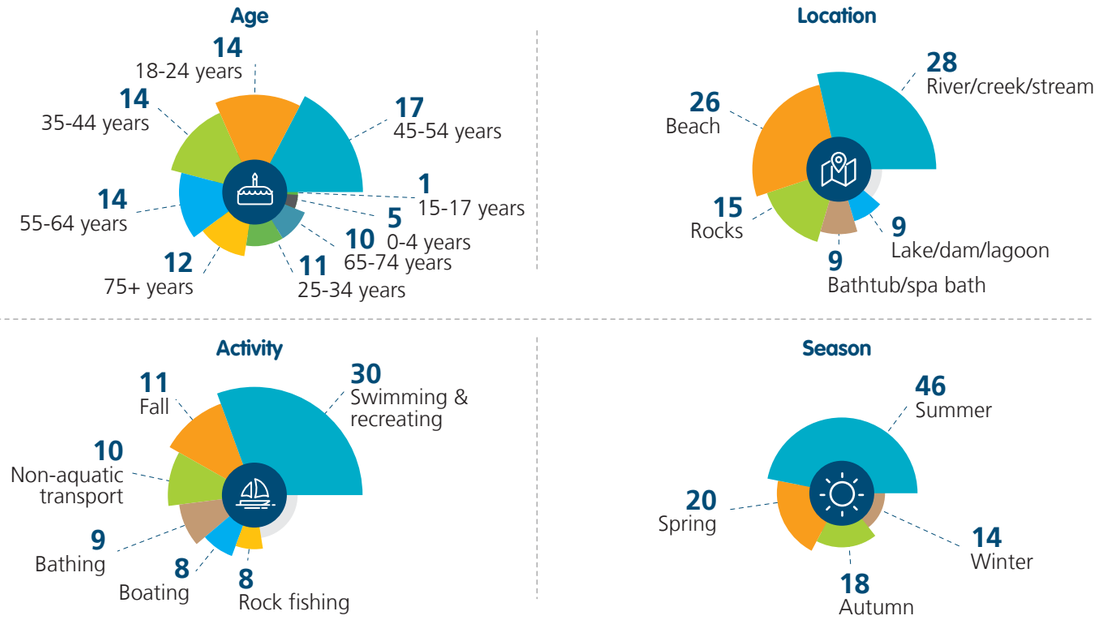
NEW SOUTH WALES

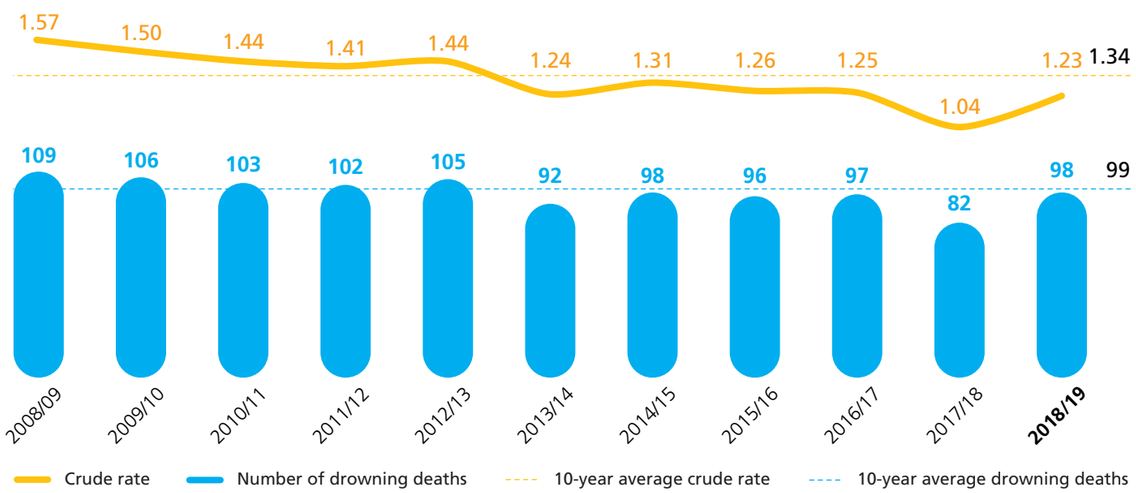
98 drowning deaths occurred in NSW in 2018/19

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





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

NORTHERN TERRITORY

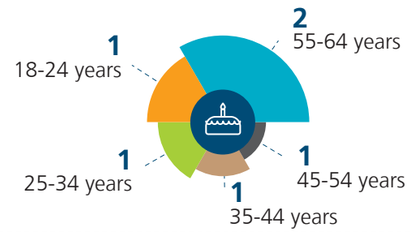
6 drowning deaths occurred in NT in 2018/19

This is a **14% reduction** on 2017/18

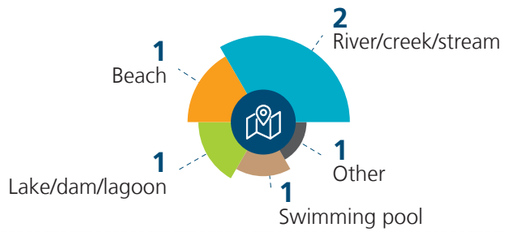
and a **33% reduction** on the 10-year average

67% of those who drowned in Northern Territory were male

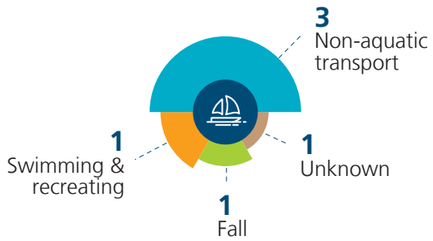
Age



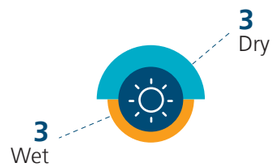
Location

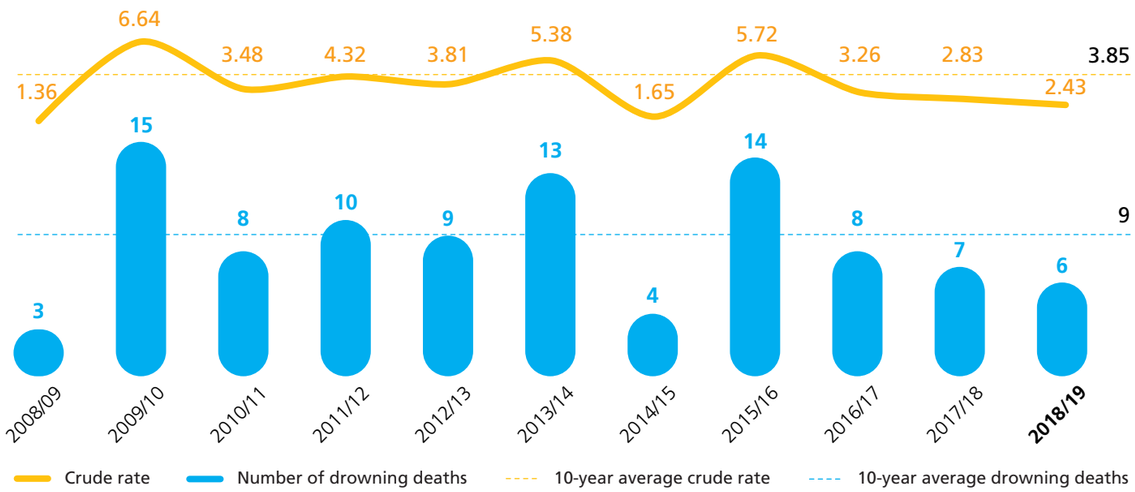


Activity



Season





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

QUEENSLAND

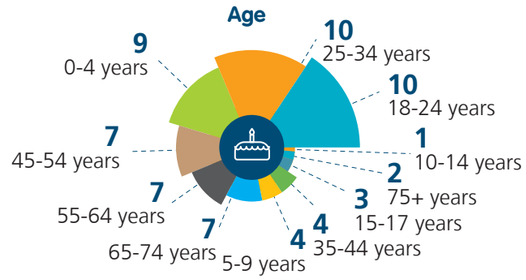
64 drowning deaths occurred in QLD in 2018/19

This is a **2% increase** on 2017/18

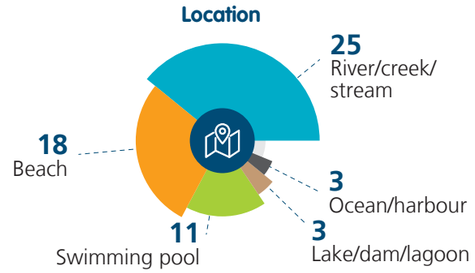
and a **12% reduction** on the 10-year average

86% of those who drowned in Queensland were male

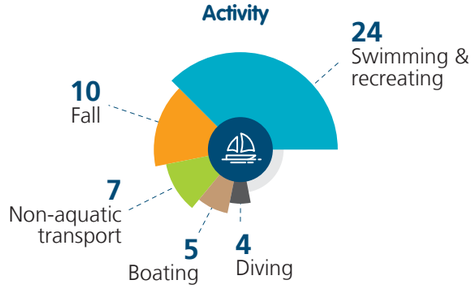
Age



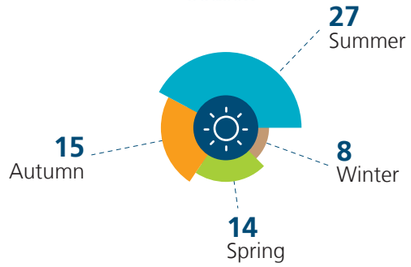
Location

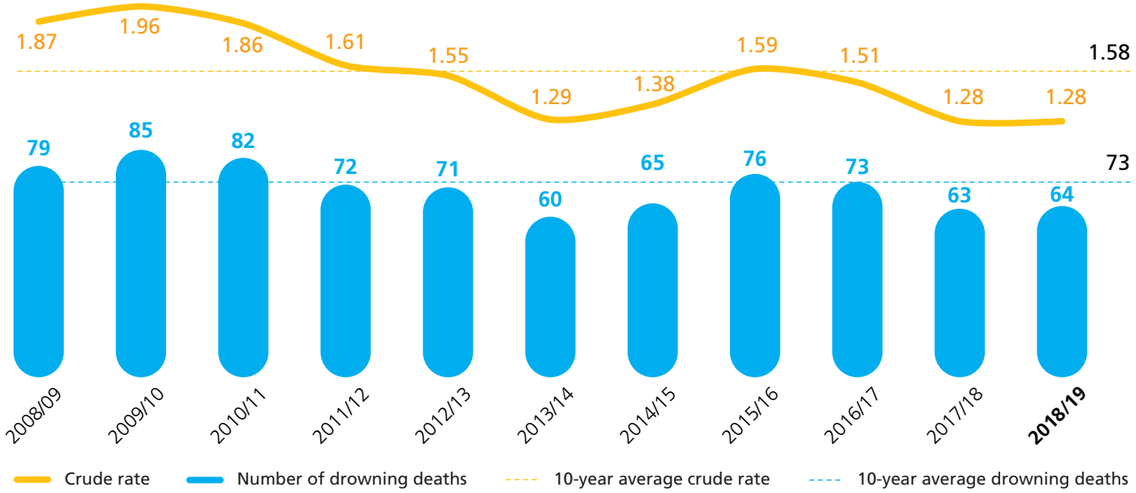


Activity



Season





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

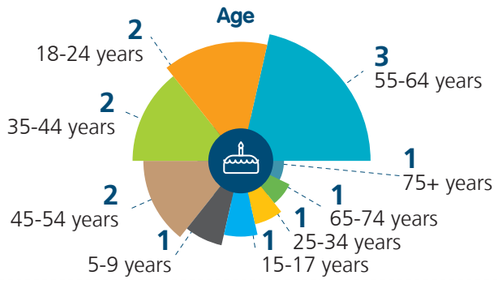
SOUTH AUSTRALIA

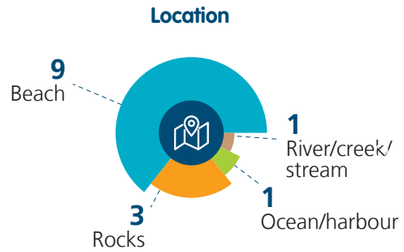
14 drowning deaths occurred in SA in 2018/19

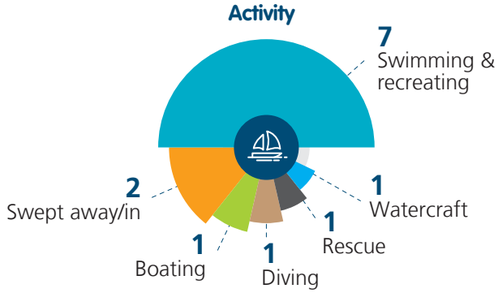
This is a **7% reduction** on 2017/18

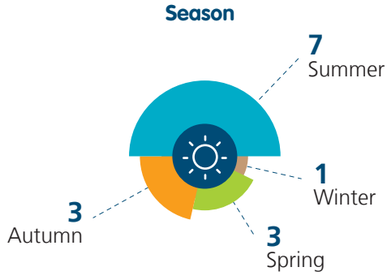
and a **13% reduction** on the 10-year average

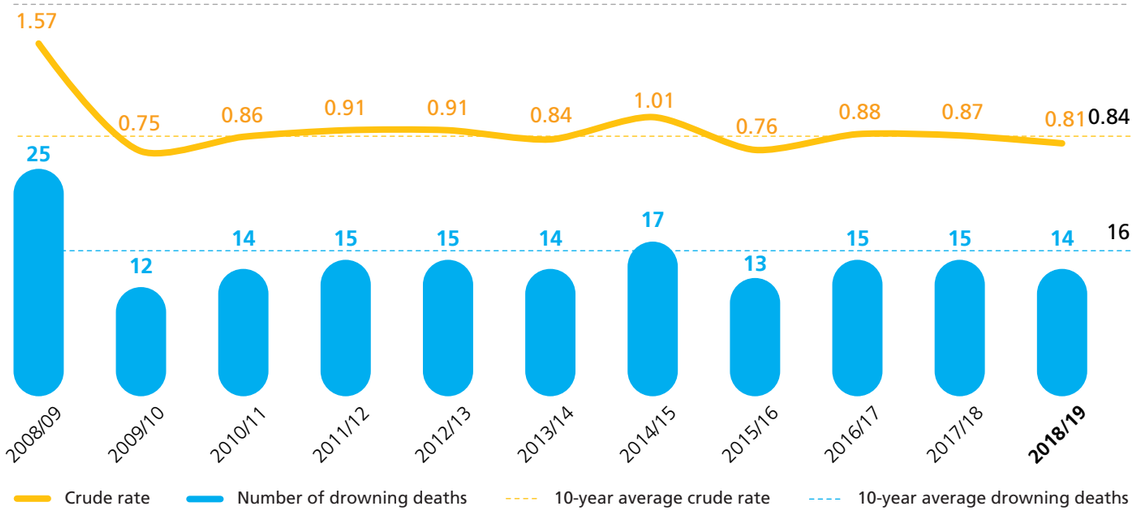
86% of those who drowned in South Australia were male











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

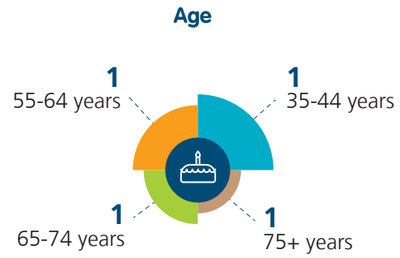
TASMANIA

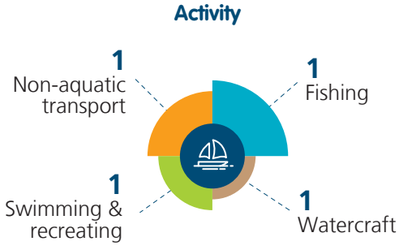
4 drowning deaths occurred in TAS in 2018/19

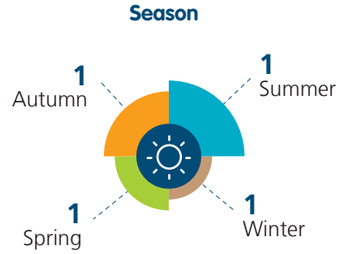
This is a **60% reduction** on 2017/18

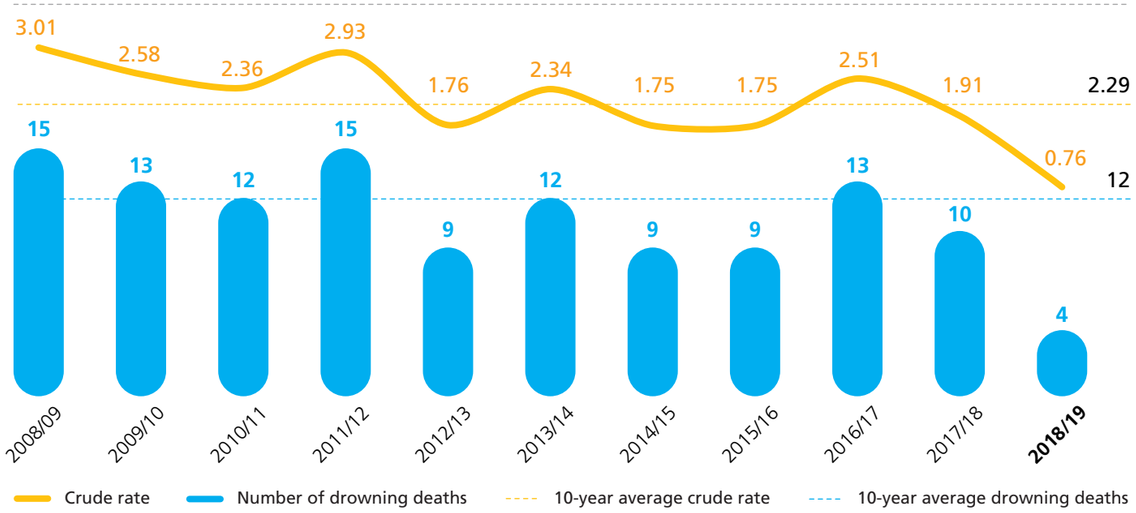
and a **67% reduction** on the 10-year average

75% of those who drowned in Tasmania were male









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

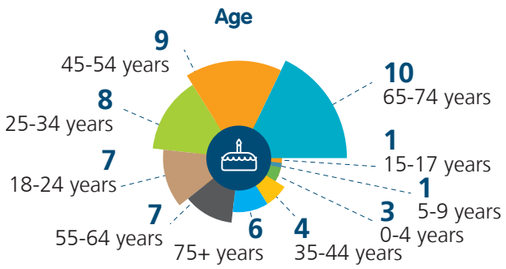
VICTORIA

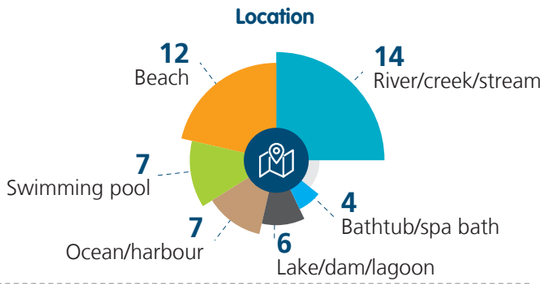
56 drowning deaths occurred in VIC in 2018/19

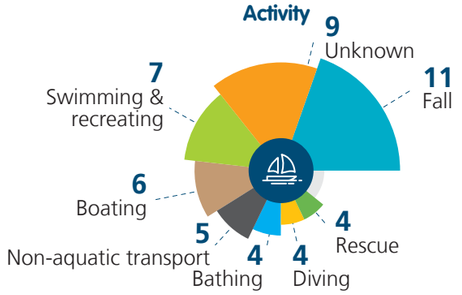
This is a **40% increase** on 2017/18

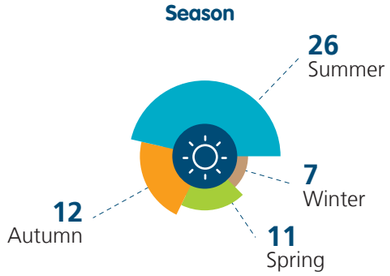
and a **33% increase** on the 10-year average

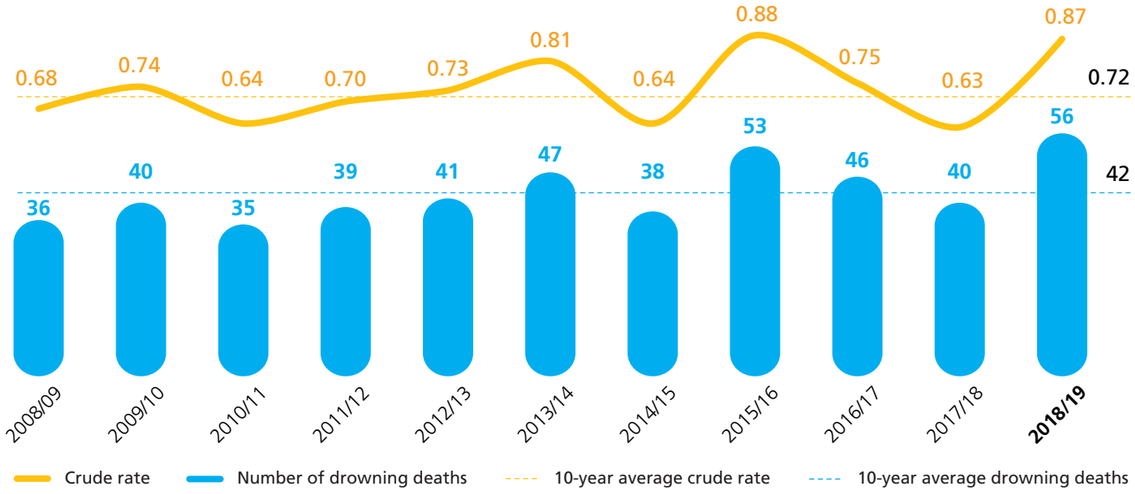
80% of those who drowned in Victoria were male











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

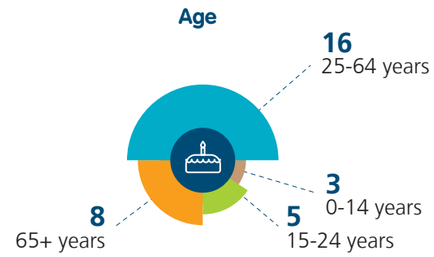
WESTERN AUSTRALIA

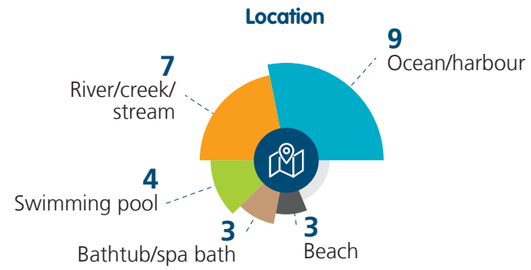
32 drowning deaths occurred in WA in 2018/19

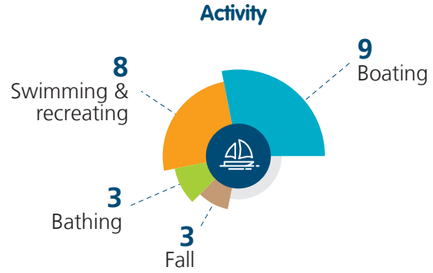
This is a **7% increase** on 2017/18

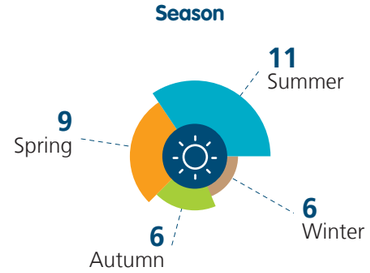
and a **11% reduction** on the 10-year average

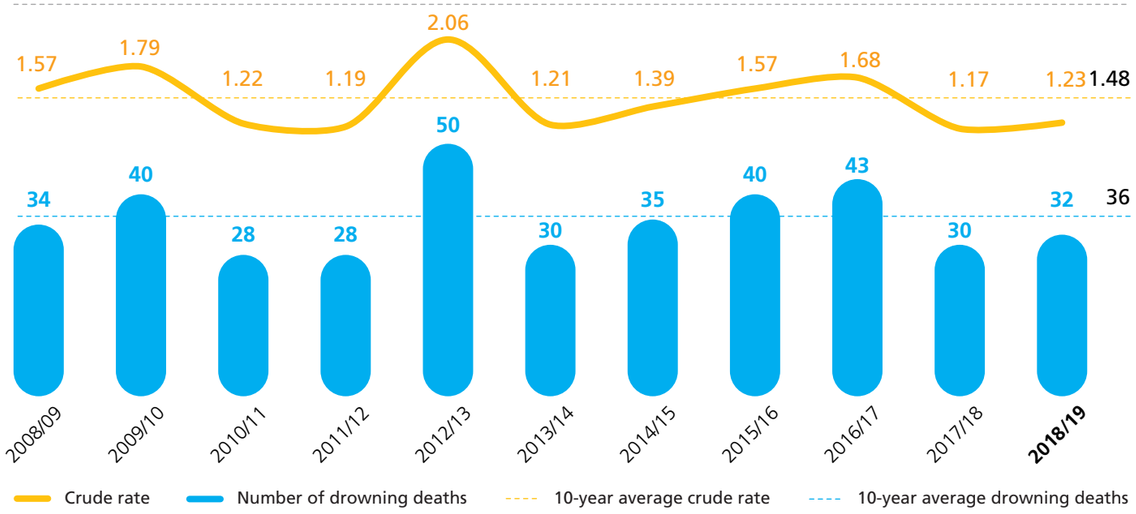
81% of those who drowned in Western Australia were male











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

KEY ISSUES

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	2017/18	10-YEAR AVERAGE
60 DEATHS	51 DEATHS	61 DEATHS ↓ 2%
1.5 Deaths per 100,000	1.3 Deaths per 100,000	1.9 Deaths per 100,000 ↓ 21%

NON-FATAL DROWNING INCIDENTS

57 | 47 | 55

SEX

2018/19	2017/18	10-YEAR AVERAGE
22% Female	25% Female	23% Female
78% Male	75% Male	77% Male

2018/19 | 2017/18

Pre-exisiting medical condition	Alcohol	Medication
40%* 63%	5%* 14%	12%* 29%

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

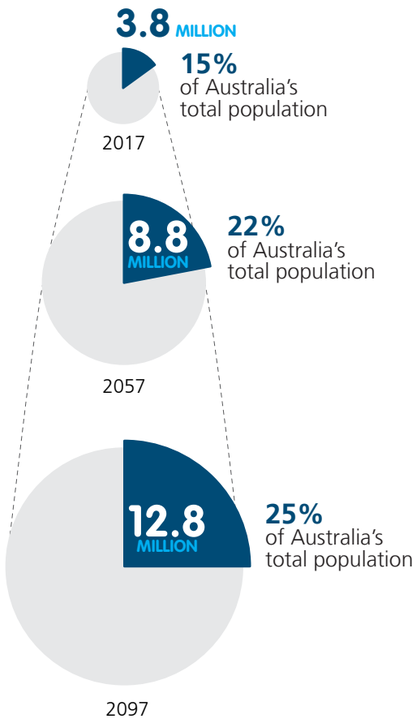
OLDER AUSTRALIANS

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.

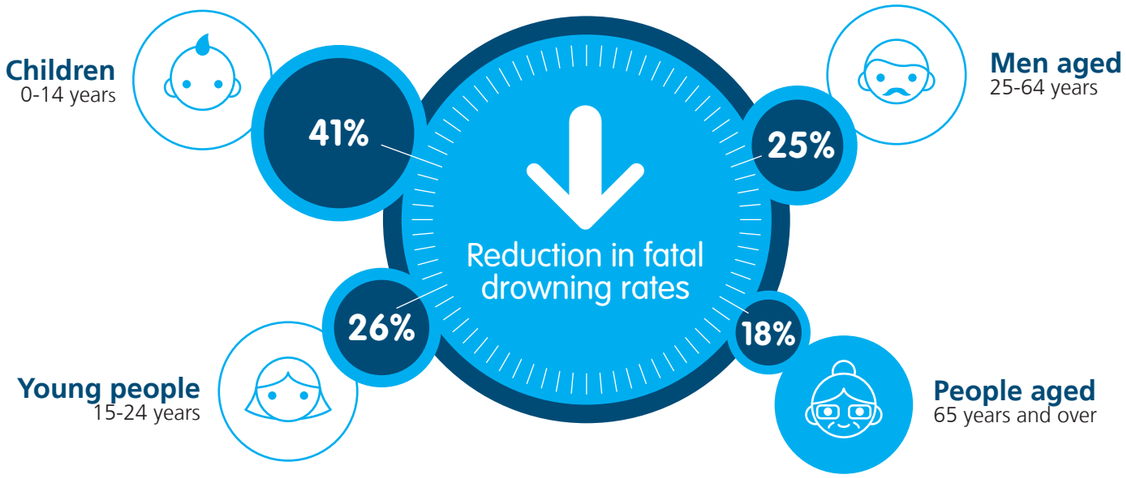
Many older Australians have not received or were not exposed to the level of water safety education that most Australians receive today. This highlights the importance of introducing water skills and education for older Australians, as well as promoting the health benefits of recreating safely in aquatic 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 drowning deaths per 100,000 population).

People aged 65 years and over accounted for 22% of all drowning deaths over the past year, rising from 16% in 2002/03

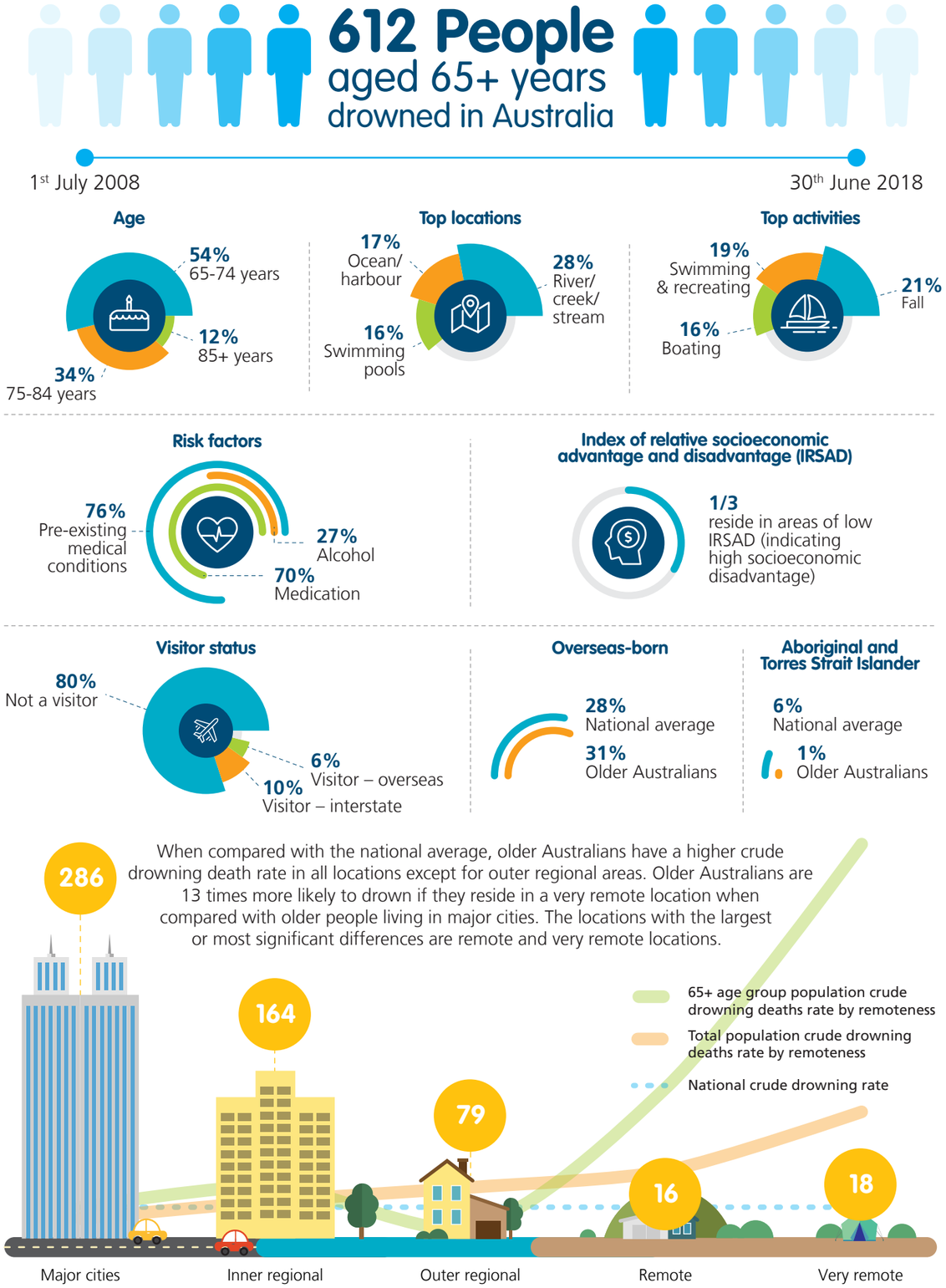


Projected growth in the number of older Australians from 2017 to 2097[1]



Older Australians experienced the lowest reduction in fatal drowning rates from 1st July 2008 to 30th June 2018

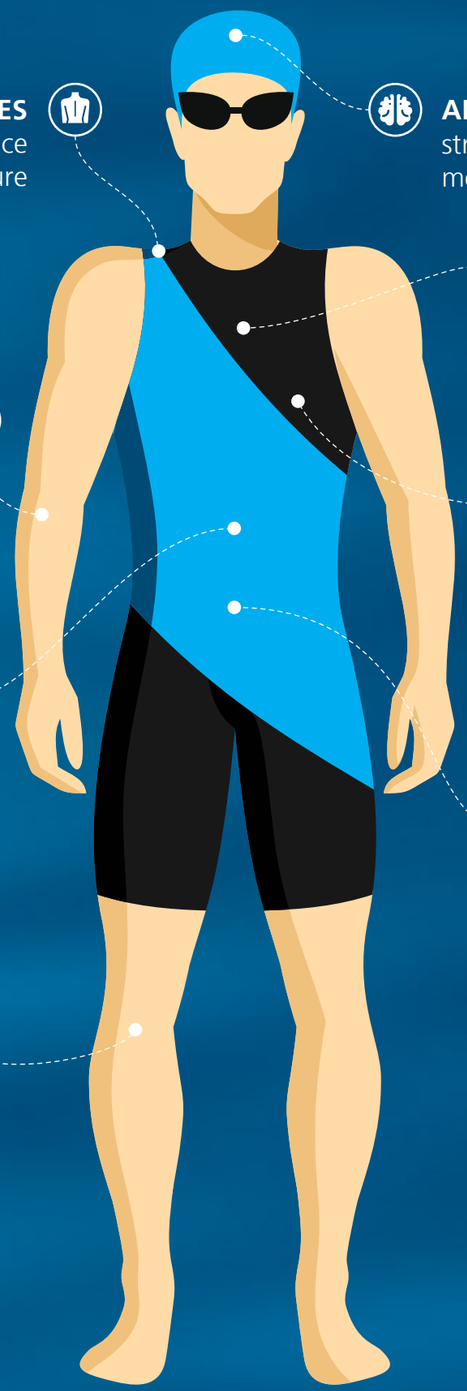
10-Year Data Breakdown



Total number of drowning deaths in the older population by remoteness from 1st July 2008 to 30th June 2018

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.



IMPROVES coordination, balance and posture

ALLEVIATES stress, and improves general mental health and wellbeing

INCREASES respiratory capacity and function

BUILDS endurance, muscle strength and tone

IMPROVES cardiovascular fitness and health

IMPROVES immunity and decreases inflammation

HELPS to maintain a healthy bodyweight

KEEPS joints flexible

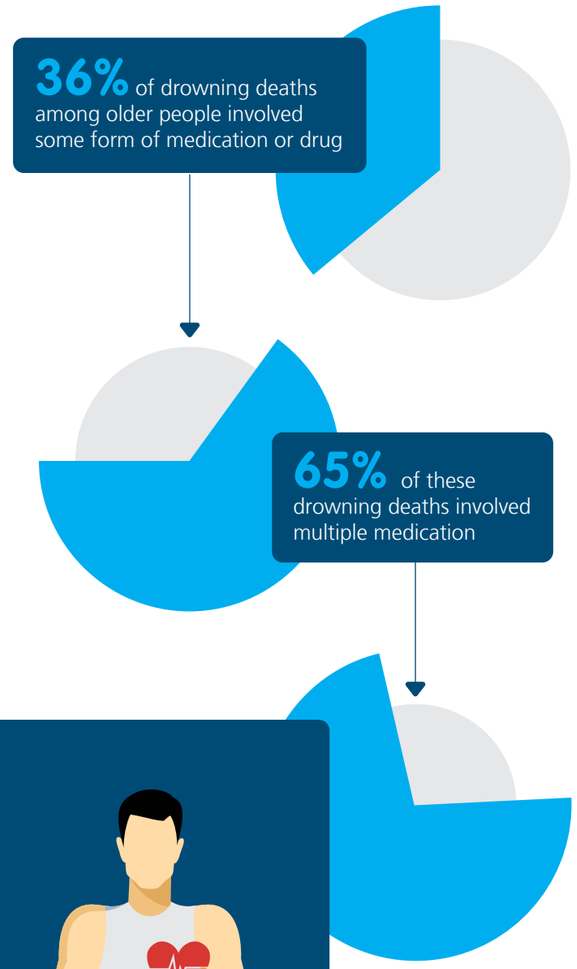
See references.[2-9]

Effects of Medication on Drowning in Older People

As people age, changes occur in the way their bodies process medications, and the benefit/risk profile of a medication can change.

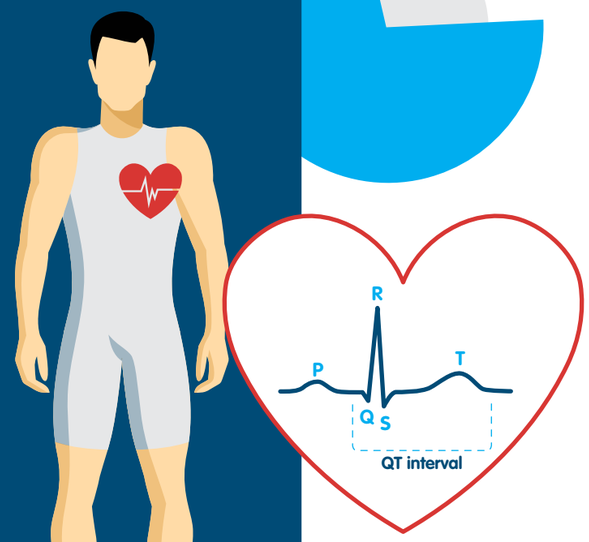
Chronic medical conditions are more common in ageing populations[10] which means older people are more likely to be prescribed several medications.[10-11] Multiple drug interactions can be complex and can increase the incidence of side effects in older individuals,[11-12] which can increase the risk 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.[13-14]



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.

Recent international studies have linked unexplained drowning deaths and conditions involving cardiac arrhythmias[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.[13-14,18-20] Long QT syndrome is known to have a congenital cause but medications are also a known risk factor.[12-14] It is evident that older patients are more susceptible to experiencing drug side effects, especially with prolonged use of medications.[10-11] Older patients taking psychiatric drugs are at higher risk.[14,18]



RECOMMENDATIONS

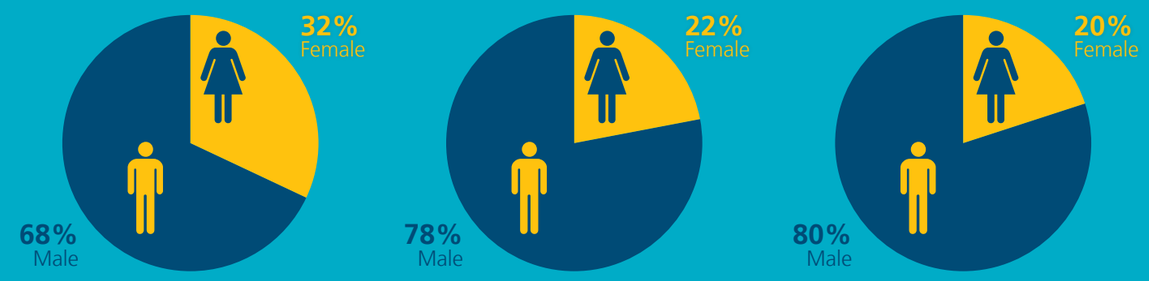
- Target drowning prevention interventions and advocacy messaging to older people to highlight the risks of recreating in and around water alone.
- Focus drowning prevention interventions and advocacy on the issue of pre-existing medical conditions, and the potential side effects of prescription medication 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.
- 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.

MULTICULTURAL POPULATIONS

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

2017/18*	2016/17	10-YEAR AVERAGE
49 DEATHS	76 DEATHS	79 DEATHS ↓38%

SEX



Residents | Overseas Visitors (on holiday or visiting friends/relatives in Australia)

	Residents	Overseas Visitors
2017/18	44	5
2016/17	63	13
10-YEAR AVERAGE	69 ↓36%	11 ↓55%

*Year data most currently available for.

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.[21-22] 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.[21]

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.

UNITED KINGDOM
90 (14%)

SOUTH KOREA
30 (10%)

CHINA
64 (10%)

INDIA
29 (5%)

NEW ZEALAND
46 (7%)

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

EMERGING COMMUNITIES AT RISK
10-year total (crude rate*)

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

***per 100,000 population living in Australia**

CURRENT TRENDS IN MIGRATION

2017/18[23]

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**

INTERNATIONAL STUDENTS

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

- **China**
- **India**
- **Nepal**

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

- **China** ↑22%
- **India** ↑10%
- **Vietnam** ↑8%

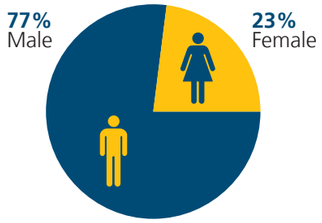
Key groups within the overseas-born population

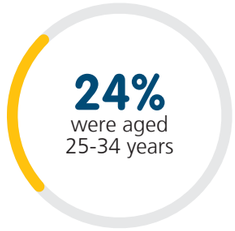
10-Year Data Breakdown

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





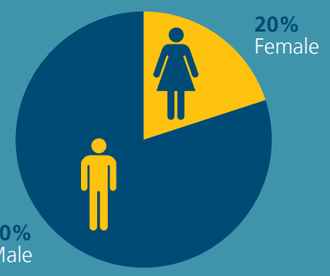
83% were permanent residents in Australia at the time of death rather than visitors

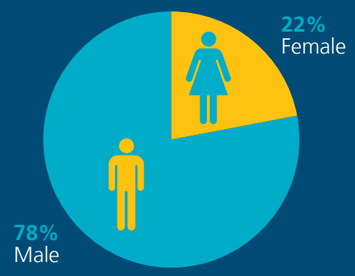
	Overseas-born residents	Overseas visitors	International students
Average drowning deaths per year	66	11	3
Average age	43 years	57 years	23 years
Top 3 countries	United Kingdom, China, New Zealand	China, USA, Japan & Germany	China, India, South Korea
Top locations	22% Beach; 23% River/creek/stream; 16% Rocks	41% Beach; 22% Ocean/harbour	22% River/creek/stream; 26% Beach; 22% Rocks
Top activities	12% Fall; 27% Swimming & recreating	42% Swimming & recreating; 32% Diving	48% Swimming & recreating

TOTAL OVERSEAS BORN, INCLUDING TOURISTS

AUSTRALIAN BORN

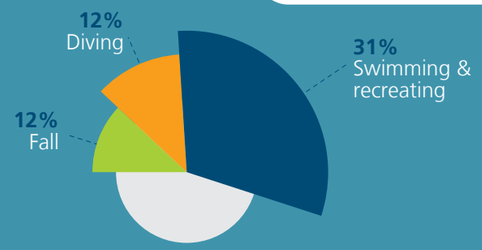
SEX

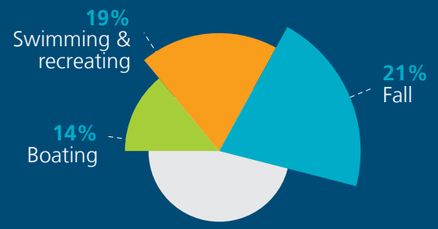




LOCATION OF DROWNING

ACTIVITY PRIOR TO DROWNING





WAS ALCOHOL INVOLVED?

CHANGES IN THE AUSTRALIAN POPULATION[24]

29% of people currently living in Australia were born overseas

21% speak a language other than English at home, most commonly Mandarin

49% of all Australians were either born overseas or had at least one parent who was

The overall growth rate of the overseas-born population in 2016 was more than three times the population as a whole

5.1% VS 1.5%

RECOMMENDATIONS

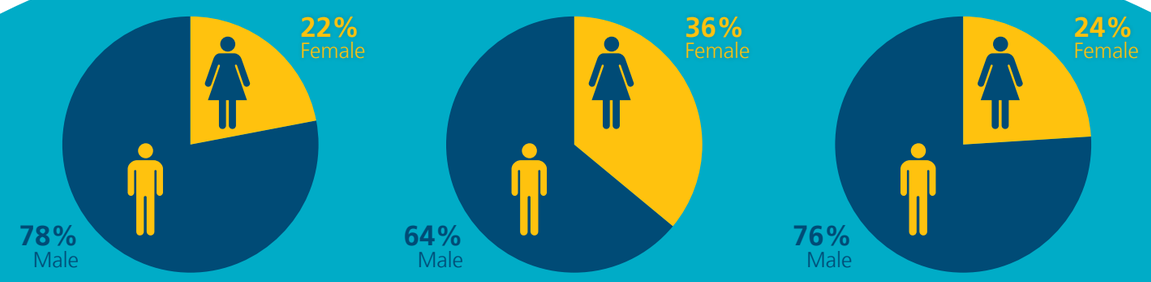
- Promote, reinforce and encourage implementation of the action statements outlined in the *2018 Symposium on Addressing Drowning Among Multicultural Communities*.
- Incorporate culturally diverse drowning perspectives into future Australian Water Safety strategies and drowning reports.
- Promote stronger 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

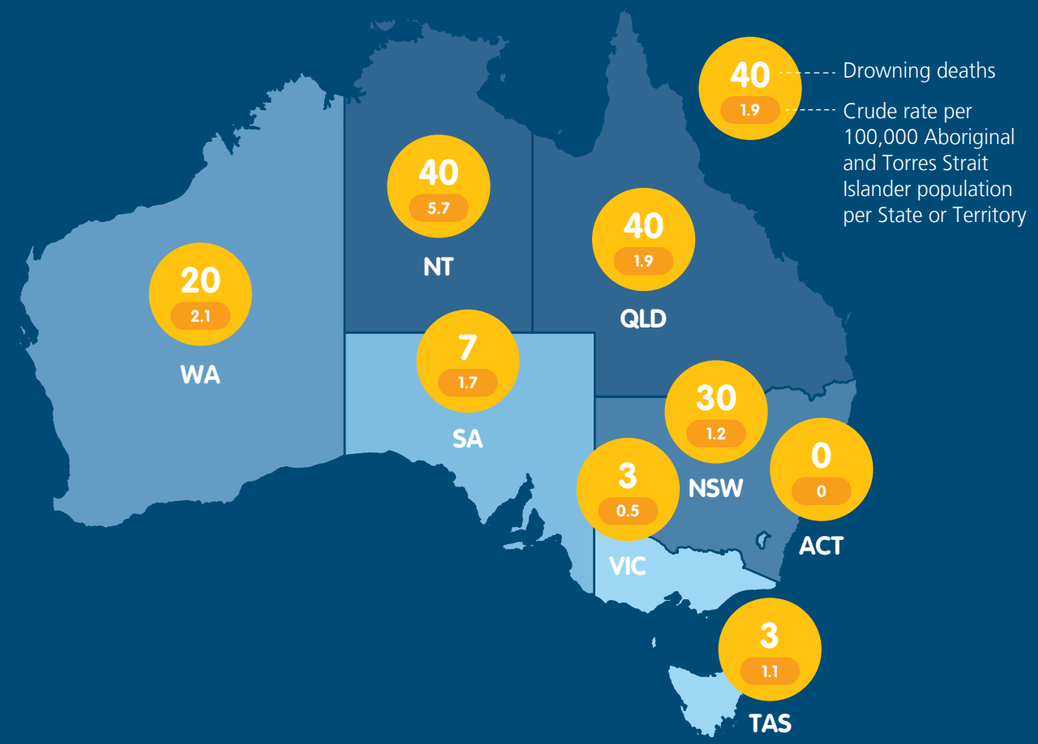
Drowning data for Indigenous Australians

2017/18*	2016/17	10-YEAR AVERAGE
9 DEATHS	14 DEATHS	14 DEATHS ↓37%
1.1 Deaths per 100,000	1.7 Deaths per 100,000	1.9 Deaths per 100,000

SEX



STATE AND TERRITORY BREAKDOWN



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

*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[25] 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.[26] Anecdotally, increased school attendance has also been recorded in areas where pools and swimming programs have been introduced.[27-28]

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 and absenteeism for the local economy.[29] Aboriginal and Torres Strait Islander people in remote communities experience some of the poorest health outcomes in Australia. The overall value of a swimming pool in remote communities is likely to be much higher.

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

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.[30]

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.[31]

Drowning rates were **44% higher** among Aboriginal and Torres Strait Islander children than non-Aboriginal and Torres Strait Islander children

and a risk of any drowning event was **1.44 times** that of non-Aboriginal children.[31]

10-Year Data Breakdown

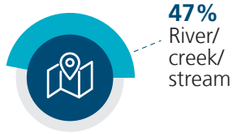
143 People who identified as Aboriginal and Torres Strait Islander drowned in Australia

1st July 2008 — 30th June 2018

5% of total drowning deaths during the 10-year period but represent **3%** of the total population

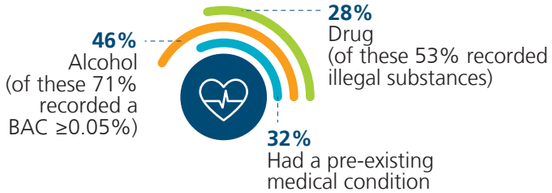
Age

Top locations

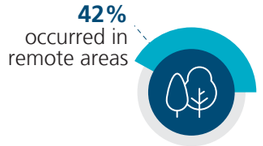


Top activities

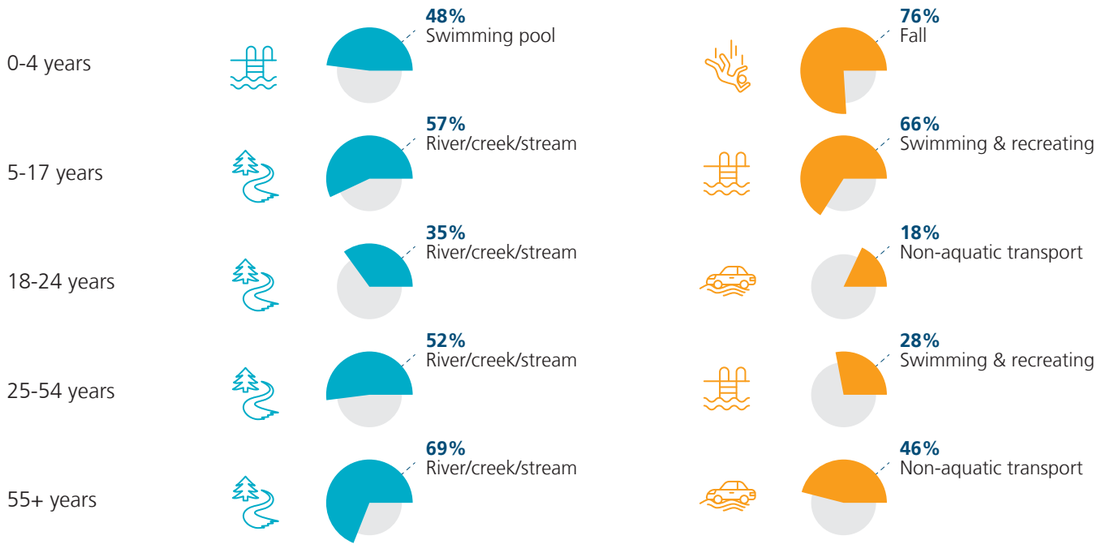
Risk factors



Remoteness



Risk factors differ by age



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.[31]

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

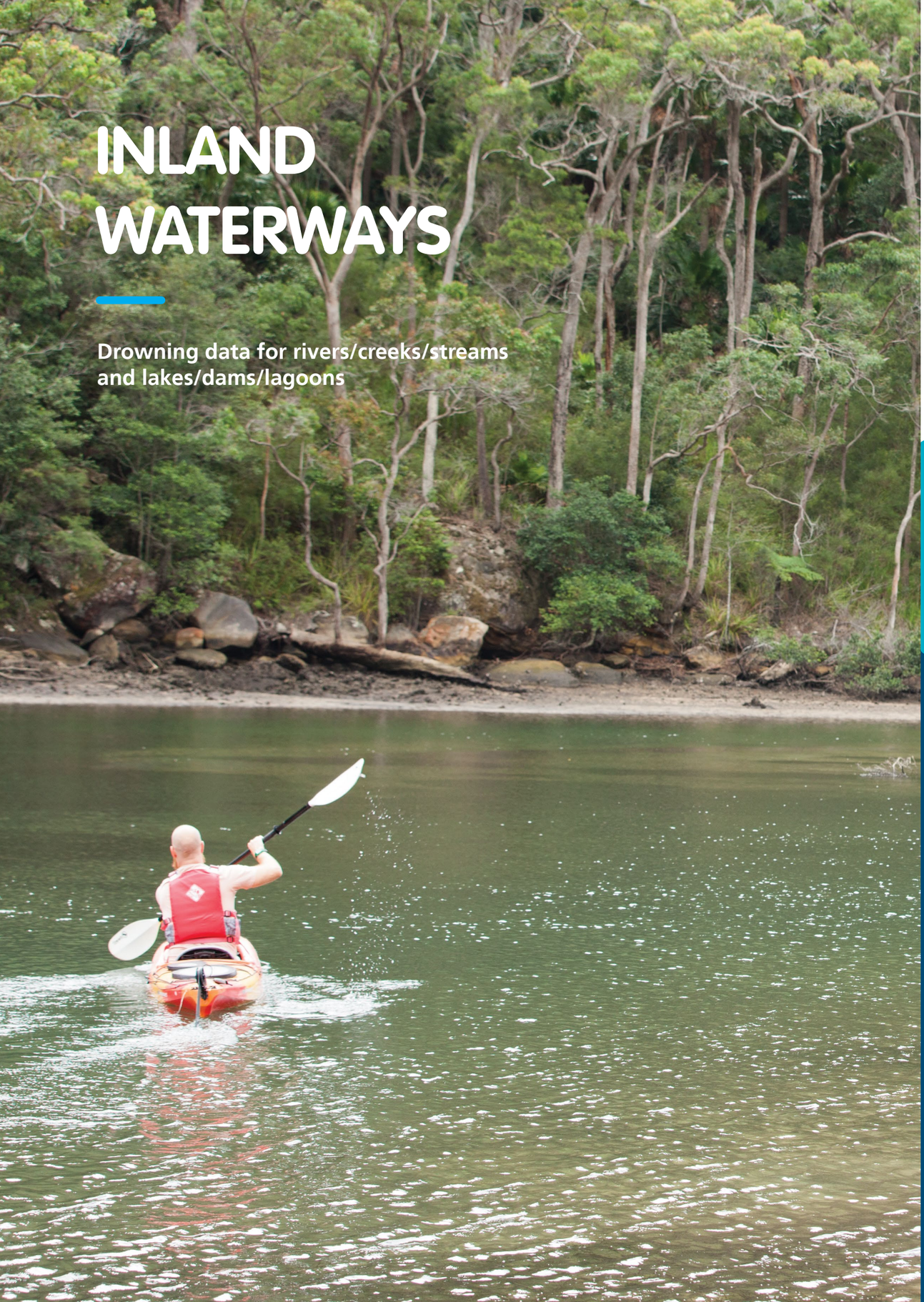
- Network of aquatic trainers established across three regions to reduce the need for 'fly in, fly out' instructors, and build capacity and capability of regional centres to teach and assess candidates up to Bronze Medallion qualifications.
- Allows capacity and opportunity to offer flexible programming 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.

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.

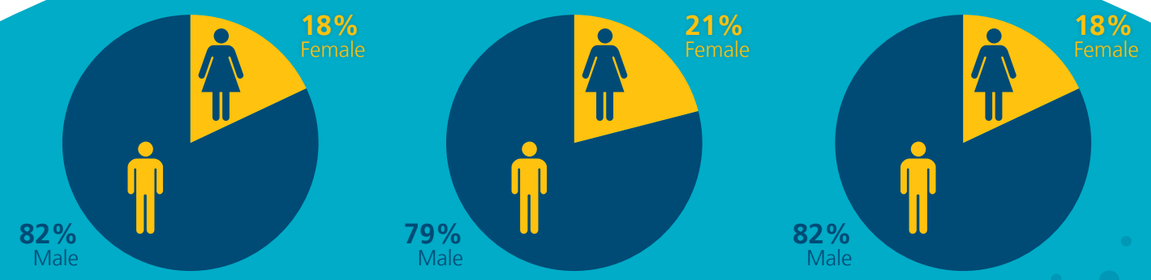
INLAND WATERWAYS

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

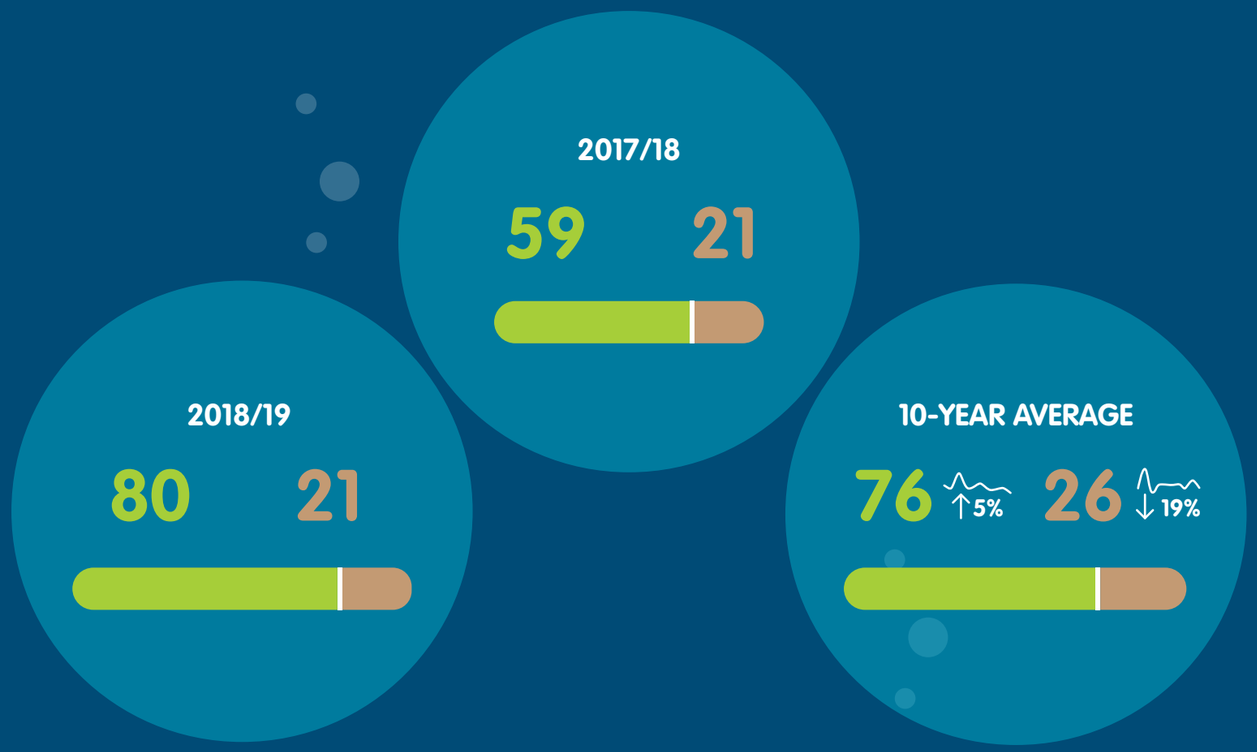


2018/19	2017/18	10-YEAR AVERAGE
101 DEATHS	80 DEATHS	102 DEATHS ↓ 1%
0.4 Deaths per 100,000	0.2 Deaths per 100,000	0.4 Deaths per 100,000 — 0%

SEX



Rivers/creeks/streams | Lakes/dams/lagoons

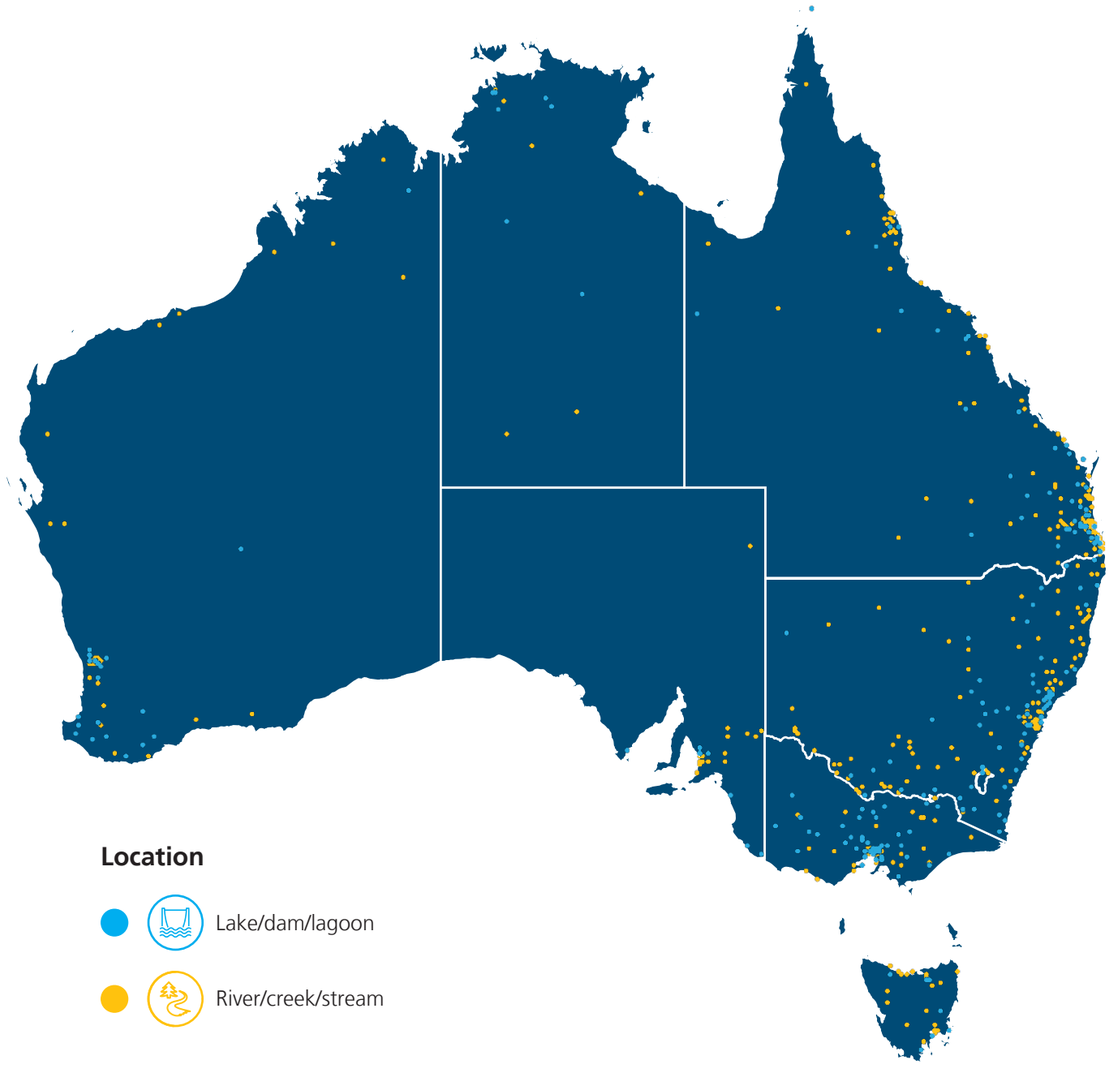


INLAND WATERWAYS

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.[32] This is due to changeable conditions and added risks such as geographical remoteness, lack of supervision of children and alcohol consumption.[32-33] Over the past 10 years, Australia has experienced consistently high numbers of drowning deaths in inland waterway locations.[33]

Drowning deaths in rivers, creeks and streams have previously been examined in detail,[32-33] with lakes, dams and lagoons reviewed more recently.

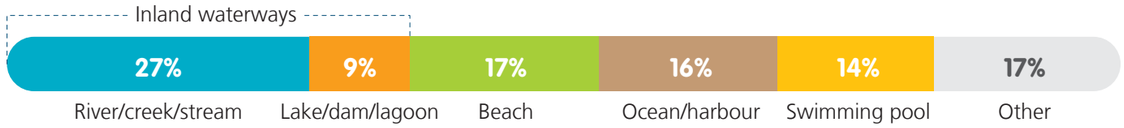


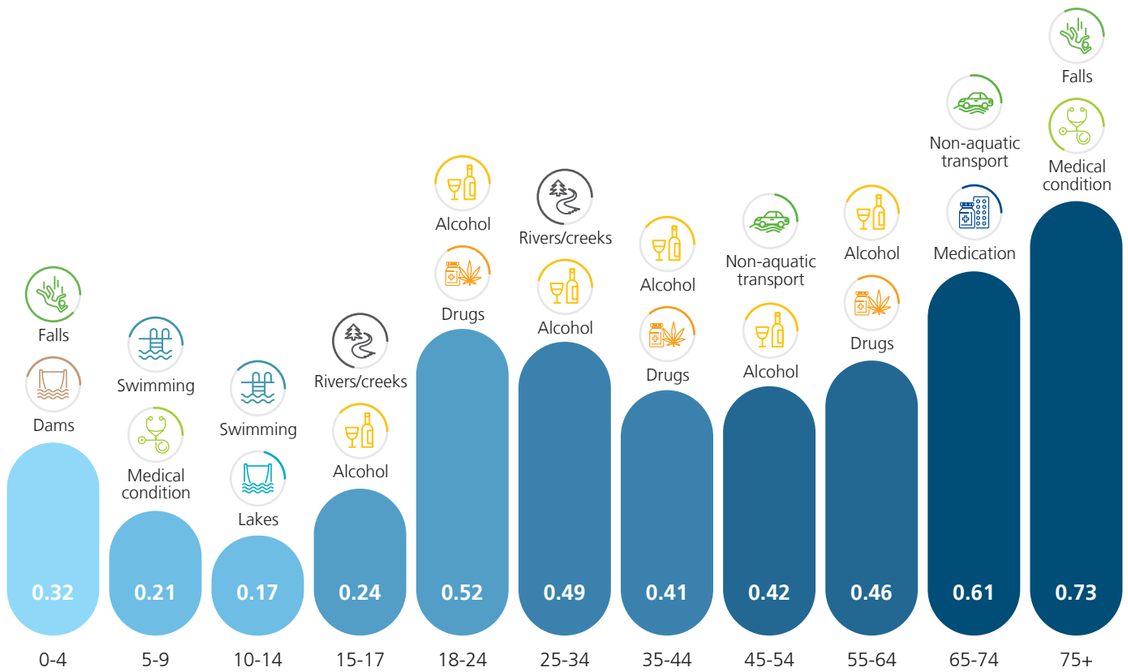
Inland waterway drowning deaths in Australia from 1st July 2008 to 30th June 2018

10-Year Data Breakdown

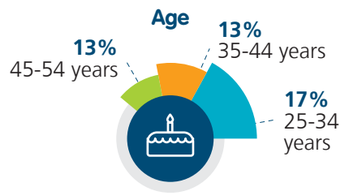
1st July 2008 — 30th June 2018

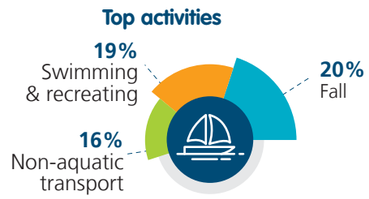
Inland waterways recorded the largest proportion of drowning deaths in Australia and showed the second greatest reduction in drowning deaths (22%)

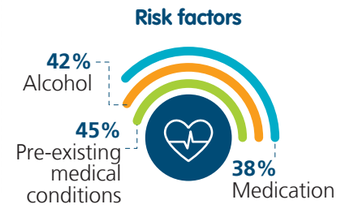




Drowning death crude rate by age per 100,000 population from 1st July 2008 to 30th June 2018

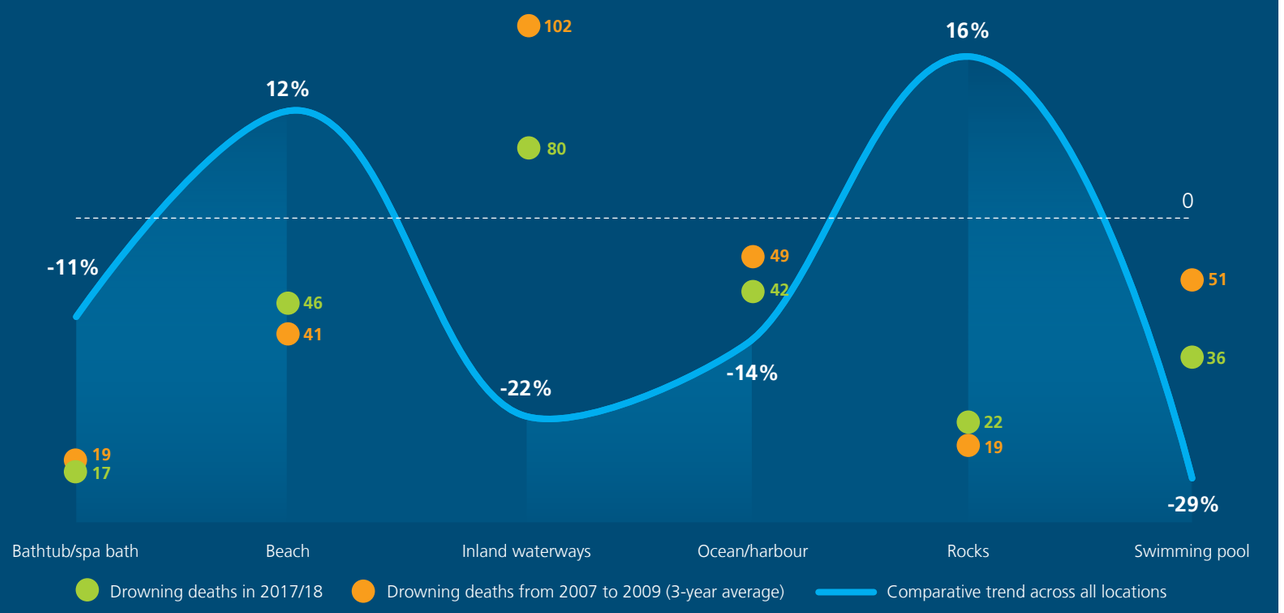






Index of relative socioeconomic advantage and disadvantage (IRSAD)

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.



10-year reduction in drowning deaths across all locations

Drowning deaths by remoteness

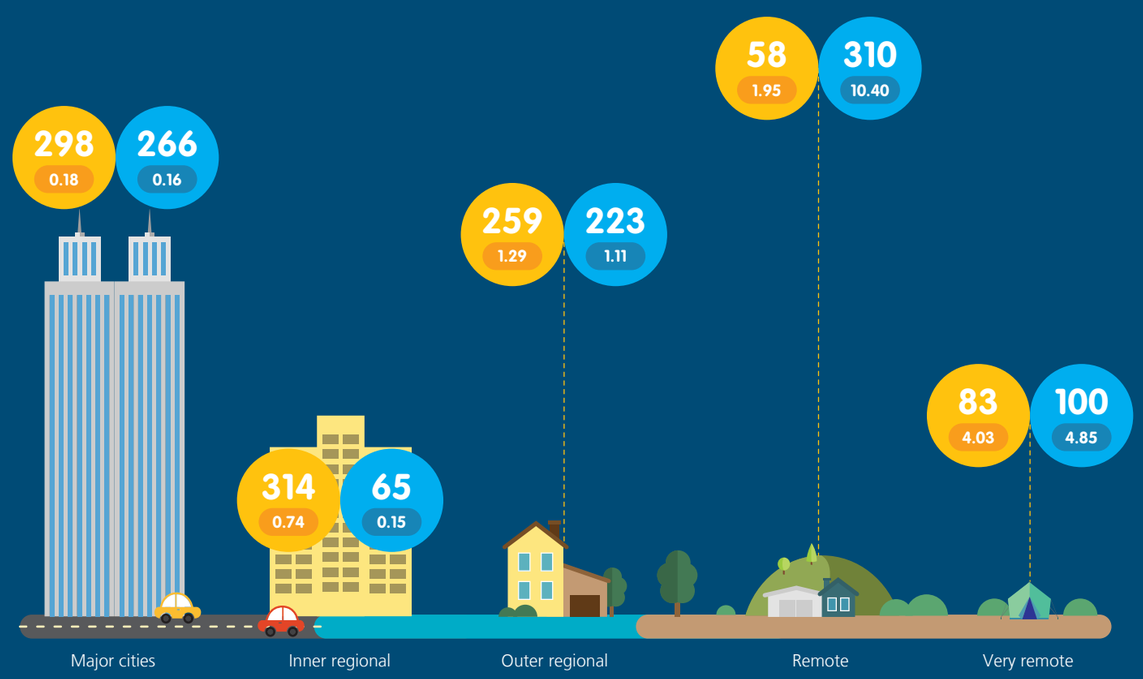
Very remote locations had 22 times more inland waterway drowning deaths than major cities, and 5 times more drowning deaths than inner regional locations.

- Drowning deaths based on location of incident
- Crude drowning rate per 100,000 population

Drowning deaths by residence

78% of inland waterway drowning deaths were local residents. Remote residents were most at risk of drowning in inland water locations, 65 times more likely than major city residents, and 9 times more likely than outer regional residents.

- Drowning deaths based on residence
- Crude drowning rate per 100,000 population



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.

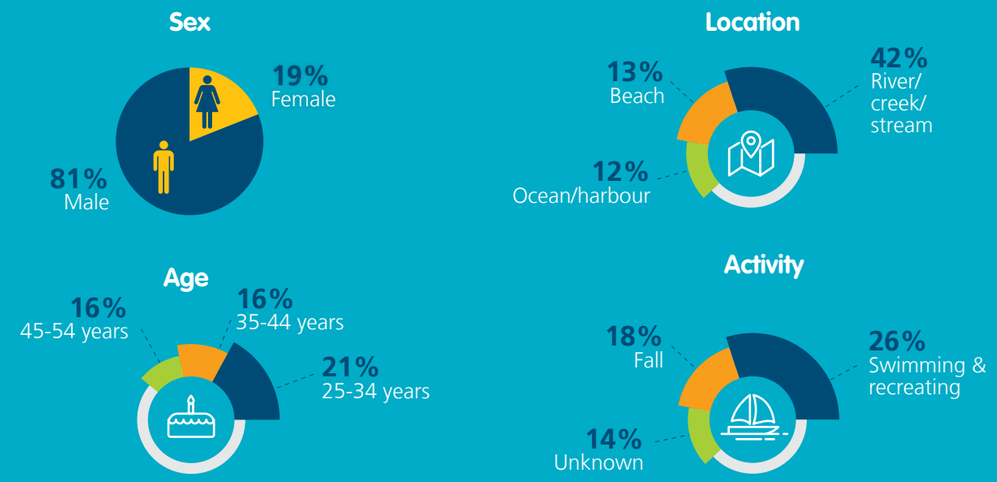
Ensure that children under the age of five years living in rural and remote communities have access to swimming and water safety education.

RISK TAKING

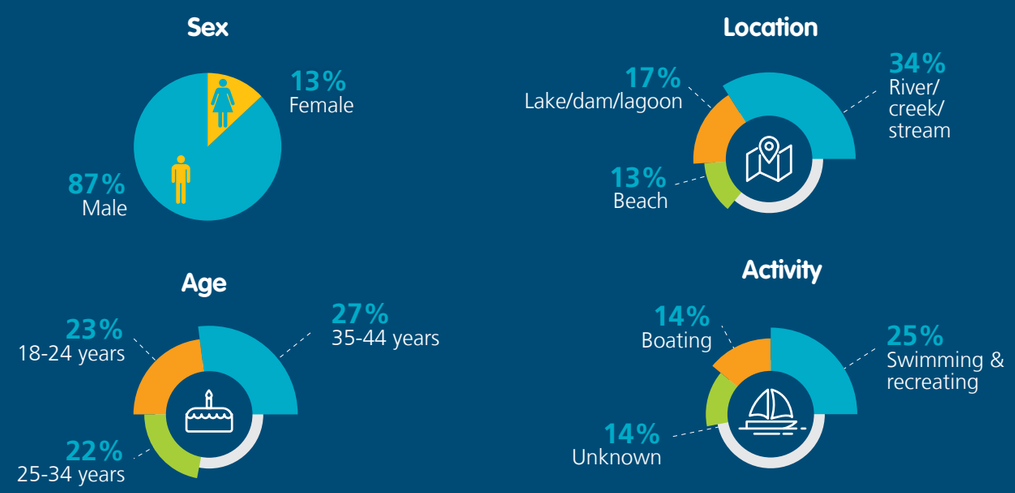
Effects of alcohol and drug consumption on drowning

2018/19	2017/18	10-YEAR AVERAGE
19* ALCOHOL-RELATED DEATHS	**48** ALCOHOL-RELATED DEATHS	**69** ALCOHOL-RELATED DEATHS
29* DRUG-RELATED DEATHS (including legal and illegal drugs)	**54** DRUG-RELATED DEATHS (including legal and illegal drugs)	**80** DRUG-RELATED DEATHS (including legal and illegal drugs)

DROWNING DEATHS KNOWN TO INVOLVE ALCOHOL**



DROWNING DEATHS KNOWN TO INVOLVE ILLEGAL DRUGS**



*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**

1st Dec — 28th Feb

Australians are **1.73** times more likely to drown on a public holiday compared with any other day.

2.07 Blood alcohol concentration (BAC) greater than or equal to 0.05%

2.40 18-24 years

2.44 25-34 years

2.53 Intrastate

2.28 Interstate

HIGH RISK ACTIVITIES

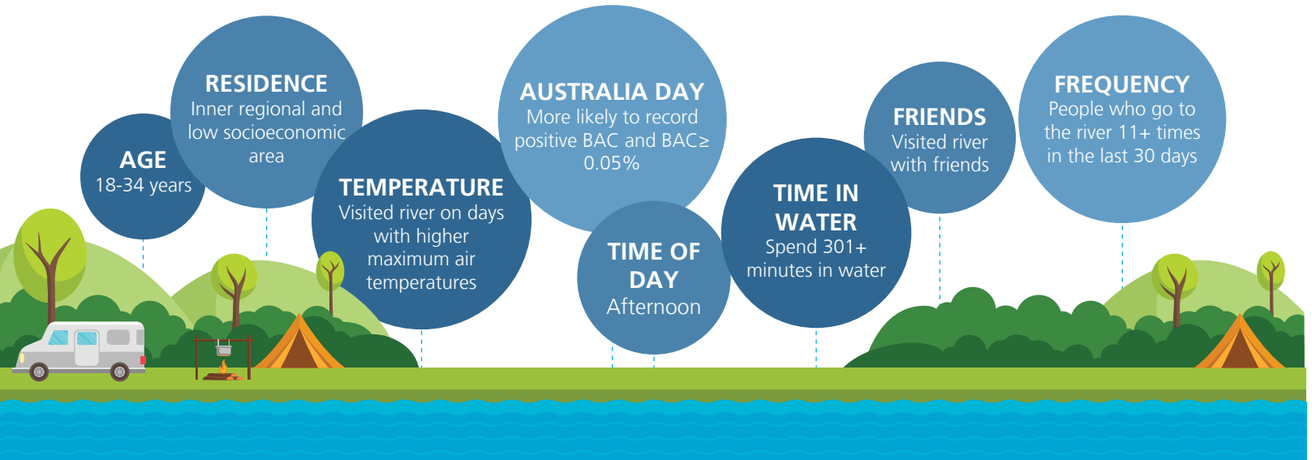
- Take someone with you
- Let someone know where you are going and when you expect to return

- 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

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.[34]

Study participants more likely to record a BAC≥0.050%



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 SKILLS

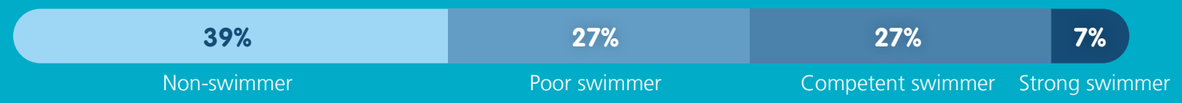
Swimming and water safety education

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.[35]

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.

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



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

See references.[36-45]

Benchmarking research

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.[46-47] This research provided insights into the skills being taught in commercial swim schools and the achievements in relation to the Framework.

CHILDREN AGED 2-4 YEARS

79% aged 4 years old

95% from major cities

56% of children aged 2 to 4 years attending lessons are living in areas of high socioeconomic status

Top categories of skills being taught are:

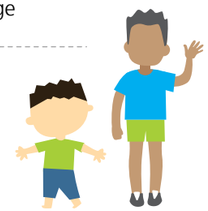
- Flotation/buoyancy
- Breath control (blowing bubbles)
- Water familiarisation (including submersion)
- Safe entries and exits

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

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 socioeconomic 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	50m backstroke	25m survival backstroke	25m breaststroke
9.2 yrs	9.6 yrs	10.0 yrs	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

40% are engaging in basic, introductory, beginner or water familiarisation skills

30% can swim a minimum of 50m of any stroke

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 drown 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

RECOMMENDATIONS

- 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.
- Raise industry awareness and implementation of the National Swimming and Water Safety Framework, and evaluate impact of the Framework.
- 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.

NON-FATAL DROWNING

Data trends and impact of non-fatal drowning in Australia

2018/19	2017/18	10-YEAR AVERAGE
584 NON-FATAL DROWNING INCIDENTS	543 NON-FATAL DROWNING INCIDENTS	712 NON-FATAL DROWNING INCIDENTS ↓18%

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

Sex

34% Female

66% Male

Top age group

42% 0-4 years

Top location

36% Swimming pool

FATAL TO NON-FATAL DROWNING RATIO

Fatal drowning | Non-fatal drowning

Overall

Children 0-4 years

Swimming pool

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.[48] 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.

2018/19
Five Community Help Grants awarded to the value of
$11,413

Grants awarded to families to cover costs related to:

- The provision of equipment to assist with therapy
- Treatment related costs such as physiotherapy and speech therapy
- Respite care
- Travel costs to assist regional families travelling to and from hospital for treatment

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 support, action and effort

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

Supervise children

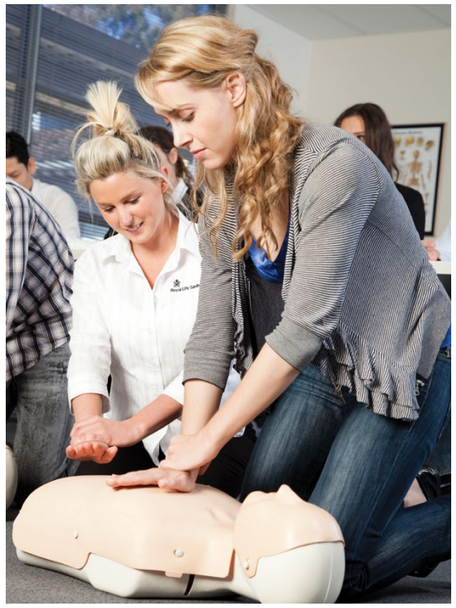
Wear a life jacket

Avoid alcohol and drugs around water

Learn first aid and lifesaving skills

ROYAL LIFE SAVING IN ACTION

Reducing drowning to create water safe communities



Respect the River

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

www.royallifesaving.com.au/programs/respect-the-river

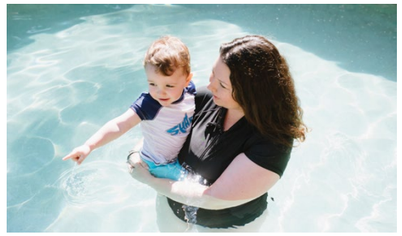
1. Never swim alone
2. Avoid drugs and alcohol around water
3. Be aware of strong currents
4. Check the depth of the water and look for submerged objects
5. Wear a lifejacket
6. Learn lifesaving skills, such as first aid and CPR

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:

1. Actively supervise children
2. Restrict children's access to water
3. Teach children water safety skills
4. Learn CPR

www.keepwatch.com.au



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.

www.royallifesaving.com.au/programs/dont-let-your-mates-drink-and-drown

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:

Chat to your doctor about your health → Consider the effects of any medication you are taking → And remember it's safer to swim in a supervised area

www.royallifesaving.com.au/swimready

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:

- Know your limitations
- Be aware of medical conditions
- Don't drink alcohol before entering water
- Wear a lifejacket
- Learning lifesaving skills

www.royallifesaving.com.au/programs/thetalk

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.

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, surfboats, 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.

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- Age
- Location
- Activity
- Visitor status
- Season
- Swimming pool/swimming & recreating
- River/creek/stream
- Bathtub/spa bath
- Lake/dam/lagoon
- Rocks
- Ocean/harbour
- Beach
- Remote areas
- Boating
- Diving
- Fall
- Non-aquatic transport
- Risk factors
- Index of relative socioeconomic advantage and disadvantage (IRSAD)

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