Royal Life Saving National Drowning Report 2020

Research and Policy Highlights

ROYAL LIFE SAVING AUSTRALIA

SUPPORTED BY
Australian Government

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› OUR VISION

A water-loving nation free from drowning

FOREWORD

As we present the National Drowning Report for 2020, we remain ever mindful of people whose lives have been lost or impacted by drowning, including the many families affected by the loss or long-term injury of a loved one.

This past year has been unlike any other. First, a summer of tragic bushfires, and now the COVID-19 pandemic. While we know that bushfires changed people's behaviours, temporarily closed access to national parks and forced holiday cancellations, we are less certain about the potential impacts of COVID-19 over the coming summer, or of the long-term safety impacts resulting from falling enrolments in learn to swim programs.

This report highlights our research and analysis of fatal and non-fatal drowning across Australia between 1st July 2019 and 30th June 2020. During this time, 248 people lost their lives to drowning and we estimate a further 504 people experienced a non-fatal drowning incident.

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.

This year's findings show that:

- The total number of drowning deaths over the past year **decreased by 8%** on the previous year;
- People aged **25 to 34 years** accounted for 17% of the total number of drowning deaths, the most of any age group;
- Despite still being the leading location for drowning, deaths in rivers and creeks **decreased by 32%**, compared with the 10-year average;
- There was a **52% decrease** in drowning deaths among children aged 0-4 years, compared with the 10-year average.

Young lives saved

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 adult supervision, restricting access to water, water awareness and learning CPR, are hitting home and helping to keep children safe.

Swimming and water safety skills

We are absolutely committed to the notion that all Australian children have the right to a comprehensive swimming and water safety education. The skills of swimming, survival swimming, and basic rescue are all lifesavers, yet we know that there are many barriers; including cost, distance, awareness, and access in communities most at risk of drowning.

The updated National Swimming and Water Safety Framework was launched in August 2020. The National Swimming and Water Safety Framework's ultimate goal is to increase the swimming and water safety skills of all Australians for lifelong safe and active participation in physical aquatic activities and recreation.

Partnerships and collaborations

The findings and analysis in this report are based on data collected over the past 18 years in the Royal Life Saving National Fatal Drowning Database. In addition, we work with Federal, State and Local Governments, coroners, institutions and other industry bodies to inform the development of future drowning prevention policies.

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

As we approach 2021, we have been working with our partners on the Australian Water Safety Council to develop the next Australian Water Safety Strategy 2030 for the coming years, helping this vision come to fruition.

Justin Scarr
Chief Executive Officer
Royal Life Saving Society – Australia

248

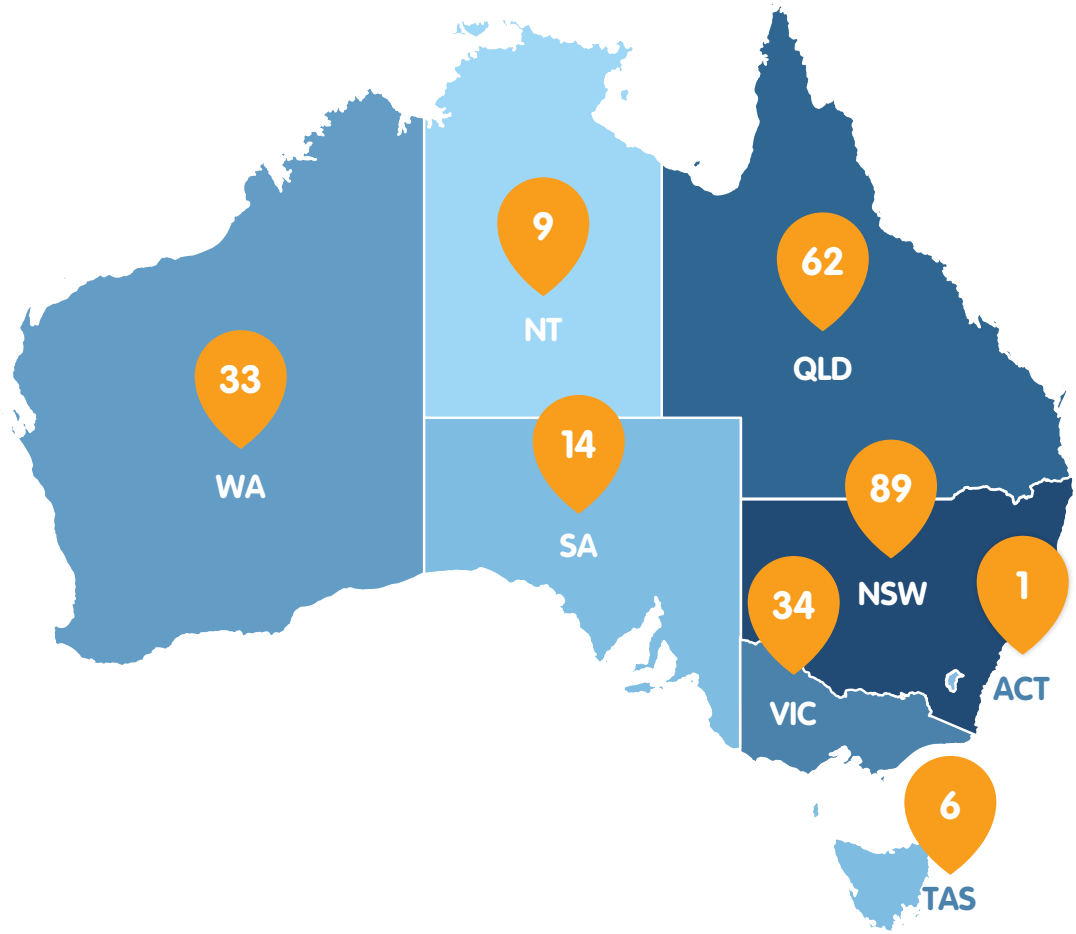
PEOPLE DROWNED IN AUSTRALIAN WATERWAYS

1 July 2019 to 30 June 2020

Sex

80% of all drowning deaths were males

State and Territory breakdown



Top 3 age groups

17% 25-34 years

14% 35-44 years

14% 65-74 years

Top 3 locations

21%
River/creek

20%
Ocean/harbour

18%
Beach

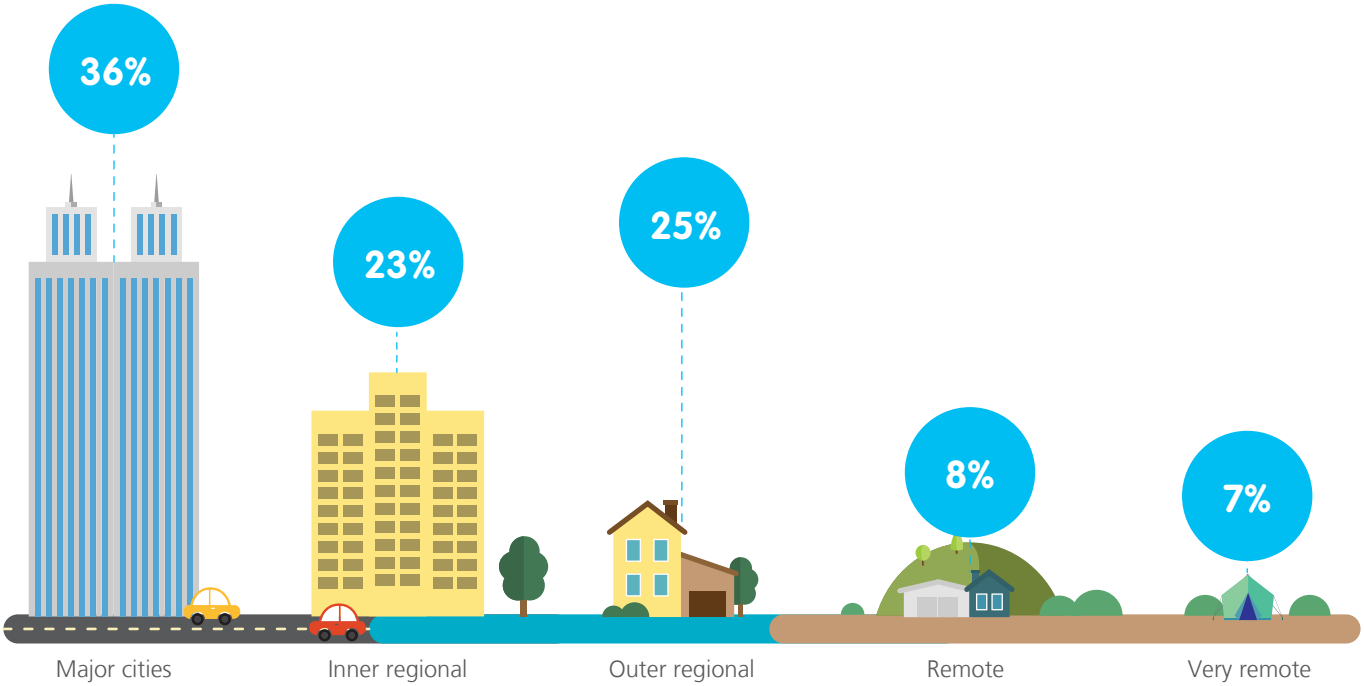
Top 3 activities

25%
Swimming & recreating

18%
Boating

15%
Fall

Remoteness of drowning location



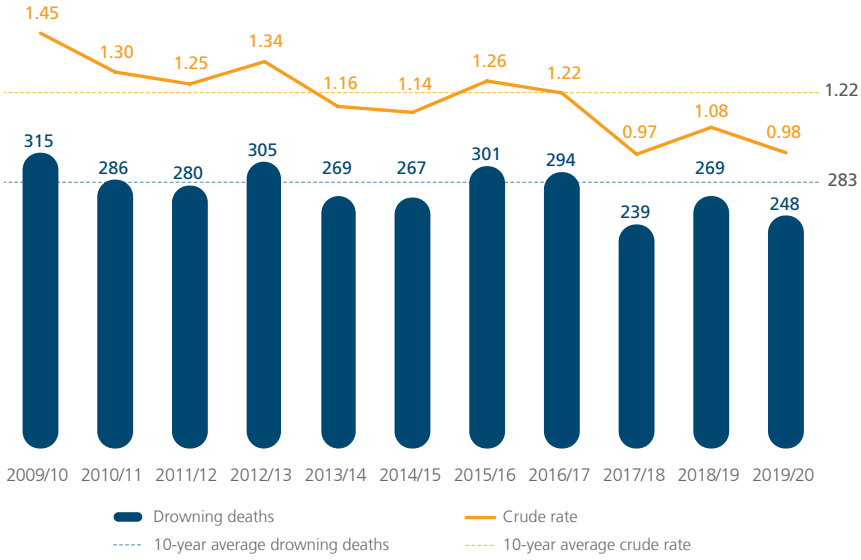
FATAL AND NON-FATAL DROWNING IN AUSTRALIA

248 people drowned in Australian waterways in 2019/20

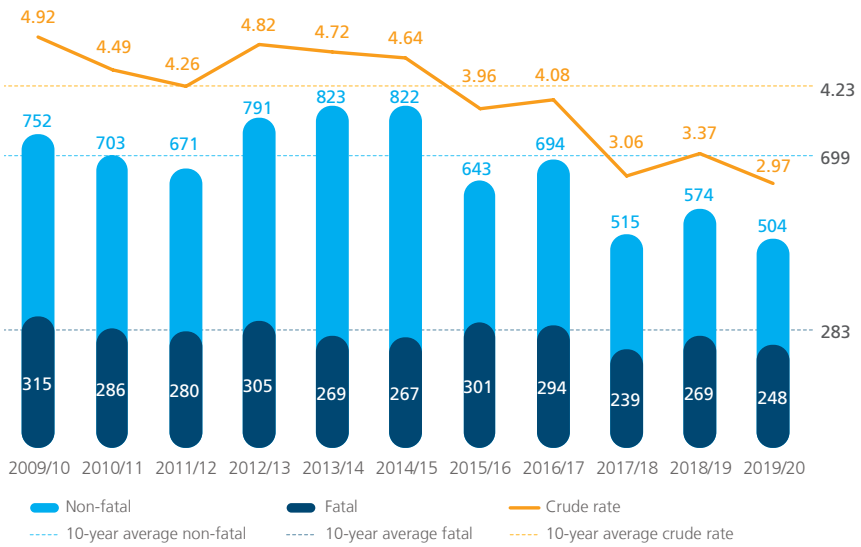
This is an **8%** **decrease** on 2018/19

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

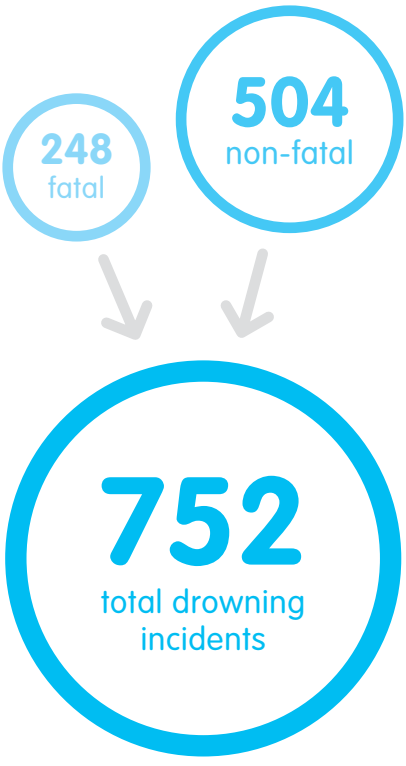
Drowning deaths and death rates from 2009/10 to 2019/20 and the 10-year average



Comparison of fatal and non-fatal incidents and crude rate of drowning incidents from 2009/10 to 2019/20 and the 10-year average



When fatal and non-fatal drowning incidents are combined, a total of 752 drowning incidents occurred in Australia, representing a crude drowning rate of 2.97 drowning incidents per 100,000 population.



WHO DROWNS?

80%

of drowning deaths were male

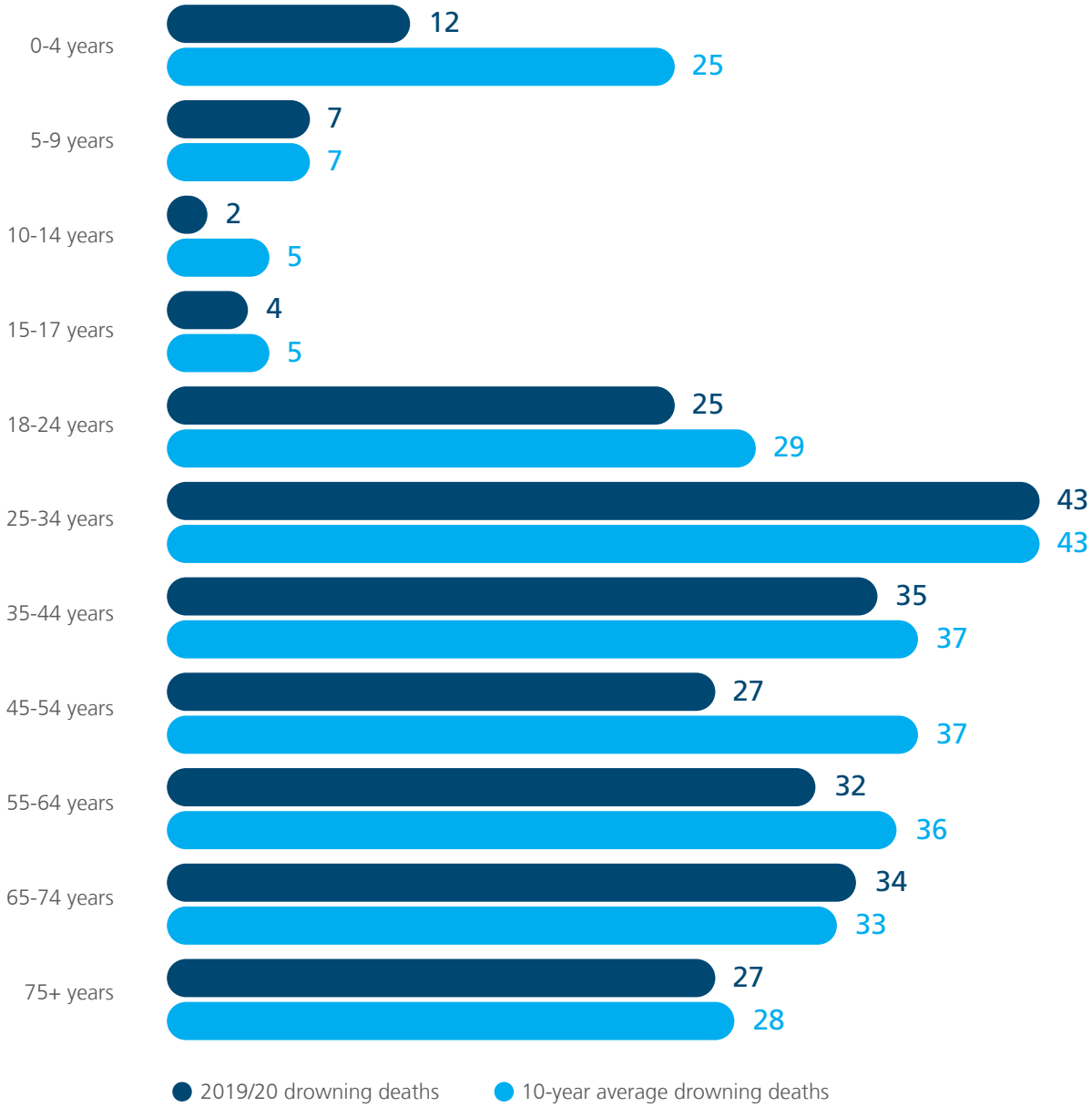
25-34 YEARS

age group recorded the largest number of drowning deaths

52%

decrease in 0-4 years age group compared with the 10-year average

Drowning deaths by age group in 2019/20 compared with the 10-year average



DROWNING DEATHS BY LIFE STAGES: **CHILDREN AGED 0-4 YEARS**

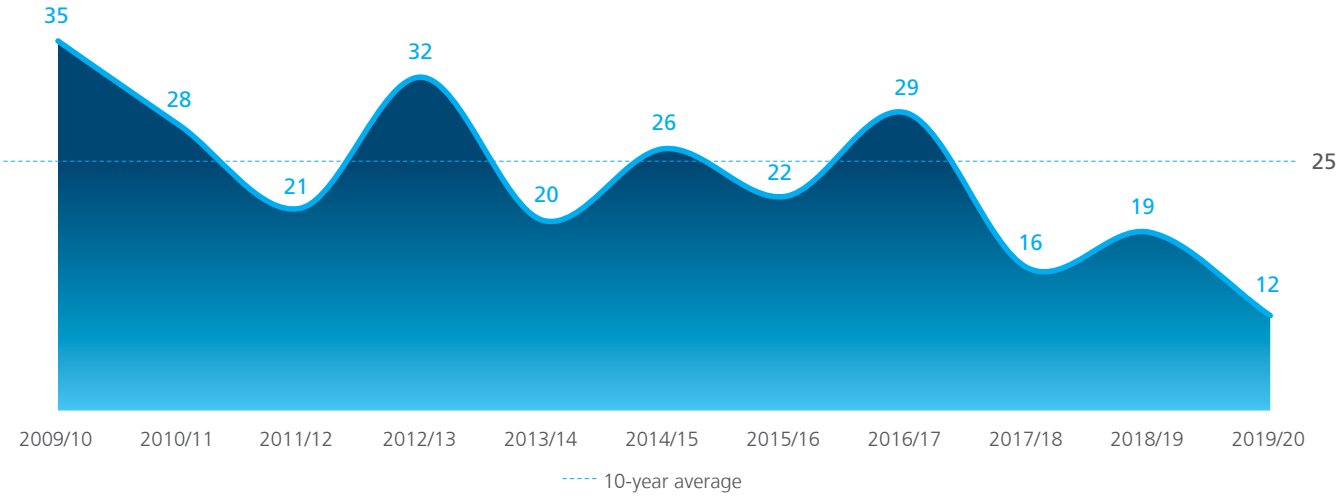
12
children aged 0-4 years drowned in Australia in 2019/20

This is a **37%** **decrease** on 2018/19

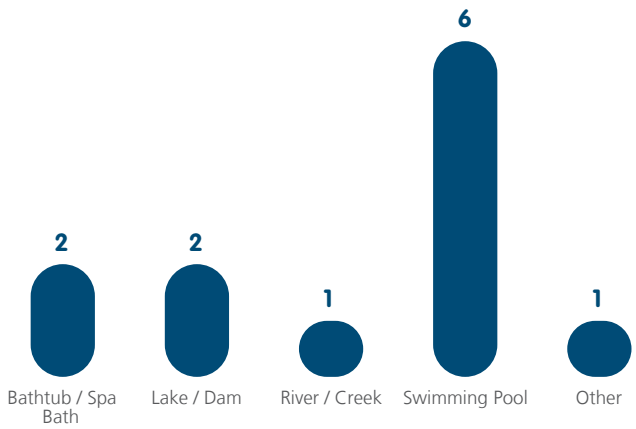
and a **52%** **decrease** on the 10-year average

58% of all drowning deaths in this age group were males

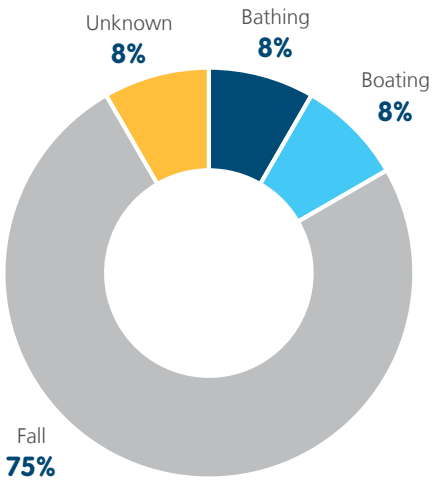
Drowning deaths of children aged 0-4 years from 2009/10 to 2019/20 and the 10-year average



Drowning deaths of children aged 0-4 years by location, 2019/20



Drowning deaths of children aged 0-4 years by activity, 2019/20



Causes of distraction leading to supervision lapses in cases of fatal drowning of children 0-4 years

Active adult supervision is vital for preventing drowning among young children. However, lapses in supervision continue to be contributory factor in child drowning.

All cases of fatal drowning among children aged 0-4 years from 1 July 2002 and 30 June 2017 were analysed to identify and describe the causes of distraction leading to lapses in supervision.

Swimming pools were the leading location for drowning (54%), of which private residential swimming pools were the most common (87% of all swimming pool drowning deaths in this study). Three-quarters of drowning deaths occurred in toddlers aged 1–2 years (67%).

Active supervision means focusing all of your attention on your children all of the time, when they are in, on or around the water. You must be within arms' reach, interacting with your child and be ready to enter the water in case of an emergency.

Source: Peden AE, Franklin RC. Causes of distraction leading to supervision lapses in cases of fatal drowning of children 0-4 years in Australia: A 15-year review. Journal of Paediatrics and Child Health. 2019;56(3):450-6.

This study found the most common causes of distraction from supervision were:

- **Indoor household duties** – such as putting on washing, washing up, cooking dinner, checking on dinner, putting clothes in dryer, tidying up, collecting pyjamas or forgotten items and bringing them to the bathroom, using the toilet/showering.
- **Outdoor household duties** – such as hanging washing outside, gardening, taking garbage out, outdoor household repairs.
- **Talking/socialising** – talking or socialising in person, either inside or outside the house.
- **Electronic distractions** – such as using the computer, using the phone and indoor recreation activities such as watching movies, watching TV or playing computer games.
- **Childcare** – taking care of children, either a parent's own children or unrelated children.

DROWNING DEATHS BY LIFE STAGES: **CHILDREN AGED 5-14 YEARS**

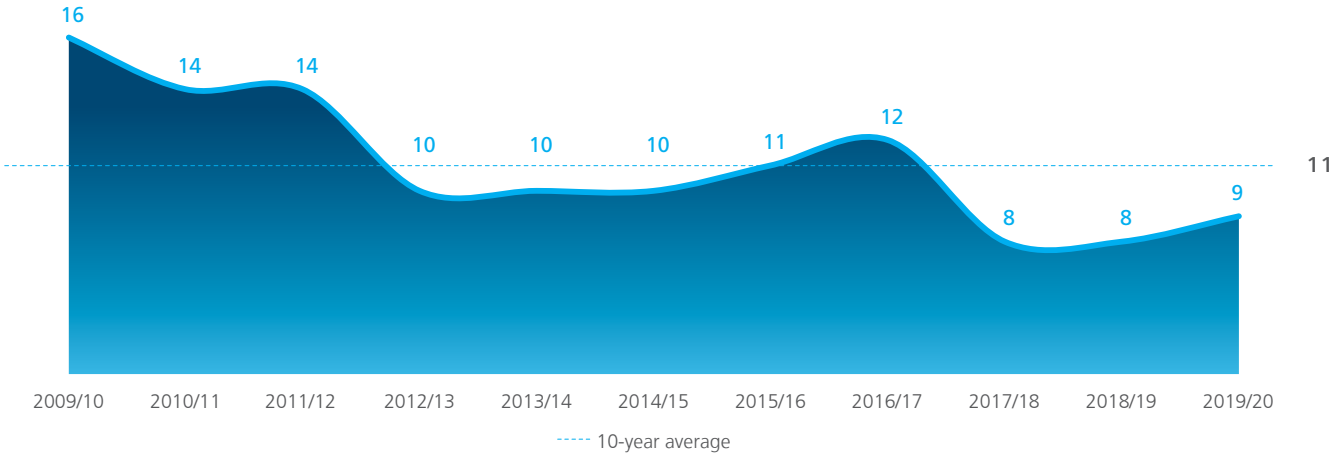
9 children aged 5-14 years drowned in Australia in 2019/20

This is a **13%** **increase** on 2018/19

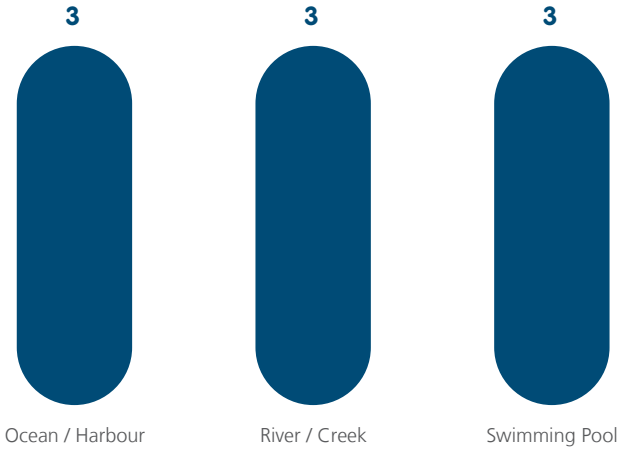
and an **18%** **decrease** on the 10-year average

67% of all drowning deaths in this age group were males

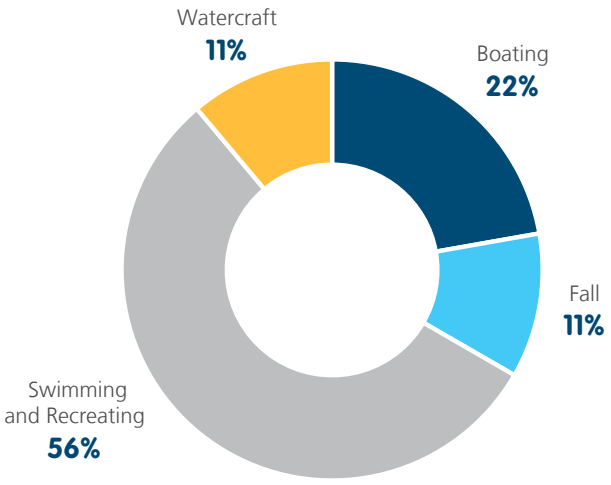
Drowning deaths of children aged 5-14 years from 2009/10 to 2019/20 and the 10-year average



Drowning deaths of children aged 5-14 years by location, 2019/20



Drowning deaths of children aged 5-14 years by activity, 2019/20



Exploring children's participation in commercial swimming lessons through the social determinants of health

Swimming and water safety lessons, in part, have reduced drowning in children, while also enabling healthy aquatic participation. However, there are concerns that some Australian children receive insufficient swimming and water safety education and are not achieving essential skills.

The Year 4 standard of the National Swimming and Water Safety Framework has been determined as the national 'Benchmark', that is, the minimum swimming, water safety and personal survival skills and knowledge that children should be able to achieve prior to leaving primary school to reduce their risk of drowning.

Source: Willcox-Pidgeon SM, Peden AE, Scarr J. Exploring children's participation in commercial swimming lessons through the social determinants of health. Health Promotion Journal of Australia. 2020.

Royal Life Saving research investigated the swimming and water safety skills being taught in commercial swimming lessons and found:

- The most widely taught skills were freestyle (88%) and backstroke (84%), followed by treading/sculling water (53%).
- By age 10, almost half (50%) of participants could achieve the age-specific minimum skill requirements outlined in the Framework of 50m freestyle or more and 65% could swim 25m (or more) of breaststroke.
- By age 12, 60% of the cohort analysed could swim 50m of freestyle (or more) and 68% could swim 25m (or more) of breaststroke.
- Of children aged 10-12 years, over 60% in each age group could swim 25m or more of survival backstroke.
- By age 10, 22% could achieve the benchmark skill of treading or sculling water for a minimum of 2 minutes. This rose to 32% by the age of 12 years.
- Only 9% of children were learning rescue skills. In total, only 4% of children in this study were competent in a rescue skill. Of those, 21% could perform the benchmark skill of a rescue over 5m by 10 years of age. By age 12, this had risen to 29%.
- Children from low socioeconomic areas were significantly less likely to be achieving the minimum benchmark skill of 50m freestyle compared to children from high socioeconomic areas.
- Children from major cities were significantly more likely to be achieving 50m freestyle than children from inner regional and outer regional areas.

DROWNING DEATHS BY LIFE STAGES: **YOUNG PEOPLE AGED 15-24 YEARS**

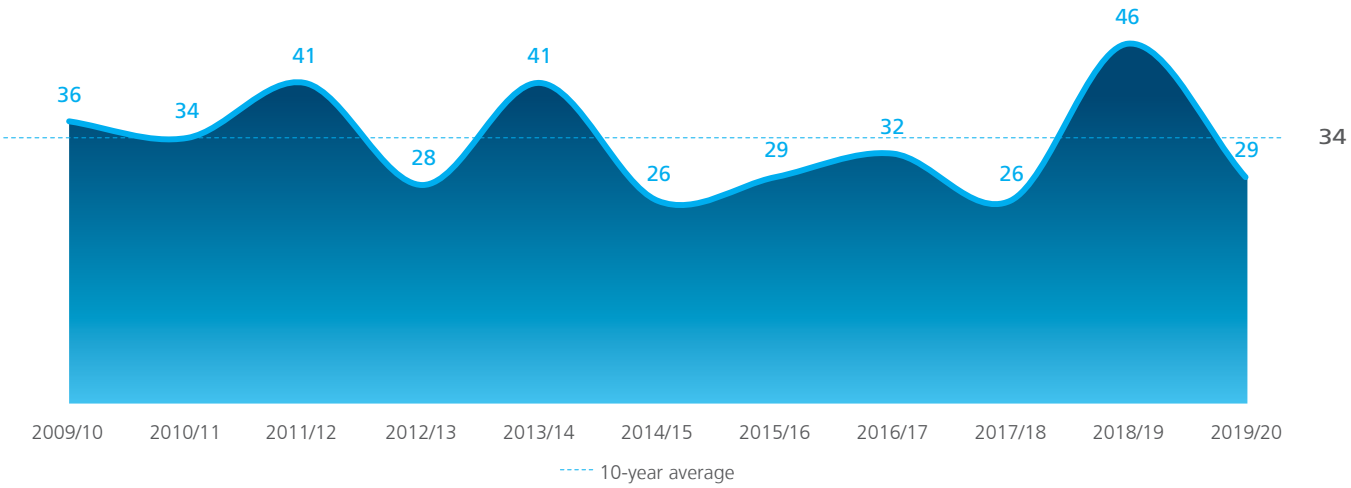
29
young people aged 15-24 years drowned in Australia in 2019/20

This is a **37%** **decrease** on 2018/19

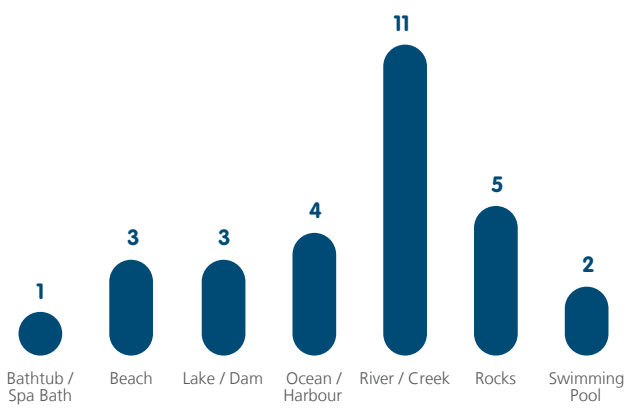
and a **15%** **decrease** on the 10-year average

69% of all drowning deaths in this age group were males

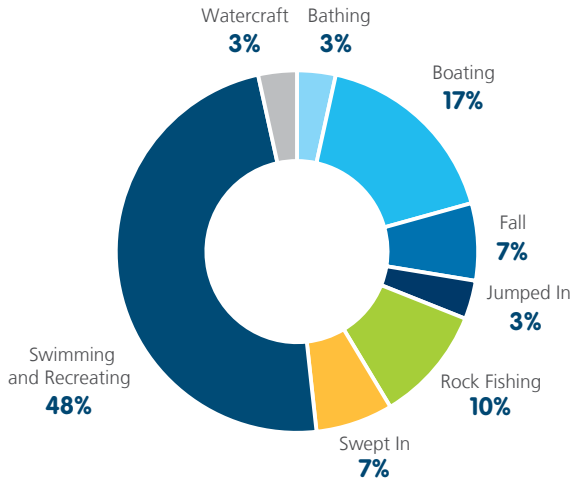
Drowning deaths of young people aged 15-24 years from 2009/10 to 2019/20 and the 10-year average



Drowning deaths of young people aged 15-24 years by location, 2019/20



Drowning deaths of young people aged 15-24 years by activity, 2019/20



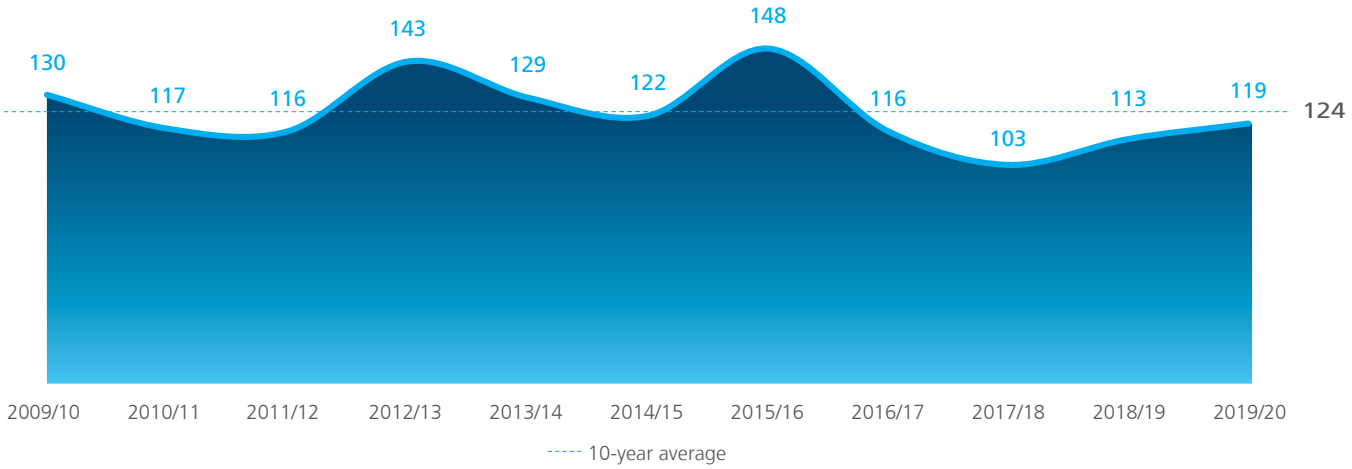
DROWNING DEATHS BY LIFE STAGES: **MALES AGED 25-64 YEARS**

119 males aged 25-64 years drowned in Australia in 2019/20

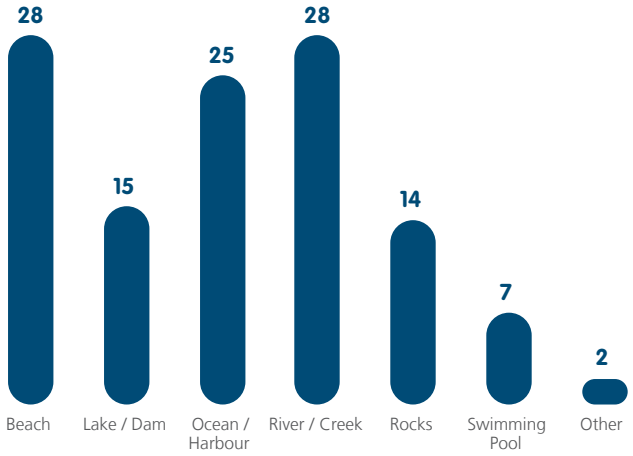
This is a **5%** **increase** on 2018/19

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

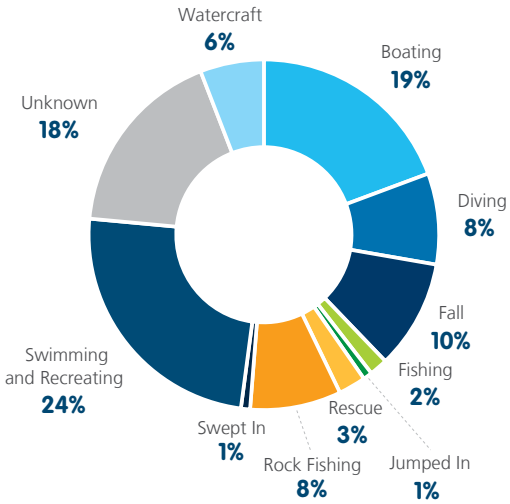
Drowning deaths of males aged 25-64 years from 2009/10 to 2019/20 and the 10-year average



Drowning deaths of males aged 25-64 years by location, 2019/20



Drowning deaths of males aged 25-64 years by activity, 2019/20



DROWNING DEATHS BY LIFE STAGES: **OLDER PEOPLE AGED 65 YEARS AND OVER**

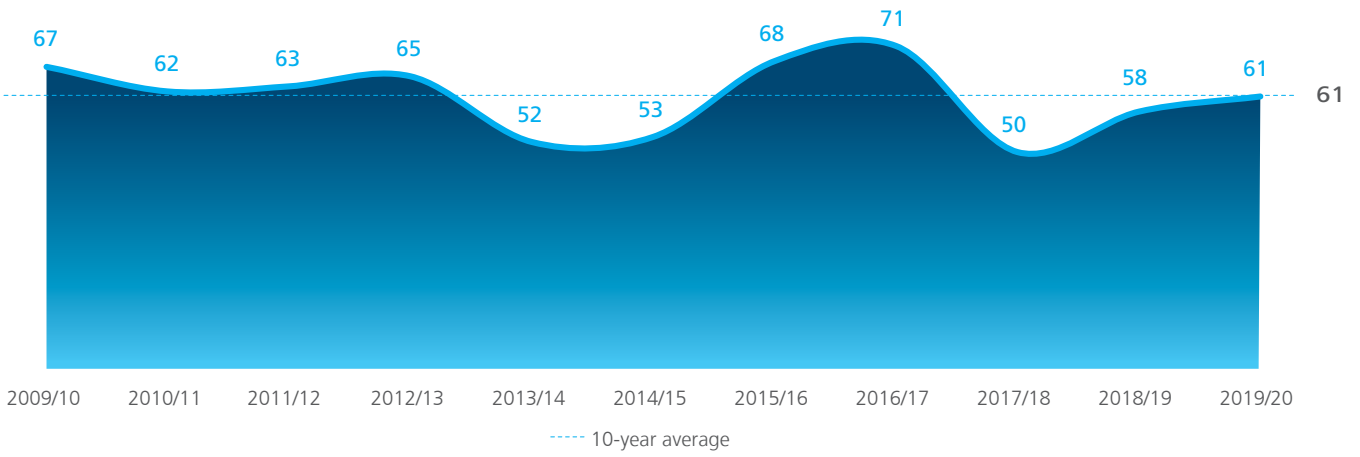
61
older people aged 65 years and over drowned in Australia in 2019/20

This is a **5%** **increase** on 2018/19

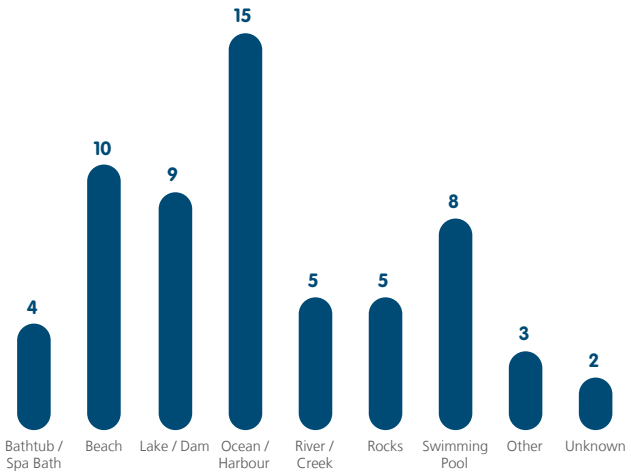
and the **SAME** as the 10-year average

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

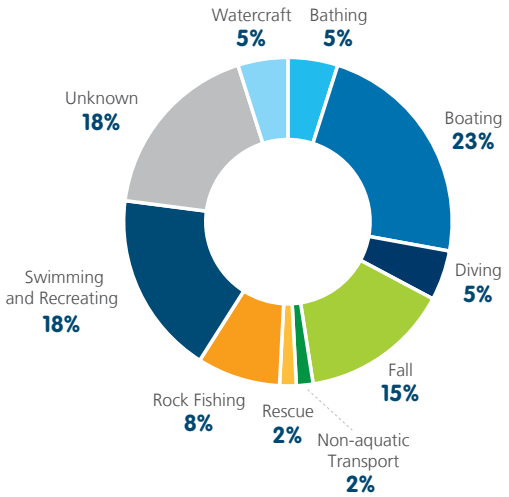
Drowning deaths of older people aged 65 years and over from 2009/10 to 2019/20 and the 10-year average



Drowning deaths of older people aged 65 years and over by location, 2019/20



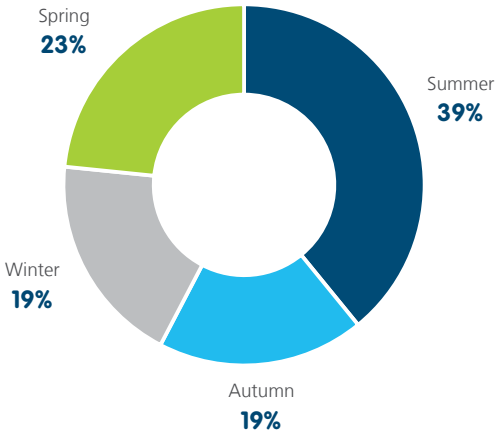
Drowning deaths of older people aged 65 years and over by activity, 2019/20



WHEN DO DROWNING DEATHS OCCUR?

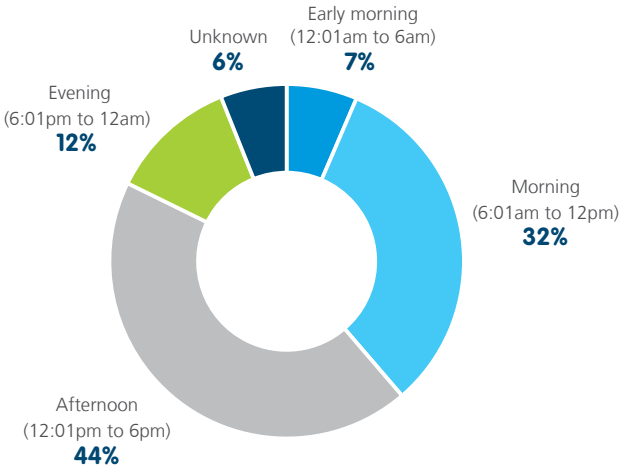
Season

Drowning deaths occur in all seasons, with the largest number occurring in the summer months (39%).



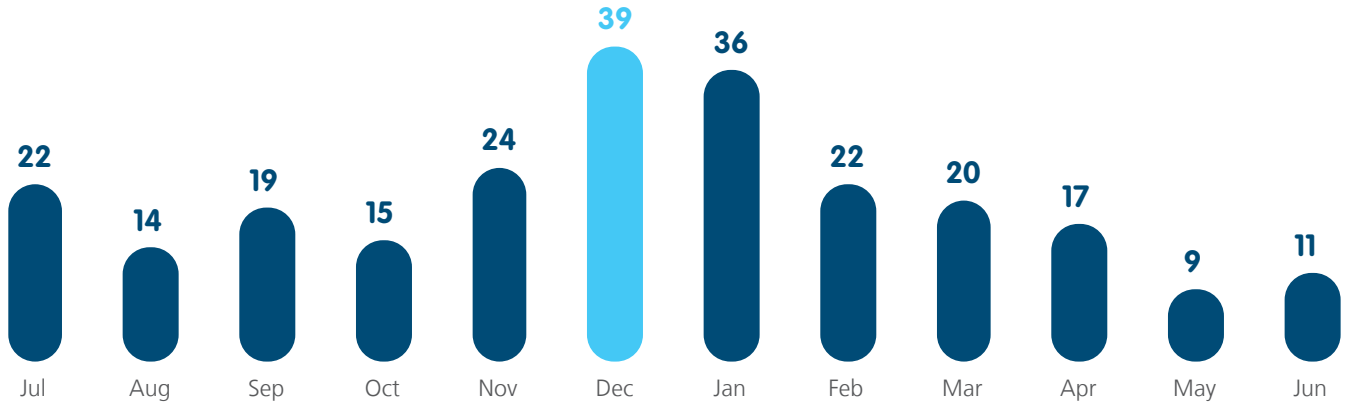
Time of the day

Three quarters of drowning deaths occur either in the morning (32%) or afternoon (44%).



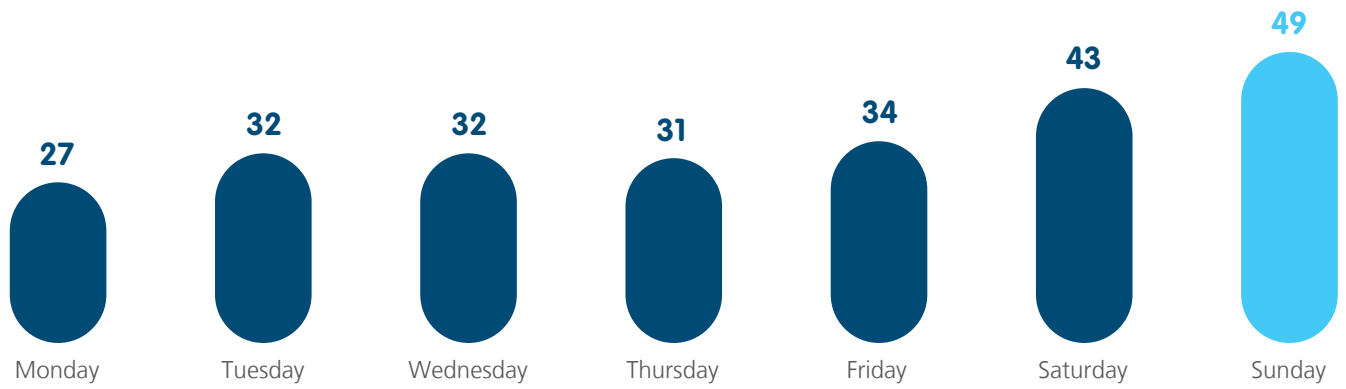
Month

By month, drowning peaked in December with 39 deaths (16%), followed by January with 36 deaths (15%).



Day of the week

Sunday continues to be the most common day of the week for drowning, accounting for 20% of deaths.



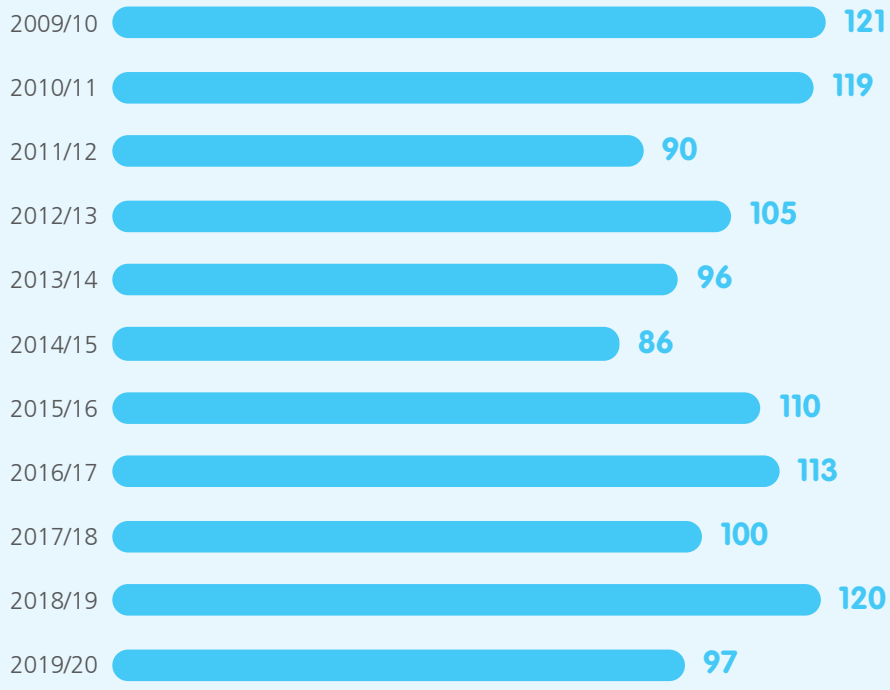
Summer drowning deaths

There were 97 drowning deaths over summer in 2019/20. This is an 8% decrease on the 10-year average of 106 deaths.

More than half of all beach (53%) and river/creek (51%) drowning deaths occurred during summer. Similarly, 60% of deaths while swimming and recreating occurred during the summer months.

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

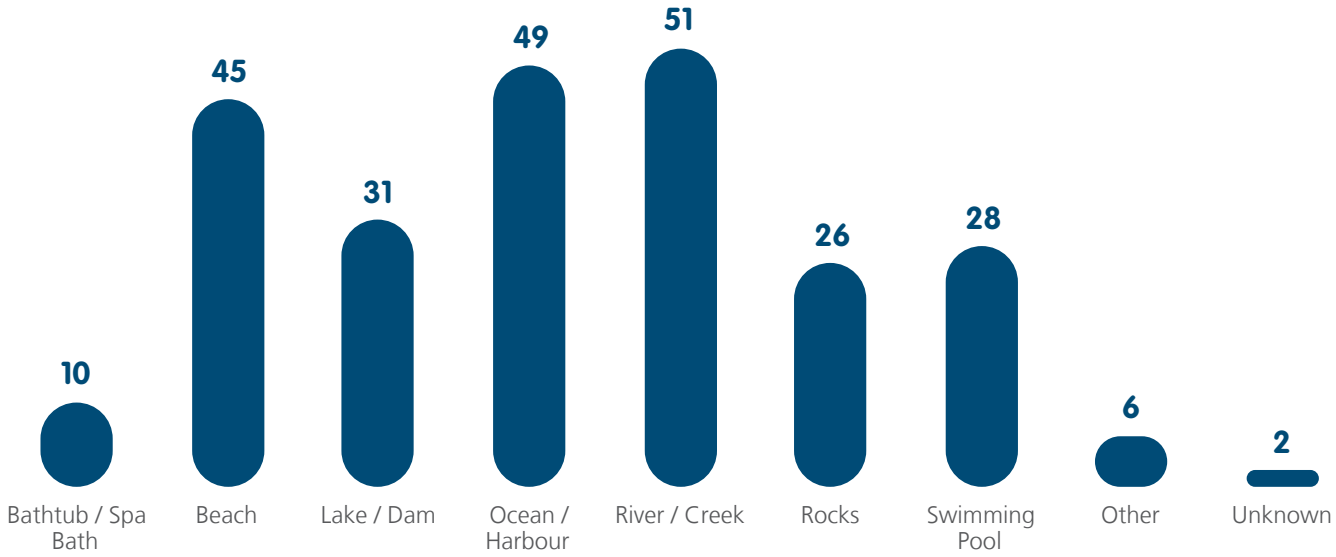
Drowning deaths in summer from 2009/10 to 2019/20



WHERE AND HOW DO DROWNING DEATHS OCCUR?

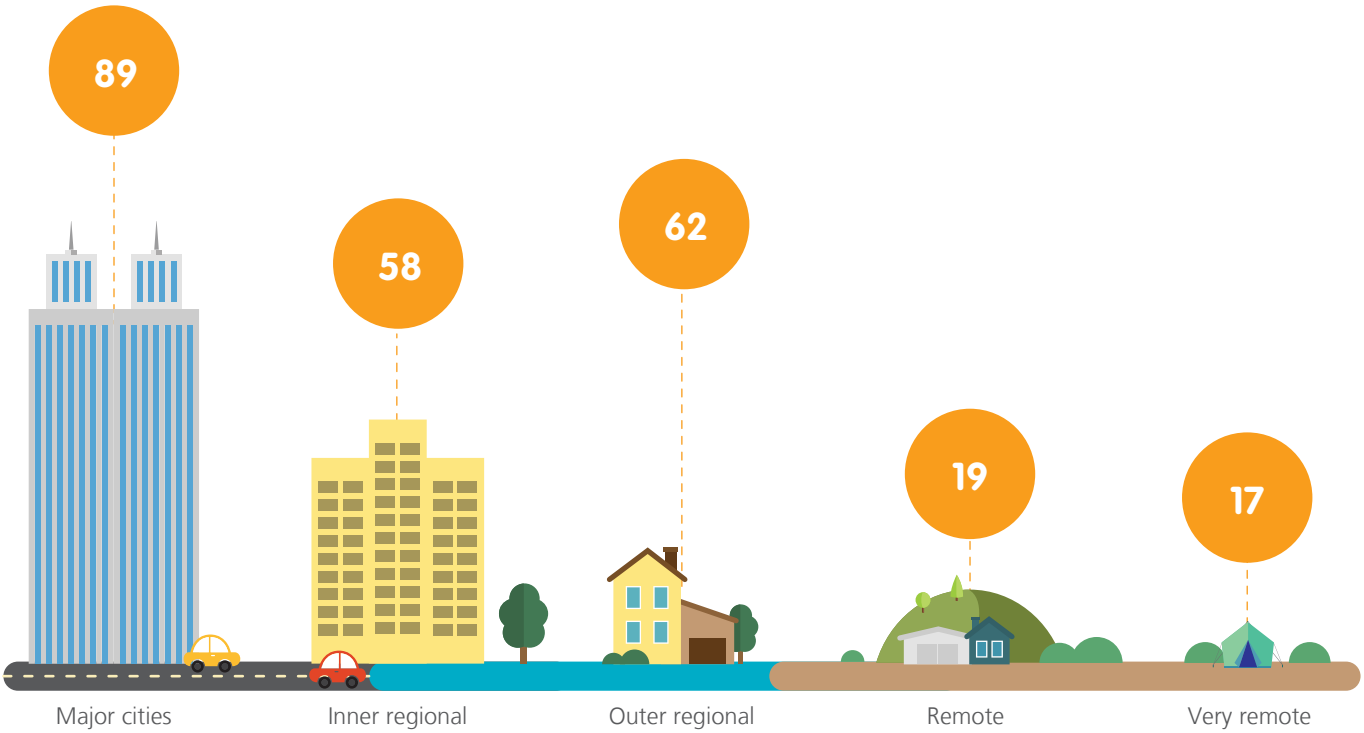
Location

Rivers and creeks continue to be the location with the largest number of drowning deaths, accounting for 21% of all deaths. Swimming pools recorded a 28% decrease compared with the 10-year average, while lakes and dams recorded a 19% increase.



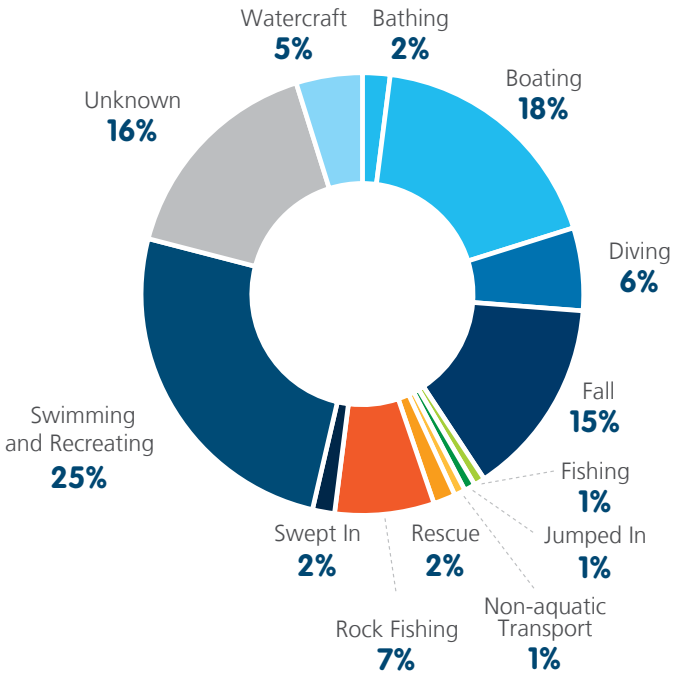
Remoteness

The largest proportion of drowning deaths occurred in areas classified as major cities (36%), followed by outer regional locations (25%). The number of incidents generally decreased as remoteness increased. In 3 cases the remoteness classification was unknown.



Activity

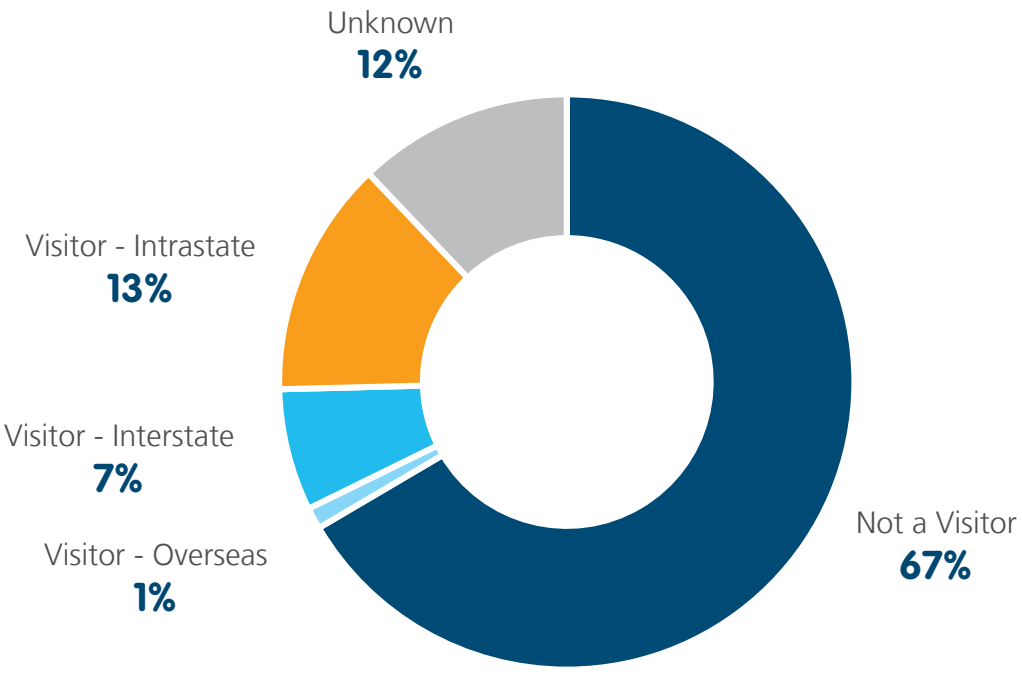
Swimming and recreating was the leading activity being undertaken immediately prior to drowning (25%), followed by boating (18%).



Visitor status

Most of those who drowned were not visitors (67%), that is, they drowned within 100km of where they lived.

In 53 cases (21%) the person who drowned was known to be a visitor to the location of the incident. Of these, 33 people (13%) drowned within their own State or Territory in a postcode that was 100km or further from their residential postcode, 17 people (7%) were visiting a different State or Territory when they drowned and 3 (1%) were overseas tourists.



DROWNING DEATHS BY KEY LOCATIONS: **RIVER/CREEK**

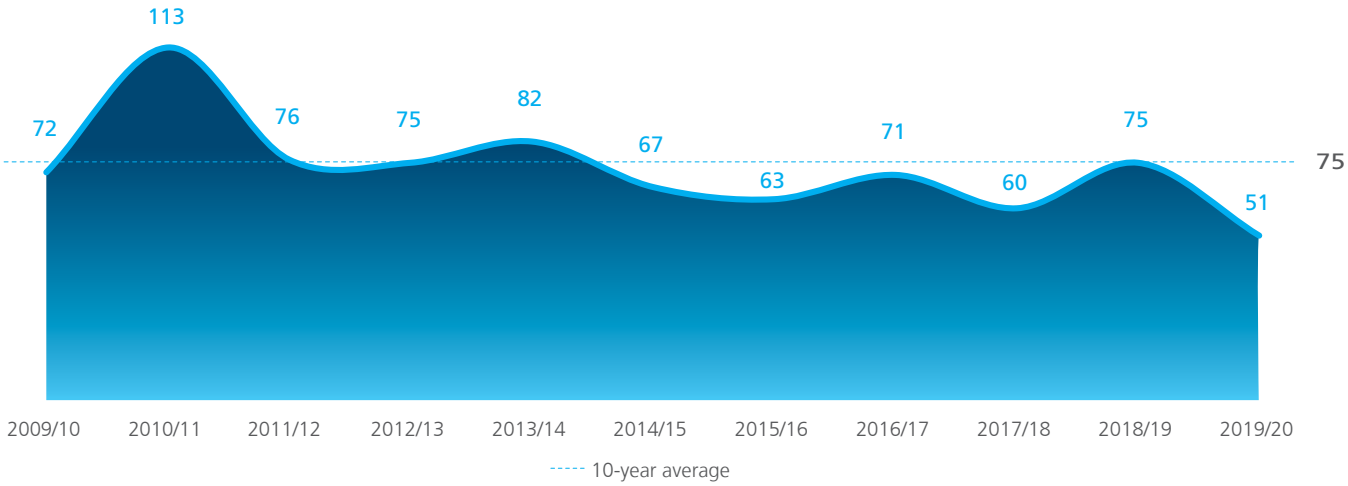
51 drowning deaths occurred in river/creek locations in 2019/20

This is a **32%** **decrease** on 2018/19

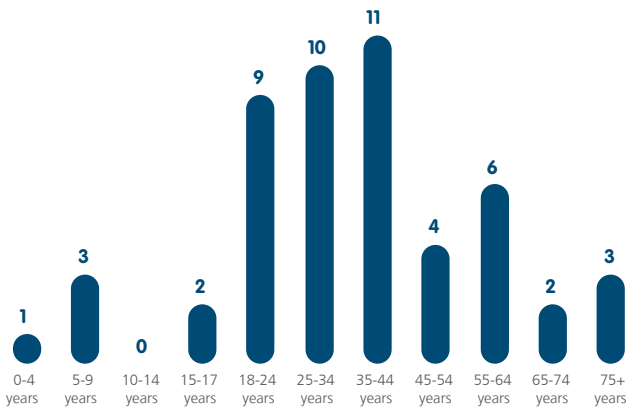
and a **32%** **decrease** on the 10-year average

78% of all drowning deaths in this location were males

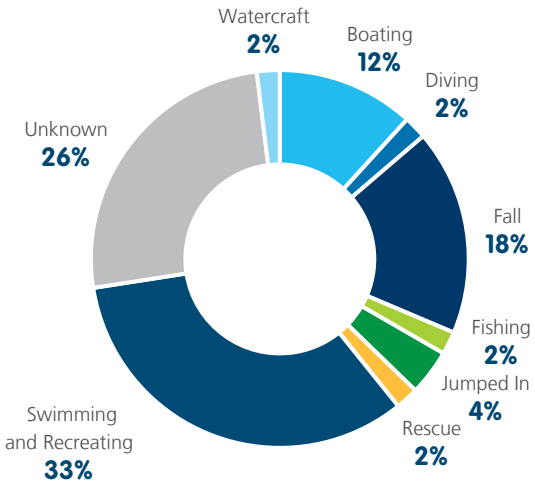
Drowning deaths in river/creek locations from 2009/10 to 2019/20 and the 10-year average



Drowning deaths in river/creek locations by age, 2019/20



Drowning deaths in river/creek locations by activity, 2019/20



Make the Right Call

Royal Life Saving's Make the Right Call campaign encourages all Australians, especially males, to stay safe when enjoying the country's beautiful inland waterways.

Isolated natural aquatic environments increase the risk of drowning due to changeable conditions and geographical remoteness. Risk-taking behaviour involving poor-decision making, such as alcohol consumption, not wearing a lifejacket and swimming alone, can also increase the risk of drowning.

The campaign highlights a common sense approach to drowning prevention and advocates simple safety tips to prevent drowning:

- **Avoid alcohol around water**
  Alcohol reduces coordination and can impair a person's judgement and reaction time, thereby reducing inhibition and distorting the perception of risk.
- **Wear a lifejacket when on the water**
  Lifejackets are the most important piece of safety equipment on any recreational vessel. Wearing a lifejacket can increase your chance of survival by 50% if you end up in the water.
- **Avoid going alone around water**
  Adult males are more likely to participate in aquatic recreational activity alone than any other demographic. Research indicates males can underestimate the risk at inland waterways and overestimate their abilities.

DROWNING DEATHS BY KEY LOCATIONS: **OCEAN/HARBOUR**

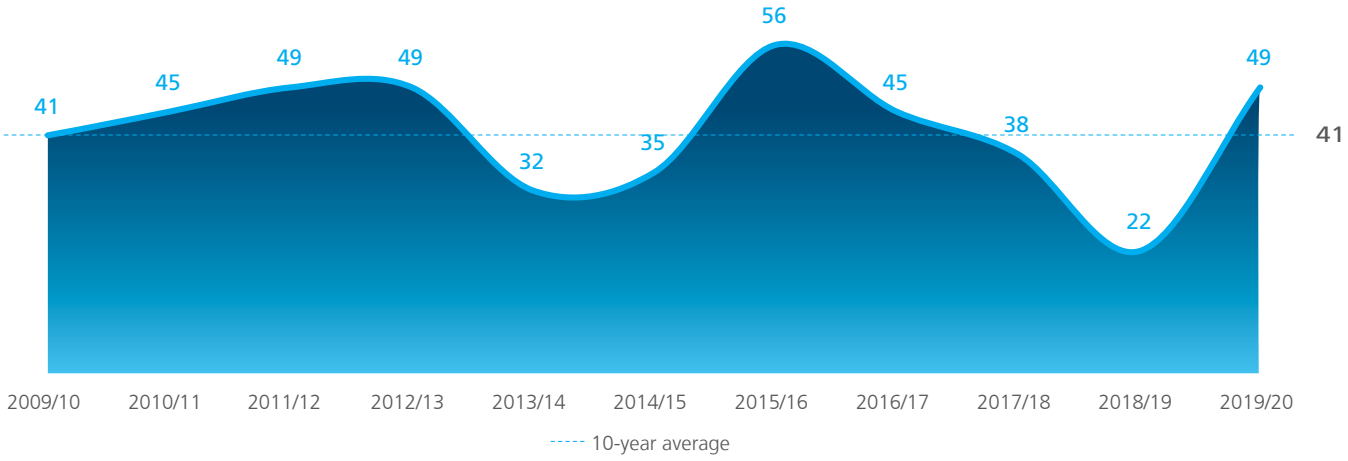
49 drowning deaths occurred in ocean/ harbour locations in 2019/20

This is a **123%** **increase** on 2018/19

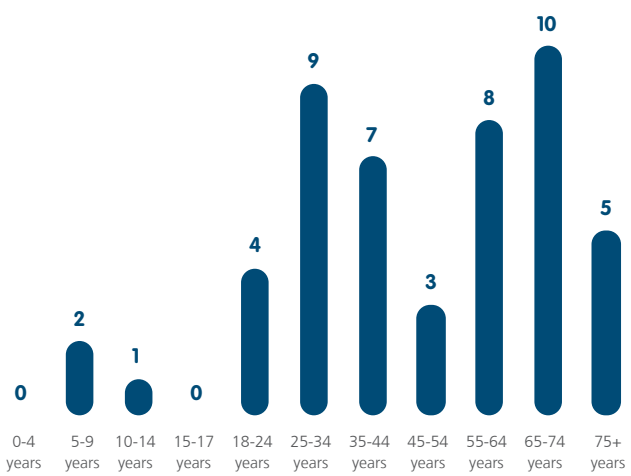
and a **20%** **increase** on the 10-year average

88% of all drowning deaths in this location were males

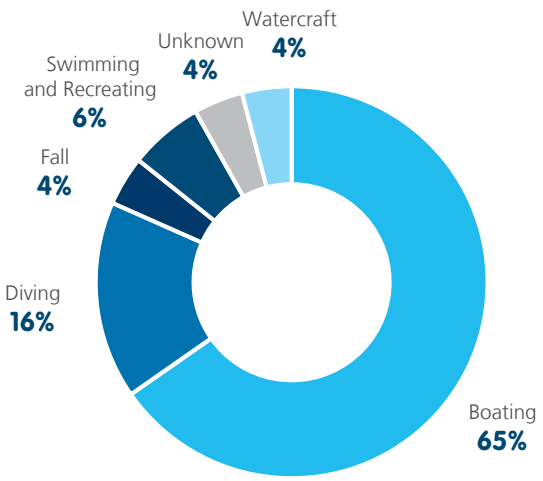
Drowning deaths in ocean/harbour locations from 2009/10 to 2019/20 and the 10-year average



Drowning deaths in ocean/harbour locations by age, 2019/20



Drowning deaths in ocean/harbour locations by activity, 2019/20



Multiple fatality events

There were 15 multiple fatality events in 2019/20 that claimed the lives of 34 people. This is a 36% increase on the 10-year average.

A detailed analysis of these events found:

- Males accounted for 82% of all multiple fatality events
- More than half of deaths occurred in ocean/harbour locations (59%), followed by river/creek locations (18%)
- The leading activity related to deaths was boating (76%), followed by rock fishing (12%)
- New South Wales recorded 13 deaths as a result of a multiple fatality event, while Queensland recorded 11

Multiple fatality events are tragic with far-reaching effects on the victims' families, communities and rescue personnel. In order to reduce the number of multiple fatality events each year, as well as reduce the number of lives lost, a number of drowning prevention strategies can be undertaken.

These include ensuring lifejackets are worn when boating or rock fishing, ensuring boats are seaworthy and fitted with appropriate safety equipment and monitoring weather reports and water conditions before and during activity.

DROWNING DEATHS BY KEY LOCATIONS: **BEACH**

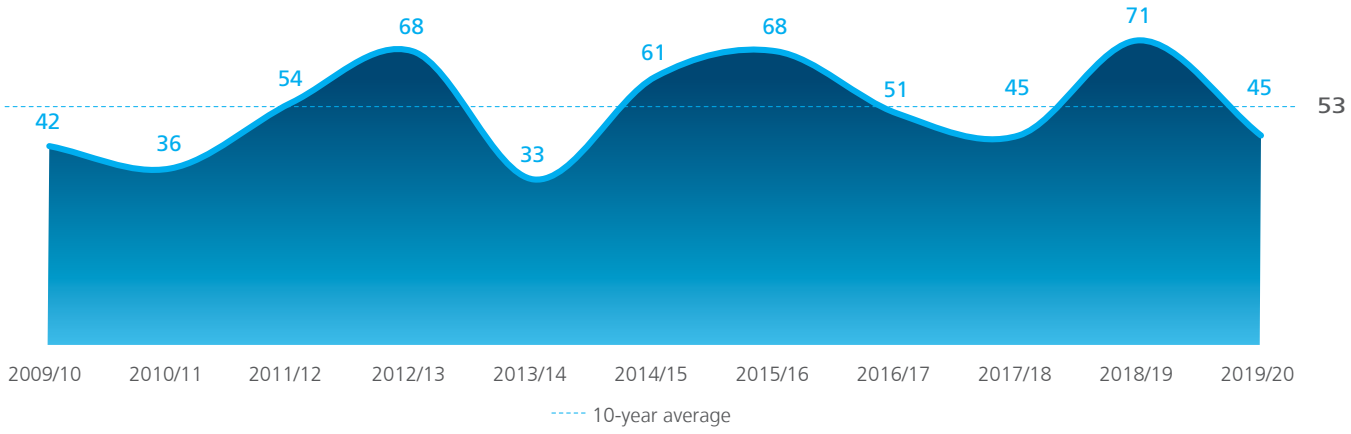
45 drowning deaths occurred at beaches in 2019/20

This is a **37%** **decrease** on 2018/19

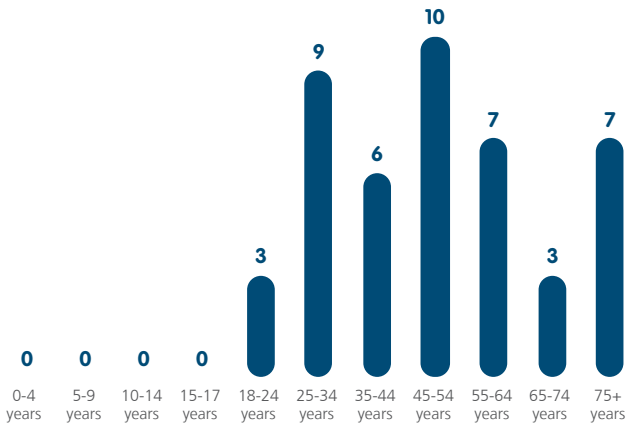
and a **15%** **decrease** on the 10-year average

84% of all drowning deaths in this location were males

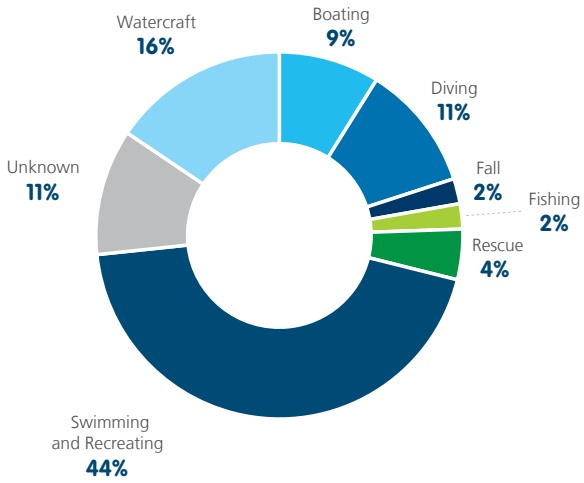
Drowning deaths at beaches from 2009/10 to 2019/20 and the 10-year average



Drowning deaths at beaches by age, 2019/20



Drowning deaths at beaches by activity, 2019/20



DROWNING DEATHS BY KEY LOCATIONS: **LAKE/DAM**

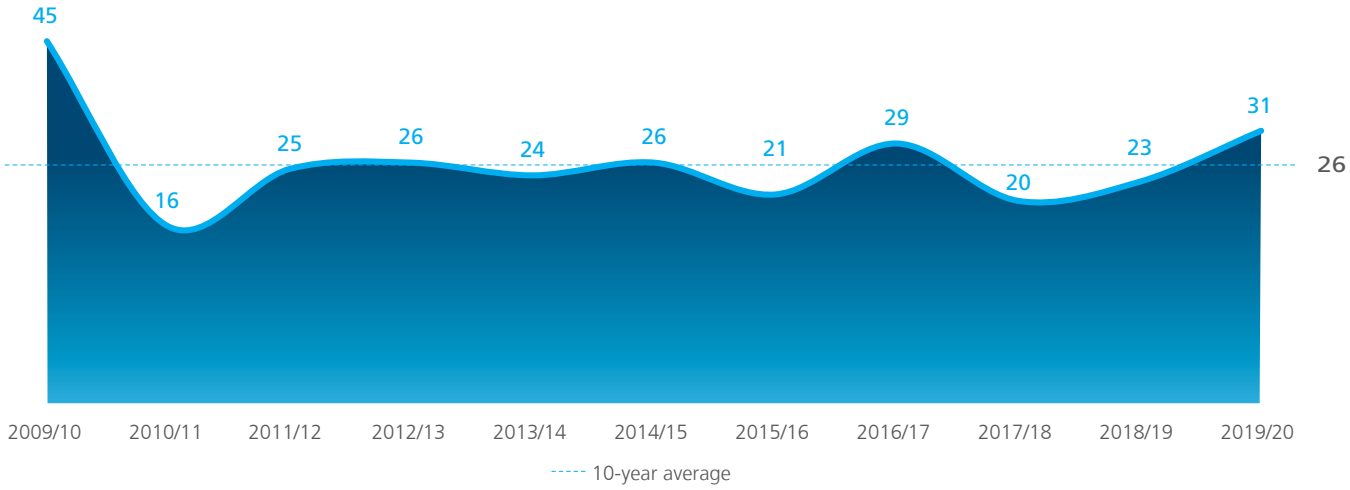
31 drowning deaths occurred in lake/dam locations in 2019/20

This is a **35%** **increase** on 2018/19

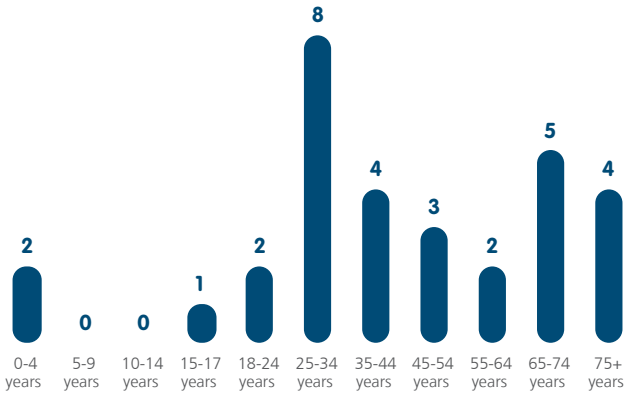
and a **19%** **increase** on the 10-year average

84% of all drowning deaths in this location were males

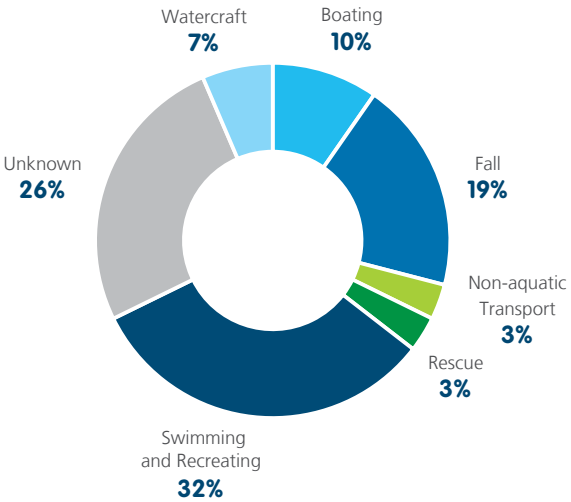
Drowning deaths in lake/dam locations from 2009/10 to 2019/20 and the 10-year average



Drowning deaths in lake/dam locations by age, 2019/20



Drowning deaths in lake/dam locations by activity, 2019/20



Sex, age and socioeconomic status can influence a person's risk of drowning, as well as the presence of pre-existing medical conditions and consumption of alcohol and/or drugs.

50
drowning deaths were known to involve a pre-existing medical condition in 2019/20

Pre-existing medical conditions commonly occurred among **males (70%)** and those aged **65 years and over (40%)**.

The most common pre-existing medical conditions among those who drowned were cardiac conditions, such as ischaemic heart disease and coronary artery atherosclerosis. Cardiac conditions were recorded in 64% of cases where a pre-existing medical condition was known to be present. Other commonly occurring medical conditions included epilepsy (12%) and mental health conditions (12%).

A pre-existing medical condition was deemed to have been contributory to the chain of events that led to the drowning in 66% of cases where a medical condition was known to be present.

Royal Life Saving recommends that people aged 65 years and over undergo regular medical check-ups to ensure that any health conditions are detected early, treated effectively and monitored appropriately. Children and adults with a history of epilepsy should always be supervised when in, on or around the water.

27
drowning deaths were known to involve alcohol in 2019/20

Alcohol was deemed to be a contributory factor in **56%** of these cases

The highest Blood Alcohol Concentration (BAC) recorded among those who drowned was **0.35%**

At the time of publication, presence of alcohol was unknown in **79%** of all cases

Alcohol consumption can increase the risk of drowning by impairing judgement and reaction time, increasing risk-taking behaviour and reducing coordination. Alcohol should be avoided around water.

26
drowning deaths were known to involve drugs in 2019/20

58% **Legal**
(prescription or over the counter medication)

19% **Illegal**
(commonly cannabis and methamphetamine)

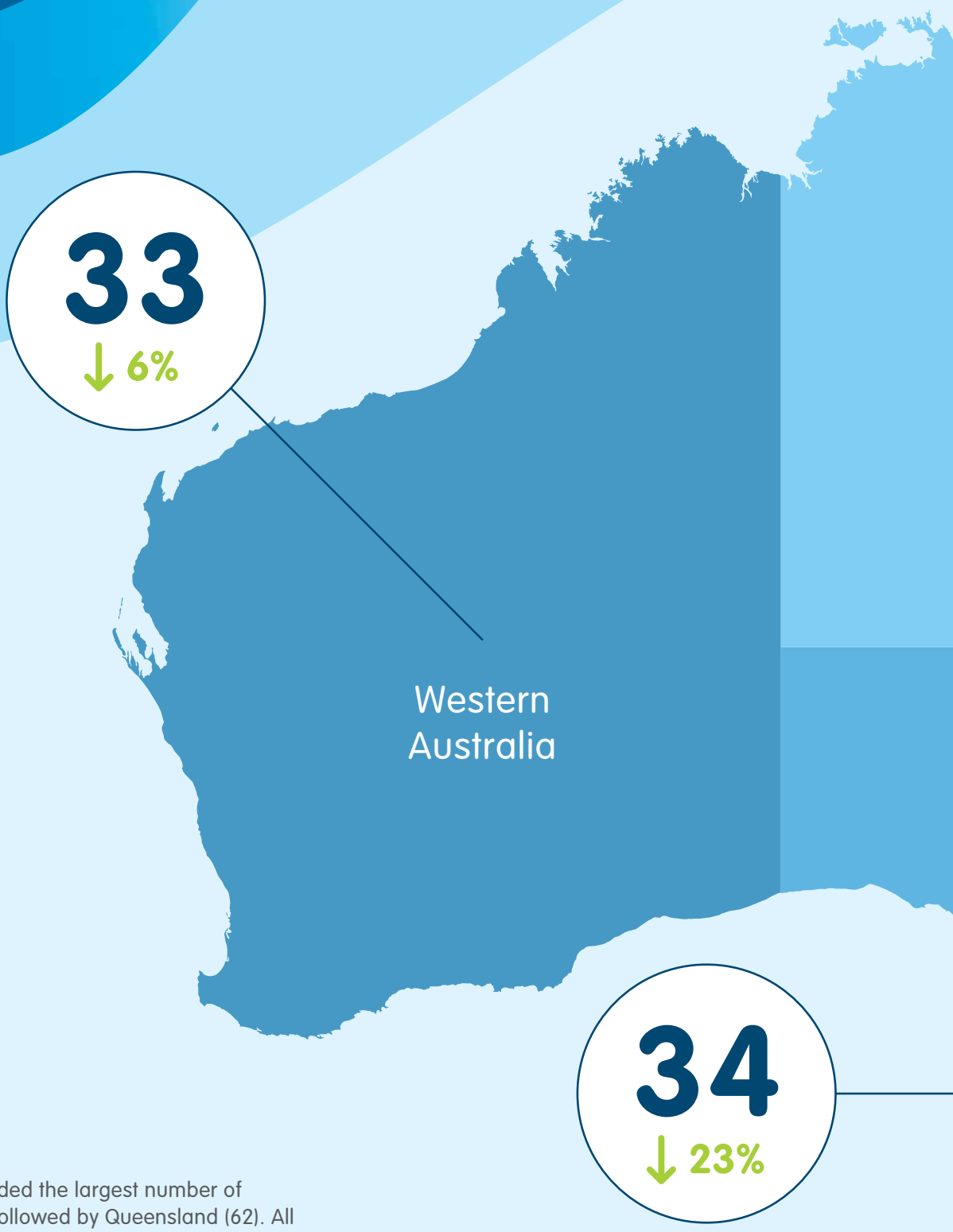
15% **Both**
(legal and illegal drugs)

8% **Unknown**

At the time of publication, presence of drugs was unknown in **80%** of all cases

Medications can cause drowsiness, affect alertness and impair reaction time. Illegal drugs can numb the senses, reduce inhibitions and distort the perception of risk. There is also the potential for additive effects when alcohol consumption is combined with drug use. Royal Life Saving urges people to refrain from consuming illegal drugs around water. It is also important to consider the possible side effects of prescription medication.

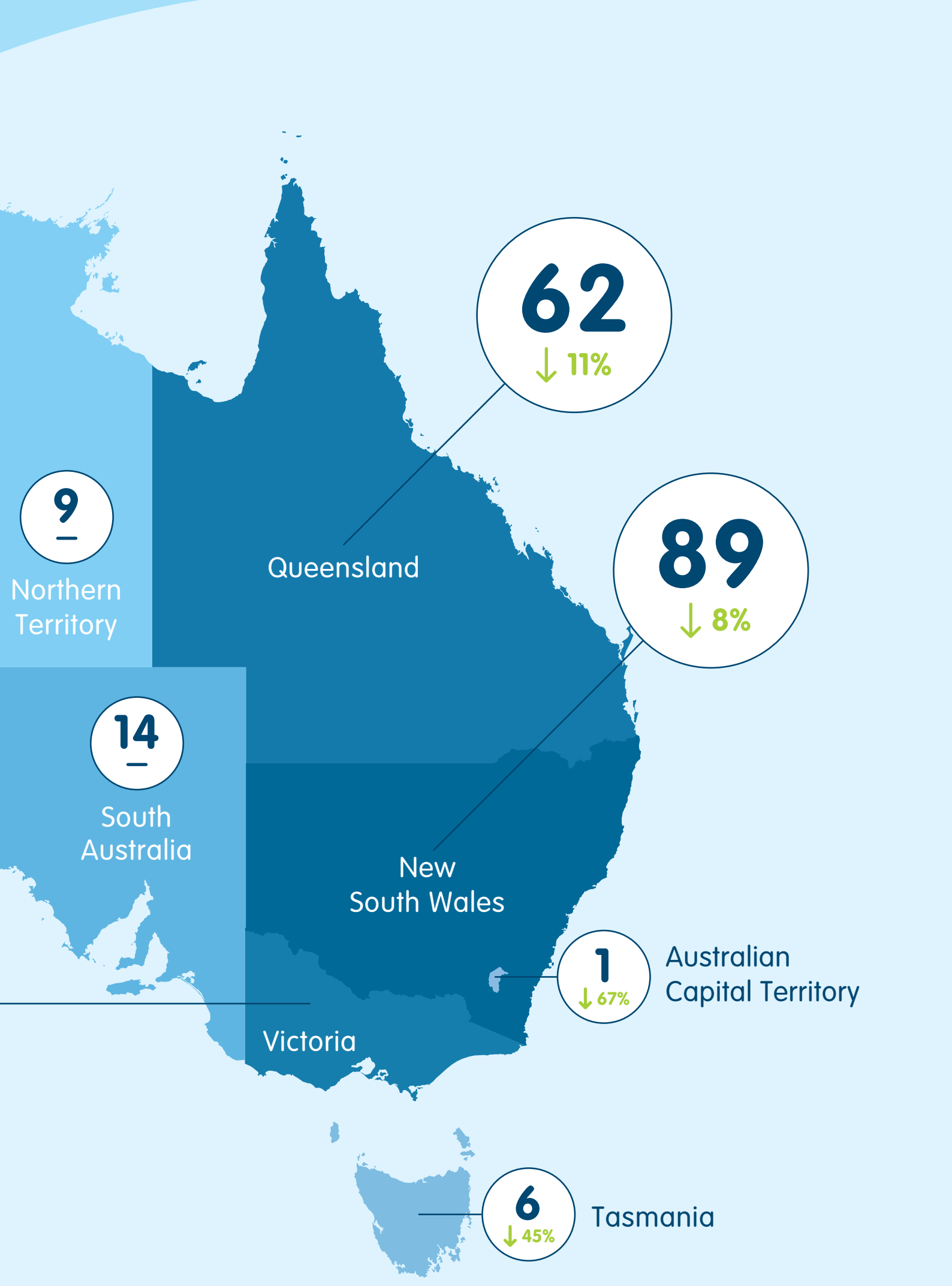
STATE AND TERRITORY DROWNING DEATHS



New South Wales recorded the largest number of drowning deaths (89), followed by Queensland (62). All States and Territories recorded decreases compared with the 10-year average, except for the Northern Territory and South Australia which recorded no change.

The Northern Territory recorded the highest fatal drowning rate at 3.66 per 100,000 population. The Australian Capital Territory recorded the lowest fatal drowning rate at 0.23 per 100,000 population.

↓↑ Arrows reflect 2019/20 changes against the 10-year average


62
↓ 11%
Queensland
9
—
Northern Territory
89
↓ 8%
14
—
South Australia
New South Wales
1
↓ 67%
Australian Capital Territory
Victoria
6
↓ 45%
Tasmania

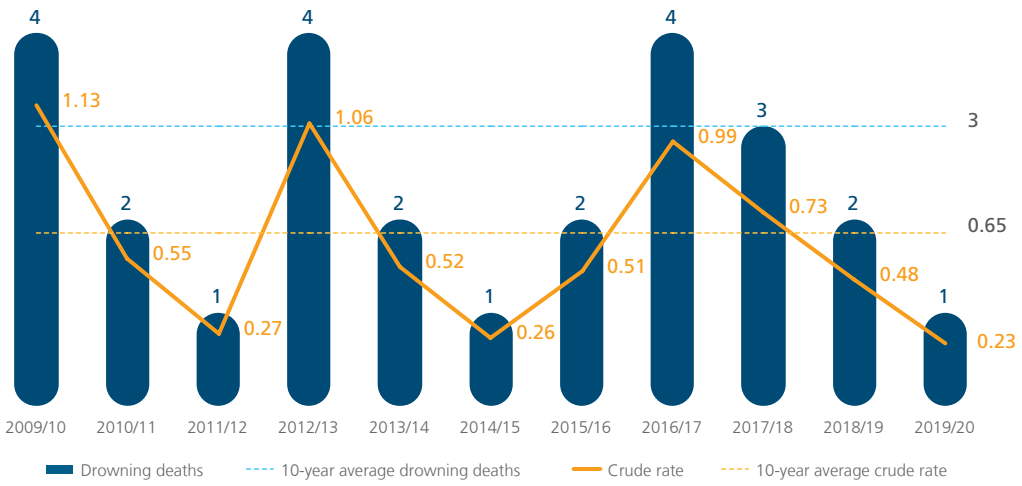
AUSTRALIAN CAPITAL TERRITORY

1 drowning death occurred in the ACT in 2019/20

This is a **50%** **decrease** on 2018/19

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

Drowning deaths and death rates in the Australian Capital Territory from 2009/10 to 2019/20 and the 10-year average



ACT Aquasafe program

Aquasafe is a unique water safety and awareness program designed specifically for Year 2 students in the ACT. The concept of the program was developed as a joint initiative between Royal Life Saving ACT and the ACT Government's Education Directorate. Participation in the program is subsidised by the ACT Government. This funding increases accessibility and affordability of the program for all students.

The program consists of a 2-week (10-day) block of pool-based sessions and 5 x 40-minute classroom sessions. Royal Life Saving ACT is responsible for the organisation and facilitation of the pool sessions, including transport, for all ACT primary schools and has developed a Teacher Resource for the delivery of the classroom sessions.

Aquasafe is different from traditional learn to swim programs in that it focuses specifically on water safety skills and knowledge that can be applied to a range of aquatic environments. Aquasafe complements existing learn to swim programs and supports children to develop the knowledge, skills and understanding to avoid danger and prevent drowning.

3174 **Primary school students** participated in 2019/20 across 69 primary schools, including:

299 **EALD students** (English as an additional language or dialect)

134 **Aboriginal and Torres Strait Islander students**

NEW SOUTH WALES

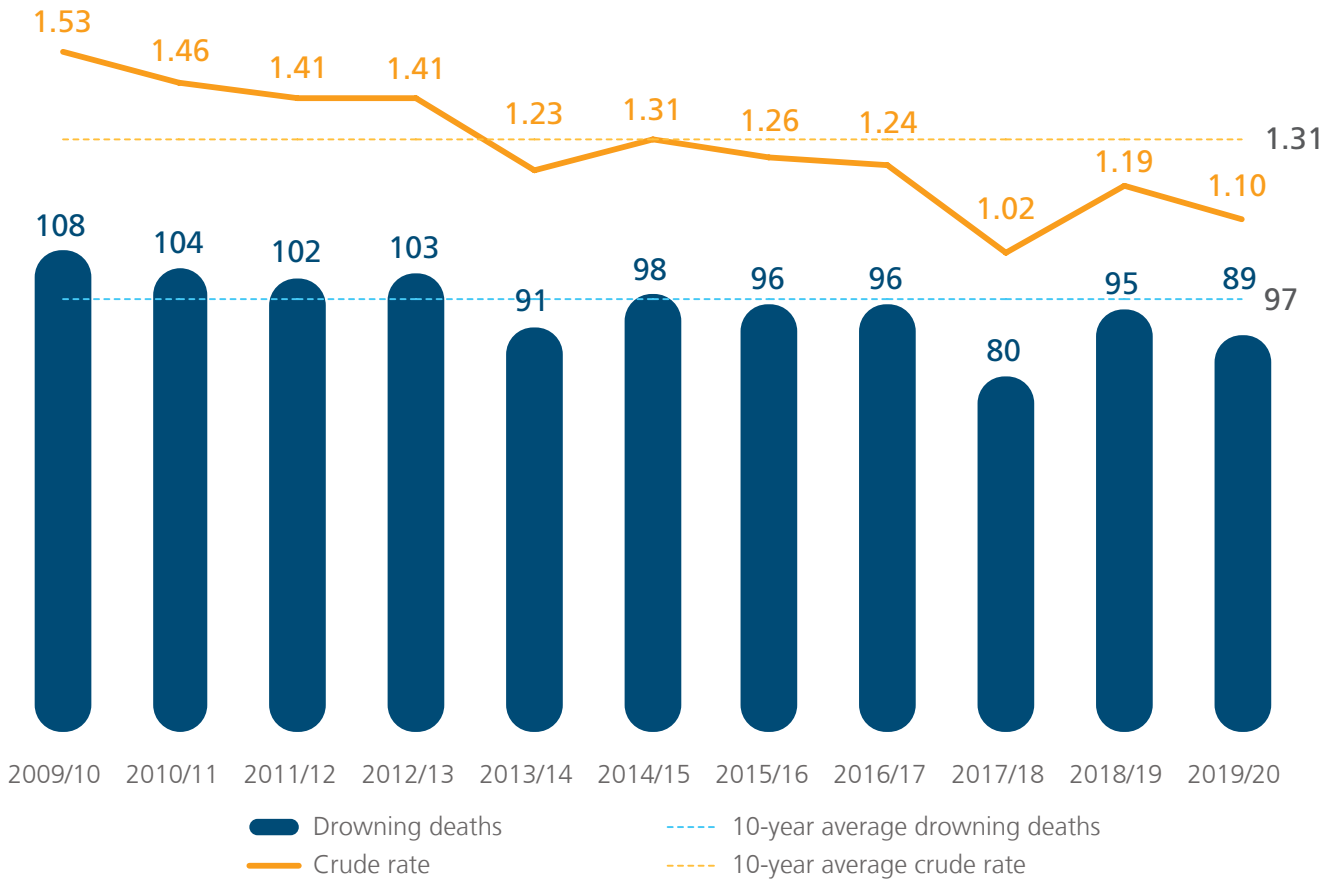
89 drowning deaths occurred in NSW in 2019/20

This is a **6%** **decrease** on 2018/19

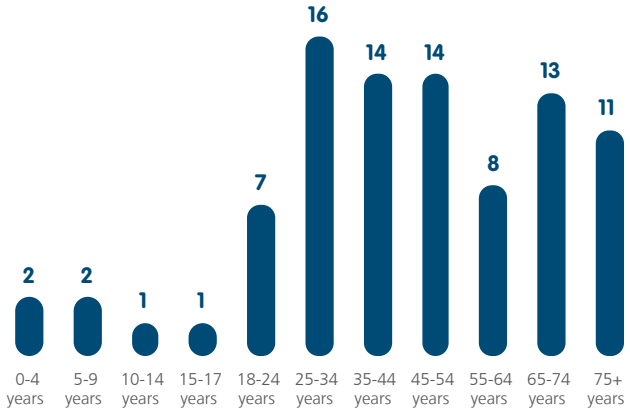
and an **8%** **decrease** on the 10-year average

89% of those who drowned in New South Wales were male

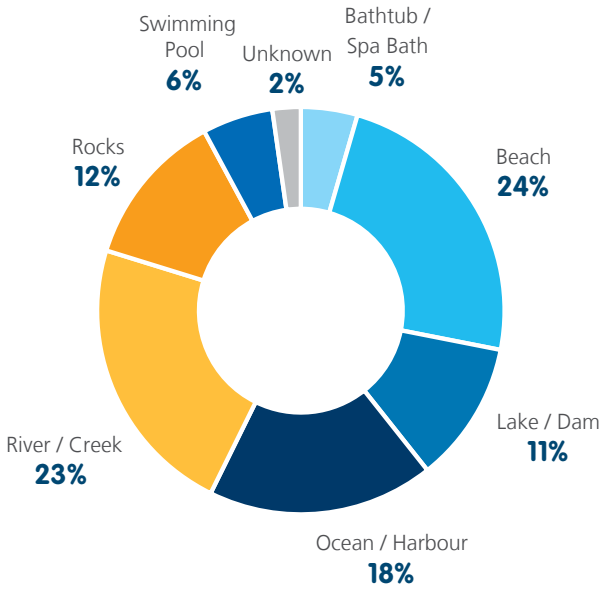
Drowning deaths and death rates in New South Wales from 2009/10 to 2019/20 and the 10-year average



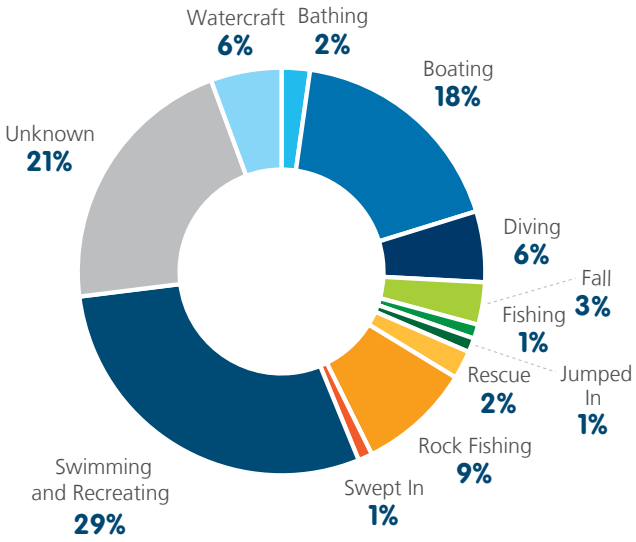
Age



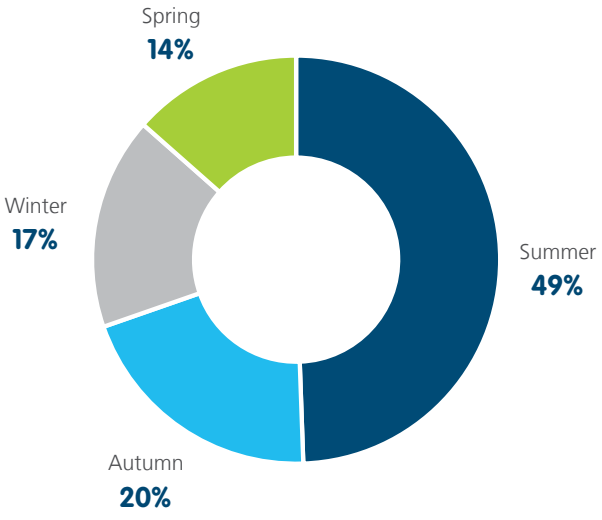
Location



Activity



Season



NORTHERN TERRITORY

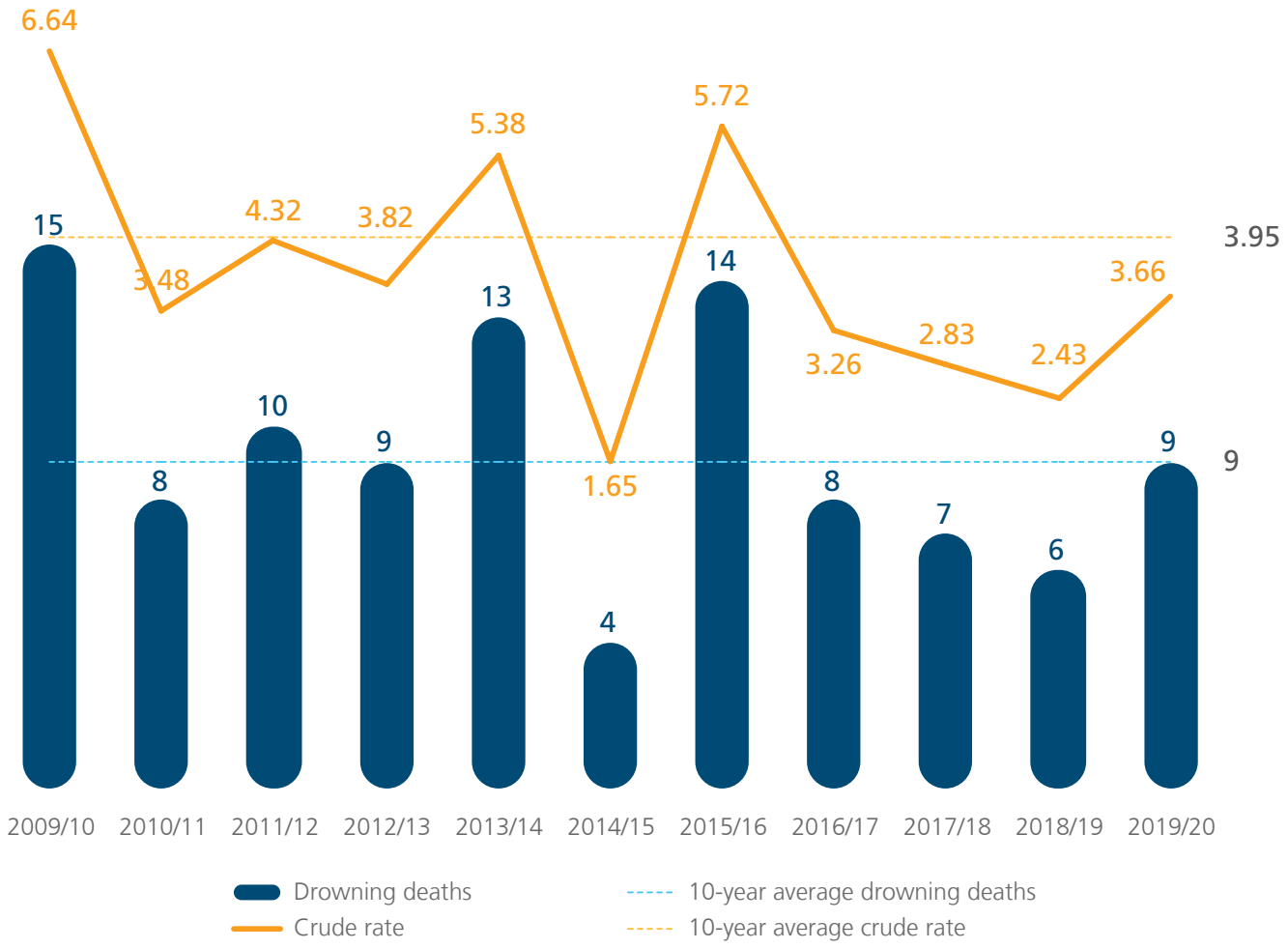
9 drowning deaths occurred in the NT in 2019/20

This is a **50%** **increase** on 2018/19

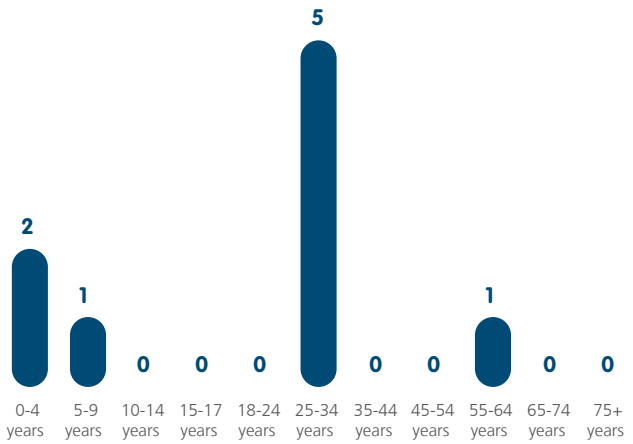
and the **SAME** as the 10-year average

67% of those who drowned in the Northern Territory were male

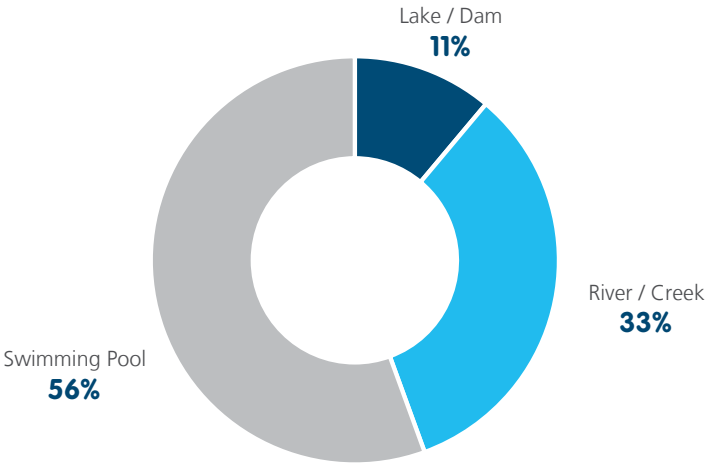
Drowning deaths and death rates in the Northern Territory from 2009/10 to 2019/20 and the 10-year average



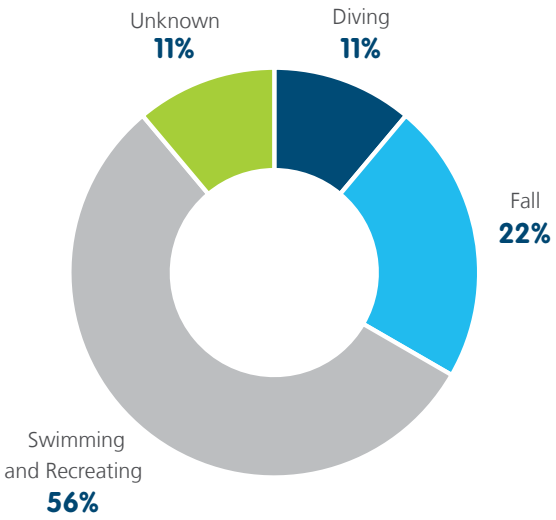
Age



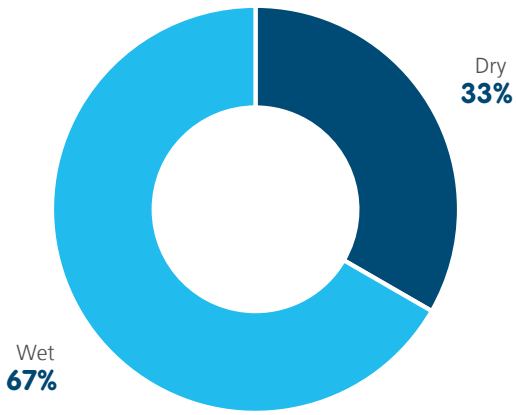
Location



Activity



Season



QUEENSLAND

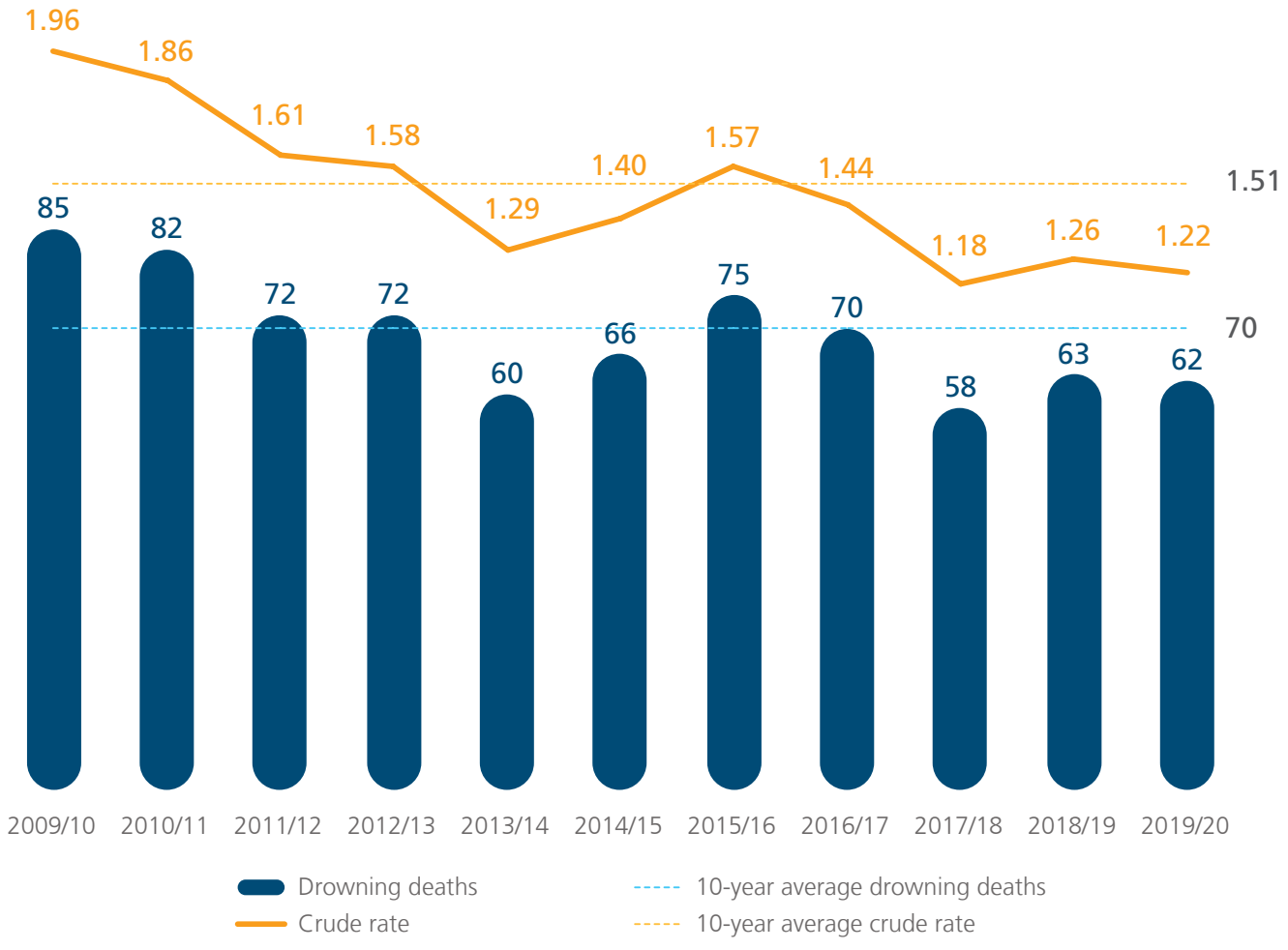
62 drowning deaths occurred in QLD in 2019/20

This is a **2%** **decrease** on 2018/19

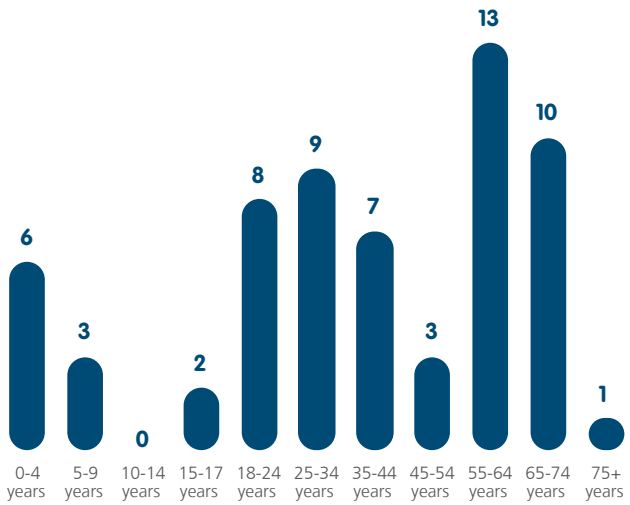
and an **11%** **decrease** on the 10-year average

77% of those who drowned in Queensland were male

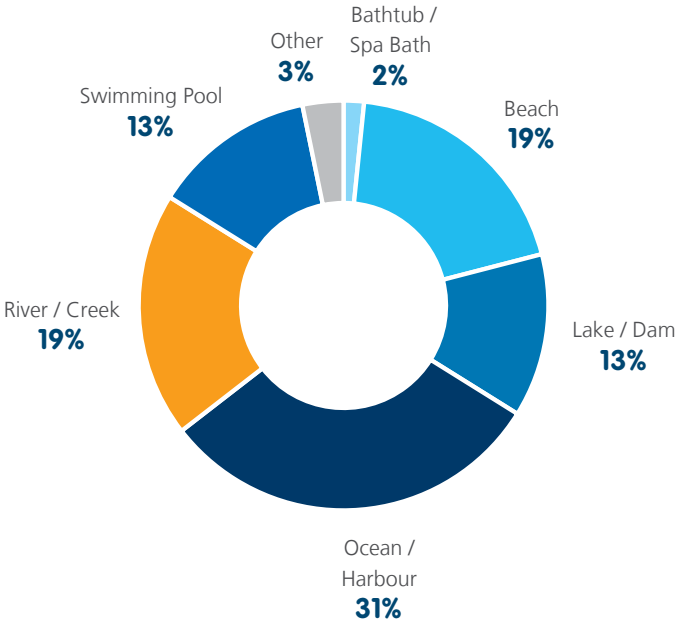
Drowning deaths and death rates in Queensland from 2009/10 to 2019/20 and the 10-year average



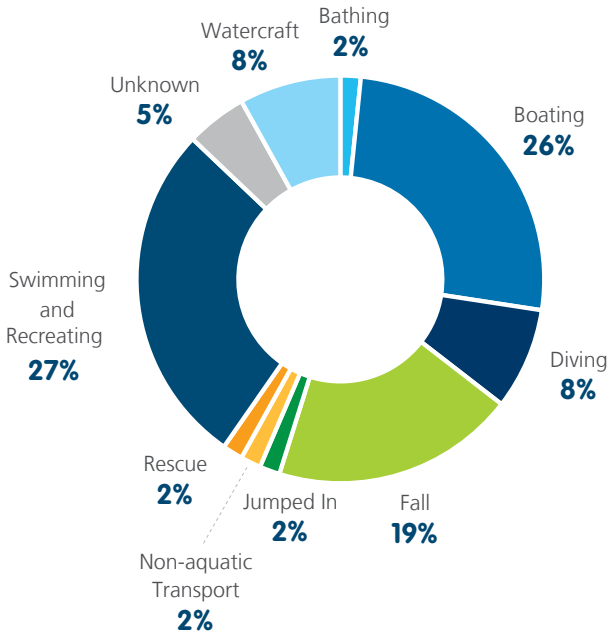
Age



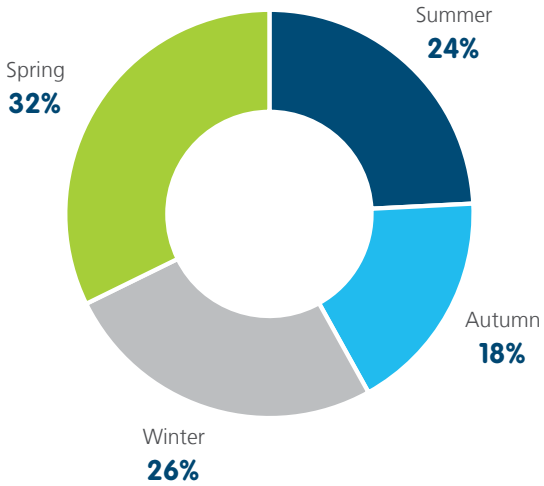
Location



Activity



Season



SOUTH AUSTRALIA

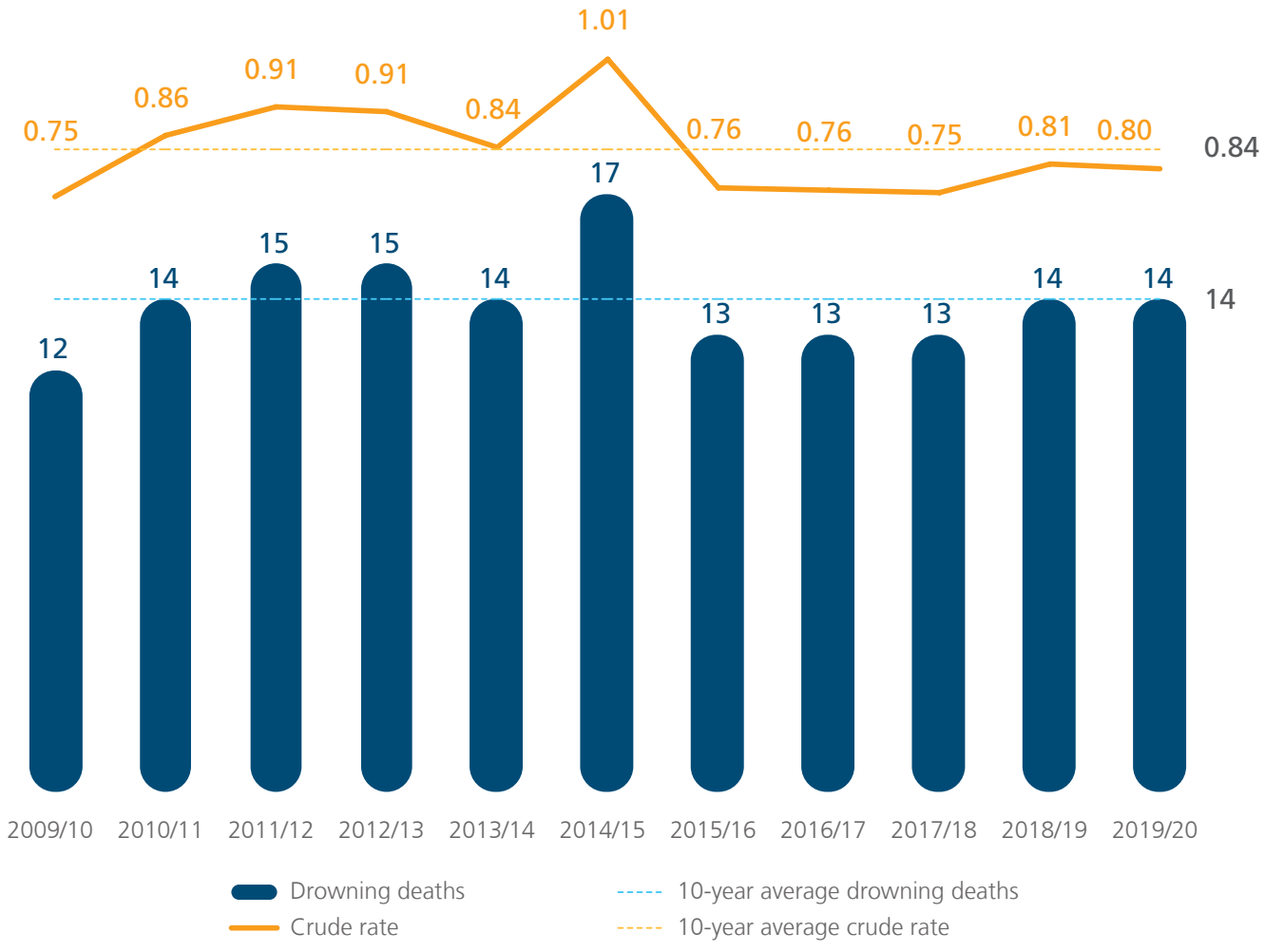
14 drowning deaths occurred in SA in 2019/20

This is the **SAME** as 2018/19 =

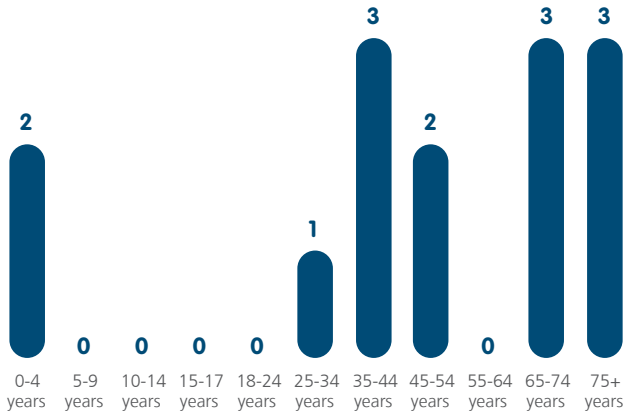
and the **SAME** as the 10-year average =

79% of those who drowned in South Australia were male

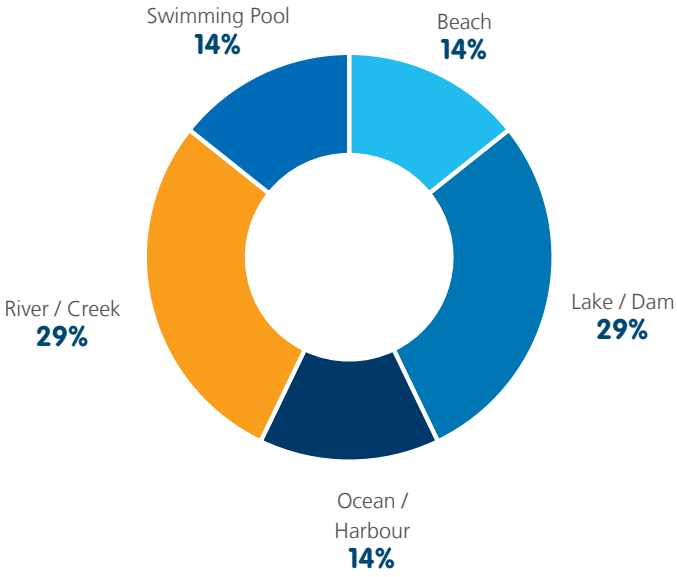
Drowning deaths and death rates in South Australia from 2009/10 to 2019/20 and the 10-year average



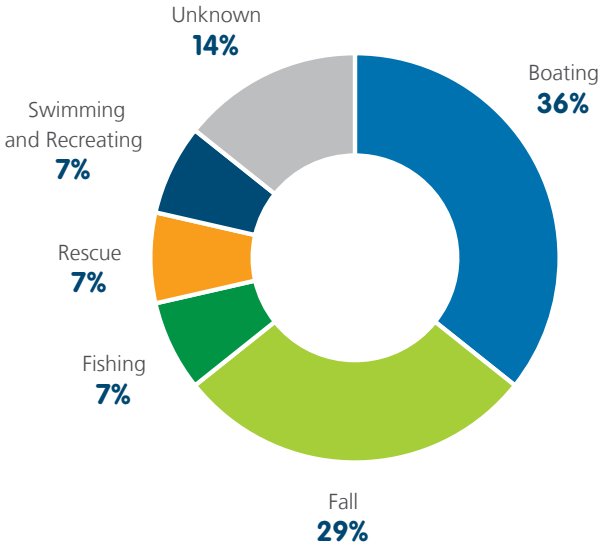
Age



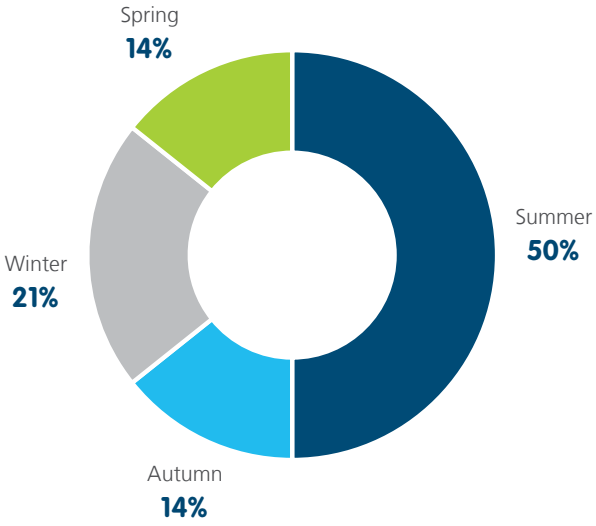
Location



Activity



Season



TASMANIA

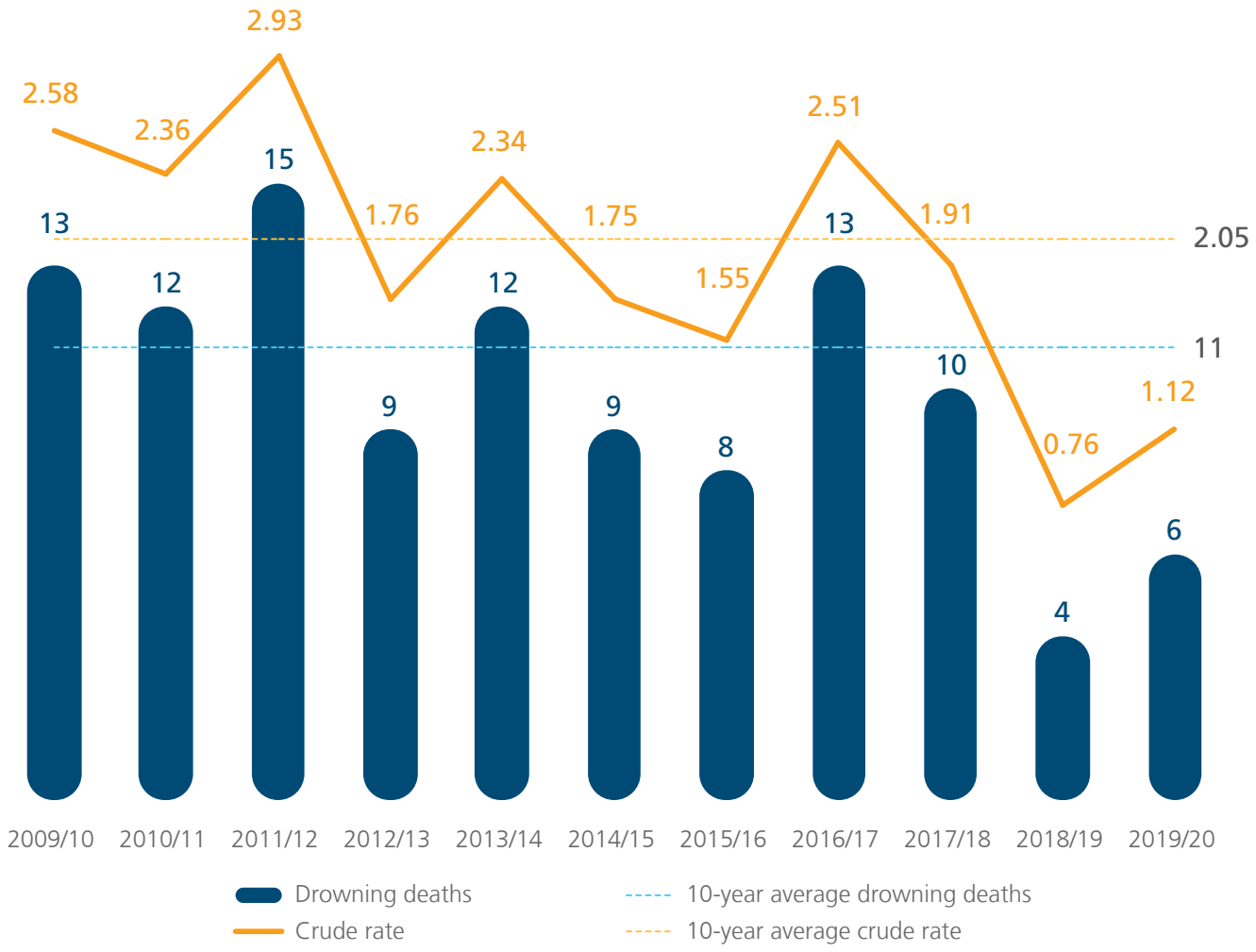
6 drowning deaths occurred in TAS in 2019/20

This is a **50%** **increase** on 2018/19

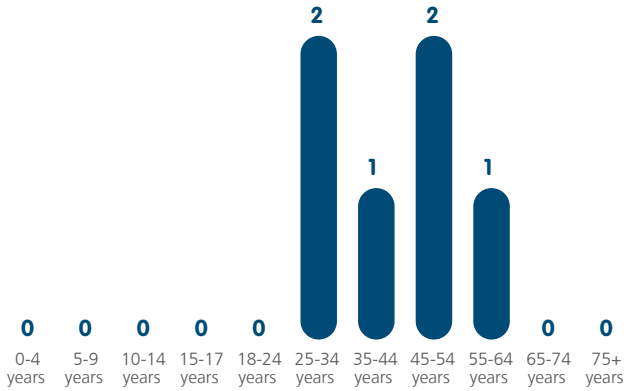
and a **45%** **decrease** on the 10-year average

100% of those who drowned in Tasmania were male

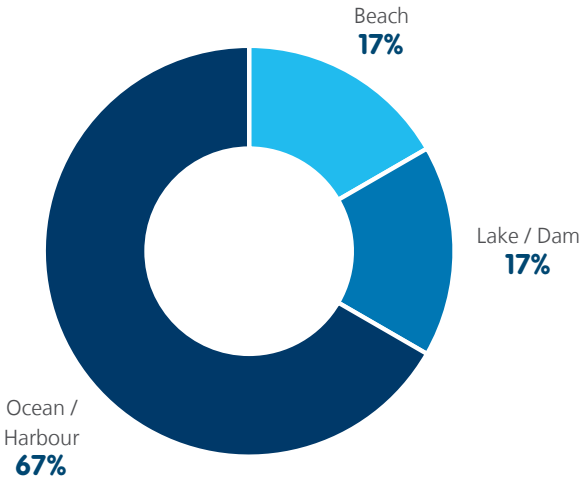
Drowning deaths and death rates in Tasmania from 2009/10 to 2019/20 and the 10-year average



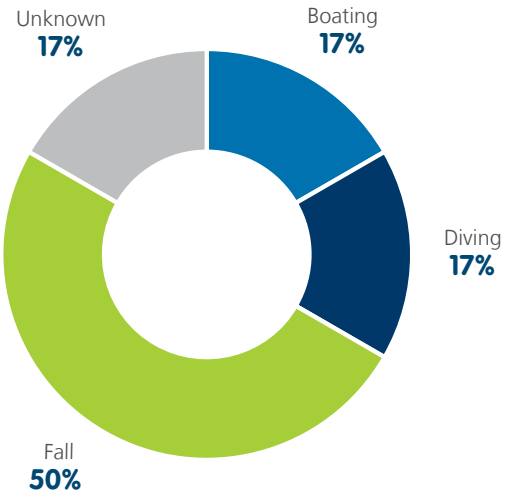
Age



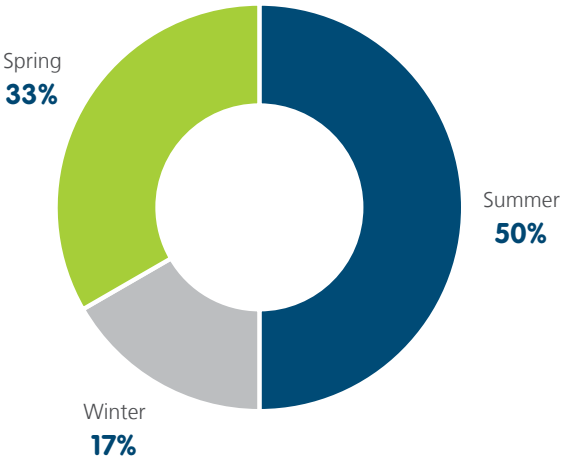
Location



Activity



Season



VICTORIA

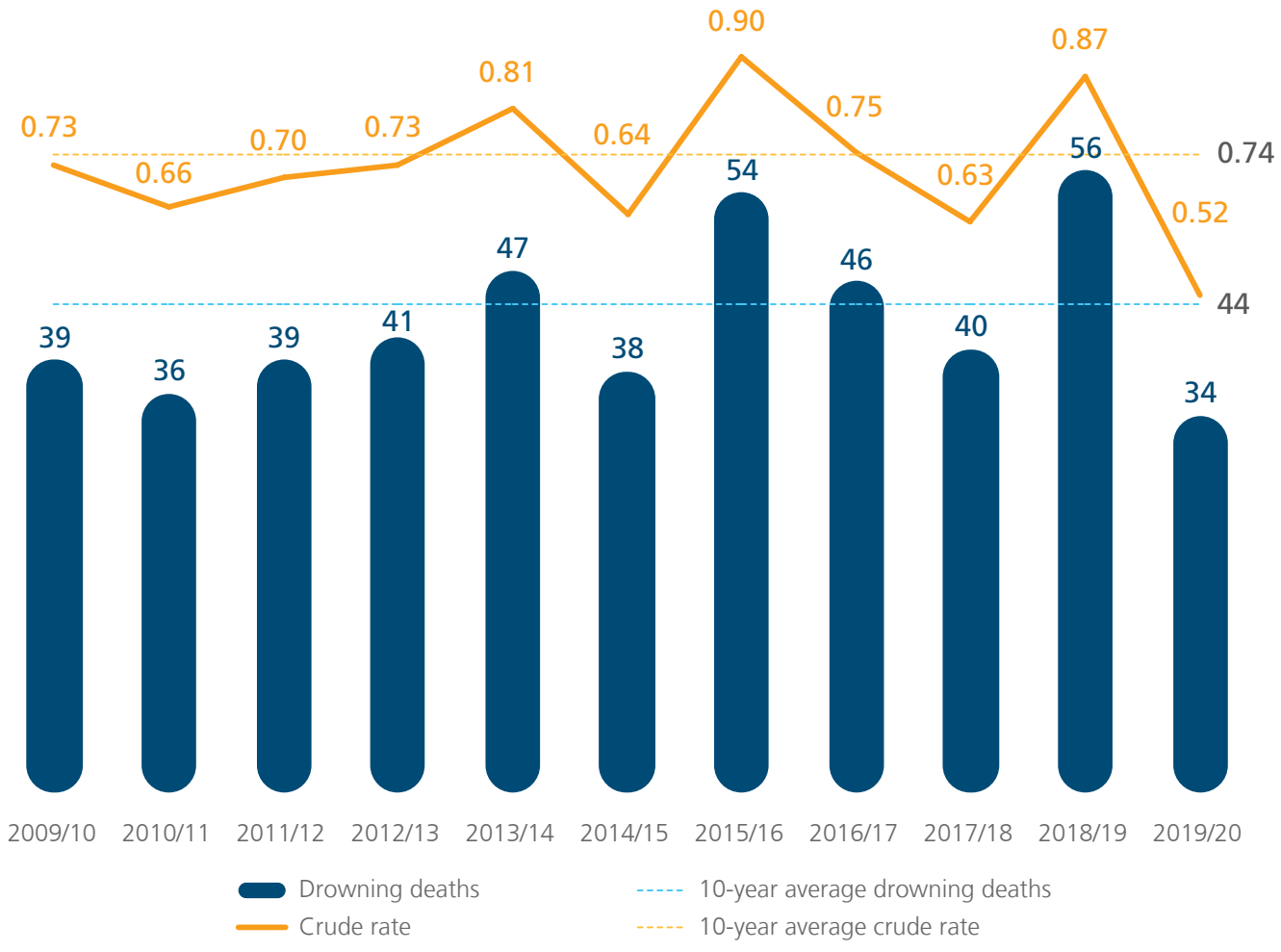
34 drowning deaths occurred in VIC in 2019/20

This is a **39%** **decrease** on 2018/19

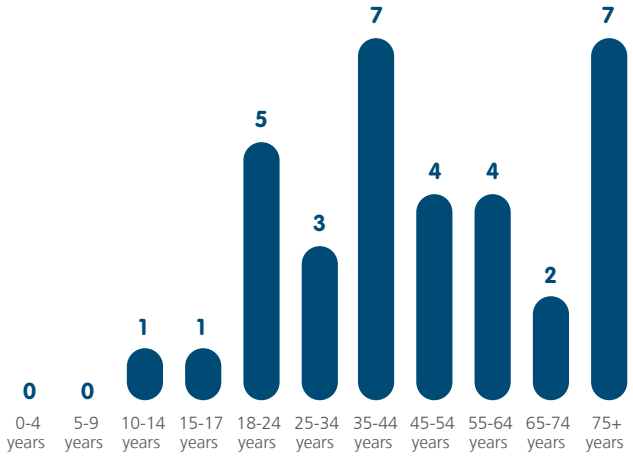
and a **23%** **decrease** on the 10-year average

77% of those who drowned in Victoria were male

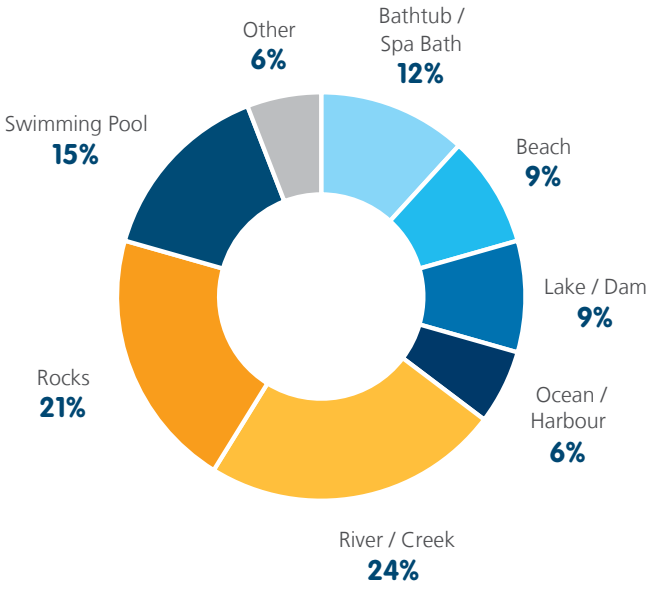
Drowning deaths and death rates in Victoria from 2009/10 to 2019/20 and the 10-year average



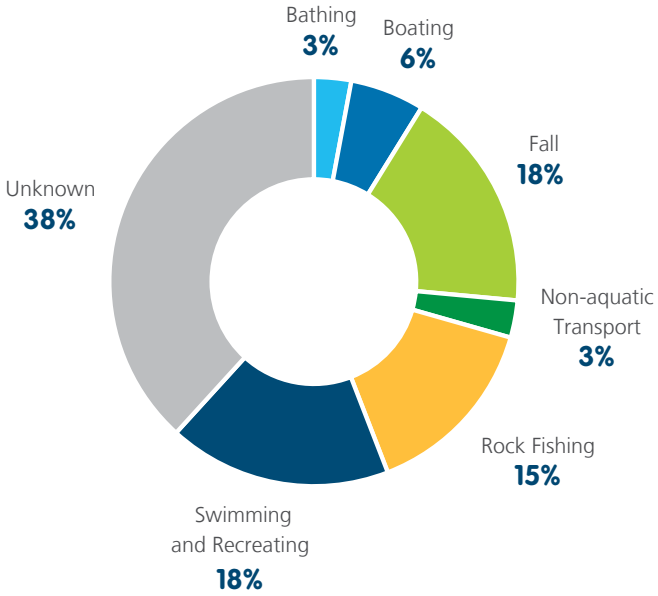
Age



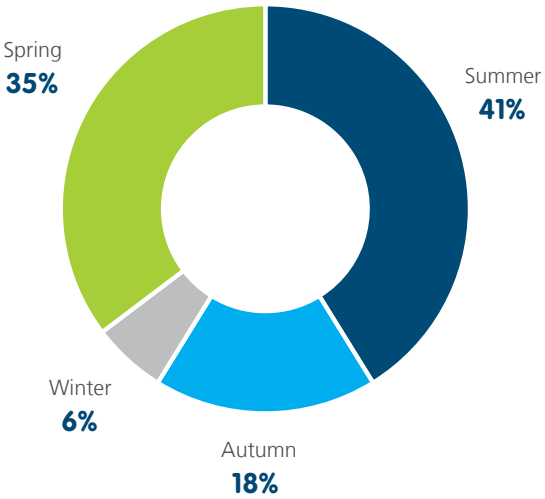
Location



Activity



Season



WESTERN AUSTRALIA

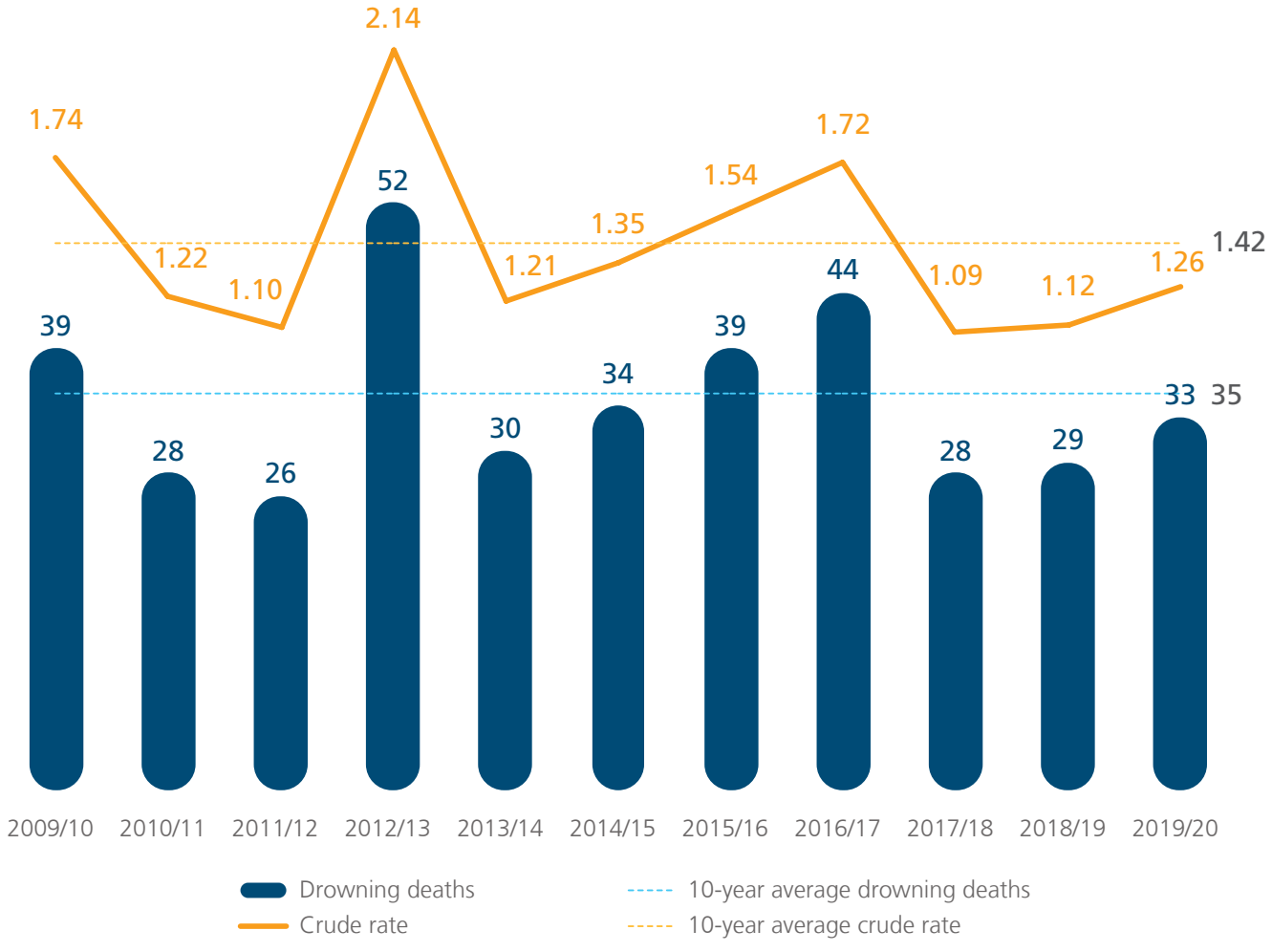
33 drowning deaths occurred in WA in 2019/20

This is a **14%** **increase** on 2018/19

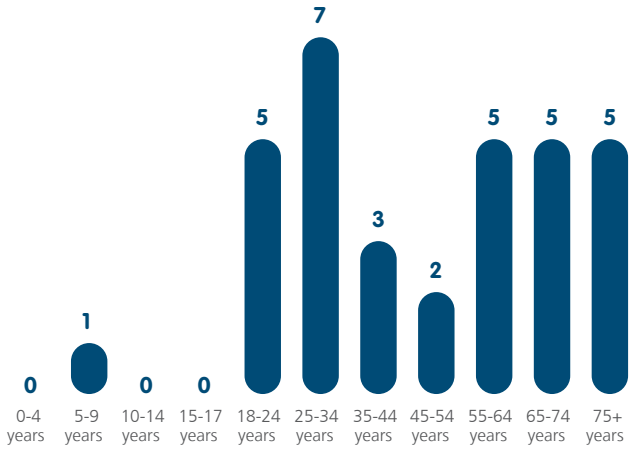
and a **6%** **decrease** on the 10-year average

67% of those who drowned in Western Australia were male

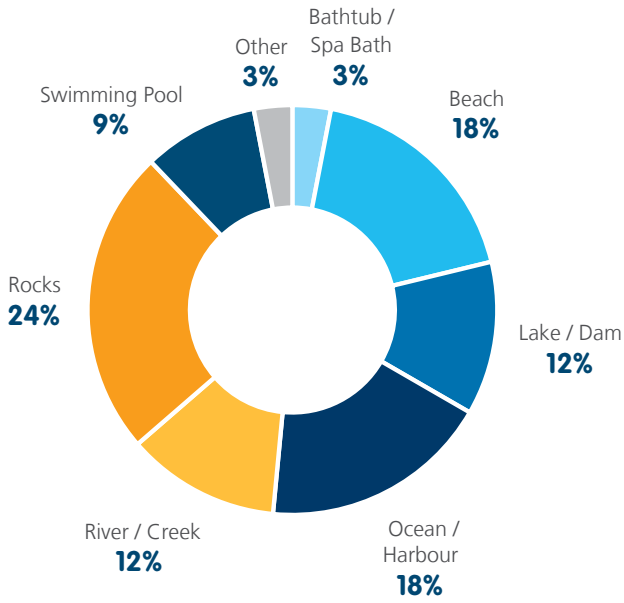
Drowning deaths and death rates in Western Australia from 2009/10 to 2019/20 and the 10-year average



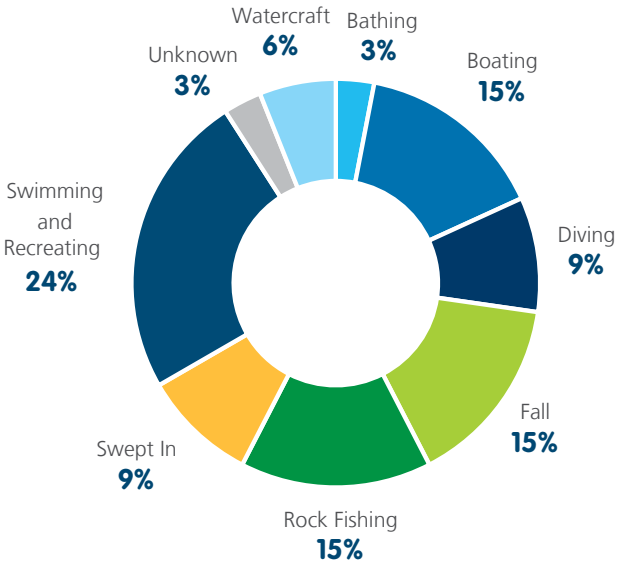
Age



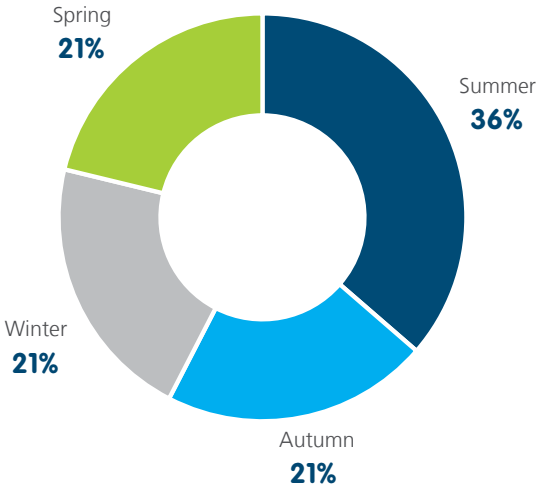
Location



Activity



Season



METHODS

Fatal drowning

The information presented in the Royal Life Saving National Drowning Report 2020 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 78% of cases are still under investigation (i.e. 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 12 August 2020. Historical drowning data are correct as of 1 July 2020 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 2009/10 to 2018/19 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. Percentages may not total 100 due to rounding.

Exclusions and categorisations

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' refers to water-based non-powered recreational equipment such as those that are rowed or paddled (e.g., 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 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20 were estimated using the observed ratios of fatal to non-fatal incidents for each age group and sex between 2002/03 and 2014/15.

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 2015/16, 2016/17, 2017/18, 2018/19 and 2019/20, 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.

Acknowledgments

Royal Life Saving would like to thank the following people and organisations for their assistance in producing the Royal Life Saving National Drowning Report 2020:

- Royal Life Saving State and Territory Member Organisations (STMOs)
- The National Coronial Information System (NCIS)
- Surf Life Saving Australia (SLSA)
- The Queensland Family and Child Commission (QFCC)
- Shane Daw (SLSA)
- Jaz Lawes (SLSA)
- Annabel Ellis (SLSA)
- Leanne Daking (NCIS)
- Bernadette Matthews (LSV)
- Lauren Nimmo (RLSSWA)
- Rick Carter (Studio One Another)

The drowning prevention research of the Royal Life Saving Society – Australia is supported by the Australian Government.

This report was compiled and written by Alison Mahony, National Manager – Research and Policy, Stacey Pidgeon, National Manager – Research and Policy and Keeley Allen, Senior Project Officer – Research and Policy, Royal Life Saving Society – Australia.

2019/20 RESEARCH AND POLICY HIGHLIGHTS

Royal Life Saving's research and policy contribution in 2019/20 has been diverse and continues to impact drowning prevention policy and programs.

255

PEOPLE DROWNED IN A LAKE, DAM OR LAGOON IN AUSTRALIA

1 JULY 2008 - 30 JUNE 2018

87% of all drowning deaths were males

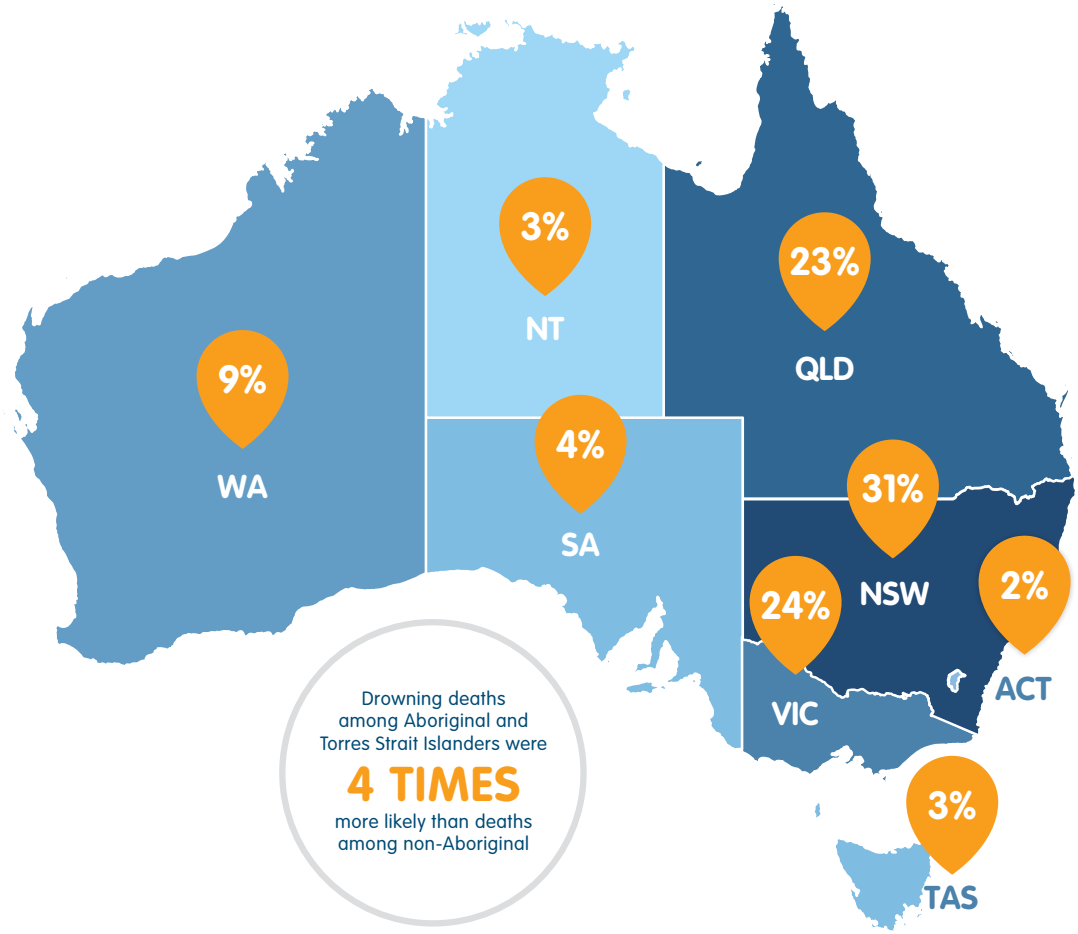
Top 3 age groups

15% 25-34 years

12% 45-54 years

10% 0-4 years

State and Territory breakdown



Key Findings

51% Lakes **44%** Dams **5%** Lagoons

Most (60%) drowning deaths in lakes, dams and lagoons occurred in major cities or inner regional areas and 12% occurred in remote or very remote locations. The rate of drowning in remote (12.75 times greater) and very remote (18.75 times greater) locations were found to be significantly greater than that of major cities.

A diverse range of activities were being undertaken immediately prior to death:

- 22% Fall
- 20% swimming and Recreating
- 12% Boating

Consistent with general drowning trends, drowning deaths in lakes, dams and lagoons commonly occurred in:

- 37% Summer
- 23% Spring
- 48% Afternoon (between 12:01pm and 6pm)

Risk factors

- 31% involved alcohol and 32% involved drugs
  - 11% were known to involve both alcohol and drugs
- 38% recorded a pre-existing medical condition
  - People aged 65 to 74 years were most likely to record a pre-existing medical condition (79%)
- 31% of cases recorded swimming ability, of which 71% were considered to be a non-swimmer or a poor swimmer
- 12% of people participating in boating and watercraft activities were known to be wearing a lifejacket
- 42% of cases were known to be alone when they drowned
- 2% of cases were known to be flood related

This study identified specific findings for lakes, dams and lagoons that had not been explored fully in previous drowning analyses:

- Cardiopulmonary resuscitation (CPR) was administered in 24% of incidents
- Visibility of the person in the water was lost in 86% of incidents (usually due to water quality or depth)
- A search was conducted In 84% of incidents

Dams were the only location to record work-related drowning deaths. Work-related drowning occurred in 32% of dam drowning deaths. More work-related drowning deaths occurred in dams classed as private/residential dams (43%) compared to public access dams (10%).

Recommendations

Children
Supervise children at all times and create safe play areas for children on rural properties with access to inland waterways, especially dams on private/residential properties.

Older people
Raise awareness of drowning risk among older people (65 years and older), including pre-existing medical conditions, the effects of medication and being alone when undertaking activities around water.

Aboriginal and Torres Strait Islander people
Develop culturally appropriate strategies to prevent drowning among Aboriginal and Torres Strait Islander communities to highlight the risks associated with undertaking aquatic activity when under the influence of alcohol and/or drugs.

Industry
Raise awareness among those working in agriculture or remote regions about the risks of drowning on rural properties and sites.

Swimming and water safety education
Highlight the value of learning to swim and water safety skills, and the need for local water safety education programs, particularly in regional and remote locations.

Regional, remote and rural
Key strategies to increase public awareness of the risks and to improve outcomes in regional, remote and rural locations include:

- Provide greater access to CPR training, particularly in remote locations;
- Improve telecommunications in rural, regional and remote regions, and skilled telephone triage training for emergency service providers;
- Develop prevention strategies that cater for both local community members and tourists, including culturally appropriate materials;
- Ensure that accommodation providers that are located on or have access to lakes/lagoons supply guests with water safety information, install clear safety signage, emergency phones and defibrillators, and consider ways to restrict intoxicated people accessing the aquatic environment in line with relevant industry guidelines.

Source: Taylor DH, Pidgeon S, Peden AE (2020). A ten-year national review of lake, dam and lagoon drowning deaths: 2008/2009 to 2017/2018, Royal Life Saving Society – Australia. Sydney.

AQUATIC INDUSTRY WORKFORCE PROFILE

Royal Life Saving conducted a survey of the aquatic industry in April to June 2019 to gather comprehensive data on the full range of aspects that make up, influence, and affect the characteristics and working lives of the aquatic industry workforce.

At June 2019, an estimated 67,000 people worked across the aquatic industry in a variety of roles at aquatic centres, back offices and in their own businesses. At June 2019, the aquatic industry employed people across Australia of different ages and backgrounds.

Two reports have bene published following this survey:

- The Workforce Profile, published in December 2019, provided a snapshot of specific demographic information for key roles within the industry.
- The National Aquatic Workforce Report, published in July 2020, analysed employee insights relating to working life, professional development and future needs of those working in the aquatic industry.

The aim is to use the findings of both publications to form a Workforce Development Plan. The primary focus of this Plan will be to guide and support industry stakeholders to make decisions and take actions to ensure the workforce has the capabilities, opportunities, resources and systems to enable it to best meet client, community and business needs, and respond to ongoing change.

The Aquatic Industry Workforce Development Project was conceived of and commenced in a pre-COVID-19 world. This report was under development when the economic effects of COVID-19 took hold. As the aquatic industry, like many others, looks to bounce back from COVID-19, the knowledge, skills, positivity and resilience of the paid workforce and volunteers will be more important than ever.

Workers place a high value on having a positive impact and working as a team

74% Positive impact on people's lives

59% Interaction with customers

54% Being part of a team

The top skills nominated by workers needed for success in the aquatic industry are:

01 Verbal communication

02 Customer service

03 Teamwork and collaboration

Sources:
Allen, K & Jackson, S. (2019) National aquatic industry workforce profile 2019. Royal Life Saving Society – Australia. Sydney.

Allen, K & Jackson, S. (2020) National aquatic industry workforce report. Royal Life Saving Society – Australia. Sydney.

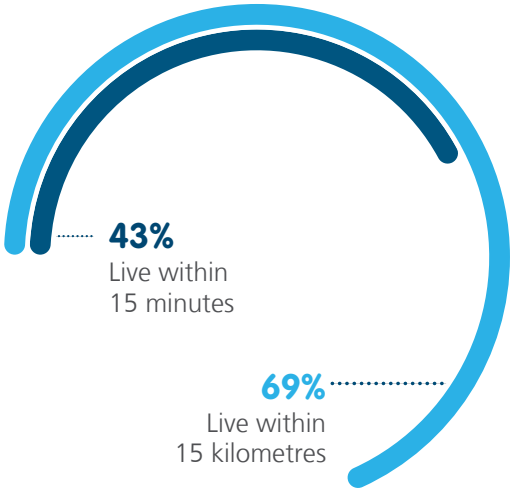
The workforce is largely casual

The industry is overwhelmingly female

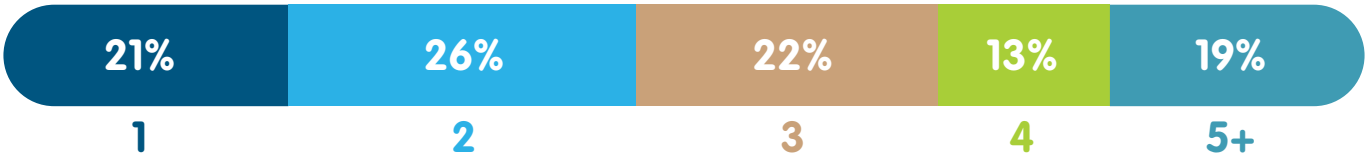
<1% OTHER

Gender proportions have been rounded to the nearest whole number.

Workers are local community members



16% of workers have never undertaken PD.
For those that have, the number of PD activities undertaken per year is relatively evenly spread.



AUTISM AND DROWNING

Royal Life Saving conducted a study exploring unintentional fatal drowning among children and adolescents aged between 0 and 19 years diagnosed with Autism Spectrum Disorder (ASD) in Australia between 1 July 2002 and 30 June 2018.

Of the 667 cases of drowning among those aged 0 to 19 years with known medical history, 27 children and adolescents (4%) who drowned had an ASD diagnosis. Children and adolescents with ASD were found to be three times more likely to drown than those without ASD (RR=2.85; CI 0.61 to 13.24). Among those with ASD, children aged 0 to 4 year recorded the highest rate (11.60/100 000 diagnosed).

This study found that the highest rates of drowning were seen in children aged 0 to 4 years and that over half of all ASD-related drowning deaths were due to an unintentional fall into water. Children and adolescents with ASD were significantly more likely to drown when compared with those without ASD: if aged 5–9 years (44% of ASD-yes cases; 13% of ASD-no cases); in a lake or dam (26% vs 10%) and during winter (37% vs 13%).

Pre-existing medical conditions are known to increase the risk of drowning. The findings of this study are consistent with other international research, which indicates that people with ASD have an increased risk of premature death and that children with ASD are at greater risk of unintentional injury, particularly drowning.

The study suggests that parents and carers of children with diagnosed ASD or with suspected ASD should be made aware of the increased risk of drowning and advised on how to reduce the risk. This includes:

- highlighting the importance of active adult supervision for all ages,
- the erection of barriers to restrict access to water (e.g., four-sided pool fencing),
- the creation of child safe play areas in locations where the risk of drowning is posed by natural waterways, and
- adults with ASD should always swim with a friend.

It is, however, important to note that with the right support and learning environment, people with ASD can learn to swim.

For more information or to find an approved Instructor or Centre, visit https://autismswim.com.au/

For more information about Australian drowning statistics and ASD, and drowning prevention measures for people with ASD, visit https://www.royallifesaving.com.au/facts-and-figures/key-facts/medical/autism-spectrum-disorder-asd-and-drowning

Source: Peden AE, Willcox-Pidgeon S. Autism spectrum disorder and unintentional fatal drowning of children and adolescents in Australia: an epidemiological analysis. Archives of Disease in Childhood. 2020.

IDENTIFYING A GAP IN DROWNING PREVENTION

Drowning is one of the leading causes of unintentional injury deaths and it is widely known and accepted that some populations are at greater risk of drowning than others.

A literature review of peer reviewed articles published between 1990 and 2018 from high-income Countries was conducted to explore high-risk populations for drowning, risk factors and prevention strategies. Thirty-five articles were reviewed, and were from: Australia (11%), Canada (11%), New Zealand (20%) and the United States (57%). Most studies focused on children (0-18 years).

Populations identified to be at greater risk for drowning were:

- Aboriginal and Torres Strait Islander people and, other First Nations peoples;
- ethnic minority populations;
- migrants and;
- rural residents.

Indigenous populations were often combined into the 'ethnic-minority' population category.

Key risk factors for these high-risk populations included: social determinants, attitudes and behaviour, and swimming ability and knowledge. Social determinants refer to the conditions in which people are born, grow, work, live and age, and also includes the forces that might shape a person's life – for example, cultural/ religious customs, economic policies and systems, development agendas, social norms, social policies and political systems.

Proposed prevention strategies included education, practical skills, research, policy and engagement. However, many studies recommended strategies that were very general, and did not provide specific examples of how strategies were tailored to meet the needs of these 'high-risk' populations.

The findings from this study concluded that the determinants of health influence attitudes and behaviour towards swimming and water safety, and participation in and around the water but are not well-understood and largely ignored when implementing prevention strategies. Understanding the specific characteristics of the target populations is important when designing and implementing drowning prevention strategies for high-risk populations. Further research is required to explore drowning among adults from high-risk populations.

This study is the first to be published as part of an industry-based PhD research project led by Royal Life Saving's National Manager for Research and Policy, Stacey Pidgeon, in partnership with James Cook University to investigate the drowning incidence and risk mitigation strategies for migrant populations living in Australia. It builds on previous Royal Life Saving research carried out to review overseas-born drowning deaths in Australia and highlights the organisation's ongoing commitment to address drowning in high-risk populations.

Source: Willcox-Pidgeon SM, Franklin RC, Leggat PA, Devine S. Identifying a gap in drowning prevention: high risk populations. Inj Prev. 2020;26:279-88.

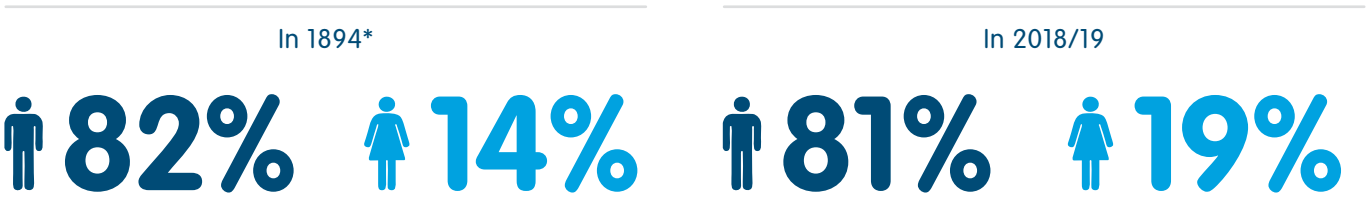
1894 DROWNING REPORT

Royal Life Saving Society - Australia has been working to prevent drowning for 125 years. As part of our organisation's celebrations, we prepared an analysis of drowning deaths in 1894. Drowning events were identified through a review of historical newspapers, cemetery records and government records. Australian society has undergone dramatic changes since the nineteenth century. We explored the similarities and differences in drowning deaths in 1894 and today.

Drowning in Australia has reduced dramatically over the past 125 years, from approximately 20 per 100,000 people in 1894 to 1.1 per 100,000 people in 2018/19. This is an estimated 95% decrease in the fatal drowning rate. However, men remain overrepresented in drowning deaths across Australia.

In 1894, fatal drowning generally occurred as a result of daily life, such as children falling in open water sources near home or people attempting to cross a river on horseback. Today, drowning deaths mostly occur during recreational or leisure activities.

Source: Allen K (2019). Drowning deaths then and now, Royal Life Saving Society – Australia. Sydney.



*Unknown data from 1894 for sex, age, location and activity are not shown.

Suggested citation

Royal Life Saving Society – Australia (2020) Royal Life Saving National Drowning Report 2020, Sydney Australia.

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