Royal Life Saving National Drowning Report 2022







> FOREWORD

As we present the National Drowning Report for 2022, we remain ever mindful of the 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.

The COVID-19 pandemic has left a mark on families, workplaces and communities. Changes to routines, livelihoods and leisure will take time to process and move past. The temporary closure of aquatic facilities and swim schools during the worst of the pandemic is likely to impact Australians for years to come, with children missing long periods of swimming and water safety education, the aquatic industry now struggling to recruit instructors and lifeguards.

New behaviours have also emerged, with Australians increasingly seeking out secluded and often unpatrolled waterways to visit or finding a new enthusiasm for domestic tourism taking them further away from the safety of their local pool or patrolled beach.

This report presents our analysis of fatal and non-fatal drowning across Australia between 1st July 2021 and 30th June 2022. During this time, 339 people lost their lives to drowning and we estimate a further 686 people experienced a non-fatal drowning incident.

This is terribly sad and confronting, especially given this reported figure reverses years of progress.

This year's findings show that:

- Drowning deaths increased by 15% compared to the previous year, but 24% compared to the 10-year average
- > 82% of drowning deaths were males
- There were 17 drowning deaths among children aged 0-4 years; this is a 29% decrease on last year and a 23% decrease on the 10-year average, an improvement after a rising tragically during covid lockdowns
- > 15 drowning deaths occurred in children aged 5-14 years, a 7% increase on last year and a 36% increase on the 10-year average, perhaps a reflection of children missing out on swimming lessons
- 94 drowning deaths occurred in people aged over 65 years, 34% increase on last year and a 57% increase on the 10-year average. 28% of drowning occurred in people over 65 years
- > 114 drowning deaths occurred in rivers and creeks; 39 were flood related
- Rivers and creeks were the leading location for drowning (34%), followed by beaches (21%) and ocean/harbour locations (13%)

> OUR VISION

A water-loving nation free from drowning.

Rivers and creeks

Rivers and creeks were the leading location for drowning in 2021/22. In part, this was due to significant flooding in New South Wales and Queensland as a result of intense rainfall. Climate change will continue to impact drowning in Australia. Predictions of increased extreme heat events and more intense heavy rainfall events are likely to result in increased drowning risk. Royal Life Saving Australia is committed to supporting emergency management agencies and those organisations responsible for flood response and recovery.

National Water Safety Summit

Recognising that Summer 21/22 was tragic, and that next summer is fast approaching, we convened more than 200 water safety experts from across Australia and New Zealand for the National Water Safety Summit in August 2022. The Summit was designed around the key at-risk groups identified in the Australian Water Safety Strategy 2030. Presenters included researchers, water safety experts, state and local governments and educators. Over two days of intense discussion, the key themes that emerged were prevention, collaboration, co-design, and the value of working together. Core issues of concern raised included the effects of COVID-19 on children learning to swim, and the ongoing workforce pressures after many young people were forced to leave the industry over the past two years. The program also focused on accessibility of swimming locations, with investment into harbour and river swimming locations to enable more Australians to enjoy the water.

Swimming skills

It has been clear, over many years, that swimming skills are critical to safety and our enjoyment water activities. We remain concerned about all the children who missed lessons due to pandemic related health and economic factors. We should be doing everything possible to ensure that these children don't become a generation of non-swimmers. Equally, we see adults rediscovering water recreation, but needing to first refresh their swimming skills. Some of these incidents are a consequence of poor decision making like combining drugs and alcohol with swimming or boating. In other cases, a simple health check may have alerted a strong lifelong swimmer to a medical issue posing risk in the water. In all cases, swimming and water safety skills are so critical to enjoying our waterways safely.

Justin Scarr Chief Executive Officer Royal Life Saving Society – Australia

CONTENTS

- 04 National Drowning Report 2022 Snapshot
- 06 Fatal and non-fatal drowning in Australia
- 07 Who drowns?
- **08** Drowning deaths by life stages
- **16** When do drowning deaths occur?
- **17** In focus: Summer drowning deaths
- **18** Where and how do drowning deaths occur?
- **21** In focus: Flooding-related drowning deaths
- 22 Drowning deaths by key locations
- 27 In focus: Multiple fatality events
- 28 Fatal drowning risk factors
- **30** State and Territory drowning deaths
- 62 Methods
- 63 Acknowledgements
- 64 Research and Policy 2021/22 Highlights

ACKNOWLEDGEMENT OF COUNTRY

OYAL LIFE SA

Royal Life Saving Society – Australia acknowledges the Aboriginal and Torres Strait Islander people of this nation. We pay our respects to their Elders past, present and emerging recognising their continued connection to land, waters and communities.





> NATIONAL DROWNING REPORT 2022 SNAPSHOT



PEOPLE DROWNED IN AUSTRALIAN WATERWAYS

1 July 2021 to 30 June 2022



82% of all drowning deaths were males



13% of all drowning deaths were flood-related









> FATAL AND NON-FATAL DROWNING IN AUSTRALIA





When fatal and non-fatal drowning incidents are combined, a total of 1025 drowning incidents occurred in Australia, representing a crude drowning rate of 3.99 drowning incidents per 100,000 population.



Comparison of fatal and non-fatal incidents and crude rate of drowning incidents from 2011/12 to 2021/22 and the 10-year average



----- 10-year average crude rate

> WHO DROWNS?



Drowning deaths by age group in 2021/22 compared with the 10-year average



^{*}Age unavailable for two deaths in 2021/22

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



Drowning deaths of children aged 0-4 years from 2011/12 to 2021/22 and the 10-year average





Drowning deaths of children aged 0-4 years by activity, 2021/22



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



Drowning deaths of children aged 5-14 years from 2011/12 to 2021/22 and the 10-year average





Drowning deaths of children aged 5-14 years by location, 2021/22 Bathing Watercraft Bathtub / Spa Bath 6% 7% 14% Swimming and Recreating 13% Swimming Pool 33% Ocean / Harbour 13% Rock Fishing 7% Rocks Non-aquatic 7% transport River / Creek 27% 33%

Drowning deaths of children aged 5-14 years by activity, 2021/22





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



Drowning deaths of young people aged 15-24 years from 2011/12 to 2021/22 and the 10-year average







Drowning deaths of young people aged 15-24 years by activity, 2021/22



> DROWNING DEATHS BY LIFE STAGES: ADULTS AGED 25-64 YEARS



Drowning deaths of adults aged 25-64 years from 2011/12 to 2021/22 and the 10-year average









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



Drowning deaths of older people aged 65 years and over from 2011/12 to 2021/22 and the 10-year average



Drowning deaths of older people aged 65 years and over by activity, 2021/22



Drowning deaths of older people aged 65 years and over by location, 2021/22



> WHEN DO DROWNING DEATHS OCCUR?



Morning

24%

Month

By month, drowning peaked in December with 54 deaths, followed by January with 52 deaths.



Day of the week

Sunday was the most common day of the week for drowning, accounting for 20% of deaths.



> IN FOCUS Summer drowning deaths

There were 145 drowning deaths over summer in 2021/22. This is a 44% increase on the 10-year average of 101 deaths.

In 2021/22, half of all beach and lake/dam drowning deaths occurred during summer (50%).

More than half of all deaths while swimming and recreating occurred during the summer months (56%).

Royal Life Saving research has shown an increased risk of drowning during public holidays and school holidays. During 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 2011/12 to 2021/22

> 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 34% of all deaths. River/creek locations recorded a 65% increase compared with the 10-year average, while beaches recorded a 25% increase and lake/dam locations recorded a 28% increase.



Remoteness

The largest proportion of drowning deaths occurred in areas classified as major cities (41%), with the number of deaths decreasing as remoteness increases.



Activity

Swimming and recreating was the leading activity being undertaken immediately prior to drowning (22%), followed by boating (14%) and a fall into water (13%).



Visitor status

Most of those who drowned were not visitors (75%), that is, they drowned within 100km of where they lived.

In 60 cases (18%) the person who drowned was known to be a visitor to the location of the incident. Of those who were known to be visitors, 39 people (11%) drowned within their own State or Territory in a postcode that was 100km or further from their residential postcode. A further 20 people (6%) were visiting a different State or Territory when they drowned.





> IN FOCUS

Flooding-related drowning deaths



> DROWNING DEATHS BY KEY LOCATIONS: RIVER/CREEK









Drowning deaths in river/creek locations by activity, 2021/22





> DROWNING DEATHS BY KEY LOCATIONS: BEACH



87% of all drowning deaths in this location were males





----- 10-year average



Drowning deaths at beaches by activity, 2021/22

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> DROWNING DEATHS BY KEY LOCATIONS: OCEAN/HARBOUR



93% of all drowning deaths in this location were males







Drowning deaths in ocean/harbour locations by activity, 2021/22



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> DROWNING DEATHS BY KEY LOCATIONS: LAKE/DAM



84% of all drowning deaths in this location were males







Drowning deaths in lake/dam locations by activity, 2021/22

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> IN FOCUS Multiple fatality events

There were 10 multiple fatality events in 2021/22 that claimed the lives of 45 people. This is an 80% increase on the 10-year average.

- A detailed analysis of these events found:
- Males accounted for 71% of all multiple fatality events
- > Two thirds of deaths occurred in river/creek locations (67%), with ocean/harbour locations accounting for a further 22%
- The leading activity related to deaths was non-aquatic transport (58%), followed by boating (20%) and being swept away (16%)
- Queensland recorded 25 deaths as a result of a multiple fatality event, while New South Wales recorded 17
- Flood-related deaths accounted for 69% of all multiple fatality events

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.

Flooding was a significant risk factor for multiple fatality events in 2021/22. Local conditions can change rapidly following heavy rainfall. Important safety messages are shared with the community before, during and after flooding events. This information relates to planning, preparation and recovery, including advice against driving through or swimming in floodwaters.

FATAL DROWNING RISK FACTORS IN 2021/22

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



drowning deaths were known to involve a **pre-existing medical conditio**n

Those with known pre-existing medical conditions were mostly **male (82%)** and almost half were **aged 65 years and over (44%)**.

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 **71%** of cases where a pre-existing medical condition was known to be present.

Other commonly occurring medical conditions included respiratory conditions (12%), epilepsy or other seizure disorders (10%) and mental health conditions (7%).



drowning deaths were known to involve **alcohol**

Alcohol was deemed to be a contributory factor in **64%** of these cases

At the time of publication, presence of alcohol was unknown in **70%** of all cases

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



drowning deaths were known to involve **drugs**



At the time of publication, presence of drugs was unknown in **70%** 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.



drowning deaths (125), followed by Queensland (84). Tasmania recorded a 78% increase against the 10-year average, while the Northern Territory recorded an 11% decrease.

The Northern Territory recorded the highest fatal drowning rate at 3.21 per 100,000 population. The Australian Capital Territory recorded the lowest fatal drowning rate at 0.22 per 100,000 population.

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Arrows reflect 2021/22 changes against the 10-year average



> AUSTRALIAN CAPITAL TERRITORY



Drowning deaths and death rates in the Australian Capital Territory from 2011/12 to 2021/22 and the 10-year average



ACT Infant CPR Awareness course

During April and June 2002, Royal Life Saving ACT offered free Infant CPR awareness sessions for new parents and caregivers in the ACT, with a child under 12 months old. Over 80 parents and caregivers have attended the free 90min sessions, focusing on CPR awareness and knowledge specific to infants.

Along with CPR awareness, parent responsibility around water is a key focus of the workshop. A supporting resource has been developed, targeted at Dads and their role in maintaining vigilance for their own safety around water, as much as their baby's. A "Dear Daddy..." letter is written from the baby's point of view and asks Dads to look after themselves when in and around the water. The reason for focusing on Dad's specifically, is that adult males are consistently and tragically over-represented in drowning statistics, making up over 80% of drowning deaths in Australia, with many families losing fathers, grandfathers, sons and uncles every year. The resource was designed to prompt Dads to not just consider water safety for their children but for themselves and set a good example as role models for their children throughout their early formative years.

Royal Life Saving ACT has partnered with local stakeholders to continue to offer this program free to new ACT parents for the remainder of 2022.



> NEW SOUTH WALES



Drowning deaths and death rates in New South Wales from 2011/12 to 2021/22 and the 10-year average









Season



> NSW CASE STUDY

NSW reported a significant increase in drowning across 2021/22 against previous year, and the ten-year average.

- This is the first time drowning in NSW is reported to be over 100 deaths since 2011
- This is the highest number of reported drownings in NSW on record (since 2002/03)
- > NSW did not record the highest % increase, but exceeds all other states by numbers
- 1 in 10 drowning deaths in NSW were flood-related
- The highest impact of flooding deaths is on those over 65 years
- Flooding accounts for 11% of the drowning in NSW
- Without the NSW floods in February / March 2022, drowning would still be up
- I in 4 drowning deaths in NSW is a person over the age of 65 years
- Child drowning (0-4 years) is down in NSW, along with a decrease in drowning among primary school age children (5-14 years)
- > This may be an indication that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing drowning prevention efforts on children
- Rivers and lakes account for almost 50% but note that flooding impacts on this proportion

Everyone can learn to swim

Royal Life Saving NSW, with support from the NSW Government's Office of Sport, launched a new Learn to Swim campaign for multicultural communities, to increase swimming lesson participation across NSW.

The new Everyone can learn how to swim campaign focuses on six people from diverse backgrounds and personal stories of how they overcame barriers to enjoy the many health and social benefits swimming can deliver.

The campaign provides resources for local communities to understand and navigate the barriers to swimming. This support will assist the aquatic industry to provide consistent and easy-to-understand information to their diverse local community. Translated guides are available in key language groups including Arabic, Chinese, Hindi and Nepali.


> NORTHERN TERRITORY



----- 10-year average drowning deaths

----- 10-year average crude rate

Drowning deaths

Crude rate





Season



> NT CASE STUDY

NT experienced a 60% increase in drowning on 2020/21 and a 11% decrease on the ten-year average.

- Eight people drowned in the NT in 2021/22, up three from the previous year
- > NT recorded the highest national fatal drowning rate at 3.21 per 100,000 population
- The highest impact was among adults aged 45 years and over
- This age group (45 years and over) makes up over 50% of drowning this year
- There were no drowning deaths in this age group in the previous year
- No school age-children (5 17 years) drowned in the NT for the second year in a row, and no children aged 10 – 17 years have drowned since 2014/15
- This may be an indication that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing drowning prevention efforts on children.
- > 13% of drowning deaths were flood-related
- Despite 50% of drowning deaths occurring in the wet season, only one drowning death was flood-related
- One in four people (25%) entered the water due to an unexpected fall into water

Water Safety Awareness Program

The Water Safety Awareness Program is a Northern Territory Government initiative, as a part of the Five Point Water Safety Plan introduced in 2002 to reduce the rate of drowning and non-fatal drowning among children aged under five years old. Since 2002, approximately 22,000 NT families have received water safety messages through the program.

The Water Safety Awareness Program provides families with critical education in emergency care, resuscitation skills and water awareness utilising both in and out of water activities. The program is underpinned by Royal Life Saving's four key messages specific to reducing drowning among young children: 1) Supervision 2) Restrict access 3) Water familiarisation and 4) CPR awareness.

The program consists of five free sessions which both the parent/guardian and the child attend. These sessions provide instruction in emergency care, resuscitation skills and water awareness utilising both in and out of water activities.

The Water Safety Awareness Program has been funded by the Northern Territory Government through the Department of Tourism and Culture since 2003 and is delivered annually in Darwin, Palmerston, Katherine, Nhulunbuy, Tennant Creek and Alice Springs.



> QUEENSLAND



Drowning deaths and death rates in Queensland from 2011/12 to 2021/22 and the 10-year average







Season



Queensland experienced a 25% increase on 2020/21 and a 27% increase on the 10-year average.

- This is the highest number of drowning deaths in Queensland in the previous ten years
- 31% of drowning deaths were flood-related
- Drowning more than doubled among the 45 – 55 years age group compared to the previous year (14% vs. 6% in 2020/21)
- The age groups with the biggest decreases were of children 0-4 years and adults aged 25 – 34 years
- Almost a third of all drowning deaths were due to non-aquatic transport, taking over from swimming and recreating as the leading activity prior to drowning
- This is largely due to flooding and people driving through floodwater or being trapped in their vehicles in floodwater
- Drowning in rivers was up by 30% this year, largely due to flooding compared to drowning at beaches which was down by 14%

> QLD CASE STUDY

The Ipswich Migrant Learn to Swim program

The Ipswich Adult Learn to Swim was a free learn to swim program delivered by Royal Life Saving Society Queensland in partnership with Ipswich City Council at Orion Lagoon in Ipswich. The program came about in response to local community interest for adult swimming programs. While the Ipswich Adult Learn to Swim Program was targeted to all adults, there was a focus on adults from multicultural communities, including those born overseas and local multicultural community members with little to no water experience.

Many of the participants had never had swim lessons or any water safety education with some having a negative water experience prior to the program.

The aim of the program was to educate, inform and provide practical water safety skills that will enable adults and their extended families to recreate and swim safely in local waterways.



> SOUTH AUSTRALIA



92% of those who drowned in South Australia were male

Drowning deaths and death rates in South Australia from 2011/12 to 2021/22 and the 10-year average

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Activity

Season



> SA CASE STUDY

The number of annual drowning deaths in SA has remained the same since 2015/16, however, the rates of drowning per 100,000 people have slightly decreased over time.

- > All drowning deaths in SA were males
- The biggest impact was recorded among older adults aged 65 – 74 years, which was almost a third of all drowning deaths in South Australia. This compared to no drowning deaths in this age group the previous year.
- In total, people aged 55 years and over made up almost half (49%) of all drowning deaths this year in South Australia
- There were no drowning deaths recorded among children 0-4 years for the second year in a row, and no children aged 10-14 years have drowned in SA since 2015/16
- This may be an indication that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing drowning prevention efforts on children
- Drowning at beaches was up by 30%, and up by 8% in rivers and swimming pools
- Sadly, the leading activity prior to drowning was due to attempting a rescue, which nearly tripled from the previous year (23% compared to 8% in 2020/21)

Multicultural Swim and Survive English Literacy Program

An 8-week program for over 100 adults from culturally and linguistically diverse backgrounds was delivered in Adelaide between May-July 2022. Participants were aged between 18-60 years old and most had only recently moved to Adelaide.

The program accommodated all abilities, with the aim of teaching practical water safety skills for use at inland and coastal waterways. In additional to swimming skills, participants learnt how to perform reach and throw rescues, and how to identify dangers in, on and around water.

On the final day of program, City of Adelaide Deputy Lord Mayor - Councillor Arman Abrahimzadeh OAM presented certificates to participants. Mr Abrahimzadeh shared his own story and congratulated participants for their courage in participating in the program.

A pathway program was established to help participants to continue their water safety education beyond their initial 8-week program. Thanks to the City of Adelaide for their commitment to water safety education for CALD communities, and to the Adelaide Aquatic Centre for being an inclusive space for everyone.

"I came into the Swim and Survive program with a fear of water bred for decades, and scepticism of whether I can overcome my anxiety. The incredible team at The Royal Life Saving and Adelaide Aquatic Centre welcomed me into their family and introduced me to the methods by which I can keep myself safe in and around the water and helped me overcome my fear of the water; that too in just 8 weeks! Thank you, Royal Life Saving, especially Jake, Jayne, and Karen for putting a smile on my face and giving me a chance at appreciating the water safely!" **Male participant**



> TASMANIA



81% of those who drowned in Tasmania were male



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> TAS CASE STUDY

Tasmania experienced a 129% increase in drowning on 2020/21 and a 78% increase on the ten-year average.

- This is the highest number and rate of drowning deaths in Tasmania in the previous ten years
- This is the highest increase in drowning of all States/Territories this year
- The biggest impact was among adults aged 25 – 55 years, totaled 38% compared to zero deaths in the age bracket the previous year
- No children aged 0-14 years drowned in Tasmania in 2021/22
- No children 5-9 years have drowned in Tasmania since 2012/13
- No children aged 10-14 years have drowned since 2017/18
- This may be an indication that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing drowning prevention efforts on children
- Half of all drowning deaths were in the ocean/harbour
- One-third of all drowning occurred at rivers, lakes or dams, similar to last year
- Activity trends are different in Tasmania compared to the rest of the country
- The leading activities prior to drowning are boating, diving and using watercraft
- Interestingly, when compared to the previous 2 years (2020/21 and 2019/20), falls into water attributed for the leading activities (29% and 50%), compared to zero this year
- More drowning deaths occur outside of the summer months, in comparison to the peak time for drowning for the rest of the country

Aquatic Survival Program for migrant students

Royal Life Saving Tasmania conducted an intensive Aquatic Survival Program for migrant students in Launceston, with the assistance of the Migrant Resource Centre – Northern Tasmania and Scotch Oakburn College staff and students. The students aged between 6 and 12 years were from Bhutan and Afghanistan and had very little previous exposure to water.

This program provided students with the opportunity to learn how to be safe in and around the water with their newly acquired aquatic skills. For many of the students, who were still in primary school, it was a chance to develop their swimming and water safety skills and to catch up to their peers with their water safety knowledge.

The program is held on an annual basis, providing much needed aquatic experiences for the Tasmanian migrant community and was Federally funded through the Royal Life Saving Inland Waterways Project.

These statistics may indicate the increased number of people boating in Tasmania, who may not have the experience or skills, or returning to boating and diving after a number of years and haven't refreshed their knowledge, skills or have the same fitness levels as previously.



> VICTORIA





Activity Watercraft 4% Bathing 15% Unknown 15% Boating 5% Diving 6% Swimming and Recreating **26%** Fall 15% Rock Fishing Fishing 2% 6% Rescue 2% Non-aquatic Transport 4%

Season



> VIC CASE STUDY

Victoria experienced a 13% decrease in drowning compared to 2020/21 and a 15% increase compared to the ten-year average.

- Noting that 2020/21 was highest number of drowning deaths on record
- > 2% of drowning deaths were flood-related
- Drowning deaths among children (0-14 years) decreased by 15%
- > No children aged 5-9 years drowned
- This may be an indication that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing drowning prevention efforts on children
- The biggest impact was among older people aged 65 – 74 years, who made up almost a quarter of all drowning deaths in Victoria, compared to only 5% the previous year
- > 41% of drowning deaths in Victoria were 65 years and older, compared to 23% the previous year
- While rivers were the location with the highest number of drowning deaths, drowning in bathtubs / spas almost doubled this year
- Swimming and recreating remained the leading activity prior to drowning
- Drowning while bathing and rock fishing was slightly up compared to last year
- Drowning linked to falls into water recorded the biggest decrease from last year, down by 14%

Seniors back in the pool with Life Saving Victoria

Life Saving Victoria (LSV) launched a new seniors recreation program in 2022 after lockdowns impacted accessibility to public pools, particularly for older Victorians.

More than 150 people aged between 50 - 90 years old participated in the three-week program across six aquatic facilities. The program aims to reduce social isolation, re-establish water confidence and increase safety skills, encouraging participants to continue using aquatic facilities in future. The program covers multiple in water activities including walking and talking in water, aqua exercise hydrotherapy and spa time.

This program was developed in response to the increase in drowning among people aged 65 and over in recent years, which shows that a lack of awareness of the risk factors affecting older Victorians around water, such as prescription medications and medical conditions, may be a contributing factor.

"There are many benefits both from a personal wellbeing perspective, as well as improving social connections, general health and water safety," LSV's manager – business development diversity and inclusion Trudy Micallef said.

"While our participants are having fun and getting fitter, they are also developing a better understanding of water safety, exploring their own limitations and water safety risks as they age, and the benefits of adding water-based exercise to their normal routine.

"We always finish with a coffee together too, ensuring there is dedicated time to socialise and build friendships. Hopefully we also see grandparents or caregivers who participated in the program bringing their grandkids to the pool over the school holidays, so they can have a new fulfilling and fun activity together," says Ms Micallef



> WESTERN AUSTRALIA



Drowning deaths and death rates in Western Australia from 2011/12 to 2021/22 and the 10-year average











> WA CASE STUDY

The number of drowning deaths in WA was the same as 2020/21, which was the highest number since 2016/17.

- Adults aged 65 74 years recorded the highest proportion of drowning deaths
- The biggest increases in drowning were among adults aged 35-44 years (by 10%)
- Drowning in children 5-14 years increased to 8%, compared to zero the previous year
- Drowning was down in adults aged 25 – 34 years by 10% compared to the previous year
- Zero young adults (15-17 years and 18-24 years) drowned
- Zero children in the 10-14 years age group drowned for the third year in a row, indicating that programs and campaigns targeted to children and their parents may be making an impact and it is important to continue focusing on children
- > Drowning at beaches was up by 13%
- The biggest decreases in drowning were recorded at ocean/harbour locations and around rocks (down by 16% and 10%)
- Swimming and recreating remained the leading activity prior to drowning, with boating, diving related-drowning, and falls into water all up from last year
- > 3% of drowning deaths were flood-related

Kimberley children enjoy their first Spirit Carnival

Western Australia's Kimberley region has the second highest drowning rate of any region in WA, with Aboriginal Australians making up one third of drowning deaths, the largest proportion of any region in WA.

Working hard to address these statistics, Royal Life Saving WA is focused on providing swimming opportunities for children in remote Aboriginal communities, including the inaugural Kimberley Spirit Carnival. Fifty children from across the region came together for the event, learning valuable lifesaving techniques while showcasing the skills they learnt throughout the year in their Swim and Survive and Swim for Fruit programs.

The schools involved in the carnival included Yiyili Aboriginal Community School, Warlawurra Catholic School, Ngalangangpum School and Halls Creek District High School, with the children collectively taking a round trip of more than 600 kilometres to attend the event.

Royal Life Saving WA Senior Manager Education, Trent Hotchkin, says the hope is that the children involved in this carnival will make a real difference in the future of their communities.

"By enabling these children to take part in events like the Spirit Carnival we hope to see them lead a generational change, learning skills to become future lifesavers in remote and regional WA," he said.

The Kimberley Spirit Carnival was made possible thanks to support from Lotterywest and the Department of Local Government Sport and Cultural Industries.



Fatal drowning

The information presented in the Royal Life Saving National Drowning Report 2022 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. Information contained within the NCIS is made available by the Victorian Department of Justice and Community Safety.

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 91% 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 drowning cases is correct as of 11 August 2022. Historical drowning data are correct as of 1 July 2022 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 2011/12 to 2020/21 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.

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' refer 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 2017/18, 2018/19, 2019/20, 2020/21 and 2021/22 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 2017/18, 2018/19, 2019/20, 2020/21 and 2021/22.

Since available counts of non-fatal incidents do not include all drowning incidents, the proportion of missing incidents was estimated based on a fouryear 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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This report was compiled and written by Alison Mahony, Principal Research and Policy Officer and Stacey Pidgeon, National Manager – Research and Policy, Royal Life Saving Society – Australia.



Royal Life Saving's research and policy contribution in 2021/22 has been diverse and continues to impact drowning prevention policy and programs.

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> NON-FATAL DROWNING IN AUSTRALIA





Average duration of hours in ICU

Continuous ventilatory support (CVS)



69

HOURS

Average number of cases involving time on CVS each year

Average duration of hours on CVS

REPORT HIGHLIGHTS

- The incidence of non-fatal drowning is rising, with hospitalisations increasing by 50% between 2002/03 and 2016/17.
 - By comparison, fatal drowning has decreased over this time. It is important that all drowning prevention campaigns include information on non-fatal drowning and promote the importance of cardiopulmonary resuscitation (CPR) and lifesaving skills.
- Males account for approximately two thirds of all non-fatal drowning cases. Although overrepresented, this is less than the 80% of fatal drowning which occurs among males.
 - This indicates that the outcome of a drowning incident is more likely to be fatal among males than females. The reasons for this are unclear but could be related to situational risk, such as swimming or recreating alone.
- Children are disproportionately affected by non-fatal drowning, with 0–14-year-olds accounting for more than half of all non-fatal drowning incidents.
 - Drowning prevention campaigns should include information about non-fatal drowning to raise awareness of the heightened risk in this demographic. It is important that parents and carers know how to prevent child drowning, fatal and non-fatal.
- Children 0-4 years recorded the shortest hospital stays, while older people aged 75 years and over recorded the longest stays.
 - Pre-existing medical conditions are more likely among older people, suggesting longer hospital stays are partly explained by more complex medical care. Particular caution with young children among medical practitioners may result in a large number of short admissions to allow observation in hospital.
- The average duration of time in ICU and CVS increased substantially between 2013/14 and 2016/17.
 - As there is no clear trend in the number of cases requiring ICU or CVS treatment, this increase in treatment duration suggests an increase in incident severity. Further research is required to investigate this occurrence.

Sources:

Mahony, A, Pidgeon, S (2021) Non-Fatal Drowning in Australia. <u>Part 1: Non-fatal drowning trends over</u> <u>time.</u> Royal Life Saving Society – Australia: Sydney.

Mahony, A, Pidgeon, S (2021) Non-Fatal Drowning in Australia. <u>Part 2: Impact of non-fatal drowning.</u> Royal Life Saving Society – Australia: Sydney. > DROWNING AMONG OLDER PEOPLE: RISK FACTORS FOR FALLS INTO WATER



Between 2009/10 and 2018/19 people aged 65 years and over drowned in Australia as a result of a fall into water



State and Territory breakdown



REPORT RECOMMENDATIONS



Research

- Prioritise ongoing monitoring of drowning trends among older people
 - In the context of an ageing population, fall-related drowning deaths will require sustained attention and responsiveness
- Explore ways to engage older people in aquatic activity, including an assessment of the suitability of existing programs and facilities which cater towards this demographic
- > Evaluate existing drowning prevention programs which aim to reduce risk among older people

Policy

- > Integrate drowning prevention with healthy ageing and falls prevention policies and plans
 - Partner, and align messaging, with healthy ageing and falls prevention sectors
- Review opportunities to incorporate aquatic activity into physical activity guidelines for older people, highlighting the low impact nature of water-based exercise and demonstrated benefit of exercise in reducing falls risk

Advocacy

- Raise awareness of drowning risk among older people, particularly the risk of unexpectedly falling into water rather than deliberate entry for recreational purposes
 - Ensure education is also directed towards medical professionals who are often best placed to raise awareness of drowning among their patients
- Encourage older people to attend regular medical checkups with their doctor and take any prescribed medication as directed
 - Older people should be advised to speak with their doctor or pharmacist to obtain individual advice relevant to their lifestyle
- Promote aquatic facilities as safe venues for physical activity and rehabilitation in a controlled environment
 - Recreation and exercise at aquatic facilities can provide physical, mental and emotional health benefits while reducing the risk of drowning due to the presence of lifeguards and reduced environmental hazards

Source: Mahony A, Pidgeon S (2022) <u>Drowning</u> <u>among older people: Risk factors for falls into water.</u> Royal Life Saving Society – Australia. Sydney.

> AUSTRALIAN POLICY AND CASE LAW FOR PUBLIC SAFETY IN INLAND WATERWAYS: A REVIEW AND RECOMMENDATIONS 2022

Background

Inland waterways provide a significant social and economic value to Australia, such as clean and safe drinking water, wildlife habitats, water for agricultural activity, and a space for aquatic recreation. However, they are the most prominent location for unintentional fatal drownings in Australia.

Engaging with natural aquatic environments can increase the risk of drowning due to rapidly changing conditions and hidden dangers, such as strong currents, submerged objects, slippery or crumbling banks, and cold water. Unlike other aquatic locations, inland waterways are not regularly patrolled by a lifesaving or maritime service. In the case of an emergency, timely medical assistance may be impacted by geographic isolation and a lack of telecommunication facilities.

There are no national standards for public safety that extend beyond water quality management concerning inland waterways in Australia. Guidance is lacking to:

- Support how landowners can safely manage access to and recreation in, on, and around inland waterways.
- Set an appropriate standard of care to be applied to users of waterways and the surrounding recreation areas.
- Outline effective strategies that reasonably and practicably reduce risk in line with approaches taken in public swimming pools and ocean beaches.

This review undertook an examination of legal cases involving inland waterway drowning cases and found a concerning lack of nationally consistent minimum standards and/or regulations to support the safety of inland waterway users. This is in stark contrast to public ocean beaches and public swimming pools.

In 2021, RLSSA released a draft Guidelines for Inland Waterway Safety for comment. The Guidelines are evidence-based and provide practical guidance to owners and operators of inland waterways and organisations who use them, to reduce and prevent drowning. This report reviewed the legislation, civil, and coronial cases and supports a clear necessity of Inland Waterway Safety Guidelines to ensure a reduction in the number of drowning deaths that occur in inland waterways.

Summary of key findings

Examination of inland waterway drownings cases presents the following key findings:

- 1. Multiple preventable deaths have occurred in inland waterways over the past decade.
- 2. There is a considerable gap in the standard of water safety management between inland waterways and beaches and pools.
- A lack of prescriptive guidelines and regulations for inland waterways may contribute to a lack of practical safety measures being implemented, which could see drownings continue if left unaddressed.
- 4. Many patrons of inland waterways clearly did not possess adequate knowledge to take care and responsibility when using waterways, but the onus, in many cases, was placed directly on them.
- 5. The law is reluctant to find any acts of negligence by public authorities, owners, and operators of inland waterways when serious injury or death occurs because there is no authoritative guidance to follow in this area. A policy framework could assist adjudicators in making inland waterway public safety recommendations for owners and operators clearer and more consistent.
- 6. In the absence of standards, Coroners have provided detailed recommendations for specific locations that nationally-consistent standards could enhance.
- 7. Some deaths could have been avoided with basic risk management practices that would be considered standard for beaches and swimming pools, such as safety signage. Without further prescriptive intervention, the risk of harm to the public will continue.
- 8. There is a need for cross-collaboration between stakeholders to ensure risk is effectively and extensively mitigated across a range of settings and applications.

Source: Schiavone, C., Houston, R., Cherfils, B. & Pidgeon, S. (2022) Australian Policy and Case Law for Public Safety in Inland Waterways – <u>A Review and Recommendations.</u> Royal Life Saving Society - Australia, Sydney.

Reducing Drowning in Inland Waterways Key Policy Needs

Reducing drowning in inland waterways will require the resources and support of many policy-making bodies and stakeholders. To create safer aquatic places and spaces, a suite of activities is needed to reduce drownings in these environments.

Goal	Reduce drowning in inland waterways				
How	By enabling owners/operators to adopt best practices in drowning prevention				
What	Develop a policy framework that provides practical guidance to stakeholders on the reasonably practicable measures to take to improve public safety at inland waterways				
Priority Areas	Risk Management	Engineering and Infrastructure	Policy, Regulation, and Enforcement	Collaboration	Public Awareness and Communication
Focusing On	 Risk assessment of waterways and recreation areas near water Development of Local Water Safety Strategies Supervision Rescue equipment Zoning of waterways 	 > Safe waterfront design and management > Vegetation > Egress and access > Drain/inlet coverings > Flood/surge warning systems 	 > Development of nationally consistent safety standards > Designated swimming and recreation areas > Prohibition and enforcement of alcohol and drugs > Deterrent and enforcement strategies for trespassing, e.g. fines 	 Multi-sectoral/ multiagency collaboration Engagement with key stakeholders Tailored approaches to local contexts Building consensus around strategies Consultation with experts 	 > Australian Standard signage > Encouraging life jacket use > Local campaigns and programs > Media and communications > Partnering with the aquatic industry and providers > Alert systems for patrons

> 10-YEAR ANALYSIS OF DROWNING IN CHILDREN 5-14 YEARS IN AUSTRALIA





> ANALYSIS OF ADULT SWIM SKILLS

Background

The Australian Water Safety Strategy 2030 identifies swimming and water safety skills as a key factor for reducing drowning among all age groups. The National Swimming and Water Safety benchmarks are linked to age; however it is unknown how many adults can achieve these minimum swimming and water safety competencies. There is limited information available on what adults are being taught and are learning in swimming programs, and what skillsets they are gaining.

This study analysed the swimming skills of adults from both publicly accessible (e.g., public pools) and funded swimming programs across Australia, against the updated National Swimming and Water Safety Framework milestones.

Aims

- To understand who is attending adult swimming programs, how long they are in lessons and how much adults are spending on their own lessons.
- To explore the types of adult swimming and water safety programs currently being offered (i.e., content, lesson duration, number of lessons, funded and publicly accessible).
- To analyse skill progression of adults in swimming programs against the National Swimming and Water Safety Framework.

Recommendations

- Develop specific programs for adults that go beyond 10 lessons, to help build skills and knowledge aligned to the National Benchmarks outlined in the National Swimming and Water Safety Framework.
- Deliver adult programs / lessons outside of work hours and provide options for childcare to support greater enrolment of adult swimmers.
- Partner with community agencies to better understand the needs of males wanting to improve their swimming and water safety skills.
- Develop broad aquatic education programs and partner with other water safety organisations to develop and deliver programs that focus on common activities adults participate in, e.g., boating, fishing, snorkelling, diving, surfing.
- Provide opportunities for subsidised programs across Australia where adults from all backgrounds can access lessons and continue to attend for a longer duration.
- Develop adult swimming programs with a broader focus on health promotion, physical health and overall wellness.
- Conduct research in regional areas to better understand access and availability and the gaps in adult program delivery.
- Conduct qualitative research to better understand the barriers preventing adults from attending and/or continuing in swimming lessons.
- Develop an evaluation framework that can be utilised by swim schools / teachers to collect information that will inform development and delivery of future programs.
- Collect demographic information such as cultural background, language and prior experience in the water to enable tailoring of programs where possible.

Conclusion

This study highlighted that more women than men are attending swimming and water safety programs, despite adult males accounting for the biggest population for drowning. Men continue to be overrepresented in drowning statistics and are thought to over-estimate their ability and skills around water. The Australian Water Safety Strategy 2030 recognises a lack of swimming and water safety skills as one contributing factor to drowning.

There is a need to ensure that men and women of all ages, backgrounds and abilities can access high quality swimming and water safety education programs. This study adds to the research gap around the skills and water competencies of adults and has broadly identified what adults are learning and achieving in swimming programs across Australia. It is hoped that this research will inform the development of future programs that best meet the needs of adult swimmers, to reduce drowning among adults and support their safe enjoyment of Australia's diverse waterways.



Source: Pidgeon, S, Larsen P. (2022) Analysis of Adult Swim Skills. Royal Life Saving Society – Australia: Sydney.

> MULTIPLE FATALITY DROWNING ANALYSIS





> Suggested citation

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