

Multiple Fatality Drowning Analysis

Identifying causal factors contributing
to Multiple Fatality incidents



ROYAL LIFE SAVING
AUSTRALIA

ABOUT ROYAL LIFE SAVING

Royal Life Saving is focused on reducing drowning and promoting healthy, active and skilled communities through innovative, reliable, evidence based advocacy; strong and effective partnerships; quality programs, products and services; underpinned by a cohesive and sustainable national organisation.

Royal Life Saving is a public benevolent institution (PBI) dedicated to reducing drowning and turning everyday people into everyday community lifesavers. We achieve this through: advocacy, education, training, health promotion, aquatic risk management, community development, research, sport, leadership and participation and international networks.

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> OUR VISION

**A water-loving nation
free from drowning.**

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BACKGROUND

Multiple fatality events are defined as drowning events where two or more people died in the same incident. This report will focus on only those that drowned as a result of a multiple fatality event noting that some people died from other causes as a result of the same incident.

The 2021 National Drowning Report highlighted 12 multiple fatality events that claimed the lives of 27 people. This is a 4% increase on the 10-year average.

An analysis of these events found:

- > Males accounted for 82% of all multiple fatality events
- > Almost a third of deaths occurred in ocean/harbour locations (30%), with beaches accounting for a further 22%
- > The leading activity related to deaths was boating (30%), followed by rock fishing (19%) and swimming and recreating (19%)

While these numbers may seem like a small percentage of drowning deaths, incidents where multiple people lose their lives at one time have long-lasting impacts on families, communities, and rescue personnel.

There is a need to better understand the circumstances and risk factors leading to multiple fatality events, and how to target water safety and drowning prevention strategies to prevent lives lost.

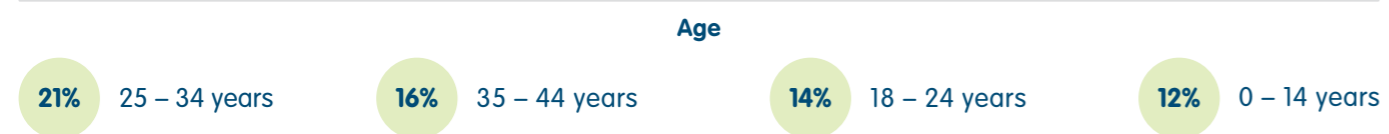
Objectives

- > To describe the epidemiology of multiple fatality drowning events over a 10-year period (2010/11 to 2019/20).
- > To investigate which factors are associated with multiple fatality drowning events, including sex, age, location, activity being undertaken, visitor status, season, time of day, alcohol and other drug/medication consumption.

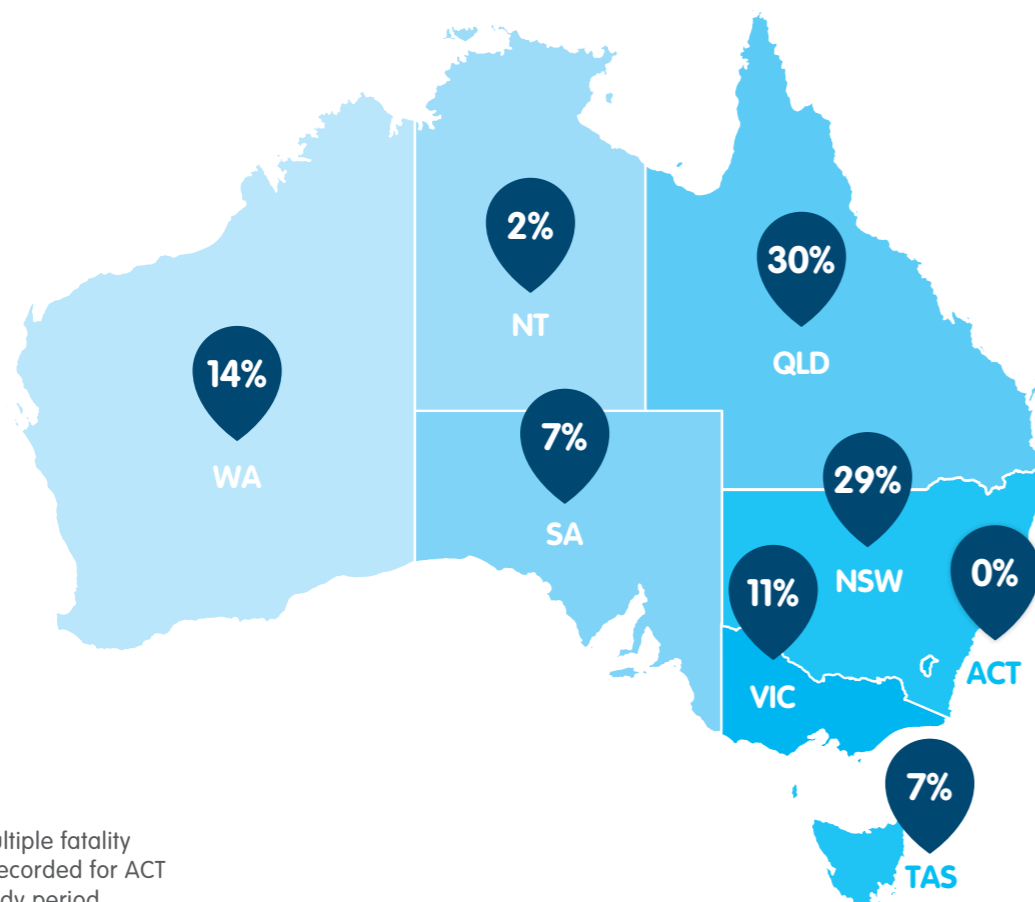


MULTIPLE FATALITY EVENTS (MFE)

Between 2010/11 and 2019/20

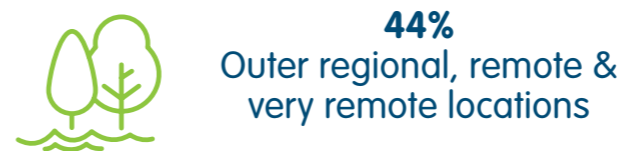


State and Territory breakdown

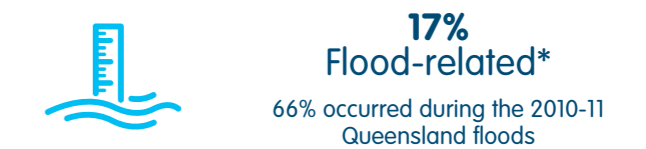
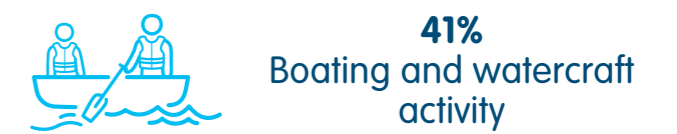


Note: zero Multiple fatality events were recorded for ACT during the study period

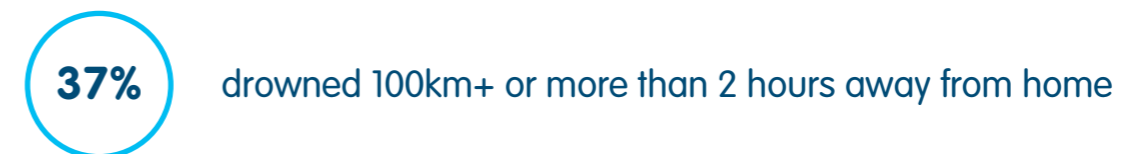
Location



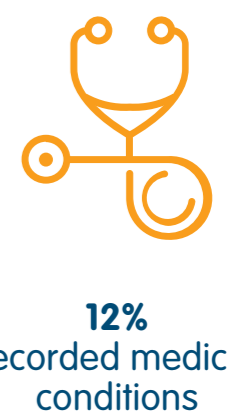
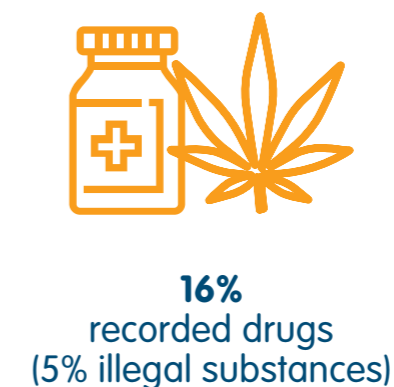
Activity



Visitor status



Alcohol, Drugs and pre-existing medical conditions were not found to be common risk factors in MFE deaths



67% were aged 55 years and over
17% of flood-related deaths recorded a pre-existing medical condition

RISK FACTORS BY ACTIVITY



BOATING AND WATERCRAFT

- > Poor weather and water conditions; hazardous water conditions, large waves, strong winds
- > Lack of wearing a lifejacket
 - 11 people were found to be wearing lifejackets; most were found not to aid survival e.g., did not inflate, fitted incorrectly, not Australian standard
- > Most people were on a fishing trip with friends when they got into difficulty
- > Vessel capsized for various reasons
 - Speeding a factor in some cases
 - Striking a submerged object
 - Poor weather conditions



NON-AQUATIC TRANSPORT ACCIDENTS












- > Vehicles driving through floodwaters, swept away
- > Vehicles going off the road into water (not flood-related); occupants unable to get out of the vehicle
- > Seaplanes and helicopters crashing into water



FLOODING-RELATED

- > 55% Swept away
- > 43% Non-aquatic transport – driving through flood water
- > 66% occurred during the 2010/11 Queensland floods
- > 57% male and 43% female

IN FOCUS: NON-FLOODING RELATED MFE DROWNING DEATHS

Location		Activity	
	44% Outer regional, remote & very remote locations		49% Boating
	47% Ocean/harbour		16% Swimming & recreating
	15% Beach		8% Non-aquatic transport
	13% River/creek		7% Rock fishing
	12% Rocks		
	7% Lake/dam		
	6% Swimming pool		

50% of swimming pool MFE were children aged 0-4 years

SO WHAT?

Over the past 10 years, over 100 multiple fatality events (MFE) have occurred in Australian waterways including swimming pools, where over 250 people have died, the majority from drowning. This report analysed only those who drowned in these incidents.

Multiple fatality incidents occurred across all environments and locations, and among people of all ages, including children. Boating was the leading activity for multiple fatality events, most commonly occurring on the ocean/harbour.

Almost half of all incidents took place at a regional or remote location, and over one quarter occurred in the evening or early morning hours during darkness and when there are less people around to assist and respond.

Over one-third of people had travelled 100km or further away from where they lived when the incident occurred. It is important that people familiarise themselves with the location and environment they are going, tell others of their plans and take communication should they need to raise the alarm.

Alcohol and drugs were not found to be common risk factors in MFE, rather the lack of wearing a lifejacket when boating and fishing.

Boating is a fun, social activity that thousands of people do every year with their family and friends. Tragically, for some they do not return home after their day on the water. Most incidents that occur on the water are unexpected and people need to be prepared. This study found that a change in weather or water conditions, falling overboard or hitting a submerged object all contributed to deaths on the water. This study shows that it is not only about individual safety, but the safety of all those on board.

It is vital that people are prepared for their boating trip, regardless of experience. Checking the weather and swell conditions, carrying the correct safety equipment, carrying communication and wearing lifejackets all aid in survival of everyone on board.

Practical activities such as the 30-Second Challenge in Western Australia is one example that practically tests people on their preparedness should they get into trouble out on their boat.

All States/Territories have dedicated Marine Safety departments that produce tailored safety information specific to each jurisdiction. The Bureau of Meteorology is also a reliable source of information for marine weather and hazardous surf conditions.

Over half of all MFE among children 0-4 years occurred in swimming pools. Adult supervision of children is the key drowning prevention strategy for children, along with barriers to prevent children from accessing water. Royal Life Saving's Keep Watch program promotes four key messages: Supervise, Restrict Access, Teach swimming and water safety skills, Respond by knowing CPR and first aid skills. Along with supervision, home swimming pools should meet local council regulations and compliance for fences and gates.

This study found that a proportion of MFE were due to non-aquatic transport such as vehicle and aircraft crashes into water. While drowning prevention strategies may be limited in these cases, it shows the need for all injury prevention agencies to be working in collaboration to promote consistent safety messages applicable to all environments while doing a range of activities.

The report reported only on those who drowned during a multiple fatality event around in the water. It is important to note that in some instances, that while some people died from other causes (e.g. injuries) the prevention strategies recommendation would apply to everyone in the incident regardless of the cause of death.

One death is one too many, multiple deaths resulting from one incident at the same time are incredibly tragic for families and communities to endure. We can all work together to ensure that everyone has the knowledge, awareness, skills and experience to prevent drowning.

Recommendations

- Drowning prevention and water safety organisations should work with other injury prevention and safety agencies to promote consistent safety messages e.g., flood safety messages, boating safety messages, road safety etc.
- Consistent safety messages across all Maritime and boating safety agencies, focusing on peer / family safety rather than individual safety e.g. You're the Skipper you're responsible.
- Continue to promote child drowning prevention message and campaigns, especially focusing on active supervision and barriers to water, including fencing compliance and regulation programs.

Methods

Data from this analysis was collated from the Royal Life Saving National Fatal Drowning Database for the 10-year period from 1 July 2010 to 30 June 2020 (2010/11 to 2019/20) which is sourced from the National Coronial Information System (NCIS), State and Territory Coronial offices and year-round media monitoring. Information contained within the NCIS is made available by the Victorian Department of Justice and Community Safety.

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.

While this report reports solely on those who died as a result of drowning (as the contributory cause of death), we acknowledge that additional people may have died in these incidents from other causes e.g., injuries etc.





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AUSTRALIA

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