COASTAL SAFETY REPORT 2022

SURF LIFE SAVING NEW SOUTH WALES

SURF LIFE SAVING
NEW SOUTH WALES

COASTAL DROWNING SNAPSHOT

NEW SOUTH WALES 2021/22

55
COASTAL DROWNING DEATHS

87%
MALE

13%
FEMALE

Location

45%
BEACH

33%
ROCK/CLIFF

13%
OFFSHORE

AT LEAST 5KM FROM A LIFESAVING SERVICE
27%

Activity

29%
SWIMMING/ WADING

20%
ROCK FISHING

15%
BOATING

7%
FALL

NB: ARROW INDICATES CHANGE FROM PREVIOUS YEAR

CONTENTS


RF RESCU

INTRODUCTION

On behalf of Surf Life Saving NSW, it is a pleasure to present the SLSNSW Coastal Safety Report 2022.

Throughout the 2021/22 season, we saw the relaxation of many restrictions associated with COVID-19, with domestic and international visitors once again able to freely travel and recreate along the NSW coastline. However, beach and water use were lower than average for much of the season due to the wet weather associated with La Niña. The heavy rainfall resulted in major flooding with devasting impacts on communities throughout much of NSW.

The widespread flooding contributed to poor water quality at many beaches, while access to and use of many beaches were also impacted by coastal erosion. Our surf lifesavers and staff worked in close collaboration with other emergency services to help manage the safety of community members, and should be commended for their efforts through what was another challenging year.

Despite the challenges, the highest standard of surf life saving and lifeguard services continued to be delivered throughout the state. More than 9.5 million individual visitations were recorded on beaches in NSW in the 12 months from 1 July 2021 to 30 June 2022. Surf lifesavers, lifeguards and support operations personnel rescued 4,257 people, treated 10,533 people for injuries or medical complaints, and performed 606,086 preventative actions.

Tragically, over the 2021/22 season, 55 coastal and ocean drowning deaths were recorded on the New South Wales coastline. This was an increase from 45 the previous year and above the 10-year average of 43. This drowning toll is the equal highest since comprehensive records began on 1 July 2004. Furthermore, the 25 coastal and ocean drowning deaths recorded over summer was the highest on record (the previous highest was 23 recorded in the 2015/16 summer). These tragic incidents occurred despite the higher than usual rainfall associated with La Niña, in contrast to the 2015/16 season, which saw heatwaves associated with El Niño.

Of the 55 coastal and ocean drowning deaths, 10 fatalities occurred in January, with eight in February and April. Fifty-seven percent of the fatalities occurred between 12:00 pm and 6:00pm. Many of these fatalities occurred more than 5 km from the nearest surf life saving service and/or lifeguard service (27%), while approximately one third of fatalities occurred less than one kilometre from a surf life saving service and/or lifeguard service. Sixteen people were swimming when they got into difficulty, 11 people were fishing from shore platforms, and eight people were boating or using personal watercraft. Eighty-seven percent of the coastal and ocean drowning deaths involved males, with the majority aged over 40 years (62%).

Research into factors contributing to coastal and ocean drowning deaths continues to be a key focus for Surf Life Saving NSW to understand where, when, and why tragic incidents occur. The state-wide coastal risk assessment project, Coastal insights: safer coasts for the future, continues to progress well. Significant work continues behind the scenes to develop a state-wide standard for the data collected by surf lifesavers and lifeguards, and develop innovative platforms to more effectively analyse and visualise data on beach and water use, as well as fatal and non-fatal incident statistics.

Through this work, we seek to better understand how the risk of drowning and injury varies throughout the season, and determine the times and locations of greatest risk. This is important both for long-term planning of surf life saving and lifeguard service delivery, and for up-scaling services in the lead up to times of highest risk. *Coastal insights: safer coasts for the future* is being funded by the NSW Government and delivered in partnership with Local Government, NSW National Parks and Wildlife Service, and other coastal safety stakeholders.

The statistics in this report show that many people continue to enjoy a multitude of recreational activities along our beautiful coastline, but every life lost is one too many. We believe that this edition of the SLSNSW Coastal Safety Report will prove to be a valuable resource for our members, government, water safety organisations, emergency services, researchers, partners, sponsors, community groups, and media. It aims to inform them of the recent trends in fatal incidents in NSW, and the safety interventions and other preventative measures being undertaken by Surf Life Saving NSW.

I commend this report to you as a vital tool to help us all understand and reduce drowning deaths along the NSW coastline.

Joel Wiseman

SLSNSW Director of Lifesaving

COMMUNITY

SECTION ONE


SURF RESCUE
DHL
SURF RESCU
DHL

COASTAL VISITATION AND PARTICIPATION

NEW SOUTH WALES TRENDS

4.7M
TOTAL COASTAL VISITORS IN 2021/22

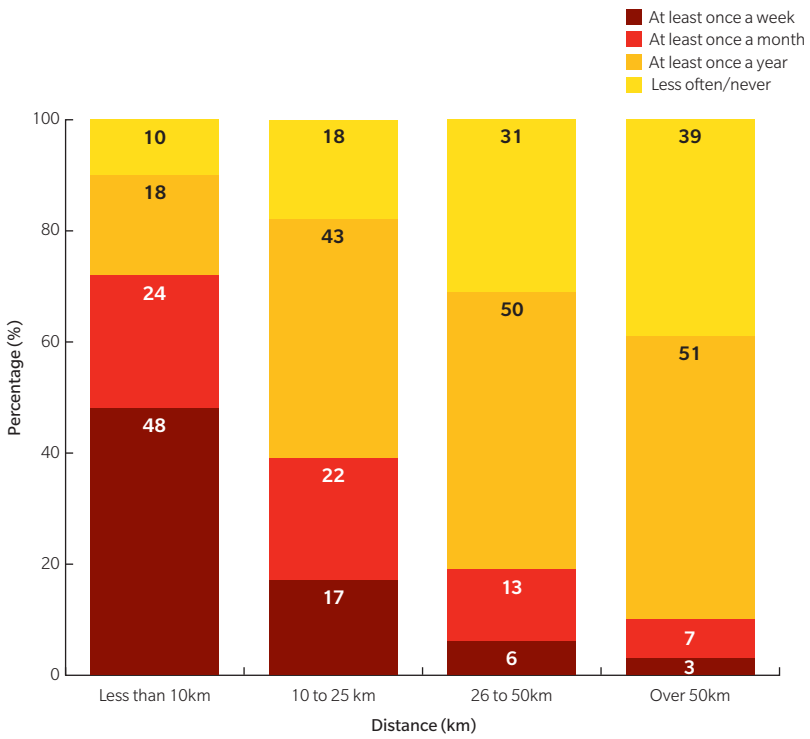
2022
3.2
VISITS/MONTH

2.3
HOURS/ VISIT

3.5M
COASTAL ACTIVITY PARTICIPANTS

COASTAL VISITATION & PARTICIPATION SUMMARY

Australians love the coast. To better understand how the coast is used, the annual National Coastal Safety Survey (NCSS) explores coastal participation, behaviours and perceptions. In the last 12 months, 4.7 million New South Wales adults (16 years and above) visited the coast on average 3.2 times each month. This suggests that there were over 180 million individual visitations to the coast last year with 3.5 million coastal activity participants.



2.2M
FREQUENT VISITORS

2.2
HOURS/ VISIT

2.5M
OCCASIONAL VISITORS

2.4
HOURS/ VISIT

Figure 1

NCSS2022: VISITATION BY FREQUENCY AND RESIDENCE DISTANCE FROM THE COAST

People who live near the coast tend to visit more frequently. This frequency decreases as the residence distance to the coast increases.

2.4M
COASTAL VISITORS

3.6
VISITS PER MONTH

2.3
HOURS PER VISIT

1.8M
COASTAL ACTIVITY PARTICIPANTS

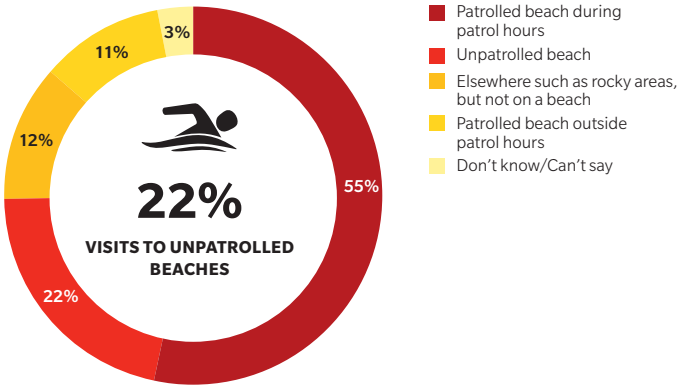
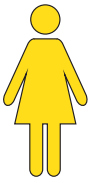


Figure 3

NCSS2022: LAST TEN COASTAL VISIT LOCATIONS

Of their last ten visits, more than half (55%) were to patrolled beaches during patrol hours, while 22% visited unpatrolled beaches. This difference may be attributed to the proportion of the coastline that is patrolled and differences in safety practices.



2.3M
COASTAL VISITORS

2.8
VISITS PER MONTH

2.3
HOURS PER VISIT

1.7M
COASTAL ACTIVITY PARTICIPANTS

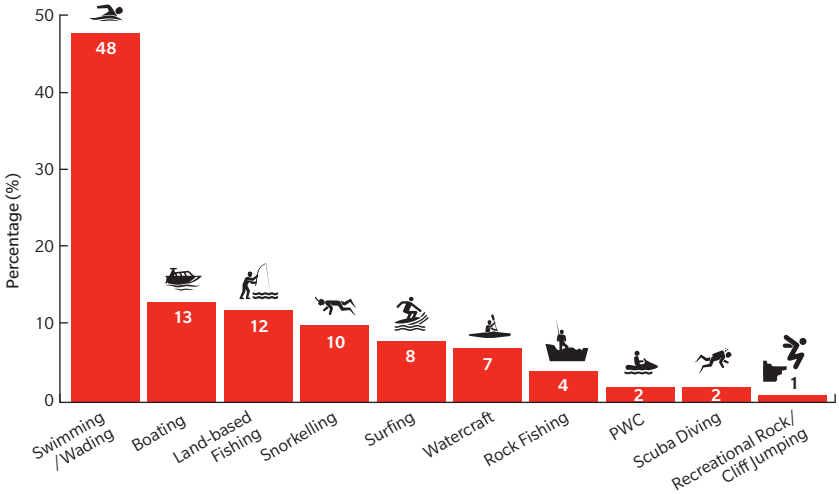


Figure 2

NCSS2022: COASTAL VISITATION AND PARTICIPATION BY GENDER

Males and females again visited the coast and participated in coastal activities in similar numbers, but females, on average, visited the coast less times per month than males.

Figure 4

NCSS2022: COASTAL PARTICIPATION BY ACTIVITY

There were 3.5 million coastal activity participants in 2021/22. Swimming and wading remained the most popular activity (48%), followed by boating (13%), land-based fishing (12%), and snorkelling (10%).

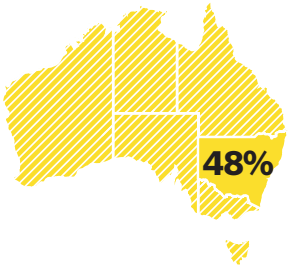
ACTIVITY PARTICIPATION

PARTICIPATION BY GENDER & FREQUENCY

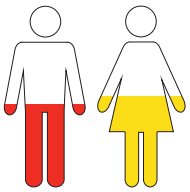
Coastal participation varies by activity, gender and frequency. These pages explore the proportion of the New South Wales population who participate in each activity, their gender, and frequency of participation.

SWIMMING/WADING

PARTICIPATION



GENDER



49% | 51%

TOTAL 3M

FREQUENCY

FREQUENT	OCCASIONAL
37%	63%
1.1M	1.9M

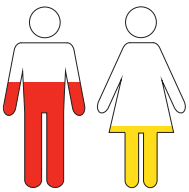
1 IN 2

SWIMMERS CONSIDER THEMSELVES EXPERIENCED ENOUGH TO TAKE SOME RISKS

SURFING

PARTICIPATION

GENDER



65% | 35%

TOTAL 500K

FREQUENCY

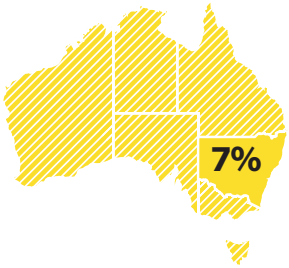
FREQUENT	OCCASIONAL
49%	51%
248K	252K

8%

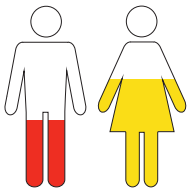
HAVE PARTICIPATED IN SURFING IN THE LAST 12 MONTHS

WATERCRAFT

PARTICIPATION



GENDER



39% | 61%

TOTAL 460K

FREQUENCY

FREQUENT	OCCASIONAL
30%	70%
140K	320K

40%

USE THEIR WATERCRAFT IN A BAY OR HARBOUR

	ROCK FISHING	LAND-BASED FISHING	BOATING
PARTICIPATION	4%	12%	13%
GENDER	48% | 52%	48% | 52%	55% | 45%
	TOTAL 250K	TOTAL 780K	TOTAL 800K
FREQUENCY	47% FREQUENT 120K	31% FREQUENT 240K	29% FREQUENT 235K
	53% OCCASIONAL 130K	69% OCCASIONAL 540K	71% OCCASIONAL 565K

79%

BELIEVE THAT WEARING A LIFEJACKET SHOULD BE MANDATORY WHILE ROCK FISHING

55%

55% CONSIDER LAND-BASED FISHING TO BE NOT VERY OR NOT AT ALL HAZARDOUS

36%

OF BOATERS CONSIDER THEMSELVES BEGINNERS

ACTIVITY PARTICIPATION

PARTICIPATION BY GENDER & FREQUENCY

	PWC	SNORKELLING	SCUBA DIVING
PARTICIPATION	2%	10%	2%
GENDER	58% | 42%	52% | 48%	54% | 46%
	TOTAL 150K	TOTAL 655K	TOTAL 100K
FREQUENCY	28% FREQUENT 40K	21% FREQUENT 135K	48% FREQUENT 48K
	72% OCCASIONAL 110K	79% OCCASIONAL 520K	52% OCCASIONAL 52K

57%

OF PWC RIDERS CONSIDER THEMSELVES EXPERIENCED ENOUGH TO TAKE SOME RISKS

10%

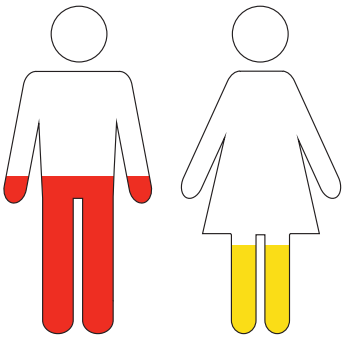
HAVE PARTICIPATED IN SNORKELLING IN THE LAST 12 MONTHS

1 IN 3

SCUBA DIVERS CONSIDER THEMSELVES BEGINNERS

SWIMMING ABILITY

CONFIDENCE & ABILITY IN COASTAL WATERS



ARE YOU CURRENTLY ABLE TO SWIM 50 METRES IN THE OCEAN WITHOUT STOPPING OR TOUCHING THE BOTTOM?

48% YES | 28% YES

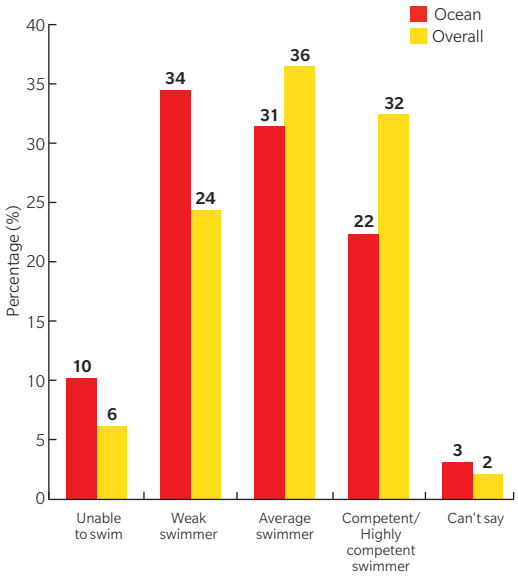


Figure 5

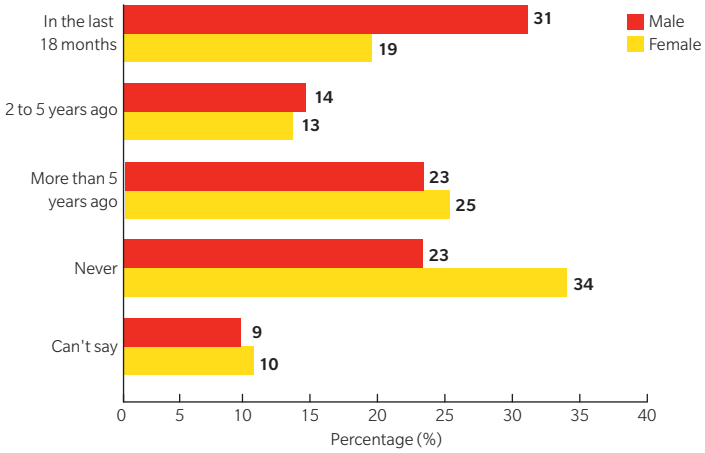
NCSS2022: ABILITY TO SWIM 50M IN THE OCEAN WITHOUT TOUCHING THE BOTTOM BY GENDER

Males self-rated ability of being able to swim 50m in the ocean without touching the bottom is 20% greater than that of females.

Figure 6

NCSS2022: SELF-RATED OCEAN VS. OVERALL SWIMMING ABILITY

Swimming ability in the ocean is rated below overall swimming ability by more competent swimmers, while the opposite is true for weaker swimmers.



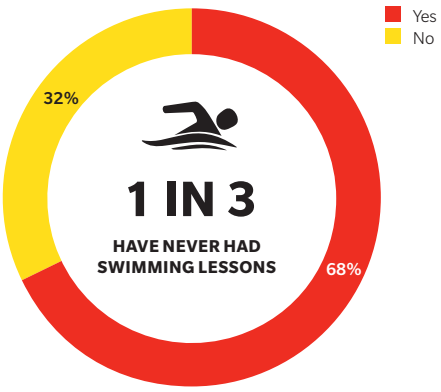


Figure 7

NCSS2022: THE LAST TIME PARTICIPANTS SWAM MORE THAN 50M IN THE OCEAN BY GENDER

Males have swum more than 50m in the ocean more recently compared to females. One in two males have undertaken this distance within the last five years compared to only 32% of females.

Figure 8

NCSS2022: PARTICIPATION IN FORMAL SWIMMING LESSONS

New South Wales participation in formal swimming lessons is equal to the national average of 68%.

COASTAL SAFETY

HAZARD PERCEPTION & RISK

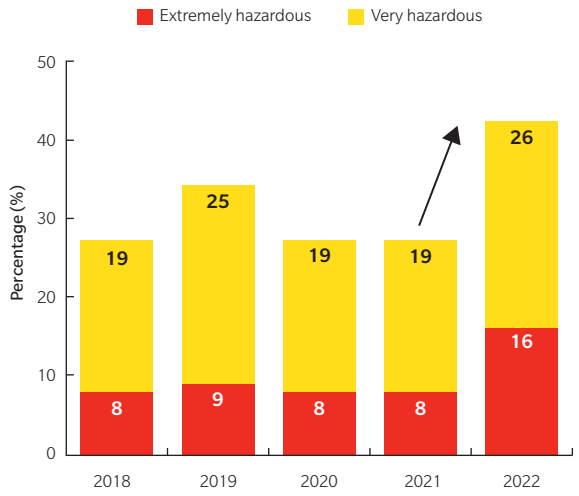


Figure 9

NCSS2022: HAZARD PERCEPTION OF THE COAST

This year has seen a sharp rise in coastal hazard perception with 42% of NSW adults considering the coast to be extremely or very hazardous compared to only 27% last year.

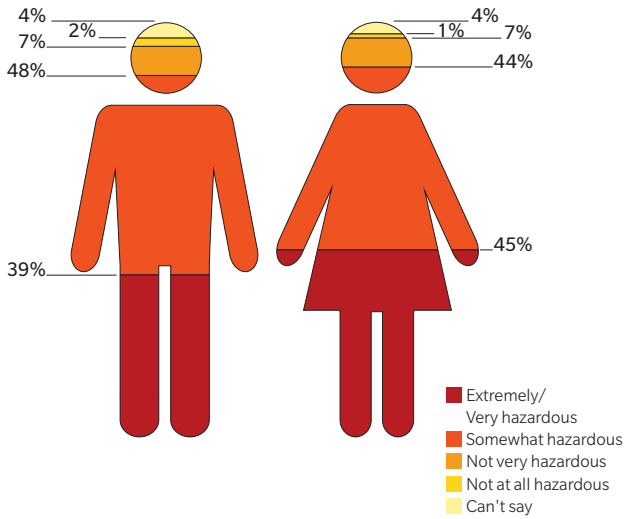


Figure 10

NCSS2022: HAZARD PERCEPTION BY GENDER

Females generally perceive the coast to be more hazardous than males.

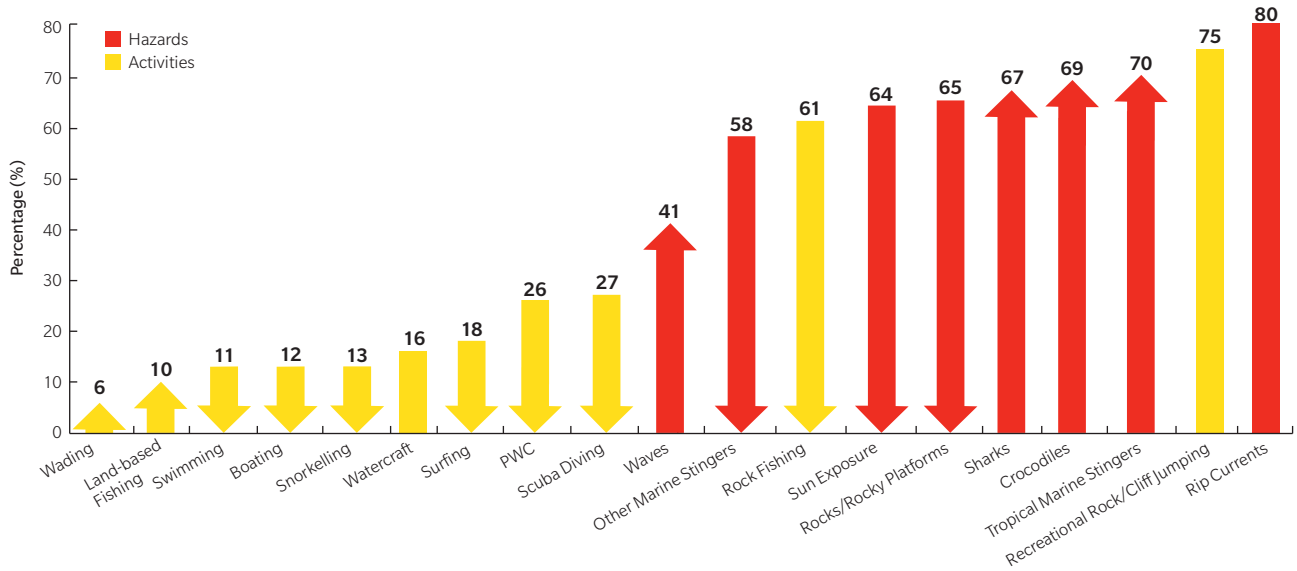


Figure 11

NCSS2022: COASTAL HAZARDS & ACTIVITIES RATED EXTREMELY OR VERY HAZARDOUS

Rip currents remain the highest rated coastal hazard as rated by NSW residents, although the hazard perception of sharks has increased greatly (6%). New South Wales adults believe coastal hazards are generally more dangerous than coastal activities.

NB: Arrows indicate change from previous year.

SAFETY BEHAVIOURS

RISK TAKING & SAFETY PRACTICES

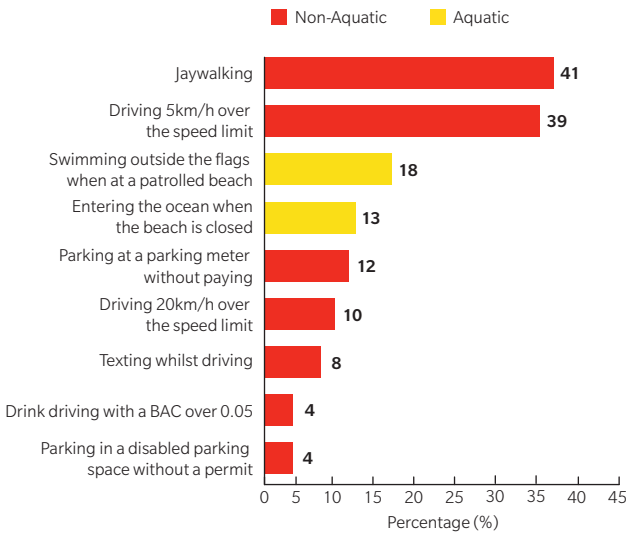


Figure 12

NCSS2022: COMFORT LEVELS WITH RISKY BEHAVIOURS

Levels of comfort vary between aquatic and non aquatic practices. While 18% feel comfortable swimming outside the flags at a patrolled beach, only 4% are comfortable with drink driving.

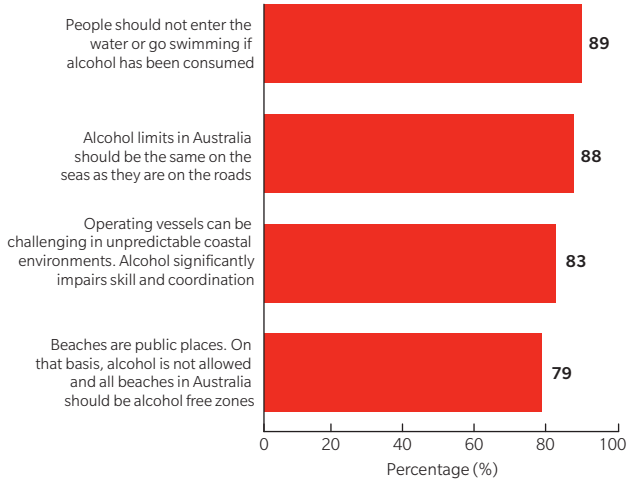


Figure 13

NCSS2022: ATTITUDES TOWARDS ALCOHOL

Almost nine in ten adults believe that alcohol limits should be the same on the water as they are on the road, while 21% believe alcohol should be able to be consumed at the beach.

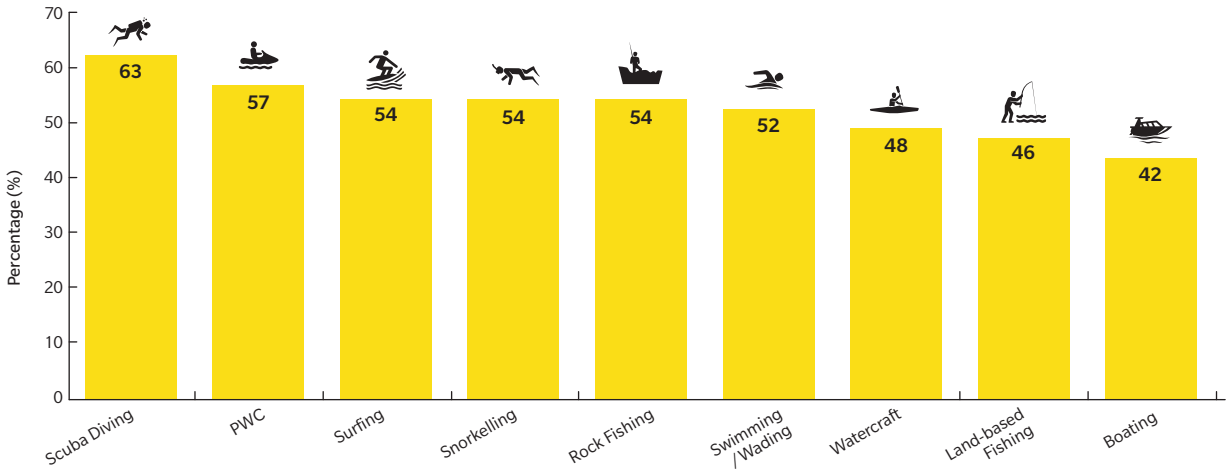


Figure 14

NCSS2022: PARTICIPANTS WHO BELIEVE THEY ARE EXPERIENCED ENOUGH TO TAKE RISK

Six in ten scuba divers (63%) and PWC operators (57%) believe that they are experienced enough to take risk, compared to only four in ten boaters.

CAPABILITY

SECTION TWO

4,257
RESCUES

22,126
PROFICIENT MEMBERS

621,063
VOLUNTEER PATROL HOURS

129
SLS Clubs

90
ALS Services

2
Helicopter Services


SURF RESCUE
DHL
SURF RESCUE
DHL

CAPABILITY

Surf Life Saving NSW enables communities and visitors throughout the state to enjoy our coastline by helping to manage their safety. This is achieved through the contribution of volunteer Surf Life Saving Clubs and the provision of services through the Australian Lifeguard Service and Support Operations.

VOLUNTEER SURF LIFE SAVING CLUBS

Volunteer surf lifesavers from 129 Surf Life Saving Clubs (across 11 Surf Life Saving Branches) manage the safety of members of the public at patrolled beaches from Fingal Head to Pambula Beach. Between Saturday 18 September 2021 and Monday 25 April 2022, 18,787 surf lifesavers amassed 621,063 volunteer patrol hours on weekends and public holidays.

Surf lifesavers actively prevented members of the public getting into difficulty in and around the red and yellow flags through preventative actions (114,751), while also rescuing 2,930 people who got into difficulty. They treated 7,683 people for injuries or medical complaints.

Rescue boards and rescue tubes continued to prove to be highly effective rescue equipment, particularly where incidents occurred close to shore and/or in and around the red and yellow flags. All-terrain vehicles (ATVs) and inflatable rescue boats (IRBs) were used to provide roving surveillance alongshore and assist in the response to incidents further away from patrolled areas as well as difficult rescues, i.e., incidents involving multiple patients.

AUSTRALIAN LIFEGUARD SERVICE

The Australian Lifeguard Service manages the safety of beachgoers in and around the red and yellow flags at 90 beaches on behalf of 14 Local Government Areas, NSW National Parks and Wildlife Service, and one resort.

Lifeguard services were delivered by 417 lifeguards over the 2021/22 season. They provided over 110,000 patrol hours, which ranged from long-term services provided throughout the year at some sites, to concentrated services provided only over the summer school holidays at other sites. These lifeguards performed 491,118 preventative actions, rescued 973 people, and treated 2,775 people for injuries or medical complaints.

18,787 SURF LIFESAVERS AMASSED 621,063 VOLUNTEER PATROL HOURS ON WEEKENDS AND PUBLIC HOLIDAYS

SUPPORT OPERATIONS

Surf Life Saving NSW provides services beyond the red and yellow flags and responds to requests for assistance to help manage the safety of the wider community.

Rescue watercraft, jet rescue boats, and offshore rescue boat

Rescue watercraft (RWC) operate within and beyond the surf zone and provide surveillance along the shoreline at both patrolled and unpatrolled beaches. These assets provide critical support to surf lifesavers and lifeguards and can respond effectively to time-critical incidents outside the red and yellow flags.

In addition, jet rescue boats operate out of Ballina and Kiama, and an offshore rescue boat operates in Sydney. These vessels typically provide surveillance and response to those who may get into difficulty in and around the mouths of rivers and estuaries, as well as those using harbours and areas beyond the surf zone.

Australian UAV Service and Westpac Life Saver Rescue Helicopters

Over the 2021/22 season, the Australian UAV Service operated Uncrewed Aerial Vehicles (UAVs) at 50 beaches as part of the NSW Department of Primary Industries Shark Management Strategy. This program was implemented to help reduce the interaction between people and sharks, and the UAVs were also used to help identify rip currents and water users at risk of getting into difficulty. In addition, 30 mobile UAVs were provided in emergency response vehicles operated by volunteer Duty Officers to assist with search and rescue operations.

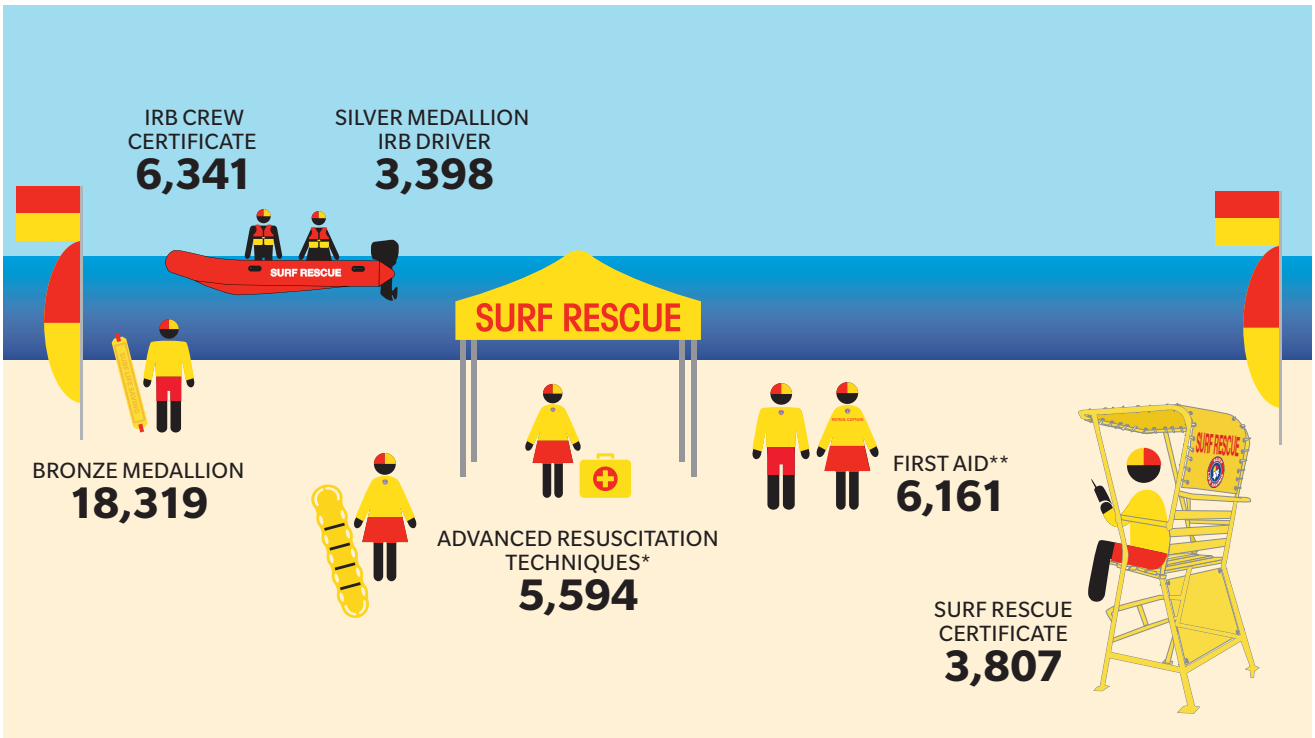
The Westpac Life Saver Rescue Helicopters also provided surveillance and response to water-based incidents in NSW. The rescue helicopters operate out of Sydney and the South Coast. The personnel operating the rescue helicopters were involved in 217 preventative actions, 108 rescues, and 75 first aid incidents over the 2021/22 season.

Surf Emergency Response System

The Surf Emergency Response System, which is managed by the State Operations Centre, is a framework for the notification and tasking of surf lifesavers and lifeguards to water-based incidents. The system aims to reduce coastal and ocean drowning deaths by increasing the efficiency and effectiveness of the response, and helps ensure that there is clear communication and effective coordination between surf lifesavers, lifeguards, and other emergency services. The Surf Emergency Response System is operated by a team of Duty Officers.

The capability of the Surf Emergency Response System was further enhanced by a recent upgrade to the State Operations Centre, as well as the provision of emergency response vehicles and additional rescue watercraft to Surf Life Saving Branches. These initiatives were funded by the NSW Government.

AWARD PROFICIENCY



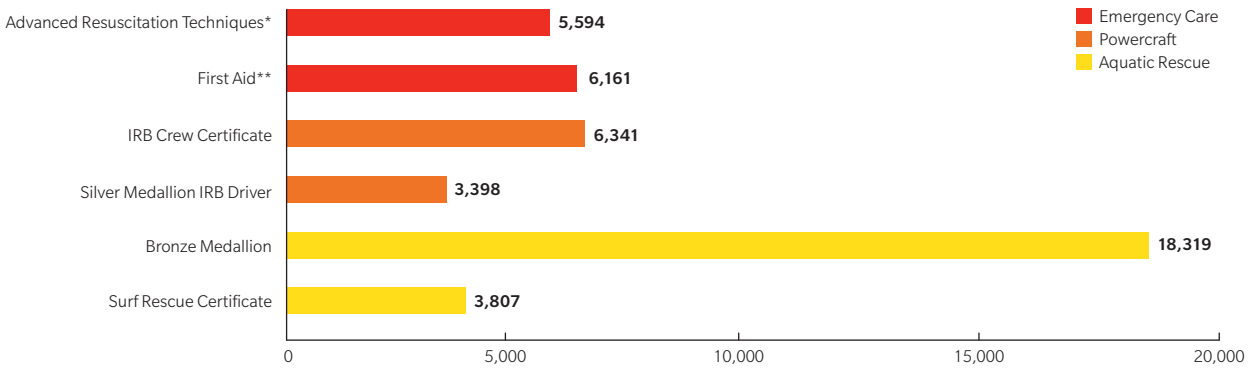


Figure 15

2021/22: PROFICIENT AWARDS HELD BY SLS MEMBERS IN NEW SOUTH WALES

There are 22,126 proficient members in NSW, of which 18,319 hold a Bronze Medallion award and 3,807 hold a Surf Rescue Certificate. Many of these members also hold a number of other lifesaving awards, totalling almost 30,000 awards. This highlights the extent of additional training our surf lifesavers undertake to ensure they are highly skilled first responders.

* Total includes Advanced Resuscitation Techniques (AID) and Advanced Resuscitation Techniques Certificate
**Total includes First Aid, First Aid (AID) and Silver Medallion Advanced First Aid awards

SURF LIFE SAVING SERVICES

129

SURF LIFE SAVING CLUBS

90

ALS PATROLLED BEACHES

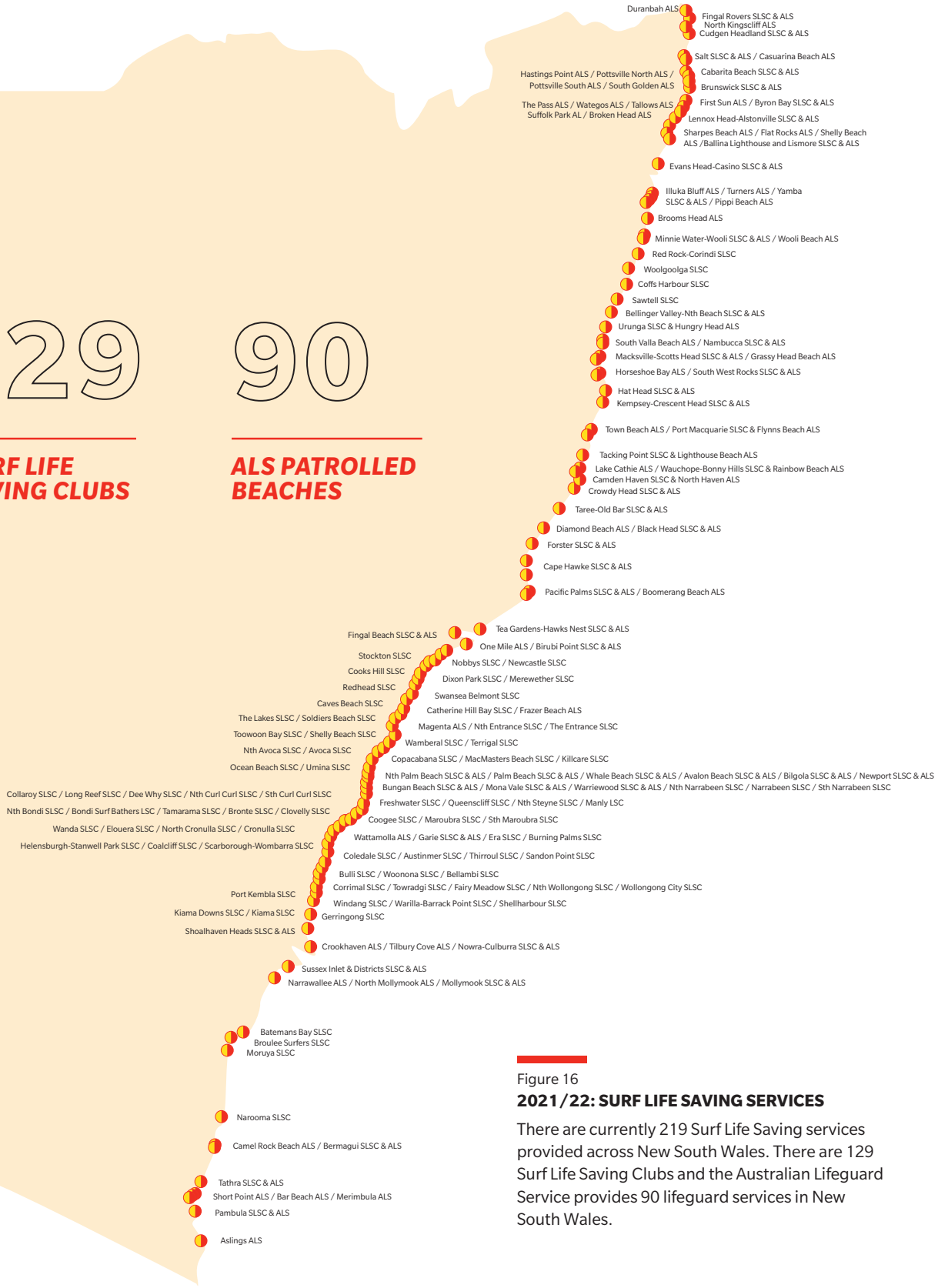


Figure 16

2021/22: SURF LIFE SAVING SERVICES

There are currently 219 Surf Life Saving services provided across New South Wales. There are 129 Surf Life Saving Clubs and the Australian Lifeguard Service provides 90 lifeguard services in New South Wales.

MEMBERSHIP CAPACITY

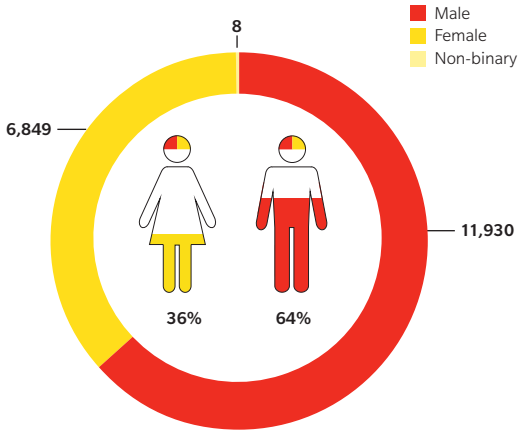


Figure 17

2021/22: PATROLLING SURF LIFESAVERS

There were a total of 18,787 New South Wales members who performed a patrol. Of these patrolling members, 63.5% identify as male and 36.5% female with eight identifying as non-binary (<1%).

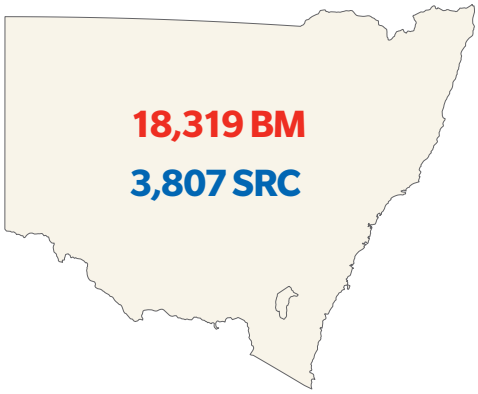


Figure 18

2021/22: PROFICIENT MEMBERS

There were a total of 18,319 proficient Bronze Medallion (BM) holders and 3,807 Surf Rescue Certificate (SRC) holders. New South Wales has 22,126 proficient members.

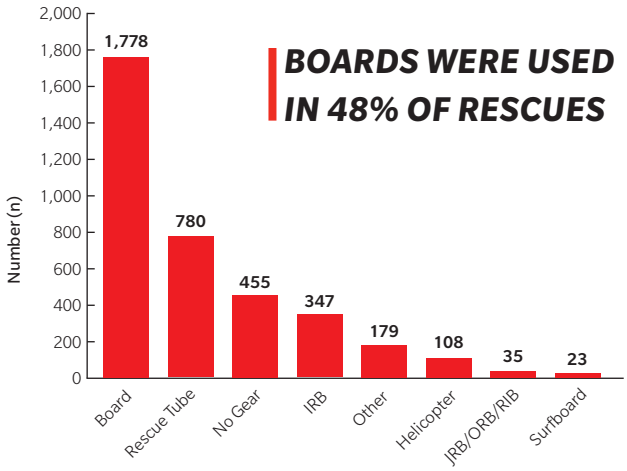


Figure 19

2021/22: EQUIPMENT USED IN RESCUES*

Boards were used in 48% of rescues, followed by rescue tubes (21%) and IRBs (9%). No gear was used in 12% of rescues.

*Includes rescues performed by SLS, ALS and support operations.

Figure 20

2021/22: VOLUNTEER PATROL HOURS

A total of 621,063 volunteer patrol hours were undertaken across New South Wales in 2021/22.

COASTAL INSIGHTS: SAFER COASTS FOR THE FUTURE

Coastal insights: safer coasts for the future is developing innovative evidence-based models and frameworks to assist coastal safety stakeholders to manage the risk of drowning and injury at beaches, shore platforms, and coastal waterways in NSW. The project will deliver insights and modelled recommendations to inform the provision of lifeguarding services, surf life saving services, and support operations. We would like to acknowledge the support and funding provided by the NSW Government (through Resilience NSW).

We're working to deliver on five specific project objectives for *Coastal insights: safer coasts for the future* as follows:

1. Quantify the influence of beach morphology and hydrodynamics, volume and frequency of water use, and social risk factors on the risk of drowning and injury.
2. Utilising the findings from the first objective, develop a number of models and frameworks to guide evidence-based decision making by coastal safety stakeholders.
3. Provide the insights and modelled recommendations to coastal safety stakeholders through a 'Data Analytics Hub'.
4. Review the existing data collected by lifeguarding services, surf life saving services, and support operations, and subsequently develop a 'data standard' for NSW, with appropriate methodologies and technologies to assist.
5. Develop stronger relationships and collaboration with coastal safety stakeholders throughout NSW.

Coastal insights: safer coasts for the future is underpinned by scientific research principles to ensure that the risk of drowning and injury can be accurately and consistently assessed across NSW, and that the modelled recommendations are fit-for-purpose.

Firstly, we are analysing the influence of beach morphology and hydrodynamics on the risk of drowning and injury by investigating correlations between environmental factors and the occurrence of fatal and non-fatal incidents. Secondly, we are working to better understand the patterns and distribution of beach and water users throughout the year and across the hours of the day. Data is being captured and analysed using on-site observations, high-resolution aerial imagery, and coastal monitoring cameras. Thirdly, we are investigating the vulnerability of different groups through the analysis of fatal and non-fatal incidents.

The results of this research feed directly into the second objective, the development of models and frameworks to guide evidence-based decision making. These provide guidance on safety interventions that are commensurate with different levels of risk, such as the provision of fit-for-purpose supervision and surveillance.

However, the quality of the insights and recommendations produced by the models and frameworks is contingent on the consistency and accuracy of the relevant data. To date, we have identified several issues and inconsistencies in the way that data on beach use, preventative actions, and incidents is collected by lifeguards and surf lifesavers throughout NSW. As such, *Coastal insights: safer coasts for the future* has developed a proposed 'data standard' and is currently working with coastal safety stakeholders to refine and confirm the standard.

To enable coastal safety stakeholders to view and digest insights and modelled recommendations, we have developed a 'Data Analytics Hub' in Power BI, with R Studio and ESRI ArcGIS integrations. Data on beach use, preventative actions, and incidents are analysed and displayed through a series of Dashboards and Reports tailored to coastal safety stakeholders, from a site-specific scale (i.e., Surf Life Saving Clubs), to multi-site scale (i.e., Local Government Areas), to a state-wide scale. The 'Data Analytics Hub' will help streamline data collection, management, and analysis, with appropriate governance and security protocols. The quality of the insights and modelled recommendations provided in the 'Data Analytics Hub' will progressively improve once the 'data standard' is implemented, data is collected consistently and accurately, and supplemented by data from other sources (such as the analysis of high-resolution aerial imagery and coastal monitoring cameras).

We look forward to continuing to engage and collaborate with coastal safety stakeholders as *Coastal insights: safer coasts for the future* progresses.

THE PROJECT WILL DELIVER INSIGHTS AND RECOMMENDATIONS TO INFORM THE PROVISION OF LIFEGUARDING AND SURF LIFE SAVING SERVICES

SURF EMERGENCY RESPONSE SYSTEM

The Surf Emergency Response System (SERS) was activated 791 times between 1 July 2021 and 30 June 2022, which is up on the five-year average of 678. These figures represent a considerable contribution made by surf lifesavers, lifeguards, and emergency services in responding to water-based emergencies. The interoperability and collaboration provided by SERS enables a more efficient response to those in distress, resulting in many more lives being saved.

As with previous years, SERS received the largest proportion of activations over summer (40.2%) and responded to most incidents during the afternoon (58.7%). The Surf Emergency Response System most frequently responded to swimmers in difficulty (32.1%), followed by members of the public using watercraft (22.0%), and those boating or using personal watercraft (19.3%). These statistics are similar to the five-year averages. These activations resulted in 246 lives being saved.

The SERS also demonstrated its value in larger-scale incidents, in particular the response to multiple major flood events, as well as a Tsunami warning. The State Operations Centre, Duty Officers, Surf Life Saving Branches, Surf Life Saving Clubs, Australian Lifeguard Service, and the Australian UAV Service provide valuable assistance and service to the community during these difficult times.

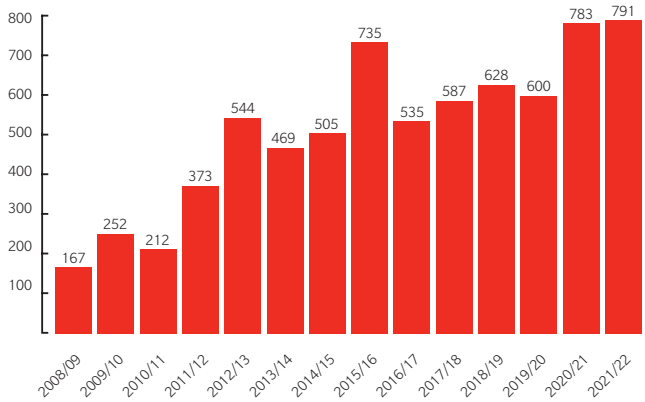


Figure 22

2008-2022: NUMBER OF SERS ACTIVATIONS

The number of activations of the Surf Emergency Response System has increased considerably over the last 14 years; the highest number of activations was recorded in the 2021/22 season.

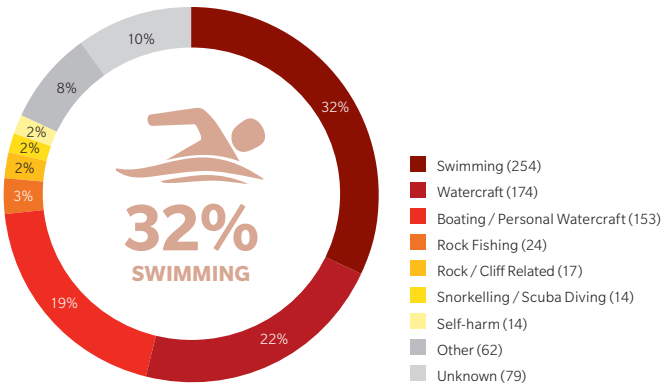


Figure 21

2021/22: NUMBER OF SERS ACTIVATIONS BY ACTIVITY

Swimming (32.1%), watercraft (22.0%), and boating or personal watercraft (19.3%) were the most common activities members of the public were undertaking when the Surf Emergency Response System was activated.

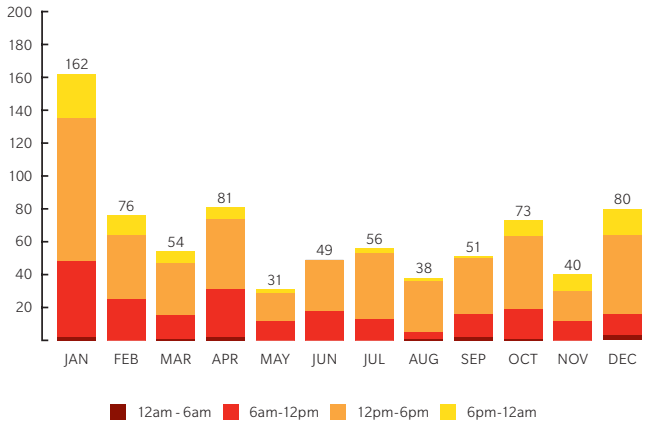


Figure 23

2021/22: NUMBER OF SERS ACTIVATIONS BY MONTH AND TIME OF DAY

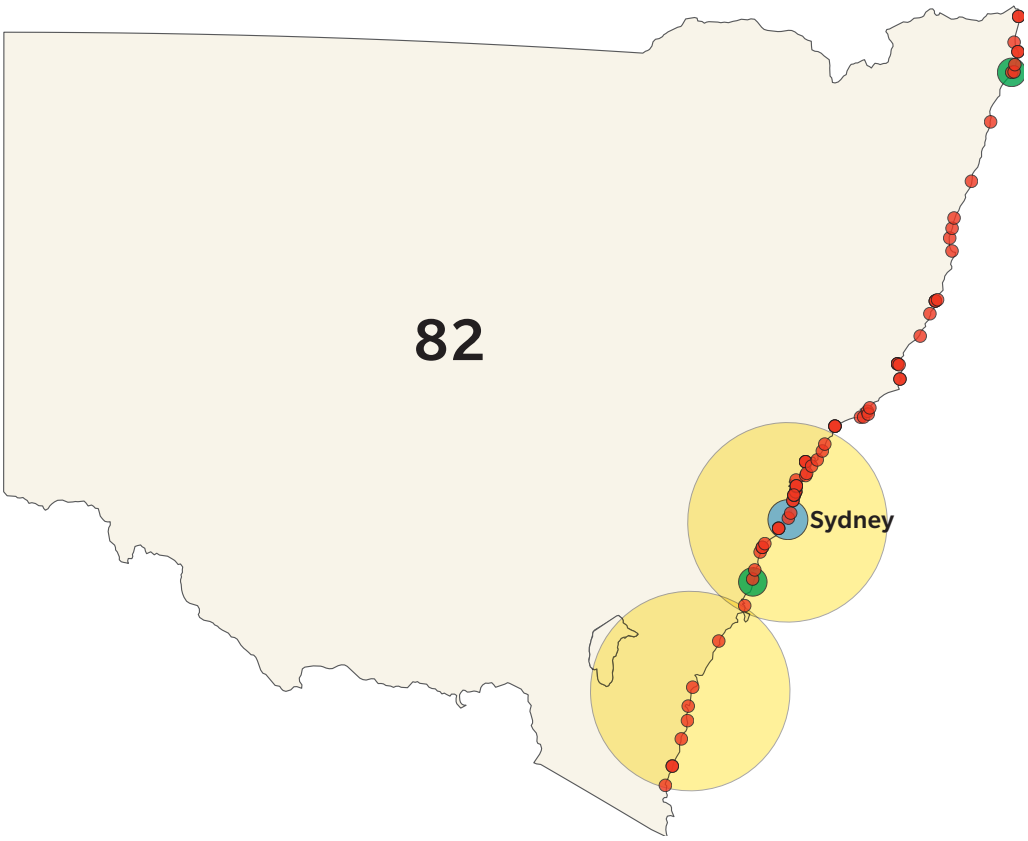
The highest number of activations was recorded in January (162) and between 12:00 pm and 6:00 pm (464).

ASSET CAPABILITY

Figure 24

2021/22: SLSNSW MAJOR ASSET LOCATION AND SERVICE RANGE

SLSNSW maintains a fleet of 77 rescue watercraft (RWC), two jet rescue boats (JRB), one offshore rescue boat (ORB) and two Westpac Life Saver Rescue Helicopters. Their locations and service ranges are depicted on this map.



Key to Asset Location

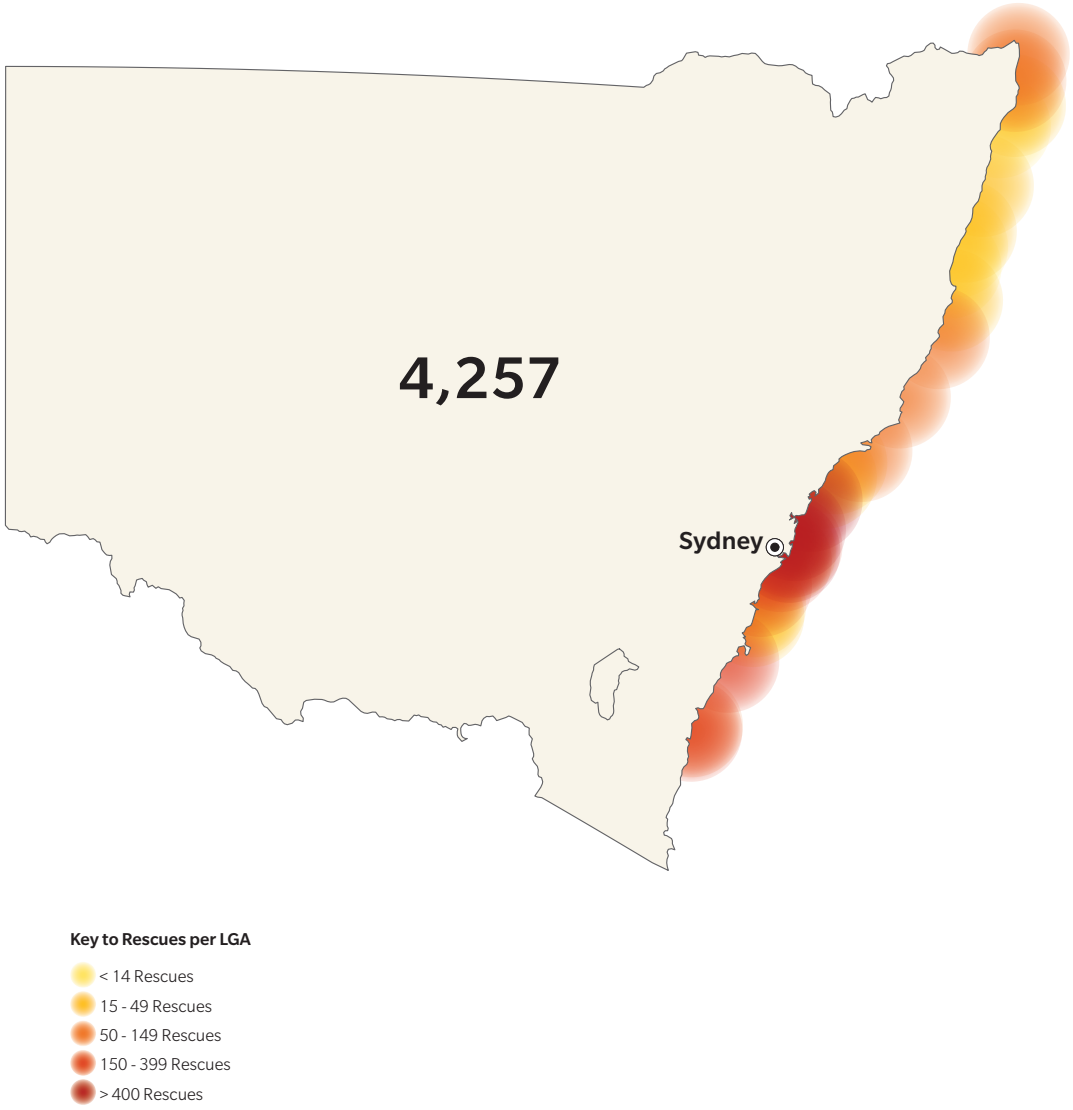
- Rescue Water Craft (RWC)
- Jet Rescue Boat (JRB)
- Offshore Rescue Boat (ORB)
- Westpac Life Saver Rescue Helicopter

RESCUES

Figure 25

2021/22: RESCUES PER LOCAL GOVERNMENT AREA (LGA)

SLS lifesavers, lifeguards and lifesaving services performed 4,257 rescues across New South Wales.

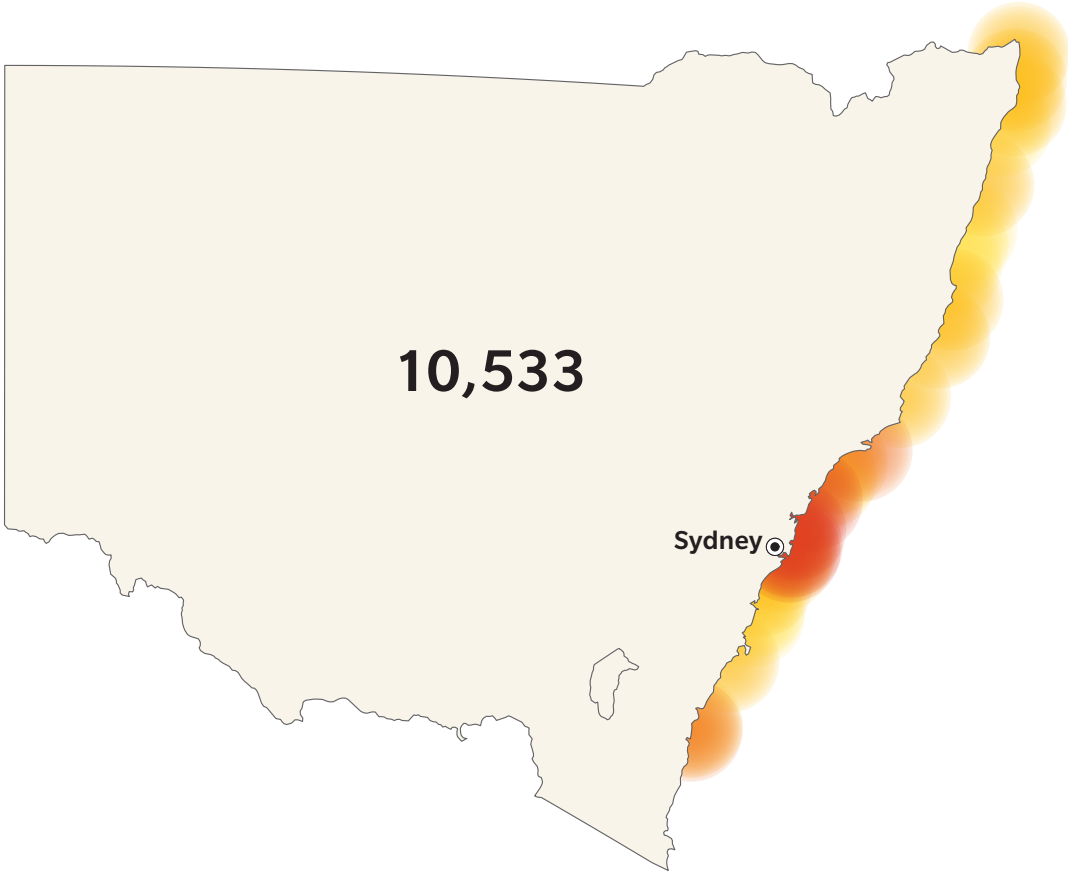


FIRST AID

Figure 26

2021/22: FIRST AID PER LOCAL GOVERNMENT AREA (LGA)

SLS lifesavers, lifeguards and lifesaving services performed 10,533 first aid treatments across New South Wales.



Key to First Aid Incidents per LGA

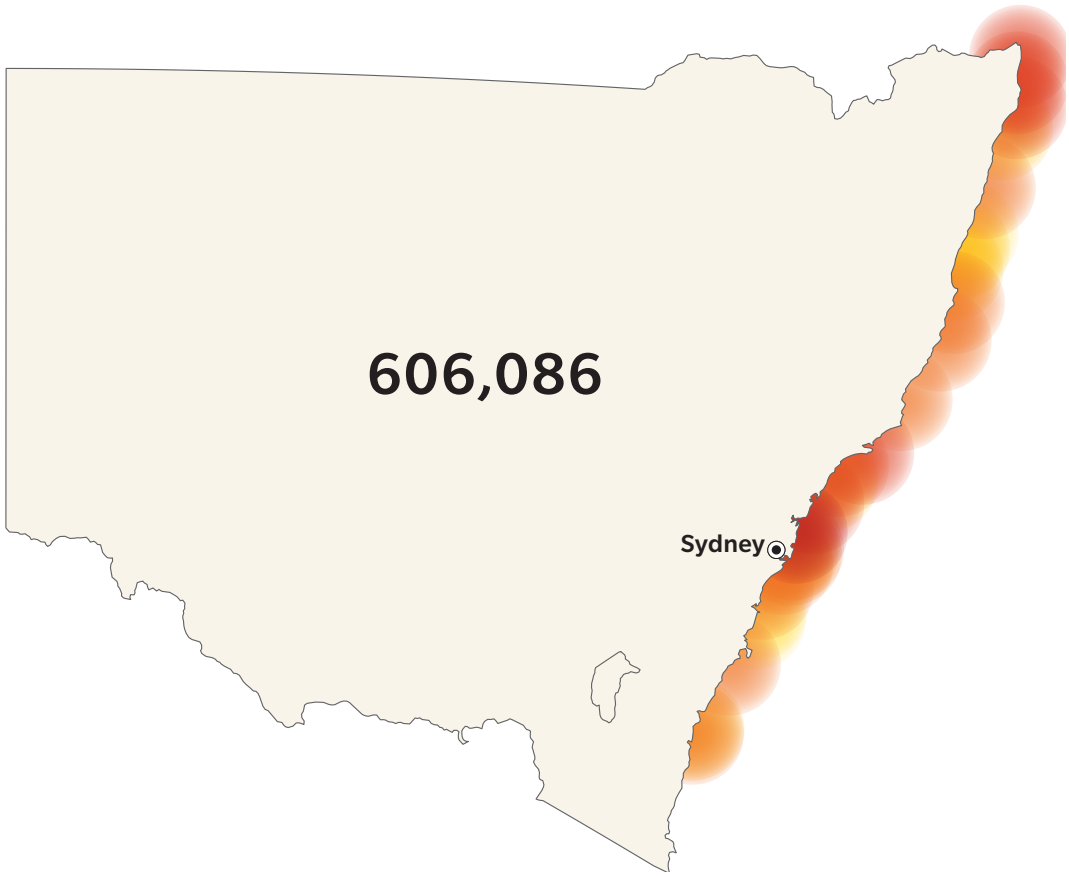
- < 49 Incidents
- 50 - 349 Incidents
- 350 - 649 Incidents
- 650 - 2,999 Incidents
- > 3,000 Incidents

PREVENTATIVE ACTIONS

Figure 27

2021/22: PREVENTATIVE ACTIONS PER LOCAL GOVERNMENT AREA (LGA)

SLS lifesavers, lifeguards and lifesaving services performed 606,086 preventative actions across New South Wales.



Key to Preventative Actions per LGA

- < 1,499 Actions
- 1,500 - 4,999 Actions
- 5,000 - 19,999 Actions
- 20,000 - 99,999 Actions
- > 100,000 Actions

ENGAGE, EDUCATE & EMPOWER

Surf Life Saving NSW continues to engage, educate and empower diverse and at-risk communities within NSW through targeted, multifaceted, relevant, and meaningful initiatives to improve coastal safety.

OVER THE 2021/22 YEAR, SLSNSW DIRECTLY ENGAGED AND EDUCATED OVER 85,000 COMMUNITY MEMBERS IN BEACH AND COASTAL SAFETY EDUCATION

The demographics of our communities are rapidly changing. For many of those not born in Australia there can be a lack of awareness of the hazards along our coastline. However, high risk groups are not exclusive to those newly arrived, we know that males and young males, both born overseas and in Australia, are overrepresented in coastal drowning statistics.

Initiatives that not only engage and educate, but provide the impetus to empower our communities to educate themselves, will provide the most effective strategy for relevant and meaningful improvements in water safety outcomes.

Our multifaceted approach to community education has been based around the development of targeted and comprehensive programs, resources and digital engagements. Not only do we want to reach the right communities, we want to ensure what we deliver is meaningful and relevant to those communities.

To do this we have focused on the development of key networks, committees and collaborations. In 2021/22 we facilitated forums including the South-Eastern Sydney CALD Water Safety Committee, Western Sydney CALD Water Safety Committee, South-Western Sydney CALD Water Safety Committee and the SLSNSW Multicultural Community Coastal Safety Reference & Advisory Group.

Our new approach to program delivery focuses on providing opportunities for discussion as well as scenario-based and peer learning. Through an open discussion with participants we are better able to acknowledge barriers and challenges that may exist for various communities to safely engage with the water. Such challenges may include culture, religion, language, stereotypes, peer-pressure, gender-roles and traumatic experiences.

In 2021/22 we successfully delivered our new programs to over **27,000** members of our target communities. These programs included virtual school programs, such as **Creatures Big & Small** and **Ocean Myth-busters**, multicultural community programs in multiple languages via our **Day at the Beach** programs, student EXPO presentations, tertiary institute workshops and presentations and refugee and migrant community beach safety sessions.

In the last year we saw our first cohort of Muslim men learn to swim and become official Surf Lifesavers, paving the way for other communities to take up the challenge.

A new initiative to engage schools across the state at the start of summer was also launched and **National Water Safety Day** (Red & Yellow Day) was successfully delivered to over 12,000 school students across NSW.

Aware that access to beach and coastal safety information has been a barrier for many of our communities in the past, the 2021/22 year saw the launch of the **Beach & Coastal Safety Hub**, a place for our communities and service providers to easily and freely access and download a vast array of content that supports beach and coastal safety education. In the last year over **35,000** people engaged with the hub and its resources.

To support learning on the hub, a host of new resources were created and launched into community during the year. Some of these include:

- Development of almost 30 full in language learning pages.
- New Beach Safety Fact sheets in over 30 languages
- New Rock Fishing Safety Fact Sheets in over 10 languages
- New Beach Safety Videos in over 20 languages
- New Rock Fishing Safety videos in over 10 languages
- New Beach Safety Quizzes in 15 languages
- New Rock Fishing Safety Quizzes in 6 languages
- New community stories
- Low-ELP resources
- New International Student Videos

While the development of the digital education space was a priority pre-Covid, the restrictions during Covid only heightened the importance of building a strong digital footprint.

The 2021/22 year saw a **Virtual Reality (VR) Drone Simulation** launched, aimed at engaging participants and students at community and tertiary institute events. This simulation was built to help those with little experience of the coast, to gain a firsthand experience of our beaches and headlands.

New **livestreaming sessions** were also launched and delivered to migrant TAFE classes and school classes across NSW. These sessions brought real time beach hazard tours to screens across the state, talking with lifesavers, lifeguards, and other local experts about surf safety.

In the 2021/22 year, over **20,000** people tuned in to our livestreams from across the state.

From initial analysis of data, we can begin to see positive outcomes from activities and initiatives of the 2021/22 year. Our data suggests an increased coastal safety awareness within specific target communities, an increased awareness of the resources we provide and a marked increase in queries and bookings for programs and views and downloads of digital resources and links.

Additionally, we see increased and diversified opportunities for community engagement and education across virtual, incursion, excursion, digital and online spaces.

DROWNING ANALYSIS

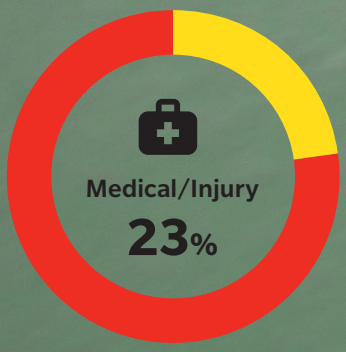
SECTION THREE

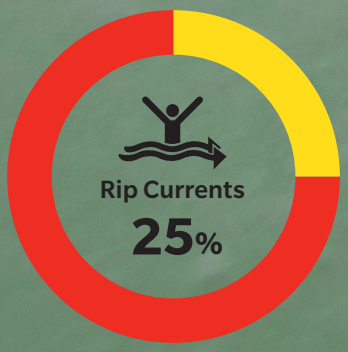
55 COASTAL DROWNING DEATHS

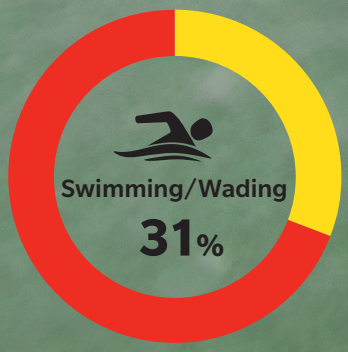
87% MALE

13% FEMALE

DROWNING CAUSAL FACTORS 2012-22







COASTAL DROWNING & FATALITY

2021/22: YEAR IN REVIEW

The 2021/22 season presented many challenges that influenced how we interacted with and recreated on the coast. These included the continued COVID-19 pandemic, widespread flooding associated with La Niña, and coastal erosion due to severe weather events. Surf life saving services again demonstrated their adaptability and resilience in supporting their communities to cope with these challenges.

SLSNSW monitors both drowning deaths and other coastal fatalities to better understand their collective impact on surf life saving services and the New South Wales community. A total of 76 deaths were recorded along the coast in 2021/22. The majority (n=55) were due to drowning, with a further 21 coastal fatalities from other causes (10 of which were unintentional). This year equalled the highest number of drowning deaths recorded since 2004/05, and males continued to be over-represented in drowning statistics (87%), seven times more likely to drown than females. Older individuals, rather than young men, have been identified as a population of concern, with those aged 40-49 and 60-69 years accounting for 26% and 17% of coastal drowning deaths respectively.

Swimming and wading accounted for 29% of coastal drowning deaths (n=16), followed by rock fishing, and boating and personal watercraft (Figure 32). Two in five (42%) drowning deaths occurred between one and five kilometres from a surf life saving service, with most occurring in major cities (56%). This is a reminder that while secluded places away from crowds are appealing to some people for a number of reasons, they are also further away from surf life saving services and increase drowning risk. Fatal coastal incidents can have devastating and long-lasting effects on the health and wellbeing of families and communities, including surf lifesaving personnel.

Research is crucial for monitoring, identifying and determining current, long-term and emergent concerns. This provides the evidence to underpin future prevention strategies and resource allocation to support surf life saving and enable continued service delivery to the community.

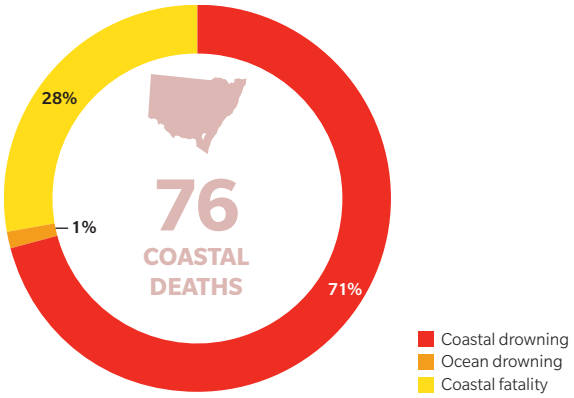
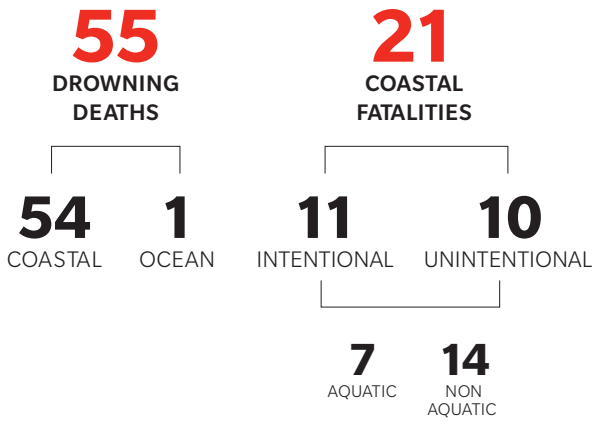


Figure 28
2021/22: OVERVIEW OF COASTAL DEATHS



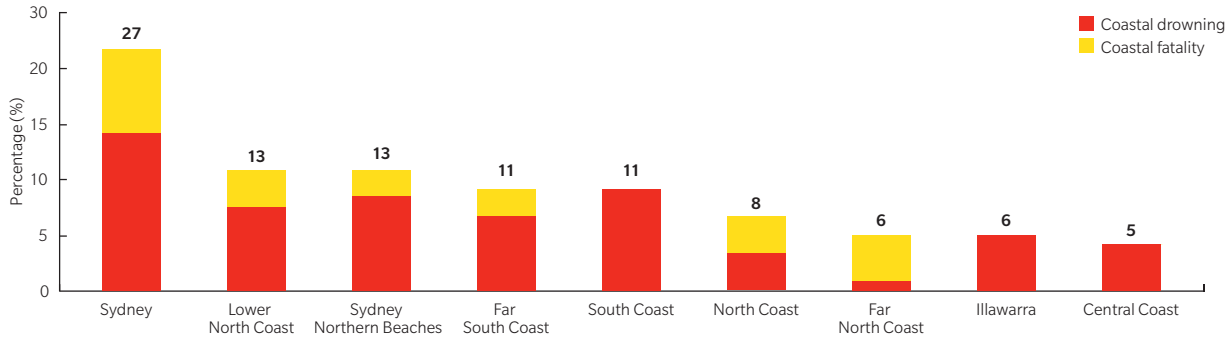


Figure 29
2021/22: PROPORTION OF COASTAL DEATHS BY SLS BRANCH

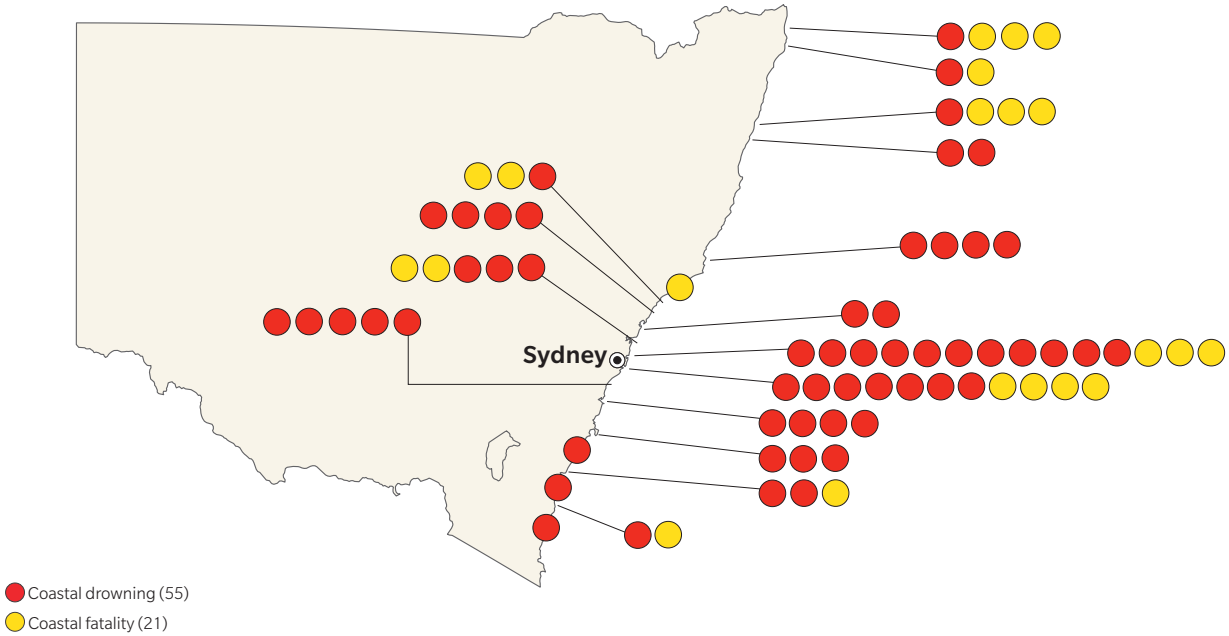


Figure 30

2021/22: COASTAL DROWNING DEATH & FATALITY LOCATIONS

In 2021/22, there were 55 coastal and ocean drowning deaths and 21 other coastal fatalities. Red and yellow numbers indicate numbers of drowning deaths and fatalities respectively.

2021/22: LOCAL GOVERNMENT BLACKSPOTS

A blackspot is an area where a concentration of incidents are recorded and have a high probability/risk of ongoing reoccurrence. These LGAs recorded the highest numbers of fatal coastal incidents in 2021/22.

Randwick: 8
Coffs Harbour: 6
Byron: 4
Northern Beaches: 7
Eurobodalla: 6
Shoalhaven: 4
Wollongong: 6
Woollahra: 5

COASTAL DROWNING

2021/22: YEAR IN REVIEW

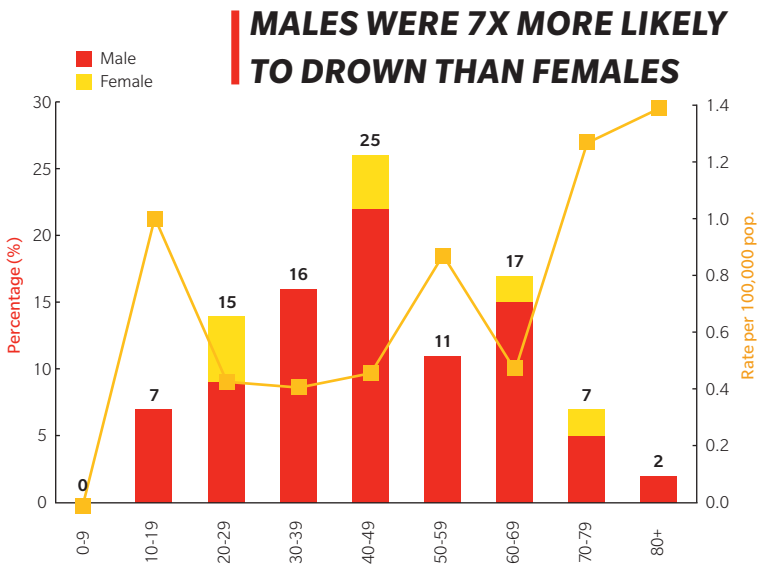


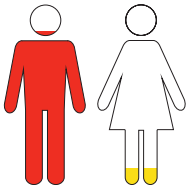
Figure 31

2021/22: COASTAL DROWNING DEATHS BY AGE AND GENDER (N=55)

The highest number of drowning deaths were recorded for individuals aged 40-49 (25%, n=14). This age bracket also had the highest age-specific drowning rate (1.35/100,000 pop.), followed by the 60-69 year old age group (1.03/100,000 pop.). Males accounted for most coastal drowning deaths (87%, n=48, rate: 1.19/100,000 men) and were seven times more likely to drown than females.

55 DROWNING DEATHS

0.68 RATE/100,000 POPULATION



87% 13%

40-49 YEAR OLDS

60-69 YEAR OLDS

The 40-49 year old age group account for 26% of coastal drowning deaths, while 60-69 year olds represent 17%.

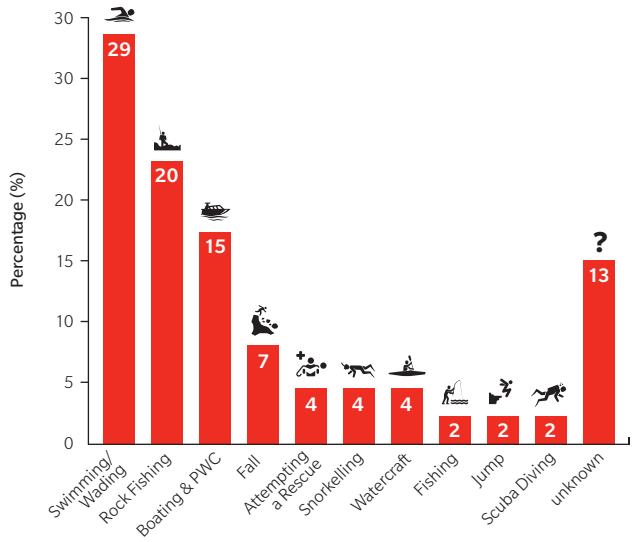


Figure 32

2021/22: DROWNING DEATHS BY ACTIVITY

Swimming/wading recorded the most coastal drowning deaths (29%), followed by rock fishing (20%), and then boating & PWC (15%).

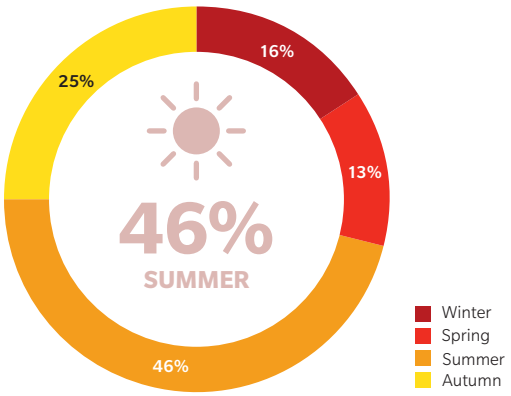


Figure 33

2021/22: DROWNING DEATHS BY SEASON

Almost half of this years drowning deaths (46%, n=25) occurred during summer, particularly in January (18%, n=10).

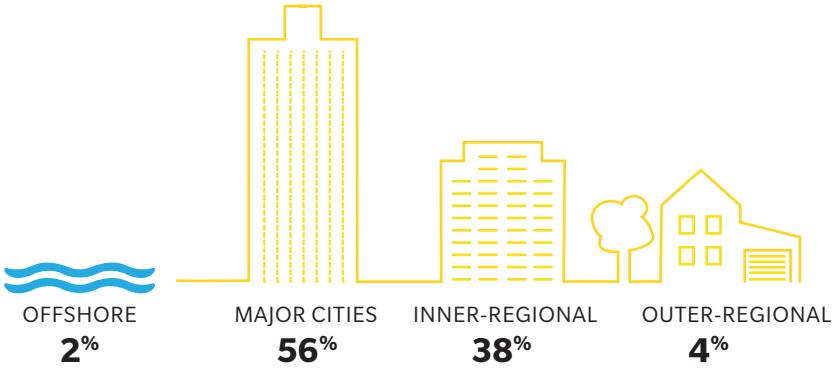


Figure 34

2021/22: REMOTENESS CLASSIFICATION OF COASTAL DROWNING LOCATIONS

Most drowning deaths occurred in major cities (56%), followed by inner-regional locations (38%). The 'remoteness classification' of an incident location was coded to the Australian Statistical Geographic Standard Remoteness Areas.

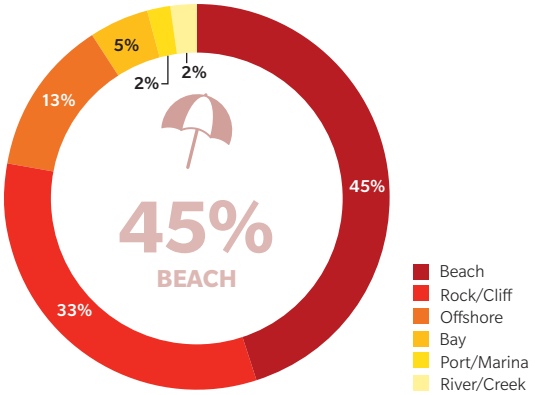


Figure 35

2021/22: DROWNING LOCATION CATEGORY

Almost one in two drowning deaths occurred at a beach (45%), followed by rock/cliff (33%), then offshore locations (13%).

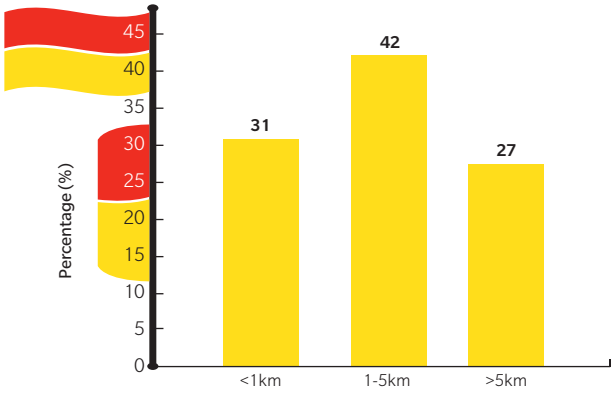


Figure 36

2021/22: DROWNING DISTANCE FROM SURF LIFE SAVING SERVICE

Four in ten coastal drowning deaths (42%) occurred between 1-5km from a Surf Life Saving service (n=23).

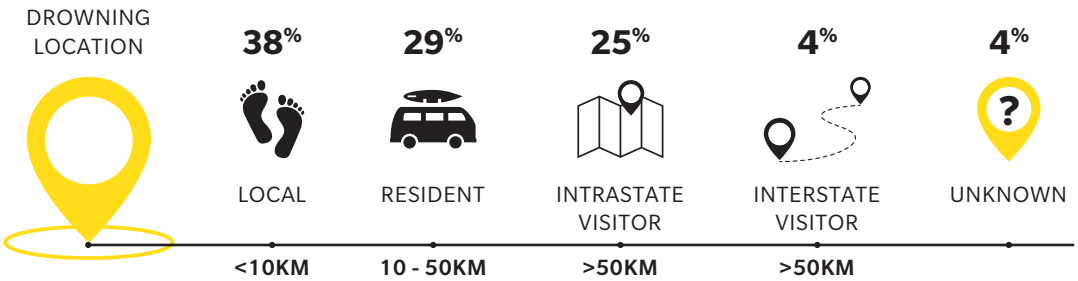


Figure 37

2021/22: RESIDENCE DISTANCE TO DROWNING LOCATION

Most decedents were local to the drowning location (38%), followed by nearby residents (29%).

COASTAL DROWNING

NEW SOUTH WALES 2012-22: 10-YEAR ANALYSIS

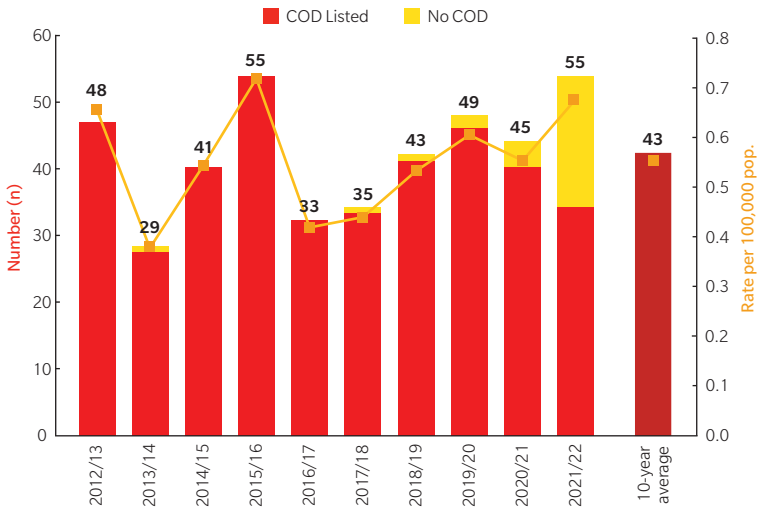


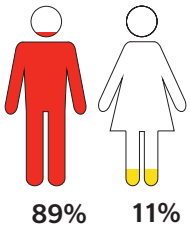
Figure 38

2012-21: COASTAL DROWNING DEATHS (N=443)

55 coastal drowning deaths were recorded in 2021/22, well above the 10-year average (n=43). Similarly the 2021/22 drowning rate (0.68/100,000 pop.) is above the 10-year average (0.56/100,000 pop.).

43
AVERAGE DROWNING DEATHS

0.56
DROWNING RATE/100,000 POP.



20-29
YEAR OLDS

45-54
YEAR OLDS

The 20-29 year old age group accounts for 20% of the coastal drowning burden, while 45-54 year olds represent 18%.

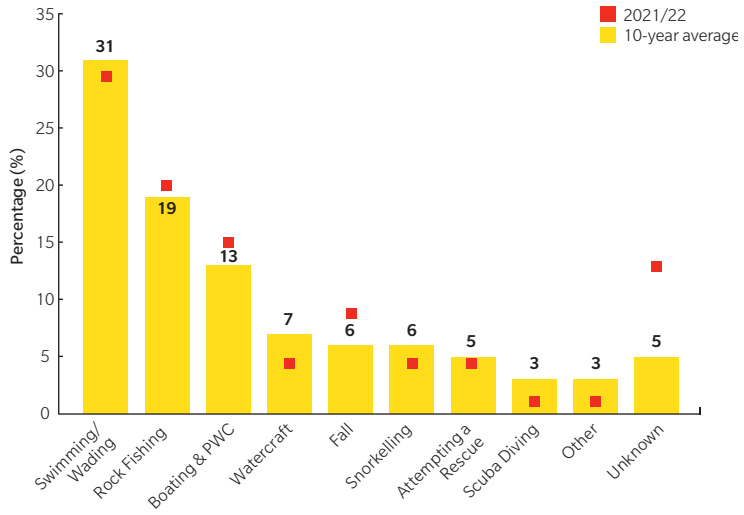


Figure 39

2012-22: PROPORTION OF COASTAL DROWNING DEATHS BY ACTIVITY COMPARED TO 2021/22

Drowning prevalence varies by activity and over time. Since 2012, swimming/wading has recorded the most drowning deaths (31%, n=134), followed by rock fishing (19%, n=83), then boating (13%, n=57).

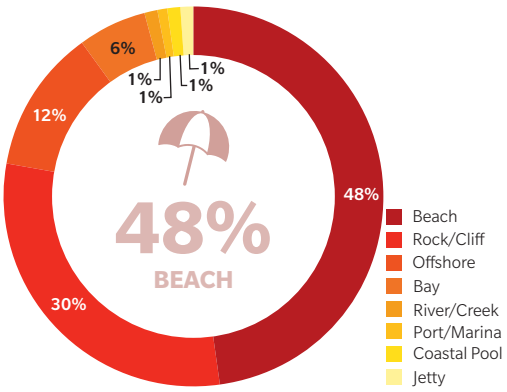


Figure 40

2012-22: DROWNING LOCATION CATEGORY

Beaches are the leading location for coastal drowning (48%, n=210), followed by rock/cliff (30%, n=129), then offshore (12%, n=53) locations.

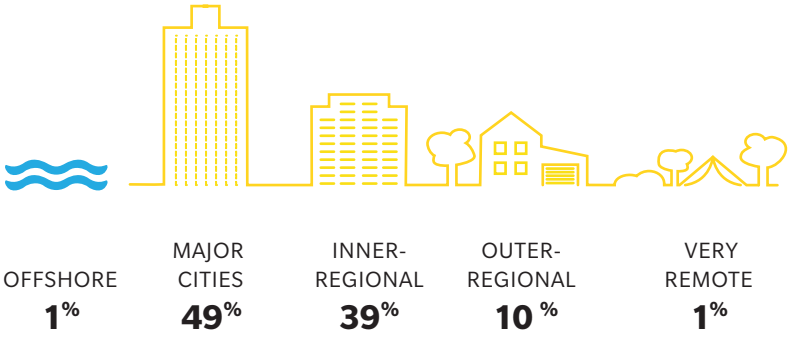


Figure 41

2012-22: REMOTENESS CLASSIFICATION OF COASTAL DROWNING LOCATIONS

Half of all coastal drowning deaths have occurred in major cities (49%, n=213), followed by inner (39%, n=170) and outer-regional (10%, n=42) locations. The 'remoteness classification' of an incident location was coded to the Australian Statistical Geographic Standard Remoteness Areas.

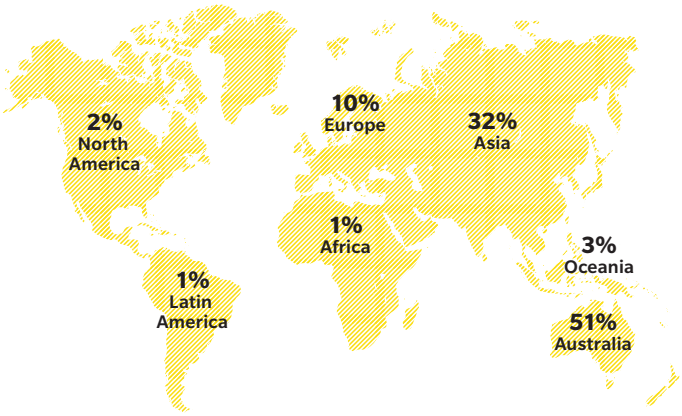


Figure 42

2012-22: BIRTH CONTINENT OF DECEDENT

Birth continent is known for 84% of coastal drowning deaths (n=365), of these 51% of decedents were Australian-born (n=185), 32% born in Asia (n=116), and 10% born in Europe (n=38).

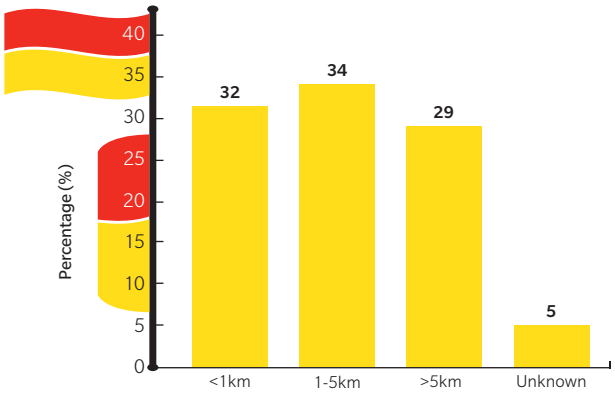


Figure 43

2012-22: DROWNING DISTANCE FROM SURF LIFE SAVING SERVICE

One in three coastal drowning deaths occurred greater than 5km from a Surf Life Saving service (29%, n=124).

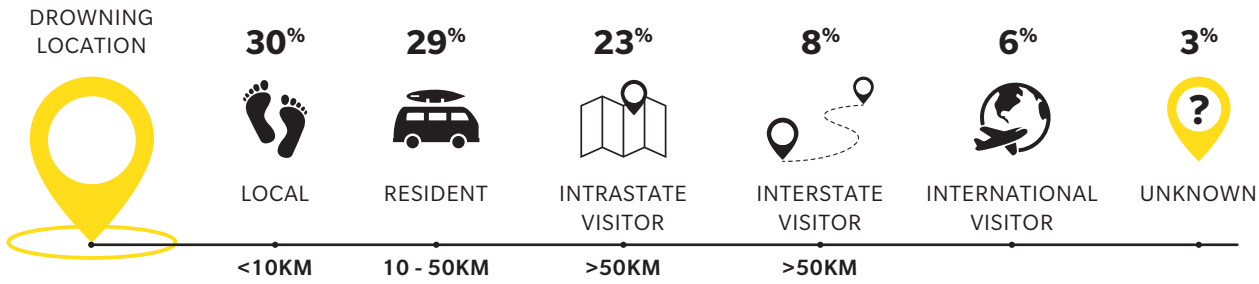


Figure 44

2012-22: DROWNING DISTANCE FROM PLACE OF RESIDENCE

Most decedents were local to the drowning location (30%, n=128), followed by nearby residents (29%, n=127), then intrastate visitors (23%, n=101).

COASTAL UNINTENTIONAL FATALITIES

NEW SOUTH WALES 2012-22: 10-YEAR ANALYSIS

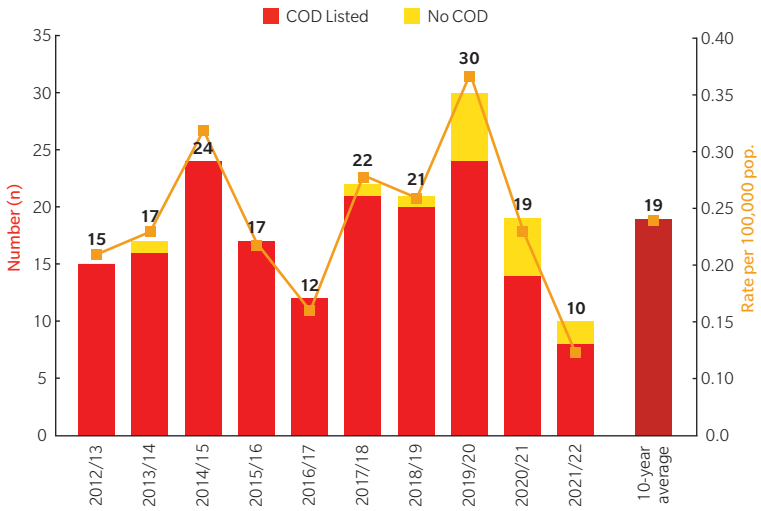


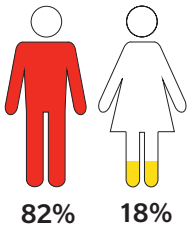
Figure 45

2012-21: COASTAL FATALITIES (N=187)

Ten unintentional coastal fatalities were recorded in 2021/22, well below the 10-year average (n=19). Similarly the 2021/22 fatality rate (0.12/100,000 pop.) is below the 10-year average (0.24/100,000 pop.).

19
AVERAGE COASTAL FATALITIES

0.24
FATALITY RATE/100,000 POP.



55-64
YEAR OLDS

65-74
YEAR OLDS

The 55-64 year old age group account for 30% of the unintentional coastal fatality burden, while 65-74 year olds represent 17%.

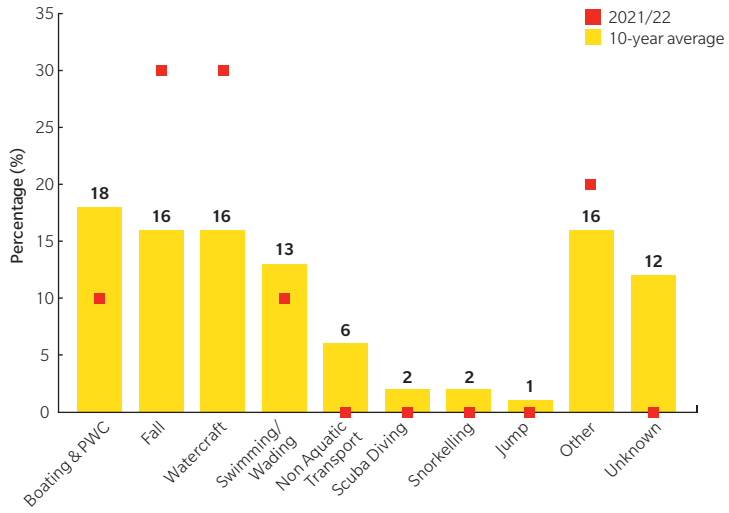


Figure 46

2012-22: PROPORTION OF UNINTENTIONAL COASTAL FATALITIES BY ACTIVITY COMPARED TO 2021/22

Unintentional fatality prevalence varies by activity and over time. Since 2012, boating & PWC has recorded the most unintentional deaths (18%, n=33), followed equally by falls and watercraft (16%, n=29 each).

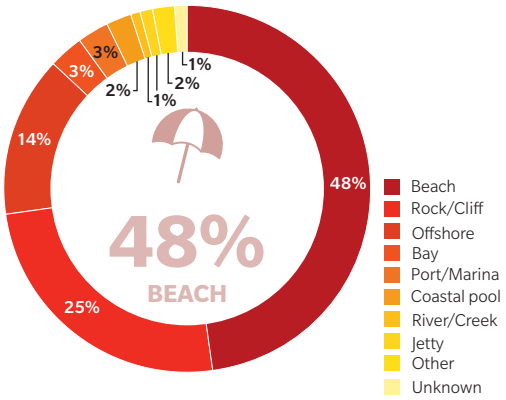


Figure 47

2012-22: FATALITY LOCATION CATEGORY

Beaches are the leading location of unintentional coastal fatalities (48%, n=90), followed by rock/cliff (25%, n=46), then offshore locations (14%, n=27).

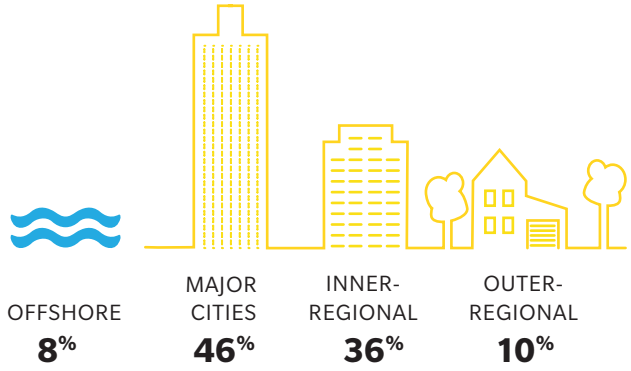


Figure 48

2012-22: REMOTENESS CLASSIFICATION OF COASTAL FATALITY LOCATIONS

One in two coastal fatalities occurred in major cities (46%, n=85), followed by inner (36%, n=65) and outer-regional (10%, n=18) locations.

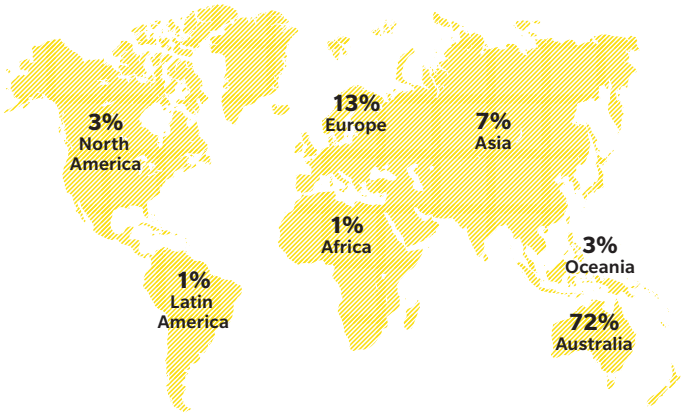


Figure 49

2012-22: BIRTH CONTINENT OF DECEDENT

Birth continent is known for 81% of coastal fatalities (n=151), of these 72% of decedents were Australian-born (n=109), 13% born in Europe (n=20), and 7% born in Asia (n=10).

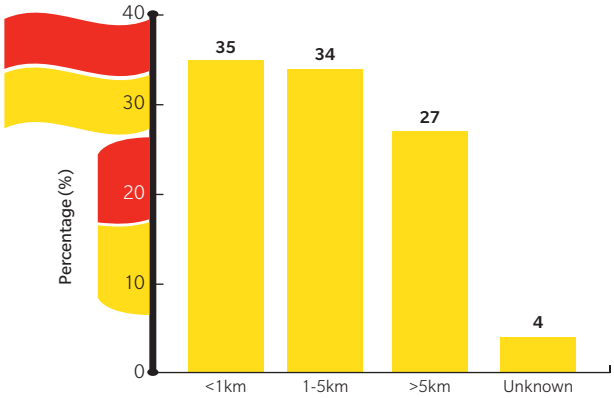


Figure 50

2012-22: FATALITY DISTANCE FROM SURF LIFE SAVING SERVICE

One in four recorded unintentional fatalities occurred greater than 5km from a Surf Life Saving service (27%, n=50).

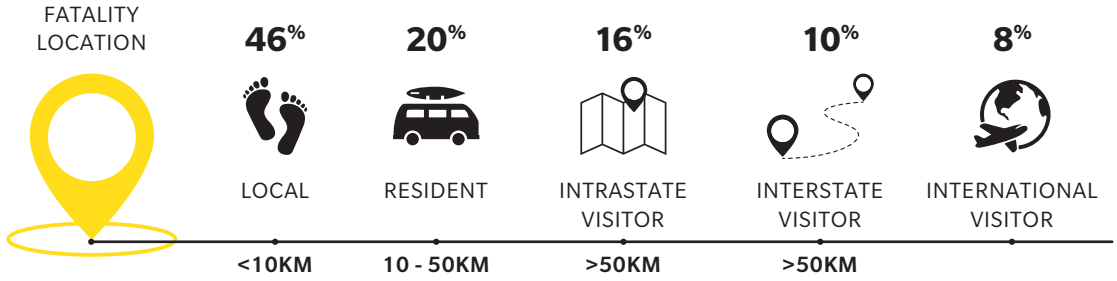


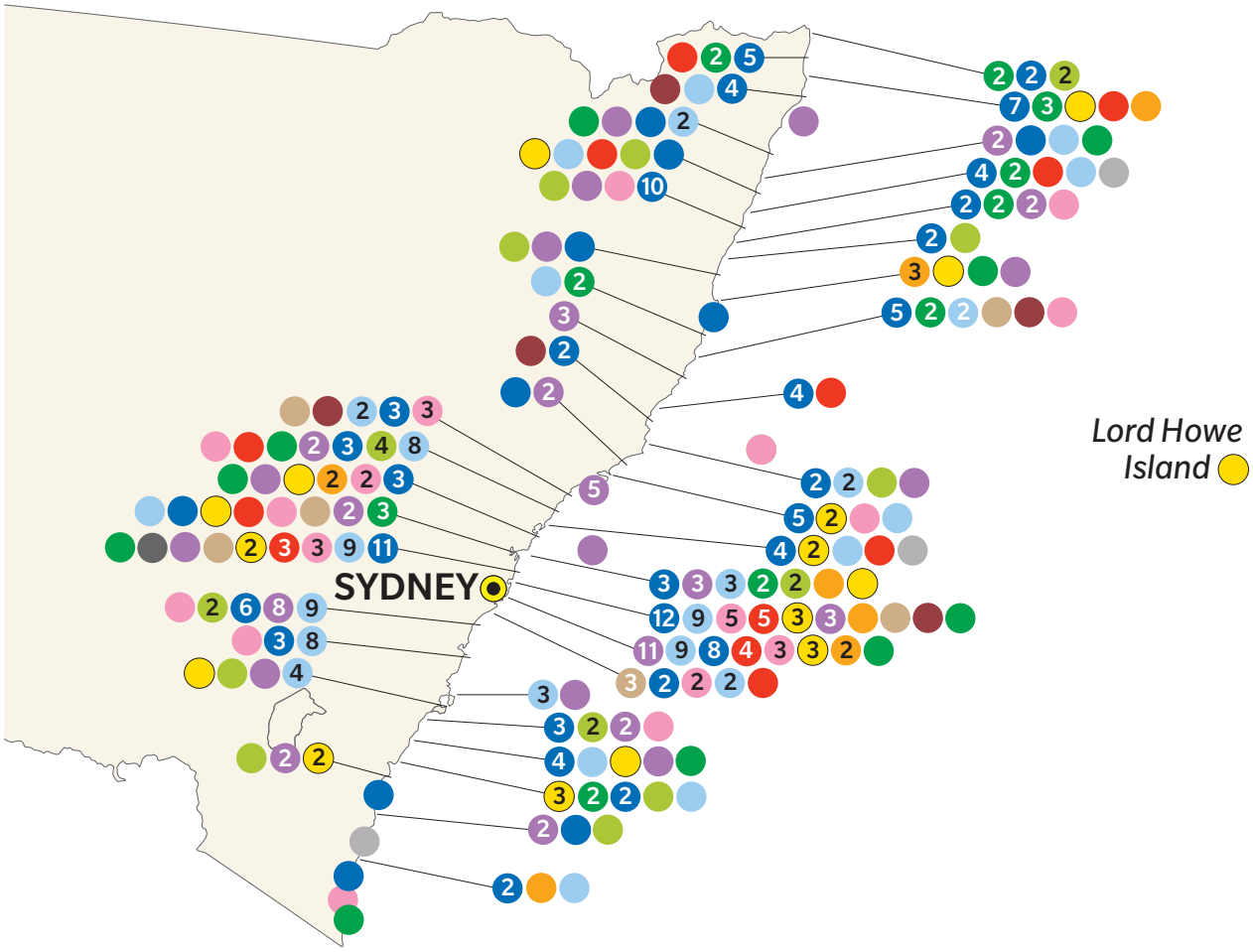
Figure 51

2012-22: FATALITY DISTANCE FROM PLACE OF RESIDENCE

One in two decedents were local to the fatality location (46%, n=77), followed by nearby residents (20%, n=33), then intrastate visitors (16%, n=27).

DROWNING LOCATIONS

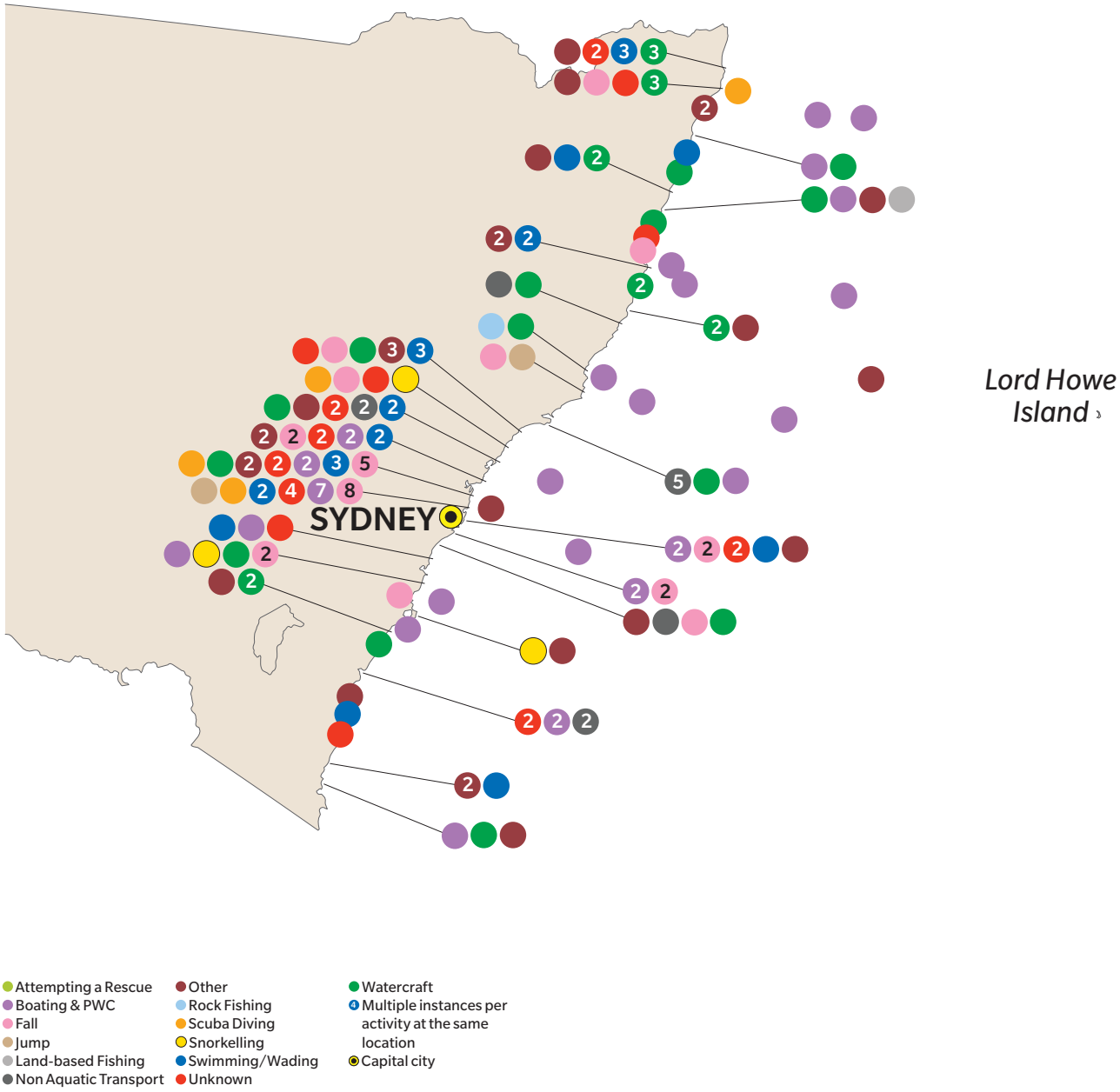
NEW SOUTH WALES 2012-22: 10-YEAR REVIEW



- Attempting a Rescue
- Boating & PWC
- Fall
- Jump
- Land-based Fishing
- Non Aquatic Transport
- Other
- Rock Fishing
- Scuba Diving
- Snorkelling
- Swimming/Wading
- Unknown
- Watercraft
- Multiple instances per activity at the same location
- Capital city

UNINTENTIONAL FATALITY LOCATIONS

NEW SOUTH WALES 2012-22: 10-YEAR REVIEW



DROWNING VS. FATALITY

2012-22: CAUSAL ANALYSIS

Surf life saving personnel respond to a wide range of incidents, regardless of their cause. To develop a holistic understanding of coastal deaths, SLSNSW has been collecting information on both drowning deaths and other coastal fatalities. This will improve our understanding of the challenges our surf lifesavers may face on patrol, and enable better resource allocation for effective and continued service delivery.

Causal factors differ between drowning deaths and other coastal fatalities. Rip currents were a dominant contributing factor in drowning deaths (25%), but only 3% of coastal fatalities were rip-related. Medical conditions and injuries contributed to four in five coastal fatalities (78%), compared to one in four drowning deaths (23%). Specifically, medical conditions contributed to 44% of coastal fatalities and 16% of drowning deaths, while injuries contributed to 35% of coastal fatalities and 9% of drowning deaths. A greater proportion of coastal fatalities occurred among older populations, with 30% of incidents occurring among those aged between 55 and 64 years. The majority of these were related to medical conditions, as may be expected with increased age.

Alcohol and drugs were also prevalent in unintentional coastal deaths, contributing to 12% of drowning deaths and 10% of coastal fatalities. Younger populations made up the greatest proportion of these incidents, with one in four (26%) toxicant-related drowning deaths and one in three (32%) toxicant-related coastal fatalities occurring among those aged 20-29 years.

Identifying high risk groups and understanding the influence of different causal factors on coastal deaths guides the development and design of coastal safety interventions that work to safeguard the community.

MEDICAL FACTORS/INJURY CONTRIBUTED TO 23% OF DROWNING DEATHS, BUT 78% OF COASTAL FATALITIES

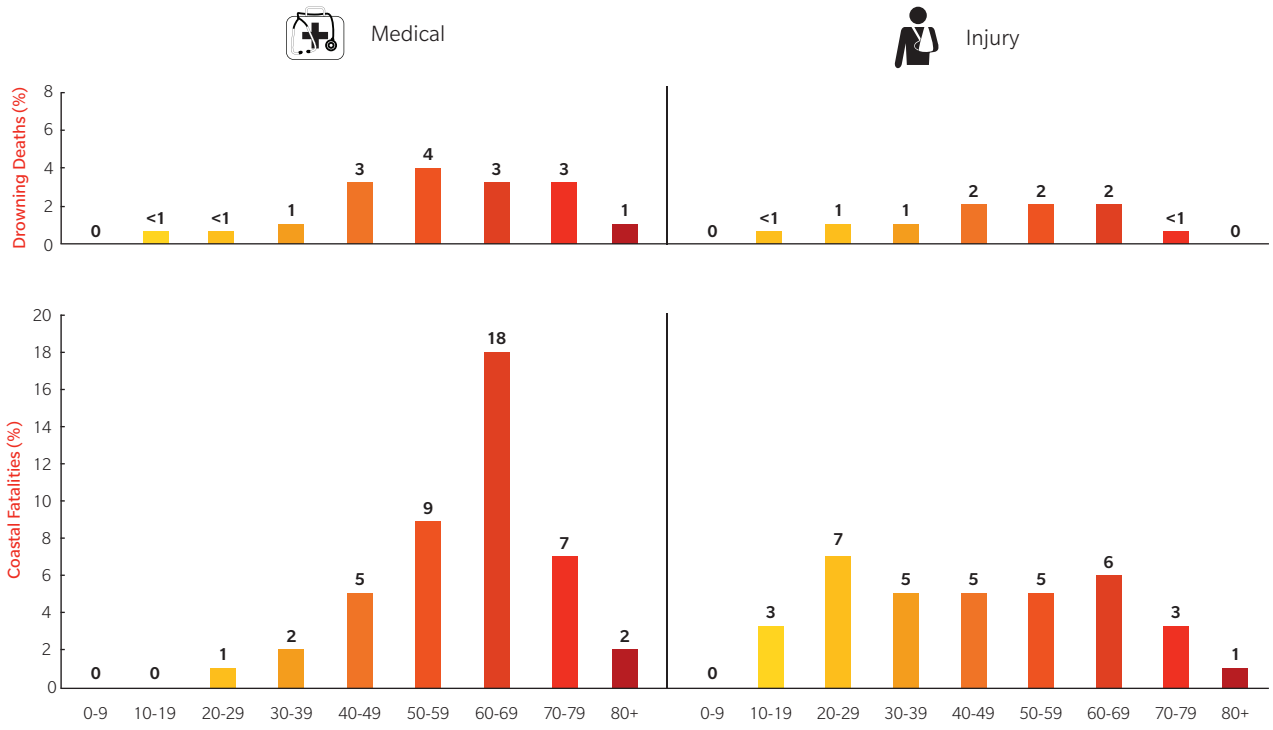


Figure 52
2012-22: PREVALENCE OF MEDICAL & INJURY BY AGE

DROWNING			FATALITY	
HOW				
25% RIP-RELATED	**42%** **NOT** RIP-RELATED		**3%** RIP-RELATED	**72%** **NOT** RIP-RELATED
16% MEDICAL FACTOR	**27%** 50-59 YEARS OLD		**44%** MEDICAL FACTOR	**41%** 60-69 YEARS OLD
9% INJURY	**46%** 50-69 YEARS OLD		**35%** INJURY	**22%** 20-29 YEARS OLD
12% ALCOHOL/DRUGS	**26%** 20-29 YEARS OLD		**10%** ALCOHOL/DRUGS	**32%** 20-29 YEARS OLD
WHO				
77% AUSTRALIAN RESIDENT	**32%** ASIAN-BORN		**82%** AUSTRALIAN RESIDENT	**13%** EUROPEAN-BORN
51% AUSTRALIAN-BORN	**31%** SWIMMERS/WADERS		**72%** AUSTRALIAN-BORN	**18%** BOATERS & PWC USERS
30% LOCALS (LIVE <10KM FROM INCIDENT)	**20%** 20-29 YEARS OLD		**46%** LOCALS (LIVE <10KM FROM INCIDENT)	**30%** 55-64 YEARS OLD

GLOSSARY

Adult – For the purpose of this report, adult refers to a person 16 years of age and over.

Advanced Resuscitation Techniques – A certification providing the skills and knowledge required to use specialised equipment in the provision of resuscitation in line with the Australian Resuscitation Council (ARC) guidelines.

ALS – Australian Lifeguard Service.

Apply First Aid – A certification providing the skills and knowledge required to provide a first aid response to a casualty.

Aquatic Fatality – refer to non-drowning related incidents which have occurred at a coastal location in the water.

Attempting a rescue – Trying to retrieve a person in distress and deliver them to a place of safety.

AWSC – Australian Water Safety Council also Australian Water Safety Conference.

AWSS – Australian Water Safety Strategy.

Bay – A body of water partially enclosed by land but with a wide mouth, affording access to the sea.

Beach – A wave-deposited accumulation of sediment –usually sand, but ranging in size up to boulders, deposited between the upper swash limit and wave base.

Blackspot – An area where incidents are concentrated and a high probability/risk of ongoing recurrence.

Boating – Using either a powered vessel or sailing boat for recreation and/or fishing.

Bystander – A person who is present at an incident but not part of it initially.

Coastal – Describes the foreshore, seabed, coastal water and air space above a large body of water (harbour/bay/inlet), including areas up to 3nm offshore and of which the landward boundary is the line of mean high water, except where that line crosses a river/inlet, the landward boundary at that point shall be the point upstream that is calculated by multiplying the width of the river/inlet mouth by five. (Adopted from the Resource Management Amendment Act 1993 New Zealand).

COD – Cause of death.

Dangerous surf warning – An alert issued by the Bureau of Meteorology indicating that surf conditions in an area are unsafe for coastal activities. The warnings are calculated based on wave height, swell direction and swell period and must exceed the predetermined limitations to be in effect.

Drowning – The process of experiencing respiratory impairment from submersion/immersion in liquid; outcomes are classified as death, morbidity and no morbidity.

Drowning death – A fatal drowning incident arising from the process of respiratory impairment as a result of submersion/immersion in liquid.

Drugs – A medicine or other substance which has a physiological effect when ingested or otherwise introduced to the body. The category includes therapeutic, over-the-counter and illicit drugs.

Emergency response – An action taken by an SLS entity in response to a call for assistance from an emergency management organisation.

Falls (trips/slips) – Events that result in a person coming to rest inadvertently on the ground or other lower level.

Fatality – A fatal incident arising from circumstances other than drowning (eg. Medical condition, injury, self-harm, marine creature).

First Aid – Assessments and interventions that can be performed by a bystander (or by the victim) with minimal to no equipment.

Fishing – The act of attempting to catch fish from anywhere except coastal rock platforms

Foreign ethnicity – Describes an individual who identifies with a cultural group other than Australian based on heritage, language or shared customs. This identification is extrapolated from reported data such as the individuals' country of birth and the main language spoken at home.

Hazard – A source of potential harm.

ILS – International Life Saving Federation.

Incident – Any unplanned event requiring lifesaving services intervention.

Inland – An area that is beyond the line of mean high water or within a landward distance of five times the width of the coastal inlet/river mouth.

Inshore – The coastal water area within 500m of the low tide area of the foreshore.

Intentional fatality – Any intentional incident, including homicide and self-harm related incidents.

International – Describes an individual who is confirmed to reside overseas and/or is a temporary visitor to Australia.

IRB – Inflatable rescue boat.

IRD – Incident report database. A web-based portal used by SLS services to electronically record incident reports.

Jetty – An artificial structure that projects out into the water from land.

JRB – Jet rescue boat.

Jump(ing) – The activity of launching off a cliff, rock platform, pier, jetty. Aka tombstoning (UK/Europe/North America).

Lake – An inland body of water surrounded by land.

Lifeguard – An individual who undertakes patrols at a beach or another aquatic environment. He/she is typically a salaried member, qualified in public safety and aquatic rescue.

Lifejacket – A buoyant or inflatable garment or device designed to keep a person afloat in water and increase their likelihood of survival.

Lifesaving Service – A coordinated group that exists to provide aquatic safety services to the public. This includes Surf Life Saving Clubs, Lifeguards, SurfCom, RWCs, RIBs, JRBs, ORBs, Rescue Helicopters and 4WD units.

Local Government Area (LGA) – Also known as local councils, LGAs include cities, towns, shires, municipalities or boroughs.

Marina – a man-made boat basin having sea walls or breakwaters and offering dockage and other services for water vessels.

Medical – For the purpose of this report, medical refers to an aquatic incident that was caused by a medical episode, e.g. a heart attack or epileptic seizure.

Mortality rate – A comparative rate of mortality to the size of the population for a given area or activity.

NCIS – National Coronial Information System.

NCSS – The National Coastal Safety Survey conducted annually to gather information about Australian coastal participation, swimming ability, risk perception, behaviours and attitudes to coastal safety.

Non aquatic fatality - Non-aquatic fatalities refer to non-drowning related incidents which have occurred at a coastal location but not in the water.

Non aquatic transport – Any form of transport that is not meant for the water such as airplanes, bicycles, and motor vehicles.

Ocean – The seabed, water and air space above the water between 3nm and 12nm (the Australian Territorial Sea) offshore.

Offshore – Describes the coastal water area beyond the surf zone and inshore area from 500m to 200nm.

ORB – Offshore rescue boat.

Other – An uncommon known activity not otherwise listed (e.g., paragliding, jogging).

Patrol – Service undertaken to monitor activities in/around an aquatic environment and respond accordingly through either preventative actions or rescue operations.

Patrol flags – Red and yellow horizontally divided flags which are set after performing a risk assessment to determine the most suitable area for swimming. The flags identify a zone for swimming and bodyboarding within a patrolled location.

Patrolled location – A location supervised by a lifesaving service.

Preventative action – Direct action taken to reduce or eliminate the probability of a specific rescue, first aid or other reportable incident from happening in the future.

PWC – Personal water craft, also known as a jet ski.

Rescue – The retrieval of a person in distress, delivering them to a place of safety and the application of first aid and basic life support as may be required.

Resuscitation – Prevention or restoration of life by establishing and maintaining a person's airway, breathing and circulation.

RIB – Rigid-hull inflatable boat.

Rip current – A seaward flowing current of water moving through a surf zone.

River – A natural stream of water flowing into an ocean, lake or other body of water.

Rock/cliff – A rock platform that may or may not have a high steep face.

Rock fishing – The act of attempting to catch fish from a coastal rock platform .

Rock shelf – A section of rock above or below the water level that projects out from the coast.

RWC – Rescue water craft.

Scuba diving – Swimming underwater with the aid of scuba equipment for recreational or commercial purposes.

Service season and hours – Vary between states due to climatic factors, but in the context of this report, the season is for the period July 2020 to June 2021.

Snorkelling – Swimming with a snorkel and face mask. Includes freediving and spearfishing.

SurfCom – SLS radio communications centre that assists in managing the communications of lifesaving operations and data collection.

Surf lifesaver – An individual who undertakes patrols at a beach or other aquatic environment. They are typically a nonsalaried member qualified in public safety and aquatic rescue.

Surf Life Saving Club – A SLS affiliated not-for-profit organisation that has volunteer members who provide coastal safety services to the community.

Swimming – Moving through water by moving the body or parts of the body.

Territorial seas – The seaward limits of Australia's maritime zones, from the coastline to 12nm from the low tide line.

Total Service Plan – An assessment of current and future lifesaving resources, trends, national blackspots and coastal safety issues combined with evidence-based mitigation strategies to address these issues.

Toxicity – The degree to which a chemical substance or a particular mixture of substances is toxic or poisonous to an organism. In the context of this report, toxicity refers to alcohol or drug use by a victim.

Unintentional fatality – Deaths other than drowning deaths (such as medical incidents, injury, accidents, or marine creature), excluding homicide and self-harm related incidents.

Wading – Walking through water while partially immersed.

Watercraft – A piece of non-powered recreational equipment used in water. Examples include surfboards, stand-up paddle boards, bodyboards, windsurfers or kayaks.

REFERENCE

METHODOLOGY

The Surf Life Saving New South Wales Coastal Safety Report 2022 contains information on community behaviours and attitudes to the coast; SLSNSW capability and membership capacity; rescues and emergency response; and coastal drowning deaths and other fatalities that occurred along the New South Wales coast during the period of 1 July 2021 to 30 June 2022. This information is correct as of 11 August 2022. All care is taken to ensure the statistical information included within this report is correct. However, pending the outcome of ongoing coronial investigations and as SLSNSW update their operational information, this data may be amended. Data in figures may not always add up to 100% due to rounding. Total mortality rates were calculated using the number of deaths divided by the population (per 100,000) from Australian Bureau of Statistics, while comparative activity mortality rates used the number of coastal participants (per 100,000 participants) identified in the National Coastal Safety Survey for New South Wales.

THE AUSTRALIAN COMMUNITY ANALYSIS

Information about community swimming ability, behaviours and attitudes to coastal safety, risk perceptions, safety strategies and rescues was gathered from the SLSA National Coastal Safety Survey. Conducted by Omnipoll Market Research, the latest survey was run online over the period 7 to 29 April 2022 among a national sample of 3,052 respondents aged 16 and above. The study was carried out in compliance with AS-ISO 20252 - Market, Social and Opinion Research. To reflect the population distribution, results were post-weighted (on age, gender, geographic strata and education) and projected to Australian Bureau of Statistics data. The Australian population aged 16 and above (the reference population for this survey) is 18,712,000. For this report, data has been summarized using New South Wales participant responses from the National Coastal Safety Survey 2022.

CAPABILITY AND RESCUE ANALYSIS

SurfGuard, the Incident Report Database (IRD) and SurfCom management system (SurfCom) are web-based applications and part of a suite of applications that enable members, SLS clubs, SLS branches, SLSNSW and SLSA to enter and access SLS operational (including rescues and first aids), capability (including assets and services), educational and administrative data. Information was extracted from SurfGuard to identify how many rescues were performed by volunteers, lifeguards and lifesaving services during 2021/22; and how many active surf lifesavers and award holders there were during 2021/22. Information about assets and services was also gathered from SLSNSW.

DROWNING & FATALITY DATA ANALYSIS

SLSA collects incident data from SurfGuard, the IRD, SurfCom, the National Coronial Information System (NCIS) and by monitoring media reports for coastal and ocean incidents. The information is verified in conjunction with SLSNSW and compiled for analysis by SLSA's Coastal Safety Department. The following variables are used to match fatal incidents from more than one data source: incident date; location; age; gender; and incident description. The NCIS is considered the 'gold standard' when there is a discrepancy in the detail collected from different data sources. Deaths are excluded as a coastal drowning if they are reported as 'intentional deaths', they occur at inland locations, or 'drowning/ immersion' is not a contributory factor as noted by the coroner. Coastal incidents that are deemed intentional or not due to drowning/ immersion are logged as coastal fatalities instead.
This report presents information on drowning deaths and other non-drowning fatalities that have occurred along the New South Wales coast. We explore incidents that have occurred between 1 July 2012 and 30 June 2022. The authors are responsible for the use made of the data in this report.

DROWNING DATA LIMITATIONS

Over years of investigation as part of the NCIS process, some cases are amended prior to their closure, resulting in changes to the classification of cases in our datasets. Therefore, the number of coastal drowning deaths published in this report may be different from annual totals previously reported. In an effort to produce a timely report on our current year's data we acknowledge that these figures will change. Each year, the changes that occur in the previous year's report will be made transparent. The data in this current report are not the final figures as 85% of 2021/22 New South Wales coastal drowning deaths and 57% of 2021/22 New South Wales coastal fatalities recorded remain open cases and 68% of 2021/22 New South Wales cases do not yet have a cause of death (COD) listed (see Figure 38 and 45). Once NCIS closes a case, SLSA modifies those with unknown intent and those where the cause of death is not drowning, from 'coastal drowning' to 'coastal fatality'. The incidents are included in our annual totals and analysis, and they will remain so until a COD is listed other than drowning/immersion.

CHANGES FROM PREVIOUS REPORTS

As part of the NCIS investigation process, some cases are amended prior to their closure and have resulted in changes to our datasets. This year SLSA has commenced a thorough review of its coastal and ocean fatality database to update all cases to the same inclusion standards. See Table across.

TABLE 1

Changes to the number of coastal and ocean drowning deaths as previously reported in the *Surf Life Saving New South Wales Coastal Safety Reports*.

Financial year	NSWCSR 2018	NSWCSR 2019	NSWCSR 2020	NSWCSR 2021	NSWCSR 2022
2012/13	46	49	49	48	48
2013/14	29	29	29	29	29
2014/15	37	39	41	41	41
2015/16	53	56	56	55	55
2016/17	33	33	10	33	33
2017/18	39	36	34	35	35
2018/19		44	43	42	43
2019/20			49	49	49
2020/21				45	45
2021/22					55

SUGGESTED CITATION: Surf Life Saving Australia and Surf Life Saving New South Wales, 2022. *Surf Life Saving New South Wales Coastal Safety Report 2022*. Surf Life Saving, Sydney.

REFERENCES

- Australian Bureau of Statistics, 2022, National State and Territory population, accessed 18 August 2022, https://www.abs.gov.au/statistics/people/population/national-state-and-territory-population/dec-2021
- SLSA National Coastal Safety Survey 2022

ACKNOWLEDGEMENTS

Surf Life Saving Australia and Surf Life Saving New South Wales wish to thank the following organisations and people for their contribution to the Surf Life Saving New South Wales Coastal Safety Report 2022: the Australian Government (Department of Health); National Coronial Information System (Jessica Bryan); Department of Justice and Community Safety; Omnipoll (Frederic Anne); and SLSA major national corporate partners (Ampol, DHL, Isuzu, and Westpac).

SLSNSW also wish to thank the NSW Government through Resilience NSW, NSW Department of Primary Industries, NSW Ministry of Health, and Office of Sport for funding essential coastal surveillance, public safety, and drowning prevention programs and initiatives. In addition, SLSNSW would like to thank coastal Local Government Areas and NSW National Parks and Wildlife Service.

Finally, thanks to the Surf Life Saving Clubs, Surf Life Saving Branches, Support Operations, and other emergency services in New South Wales for their efforts to prevent drowning and injury on our coastline.

This report was compiled by Surf Life Saving Australia and Surf Life Saving New South Wales, in particular the following: Shane Daw, General Manager - Coastal Safety; Belinda Cooper, Project Coordinator Coastal Safety; Jasmin Lawes, Researcher; Sean Kelly, Research Assistant; Jamie Findlay, Lifesaving Operations Manager; Sandi Davis, Lifesaving Services Coordinator; and Kirk Patton, Coastal Safety Support Officer (Surf Life Saving Australia). Nick Mulcahy, Coastal Risk and Research Manager; Chris Twine, Coastal Risk and Research Coordinator; Elise Hancock, Senior Graphic Designer; and Donna Wishart, Communications and Engagement Manager (Surf Life Saving New South Wales).

Design: Anika Martin, missluzi design. Maps: John Frith, Flat Earth Mapping.

Australian Government
Australian Institute of Health and Welfare

NCIS

CONTACT INFORMATION

SLSA and SLSNSW receives Government funding to commence valuable initiatives and programs. However, we rely on the generosity of the community and corporate support to ensure they continue.

For more information:

Surf Life Saving Australia—sls.com.au
Surf Life Saving New South Wales—surflifesaving.com.au

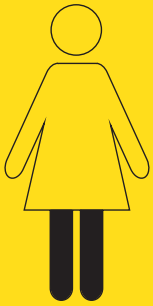
COASTAL SAFETY REPORT

NEW SOUTH WALES 2021/22

COASTAL AND OCEAN DROWNING DEATHS

87%
MALE

13%
FEMALE



29%
SWIMMING / WADING

UNINTENTIONAL COASTAL FATALITIES (NOT DROWNING RELATED)

70%
MORE THAN 1KM FROM A SLS SERVICE

40%
AT THE BEACH

SURF LIFE SAVING NSW AND AUSTRALIAN LIFEGUARD SERVICE

791
SURF EMERGENCY RESPONSE SYSTEM ACTIVATIONS

4,257
RESCUES

10,533
FIRST AIDS

606,086
PREVENTATIVE ACTIONS

NB: Arrows indicate the direction of change from last year's statistics