



Western
Australia

COASTAL SAFETY REPORT

2023

COASTAL DROWNING SNAPSHOT

WESTERN AUSTRALIA 2022/23

KEY DEMOGRAPHICS

21 COASTAL
DROWNING
DEATHS

*Arrow denotes change
from 10-year average

17% ↑

90% MALE



LOCATION



52%
BEACH



19%
OFFSHORE



43%
REMOTE AREAS



90%
>1KM FROM
SLS SERVICE

ACTIVITY



19%
SNORKELLING



19%
WATERCRAFT



19%
BOATING & PWC



19%
SWIMMING/WADING

CONTENTS

INTRODUCTION

01

COMMUNITY

SECTION 1

03

COASTAL VISITATION & PARTICIPATION
ACTIVITY PARTICIPATION
SWIMMING ABILITY & RIP CURRENTS
COASTAL SAFETY

DROWNING ANALYSIS

SECTION 2

11

COASTAL DROWNING & FATALITY
COASTAL DROWNING 2022/23
COASTAL DROWNING 2013-23
DROWNING LOCATIONS
UNINTENTIONAL FATALITY 2013-23
FATALITY LOCATIONS

GLOSSARY

23

REFERENCES

25



INTRODUCTION

Western Australia is renowned for its extensive and diverse coastline. Over the 2022/23 year, the National Coastal Safety Survey (NCSS) estimates that 1.7 million Western Australian adults (aged 16 years and above) visited the coast, averaging 3.8 visits each month. This suggests that Western Australians made approximately 70 million individual visitations to the coast last year, with many visiting unpatrolled locations. Coastal activities are popular, with an estimated 1.4 million coastal activity participants in Western Australia. Swimming/wading was the most popular activity (61%), followed by boating (22%) and then snorkelling (18%).

In the past year, lifesaving personnel have rescued, provided first aid, and prevented accidents for nearly 70,000 people. If not for these brave actions, the number of drowning deaths and fatalities would be much higher. Tragically, despite these incredible efforts, a total of 36 lives were lost along the Western Australian coast, of which 21 have been attributed to drowning. The number of coastal drowning deaths for this year were higher than both last year (24%, n=17) and the ten-year average (17%, n=18).

Swimming/wading, boating & PWC, watercraft, and snorkelling each accounted for 19% of fatal drowning deaths. One in two coastal drowning deaths occurred on beaches, with a further 19% in offshore waters. Males continue to be overrepresented in coastal drowning statistics, accounting for nine in ten Western Australian coastal drowning deaths. Older Australians were again highlighted as an emerging high-risk demographic, with 65-74 and 55-64-year-olds each accounting for 29% of Western Australia's coastal drowning deaths.

Since 2013/14, alcohol and drug consumption has contributed to one in four Western Australian coastal drowning deaths, while rip currents are known to have contributed to one in ten. The majority of drowning deaths involved intrastate visitors who live within Western Australia, while 39% of decedents were born overseas.

The aspirational vision for Surf Life Saving Western Australia to have zero preventable deaths in Western Australian waters must be maintained and championed if we are to reduce deaths and injuries in the future.

The Western Australia Coastal Safety Report 2023 is a comprehensive summary and analysis of the research undertaken by Surf Life Saving Australia and Surf Life Saving Western Australia. It presents an evidence-based approach to participation, perceptions, surf lifesaving service delivery, coastal drowning deaths and other fatal coastal incidents. I commend this report to you while at the same time taking a moment to acknowledge the loss of life, which has resulted in the need for a publication such as this.



Heidi Gan
President
Surf Life Saving Western Australia



SECTION 1

COMMUNITY

- **1.7 MILLION**

VISITED THE COAST IN 2022/23

- **70 MILLION +**

COASTAL VISITATIONS

- **550K**

UNINTENTIONALLY CAUGHT IN A RIP CURRENT





COASTAL VISITATION & PARTICIPATION

WESTERN AUSTRALIA TRENDS



1.7M

COASTAL VISITORS



3.8

VISITS/MONTH



2.3

HOURS/VISIT



1.4M

COASTAL ACTIVITY
PARTICIPANTS

NCSS2023: 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 twelve months, 1.7 million Western Australian adults (16 years and above) visited the coast on average 3.8 times each month. This suggests that there were over 70 million individual visitations to the coast.

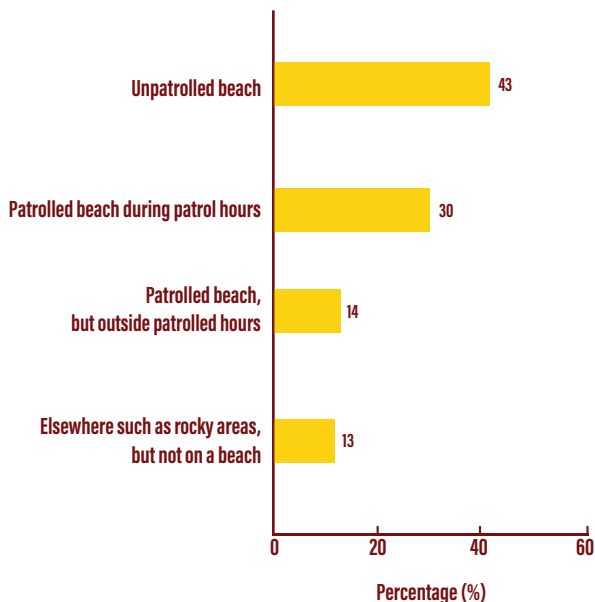


Figure 1

NCSS2023: COASTAL VISITATION BY GENDER & LOCATION OF LAST 10 VISITS

Males and females visited the coast in equal numbers, however, males visited more frequently with an average of 4.2 visits per month compared to 3.5 visits per month for females. One in three (30%) visits were to patrolled locations during patrolled hours, while the remaining 70% were either to patrolled locations outside of patrol hours or to unpatrolled locations..

850K

COASTAL VISITORS

550K

FREQUENT VISITORS

4.2

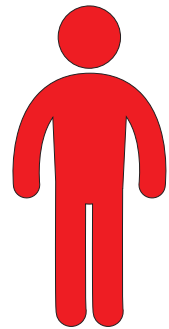
VISITS PER MONTH

2.4

HOURS PER VISIT

700K

COASTAL ACTIVITY
PARTICIPANTS



850K

COASTAL VISITORS

440K

FREQUENT VISITORS

3.5

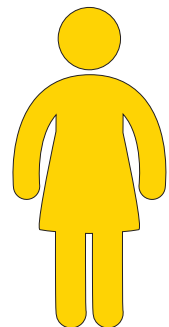
VISITS PER MONTH

2.2

HOURS PER VISIT

700K

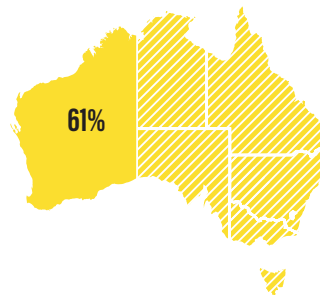
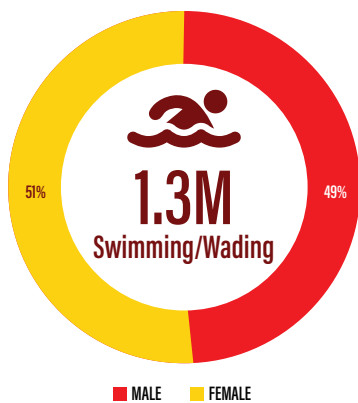
COASTAL ACTIVITY
PARTICIPANTS



ACTIVITY PARTICIPATION

PARTICIPATION BY GENDER & EXPERIENCE

Coastal participation varies by activity, gender and experience level. These pages show the proportion of male and female participants, the number of annual and summer participants, the experience level of activity participants, and the percentage of the Western Australia population who participate in each activity.

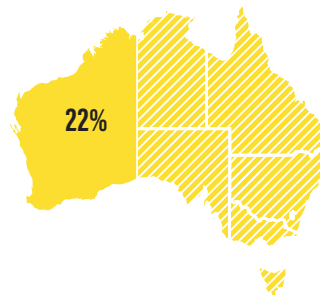
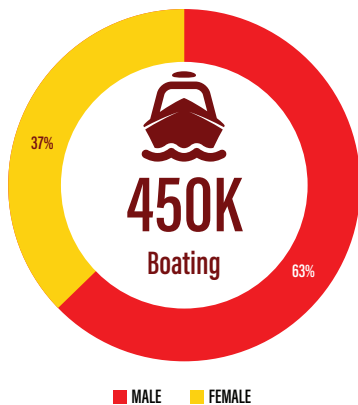


1.1M
Swam in summer 2022/23

44%
Don't always swim between the red and yellow flags when at a patrolled location

16%
Beginners

28%
Advanced

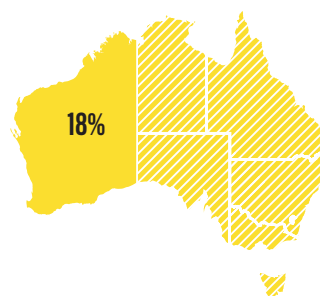


300K
Went boating in summer 2022/23

45%
Don't always ensure all passengers wear a lifejacket

31%
Beginners

23%
Advanced

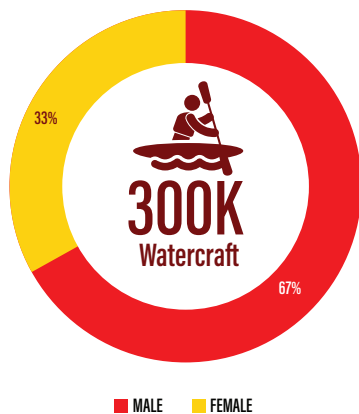


250K
Snorkelled in summer 2022/23

22%
Don't always snorkel in conditions appropriate for their skill level

23%
Beginners

26%
Advanced

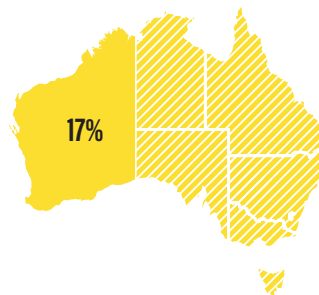
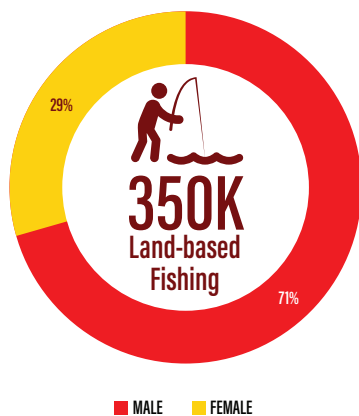


200K
Paddled in summer 2022/23

75%
Don't always check weather conditions
with a relevant authority

36%
Beginners

10%
Advanced

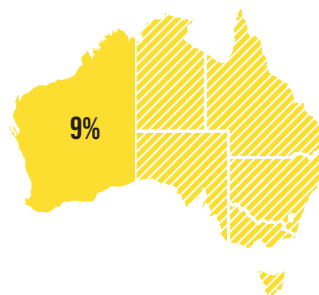
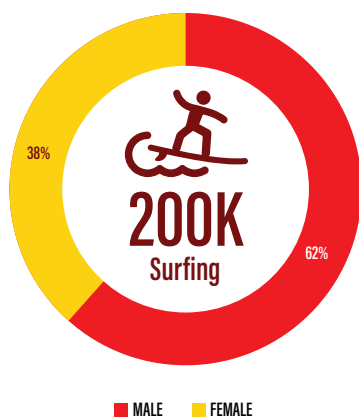


20K
Went land-based fishing in summer
2022/23

25%
Never check weather conditions with a
relevant authority

21%
Beginners

29%
Advanced

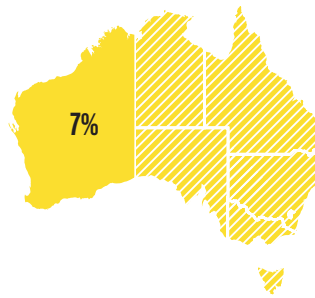
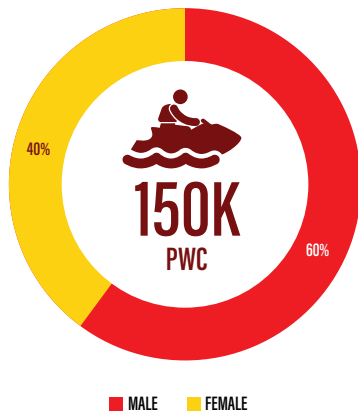


150K
Surfed in summer 2022/23

61%
Don't always surf with a buddy

29%
Beginners

22%
Advanced

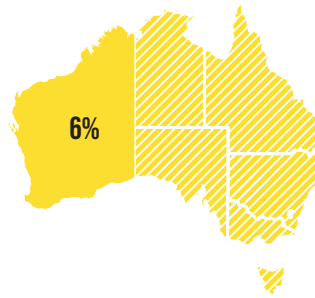
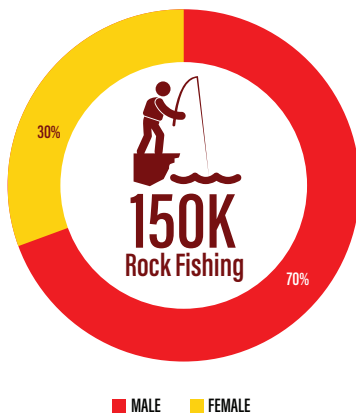


70K
Used a PWC in summer 2022/23

33%
Never wear protective equipment

21%
Beginners

14%
Advanced

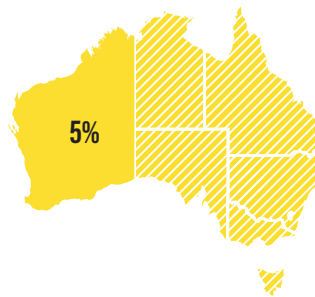
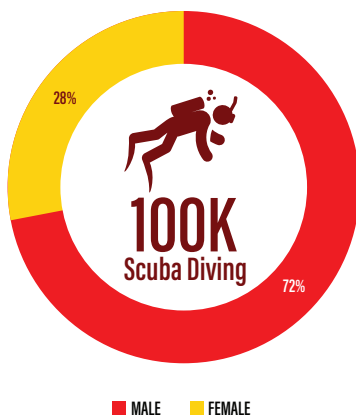


65K
Went rock fishing in summer 2022/23

46%
Never wear a lifejacket

15%
Beginners

33%
Advanced



45K
Went scuba diving in summer 2022/23

83%
Always use certified and functioning equipment

15%
Beginners

41%
Advanced

SWIMMING ABILITY & RIP CURRENTS

CONFIDENCE & ABILITY IN COASTAL WATERS

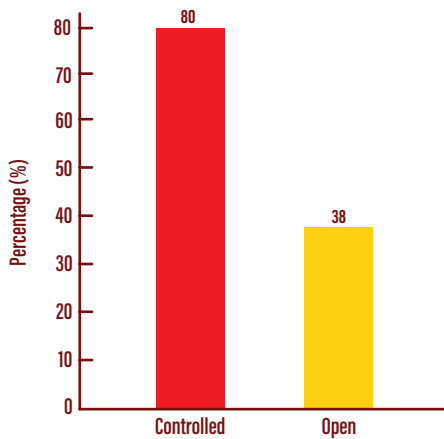


Figure 2

NCSS2023: SWIMMING LESSONS IN CLOSED VS. OPEN ENVIRONMENTS

Twice as many adults have participated in swimming lessons delivered in controlled environments such as a swimming pool (80%), compared to lessons held in open, uncontrolled environments such as in the ocean, lakes or rivers (38%).

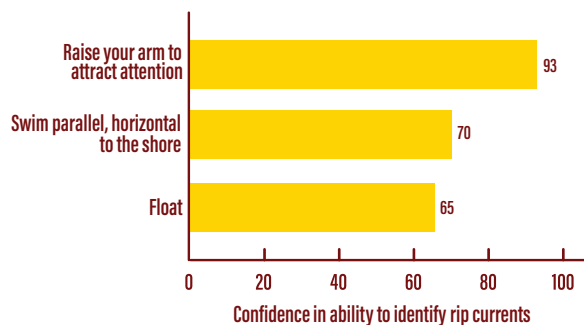


Figure 4

NCSS2023: RECOGNISED STRATEGIES TO ESCAPE A RIP CURRENT

Nine in ten (93%) adults correctly identify raising their arm to attract attention as a valid strategy to escape a rip current, while 70% correctly state to swim parallel to the shore and 65% to float.

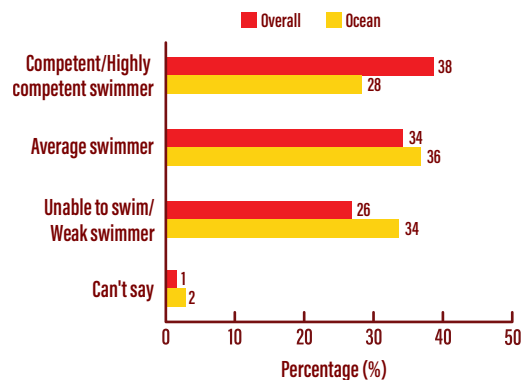


Figure 3

NCSS2023: SELF-RATED OVERALL VS. OCEAN SWIMMING ABILITY

Two in five (38%) consider themselves to be competent/highly competent swimmers. However, perceived competence is lower in open water environments, with only one in four (28%) considering themselves to be competent/highly competent in the ocean.

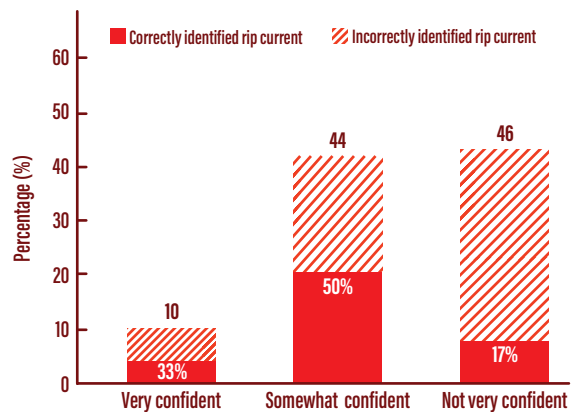


Figure 5

NCSS2023: CONFIDENCE IN ABILITY TO IDENTIFY RIP CURRENTS BY CORRECT IDENTIFICATION

One in ten (10%) of adults state they are very confident they can spot a rip current, however, when tested, only 33% of those were able to correctly do so.

COASTAL SAFETY

HAZARDS & SAFE BEHAVIOURS

Figure 6

NCSS2023: HAVE YOU EVER EXPERIENCED ANY DIFFICULTY IN THE WATER?

Three in ten adults have experienced difficulty in the water (29%).

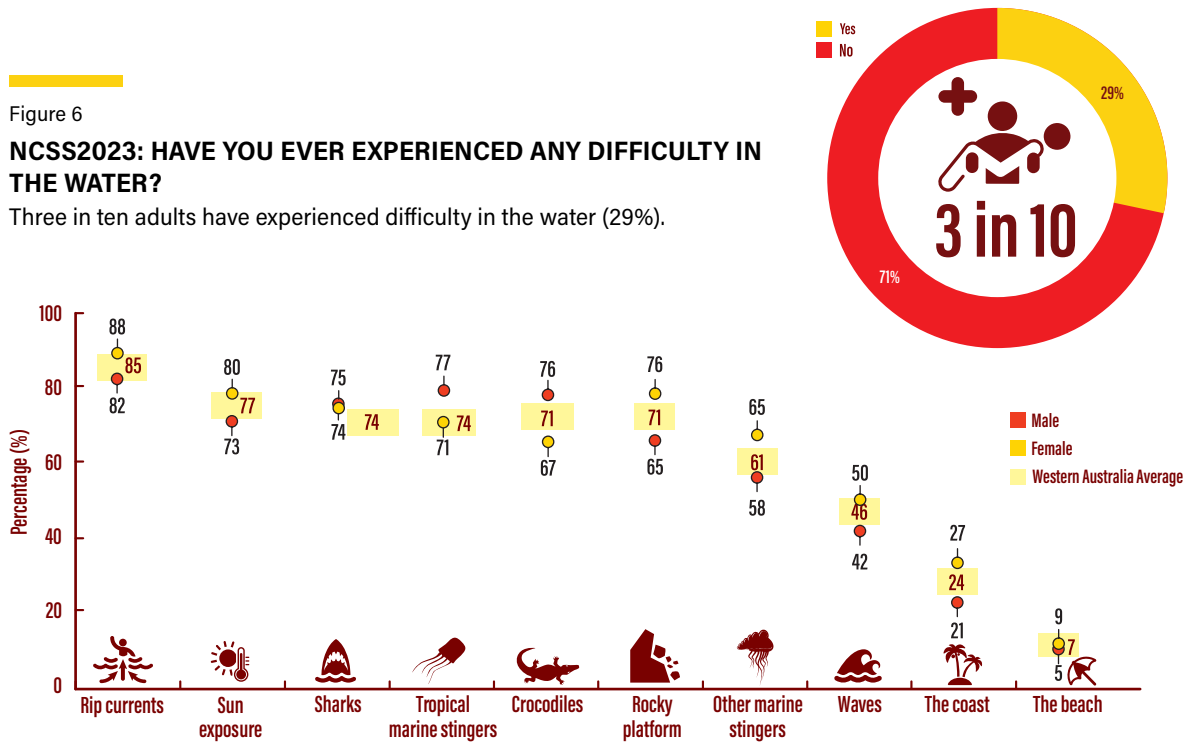


Figure 7

NCSS2023: COASTAL HAZARDS RATED EXTREMELY/VERY HAZARDOUS

The level of perceived hazard varies by gender, with males perception of hazard generally lower than that of females. Rip currents remain the number one coastal hazard, with 85% of adults rating them as extremely/very hazardous, followed by sun exposure (77%), then equally by sharks and tropical marine stingers (74%).

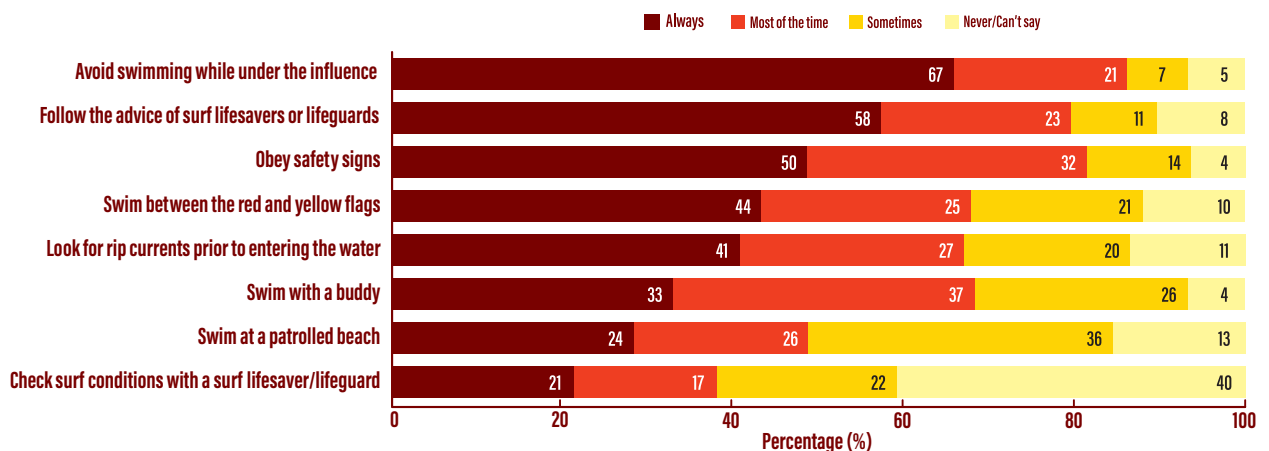


Figure 8

NCSS2021-23: SAFETY PRACTICES

Safety practices while swimming vary. While 67% always avoid swimming while under the influence and 58% always follow the advice of surf lifesavers or lifeguards, 62% only sometimes or never check surf conditions with a surf lifesaver/lifeguard.

SECTION 2

DROWNING ANALYSIS

2022/23



21

COASTAL DROWNING DEATHS



90%

MALE



10%

FEMALE

DROWNING CAUSAL FACTORS 2013-23



25%

ALCOHOL/DRUGS



37%

MEDICAL/INJURY



67%

REGIONAL/REMOTE AREAS





COASTAL DROWNING & FATALITY

WESTERN AUSTRALIA 2022/23: YEAR IN REVIEW

Surf Life Saving responds to all types of incidents that occur along the Western Australian coast, regardless of their cause. As such, to better inform Surf Life Saving operations and to understand the full burden of coastal deaths and their impact on the Western Australian community and SLS members, both drowning deaths and other coastal fatalities that occur along the Western Australian coastline are monitored.

A total of 36 coastal deaths were recorded across Western Australia in 2022/23, on par with the ten-year average ($n=35$). Over half were due to drowning (59%, $n=21$), while of the remaining 15 coastal fatalities, ten were unintentional. In total, Western Australia accounts for 16% of the national coastal mortality burden. This is a tragic outcome but could have been far worse with 316 rescues and 60,623 preventative actions performed by Surf Life Saving Western Australia.

Coastal incidents including major rescues, traumatic injury and fatal events can have lasting effects on the health and wellbeing of families and communities, as well as on Surf Life Saving personnel. Long-term monitoring and research are crucial to identify current and emergent risk factors, and to provide evidence to underpin and direct future prevention strategies.

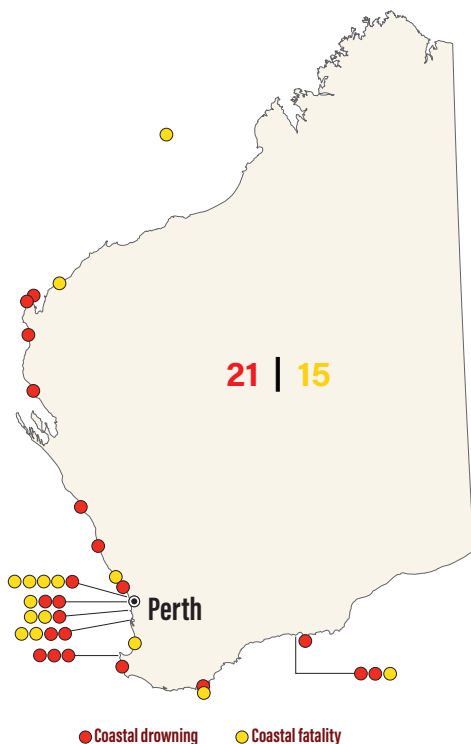


Figure 16

2022/23: COASTAL DEATH LOCATIONS

In 2022/23, 21 coastal and ocean drowning deaths and 15 other coastal fatalities were recorded. Red and yellow numbers indicate the number of drowning deaths and fatalities respectively.

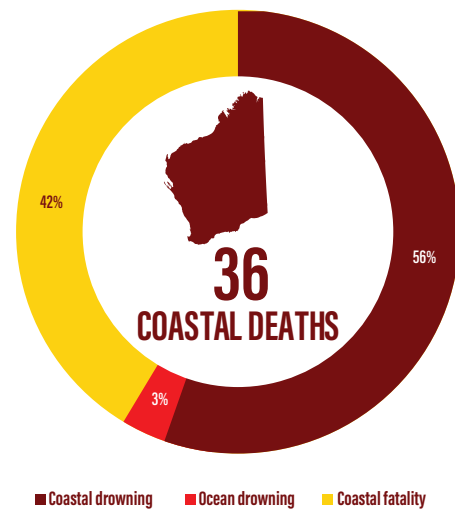
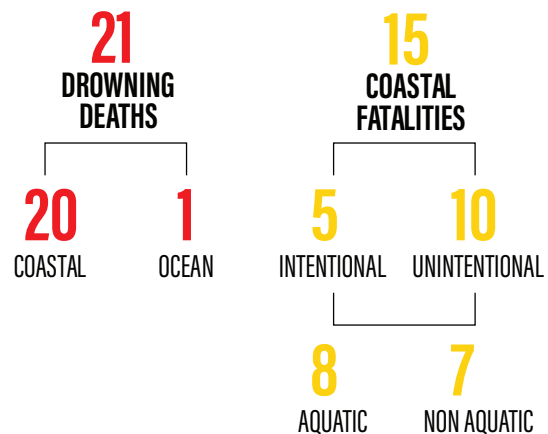


Figure 17

2022/23: OVERVIEW OF COASTAL DEATHS

Overall, 36 coastal deaths were recorded in 2022/23, with a mortality rate of 1.29/100,000 pop.



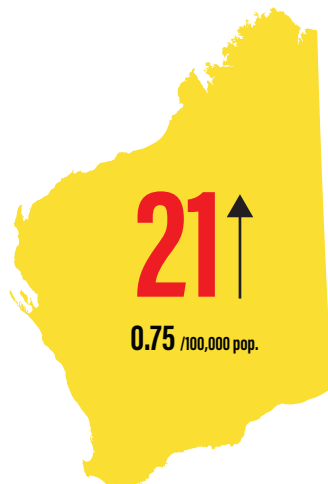
2022/23: LOCAL GOVERNMENT AREA BLACKSPOTS

A blackspot is an area where a concentration of incidents are recorded and have a high probability/risk of ongoing re-occurrence. These LGAs below recorded the highest number of fatal coastal incidents (both drowning deaths and other fatalities) in 2022/23.

- Mandurah (4)
- Rockingham (3)
- Fremantle (3)

COASTAL DROWNING

WESTERN AUSTRALIA 2022/23: YEAR IN REVIEW



NB: Arrow indicates change from 10-year average

Across Western Australia, 31 drowning deaths were recorded in 2022/23, 68% of which occurred in coastal environments (n=21). Tragically this is a 24% increase from last year (n=17), and 17% above the ten-year average (n=18).

Males continue to be overrepresented in coastal drowning statistics, accounting for 90% of drowning deaths. Of concern is the increasing prevalence of drowning deaths among older Australians, with 65-74 and 55-64 year olds accounting for 29% each of Western Australia's coastal drowning deaths. Swimming/wading, watercraft, snorkelling and Boating & PWC accounted equally for 19% of coastal drowning deaths. Most coastal drowning deaths occurred on beaches (52%), with a further 19% in offshore waters.

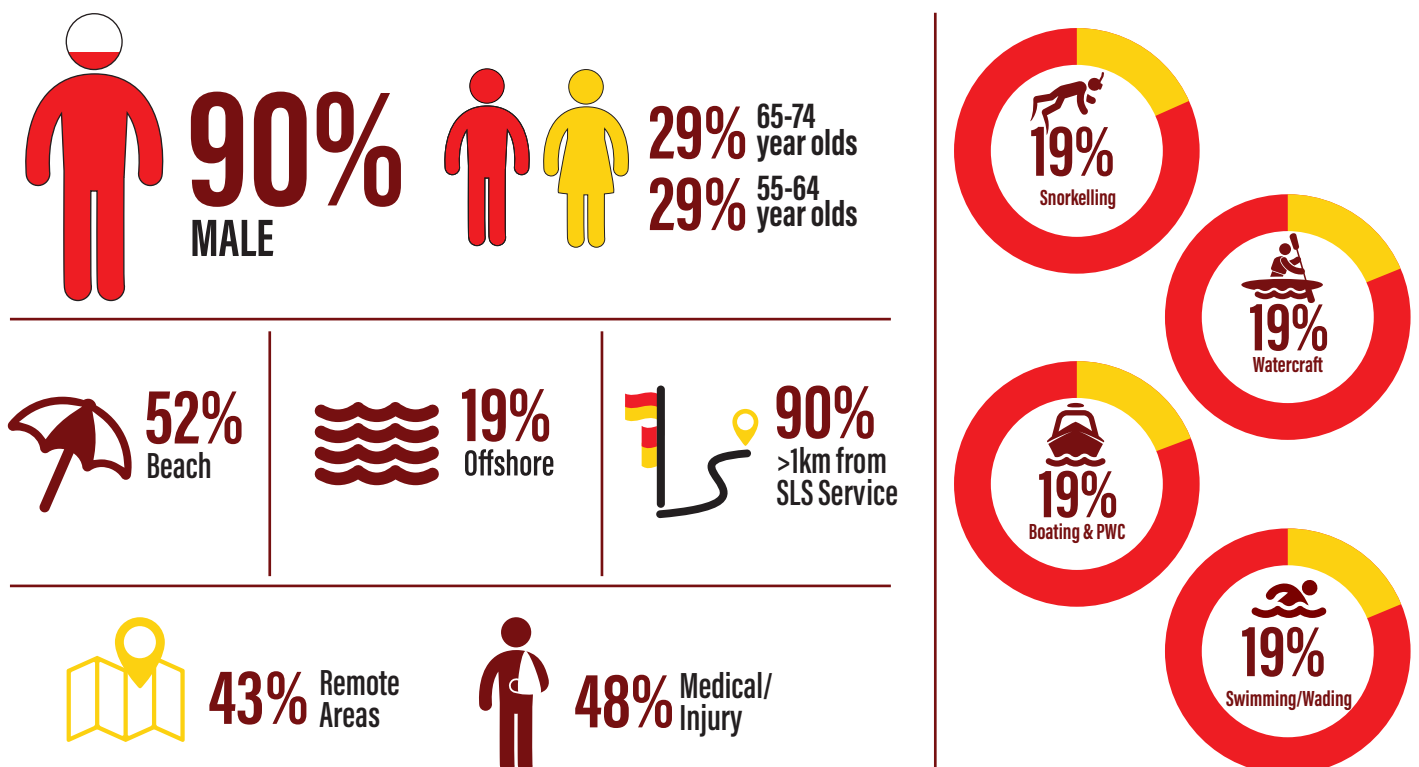
Nine in ten incidents occurred more than 1km away from a Surf Life Saving service (90%), and 100% occurring outside of flagged areas. Similarly, 43% occurred in remote areas, places which are harder to access, often with limited resources.

It is important to recognise that while we encourage the community to swim between the flags, for many, this is not always feasible. With this in mind, when heading to the people please remember to **STOP** and check for rips, **LOOK** for other dangers, and **PLAN** how to stay safe in case of an emergency.

Figure 18

2022/23: COASTAL DROWNING DEATHS

21 coastal drowning deaths were recorded (drowning rate of 0.75/100,000pop.), 17% above the 10-year average.



COASTAL DROWNING

WESTERN AUSTRALIA 2013-23: 10-YEAR ANALYSIS

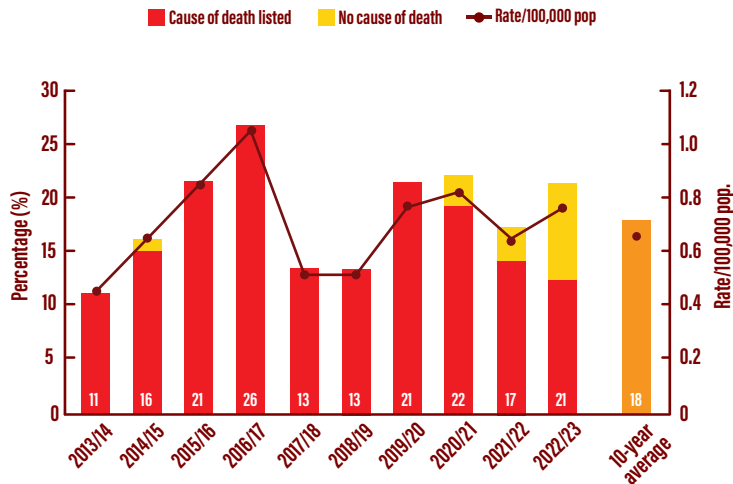


Figure 19

2013-23: COASTAL DROWNING DEATH TRENDS (N=181)

Annual trends of coastal drowning deaths and rates are illustrated above. 21 coastal drowning deaths were recorded in 2022/23 (drowning rate of 0.75/100,000 pop.), above the 10-year average (n=18, 0.69/100,000 pop.).

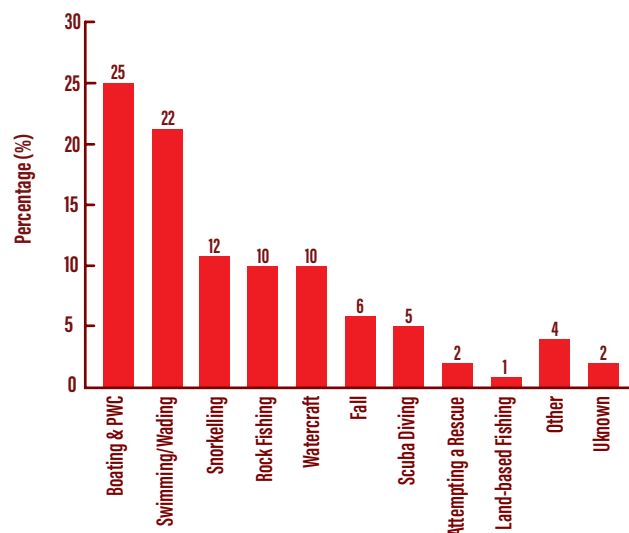


Figure 20

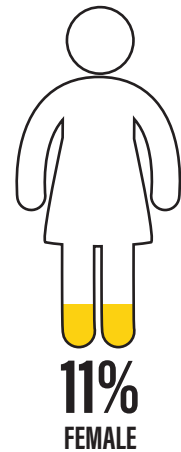
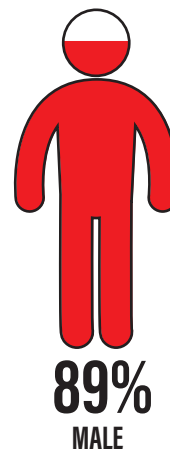
2013-23: DROWNING DEATHS BY ACTIVITY

Drowning prevalence varies by activity and over time. Since 2013, boating & PWC activities have recorded the most coastal drowning deaths (25%, n=46), followed by swimming/wading (22%, n=40), then snorkelling (12%, n=22).

KEY DEMOGRAPHICS

18
Drowning deaths
annual average

0.69
Drowning rate
/100,000 pop.



25-34 YEAR OLDS
18%

65-74 YEAR OLDS
17%

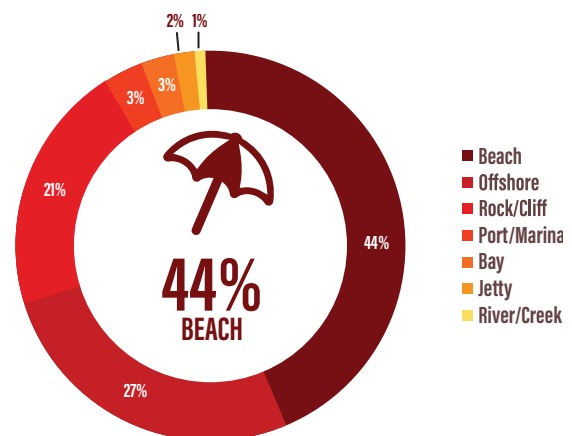


Figure 21

2013-23: DROWNING LOCATION CATEGORY

Beaches are the leading drowning location (44%, n=79), followed by offshore (27%, n=49), then rock/cliff locations (21%, n=38).

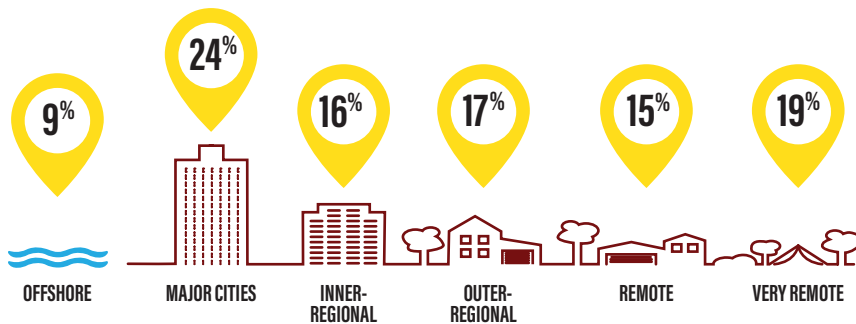


Figure 22

2013-23: REMOTENESS CLASSIFICATIONS

Most coastal drowning deaths occurred in remote areas (34%, n=62), followed by regional areas (33%, n=60). The remoteness classification of an incident location was coded to the Australian Statistical Geographical Standard Remoteness Areas.

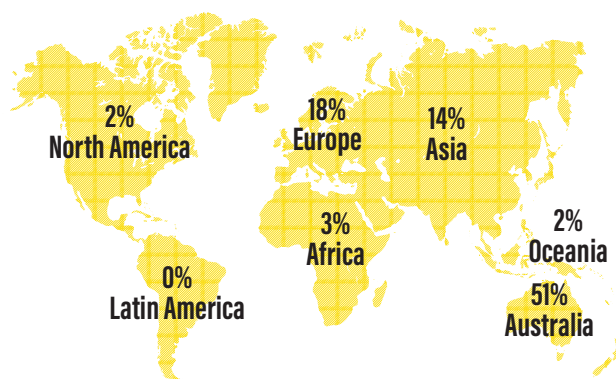


Figure 23

2013-23: BIRTH CONTINENT OF DECEDENT

Australian-born decedents account for 51% of coastal drowning deaths (n=93), while 39% were born overseas (n=68). One in five were born in Europe (18%, n=32), and 14% were born in Asia (n=25). Birth continent remains unknown for 10% of coastal drowning deaths (n=20).

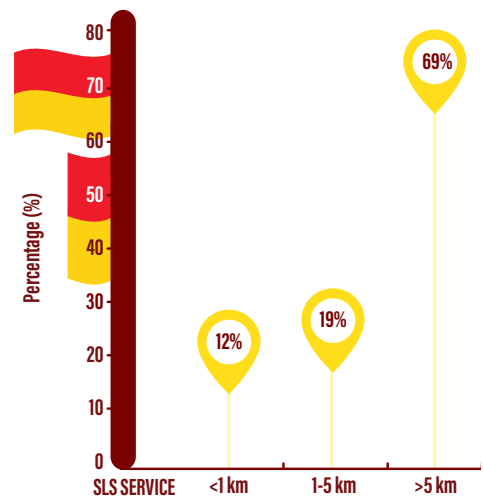


Figure 24

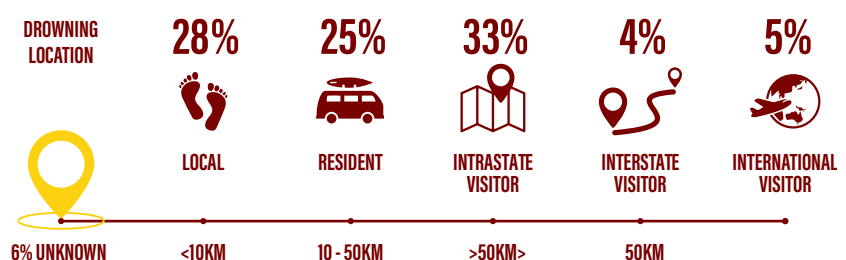
2013-23: DROWNING DISTANCE FROM SURF LIFE SAVING SERVICE

Nine in ten coastal drowning deaths (88%, n=159) occurred more than 1km from a Surf Life Saving service.

Figure 25

2013-23: DROWNING LOCATION DISTANCE FROM RESIDENCE

One in three decedents were intrastate visitors to the drowning location (33%, n=60), followed by local residents (28%, n=50), then nearby residents (25%, n=45).



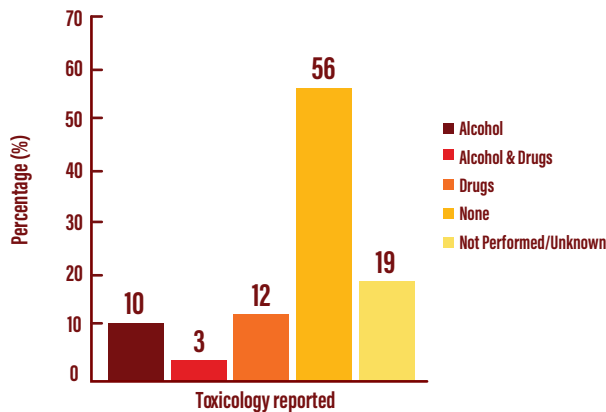


Figure 26

2013-23: COASTAL DROWNING, ALCOHOL & DRUGS

Alcohol and drugs were known to contribute to 25% of coastal drowning deaths (n=45), but this number could be higher as toxicology is unknown for 19% of cases (n=35).

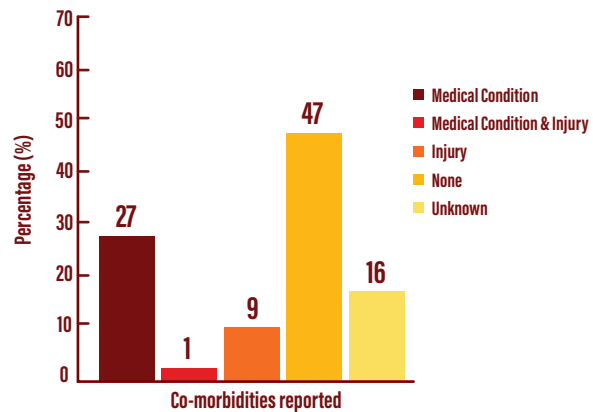


Figure 28

2013-23: MEDICAL CONDITIONS, INJURIES & DROWNING

Medical conditions and injuries are considered co-morbidities for one in three coastal drowning deaths (37%, n=67), with involvement currently unknown for a further 16% of incidents (n=29).

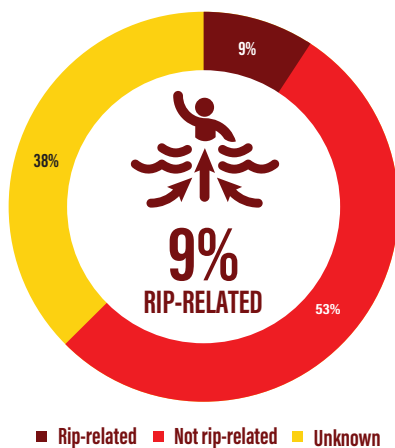


Figure 27

2013-23: RIP CURRENTS & DROWNING

Rip currents are known to contribute to one in ten coastal drowning deaths (9%, n=17), but this is likely to be much higher with rip involvement unknown for 38% of cases (n=68). Rip currents are more prevalent in certain activities, involved in two of three fatal bystander rescues (67%, n=2), 30% fall drowning deaths (n=3), and 18% of swimming/wading drowning deaths (n=7).

TOP THREE RIP-RELATED ACTIVITIES



67%
Attempting a
Rescue (n=2)



18%
Swimming/Wading (n=7)

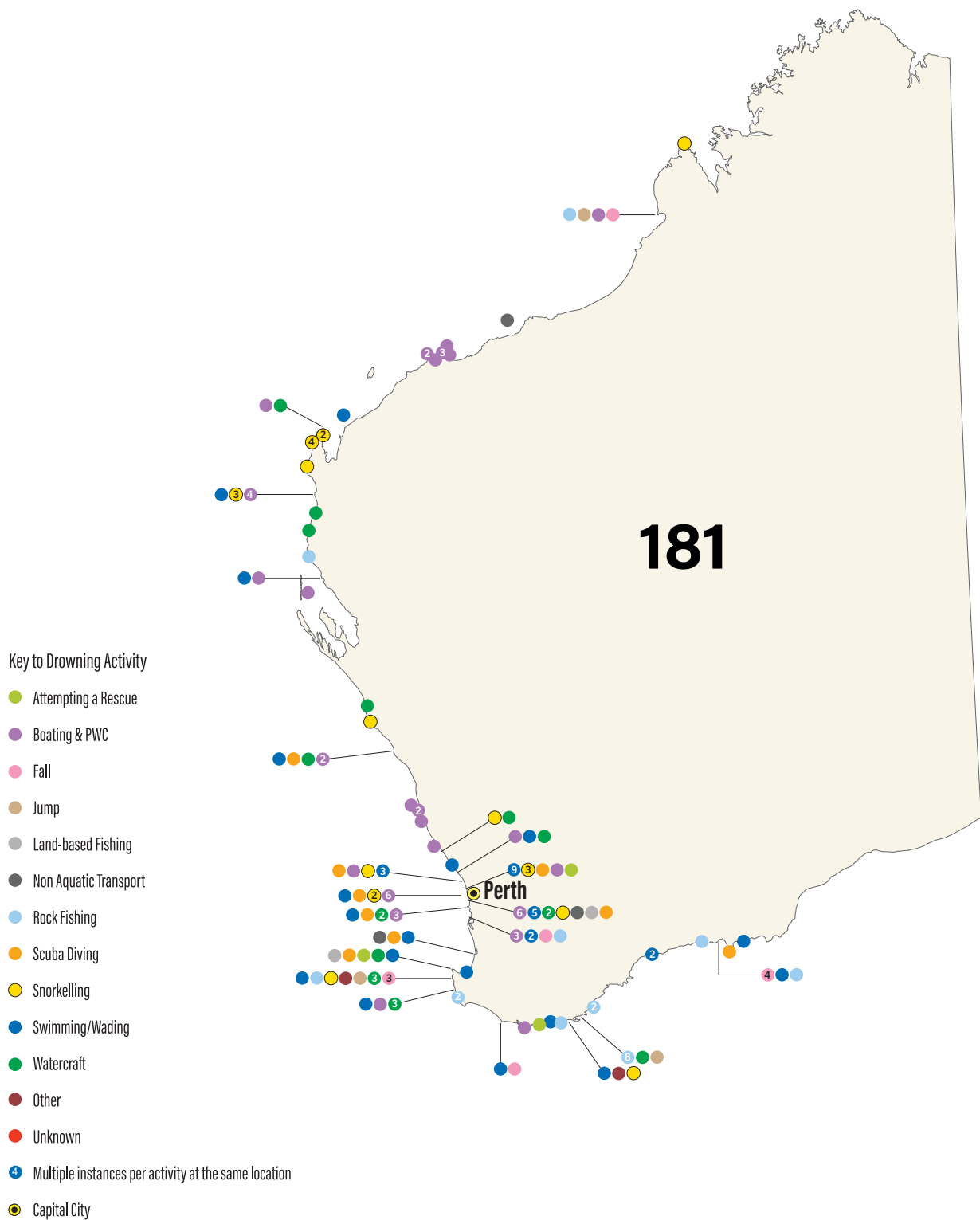


30%
Fall (n=3)

**2 in 3 fatal bystander
rescues involved a
rip current**

DROWNING LOCATIONS

WESTERN AUSTRALIA 2013-23: 10-YEAR ANALYSIS



UNINTENTIONAL FATALITY

WESTERN AUSTRALIA 2013-23: 10-YEAR ANALYSIS

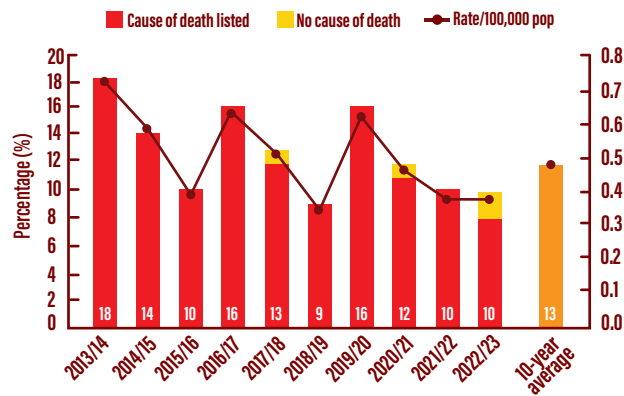


Figure 29

2013-23: NATIONAL COASTAL FATALITY TRENDS (N=128)

Annual trends of unintentional coastal fatalities and rates are illustrated above. Ten coastal fatalities were recorded in 2022/23 (fatality rate of 0.36/100,000 pop.), below the 10-year average (n=13, fatality rate=0.49/100,000 pop.).

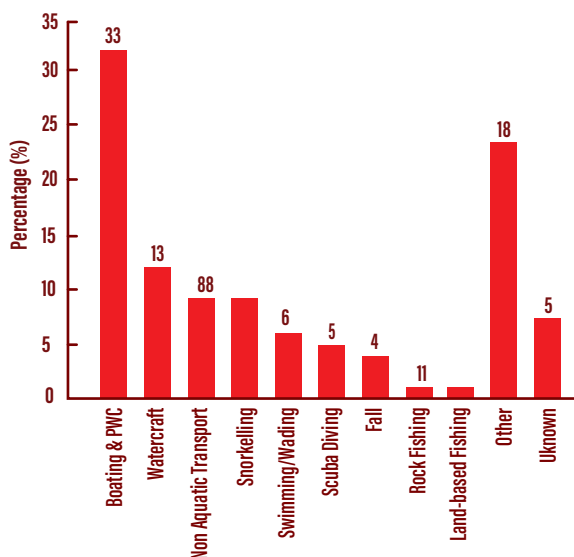


Figure 30

2013-23: UNINTENTIONAL COASTAL FATALITIES BY ACTIVITY

Fatality numbers vary by activity and over time. The greatest number of fatalities have been attributed to boating & PWC (33%, n=42), followed by watercraft (13%, n=16), then equally by non aquatic transport and snorkelling (8%, n=10 each).

KEY DEMOGRAPHIC

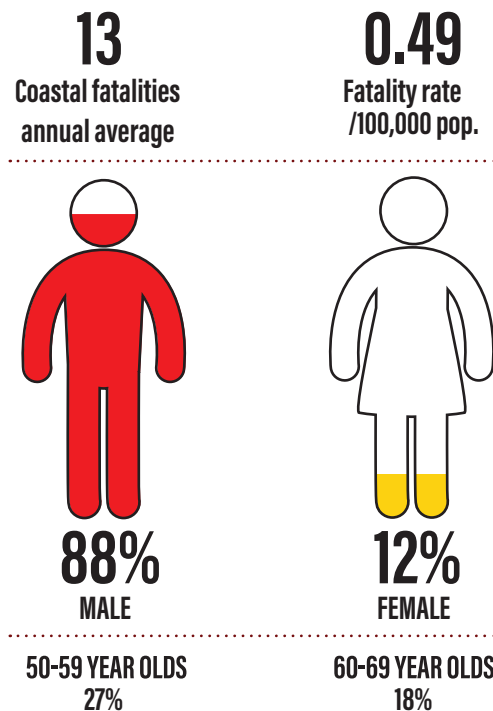


Figure 31

2013-23: FATALITY LOCATION CATEGORY

Beaches are the leading location for coastal fatalities (50%, n=64) followed by offshore (30%, n=38), then bay (8%, n=10) locations.

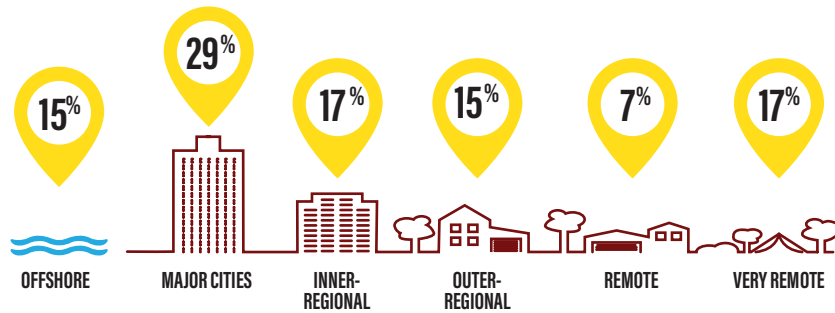


Figure 32

2013-23: REMOTENESS CLASSIFICATIONS

One in three fatalities occurred in regional areas (32%, n=41), followed by major cities (29%, n=37). The remoteness classification of an incident location was coded to the Australian Statistical Geographical Standard Remoteness Areas.

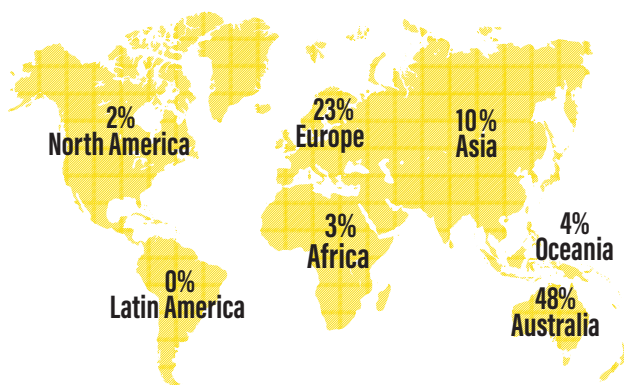


Figure 33

2013-23: BIRTH CONTINENT OF DECEDENT

Australian-born decedents account for 48% of unintentional coastal fatalities (n=62), while 42% were born overseas (n=54). One in four were born in Europe (23%, n=30), and 10% were born in Asia (n=13). Birth continent remains unknown for 9% of unintentional coastal fatalities (n=12).

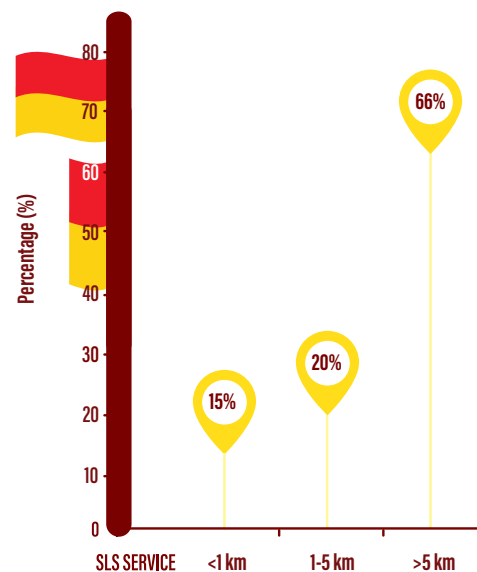


Figure 34

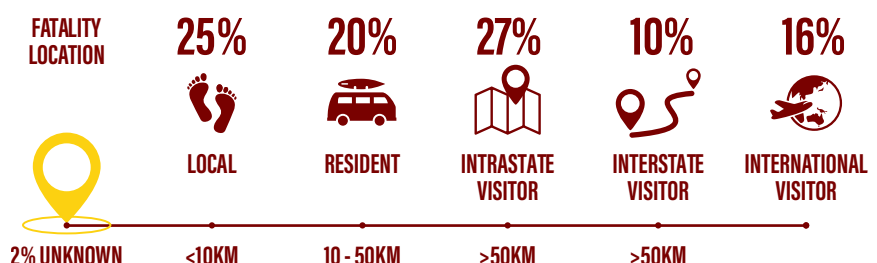
2013-23: FATALITY DISTANCE FROM SURF LIFE SAVING SERVICE

Nine in ten unintentional coastal fatalities (86%, n=109) occurred more than 1km from a Surf Life Saving service.

Figure 35

2013-23: FATALITY LOCATION DISTANCE FROM RESIDENCE

One in four decedents were intrastate visitors to the fatality location (27%, n=34), followed by locals (25%, n=32), then nearby residents (20%, n=26).



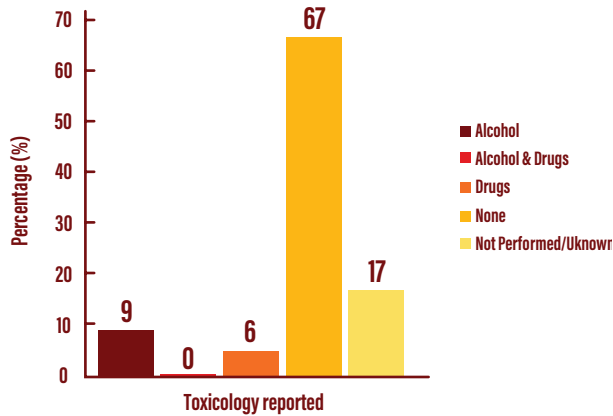


Figure 36

2013-23: COASTAL FATALITY, ALCOHOL & DRUGS

Alcohol and drugs are known to contribute to 15% of coastal fatalities (n=20), but this is likely higher given toxicology is unknown for 17% of cases (n=22).

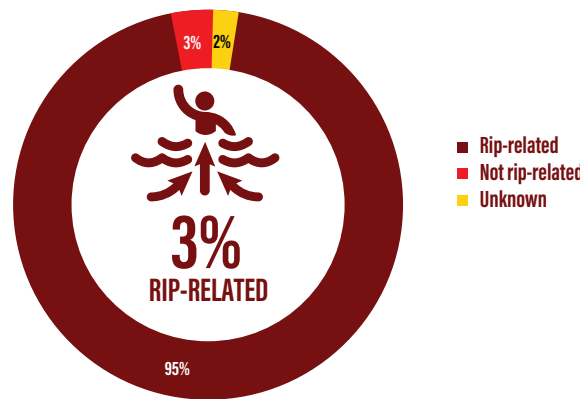


Figure 38

2013-23: RIP CURRENTS & COASTAL FATALITY

Rip currents are significantly less prevalent in coastal fatalities, known to contribute to only 2% of cases (n=2). Rip current involvement is unknown for 3% of cases (n=5).

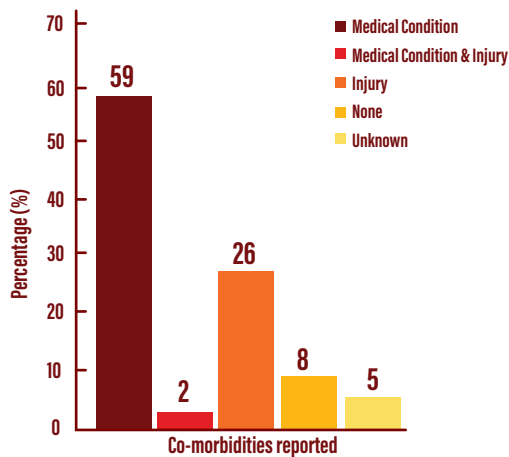


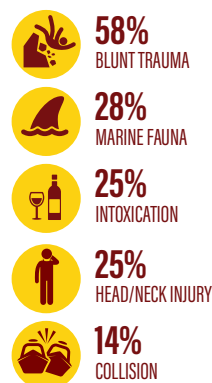
Figure 37

2013-23: MEDICAL CONDITIONS, INJURIES & COASTAL FATALITY

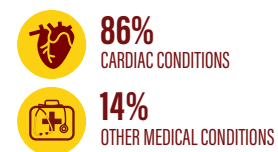
Medical conditions and injuries are considered co-morbidities in nine out of ten coastal fatalities (87%, n=111), with a further 5% of incidents currently unknown (n=7). For known cases, blunt force trauma is a causal factor in 58% of injury-related fatalities, while cardiac conditions are reported in 86% of medical-related coastal fatalities.

TOP CAUSAL FACTORS

INJURY



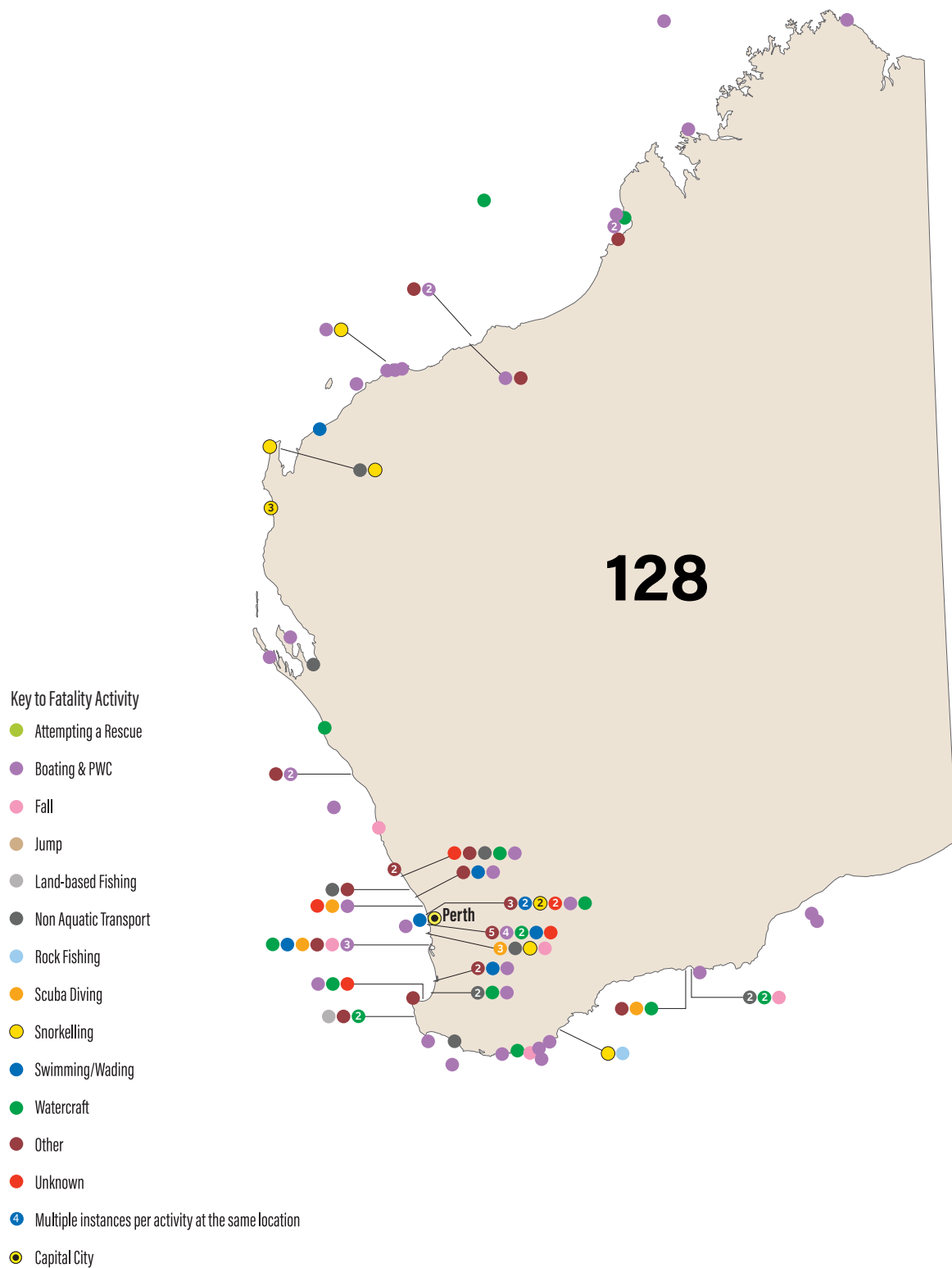
MEDICAL



9 in 10 fatalities are due to medical conditions & injuries

FATALITY LOCATIONS

WESTERN AUSTRALIA 2013-23: 10-YEAR ANALYSIS



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 beyond 3nm and up to 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 Western Australia Coastal Safety Report 2023 contains information on Australian community behaviours and attitudes to the coast; SLSWA capability and membership capacity; rescues and emergency response; and coastal drowning deaths and other fatalities that occurred along the Western Australian coast during the period of 1 July 2022 to 30 June 2023. This information is correct as of 15 August 2023. 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 SLSWA 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 head of 100,000) from Australian Bureau of Statistics.

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 6 - 30 April 2023 among a national sample of 3,118 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 (Census 2021). The Australian population aged 16 and above (the reference population for this survey) is 20,434,000. For this report, data has been summarized using Western Australian participant responses within the National Coastal Safety Survey 2023.

CAPABILITY & 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, clubs, branches, state offices 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 2022/23; and how many active surf lifesavers and award holders there were during 2022/23.

The data was verified by SLSWA. Information about assets and services were gathered from SLSWA.

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 with the assistance of SLSWA 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 Western Australian coast. We explore incidents that have occurred between 1 July 2013 – 30 June 2023. The authors are responsible for the use made of the data in this report.

DROWNING & FATALITY 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 90% of 2022/23 Western Australian coastal drowning deaths and 73% of 2022/23 Western Australian coastal fatalities recorded remain open cases and 33% of 2022/23 Western Australian cases do not yet have a cause of death (COD) listed. 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 the below table for annual case numbers.

	2019 WACSR	2020 WACSR	2021 WACSR	2022 WACSR	2023 WACSR
2013/14	11	11	11	11	11
2014/15	16	16	16	16	16
2015/16	20	21	21	21	21
2016/17	29	28	28	27	26
2017/18	13	13	13	13	13
2018/19	15	13	13	13	13
2019/20		21	21	21	21
2020/21			21	21	21
2021/22				17	17
2022/23					21

SUGGESTED CITATION: Surf Life Saving Australia and Surf Life Saving Western Australia, 2023. Surf Life Saving Western Australia Coastal Safety Report 2023. Surf Life Saving, Sydney.

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- SLSA National Coastal Safety Survey 2023

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This report was compiled by Shane Daw, General Manager Coastal Safety; Jasmin Lawes, Researcher; Sean Kelly, Research Assistant; Belinda Cooper, Project Coordinator Coastal Safety; Rhiannon Brinckman, Project Officer Coastal Safety; Jamie Findlay, Lifesaving Operations Manager; Kirk Patton, Coastal Safety Support Officer. Cover Image: Surf Life Saving Australia. Design: Melissa Conchar and OnDemand Design. Maps: John Frith, Flat Earth Mapping.



Australian Government
Australian Institute of
Health and Welfare



NCIS

CONTACT INFORMATION

SLSA and SLSWA 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 Western Australia—mybeach.com.au