NATIONAL SURF SAFETY REPORT

2006

SURF LIFE SAVING AUSTRALIA™

OVERVIEW...

Coastal drowning trends vs five-year average

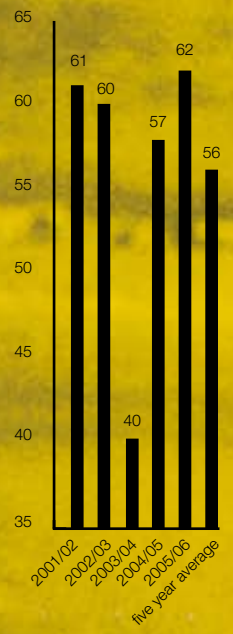

Fig. 1

The 2006 National Surf Safety Report presents data on coastal drowning deaths during the 2005–06 swimming and surfing season.

Key findings of this year's report are:

How many people drowned around the coast?

- Sixty-two people. This was an increase of five compared to the previous season, and six above the five-year average for 2001–06.

Who drowned?

- 89 per cent (n=55) were male.
- 23 per cent (n=14) were aged between 40 and 49 years.
- 18 per cent (n=11) were in the 30 to 39 year old category and another 18 per cent (n=11) were in the 50 to 59 category.

Where did they drown?

- 15 drownings (where location was recorded) occurred within 1 km of the red and yellow flags.

When did they drown?

- 56 per cent (n=35) occurred over the summer months.
- 50 per cent (n=31) of deaths occurred over a 62 day period between 27/12/05 to 26/02/06 — an average of one drowning every two days for this period.

What were they doing when they drowned?

- Unsurprisingly, the most common activity immediately prior to drowning was swimming or wading (47 per cent or n=29).
- Ten people drowned in rips, which continue to be one of the biggest killers around the Australian coastline.
- Rock fishing/fishing continues to be a high-risk pastime with 24 per cent (n=15) of people engaged in this activity prior to death.

A CENTURY OF SURF LIFESAVING...

Laws which had banned bathing in daylight hours since the 1830s were repealed between 1902 and 1905 in response to the growing popularity of surf bathing.

With increased popularity came increased drownings — by the summer of 1906–07 Sydney was obsessed with the question of surf safety.

Australia's first surf life saving clubs emerged on Sydney's ocean beaches in 1907 in response.

On 18 October 1907, representatives of the seven first surf clubs, along with other interested groups, met to form the Surf Bathing Association of NSW, the organisation now known as Surf Life Saving Australia (SLSA).

SLSA has grown to become an organisation with 305 clubs and 112,000 members.

Each year, SLSA's trained volunteer surf lifesavers provide more than 1.4 million hours of patrol time on weekends and public holidays during the surfing season.

Countless more hours are spent by our Australian Lifeguard Service (ALS) lifeguards, and by other members in surf sports competitions and behind the scenes in administration, training and organisational development.

It has been estimated that if not for the efforts of Australia's surf lifesavers, around 500 people would drown around the coast each year.[1]

The value to the community of averting this carnage has been estimated at more than $1.4 billion each year.

Cumulative total of rescues by surf lifesavers

Fig. 2

1. The Allen Consulting Group: *The economic and social value of surf lifesaving in Australia.* slsa.com.au

WHO DROWNED IN 2005–06...

Males made up the majority of coastal drowning deaths.
Gender was recorded for all deaths in 2005–06 with males accounting for more than 89 per cent (n=55). This figure is consistent with findings from previous years with 93 per cent and 84 per cent of coastal drowning deaths being male for 2003–04 and 2004–05 seasons respectively.

The figure is also consistent with findings from the International Life Saving Federation (ILS)[1] which state the possible reason for the higher percentage of males drowning is due to:

1 Worldwide, more men than women participate in water sports or are near water in their work or recreation.

2 Men may also take more and greater risks, or tend more often to overrate their swimming ability.

Most coastal drowning deaths occurred in the 40–49 age group.
Age was recorded for all coastal drowning deaths in 2005–06. The 40–49 year age group recorded 22.6 per cent (n=14) of deaths with both the 30–39 and 50–59 year age groups recording 17.7 per cent each (n=11).

As can be seen in figure 3, the age range of the highest risk group has increased since 2002. One explanation for this may be that younger age groups are increasingly exposed to surf safety messaging, through programs such as 'nippers' and surf education in schools.

Older cohorts may underestimate hazards and overestimate their swimming ability.

Coastal drowning deaths by age
A large proportion of victims in the 40–49 year age group (50 per cent (n=7) were rockfishing or fishing at the time of the coastal drowning (see figure 6 for further information on activity at time of death).

A majority of people who drowned lived close to the coast
Place of residence was recorded for 82 per cent (n=51) of coastal drowning cases. 35 per cent, (n=22) involved people who lived less than 10km from the coastline consistent with results from previous years. See figure 4. Generally speaking, people who live close to the coast have greater access and visit the beach more frequently. They may also overestimate their abilities in the surf, with sometimes fatal consequences.

The number of coastal drowning deaths of people who lived more than 50km away from the coast has declined over the past two years, suggesting that educational activities such as the Telstra Beach to Bush program may be having some impact. Nevertheless, given relative population sizes, people who live more than 50km away from the coast continue to be over-represented in drowning data.

International tourists continue to drown around our coastline.
In 2005–06, nine victims from overseas countries drowned whilst visiting our coastline, an increase of three on the previous year. A majority of these people where swimming at the time of immersion.

International tourists typically arrive in Australia with the desire to experience the Australian beach lifestyle. However, many are unfamiliar with water and sea conditions commonly found along the coastline. As noted in last year's National Surf Safety Report, SLSA plays a key role in providing awareness of beach hazards for international tourists in addition to the provision of lifesaving services in high volume tourist regions, however clearly more needs to be done.

An immediate priority should be for all international flights to provide basic surf safety information for inbound tourists as part of their basic information.

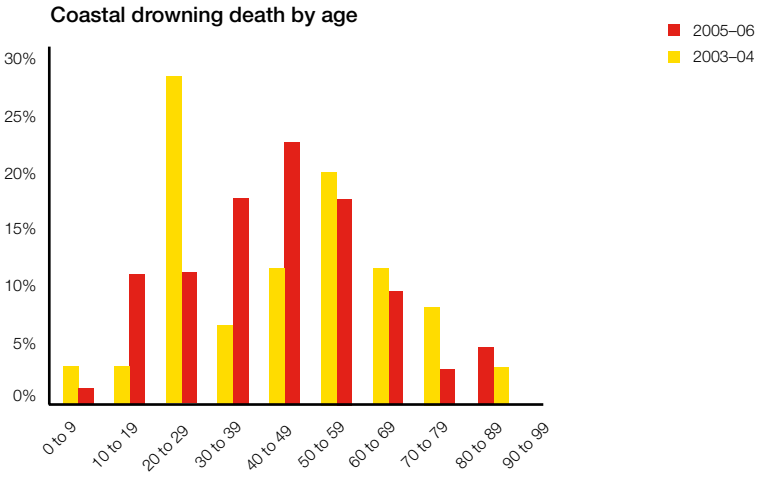

Fig. 3

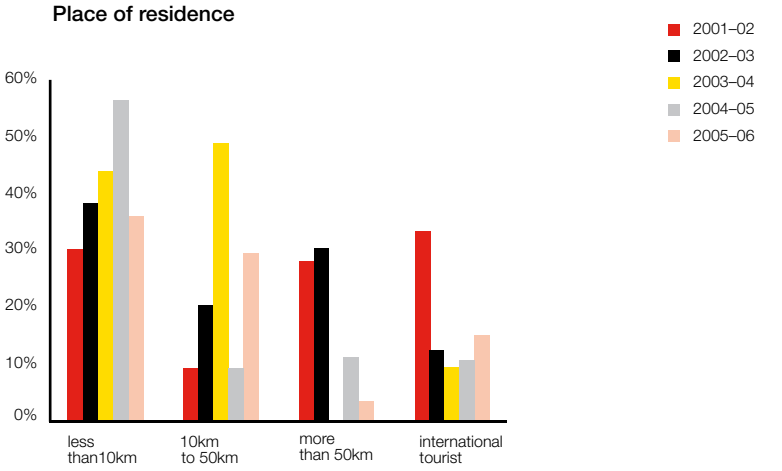

Fig. 4

1. see www.ilsf.org/about/drowning_statistics.htm

WHEN DID PEOPLE DROWN...

Between 27 December 2005 and 26 February 2006, on average one drowning occurred every two days, with 31 people in total drowning over this 62 day period, which is obviously associated with higher beach visitations and coastal activities. 14 of those drowning deaths (22 per cent of the seasonal total) occurred in February 2006, which may be attributed to heavy prevailing surf conditions during that month.

The day of drowning was recorded accurately for 97 per cent (n=60) of the deaths recorded. Of this number, 37 per cent (n=23) of coastal drowning deaths occurred on weekends compared with 59 per cent (n=37) on weekdays. The 2005 Surf Safety Report showed that the majority of coastal drowning deaths in 2004–05 occurred on weekends.

Time of death was recorded accurately for 87 per cent (n=54) of cases. For the cases where time was recorded on a weekday, 16 coastal drowning deaths occurred during the nine hour period between 6am and 3pm. However the same number occurred during the four hour period between 3pm and 7pm. This is consistent with the ILS finding that people generally get more tired and less able to make good judgements about risk later in the day (ILS, 2006).

WHERE AROUND THE COASTLINE...

New South Wales recorded the largest number of coastal drowning deaths with none in the Northern Territory or Tasmania.
The state in which the drowning occurred was recorded for all coastal drowning deaths in 2005–06. 45 per cent (n=28) of deaths occurred in New South Wales with 21 per cent (n=13) occurring in Victoria and 13 per cent (n=8) occurring both in Queensland and Western Australia.

Queensland, Tasmania and South Australia recorded fewer coastal drowning deaths than the previous year with the rate in Queensland, Tasmania, South Australia and Northern Territory less or equal to the five year average for 2001–06.

New South Wales recorded the highest number of coastal drowning deaths as a proportion of its population (4.1 per 1,000,000).

Western Australia, even though it had the third highest number of coastal drowning deaths, has the second highest number when compared with its population (3.9 per 1,000,000).

Overall Australia has a proportional coastal drowning rate of 3 per 1,000,000.
Although international comparisons are difficult due to different methods of data collection, varying definitions and differences in the way other populations 'use' the coastline, crude comparisons indicate that this is comparable with the lowest rates in the world. For example, New Zealand[1] has a proportional drowning rate of 7.4 per 1,000,000 population for the 2005 year where the location involved beach or rocky coastline locations. In Canada[2], where the location of drowning deaths was recorded for beaches, the proportional drowning rate was 1.9 per 1,000,000.

According to the World Health Organisation (WHO)[3] , the African region has the highest rate with 14.2 drowning deaths per 100,000 (note, different ratio used), although this figure records all drowning deaths — that is, it is not exclusively coastal drowning.

Location of drowning with respect to red and yellow flags was recorded for 43 per cent (n=27) of coastal drowning deaths cases. Of these, 15 occurred within 1km of a patrol area, two occurred between 1km to 5km and nine occurred more than 5km from the flags.

The proximity to a patrolled area of the majority of coastal drowning deaths, highlights the simple fact that 'near enough' is unfortunately not good enough when it comes to swimming between the flags. Surf lifesavers performed more than 10,000 rescues during 2005–06, however despite an increase in areas under patrol it remains true that "if we can't see you, we can't save you."

Crude drowning rate by state

STATE/ TERRITORY*	Number of Drownings	Percentage of Total	Population ('000)	Crude All-Age Drowning Rate per year (2005-06)	Average for 5 years
NSW	28	45.2	6817.1	4.1	3.3
WA	8	12.9	2042.8	3.9	4.0
SA	5	8.1	1552.3	3.2	3.0
VIC	13	21.0	5078.5	2.6	1.5
QLD	8	12.9	4035.7	2.0	3.3
TAS	0	0.0	488.7	0.0	1.2
NT	0	0.0	205.9	0.0	4.0
TOTAL	62	100.0%	20551.9	3.0	2.8

Fig. 5

1 Water Safety New Zealand media release, 'Record Low – New Zealand Drowning Toll', 9 January 2006.
2 Canadian Lifesaving Society, National Drowning Trends Report 1992-2001, www.lifesaving.ca. 3 World Health Organisation, Facts About Injuries: Drowning; www.who.int/violence_injury_prevention/

WHAT WERE PEOPLE DOING WHEN THEY DROWNED...

Activity was recorded for 87 per cent (n=54) of coastal drowning deaths.
The most common activity being conducted at the time of death was swimming/wading (46 per cent, n=29). Of these 29 cases, being caught in a rip accounted for more than a third (n=10) of drowning deaths. However it is quite likely that rips were involved in more drowning deaths than those recorded, given that the majority of the more than 10,000 rescues performed by surf lifesavers were rip-related.

Activity recorded for coastal drowning

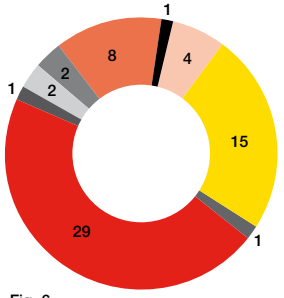

Fig. 6

- Swimming/Wading
- Rock fishing/Fishing
- Unknown
- Surfing/Board Riding
- Rescuing other people
- Rocks
- Walking
- Snorkelling
- Inshore Boating

As referred to previously, rock fishing/fishing accounted for the second largest proportion of coastal drowning deaths (24 per cent or n=15). As can be seen from figure 6, coastal drowning deaths also occur in a number of other aquatic-based activities such as snorkelling, surfing and inshore boating

Dr. Kevin Moran from Centre for Health and Physical Education (University of Auckland, New Zealand) conducted a survey of rock fishing participants.

His main findings were:

1 Many rock fishers were not frequent users of the site.

2 Many rock fishers appeared to overestimate their ability of survival.

3 Many rock fishers appeared to underestimate the risk associated with their activity.

4 One third of rock fishers didn't consider drowning to be a constant threat.

What is Surf Life Saving Australia doing to reduce the coastal drowning rate?
Surf Life Saving Australia (SLSA) has implemented a Total Service Plan to reach its goal of zero preventable drowning deaths around the coastline. The Plan draws on all aspects of the 'drowning chain' (i.e. the process which leads to a drowning), with strategies in place to address each step — see below.

The Drowning Chain	SLSA's role
1. Ignorance of hazard	Community education including: · The Telstra Beach to Bush program, targeting rural and regional communities · The 'On The Same Wave' program for culturally and linguistically diverse (CALD) communities · The creation of the Australian Lifesaving Academy, to provide improved educational opportunities for the community · Surf Education programs in coastal schools · The development of 'Surf's Up' — a cross-curricular resource for primary schools for release in 2007 · Beach Walk programs and surf fun clinics for tourists on the Gold Coast and Sunshine Coast
2. Uninformed/unrestricted access to has hazard	Facilitating standard signage across the country through the development of the National Aquatic and Recreational Signage Style Manual. This is a 'best practice' manual for local governments and other land managers.
3. Lack of supervision at hazard	More beaches "under guard" by surf lifesavers, lifeguards or support services. In 2005–06 this included: · More than 12,000 rescues and 500,000 preventative actions by surf lifesavers and Australian Lifeguard Service lifeguards · New support services including additional RWC patrols in NSW, QLD, VIC and NT, rigid inflatable boats (RIBs) in VIC and helicopter rescue services in SA · Upgrade of camera surveillance networks in QLD · 14 new Australian Lifeguard Service operations in NSW, QLD, VIC and NT · Ongoing R&D, gap analysis and professional support services
4. Inability to cope with hazard	· Increased skill acquisition opportunities, with more than 37,000 nippers learning surf safety survival skills around the country. · Partnering with other key organisations such as AUSTSWIM to assist with the provision of aquatic skills. · As for 1. above, the creation of the Australian Lifesaving Academy and the 'On The Same Wave' program with CALD communities.

ABOUT COASTAL DEATHS...

There were 110 'coastal deaths' around Australia in 2005–06.
SLSA has also reviewed all coastal deaths around Australia. The distinction between 'coastal drowning deaths' and 'coastal deaths' is detailed in the glossary and is used by SLSA to allow more specific examination of coastal drowning deaths, that is, incidents in which surf life saving services, or the lack thereof, would have influenced the outcome.

110 coastal deaths were recorded for the 2005-06 season with males accounting for the majority (82 per cent, n=91). The majority of victims of coastal deaths lived less than 10km from the coastline (55 per cent, n=61).

The largest proportion of coastal deaths occurred during spring (33 per cent n=37) with summer recording the second highest (30 per cent, n=34), however coastal deaths did occur all year round. The activity at the time of incident was recorded for 70 per cent of cases with boating incidents resulting in a large proportion of these cases (32 per cent, n=25), alongside other activities such as recreational boating and fishing/boat fishing.

Within the aforementioned activities, the cause of death ranged from natural causes (n=22) such as heart attack, and severe impact injuries from activities such as boating (n=11).

Other causes of death included self harm, four animal attacks and one stinger death. The day recorded for the coastal death followed a similar trend as coastal drowning deaths with a majority occurring on a weekday (63 per cent, n=53) and 37 per cent (n=31) on a weekend.

ABOUT THIS REPORT...

Surf Life Saving Australia (SLSA) keeps an extensive database of coastal drowning deaths and coastal deaths which occur around Australia within 'SurfGuard' its own web-based database. Members complete an Incident Report Log (IRL) at the time of the incident and then add the information into the Incident Report Database (IRD), which is easily accessible from any computer with internet access, in a user-friendly format.

SLSA cross-checks this data with the National Coroners Information System (NCIS), to maximise the accuracy of the findings noted within this document. SLSA thanks the National Coroners Information System for their time and assistance with their extensive database search and report. Each Coroners Office around Australia provides information to the NCIS, and their efforts in making this data available are also appreciated.

The Coastal Drowning deaths and Coastal Deaths reported in this report are subject to change based on coronial enquires yet to be finalised.

Glossary

ABSAMP
Australian Beach Safety and Management Program — SLSA's own database of coastal information

Aquatic Coastal Risk
Assessment: An SLSA service for local government and land managers providing:

- Access signage requirements relating to warnings, regulations and lifesaving services
- Individual specialist warning signs for extreme risk hazards
- Individual production specifications for siting of each sign
- Recommendations for the removal of unnecessary and non-standard signage
- Identification of aquatic risks e.g. sub-surface reefs, channels and rips, tidal impacts
- Risk mitigation strategies and remedies for identified threats to public safety
- Recommendations on the necessary lifesaving service including personnel, training, coverage, communications, rescue equipment and emergency back-up

Crude all-age drowning rate
Total number of drowning deaths per 1,000,000 people.

Coastal Drowning
death arising from impairment of respiratory function as a result of immersion in liquid, with the location of immersion occurring on the Australian coastline where a lifesaving/lifeguard service is located, or could possibly be located, which may have increased the chance of survival of the victim.

Coastal Death
death arising from various circumstances occurring on the Australian coastline beaches and oceans excluding those deaths that fit the definition for coastal drowning (see above). Coastal deaths may include, but are not limited to activities such as boating, fishing, scuba diving/snorkelling, self-harm, etc. Coastal deaths also include drowning deaths where the location of drowning is not in the vicinity of where a lifesaving/lifeguard service is located currently or will not be located in the near future e.g. open ocean.

IRD
Incident Report Database — SLSA's own database of coastal incidents.

Lifesavers
Trained volunteers who patrol beaches on weekends and public holidays during the swimming season.

Lifeguards
Lifesaving services provided by local government and land managers. SLSA provides 70per cent of contracted lifeguard services through Australian Lifeguard Services.

Rips
A strong current running out to sea on a surf beach which can easily take swimmers from shall water up to several hundred metres offshore.

Support services
Motorised rescue units (rescue water craft, jet rescue boats, offshore rescue boats) able to provide rapid response on a regional basis.

How to contact Surf Life Saving around the country

Surf Life Saving Australia
(02) 9300.4000
or www.slsa.com.au

Surf Life Saving NSW
(02) 9984 7188 or
www.surflifesaving.com.au

Surf Life Saving QLD
(07) 3846 8000 or
www.lifesaving.com.au

Life Saving Victoria
(03) 9676 6900 or
www.lifesavingvictoria.com.au

Surf Life Saving SA
(08) 8354 6900 or
www.surfrescue.com.au

Surf Life Saving WA
(08) 9243 9444 or
www.mybeach.com.au

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