

Life Saving Victoria
Drowning Report
2014/15



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- Victorian Injury Surveillance Unit

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Cover image: James Caldwell

Methods

This report includes unintentional fatal and non-fatal drowning incidents reported in Victoria, Australia. An overview of fatal drowning for 1 July 2014 to 30 June 2015 is provided and compared with non-fatal drowning incidents for the same time period. Comparisons between the latest financial year and five or 10 year averages were calculated from fatal and non-fatal drowning data in Victoria from 1 July 2004 to 30 June 2014.

Fatal incidents

Information on fatal drowning incidents was collected from the Coroners Court of Victoria, and the National Coroners Information System (NCIS). Deaths due to natural causes, suicide or homicide are excluded from this report.

Coronial information relates to both open and closed cases. While all care is taken to ensure that the results are as accurate as possible, these figures are provisional only as coronial investigations and findings relating to open cases may alter the reported drowning figures. At the time of compilation all suspected unintentional drowning cases in 2014/2015 remained open on the NCIS.

Non-fatal incidents

Information on non-fatal drowning in 2014/2015 was provided by Ambulance Victoria (AV). Cases of non-fatal and immersion related injuries attended by AV paramedics were extracted from the VACIS® clinical information system. Potential drowning data for this report were identified via a database search for all drowning related dispatch codes identified at the emergency call-taker level, as well as cases in which paramedics reported a final assessment of 'post immersion'. Only patients reported as suffering respiratory compromise or vomiting as a result of immersion were included in analyses.

NOTE: Due to industrial action, paramedics did not complete electronic / VACIS patient care records between 26th September 2014 and 20th December 2014. Written patient care records were completed for the vast majority of cases during this time, therefore very limited electronic data is available for this period. Non-fatal drowning statistics for the 2014/2015 financial year need to be interpreted with caution. Only one non-fatal drowning incident was recorded electronically during this time frame. *Note, during 2013/14, 20 out of the 60 (33.3%) non-fatal drowning incidents occurred between 26/09/2013 and 20/12/2013.

Information on non-fatal drowning from 2004 to 2014 was provided by the Victorian Injury Surveillance Unit (VISU). Data included non-fatal and immersion related injuries extracted from the Victorian Emergency Minimum Dataset (VEMD) and Victorian Admitted Episodes Dataset (VAED) for the period 1 July 2004 to 30 June 2014.

The VEMD is a dataset containing records of emergency department presentations in 398 Victorian hospitals with 24-hour emergency services. Data was selected if the cause of injury was 'drowning/near drowning' or the terms 'drown', 'submerged', 'immersion' and their variations were included in the "Description" variable. Further all injuries with an injury coded to drowning or immersion were also selected. Finally any injury coded to a drowning or non-fatal drowning cause code with the mention of 'decompression illness' in the description was also chosen. Due to inconsistencies in the coding, these cases were then manually screened to ensure that they were submersion or non-fatal drowning cases.

The VAED is a record of all hospital admissions in the state of Victoria. Data were extracted if the cause of injury was a non-fatal drowning (including water transport), or if the cause of injury was accident to water craft causing drowning and submersion or water transport related drowning and submersion without accident to watercraft.

Drowning deaths from either AV or VISU data were excluded to avoid an overlap with Life Saving Victoria (LSV) fatal drowning data.

Probability maps

Probability maps for Victorian Statistical Area Level 4 (SA4) regions were created demonstrating the likelihood of at least one drowning event occurring within each of the 17 Victorian regions. Probabilities were calculated based on yearly means (spanning 10 years from 2004 to 2014) for each SA4 region. Using yearly means provides the ability to devise the likelihood of one or more drowning events in each SA4 in any given year.

Probability maps based on the incident location or the resident location of events were created. Incident location and resident location events were geocoded and counted within each Victorian SA4 for the given 10-year period. This process enabled a mean for each SA4 to be devised, then the calculation of the different SA4 probabilities for each event type (Incident and Resident).

39

DROWNING DEATHS IN VICTORIA FROM 1 JULY 2014 TO 30 JUNE 2015.

Geographical classification

Geographical classification of fatal and non-fatal drowning variables utilised the Australian Statistical Geography Standard (ASGS; Australian Bureau of Statistics, 2011). The ASGS is the Australian Bureau of Statistics' geographical framework. Data were categorised into Remoteness Areas and Statistical Areas.

Murray River fatal drowning analysis

This year's report includes analysis of Victorians who drowned in the Murray River from 2004-2014. This research was conducted as part of the Inland Waterways Drowning Prevention project by Royal Life Saving Society-Australia and funded by the Australian Government.

Information on incidents was collected from the Royal Life Saving National Fatal Drowning Database and the NCIS. Methods for reporting of these incidents is as per all Victorian fatal drowning incidents as reported above.

REDUCE DROWNING

Reduce Victorian drowning rate

39 

Drowning deaths in Victoria in 2014/2015. This is one more than the 10 year average 2004-2014.

0.67 

Crude fatal drowning rate per 100,000 persons in Victoria in 2014/2015; a 7% decrease compared to the 10 year average (2004-2014).

122 

Non-fatal drowning incidents in Victoria on average per year from 2004-2014. A 2.26 crude non-fatal drowning rate on average from 2004-2014.

42% 

Decrease in the fatal drowning rate in Victoria since the start of the Play it Safe by the Water (PISBTW) campaign in 1998 (baseline is the 3 year average 1996-1999 compared to the follow-up 2012-2015 average).

\$164M 

Direct cost to society of lives lost (where the value of a statistical life is estimated at \$4.2 million; Office of Best Practice Regulation, 2014).

SERVICES

Expand to meet public need/ sustainability/ membership development, growth and support

733 

Rescues by lifesavers and lifeguards on patrolled beaches on average per year from 2004-2014.

28.49 

Rescues per 100,000 beachgoers on average per year from 2004-2014.

1,919 

First aid assistance by lifesavers and lifeguards on patrolled beaches on average per year from 2004-2014.

30,156 

Volunteer members, patrolling our beaches and providing education and training in lifesaving activities, to ensure the safety of the Victoria's waterway users.

\$235M 

Total value of Life Saving Victoria coastal services estimated at per year (PWC, 2011).

PROGRESS

Progress against drowning prevention priority areas in the Victorian Water Safety Master Plan and Australian Water Safety Strategy, 2012-2015.

KEY LIFE STAGES	BASELINE 3 YEAR AVERAGE (2004-2007)	FOLLOW-UP 3 YEAR AVERAGE (2012-2015)	PROGRESS
Children 0-4 years	3	4	Work needed
Children 5-14 years	4	0	On track
Young people 15-24 years	5	5	Work needed
People aged over 65 years	7	10	Urgent work needed

Every day, visitors to Victoria's 811 kilometres of ocean beaches, 259 kilometres of bay beaches, 85,000 kilometres of rivers, 13,000 natural wetlands and 450 public and commercial swimming pools, engage in a wide variety of recreational aquatic activities (Short, 1996; DSE, 2011; VAIC, 2001). Our prevention efforts span this setting.



EDUCATION & TRAINING

Continue development to ensure efficiency and expansion of delivery

183,460 

Participants took part in water safety education state wide in 2014/2015; a 2% decrease compared to the 5 year average (2009-2014).

13,000 

Culturally and linguistically diverse participants took part in LSV programs in 2014/2015; a 43% increase compared to the 5 year average (2009-2014).

27,325 

People trained in CPR or other First Aid related courses; a 17% increase compared to the 5 year average (2009-2014).

8,444 

Participants in Pool Lifeguard, Community Surf Life Saving, or water rescue courses in 2014/2015.

145 

Aquatic facilities are registered Watch Around Water facilities in 2014/2015.

AQUATIC RISK & RESEARCH

Striving for excellence/ evidence based practice

89% 

Of students improved in at least one of five practical skills tests following 10 lessons of the 'Lifesaving in Schools' program (Birch, Matthews, Petrass and Blitvich, J., 2015).

18% 

Of local government areas (LGAs) were considered at excess risk of a resident in their LGA drowning in an inland waterway in Victoria when accounting for population size (Matthews & Andronaco, 2015).

43% 

Of female volunteer lifesaving members had held a formal leadership role vs 66% of males. The results will assist development of strategies and policies to support gender diversity in lifesaving (Birch, Juric and Matthews, 2015).

150 

Facility safety assessments conducted to audit aquatic locations against the best practice standards.

47% 

Aquatic facilities have not completed a facility safety assessment in the past five years.

HIGH RISK LOCATIONS	BASELINE 3 YEAR AVERAGE (2004-2007)	FOLLOW-UP 3 YEAR AVERAGE (2012-2015)	PROGRESS
Rural and remote	23	21	Work needed
Inland waterways	15	14	Work needed
Coastal waterways	14	19	Work needed

HIGH RISK ACTIVITIES/ COMMUNITIES	BASELINE 3 YEAR AVERAGE (2004-2007)	FOLLOW-UP 3 YEAR AVERAGE (2012-2015)	PROGRESS
Alcohol related	9*	9	Work needed
CALD Communities	6	7	Work needed

* Average from 2000-2008



161

**FATAL AND
NON-FATAL
DROWNING
INCIDENTS
ON AVERAGE
PER YEAR FROM
2004-2014.**

36% INCREASE IN THE NON-FATAL DROWNING RATE OF CHILDREN AGED 5-14 YEARS.

Life Saving Victoria is continually developing strategies to reduce the drowning rate. Identifying the most vulnerable groups and trends helps us tackle the issue. This latest Victorian Drowning Report outlines the emerging trends in fatal and non-fatal drowning to identify areas for further development.

What we have learnt from data collected in 2014/2015 is that males remain at greatest risk of drowning, particularly those aged between 15 and 64 years. Of the 39 drowning deaths in Victoria last year, 35 were male. The statistics also reveal increases in fatal drowning involving children aged between 0-4 years, as well as adults aged 45 years and over.

Of concern is the 36% increase in the non-fatal drowning rate of children aged 5-14 years from 2009-2014 (2.76 per 100,000 population) compared to 2004-2009 (2.03 per 100,000 population).

These figures coupled with research that indicates that 60% of students leave primary school unable to swim 50 metres continuously (Birch & Matthews, 2013) and a Coroner's recommendation for compulsory swimming and water safety education in Victorian schools, highlights the importance of our Lifesaving in Schools initiative. The Lifesaving in Schools initiative aims to provide innovative solutions to ensure every Victorian child has the opportunity to learn vital swimming and water safety skills regardless of location, physical capability, cultural background and socio-economic circumstances.

On a positive note, there were no drowning deaths involving children aged between 5 and 14 this year in Victoria. The 15-24 year age group also experienced a decrease in the fatal drowning rate. Life Saving Victoria has been working with schools to ensure children learn to swim, this includes the before school swimming lessons trial which we plan to roll out across the state. It is important to note though there are still concerns about non-fatal drowning incidents in both of these age groups.

Life Saving Victoria continues to work closely with culturally and linguistically diverse communities to provide water safety education but more is needed following the drowning deaths of nine people in 2014/2015. This is a 55 per cent increase when compared to the 10 year average of six, between 2004 and 2014.

Many people may think summer is when most drowning deaths occur but during 2014/2015 almost a third of incidents occurred in winter. This increase appears to be due to boating related incidents, with five out of the nine fatal incidents occurring in the coldest months of the year. It's disappointing to learn that in eight of the nine boating incidents, the person was either not wearing a lifejacket, it was incorrectly fitted or not suitable for the type of waterway.

Finally, the data shows the locations of drowning incidents are similar to previous years, with 49% of fatal incidents in 2014/2015 occurring in major cities in Victoria, the majority in coastal waterways. The statistics also show almost one third of drowning victims lost their lives in inland waterways.

New data analysis this year has revealed approximately three Victorians drown in the Murray River annually. This highlights the importance of public awareness campaigns such as the Respect the River campaign to promote safe aquatic recreation and prevent drowning in inland waterways.

Drowning profiles by Statistical Areas in Victoria have also been included in this year's Report. This in-depth analysis provides further information at a local level which can be utilised by all levels of government, industry, practitioners and the community to provide targeted drowning prevention strategies.

I implore all Victorians and visitors to our beautiful waterways to enjoy the water safely.



Nigel Taylor
Chief Executive Officer
Life Saving Victoria



A couple is silhouetted against a bright sunset sky as they wade in a lake. The woman is on the left, and the man is on the right, holding her hand. The water is dark with some ripples. A large, bold, yellow '23%' is superimposed over the top half of the image.

23%

**OF INDIVIDUALS THAT DROWNED IN 2014/2015
WERE REPORTED AS BEING FROM CULTURALLY
AND LINGUISTICALLY DIVERSE COMMUNITIES.**

Who is Drowning?

There were 39 drowning deaths in 2014/2015. This is one more than the 10 year average from 2004-2014. There were also 39 non-fatal drowning incidents recorded in 2014/2015; however these figures need to be interpreted with caution as data is missing for a three month period in 2014/2015 (refer Methods section). Over the previous decade (2004-2014) there were on average 122 non-fatal drowning incidents requiring hospitalisation per year. Thus in total there have been over 1,600 drowning incidents in the last decade, an average of 161 per year. For every one drowning death there were another three non-fatal drowning incidents. In addition, the crude fatal drowning rate was 0.72 per 100,000 persons and the crude hospitalisation rate was 2.23 per 100,000 persons (average from 2004-2014).

Gender

Males are consistently overrepresented in drowning statistics. Of the 39 drowning deaths in Victoria in 2014/2015, 35 (90%) were male. The gender difference was lower for non-fatal drowning with 21 (54%) males hospitalised in 2014/2015 and on average 86 (70%) hospitalised per year from 2004-2014.

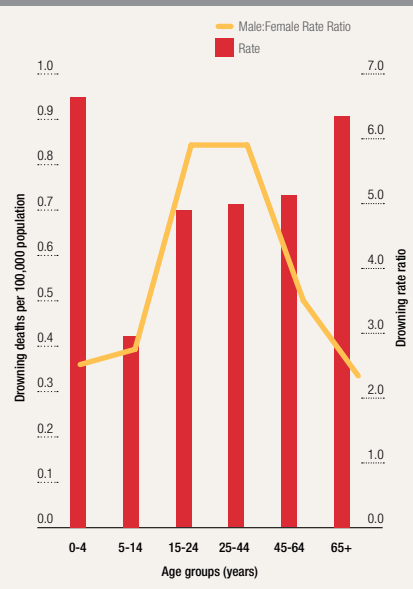
Overall males are more likely to drown than females. The increased likelihood of drowning for males is greatest from age 15-64 years. The male to female fatal drowning rate ratio was highest in those aged 15-24 years (5.81) and 25-44 years (5.81), followed by those aged 45-64 years (3.46).

Age

Four children aged 0-4 years died as a result of drowning this year in Victoria, with a drowning rate of 1.07 per 100,000 population. There was a 14% increase in the fatal drowning rate of children aged 0-4 years in 2014/2015 compared with the 10 year average (2004-2014). Children in this age group have the greatest overall risk of drowning with the highest age-specific rate of both fatal (0.94) and non-fatal (11.44) drowning over the past decade (2004-2014).

There were no fatal drowning incidents in children aged 5-14 years this year in Victoria. However there were seven non-fatal incidents reported in 2014/2015 and an average of 16 non-fatal incidents per year in this age group over the past decade (2004-2014). In addition the non-fatal drowning rate in the 5-14 year age group has increased over the years with a 36% increase in the average drowning rate from 2009-2014 (2.76 per 100,000 population) compared to 2004-2009 (2.03 per 100,000 population).

AVERAGE FATAL DROWNING RATE AND MALE TO FEMALE RATE RATIO, VICTORIA, 2004-2014



Three young people aged 15-24 years died as a result of drowning this year, a decrease of 44% in the fatal drowning rate compared with the 10 year average (2004-2014). There was also a 7% decrease in the fatal drowning rate in the 25-44 year age group compared with the 10 year average (2004-2014).

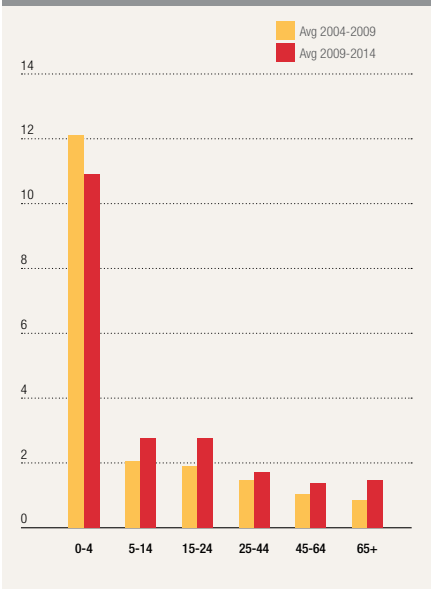
Adults aged 45-64 years and 65 years and over both recorded increased fatal drowning rates (18% and 17% respectively) in 2014/2015. Adults aged over 65 years had the second highest age-specific fatal drowning rate in 2014/2015 (1.04 per 100,000 population).

Cultural and linguistic diversity

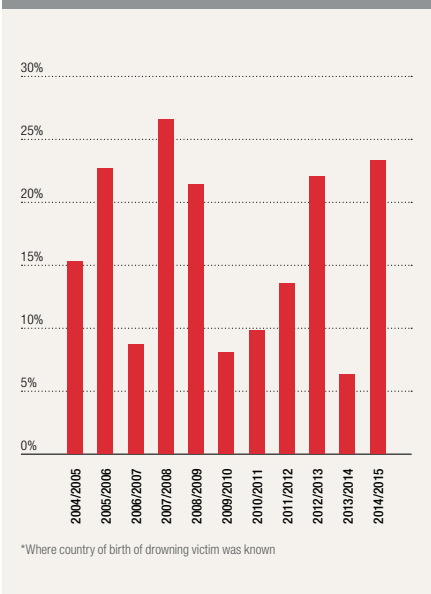
This year 23% (9) of individuals that drowned in 2014/2015 were reported as being from culturally and linguistically diverse (CALD) communities. This is a 55% increase when compared to the 10 year average (6, 2004-2014). Indeed, these figures may be even higher as from 2004-2014 it is estimated that country of birth or ethnicity were unknown in three out of four drowning deaths. In addition country of birth was unable to be determined for non-fatal drowning incidents.

Individuals from a CALD background are recognised as those who identify as 'having a specific cultural or linguistic affiliation by virtue of their place of birth, ancestry, ethnic origin, religion, preferred language, language(s) spoken at home, or because of their parents' identification on a similar basis' (DHSMU, 2002).

NON-FATAL DROWNING RATE BY AGE, VICTORIA, 2004-2014



PERCENTAGE OF DROWNING DEATHS IN VICTORIA BY OVERSEAS COUNTRY OF BIRTH* 2004-2015

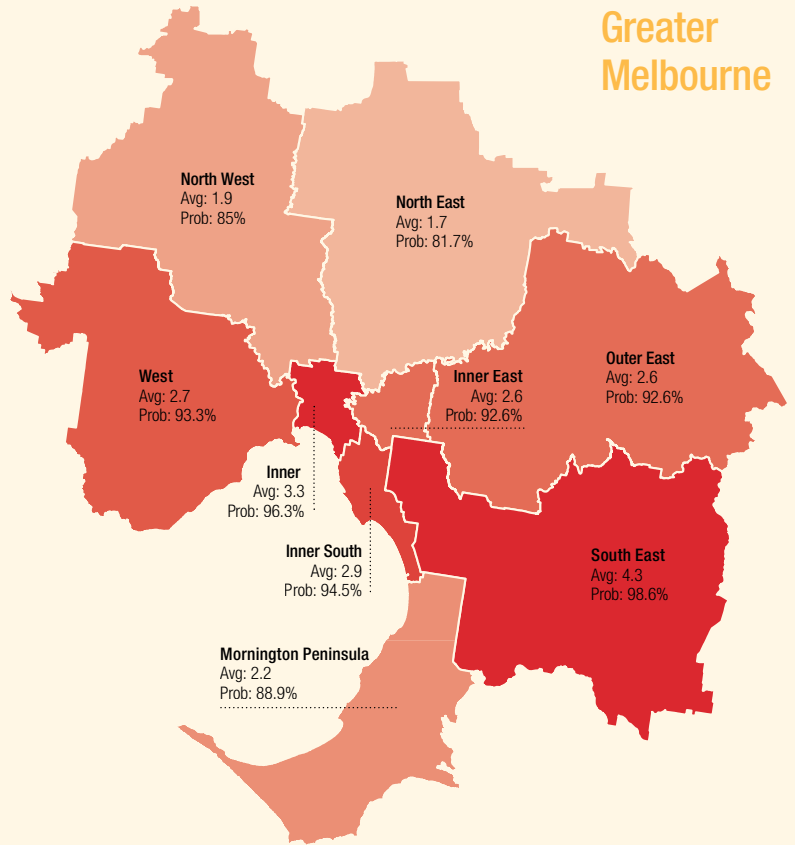


*Where country of birth of drowning victim was known

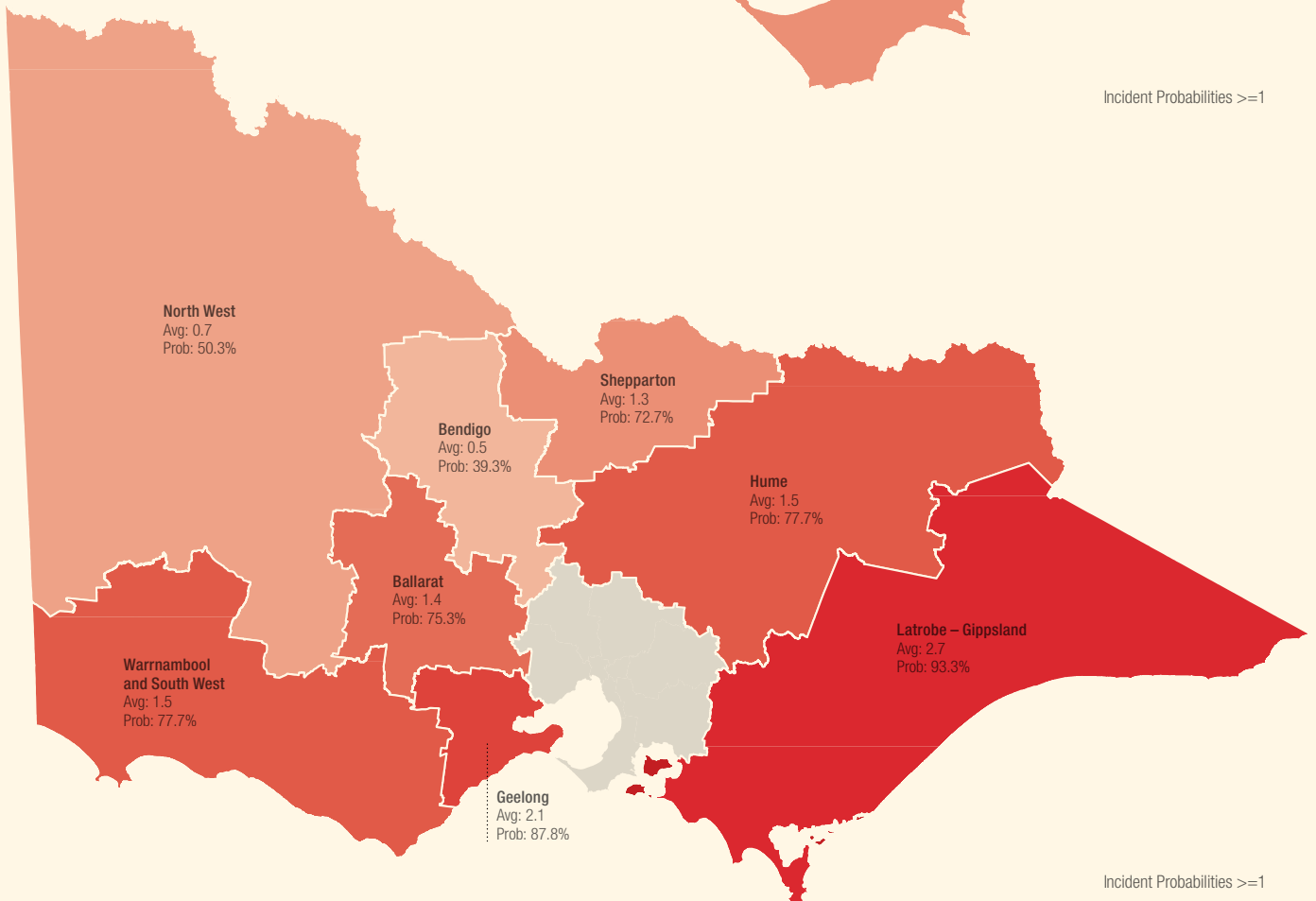
When, Where, What

Probability of fatal drowning by location of incident in Victorian Statistical Areas

SA4 regions with lower probabilities; that is a lower likelihood of having at least one or more drowning occurring in any given year, are shaded using lighter colours. Darker shades symbolise that the probability of there being one or more drowning deaths in any given year is higher than other SA4 regions shaded with lighter tones.



Victoria



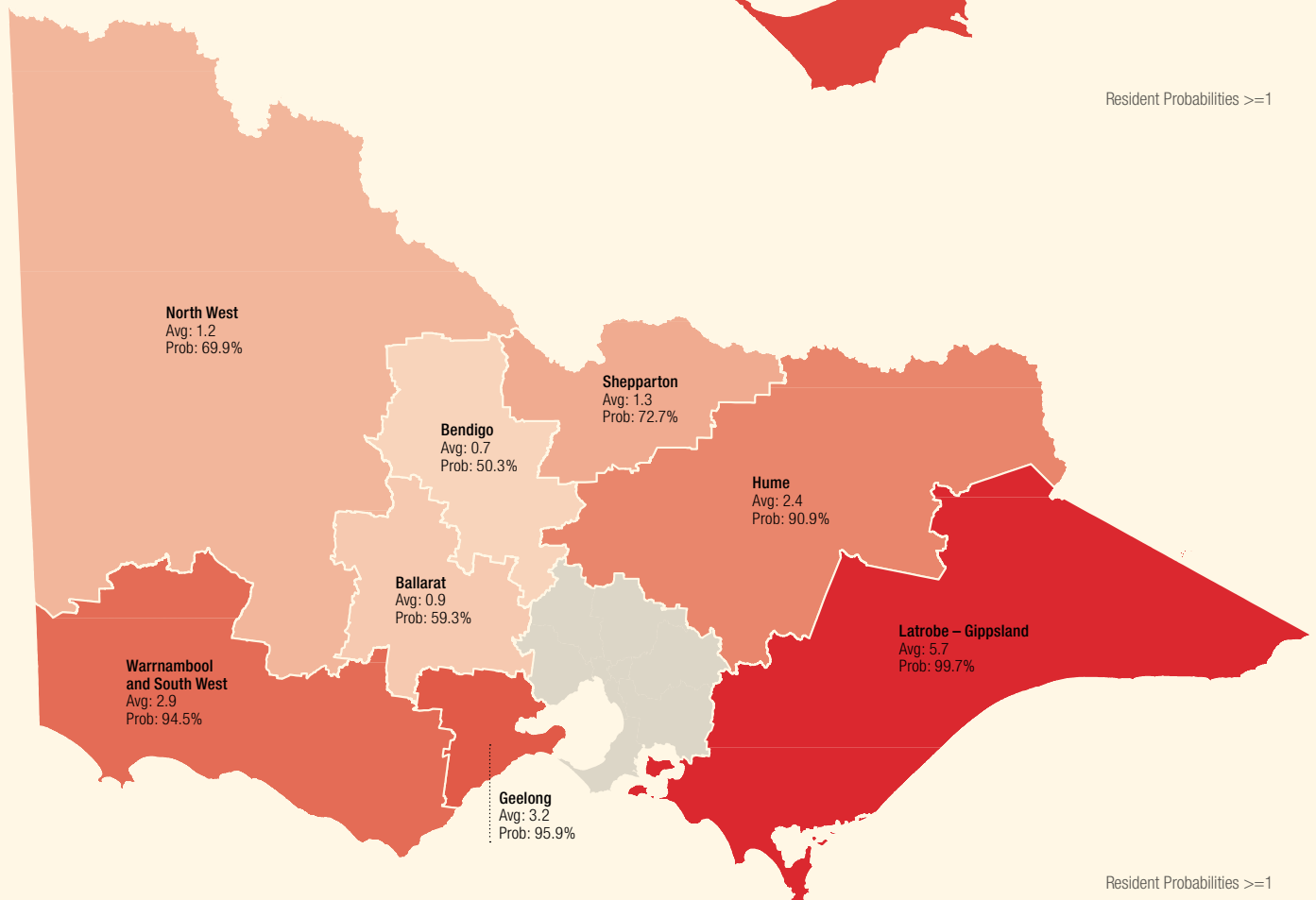
PEOPLE IN REGIONAL AREAS REMAIN ALMOST TWICE AS LIKELY TO DROWN AS THOSE IN MAJOR CITIES.

Probability of fatal drowning by place of residence in Victorian Statistical Areas

SA4 regions with lower probabilities; that is a lower likelihood of having at least one or more drowning occurring in any given year, are shaded using lighter colours. Darker shades symbolise that the probability of there being one or more drowning deaths in any given year is higher than other SA4 regions shaded with lighter tones.



Victoria





31%

OF DROWNING DEATHS
OCCURRED IN WINTER IN 2014/2015.

When, Where, What

When did they drown?

Month and Season

There was an increase in drowning deaths in the winter months in 2014/2015, which represented almost a third (31%) of all drowning deaths for the year. These figures likely reflect the increase in boating related drowning incidents in Victoria with five of the nine boating incidents occurring in winter.

In the previous decade (2004-2014) the majority of drowning incidents occurred in summer (35%), followed by spring (24%), autumn (22%) and winter (19%).

Where did they drown?

Region

As in previous years, half (19, 49%) the drowning fatalities in 2014/2015 occurred in major cities in Victoria. And while 59% of those who drowned resided in major cities in Victoria, the drowning rate is higher for those residing in regional areas in Victoria when accounting for the differences in the distribution of the population. The drowning rate ratio of regional Victoria to major cities is 1.8, thus those in regional and remote areas remain almost twice as likely to drown as those in major cities.

Waterways

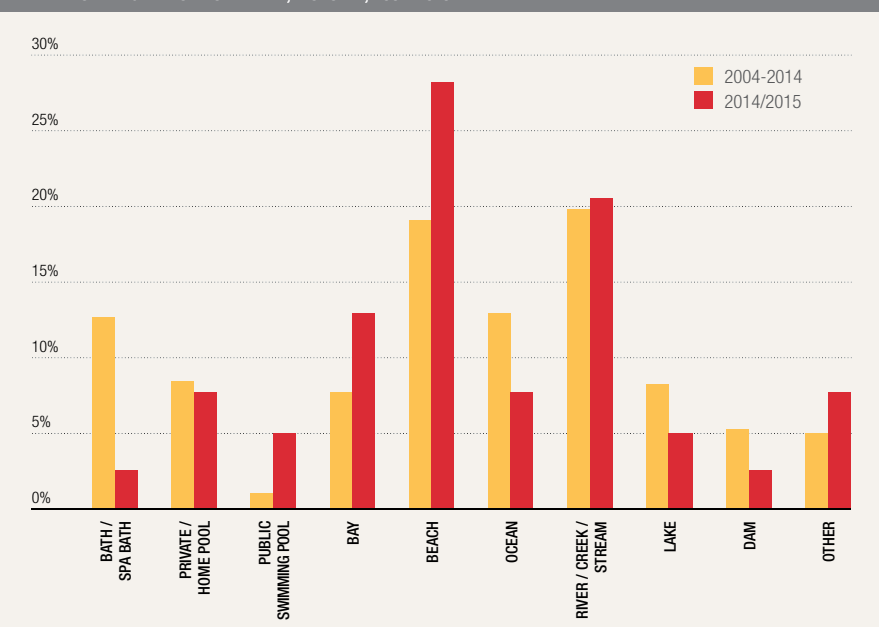
The majority of drowning deaths occurred in coastal waterways in 2014/2015 (19, 49%). This represents a 29% increase in drowning deaths in coastal waterways compared with the average over the previous decade (15, 38% from 2004-2014). In particular there were increased drowning deaths at beaches and in the bay compared with previous years.

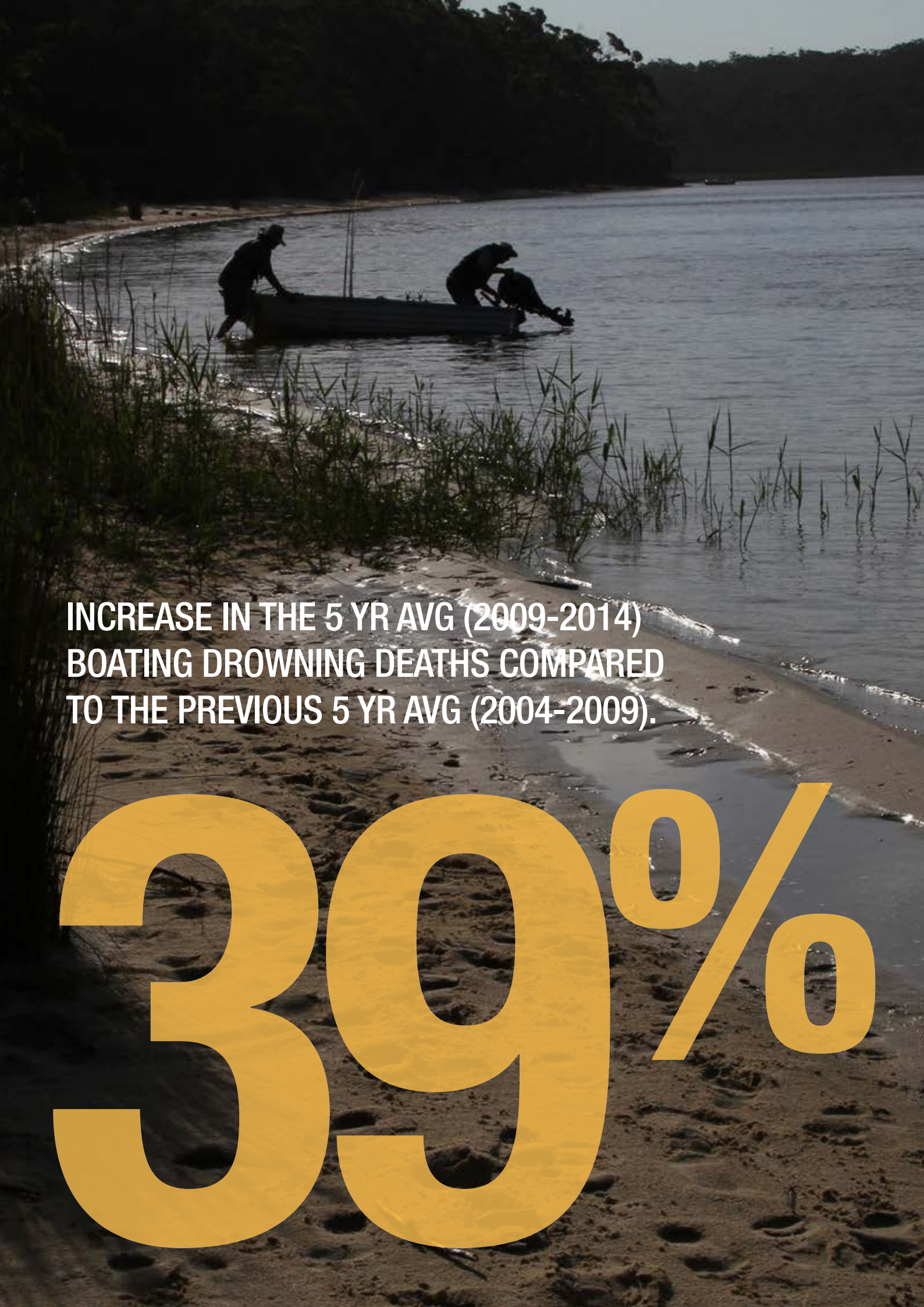
Fatal drowning in inland waterways accounted for almost a third of drowning deaths in 2014/2015 (12, 31%). This is a slight decrease compared with the ten year average from 2004-2014 (14, 37%). This was due to less drowning incidents in lakes/dams. Drowning in rivers/creeks/streams accounted for eight drowning deaths in 2014/2015. This is the same as the ten year average and represents one in five drowning deaths.

PERCENTAGE OF FATAL DROWNING BY SEASON, VICTORIA, 2004-2015



FATAL DROWNING BY BODY OF WATER, VICTORIA, 2004-2015



A photograph of a lake with people on a boat in the background and reeds in the foreground. The scene is captured in a slightly desaturated, naturalistic style. In the middle ground, three people are on a small boat on the water. The foreground is dominated by tall reeds and grasses along the shoreline. The water is calm with some ripples. The sky is a pale, clear blue.

**INCREASE IN THE 5 YR AVG (2009-2014)
BOATING DROWNING DEATHS COMPARED
TO THE PREVIOUS 5 YR AVG (2004-2009).**

39%

9

THE MOST COMMON ACTIVITY IMMEDIATELY PRIOR TO A DROWNING WAS BOATING WITH NINE DEATHS IN 2014/2015, THE HIGHEST NUMBER OF BOATING RELATED DROWNING DEATHS SINCE 2003/2004.

What were they doing?

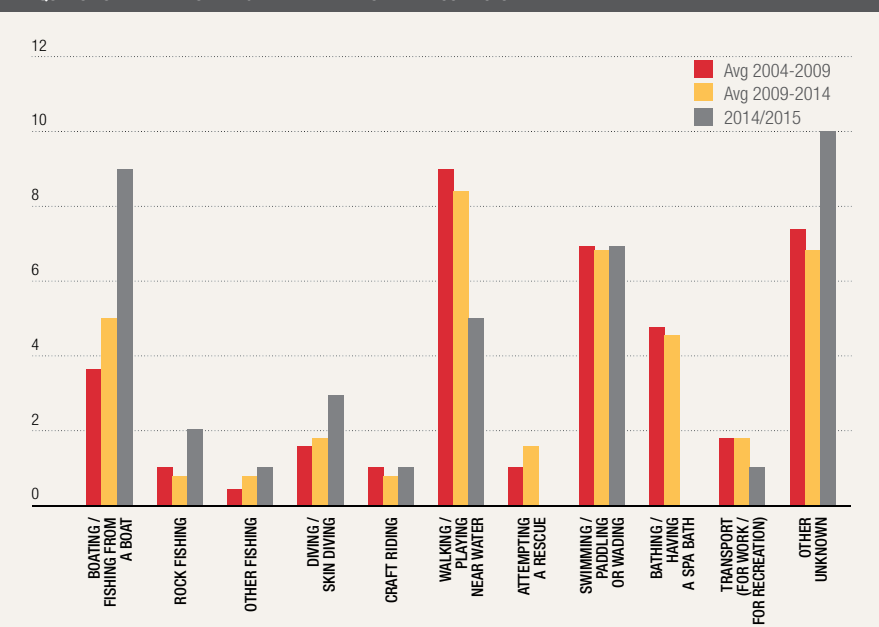
Activity

The most common activity immediately prior to a drowning death was boating with nine deaths in 2014/2015, the highest number of boating related drowning deaths since 2003/2004. There has been a 39% increase in the five year average boating related drowning deaths from 2009-2014 compared to the 2004-2009 average.

Other activities prior to drowning in 2014/2015 included swimming/paddling/wading (7, 18%), or walking/recreating near water (5, 13%). Further activities included SCUBA diving/snorkelling, rock fishing, other fishing, driving a motor vehicle. In over a quarter (26%) of fatal drowning incidents the activity just prior to drowning was unknown as the person was alone at the time.

Unintentional water entry (slips/trips/falls) accounted for one in five fatal drowning incidents. This is similar to the past decade with 22% unintentional water entry from 2004-2014.

FREQUENCY OF FATAL DROWNING PER YEAR BY ACTIVITY 2004-2015



Risk Factors

Alcohol-related drowning deaths

Alcohol is a common factor in drowning, with over 100 lives lost to alcohol-related drowning incidents since 2004, and representing 24% of the drowning toll each year. Another seven lives were lost in 2014/2015 when an individual reportedly consumed alcohol prior to drowning, representing 18% of the total drowning toll this year. This is two less deaths than the average of nine over the past decade (2004-2014) involving alcohol.

OVER

100

LIVES LOST TO ALCOHOL-RELATED DROWNING INCIDENTS SINCE 2004.



3-IN-4

PEOPLE WHO DROWNED IN BOATING INCIDENTS WERE NOT WEARING A LIFEJACKET AT THE TIME THE INCIDENT OCCURRED.

Lack of lifejacket use

In eight of the nine drowning deaths involving boating in 2014/2015, the person was either not wearing a lifejacket, wearing an incorrectly fitted lifejacket or wearing a lifejacket that was not suitable for the type of waterway. The lack of a lifejacket has potentially claimed many lives in Victoria with three out of four people that drowned in boating incidents over the past decade (2004-2014) not wearing a lifejacket at the time the incident occurred.

Wearing a lifejacket when rock fishing could also have saved another eight lives over the past decade (2004-2014) as all those individuals who drowned while rock fishing were not wearing a lifejacket.



Coronial Recommendations

The role of the coroner in Victoria is to investigate reportable deaths which includes drowning, in order to determine the identity of the person who died, the cause of the death and in some situations, the circumstances surrounding the death. As part of this process the coroner may recommend ways to help prevent similar deaths in the future.

There were eight coronial findings where recommendations were made relating to drowning deaths in 2014/2015. The recommendations related to: amendments to relevant legislation for swimming pool barriers; government intervention to improve opportunities for children of primary school age and in particular children from CALD communities to learn swimming and water safety; interventions to reduce alcohol-related drowning; modification to the Australian Standard for SCUBA diving; consideration of vehicle barriers at potential entry points along a section of the Yarra River; and system changes in Victoria Police to improve communication and account for cultural factors with CALD communities. The following is a summary of a sample of the incidents and the recommendations made by the coroner as contained in the coronial findings. Note, they are not exact replications from the findings; these should be accessed from the Coroners Court of Victoria website:

<http://www.coronerscourt.vic.gov.au/home/coroners+written+findings/>



CORONIAL FINDINGS WHERE RECOMMENDATIONS WERE MADE RELATING TO DROWNING DEATHS IN 2014/2015.

2008

In September 2008, a 3 year old girl died from drowning in a swimming pool at rented premises occupied by her family. She was unsupervised at the time. The pool safety fence did not comply with Australian Standards.

Recommendations

Sixteen recommendations were made by the coroner. These related to amendments to relevant legislation for swimming pool barriers as well as legislation for Building Permits which included mandatory inspections and certification of compliance as a pre-condition to the sale or rental or house sitting of any property that has a swimming pool.

In addition, that the Building Commission improve the dissemination and availability of information about the construction and maintenance of swimming pools and their safety barriers and the relevant Building Permit process and publish a CPR guide, to be provided to pool owners at final inspection or final certificate stage.

The Real Estate Institute of Victoria educate its members about the importance of swimming pool surrounds forming part of property inspection from a duty of care prospective to ensure the health and wellbeing of tenants.

That Consumer Affairs Victoria amends its residential tenancy forms and publications are created for tenants and landlords to include regulatory information about swimming pool safety barrier fencing.

2008

In March 2008, a 12 year old boy drowned whilst swimming at Dandenong Creek, Dandenong. The boy moved to Australia in 2007 from a war torn country where there was no time to learn to swim.

The coroner also investigated another similar death of a recently arrived immigrant with little or no swimming experience (refer page 18).

2009

In February 2009, a 23 year old man drowned at Frankston Beach, within Port Phillip Bay. He and a group of family and friends attended the beach and waded into the water. Three of the men got into trouble losing footing due to the waves. One man was rescued, the other managed to reach a point where he could stand, while the other tragically drowned. None of the men could swim nor were they familiar with the conditions at the beach. The young man had only recently arrived in Australia and had no opportunities to learn to swim when growing up in Africa.

Recommendations

That the Department of Sports and Recreation in the State of Victoria, in partnership with the Federal Government Department of Immigration and Citizenship, seeks to examine how members of recently arrived immigrant communities to Victoria, might best be taught how to swim safely in open water and continue to provide support for that objective.

2012

In January 2012, a 9 year old boy drowned whilst playing in the shallows at Seaford Beach, within Port Phillip Bay. He was reportedly not a good swimmer.

Recommendations

I agree with and adopt the recommendation in the Life Saving Victoria 2013 report *Sink or Swim: The state of Victorian primary school children's swimming ability* that swimming and water safety education should be a compulsory skill taught within the primary school curriculum to all Victorian children.

2012

In May 2012, a 26 year old man drowned whilst swimming with friends at Frankston Beach, within Port Phillip Bay. His blood alcohol content was more than six times the legal limit for driving.

Recommendations

That Life Saving Victoria continues to develop targeted programs and campaigns for the promotion of public safety messages, such as Don't Drink and Drown, to raise awareness in the community of the dangers of alcohol related drowning across Victoria.

2012

In July 2012, a 42 year old woman drowned whilst SCUBA diving off a wreck site near Point Lonsdale.

Recommendations

1. That consideration be given by Standards Australia and relevant stakeholders to amending the Australian Standards so as to require periodic assessment of qualified SCUBA divers in key techniques including, but not limited to, buoyancy control.
2. That consideration be given by Standards Australia and relevant stakeholders to amending the Australian Standards so as to require Dive Charter operators to ensure divers carry a SMB (surface marker buoy) and are instructed to use it appropriately.

Snapshot Murray River Drowning 2004-2014

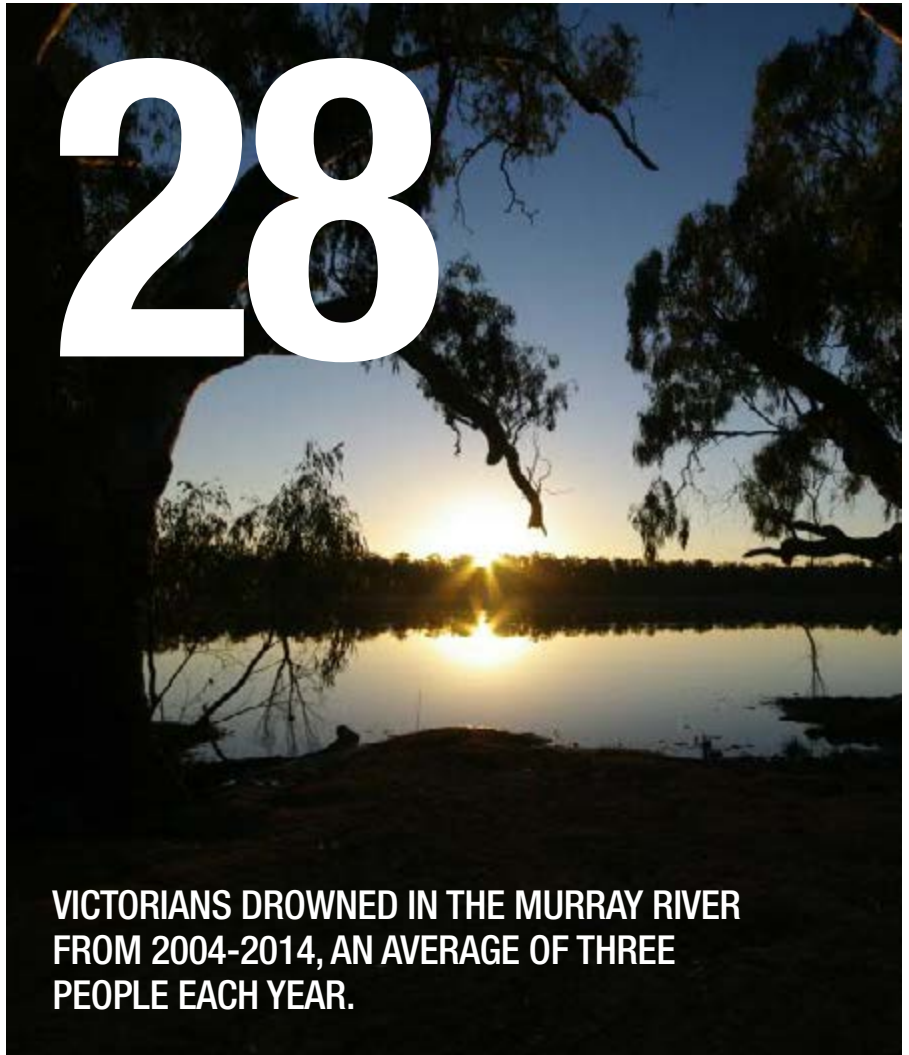
Inland waterways account for over a third of drowning deaths in Victoria and nationwide. A recent report (Peden, 2014) identified the Murray River as the number one river drowning hotspot in Australia.

At 2,508 km, The Murray River is Australia's longest river. It forms a majority of the border length between Victoria and New South Wales and stretches down into South Australia. Due to state government legislation, drowning incidents that occur in the Murray River are under New South Wales jurisdiction and are therefore reported in New South Wales drowning statistics. However, detailed analysis of Murray River drowning deaths (Peden, 2015) identified half of the drowning victims were from Victoria. Given the high number of Victorians drowning in the Murray this is a key focus for this year's report.

Twenty eight Victorians drowned in the Murray River from 2004-2014, an average of three people each year. Males were at greatest risk (24, 86%), and the average age of the deceased was 36 years. Over two thirds (19, 68%) of those who drowned were of Australian descent, 14% (4) were from CALD backgrounds, and 18% (5) country of birth was unknown.

Most incidents occurred in autumn (12, 43%), followed by summer (9, 32%). The most common activity just prior to drowning was swimming or walking/playing near water. Other typical activities included boating or driving.

Forty three percent (12) of those that drowned did not intend to enter the water, they slipped or fell in the water. In addition, in approximately a third (32%, 9) of drowning deaths in the Murray River the person had consumed alcohol prior to the incident.



Respect the River
Saving lives in Australian Rivers

AN INITIATIVE OF

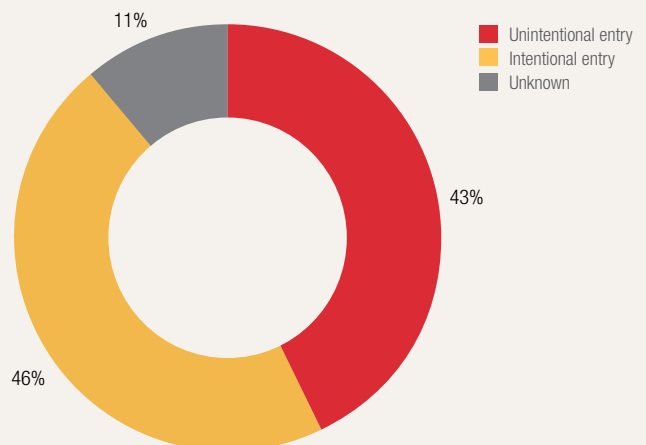


SUPPORTED BY



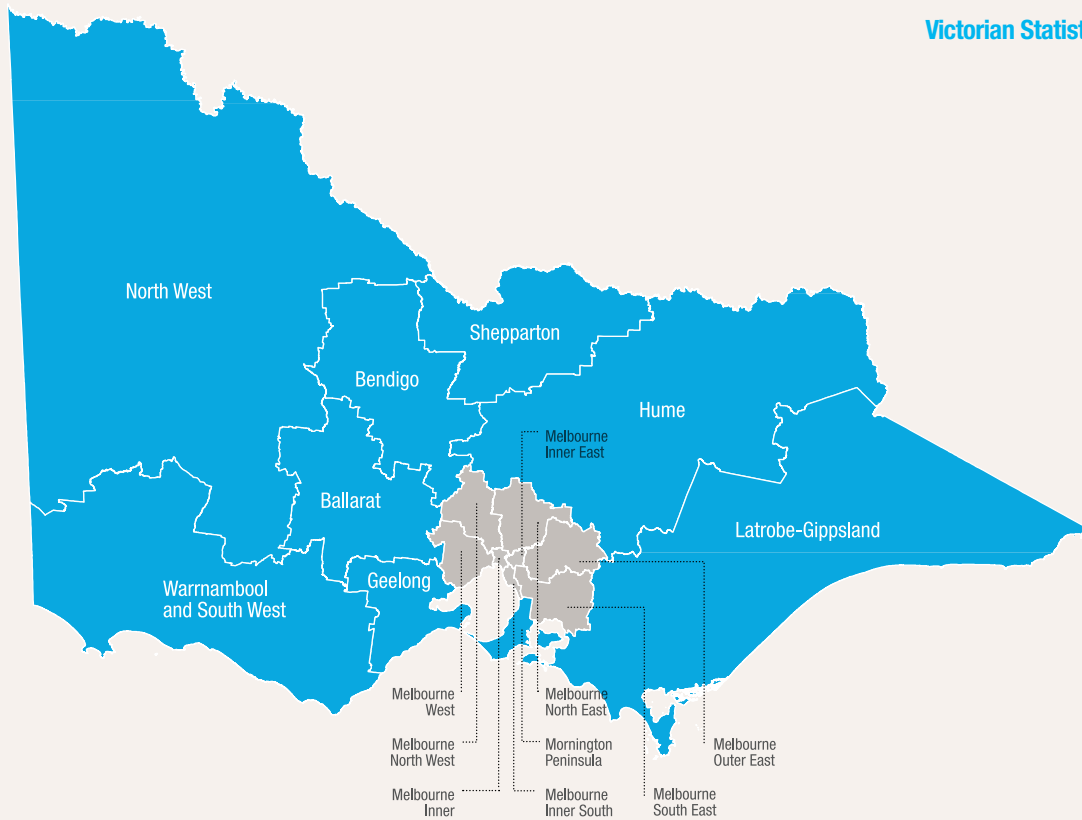
Australian Government

FATAL DROWNING IN THE MURRAY RIVER BY TYPE OF ENTRY INTO WATER, VICTORIAN RESIDENTS, 2004-2014



Drowning Profiles by Victorian Statistical Areas, 2004-2014

Victorian Statistical Areas



Ballarat Statistical Area 4 - Drowning Statistics 2004-2014

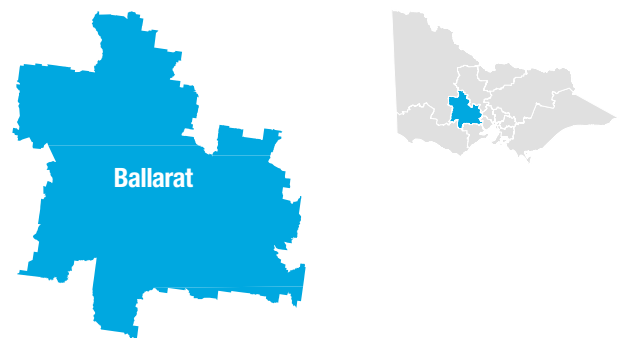
9 Drowning Deaths

13 Ballarat SA4 Residents Drowned in Vic

33 Ballarat SA4 residents hospitalised due to non-fatal drowning

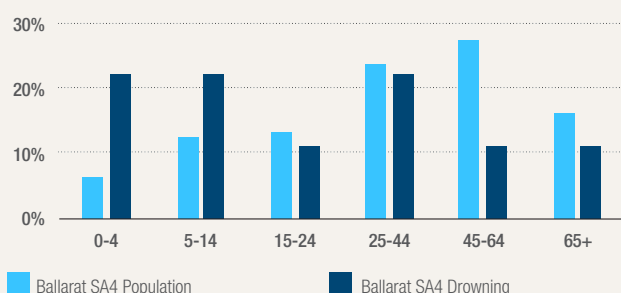
59% likelihood of one or more drowning deaths occurring in Ballarat SA4 in any given year

75% likelihood of one or more residents of Ballarat SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

- Lakes/dams
- Bathtubs
- Swimming/paddling/wading
- Bathing
- Walking/recreating near water

Males 1.3 times more likely to drown than females.

Bendigo Statistical Area 4 - Drowning Statistics 2004-2014

7 Drowning Deaths

5 Bendigo SA4 Residents Drowned in Vic

41 Bendigo SA4 residents hospitalised due to non-fatal drowning

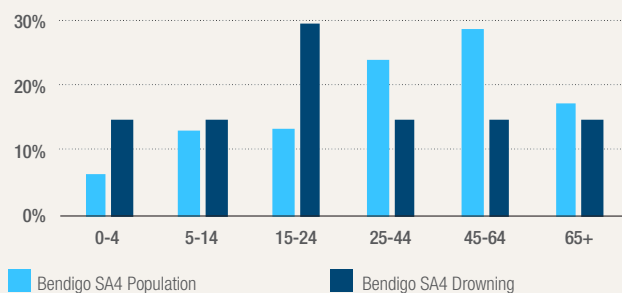
50% likelihood of one or more drowning deaths occurring in Bendigo SA4 in any given year

39% likelihood of one or more residents of Bendigo SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 6 times more likely to drown than females.

- Lakes/dams
- Home swimming pools
- Bathtubs
- Walking/recreating near water
- Boating/fishing
- Bathing

Geelong Statistical Area 4 - Drowning Statistics 2004-2014

31 Drowning Deaths

22 Geelong SA4 Residents Drowned in Vic

76 Geelong SA4 residents hospitalised due to non-fatal drowning

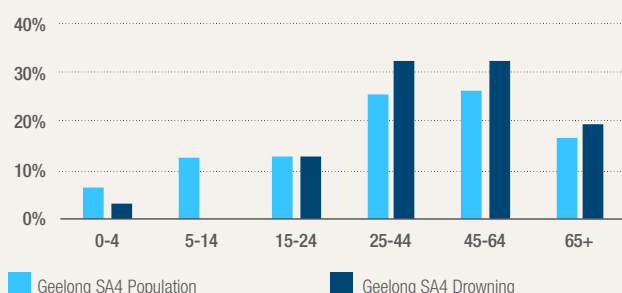
96% likelihood of one or more drowning deaths occurring in Geelong SA4 in any given year

88% likelihood of one or more residents of Geelong SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 3.4 times more likely to drown than females.

- Beaches
- Ocean
- Bathtubs
- Swimming/attempting a rescue
- Diving (SCUBA/Snorkelling)
- Boating/fishing

Drowning Profiles by Victorian Statistical Areas, 2004-2014

Hume Statistical Area 4 - Drowning Statistics 2004-2014

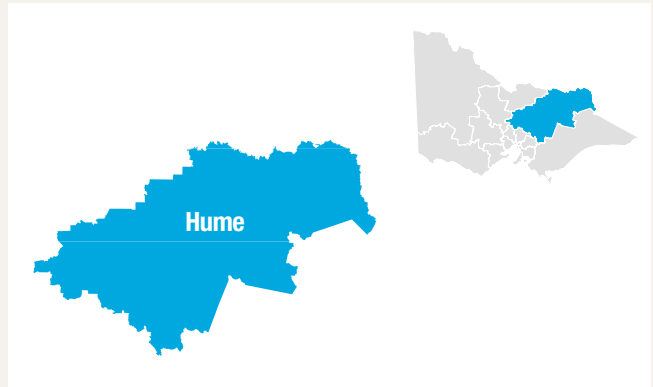
24 Drowning Deaths

15 Hume SA4 Residents Drowned in Vic

32 Hume SA4 residents hospitalised due to non-fatal drowning

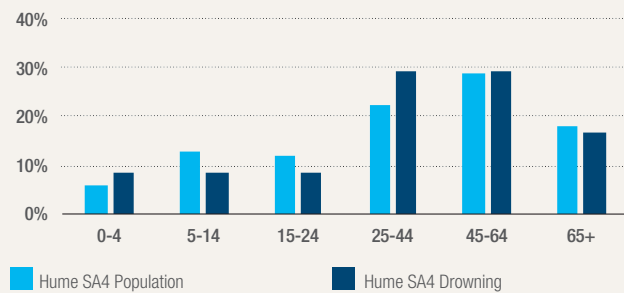
91% likelihood of one or more drowning deaths occurring in Hume SA4 in any given year

78% likelihood of one or more residents of Hume SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 2 times more likely to drown than females.

- Rivers
- Lakes/dams
- Home swimming pools
- Swimming/paddling/wading
- Walking/recreating near water
- Boating/fishing

Latrobe-Gippsland Statistical Area 4 - Drowning Statistics 2004-2014

57 Drowning Deaths

27 Latrobe-Gippsland SA4 Residents Drowned in Vic

83 Latrobe-Gippsland SA4 residents hospitalised due to non-fatal drowning

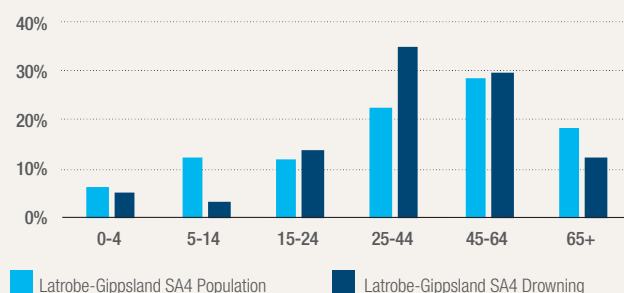
99% likelihood of one or more drowning deaths occurring in Latrobe-Gippsland SA4 in any given year

93% likelihood of one or more residents of Latrobe-Gippsland SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



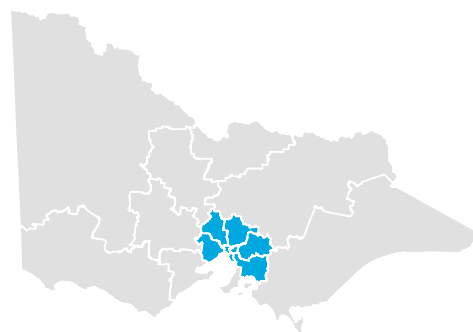
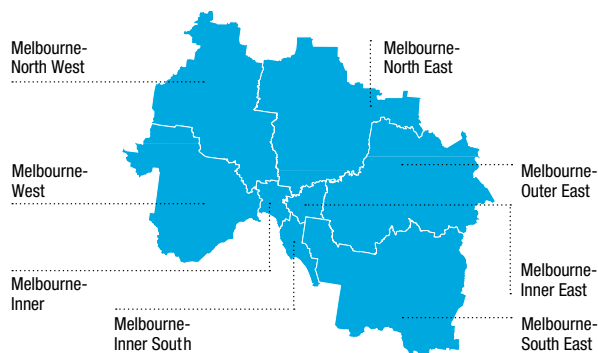
Location and Activity

Males 6.1 times more likely to drown than females.

- Beaches
- Ocean
- Rivers
- Boating/fishing
- Swimming/attempting a rescue
- Walking/recreating near water

Melbourne

Inner, Inner East, Inner South, North East, North West, Outer East, South East, West
Statistical Area 4 - Drowning Statistics 2004-2014

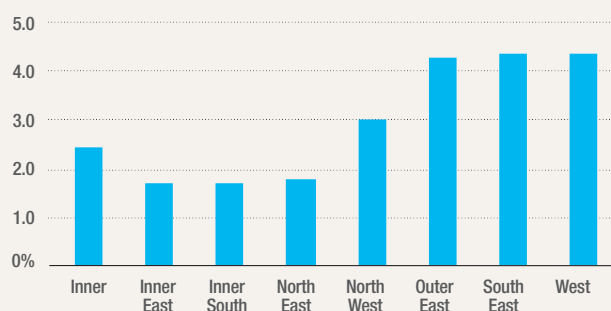


Age Group

Statistical Area 4	0-4		5-14		15-24		25-44		45-64		65+	
	Population	Drowning	Population	Drowning	Population	Drowning	Population	Drowning	Population	Drowning	Population	Drowning
Melbourne - Inner	5%	3%	7%	3%	15%	24%	42%	38%	20%	24%	11%	9%
Melbourne - Inner East	5%	6%	12%	13%	15%	6%	26%	19%	25%	6%	17%	50%
Melbourne - Inner South	6%	7%	12%	7%	12%	7%	28%	30%	25%	19%	16%	30%
Melbourne - North East	7%	27%	12%	0%	14%	36%	30%	0%	25%	27%	13%	9%
Melbourne - North West	7%	25%	14%	8%	14%	0%	29%	17%	24%	33%	13%	17%
Melbourne - Outer East	6%	5%	13%	19%	13%	24%	27%	29%	27%	14%	14%	10%
Melbourne - South East	7%	19%	13%	6%	15%	0%	29%	25%	24%	44%	13%	6%
Melbourne - West	8%	13%	13%	0%	14%	19%	33%	13%	23%	38%	9%	19%

Demographics

Male : Female Drowning Ratio in Melbourne SA4s



Location and Activity

- Rivers/creeks
- Bathtubs
- Home swimming pools
- Swimming/paddling/wading
- Walking/recreating near water
- Bathing

Drowning Statistics For All Melbourne SA4s

Statistical Area 4	Drowning deaths in SA4	Drowning deaths of residents in SA4	Residents in SA4 hospitalised	Likelihood of one or more drowning deaths within SA4 in any given year	Likelihood of one or more residents drowning in any given year
Melbourne - Inner	34	35	113	96%	96%
Melbourne - Inner East	16	23	65	83%	93%
Melbourne - Inner South	27	28	89	93%	94%
Melbourne - North East	11	15	58	67%	82%
Melbourne - North West	12	19	45	70%	85%
Melbourne - Outer East	21	25	97	88%	93%
Melbourne - South East	16	43	110	80%	99%
Melbourne - West	16	26	114	82%	93%

Drowning Profiles by Victorian Statistical Areas, 2004-2014

Mornington Peninsula Statistical Area 4 - Drowning Statistics 2004-2014

41

Drowning Deaths

115

Mornington Peninsula SA4 residents hospitalised due to non-fatal drowning

22

Mornington Peninsula SA4 Residents Drowned in Vic

98%

likelihood of one or more drowning deaths occurring in Mornington Peninsula SA4 in any given year

89%

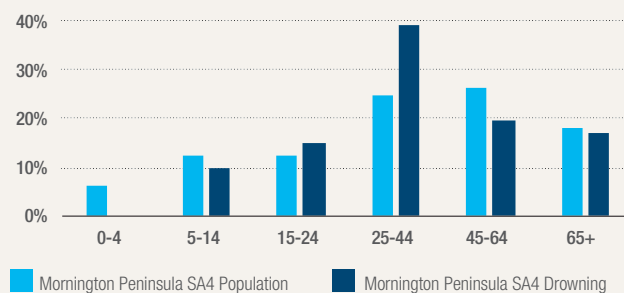
likelihood of one or more residents of Mornington Peninsula SA4 drowning in any given year

Mornington Peninsula



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 7.2 times more likely to drown than females.

- Beaches
- Ocean
- Home swimming pools/bathtubs
- Swimming/paddling/wading
- Boating/fishing
- Diving (SCUBA/Snorkelling)

Shepparton Statistical Area 4 - Drowning Statistics 2004-2014

13

Drowning Deaths

41

Shepparton SA4 residents hospitalised due to non-fatal drowning

13

Shepparton SA4 Residents Drowned in Vic

73%

likelihood of one or more drowning deaths occurring in Shepparton SA4 in any given year

73%

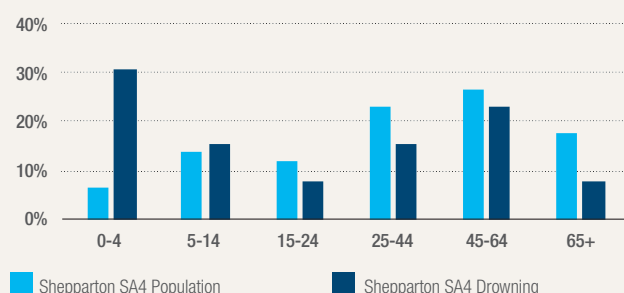
likelihood of one or more residents of Shepparton SA4 drowning in any given year

Shepparton



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 12 times more likely to drown than females.

- Rivers/creeks/streams
- Lakes/dams/irrigation channels
- Bathtubs
- Walking/recreating near water
- Bathing
- Transport (for work/recreation)

Warrnambool and South West Statistical Area 4 - Drowning Statistics 2004-2014

29 Drowning Deaths

Drowning Deaths

15 Warrnambool and South West SA4 Residents Drowned in Vic

Warrnambool and South West SA4 Residents Drowned in Vic

24 Warrnambool and South West SA4 residents hospitalised due to non-fatal drowning

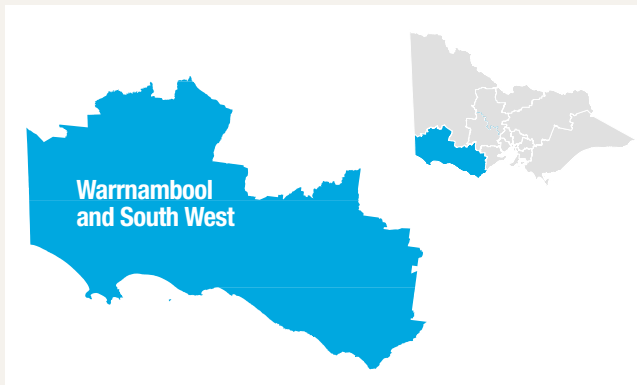
Warrnambool and South West SA4 residents hospitalised due to non-fatal drowning

94% likelihood of one or more drowning deaths occurring in Warrnambool and South West SA4 in any given year

likelihood of one or more drowning deaths occurring in Warrnambool and South West SA4 in any given year

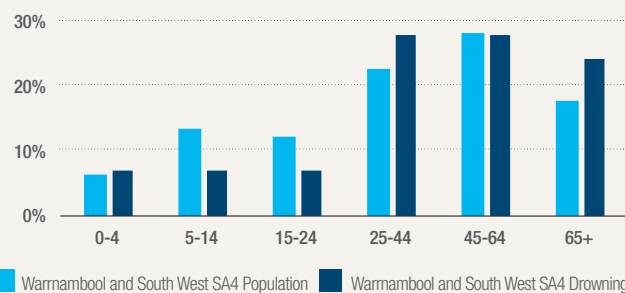
78% likelihood of one or more residents of Warrnambool & South West SA4 drowning in any given year

likelihood of one or more residents of Warrnambool & South West SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 4.8 times more likely to drown than females.

- Beaches
- Ocean
- Rivers/creeks
- Boating/fishing
- Swimming/attempting a rescue
- Walking/recreating near water

North West Statistical Area 4 - Drowning Statistics 2004-2014

12 Drowning Deaths

Drowning Deaths

8 North West SA4 Residents Drowned in Vic

North West SA4 Residents Drowned in Vic

31 North West SA4 residents hospitalised due to non-fatal drowning

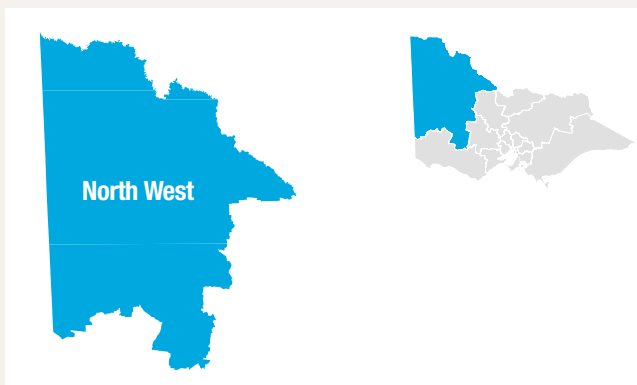
North West SA4 residents hospitalised due to non-fatal drowning

70% likelihood of one or more drowning deaths occurring in North West SA4 in any given year

likelihood of one or more drowning deaths occurring in North West SA4 in any given year

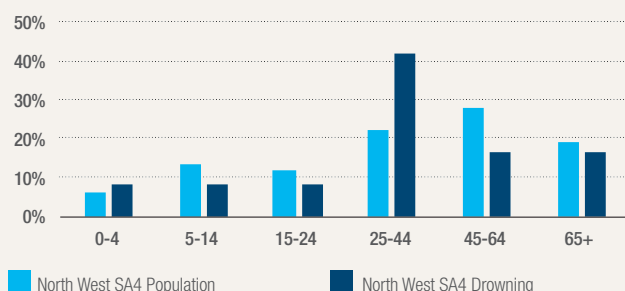
50% likelihood of one or more residents of North West SA4 drowning in any given year

likelihood of one or more residents of North West SA4 drowning in any given year



Demographics

Proportion of drowning deaths and population by age group (years)



Location and Activity

Males 11 times more likely to drown than females.

- Rivers/creeks
- Lakes/dams/irrigation channels
- Home swimming pools
- Walking/recreating near water
- Swimming/attempting a rescue
- Boating/fishing

Key Water Safety Agencies & Organisations

Victorian Water Safety Council

- Life Saving Victoria
- Aquatics & Recreation Victoria
- Australian Volunteer Coast Guard – Victoria
- Boating Industry Association of Victoria
- Canoeing Victoria
- Country Fire Authority
- Department of Justice – Emergency Services Policy & Support
- Emergency Services Telecommunications Authority
- Kidsafe Victoria Inc
- Metropolitan Fire & Emergency Services Board
- Parks Victoria
- Surfing Victoria
- Swimming Victoria Inc
- Maritime Safety Victoria
- Victoria Water Police/Search & Rescue Squads
- Victorian Recreational Fishers
- Yachting Victoria
- YMCA

Other Water Safety Agencies and Organisations

- Central Coastal Board
- Civic Mutual Plus
- Department of Education and Early Childhood Development
- Department of Planning and Community Development
- Department of Sustainability and Environment
- Life Saving Clubs
- Local Government Authorities
- Municipal Association of Victoria
- Royal Children's Hospital Safety Centre
- Swimming Pool and Spa Association
- Victorian Coastal Council
- Victorian Managed Insurance Authority
- Victorian Multicultural Commission

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“LIFE SAVING VICTORIA IS ALWAYS DEVELOPING STRATEGIES TO REDUCE THE DROWNING RATE. IDENTIFYING THE MOST VULNERABLE GROUPS AND TRENDS HELPS US TACKLE THE ISSUE.”

Nigel Taylor
Chief Executive Officer,
Life Saving Victoria



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