WA DROWNING REPORT
2014/15

Royal Life Saving
THE ROYAL LIFE SAVING SOCIETY WESTERN AUSTRALIA INC

SNAPSHOT OF FINDINGS

38 PEOPLE DROWNED IN WESTERN AUSTRALIAN WATERWAYS AT A RATE OF 1.45 DEATHS PER 100,000 POPULATION (5.5% INCREASE FROM 2013/14)

112 PEOPLE WERE HOSPITALISED FOLLOWING A NON-FATAL DROWNING INCIDENT AT A RATE OF 4.28 PER 100,000 (6% DECREASE FROM 2013/14)

MALES WERE 1.9 TIMES MORE LIKELY TO DIE FROM DROWNING AND 2.1 TIMES MORE LIKELY TO BE HOSPITALISED FOLLOWING A NON-FATAL DROWNING INCIDENT THAN FEMALES

PEOPLE WERE 5.1 TIMES MORE LIKELY TO DIE FROM DROWNING AND 1.4 TIMES MORE LIKELY TO BE HOSPITALISED FOLLOWING A NON-FATAL DROWNING INCIDENT IN REGIONAL AND REMOTE AREAS OF WESTERN AUSTRALIA

HIGHEST RATE OF FATAL DROWNING RECORDED IN GREAT SOUTHERN (13.25/100,000), KIMBERLEY (5.02/100,000) &GOLDFIELDS (4.53/100,000) REGIONS

HIGHEST RATE OF NON-FATAL DROWNING RECORDED IN MID WEST AND PILBARA REGIONS (7.26/100,000) FOLLOWED BY THE GREAT SOUTHERN REGION (6.63/100,000)

OLDER ADULTS 55+ YEARS RECORDED THE HIGHEST RATE OF FATAL DROWNING AND TODDLERS AGED 0-4 YEARS RECORDED THE HIGHEST RATE OF NON-FATAL DROWNING

47.4% OF DROWNING DEATHS OCCURRED AT COASTAL LOCATIONS

29.7% OF PEOPLE WERE RECREATING AROUND AN AQUATIC ENVIRONMENT AT THE TIME OF THE INCIDENT

ABORIGINAL AUSTRALIANS WERE 1.6 TIMES MORE LIKELY TO DIE FROM DROWNING AND 2.1 TIMES MORE LIKELY TO BE HOSPITALISED FOLLOWING A NON-FATAL DROWNING INCIDENT THAN OTHER AUSTRALIANS

24.3% OF DROWNING DEATHS INVOLVED PEOPLE BORN OVERSEAS. OF THESE, TWO THIRDS WERE FROM NON-ENGLISH SPEAKING BACKGROUNDS

24.3% OF DROWNING DEATHS WERE CONTRIBUTED TO BY ALCOHOL (AVERAGE BAC OF 0.152%)

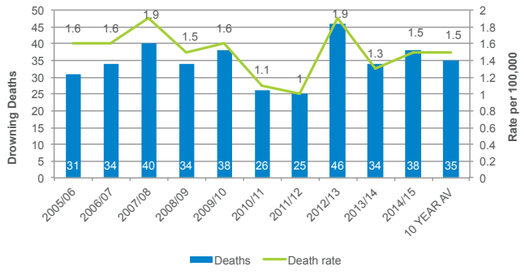
HELP ELIMINATE DROWNING IN YOUR COMMUNITY

DROWNING DEATHS IN 2014/15

The number of people drowning in Australia has continued to rise with 38 unintentional drowning deaths recorded in Western Australian waterways between 1 July 2014 and 30 June 2015 and a crude drowning death rate of 1.45 deaths per 100,000 population.

This is a 5.5% increase from 2013/14 and remains above the ten year average of 34.6 deaths per year. However, over the past ten years there has been a 20.5% decrease in the rate of drowning deaths recorded in Western Australia.

Figure 1: Drowning deaths in Western Australia, 2005/06 – 2014/15

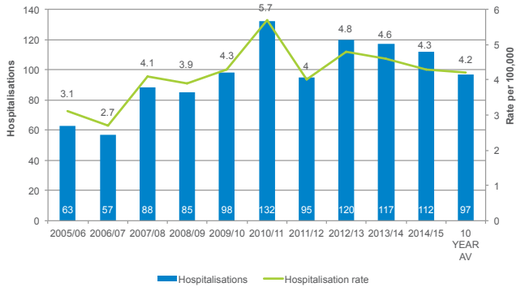


Hospitalisations following a non-fatal drowning in 2014/15

Non-fatal drowning has continued to decrease over the past three years with 112 people hospitalised following a non-fatal drowning incident in 2014/15 with a crude rate of 4.28 hospitalisations per 100,000 population. This represents a 6.0% decrease from the rate of hospitalisation recorded in 2013/14 and 4.6% decrease over the past five years.

In addition, over the past five years there have been 29 hospitalisations that have resulted in brain injury, which represents 5.0% of all hospitalisations recorded during this time.

Figure 2: Hospitalisations following a non-fatal drowning in Western Australia 2005/06 – 2014/15



Who drowns?

In 2014/15, males were at a significantly higher risk of both fatal and non-fatal drowning than females in Western Australia. Males were 1.9 times more likely to die from drowning and 2.1 times more likely to be hospitalised following a non-fatal drowning incident compared to females. Overall, 65.8% (N=25) of drowning deaths and 68.9% (N=77) of hospitalisations following non-fatal drowning incidents involved males. While males continued to be at higher risk, the number of females involved in drowning doubled from 2013/14 highlighting the need to ensure that water safety and drowning prevention messages target both males and females.

The age of those involved in fatal drowning in 2014/15 ranged from 2 to 82 years with an average age of 43.4 years which is 10.5% older than 2013/14. This year, older adults over 55 years of age emerged as the highest risk group for fatal drowning, overtaking toddlers aged 0-4 years. Similar to previous years, children aged 5-14 years recorded the lowest rate of fatal drowning.

While toddlers aged 0-4 years continued to be at the greatest risk of non-fatal drowning, overall rates have decreased by 8.8% amongst this age group over the past five years.

Figure 3: Drowning deaths by age, 2014/15

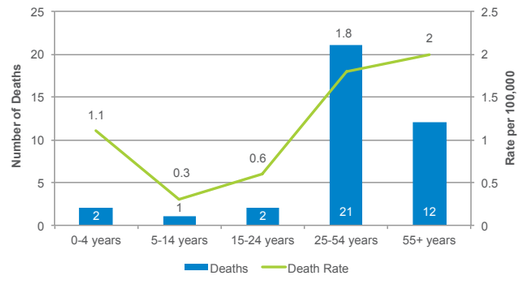
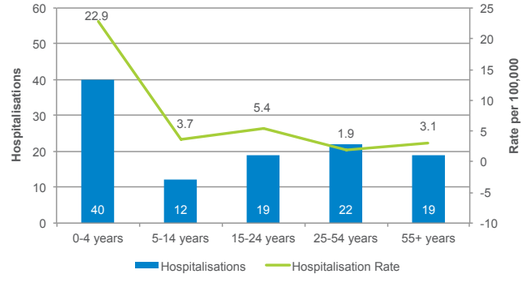
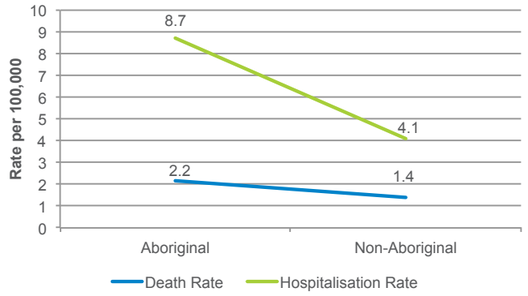


Figure 4: Hospitalisations following a non-fatal drowning by age, 2014/15



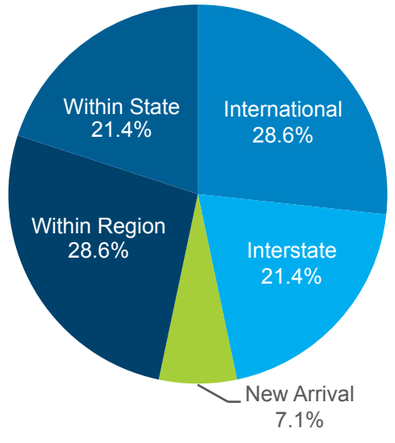
Aboriginal Australians continued to be over-represented in both fatal and non-fatal drowning in Western Australia. In 2014/15, Aboriginal Australians were 1.6 times more likely to die from drowning and 2.1 times more likely to be hospitalised following a non-fatal drowning than non-Aboriginal Australians. Overall, 5.3% (N=2) of drowning deaths (2.2 per 100,000) and 7.1% (N=8) of hospitalisations following a non-fatal drowning incident (8.7 per 100,000) involved Aboriginal Australians.

Figure 5: Drowning deaths and hospitalisations by Aboriginal status, 2014/15



Overall, 24.3% of drowning deaths recorded in 2014/15 involved people born overseas. Of these, two thirds (N=6) were from non-English speaking backgrounds with the majority from Asian countries. The remaining 33.3% (N=3) of people were born in English-speaking countries including the United Kingdom and New Zealand. Tourists and visitors to Western Australia continued to be a higher risk of drowning, often due to a lack of familiarity with the local environmental conditions and the hazards that exist. In 2014/15, 36.8% of drowning deaths involved people visiting the location, a slight increase from 2013/14. Of these, the majority were international tourists or people travelling within their region (28.6%, N=4). A further 21.4% (N=3) involved people travelling within the state or from interstate 21.4% (N=3).

Figure 6: Drowning deaths by tourist/visitor status, 2014/15

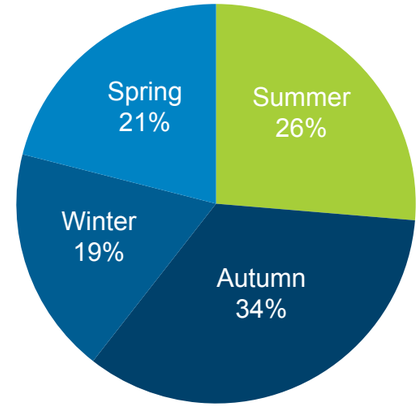


When do people drown?

Drowning occurs throughout the year, however in 2014/15 the majority of drowning deaths occurred during autumn months (34.2%, N=13). This differed from previous years where the majority of drowning deaths occurred during the summer months and may be due to the change in weather patterns in Western Australia with warmer temperatures recorded in autumn months.

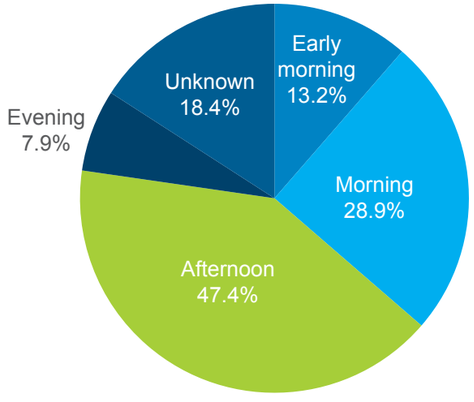
The highest number of drowning deaths was recorded in February (N=6) and May (N=5).

Figure 7: Drowning deaths by season, 2014/15



Drowning deaths were most likely to occur during the afternoon between 12.01 and 6.00pm (47.4%, N=18), followed by the morning between 6.01am to 12.00pm (28.9%, N=11). They were least likely to occur during the evening (7.9%, N=3). The time of death was unknown in 18.4% (N=7) of cases as the person was participating alone making it difficult to determine the exact time of death.

Figure 8: Drowning deaths by time of day, 2014/15



Where and how do people drown?

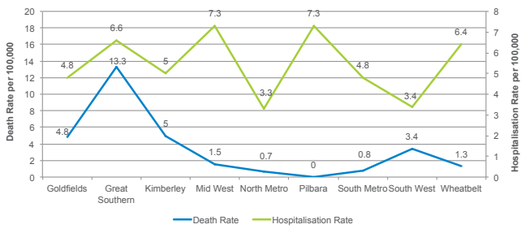
The rate of drowning in regional and remote areas of Western Australia increased in 2014/15 with people in regional areas five times more likely to die from drowning and 1.4 times more likely to be hospitalised following a non-fatal drowning than people in the metropolitan Perth area. Overall 57.9% (N=22) of drowning deaths were recorded in regional Western Australia at a rate of 4.0 per 100,000. The Great Southern (13.3/100,000), Kimberley (5.0/100,000) and Goldfields (4.8/100,000) regions recorded the highest rate of fatal drowning.

Overall, 26.8% (N=30) of hospitalisations following a non-fatal drowning incident occurred in regional Western Australia, with the highest rates recorded in the Mid West and Pilbara regions (7.3/100,000) followed by the Great Southern region (6.6/100,000).

The lowest rates of both fatal and non-fatal drowning occurred in the Perth metropolitan area.

Over the past five years the Mid West, Kimberley and South West regions have recorded the highest rate of non-fatal drowning and the Wheatbelt, Great Southern and Goldfields regions have recorded the lowest rate of non-fatal drowning.

Figure 9: Drowning deaths and hospitalisations by region, 2014/15



The majority of drowning deaths occurred at coastal locations in 2014/15 (47.4%, N=18). Of these, 61.1% (N=11) occurred at ocean/harbour locations and the remaining 38.9% (N=7) occurred at beaches. 23.7% (N=9) of drowning deaths occurred at locations in and around the home including home pools (44.4%, N=4) and bathtubs (44.4%, N=4).

There was a significant decrease in the number of drowning deaths occurring at inland waterway locations in 2014/15 with 18.4% (N=7) occurring at these locations and no drowning deaths recorded in rivers/creeks/streams. Other locations included hotel and public swimming pools.

Figure 10: Drowning deaths by aquatic location, 2014/15

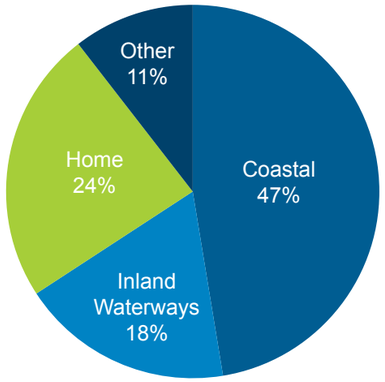
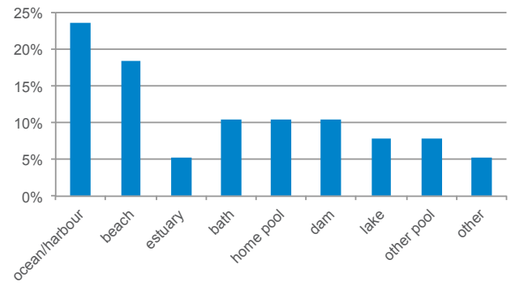
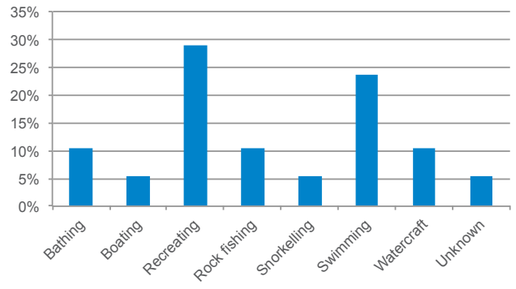


Figure 11: Drowning deaths by specific location, 2014/15



People were most likely to be recreating around aquatic environments at the time of the incident (28.9%, N=11) and unprepared to enter the water. Swimming (23.7%, N=9), bathing (10.5%, N=4), watercraft (10.5%, N=4) and rock fishing (10.5%, N=4), were also common activities being undertaken at the time of the incident. There was a significant decrease in the number of fishing-related deaths recorded in 2014/15 with only 4 deaths recorded, all of which were rock fishing related deaths. Of these, three quarters occurred in Albany.

Figure 12: Drowning deaths by activity, 2014/15



CHILDREN AGED 0-14 YEARS

There was a significant decrease in the rate of toddler drowning in 2014/5. There were 2 drowning deaths recorded in children between 0 and 4 years in 2014/15 (1.1/100,000), which represents a 50% decrease from 2013/14. However, toddlers remained at the highest risk of non-fatal drowning of any age group in Western Australia with 40 toddlers hospitalised at a rate of 22.9 per 100,000. In addition, over the past five years there were 7 toddlers (0.9/100,000) who sustained a brain injury as the result of a non-fatal drowning incident, the highest rate of any age group in Western Australia.

Figure 13: Drowning deaths, toddlers 0 – 4 years, 2014/15

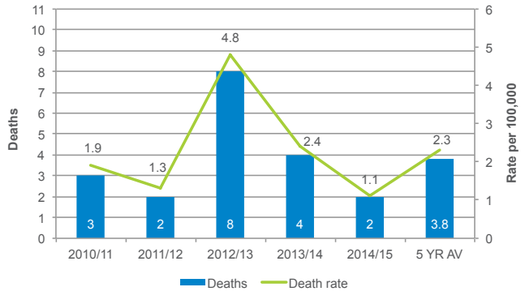
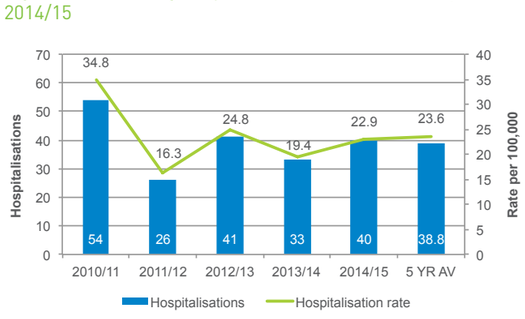


Figure 14: Drowning hospitalisations, toddlers 0 – 4 years, 2014/15



Young children aged 5-14 years continue to record the lowest rate of fatal drowning of any age group in Western Australia with only 1 death occurring in 2014/15 (0.3/100,000). In addition, 12 children aged 5-14 years were hospitalised following a non-fatal drowning incident in 2014/15 (3.7/100,000). This represents a 21% decrease in the rate of non-fatal drowning from 2013/14.

Figure 15: Drowning deaths, children 5 – 14 years, 2014/15

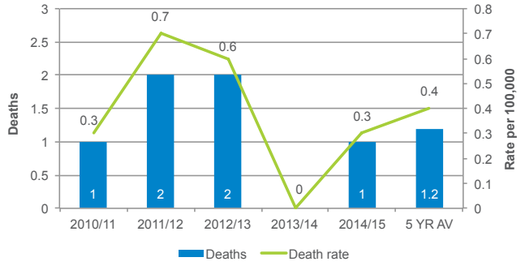
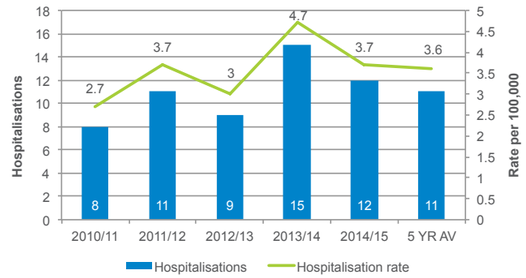


Figure 16: Drowning hospitalisations, children 5 – 14 years, 2014/15



All drowning deaths in this age group occurred in the metropolitan Perth area and two-thirds involved males. Similar to previous years the home swimming pool was the most common location for drowning deaths and a lack of constant adult supervision contributed to all cases for this age group with supervision absent for between 5 and15 minutes. Children gained access to water locations through open doors and/or faulty and non-compliant pool barriers.

RECOMMENDATIONS

Promote the importance of supervision – a lapse in adult supervision is the most commonly reported factor contributing to drowning amongst young children and remains the most effective way to prevent drowning in this age group. More work is needed to educate parents on the importance of constant supervision within arm's reach when children are around the water and how quickly drowning can occur.

Promote home pool safety – the home swimming pool continues to be the most common location for drowning amongst young children. Drowning prevention messages should focus on providing home pool owners with information and practical tips on the importance of installing and maintaining pool barriers all year round

Continue to promote, monitor and enforce pool barrier legislation for home pools and spas through regular barrier inspection programs

Promote CPR – all parents and caregivers of young children should have up-to-date CPR skills to ensure that they have the knowledge and skills to respond appropriately in an emergency situation

Swim and Survive for all – ensure that all children in Western Australia have access to swimming and water safety programs to develop water confidence and skills to safely participate in aquatic activities

Provide support and assistance to people and families affected by drowning

YOUNG PEOPLE AGED 15-24 YEARS

In 2014/15, young people had the fourth highest rate of fatal drowning with 2 drowning deaths and a crude drowning rate of 0.6 deaths per 100,000. This is significantly lower than the five-year average of drowning deaths for this age group. In addition, young adults recorded the third highest rate of non-fatal drowning in 2014/15 with 19 people hospitalised following a non-fatal drowning incident (5.4/100,000). This rate doubled from 2013/14 and has increased by 13.0% over the past five years.

Figure 17: Drowning deaths, young people 15 – 24 years, 2014/15

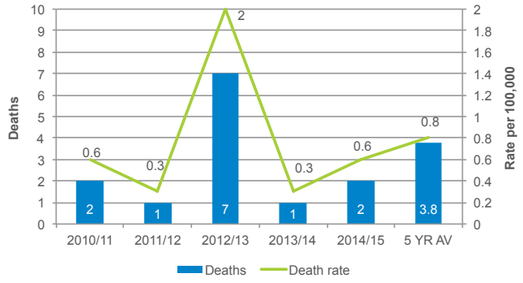
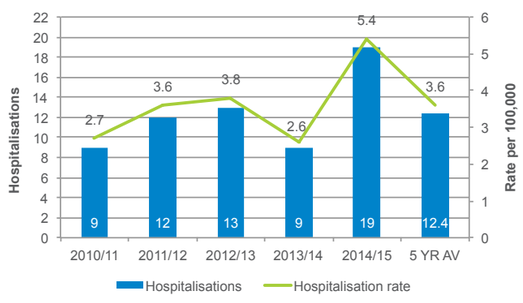


Figure 18: Drowning hospitalisations, young people 15 – 24 years, 2014/15



Both drowning deaths occurring in this age group occurred in regional Western Australia. Over the past ten years, the Pilbara, Great Southern and South West regions recorded the highest rate of drowning amongst young adults. However, 73.0% of hospitalisations amongst this age group occurred in the Perth metropolitan area with an average length of stay of three days – the highest of any other age group.

Similar to previous years males were at greatest risk of drowning and incidents were most likely to occur at coastal locations followed by home swimming pools. Fishing and recreating around water were the most common activities being undertaken at the time of the incident.

RECOMMENDATIONS

Highlight the risk of non-fatal drowning – the rate of hospitalisation following a non-fatal drowning incident has significantly increased amongst young adults over the past five years. Education messages need to include information about the risk of non-fatal drowning outcomes including brain injury, spinal injury and other ongoing health issues

Target males – programs and messages need to focus on engaging males to provide them with the skills and knowledge to make safer decisions when in, on or around the water

Focus on regional WA – ensure that water safety and drowning prevention programs, services and messages are delivered in regional WA areas at most risk

ADULTS 25-54 YEARS

There was a significant increase in the rate of drowning recorded amongst adults aged 25-54 years with 21 drowning deaths occurring in 2014/15 (1.8/100,000). This represents a 53.8% increase from 2013/14 and remains significantly higher than the five-year average for this age group.

In addition, 22 adults were hospitalised following a non-fatal drowning incident in 2014/15 (1.9/100,000). This represents a 42.4% reduction from 2013/14 and is the lowest rate recorded amongst this age group in the past five years. This age group also recorded the third highest rate of brain injury sustained as a result of a non-fatal drowning incident (N=12, 0.22/100,000).

Figure 19: Drowning deaths, adults 25 – 54 years, 2014/15

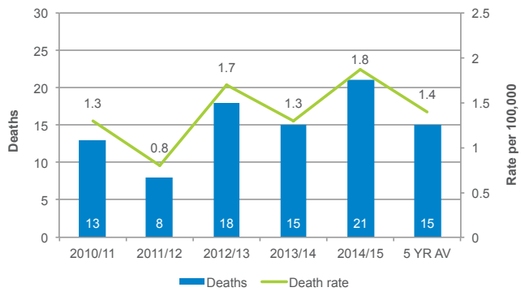
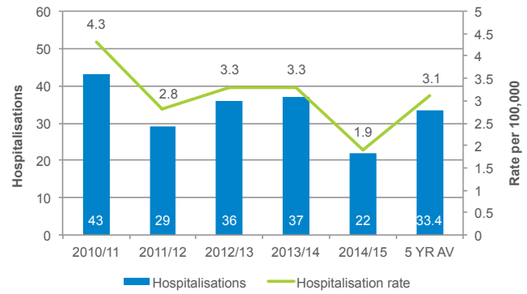


Figure 20: Drowning hospitalisations, adults 25 – 54 years, 2014/15



In a continuing trend, the majority of fatal drowning incidents involved males (71.4%, N=15). However, there was a significant increase (17.5%) from 2013/14 in the proportion of females involved in fatal drowning amongst this age group. This highlights the need to ensure that water safety and drowning prevention messages target both males and females to ensure this doesn't continue to increase.

Adults aged 25-34 years recorded the highest number of drowning deaths within this age group (42.9%, N=9) followed by adults aged 35-44 years (33.3%, N=7). The average age of adults involved in a fatal drowning incident was 37.7 years, which is slightly younger than previous years.

Overall 9.5% (N=2) of drowning deaths involved Aboriginal Australians and 19.0% (N=4) involved people born overseas with 75.0% of these from a non-English speaking background. In addition, 47.6% (N=10) of drowning deaths involved tourists with the majority (70.0%) people travelling within the state.

Similar to the previous year, the majority of fatal drowning incidents amongst this age group occurred in regional areas of Western Australia (66.7%, N=14) with people 7.3 times more likely to drown in regional Western Australia compared to the Perth metropolitan area. The Great Southern (N=4, 17.7/100,000) region recorded the highest rate of fatal drowning amongst this age group followed by the Goldfields (N=3, 10.2/100,000) and South West (N=4, 5.7/100,000) regions. The lowest rate was recorded in the Pilbara region where there were no drowning deaths recorded amongst this age group.

The majority of drowning deaths occurred at coastal locations (61.9%, N=13) followed by locations in and around the home (19.0%, N=4). There was a significant reduction in the proportion of drowning deaths occurring at inland waterway locations amongst this age group with only 9.5% (N=2) of deaths occurring at these locations.

Swimming and recreating around the water (23.8%, N=5) were the most common activities being undertaken at the time of the incident. Other common activities included watercraft (19.0%, N=4) and rock fishing (14.3%, N=3). Entry into the water was unintentional in 42.9% of incidents (N=9) with the person either swept into the water by a wave or falling into the water.

A significant number of drowning deaths were contributed to by alcohol with 28.6% (N=6) of cases finding alcohol in the person's system following the incident. Of these, two thirds of cases recorded a blood alcohol content (BAC) over 0.05% with an average BAC of 0.067%. The presence of medical conditions was a contributing factor in 33.3% (N=7) of drowning deaths.

Swimming ability was reported in 61.9% (N=13) of drowning deaths and of these, 46.2% reportedly had poor swimming ability or were non-swimmers, which contributed to their death.

RECOMMENDATIONS

Focus on regional WA – ensure that water safety and drowning prevention programs, services and messages are delivered in regional WA areas at most risk

Promote alcohol and water safety messages – education programs should highlight the increased risk drinking has on adults when they are participating in activities in, on or around the water

Be aware of medical conditions – educate adults about the impact medical conditions can have on their ability to safely participate in aquatic activities, particularly when they are taking prescribed medications

Learn CPR – all adults should have up-to-date CPR skills to ensure that they have the knowledge and skills to respond appropriately in an emergency situation, particularly when participating in aquatic activities in regional and remote areas where emergency services may be delayed

71%

OLDER ADULTS AGED 55+ YEARS

There was a 13.0% decrease in the rate of fatal drowning in older adults from 2013/14, However, despite this reduction, older adults have emerged as the age group at highest risk of drowning in Western Australia in 2014/15 with 12 drowning deaths recorded (2.0/100,000). In addition, older adults recorded the second highest rate of hospitalisations following a non-fatal drowning incident with 19 people hospitalised in 2014/15 (3.1/100,000).

Figure 19: Drowning deaths, older adults 55+ years, 2014/15

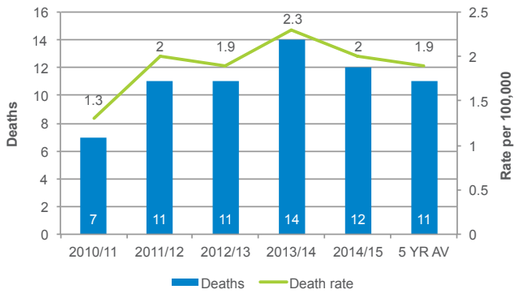
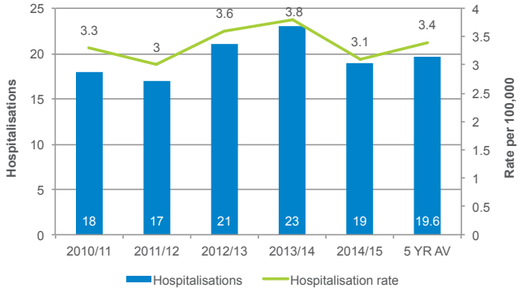


Figure 20: Drowning hospitalisations, older adults 55+ years, 2014/15



In a continuing trend, the majority of fatal drowning incidents involved males (75.0%, N=9). However, there was a slight increase (3.6%) from 2013/14 in the proportion of females involved in fatal drowning amongst this age group. This highlights the need to ensure that water safety and drowning prevention messages target both males and females to ensure this doesn't continue to increase.

Older adults aged 55-64 years recorded the highest number of drowning deaths within this age group (41.7%, N=5) followed by adults aged 65-74 years (33.3%, N=4). The average age of older adults involved in a fatal drowning incident was 67.3 years and ranged from 55 to 86 years.

Overall 33.3% (N=4) involved people born overseas, with 50.0% (N=2) of these from a non-English speaking background. In addition, 25.0% (N=3) of drowning deaths involved tourists with the majority (66.7%) of people travelling from overseas.

Similar numbers of fatal drowning incidents amongst this age group occurred in regional and metropolitan areas of Western Australia (50.0%, N=6). However, the rate of drowning was significantly higher in regional areas with people 3.7 times more likely to drown in regional Western Australia compared to the Perth metropolitan area. The Kimberley (17.3/100,000) region recorded the highest rate of fatal drowning amongst this age group followed by the South West (2.0/100,000) and Great Southern (1.6/100,000) regions. The lowest rate was recorded in the Mid West and Goldfields regions where there were no drowning deaths recorded amongst this age group.

One third of drowning deaths occurred at coastal locations (33.3%, N=4) followed by locations in and around the home (N=3, 25.0%) and inland waterways (N=3, 25.0%).

Swimming and recreating around the water (33.3%, N=3) were the most common activities being undertaken at the time of the incident. Entry into the water was unintentional in 41.7% of incidents (N=5) with the person either swept into the water by a wave or falling into the water.

The presence of medical conditions was a contributing factor in 75.0% (N=9) of drowning deaths with prescription medication also found to have contributed to the incident. Alcohol was identified as a contributing factor in 25.0% (N=3) cases with an average BAC of 0.184%, which is almost four times the legal limit for driving.

RECOMMENDATIONS

Promote alcohol and water safety messages – education programs should highlight the increased risk drinking has on adults when they are participating in activities in, on or around the water, particularly when they are mixed with prescription medications

Be aware of medical conditions – educate adults about the impact medical conditions can have on their ability to safely participate in aquatic activities, particularly when they are taking prescribed medications

Focus on regional WA – ensure that water safety and drowning prevention programs, services and messages are delivered in regional WA areas at most risk

Encourage ongoing participation – aquatic activities can be beneficial for older adults' physical health. Encourage older adults to visit their GP prior to commencing aquatic activity, particularly if they haven't undertaken the activity recently

Develop programs that specifically target older adults that highlight the risks and provide practical tips to stay safe when in, on or around the water

METHODS

Drowning death data was collected from the WA Coroner's Office and collated by the Royal Life Saving Society WA Inc.

Only cases closed by the Coroner at the time of the time of the report have been include to ensure that the data is as reliable and accurate as possible. Only unintentional drowning deaths have been included in this report. Cases were excluded if the cause of deaths was intentional (suicide), natural causes or undetermined, if the death was the result of a homicide, shark attacks or drowning deaths involving asylum seekers. The data has been analysed by age, gender, season, activity, location, region, race, cultural background, tourist status and contributing factors.

Hospitalisation data was collected and collated by the Department of Health WA Epidemiology Branch. The data has been analysed by age, gender, location, region and race.

Drowning and hospitalisation rates per 100,000 population have been calculated and based on ABS population statistics (provided by the Department of Health Epidemiology Branch). Percentages and averages are presented as whole numbers and have been rounded up or down accordingly to one decimal place.

While all care is taken to ensure that the information presented in this report is as accurate as possible, data is subject to change following ongoing coronial investigations.

FOR MORE INFORMATION

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The Royal Life Saving Society WA would like to acknowledge and thank the WA Coroner's Office, Department of Health, the National Coronial Investigations System (NCIS) and the Royal Life Saving Society Australia for this assistance in producing this report.