

The 2004 Western Australian Drowning Report

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Acknowledgments

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Between January 1st and December 31st 2004, a total of 30 people drowned in Western Australia. Twenty three of these drowning deaths were unintentional, and seven were intentional or undetermined. When comparing the total unintentional deaths, the total for 2004 is eighteen less than 2003 which recorded forty one deaths. This report only analyses unintentional deaths.

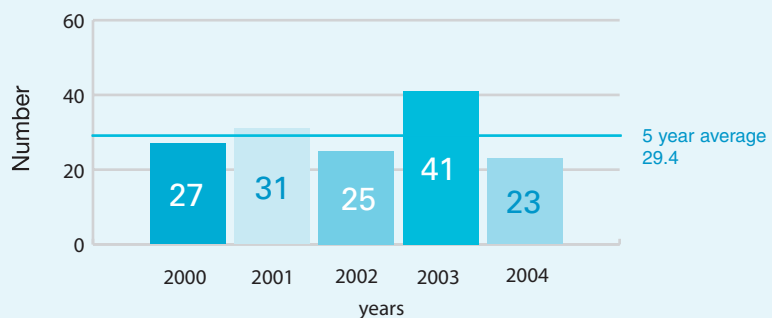
Of the twenty three unintentional drowning victims:

- 96% were males
- 48% were aged between 30-59
- 70% occurred in metropolitan areas
- 22% occurred in or around the home
- 26% were from a culturally or linguistically diverse background
- 13% were under the influence of alcohol
- 30% had pre-existing medical conditions
- 22% occurred in rivers
- 52% occurred while swimming

Drowning over the past 5 years...

The average number of drownings per year between 2000 and 2004 is 29.4. The 2004 figure is the lowest figure in the past eight years.

Drowning in Western Australia 2000-2004



Population

The international standard for recording drowning deaths is as a rate per 100 000 of the total population. Western Australia's population as per ABS records was 2 003 800 in March 2005. The corresponding rate of drowning for 2004 was 1.1 per 100 000. This was lower than the 5 year average rate of 1.5 per 100 000.



In Western Australia during 2004, the cost of drowning amounted to \$36.7 million.

The Cost of Drowning

A death due to drowning comes at a cost of approximately \$1.6 million to the broader community. The majority of the costs from drowning stem from the loss of productivity.

In Western Australia during 2004, the cost of drowning amounted to \$36.7 million.

Table 1: The Cost of Drowning

Year	Number	Cost (Millions)
1997	34	\$54.3
1998	27	\$43.1
1999	43	\$68.7
2000	27	\$43.1
2001	31	\$49.5
2002	25	\$39.9
2003	41	\$65.5
2004	23	\$36.7

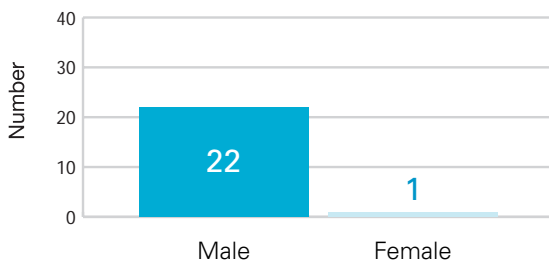
**Reference: Adapted from Hendrie (2003)*

These costs exclude those associated with non-fatal near-drownings. These costs add substantially to the cost of drowning in Western Australia.

Drowning by Gender

Of the 23 unintentional drowning deaths in Western Australia, 22 were male and 1 female. Males are considerably over-represented in Western Australian Drowning statistics. This is typical of national drowning statistics.

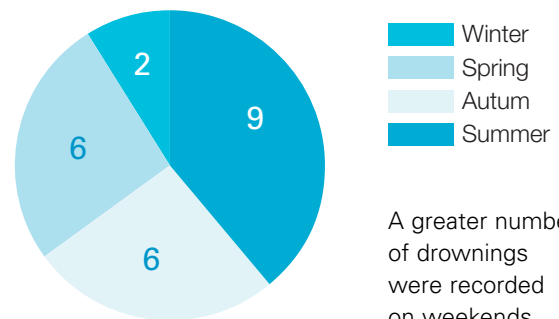
Drowning by Gender 2004



Drowning by Season

Summer recorded 40% of the total drownings for 2004, with 9 reported, followed by 6 each in Spring and Autumn. These warmer months typically record a higher number of drownings, highlighting the need for attention on the issue throughout the year.

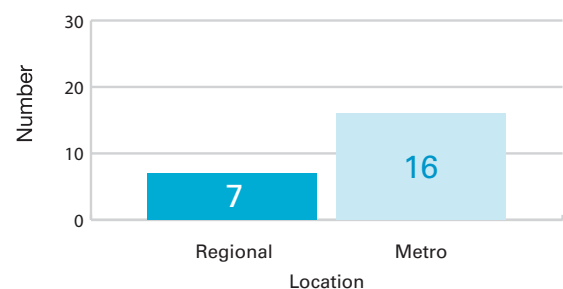
Drowning by Season 2004



Metropolitan versus Regional

The majority of drownings occurred inside the metropolitan area. 30% of drownings occurred in the regional Western Australia during 2004.

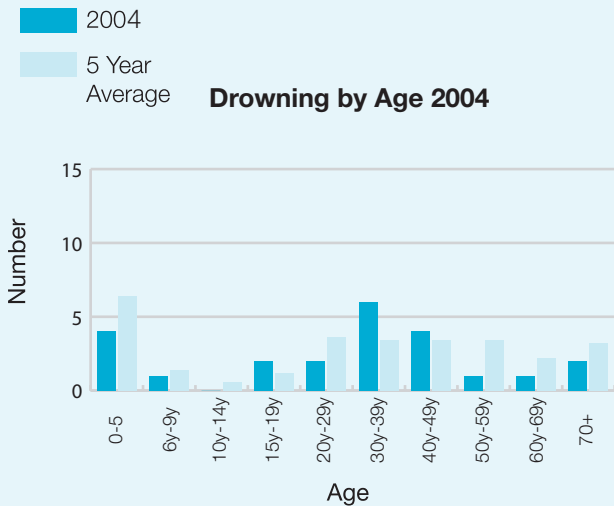
Drowning by Regional vs Metro 2004



The majority of drownings reflect the population distribution of Western Australia, with a higher number in the metropolitan area. However, drownings in regional areas are over-represented in comparison to population distribution. The number of drownings in regional areas are still significant and with increasing access to bodies of water, it is important that efforts continue to be made to extend the reach of geographically and culturally appropriate programs to rural and remote areas of Western Australia.



Four infants and toddlers drowned in Western Australia in 2004, representing 17% of all drownings, which is lower than the five year average for drownings amongst this age group.



Drowning by age group...

Drowning remains the major cause of preventable death in children under 5 years of age. Drowning is an increasingly significant issue amongst adults aged 30-59, representing 48% of all drownings in 2004. Although toddler drowning numbers are down in WA, this figure fluctuates with National figures still high.

Infant and Toddlers (0-5 Age Group)

Infant and Toddlers are identified as Key Priority Area 1 by the National Water Safety Plan (AWSC, 2004), and are one of the primary focus areas for Royal Life Saving's drowning prevention strategies.

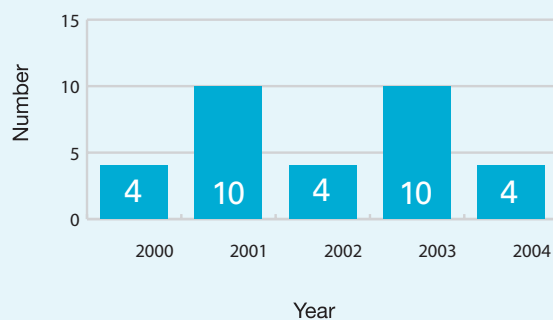
Four infant and toddlers drowned in Western Australia in 2004, representing 17% of all drownings, which is lower than the five year average for drownings amongst this age group.

Two of the drownings occurred in home swimming pools one with no fencing, and one in a fenced pool with a faulty gate. One occurred in a public swimming pool, and one in a fish pond with no barrier.

These drownings occurred in similar situations to toddler drownings in previous years, and again highlight the need for appropriately installed and maintained barriers.

All but one death occurred after the child wandered into the water without the knowledge of the parent or carer. In all cases there was a lapse or absence of supervision on behalf of the parent or carer.

0-5 year Drowning 2000 - 2004



Young adults accounted for 17% of the total number of drowning deaths in Western Australia this year.

Children (6-14 Age Group)

The reduction in drownings amongst the 6-14 year old age group is one of the great success stories in drowning prevention across Australia. The education of children through swimming and lifesaving programs such as Swim and Survive have reduced the numbers of drowning to the lowest levels observed in any age group.

There was one reported drowning for 2004, which continues to support the trend set in previous years. The drowning occurred in a river, which has become an emerging issue as many people underestimate currents and water conditions, particularly young children.

6-14 year Drowning 2000 - 2004



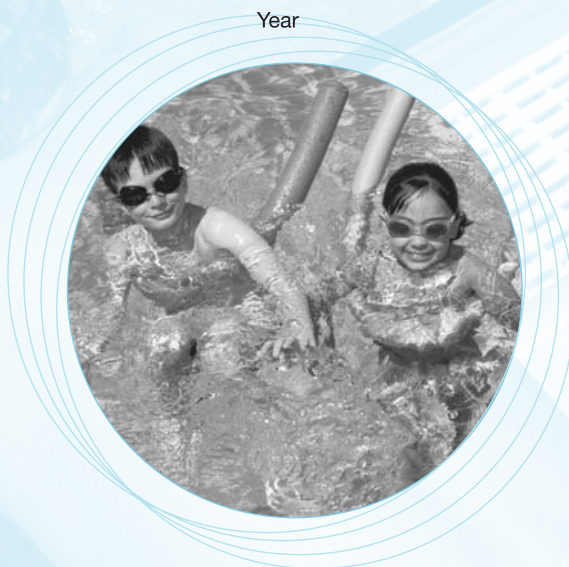
Emerging Adults (15-29 Age Group)

All four of the drownings that occurred amongst emerging adults were male, a common injury trend in this age group. Young adults accounted for 17% of the total number of drowning deaths in Western Australia this year.

Risk taking activities during and prior to the incident is prevalent in this age group with all individuals performing a dangerous activity and one drowning contributed to by alcohol consumption.

The patterns of drowning in this age group highlight the greater levels of risk taking exhibited by emerging adults particularly males. The drownings observed in this age group are generally a result of conscious choices made by the victim. Greater education, increased skills and a change in attitudes, particularly relating to alcohol use, is needed to reduce drowning in this age group.

15-29 year Drowning 2000 - 2004



People with medical conditions which may increase their risk of injury should be encouraged to participate in aquatic activities in the company of others.

Adults (30-59 Age Group)

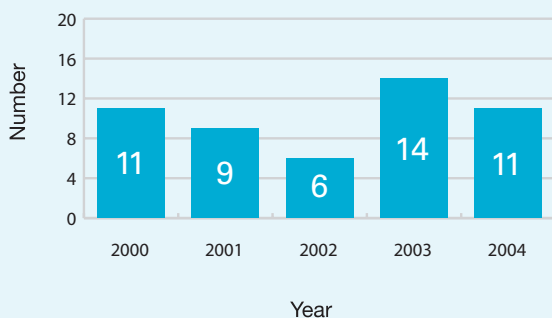
In total, eleven drowning deaths occurred in 2004, three less than in 2003. Ten of these deaths were male. This age group accounts for approximately 50% of unintentional drownings in 2004.

Two of the drownings involved males recreating around water, six involved swimming, and two involved fishing. Boating was involved in a single drowning.

Alcohol was implicated in two drownings, representing 18% of all drownings in this age group.

Three deaths were contributed to by medical conditions, representing 27% of all drownings in this age group.

30-59 year Drowning 2000 - 2004



Older Adults (60+ Age Group)

Three older adults drowned in 2004, a decrease from 2003.

Two of these incidents occurred when the victims unintentionally entered the water, and one drowning occurred while the victim was swimming. Medical conditions contributed to all of drownings in this age group.

The effect of existing medical conditions becomes increasingly apparent in this age group.

Drownings in this age group appear to be the result of diminished mental or physical capability to remove themselves from the water contributing to these incidents. Older adults with conditions that place them at an increased risk of unintentionally entering the water should be accompanied by suitable persons.

60+ year Drowning 2000 - 2004

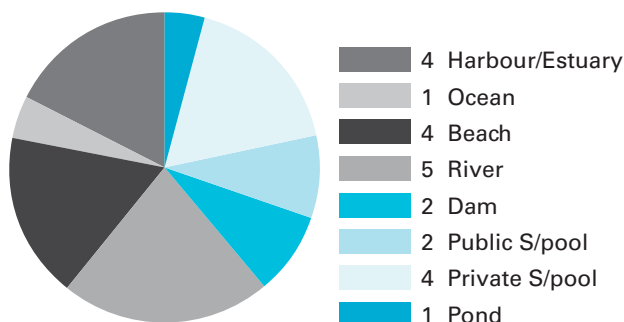


Two drownings were recorded in Western Australian dams this year. Unlike previous years, where infants, toddlers and older adults have been involved, two adult were victims.

Drowning by location...

Drownings occur in three broad types of locations. Coastal locations include oceans and beaches. Inland locations include dams, rivers, harbours, estuaries, fascines and public swimming pools. Locations around the home include home swimming pools, inflatable pools and ponds.

Drowning by Location 2004



Coastal Locations – Oceans & Beaches

Five people drowned in coastal locations in 2004, 22% of all drownings. One drowning occurred on a patrolled beach, while swimming outside the patrol area. All incidents involved males aged 15 years and older.

All drowning victims, except one, entered the water intentionally. One drowning occurred due to unexpected swell while fishing.

Rough seas contributed to four of the drownings.

Being accompanied at the time of incident may have prevented these fatalities, particularly if those with the victim had resuscitation training.

Coastal Locations – Recommendations

All but one drowning occurred in rough conditions, unsuitable for aquatic participation. This illustrates the need for greater education for users in rough conditions and the importance of participation with others.

Inland Waterways

Inland waterways have emerged as a frequent location for drowning incidents in 2004. This location accounted for 57% of all drownings, with rivers reporting the highest number of drownings of any location. Inland waterways include rivers, dams, estuaries/harbours, fascines and public pools.

Inland Waterways – River

Five people drowned in rivers in Western Australia. All of the victims were male. All but one victim was in the 30-59 age group.

Four of the victims entered the water unintentionally. Medical conditions contributed to one of these incidents.

A seizure disorder contributed to one incident, while alcohol was a known factor in another.

In three of the incidents strong currents may have been a contributing factor, as people may underestimate the power of a river's current and steep and uneven banks.

One child entered the water without the knowledge of parents. Adequate parental supervision could have prevented this tragedy. The lack of parental supervision also precedes drownings in this age group in other locations, particularly around the home.

Inland Waterways – Dams

Two drownings were recorded in Western Australian dams this year. Unlike previous years, where infants, toddlers and older adults have been involved, two adults were victims.

One of the incidents involved the combination of high levels of alcohol consumption and risky behaviour.

One incident involved a mental condition which may have contributed to the incident.

People participating in inland aquatic environments should be mindful of the dangers that exist in these areas.

Inland Waterways – Harbour/Estuaries/Fascine

All reported drownings in harbours, estuaries and fascines were males in the 30-59 age group.

Two drownings occurred in estuaries. Both involved fishing. Environmental factors, such as rapid water movement may have contributed to the incidence. Both victims were not known fishermen.

There was one reported boat related drowning in a harbour.

One reported drowning occurred in a fascine.

Alcohol was the main contributing factor in this incident.

Inland Waterways – Public Pools

Two drownings occurred in public pools in 2004, both drownings were males below 20 years of age.

One drowning occurred in a busy public pool, lack of swimming ability and a culturally and linguistically diverse background may have contributed to the drowning.

The remaining incident occurred as a result of a breathe hold episode.

Inland Waterways – Recommendations

Inland waterways are often perceived as less of a hazard than coastal water bodies. People participating in inland aquatic environments should be mindful of the dangers that exist in these areas, particularly for infants and toddlers and those with medical conditions.



The prevention of drowning around the home rests primarily on the need for adequate, direct supervision of young children.

Around the Home

Almost one in four of all drownings occur around the home, in locations including home swimming pools and fishponds. Drownings that occur around the home generally involve the older and younger age extremes of the broader population.

Around the Home – Home Swimming Pools

Home swimming pools continue to be the most dangerous hazard in the home. In 2004, four people drowned in home swimming pools. Two of these were toddlers and infants. One reported drowning occurred in the 15-29 and one in the 60+ age groups.

Two drownings occurred in unsupervised situations without the knowledge of a parent, and without the presence of a secure barrier.

In incidents where the child entered the pool without the knowledge of parents or carers, inadequate maintenance of the pool barrier was identified as a key contributing factor

All drownings of toddlers and infants were contributed to by lack of adequate supervision.

Regardless of the adequacy or inadequacy of pool barriers, the appropriate supervision of infants and toddlers is essential to reduce the number of drownings experienced by this age group.

Children wandering away from adult supervised areas highlights the need for all pools to be compliant to pool fencing legislation, irrespective of the residence of young children.

Around the Home – Fish pond

There was one drowning in 2004 which occurred in a fishpond. There were no suitable barriers or supervision, illustrating the need for barriers to be in place of all bodies of water.

Around the Home – Recommendations

Alarmingly, infants and toddlers represent 60% of all the drownings that occur around the home. The prevention of drowning around the home rests primarily on the need for adequate, direct supervision of young children, and the design, installation and maintenance of appropriate barriers to isolate potential water hazards.



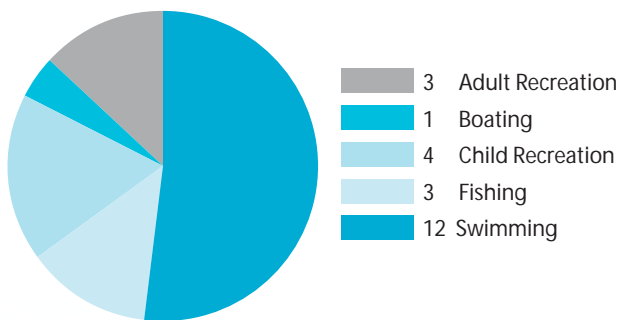
Individuals from culturally and linguistically diverse backgrounds should be encouraged to learn swimming and lifesaving skills.

Drowning by activity...

Drownings occurred while the victims were involved in a variety of activities including fishing, swimming and boating.

Numerous drownings also occurred when the victim was participating in activities around the aquatic environments and unintentionally entered the water. This type of incident has been termed 'child/adult recreating around water'.

Drowning by Activity 2004



Swimming

Twelve Western Australians drowned while swimming in 2004. Eleven incidents involving males were recorded, and one involving a female.

Swimming locations included the beach, estuary and river. Pre-existing medical conditions were a factor in three of these incidents. Insufficient swimming ability for the environmental conditions was a factor in four incidents.

Insufficient swimming ability and rough conditions were major contributing factors to drownings involving individuals from culturally and linguistically diverse backgrounds.

Lack of supervision and lack of swimming ability contributed to a drowning in a public swimming pool.

Infants and toddlers must be directly supervised by an appropriate adult. Even amongst older age groups, some level of supervision is required to prevent drowning.

Pre-existing medical conditions contributed to several swimming-related drownings, particularly among adults and older adults. These groups should be encouraged to participate in aquatic activities with the accompaniment of suitably competent individuals.

Individuals from culturally and linguistically diverse backgrounds should be encouraged to learn swimming and lifesaving skills. Community swimming and lifesaving programs should cater for these groups.



Fishermen may benefit from greater education of the risk factors inherent to their specific type of fishing.

Adult and Child Recreating Around Water

Three drownings occurred among adults who entered the water unintentionally while recreating around the water. Males were the victims in all of the incidents.

Specific medical conditions which contribute to these incidents included seizure disorders, heart conditions, physical impairments and mental conditions.

People with a limited physical and/or mental ability because of alcohol, medical conditions or age should be advised to remain with those capable of rendering assistance, as all of the drownings of adults recreating around water in 2004 occurred with the contribution of these restrictions.

Four drownings occurred amongst children who entered the water unintentionally while recreating around the water.

Inadequate supervision was the major factor in these children entering the water, confounded by dysfunctional or improperly utilised barriers.

One drowning occurred by a river. The incident occurred while the child attempted to retrieve an object.

Greater education of parents as to the requirements for supervision, and the conditions that satisfy adequate supervision of infants, toddlers and children is vital.

The design and installation of Home Swimming Pool barriers must prevent access to the pool. Barriers must be regularly maintained to ensure their effectiveness. Barriers to all aquatic environments should be in place in homes of toddlers, infants and children to compliment parental supervision.

Fishing

There were three drownings involving adult and older males in fishing situations. Environmental factors contributed to each incident. Rough conditions, bad weather and unexpected swell were a factor in all cases.

One crayfishermen drowning was reported. The incident occurred while boating in rough conditions.

One drowning involved a male abalone fisherman in poor conditions when fishing unaccompanied.

One further drowning involved a male who was crabbing at the time of the incident. Inexperience, fast moving water and an unknown heart condition may have been a key factor in this drowning.

Fishermen may benefit from greater education of the risk factors inherent to their specific type of fishing. Information promoted to this group should include details of hazardous environmental conditions and the necessary safety precautions.

Boating

One drowning arose from a boating activity. Inexperience may have been a contributing factor.



Three drownings occurred in 2004 where the victim was under the influence of alcohol. This represents 13% of all drownings, or 18% of drownings among those aged 19 and older.

Drowning by contributing factors...

A range of factors contribute to the occurrence of drowning, beyond age, activity and location elements. These factors include the excessive consumption of alcohol, medical conditions, local/non-local status, and cultural background.

Alcohol and Drugs

Three drownings occurred in 2004 where the victim was under the influence of alcohol. This represents 13% of all drownings, or 18% of drownings among those aged 19 and older.

Two drownings occurred as a result of dangerous activities with a reduced level of judgement.

Two of the incidents occurred after alcohol use impaired physical and mental ability.

Individuals must be aware of the effect that alcohol and drugs have on their ability to participate in aquatic activities. This message is particularly relevant for the emerging adult age group.

Medical Conditions

A wide range of medical conditions were observed in drowning incidents in 2004. Medical conditions included heart conditions, mental conditions, physical impairments, injury, and seizure disorders.

Medical conditions played a contributory role in seven drowning incidents, representing 30% of all incidents. Heart conditions were the most prevalent medical condition, involved in 17% of all drownings. Mental impairment due to medical conditions may have precipitated 8% of all drownings. A seizure disorder was present in one of the drownings.

Those people affected by a medical condition should be aware of their limitations and where possible participate in and around aquatic activities with competent accompaniment, and have considered a course of action in case of trouble.

Local/Non-local Status

Drowning victims were generally locals to the location in which they drowned. 30% of drowning victims were not a local of the area in which they drowned.

Western Australian Aboriginal People

One Aboriginal person drowned in 2004. Swimming, lifesaving and public education program should be appropriate and accessible to all Western Australians.

CALD Groups

Five Western Australians and one foreign tourist from culturally and linguistically diverse backgrounds drowned in 2004. This represents 26% of all drownings. This group is over-represented in drowning statistics in Western Australia.

All reported drownings from people with culturally and linguistically diverse backgrounds were reported to be poor swimmers.

Individuals and families from CALD backgrounds should be encouraged to participate in targeted swimming, lifesaving and public education programs.



Recommendations and References

Recommendations

- Toddler Drowning Prevention campaigns should continue to target parental supervision, with an emphasis on the requirements of effective age-appropriate supervision.
- Lack of swimming ability was a significant contributor in drowning incidents. Given our climate and lifestyle swimming and lifesaving skills are vital for all Western Australians.
- Physically or mentally impaired Individuals should be aware of their limitations, and where possible participate in and around aquatic activities with competent company.
- Educational and promotional campaigns promoting responsible consumption of alcohol and drugs should continue to target young adults and adults, with an emphasis on males.
- Swimming, lifesaving and public education programs should be appropriate and accessible to all Western Australians. Programs should encompass the needs of Aboriginal people and people from culturally and linguistically diverse backgrounds.

References

Hendrie, D. (2004) *Injury in Western Australia: The Costs of Accidental Drowning and Near Drowning in Western Australia*. Perth, Western Australia: Western Australian Government.

Australian Water Safety Council (2004) *National Water Safety Plan*. Sydney, New South Wales.



Royal Life Saving Society Drowning Prevention Initiatives...



KEEPWATCH

KEEPWATCH is a health promotion program, supported by the Department of Health that aims to prevent toddler drowning through increased knowledge and awareness of parents, pool owners, health professionals, and community and child care workers. The KEEPWATCH message promotes four key toddler drowning prevention messages:

- Supervise your child
- Fence the pool
- Familiarise your child with the water
- Learn resuscitation

Check out www.keepwatch.com.au.



Home Pool Inspection Program

The Royal Life Saving Society conducts home pool inspections on behalf of a number of local government organisations. The Home Pool Inspection program specifically works toward the second KEEPWATCH strategy - Fence your pool.

To see if your pool complies with state legislation check out www.poolsafety.com.au.



Infant Aquatics

The infant aquatics program is an education and skill development program aimed at encouraging infants and toddlers to explore and practice aquatic skills at their own pace in a safe aquatic environment. The Infant Aquatics program specifically works toward the third KEEPWATCH strategy – Familiarise your child with the water.



Heart Beat Club

The Heart Beat Club is an informal resuscitation program that aims to develop life-saving resuscitation skills in our community. The Heart Beat Club specifically works toward the fourth KEEPWATCH strategy – Learn.



Swim And Survive

The Swim And Survive program facilitates the delivery of swimming and water safety education throughout Australia, through advocacy for the importance of swimming and water safety programs, the provision of assistance to swimming and water safety providers to deliver safe and well-balanced aquatic programs, and the provision of ongoing research and program development.

Check out www.swimandsurvive.com.au



Royal Life Saving Society Drowning Prevention Initiatives...



Bronze Rescue

The Bronze Rescue builds on the Swim and Survive program, giving young people the right knowledge and skills to help them and those around them survive in an aquatic emergency.



Junior Lifeguard Club

The Junior Lifeguard Club enable kids to become involved in lifesaving as a sport, providing an avenue to keeping kids interested and active in aquatic sports.



RISE

The Recreation Industry Skills Education offers a range of swimming, lifesaving and first aid instruction. Check out www.rise.com.au



RASPP

The Remote Aboriginal Swimming Pools Project is a joint initiative of Royal Life Saving Society and the Department of Housing and Works and supported by BHP Billiton.



The Project aims to provide well maintained, well supervised aquatic facilities and programs that promote regular participation in aquatic activity amongst the remote Western Australian Aboriginal communities they operate in.



Watch Around Water

The Watch Around Water program is a joint initiative developed by the Royal Life Saving Society, LIWA Aquatics and the Aquatics Industry. The program aims to encourage parents to adequately supervise their child whilst in aquatic centres. The campaign addresses the misconception that it is the sole responsibility of the life guard to supervise children.



Don't Drink and Drown

Don't Drink and Drown is a joint initiative of Royal Life Saving Society and Surf Life Saving, with support from the Alcohol Education and Rehabilitation Foundation. The Project aims to reduce the incidence of alcohol related injury and death in aquatic environments amongst 15 to 29 year olds.

Other Activities

Royal Life Saving Society also maintains an extensive network with community and industry stakeholders, providing ongoing advice and consultation to ensure the organisation meets the needs and expectations of the Western Australian community.

