

# Western Sydney Drowning Report

2011/12 to 2020/21



**ROYAL LIFE SAVING**  
NEW SOUTH WALES



## > ABOUT ROYAL LIFE SAVING NSW

Royal Life Saving NSW (RLS NSW) is the leader in drowning prevention and water safety education in the state. Since its inception in 1894, RLS NSW has worked to harness the strengths of communities to reduce drowning and aquatic related injuries in, on and around water. This has been achieved with the commitment and drive of four pillars:

1. Innovative, reliable, evidence-based health promotion and advocacy;
2. Strong and effective partnerships;
3. Quality programs, products and services;
4. Continuing as a committed national organisation.

For the Aquatics Industry, RLS NSW is the state's principal organisation in vocational training and aquatic risk management.

RLS NSW is committed to supporting aquatic facilities and organisations in the development of risk management strategies and aims to mitigate aquatic related incidents and accidents by providing recommendations around best practice for both employee and public safety in and around aquatic environments. The formulation and introduction of a risk management service can provide any aquatic venue or facility with the foundations for a successful and continued operation.

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The drowning prevention research of the Royal Life Saving Society – Australia is proudly supported by the Australian Government.



Australian Government

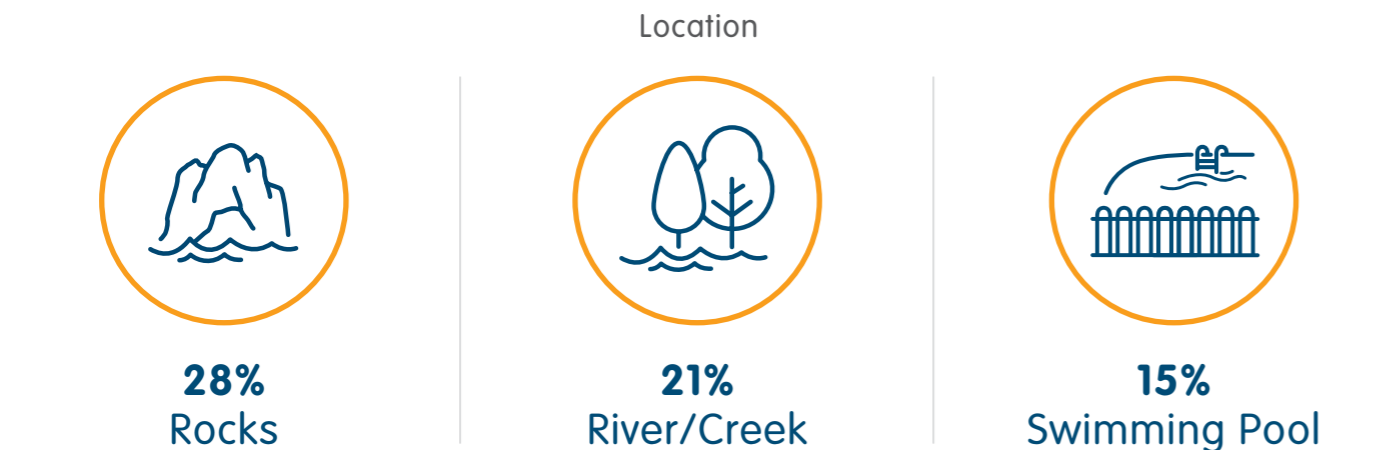
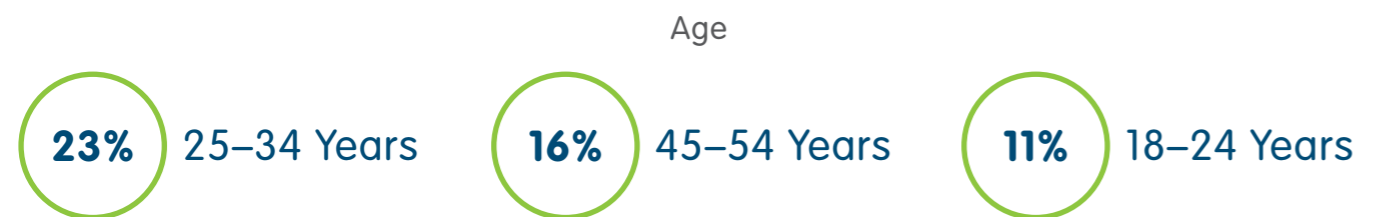
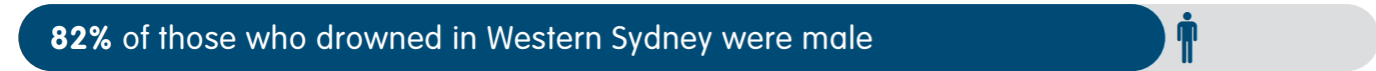
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Royal Life Saving NSW acknowledges the Traditional Custodians of Country throughout Australia and recognises their continued connection to land, waters and communities. We pay our respects to Aboriginal and Torres Strait Islander cultures; Elders past and present.

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# Overview 2011/12 to 2020/21



## INTRODUCTION

The Greater Western Sydney region covers from Canterbury-Bankstown in the East, Blue Mountains to the West, Wollondilly Council to the South and Hawkesbury City to the north. This represents a population of around 2.6 million people with a very high density, about 288 people per square kilometre. The population of Western Sydney grows about 2.1% each year.<sup>1</sup>

### Demographic profile of Western Sydney

Western Sydney residents are relatively young, with an average age of 34 years, and 42% of the population is made up of couples with children. When compared with Greater Sydney, Western Sydney (LGA) has a higher proportion of children (under 18) and a lower proportion of persons aged 60 or older.<sup>1</sup>

In 2016, 39% of people in Western Sydney (LGA) were born overseas, compared with 36.7% in Greater Sydney, 1.5% of the population identify as Aboriginal and/or Torres Strait Islander and 44% of the population speak a language other than English.

The top 10 countries of birth of Western Sydney residents: India, China, Vietnam, United Kingdom, Philippines, Lebanon, New Zealand, Iraq, Fiji and South Korea. Between 2011 and 2016, the number of people born overseas increased by 136,085 or 18.0%. The largest changes in birthplace countries of the population in this area between 2011 and 2016 were for those born in: India, China, Iraq and Pakistan.<sup>1</sup>



Source: Profile.id (informed decisions) via Google maps

### Drowning and water safety

Western Sydney is surrounded by many natural waterways where people go for leisure and aquatic activities, such as the Cooks River, Georges River, Parramatta River, Lake Parramatta, and Prospect Reservoir. In addition, there are 73 public pools in these LGA's, including local council owned community aquatic centers, private swim schools, school pools.<sup>2</sup>

The Australian Water Safety Strategy 20303 identifies five priority areas for reducing drowning in the next decade. This includes children and young people, rivers and lakes, aquatic facilities, swimming and water safety skills and multicultural communities as targeted areas for drowning prevention.

Royal Life Saving has been funding swimming and water safety programs for children and adults from Western Sydney for many years. The Royal Life Saving NSW office is based in Castle Hill, with the Aquatic Safety Training Academy aquatic facility in Seven Hills offering swimming and water safety for the local community, for all ages and abilities.

Examples of initiatives include supporting adults from migrant and refugee backgrounds accessing swimming and water safety skills<sup>4</sup>, funding swimming lessons during the summer for children and teenagers, training local community members in first aid and CPR skills and providing opportunities to become lifeguards and swim teachers, school swimming programs and education sessions.

Recently, the Western and South-Western Sydney CALD Water Safety Committees were established. Jointly organised by Royal Life Saving NSW and Surf Life Saving NSW, these committees are similar to that of the South-Eastern Sydney CALD water safety committee.

The purpose is to bring together community stakeholders, aquatic service providers, settlement support agencies, police and others to discuss community led solutions to drowning prevention and water safety in their communities. Presently, both groups meet together on a quarterly basis.

## AIMS & OBJECTIVES

The purpose of this report is to present current data on unintentional fatal drowning of Western Sydney residents in order to inform evidence-based strategies, policies, programs and infrastructure to reduce drowning and increase opportunities for swimming and water safety participation.

This report focuses on drowning deaths that have occurred among residents of selected Local Government Areas (LGAs) within the Western Sydney region. This does not include all the LGAs considered to be in the Greater Western Sydney area and focuses on residents who drowned rather than drowning location.

For the purposes of this report, drowning among residents of seven LGAs within the Western Sydney area have been analysed:

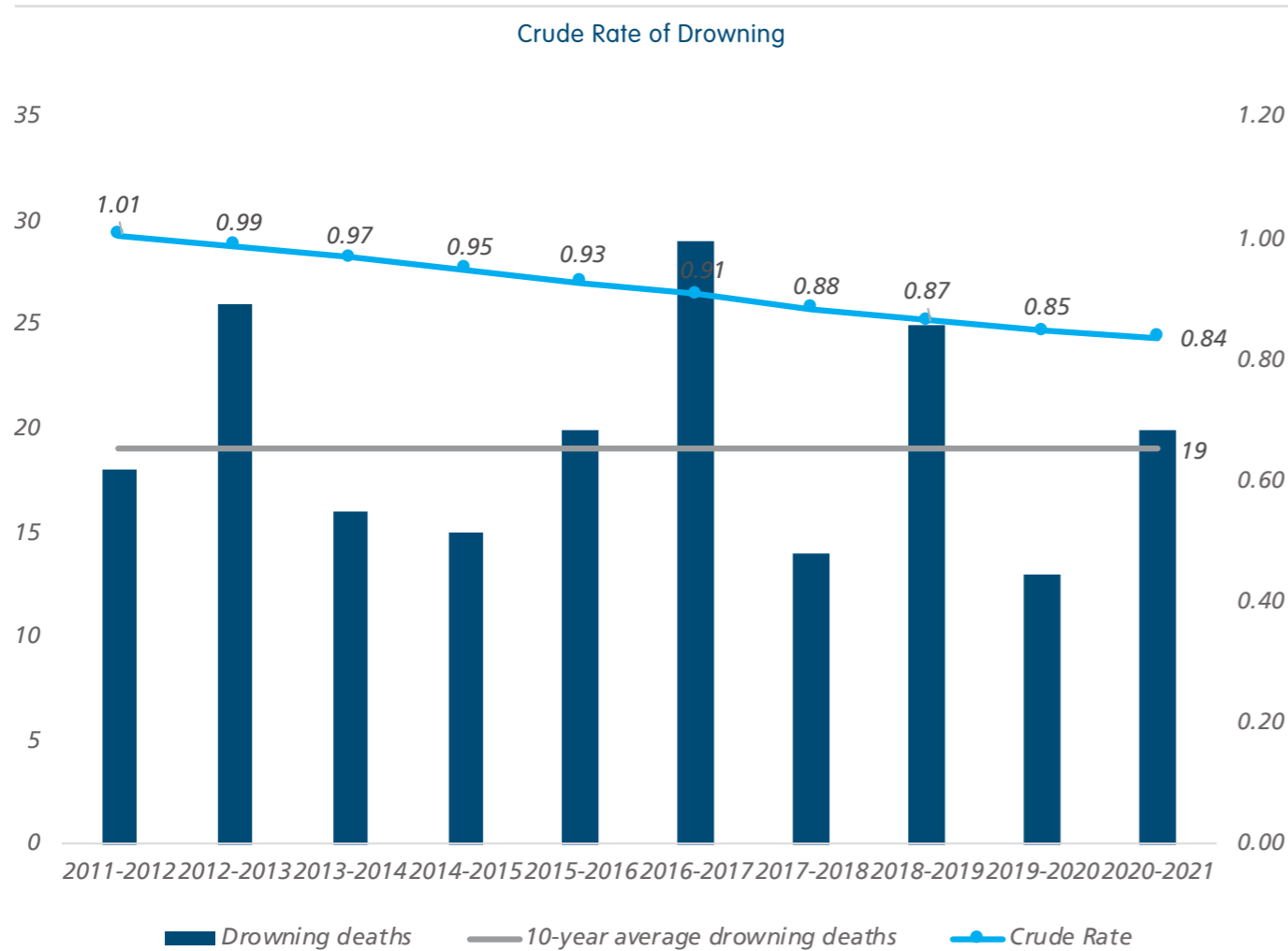
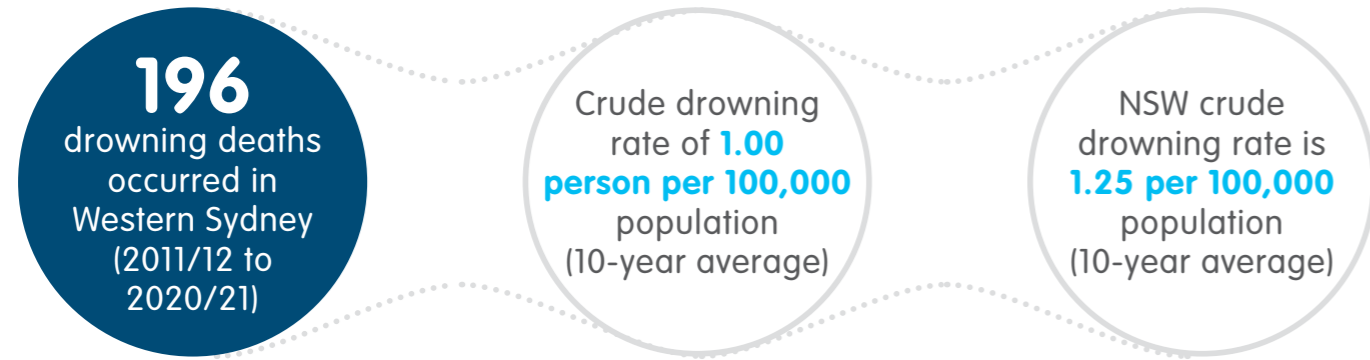
- > Blacktown
- > Campbelltown
- > Camden
- > Canterbury-Bankstown
- > Cumberland
- > Fairfield
- > Georges River
- > Liverpool
- > Parramatta

### This study aimed to:

- > Conduct an analysis of drowning among Western Sydney residents.
- > Determine the burden and key risk factors for drowning among this population.
- > Provide recommendations on the direction of future drowning prevention projects that are specific to the needs of Western Sydney residents and their families.

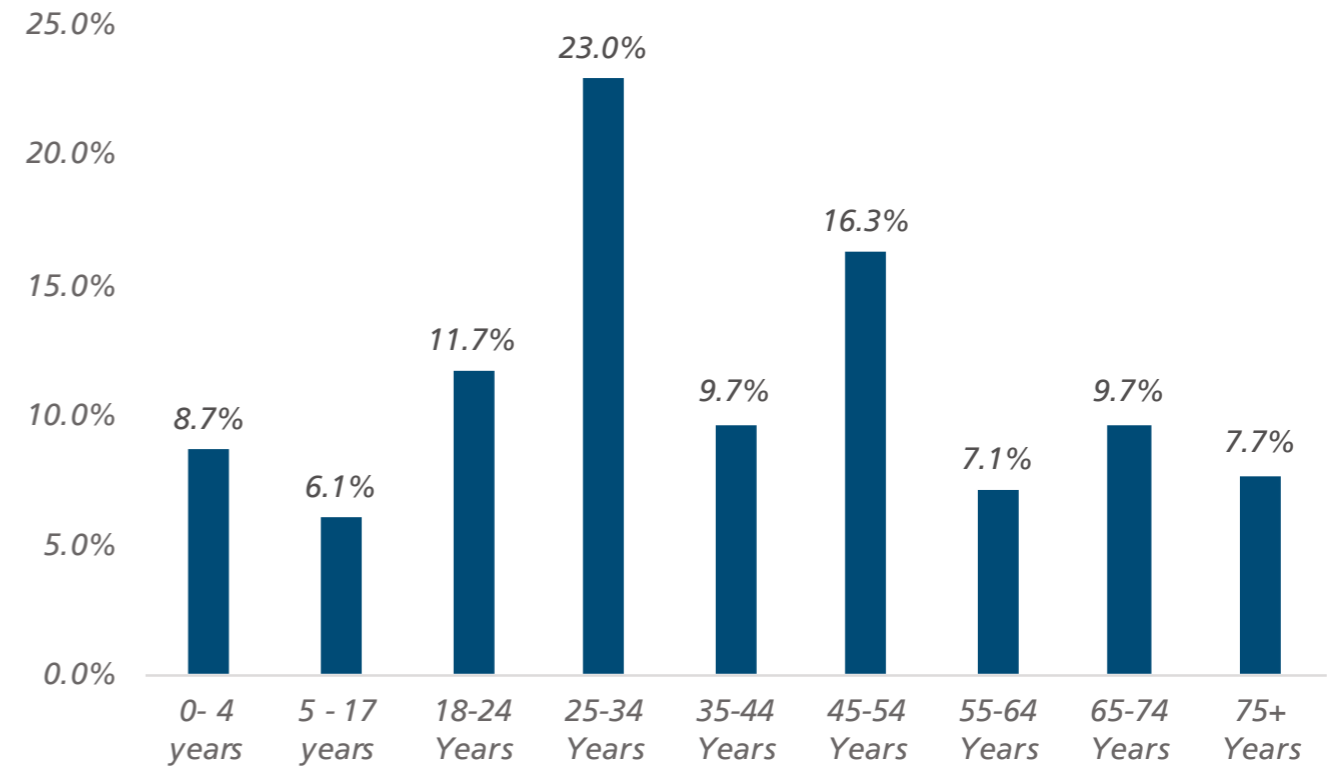
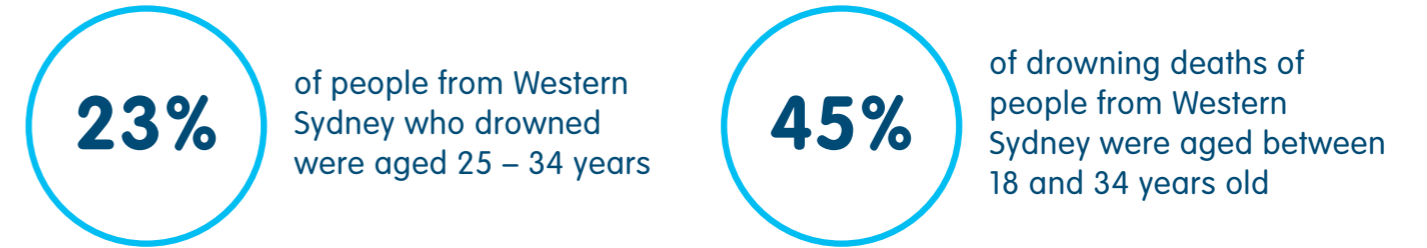


## DROWNING AMONG WESTERN SYDNEY RESIDENTS 2011/12 TO 2020/21



## WHO IS DROWNING?

**82%** of those who drowned in Western Sydney were male

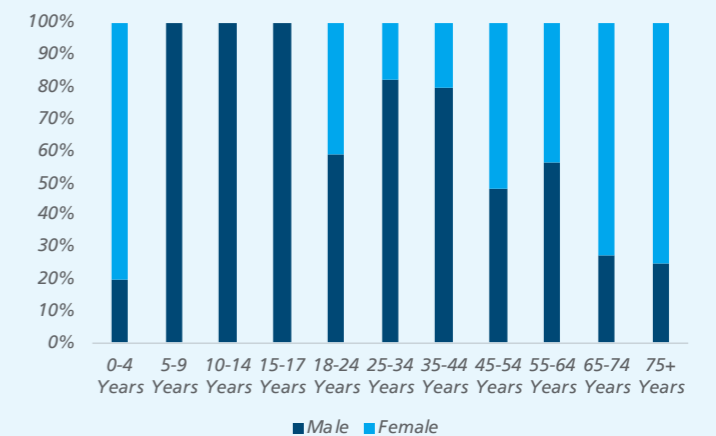


### Age and Sex breakdown

> Three age groups had a higher proportion of female drowning than males:

- 0 – 4 years
- 65 – 74 years
- 75+ years

> No females in the school age groups drowned (5 – 17 years) during the study period.



### Country of Birth

- > Country of birth was known in 88% of drowning cases.
- > Of those, 57% were born overseas.
- > 37% were born in Australia (information on cultural background was not available).
- > Drowning numbers were highest among those born in:
  - China
  - India
  - Iraq
  - Vietnam
  - Nepal
  - South Korea
- > 95% of those born overseas were from a non-English speaking country.
- > 1% were known to be of Aboriginal and Torres Strait Islander background .

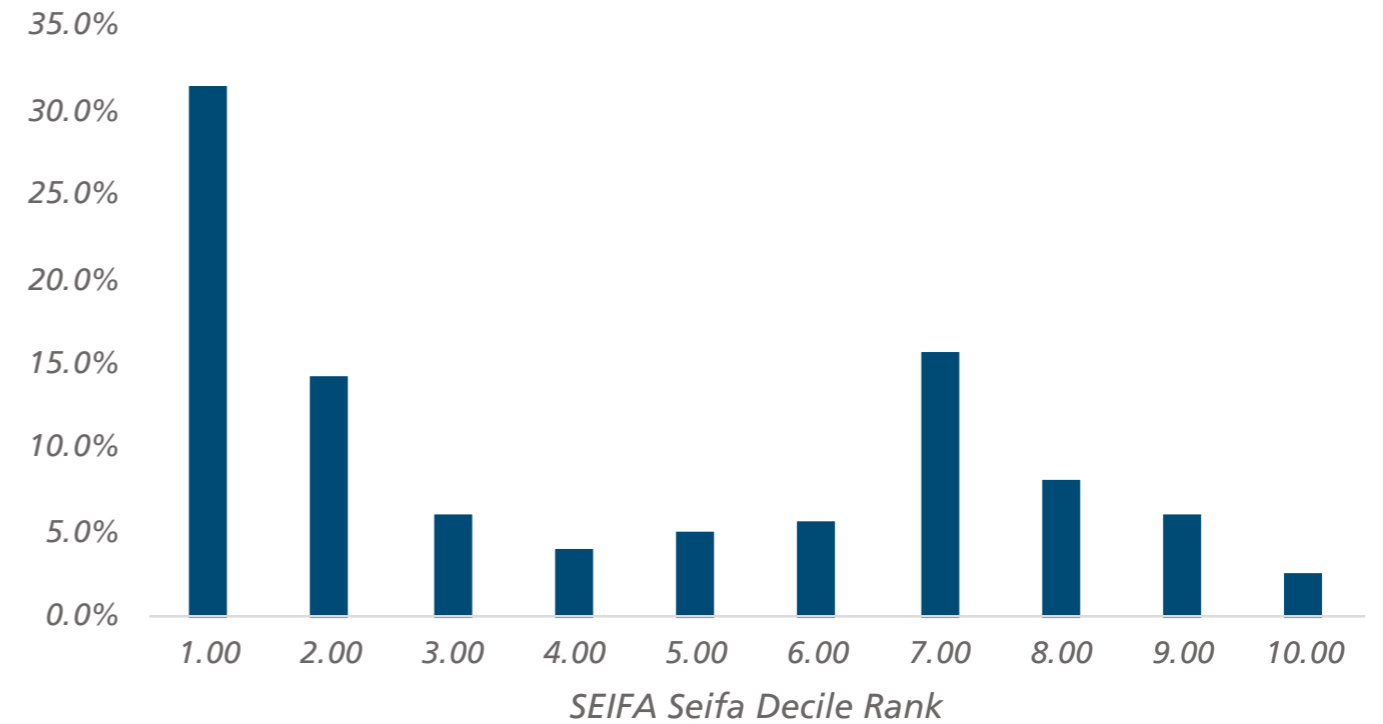
### Drowning of residents by Local Government areas

- > Canterbury-Bankstown recorded the highest number, proportion and rates of drowning per 100,000 residential population
- > Camden reported the lowest numbers and rates of drowning

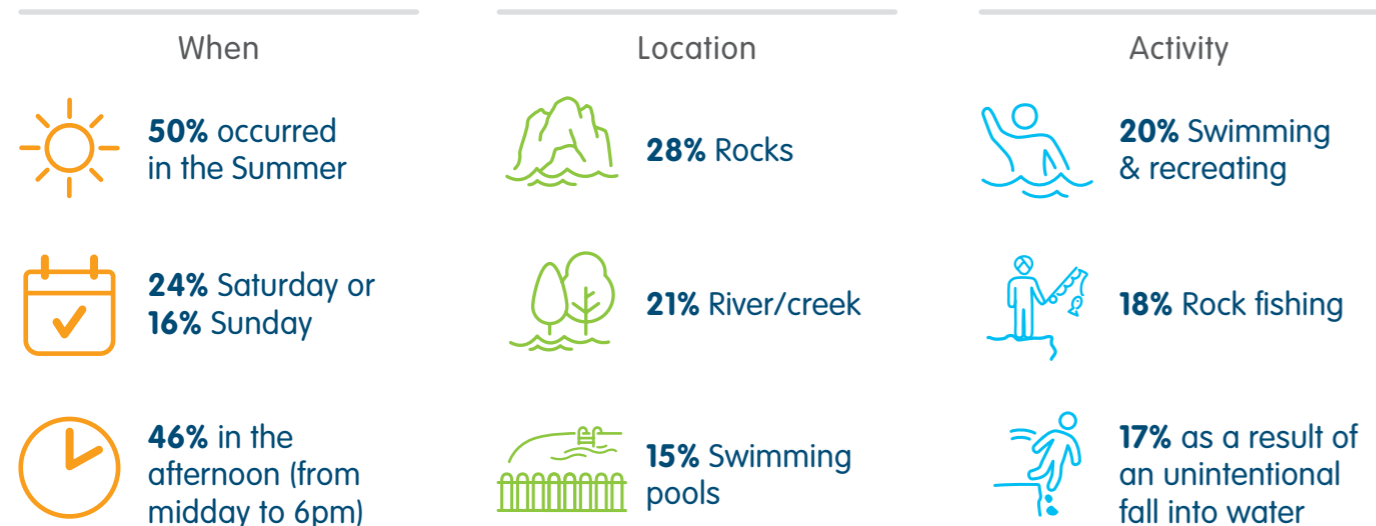
Residential LGA	Frequency	Percent	Rate per 100,000 pop
Canterbury-Bankstown	46	23.5%	1.28
Parramatta	28	14.3%	1.21
Cumberland	27	13.8%	1.21
Blacktown	24	12.2%	0.69
Liverpool	20	10.2%	0.95
Georges River	17	8.7%	1.12
Fairfield	16	8.2%	0.78
Campbelltown	14	7.1%	0.87
Camden	≤5	≤5	0.50

### Socio-economic status based on the Socio-Economic Indexes for Areas (SEIFA) ranking

- > 52% of Western Sydney residents who drowned were from low socio-economic backgrounds (SEIFA decile rank 1-3) compared to 17% who were from higher socio-economic backgrounds (SEIFA decile rank 8 – 10).



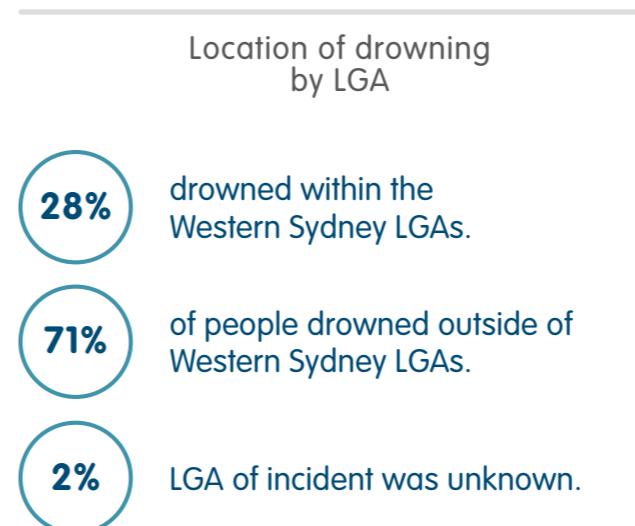
## WHEN & WHERE ARE PEOPLE DROWNING?



Age breakdown by location and activity being undertaken prior to drowning

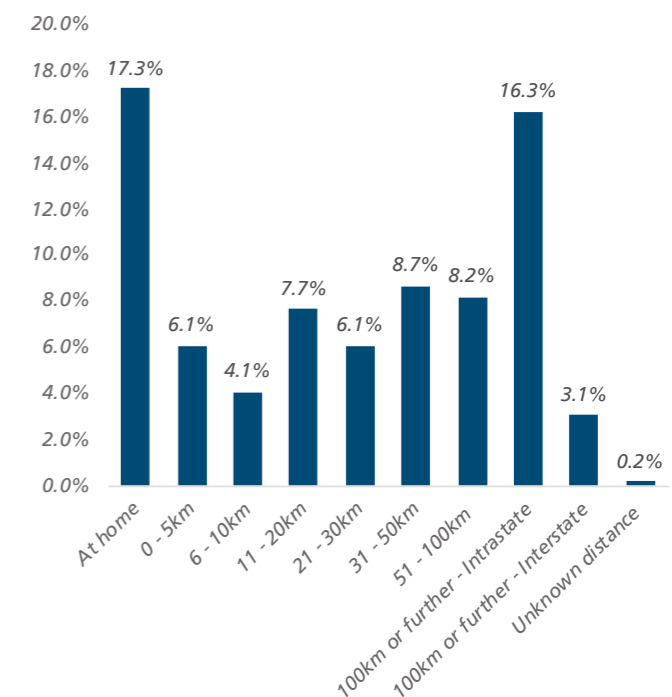
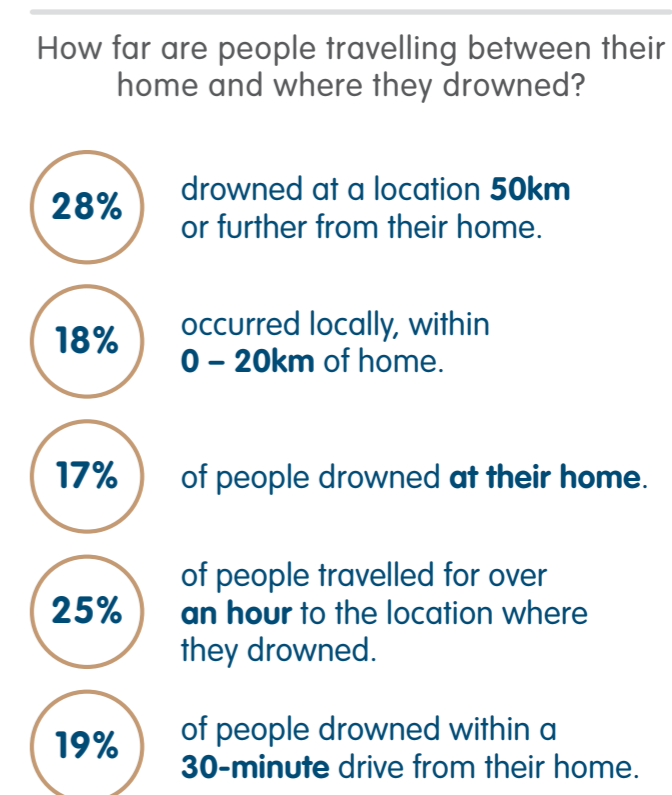
Age Group	Leading Location	%	Leading activity	%
0 – 4 years	Swimming pool	77%	Fall	82%
5 – 17 year	River/Creek	33%	Swimming & recreating	42%
18 – 24 years	Rocks	35%	Swimming & recreating	39%
25 – 34 years	Rocks	36%	Swimming & recreating	27%
35 – 44 years	Rocks	37%	Rock Fishing	32%
45 – 54 years	Rocks	34%	Rock Fishing	28%
55 – 64 years	Rocks	43%	Rock Fishing	43%
65 – 74 years	Swimming Pool/River/Creek	26%	Unknown*	32%
75 years+	Swimming Pool	33%	Fall	33%

\*Proxy for being alone



Top 10 LGA's where Western Sydney residents drowned

LGA	N	%
Randwick	22	11.2%
Wollongong	15	7.7%
Shoalhaven	14	7.1%
Parramatta	13	6.6%
Sutherland Shire	11	5.6%
Campbelltown	10	5.1%
Canterbury-Bankstown	10	5.1%
Northern Beaches	8	4.1%
Hawkesbury	7	3.6%
Blacktown	6	3.1%





**20%** recorded a pre-existing medical condition

- > 23% of medical conditions were associated with people aged 45 to 55 years.
- > All drowning deaths among people aged 75 years and older recorded a pre-existing medical condition.



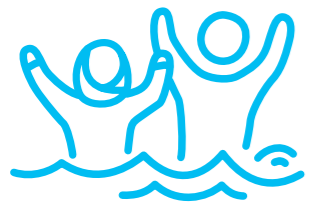
**21%** recorded alcohol present

- > Of those, 52% recorded a Blood Alcohol Concentration (BAC)  $\geq 0.05\%$  (18% total).



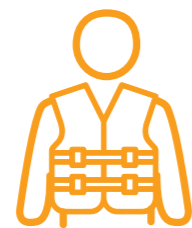
**21%** recorded drugs of which

- > 52% involved medication.
- > 48% involved illegal substances.



Swimming ability was only recorded in **22%** of cases

- > Of those, 68% were considered to be non-swimmers (30%) or poor swimmers (38%).



**Lifejackets**

- > Among those who drowned during boating activity, only 1 person was known to be wearing a lifejacket.
- > Of those who drowned when rock fishing, only two were known to be wearing a lifejacket.



**Risk factors for children 0–4 years**

- > Unsupervised access to backyard swimming pools.
- > Inadequate pool barriers and open or unlatched gates leading to a child gaining access to the pool, in some cases the pool was not fenced at all.





Drowning at Inland Waterways



drowning deaths among Western Sydney residents occurred at an inland waterway location.

Of those, the highest number occurred at:

- Hawkesbury River
- Parramatta River
- Georges River

Who is drowning at inland waterways?

- 86% males
- 32% aged 25 – 34 years
- 23% aged 55 years and over
- 45% were born overseas
- 32% were swimming and recreating
- 16% boating
- 13% unintentional fall into water
- 48% recorded alcohol  
50% recorded BAC  $\geq 0.05\%$

Locations & Visitation

RLSSA has undertaken a mapping project of key aquatic locations across Australia to learn what locations people are visiting, the distance people travel and how long they stay there, to better understand visitation and exposure trends and where we could be targeting education and prevention strategies.

Three key locations across Sydney were chosen to monitor exposure and visitation. These locations reflect the different aquatic environments people are exploring, and the activities being undertaken around water.

Visitor trends over the 12 months November 2020 – November 2021<sup>5</sup>

Detail	Lake Parramatta Swimming area	Hawkesbury River	Wattamolla Lagoon and beach
Visitor type	Commuters (11-40km)	Locals living $\leq 10\text{km}$	Commuters (11-40km)
Home LGA	Hawkesbury Blacktown Hills Shire	Parramatta Hills Shire Blacktown	Sutherland Shire Canterbury-Bankstown Cumberland
Average age	41% 25 – 54 years	30% 25 – 44 years	33% 25 – 44 years
Time of the day visiting	Between 12 – 6pm	Between 12 – 6pm	Late afternoon (3pm – 6pm)
Average hours spent at location	1.6 hours	1.7 hours	1.6 hours
Activities around water	Swimming	Swimming	Swimming & Jogging



## KEY INSIGHTS

This analysis has highlighted key drowning trends for Western Sydney residents that can help to inform future and enhance existing drowning prevention and water safety strategies.

While the overall crude drowning rate of Western Sydney residents decreased over the study period, and was lower than the NSW drowning rate (1.00 per 100,000 vs. 1.25), several LGA's did report drowning rates of more than 1.00 per 100,000 residents, with Canterbury-Bankstown reporting the highest rates (1.28 per 100,000) compared to Camden who reported the lowest rates (0.50 per 100,000).

The report shows that people are engaging in a range of activities at different aquatic locations, but may not necessarily have the knowledge, skills and awareness to do so safely. Males aged 25 – 34 years, and people born overseas were identified as high-risk groups for drowning among Western Sydney residents.

This report identified five areas to target future drowning prevention and water safety efforts for Western Sydney residents.

### Multicultural communities

Western Sydney is very culturally diverse, and this is now being reflected in the drowning statistics. People may come from countries or families where their interaction around water has largely been for work or everyday life, household activities or religious ceremonies and not for leisure as is the norm in Australia.<sup>4</sup> Additionally, there may be a gap in understanding of swimming and water safety skills and knowledge between children born and growing up in Australia, and their parents who may have had less exposure and opportunities to engage with aquatic locations and activities since moving to Australia.

Research has reported that adult migrants are aware of the importance of swimming and water safety lessons for their children, however many adults do not prioritise swimming for themselves, especially if they are already paying for their children to be attending lessons.<sup>5</sup> It is important to raise awareness and knowledge of water safety education for all communities and ensure that everyone can access and understand safety messages.

### Access to swimming and water safety education programs

Swimming ability was only recorded in about a quarter of all drowning deaths, however of those, most people were thought to be poor swimmers or could not swim at all. Over half of all Western Sydney residents who drowned were from lower socio-economic backgrounds, suggesting that people may not have had access to swimming and water safety programs or local facilities. It is important to enable access to aquatic facilities and swimming and water safety programs for both adults and children, whether that be cost, transport, delivering programs outside of work hours, providing free or subsidised childcare, local facilities.<sup>5</sup>

Given the cultural diversity of Western Sydney, it is important the aquatic centers, programs and their staff are aware and cater for the cultural needs of their local community. Voucher programs may help to reduce costs for swimming lessons of children, however communities need to be aware of how to access these vouchers and where to use them.

More information is needed on where and how to access swimming lessons for adults, which pools have childcare facilities and offer programs that cater to cultural and religious needs. Programs may need to be delivered at times when adults can attend, such as after work hours, in the evenings or on the weekends. Additionally, even if adults have swimming lessons earlier in life, perhaps during their school years, for many that would have been the last time they had formal swimming and water safety lessons and may not have retained the skills or fitness to be safe in the water.

### Locations and activities

This study found that Western Sydney residents were most likely to drown at rocks while undertaking rock fishing, followed by people swimming at a river or creek. Rock fishing was the leading activity among those aged 35 – 64 years.

The majority of people drowned outside of Western Sydney, with 28% having drowned more than 50km away from their home or they had travelled more than an hour to get to their destination. This suggests that people may be going to unfamiliar locations and are not aware of the changing conditions at their intended location, or they are going to isolated or remote locations for rock fishing. This is consistent with previous research that adults from migrant backgrounds in Australia were significantly more likely to drown around rocks compared with Australian-born people.<sup>6</sup>

The NSW Government introduced legislation regarding the compulsory wearing of lifejackets when rock fishing from December 2016<sup>7,8</sup>, however not all local governments have opted in to regulate and enforce this Act. More needs to be done to promote education awareness around the dangers and hazards of rock fishing, and the wearing of lifejackets when rock fishing.



### Inland waterways

Western Sydney is surrounded by inland waterways, such as the Georges River, Parramatta River and Hawkesbury River, and Lake Parramatta. Rivers remain the leading location for drowning,<sup>9</sup> however many people may not be aware of the dangers of inland waterways or think that these waterways may be the same as the rivers as what they are used to in their home countries.

Nearly half of drowning deaths at inland waterways recorded alcohol. More awareness of safety around inland waterways, including consumption of alcohol is needed, especially among males. Safety messages and campaigns may need to be tailored and developed with community leaders to ensure that the messages are culturally relevant and appropriate to all communities, and available in different languages.

Engaging with community ambassadors to address water safety and the sensitivities of alcohol for some communities may be more appropriate and effective rather than through traditional methods.

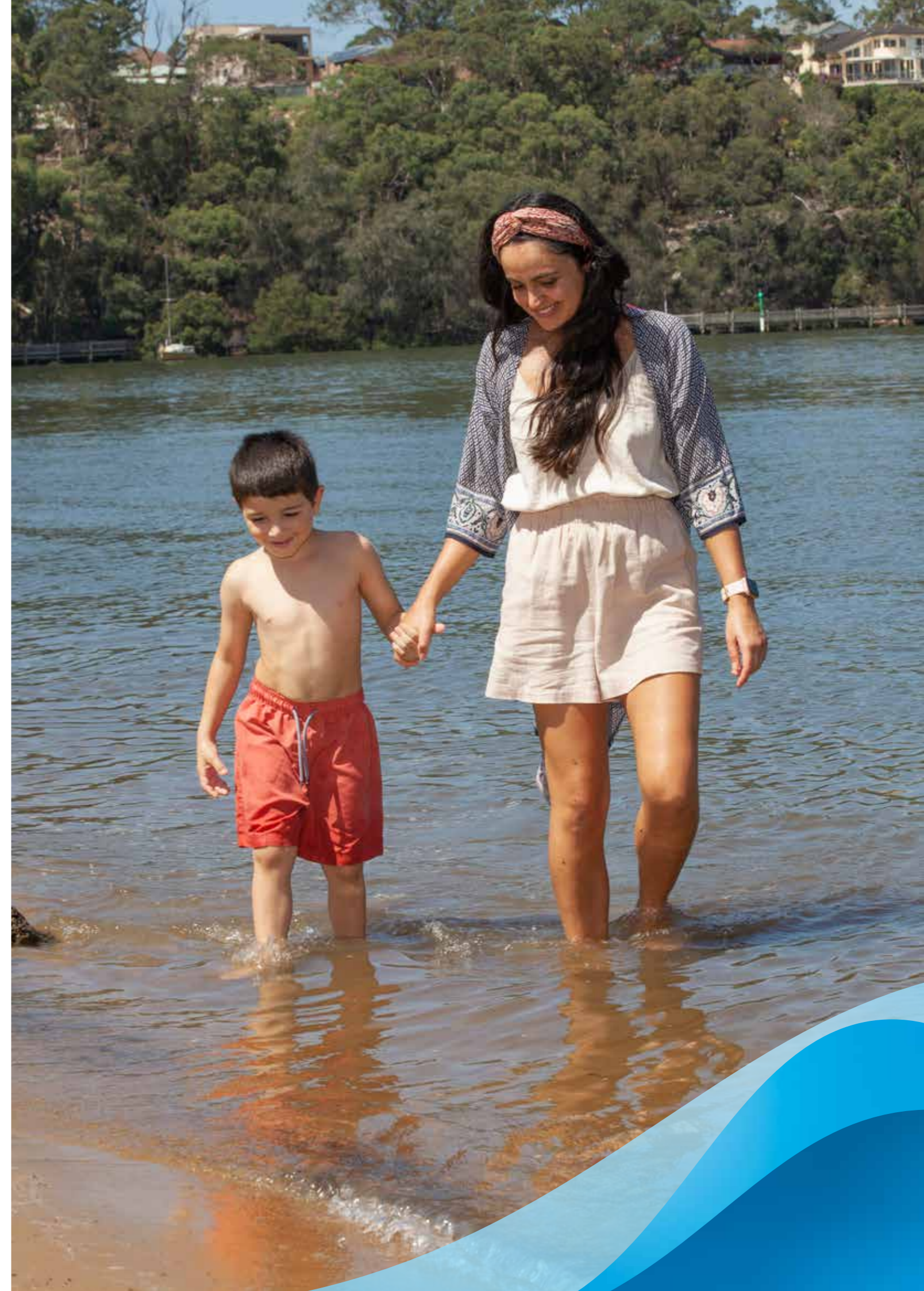
### Children

Although children aged 0 – 17 years recorded some of the lowest numbers and proportion of drowning (along with the 55-64 years age group), children remain a priority population for reducing drowning.<sup>10</sup> Royal Life Saving research has found that a child's risk of drowning triples at the age of 1 year, as children are becoming most mobile.<sup>11</sup> Young children most commonly drown in the home environment; this study found that 70% of children aged 0-4 years drowned in a swimming pool, and 82% drowned as a result of an unintentional fall into water.

It is important to raise awareness of non-fatal drowning in this age group, and that for every fatal drowning, there are eight children admitted to hospital.<sup>9</sup> There is a need to ensure that people living in homes with backyard swimming pools are aware of the pool fencing requirements, even for portable pools, and know their local council requirements for registering and maintaining their pool fence. If people are in rental properties, education or information should be passed on by real estate agents and landlords about home pool safety.

CPR and first aid training should also be promoted to parents and grandparents as they are often the first to respond. Promotion of the Keep Watch<sup>11</sup> program through early childhood education providers, child health clinics and nurses may be good avenues for further promotion of the Keep Watch program and water safety messages to families. For primary school aged children, it is important to educate parents about supervision requirements for older children.

Regular promotion to raise the awareness of school swimming and water safety programs, and the availability of holiday/VACSWIM programs is needed to ensure that parents understand the importance of such programs, and that children do not miss out on vital swimming and safety skills. Utilising voucher programs is one option to help with this.



## CONCLUSION

Western Sydney is a young, culturally diverse population covering a broad, high density geographic area that includes rivers, lakes, creeks, streams and swimming pools. With a growing population, it is vitally important that a range of strategies are utilised to increase water safety skills and knowledge and that this population has access to safe environments for swimming and water safety activities.

Water Safety agencies should work together with a range of stakeholders and community leaders to ensure that future programs and campaigns reflect the needs of the community. This report has provided key insights that can help to direct funding that can be best utilised for the greatest impact in reducing drowning and provide opportunities for safe participation in aquatic activities for Western Sydney residents.

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