

# Communication with vulnerable swimmers at public pools

## Pilot Study 1 Report 2016

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# BACKGROUND



## Introduction

- The drowning death of Paul Daniel Rayudu, a 23 year old international student, at a public swimming pool in 2014 highlighted the need for pool lifeguards to be able to easily identify potentially vulnerable swimmers before they enter the water.
- Three recommendations were made by the Coroner investigating the death at Inquest (COR 2014 0761, 18 August 2016):
  1. “I recommend that Belgravia Leisure Pty Ltd implement a system, not limited to, but which may be in the form of signage, requesting patrons to inform a staff member of their vulnerabilities before entering the water.”
  2. “I recommend that Belgravia Leisure Pty Ltd in consultation with Banyule City Council explore the options and means for best communicating with and encouraging patrons who have English language challenges, to inform staff member of their vulnerabilities before entering the water.”
  3. “I recommend that Chris Eccles, Secretary of the Department of Premier and Cabinet, work with the appropriate area of Victorian Government to establish a central oversight and regulation body for public swimming pool operation in Victoria, to ensure safety standards are applied and upheld consistently across the industry.”
- This pilot project report evaluates communication resources in relation to recommendations 1 and 2.

# RESEARCH AIMS AND OBJECTIVES

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## Research Aims

- The study was designed to evaluate the suitability of draft communication resources developed for patrons that may be weak or non-swimmers, to encourage them to inform a staff member of their vulnerabilities before entering the water.

Specific aims of the project were to determine:

1. Whether communication resources for weak/non-swimmers change awareness of the need to inform a staff member of their vulnerabilities before entering the water.
2. Whether communication resources for weak/non-swimmers influence their behaviour by informing a staff member of their vulnerabilities before entering the water.
3. The most appropriate communication resources for weak/non-swimmers to increase awareness and influence behaviour change.
4. The impact on public swimming pool staff in the use of communication resources for weak/non-swimmers and in interacting with patrons.
5. Any barriers and enablers in the use of communication resources to encourage weak/non-swimmers to inform a staff member of their vulnerabilities before entering the water.

## Research Objectives

- Provide advice as to the most appropriate content and design of communication resources to encourage weak/non-swimmers to inform a staff member of their vulnerabilities before entering the water.
- Develop a survey tool to determine the project aims.
- Coordinate and conduct surveys at two aquatic facilities (WaterMarc, Greensborough and Olympic Leisure Centre, Heidelberg West).
- Coordinate collection of information from facility staff to gain their feedback on the communication resources used and the impact on their interaction with the public.
- Conduct data collation via community surveys and facility staff feedback, and data analysis.
- Provide a brief report outlining the key study findings and any recommendations.

# METHODOLOGY



## Methodology

The Aquatic Risk & Research Department at Life Saving Victoria conducted the study in collaboration with Banyule City Council and Belgravia Leisure.

### Materials

- The trial vulnerable swimmer communication materials were displayed at WaterMarc and Olympic Leisure Centre. The primary resource was a banner placed at the pool entrance. Additional items included brochures and information cards in reception, posters placed strategically around the facility and front desk staff asking patrons about their swimming ability.
- A cross-sectional survey was developed to evaluate the impact of the materials on a variety of public pool visitors, with a particular emphasis on weak and non-swimmers.
- The survey was adapted for use at a community festival conducted outside the pool setting and therefore did not ask patrons whether they had seen the new resources.
- A feedback book was placed at the reception desk for staff to enter any comments they received from patrons or provide input regarding the materials.

### Sample

- The study was conducted at WaterMarc and Olympic Leisure Centre, as well as Malahang Community Festival; all within the Banyule City Local Government Area in Victoria.
- Following placement of the communication materials at the facilities, independent trained staff administered surveys randomly to pool patrons after they paid their entry fee and passed through reception.
- Visitors to the Malahang Festival were approached at random to complete the survey.

## Methodology

### Measurement

- The survey was disseminated between Friday 18th November and Monday 21st November, during periods recommended by Banyule City Council and Belgraveia Leisure; periods that typically experience higher visitation numbers, thus maximising the potential response rate, particularly among the target group of vulnerable swimmers.

**Table 1: Survey collection summary**

Facility	WaterMarc (Greensborough)				Olympic Leisure Centre (Heidelberg West)			
Day	Fri	Sat	Sun	Mon	Fri	Sat	Sun	Mon
Time	4:30 - 7:30pm	12-3pm	12:30 – 3:30pm	4 - 5:15pm	5 - 8pm	10am - 12pm	10am - 12pm (Malahang Festival)	Not conducted
Survey per day	19	15	33	16	24	11	14	N/A
Surveys total	83				49			
Overall	132							

- Surveys were completed with the assistance of trained survey data collectors to ensure consistency of data collection.
- Additional surveys were available in the reception area for patrons to complete when data collectors were not at the facility.
- Data was entered into the Cvent online survey management tool and analysed with IBM SPSS 22.

# SUMMARY OF FINDINGS



## Respondent details

### Respondent demographics

- 66.1% female.
- Most aged 35-44 years (43.2%) followed by 45-54 years (17.4%) and 25-34 years (15.9%).
- 50.4% born in Australia. The remainder were born in 24 different countries, with the largest proportion born in Somalia (8.0%) and China (7.2%).
- 54.0% spoke another language other than English at home or with family members:

### Swimming ability

- 41 self-reported weak/non-swimmers (31.1%).
- Respondents typically rated themselves as an 'OK swimmer' (35.9%) or 'Good swimmer' (22.9%) compared to others like them.
- Almost one-third (31.5%) self-reported that they could 'comfortably float and gently swim for about 15 minutes' and 23.1% felt they could 'comfortably float for over 1 minute and swim a little distance'.

### Characteristics of visit

- WaterMarc and Olympic Leisure Centre:
  - 88.9% were visiting with another person, and 56.3% were with a child aged 5-9 years.
  - Respondents most commonly visited 'Weekly' (52.6%) followed by 'Occasionally (e.g. school holidays)' (27.2%).
- Malahang Festival respondents:
  - Almost two thirds (64.3%) of Malahang Festival respondents had 'Never' visited a public pool; 21.4% visited 'Occasionally (e.g. school holidays)'.

## Aim 1: Whether communication resources for weak/non-swimmers change awareness of the need to inform a staff member of their vulnerabilities before entering the water

- 50.9% of respondents did not see or hear any advertising or information on public swimming pool safety since arriving at the pool.
- Of the 49.1% who answered 'Yes' or 'Unsure' to seeing or hearing any advertising or information on public swimming pool safety, 23.2% recalled the vulnerable swimmer communication materials, 26.8% recalled other safety information (such as Watch Around Water), 12.5% recalled general information (such as swimming lessons or the pool website) and 14.3% of respondents did not specify.
- 13 (11.0%) survey respondents overall recalled the vulnerable swimmer communication materials; six of whom spoke a language other than English at home or with family.

**Table 2: Recall of vulnerable swimmer communication materials**

Facility	All Respondents	Weak/ Non-Swimmers
<b>WaterMarc</b>	13.3%	8.3%
<b>Olympic Leisure Centre</b>	5.7%	0.0%
<b>Both facilities</b>	11.0%	5.9%

## Recall among weak/non-swimmers

Olympic Leisure Centre



Recall: **0.0%**

WaterMarc

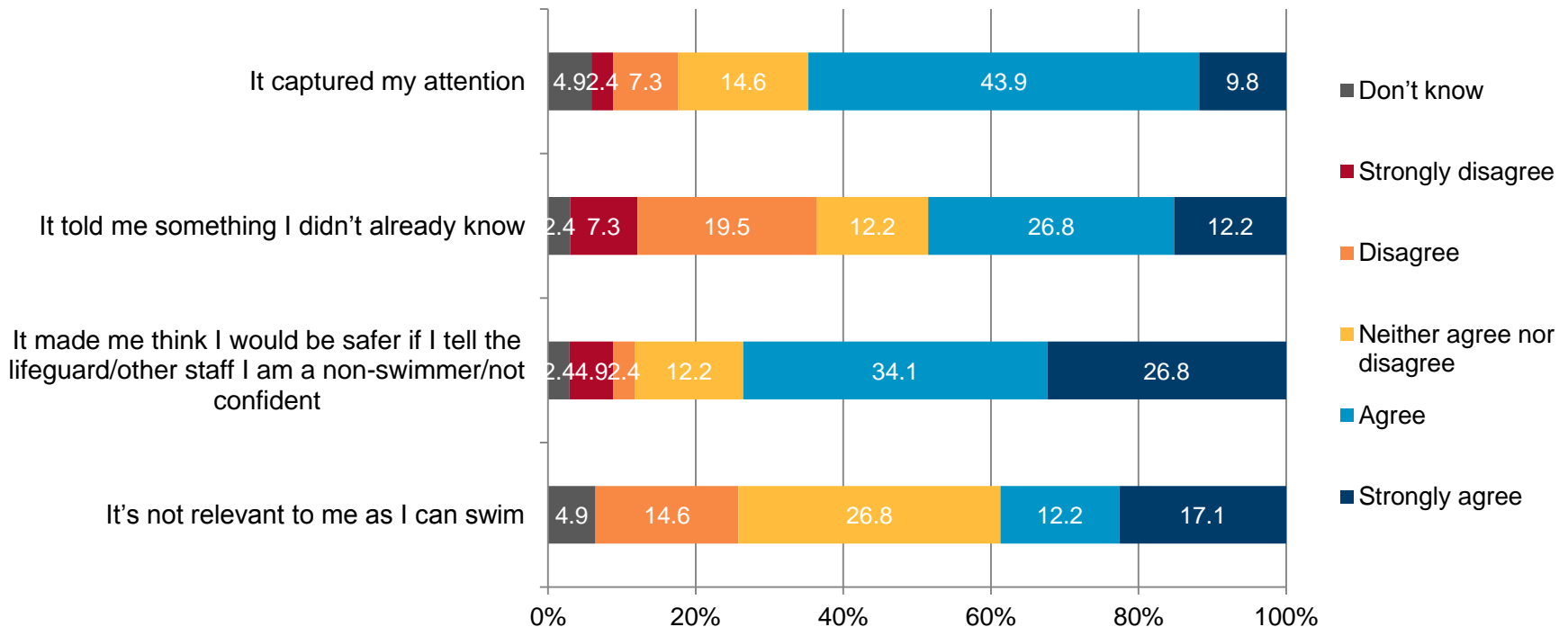


Recall: **8.3%**

Patron feedback: *“The blue labels should be red/yellow to attract your attention, as I feel the blue blends into the water, and is hardly noticeable.”*

- Key message: *“Are you a non-swimmer? Swim safe, & let us know you’re here! If you are a non-swimmer or an unconfident swimmer please identify yourself to staff, wear a wristband and swim within a safe depth within your ability.”*
- 60.9% of weak/non-swimmers agreed or strongly agreed that they thought they would be safer if they told the lifeguard or other staff about their lack of swimming ability/confidence after reading the vulnerable swimmer message.

**Figure 1: Change in awareness among weak/non-swimmers**

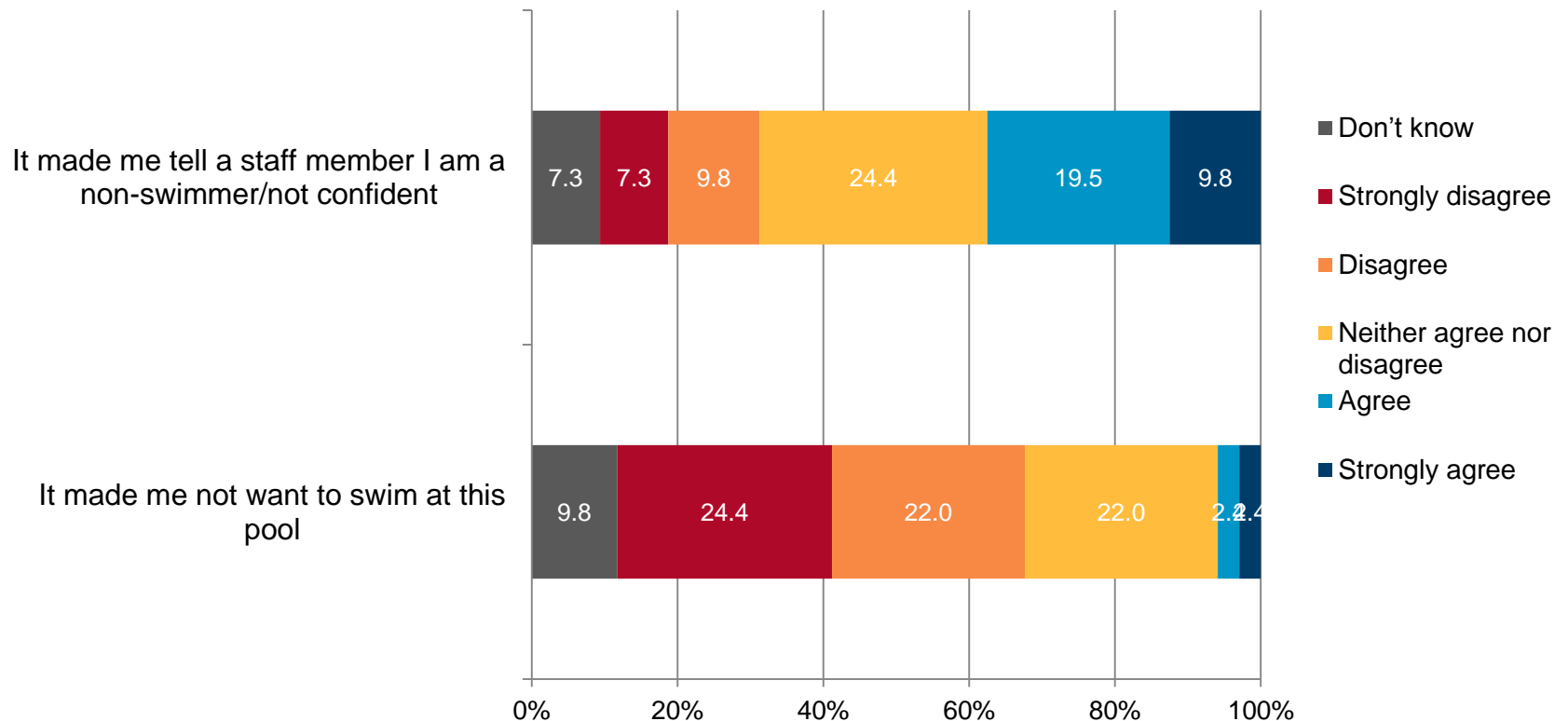


## Aim 2: Whether communication resources for weak/non-swimmers influence their behaviour by informing a staff member of their vulnerabilities before entering the water

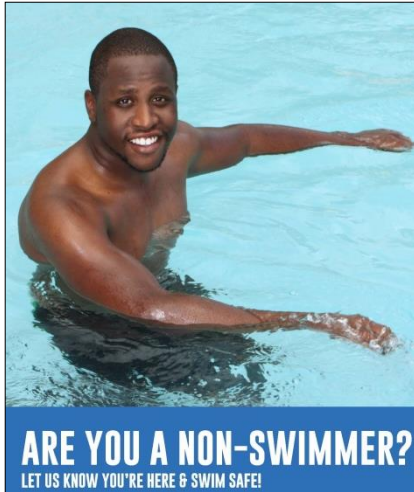


- The resources demonstrated a potential positive influence on weak/non-swimmer behaviour.
- 29.3% said the messages made them tell a staff member they are a non-swimmer/not confident.

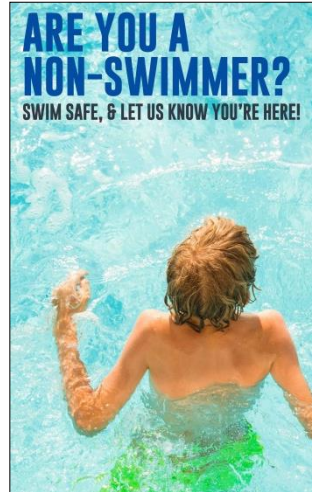
Figure 2: Change in behaviour among weak/non-swimmers



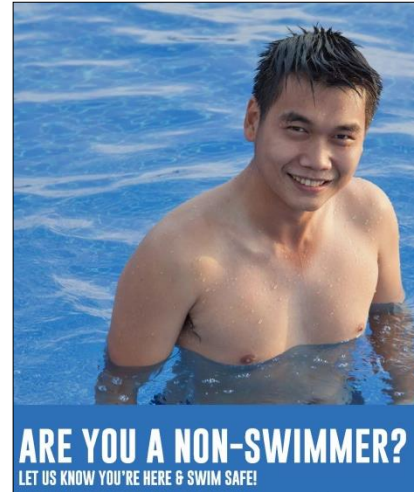
## Weak/non-swimmer image preferences



Picture 1: 7.3% (3)



Picture 2: 34.1% (14)



Picture 3: 9.8% (4)



Picture 4: 26.8% (11)



## Are you a non-swimmer?

Let us know you're here & swim safe!

If you are a non-swimmer or an unconfident swimmer please identify yourself to staff, wear a wrist band and swim within a safe depth within your ability.

Picture 5: 22.0% (9)

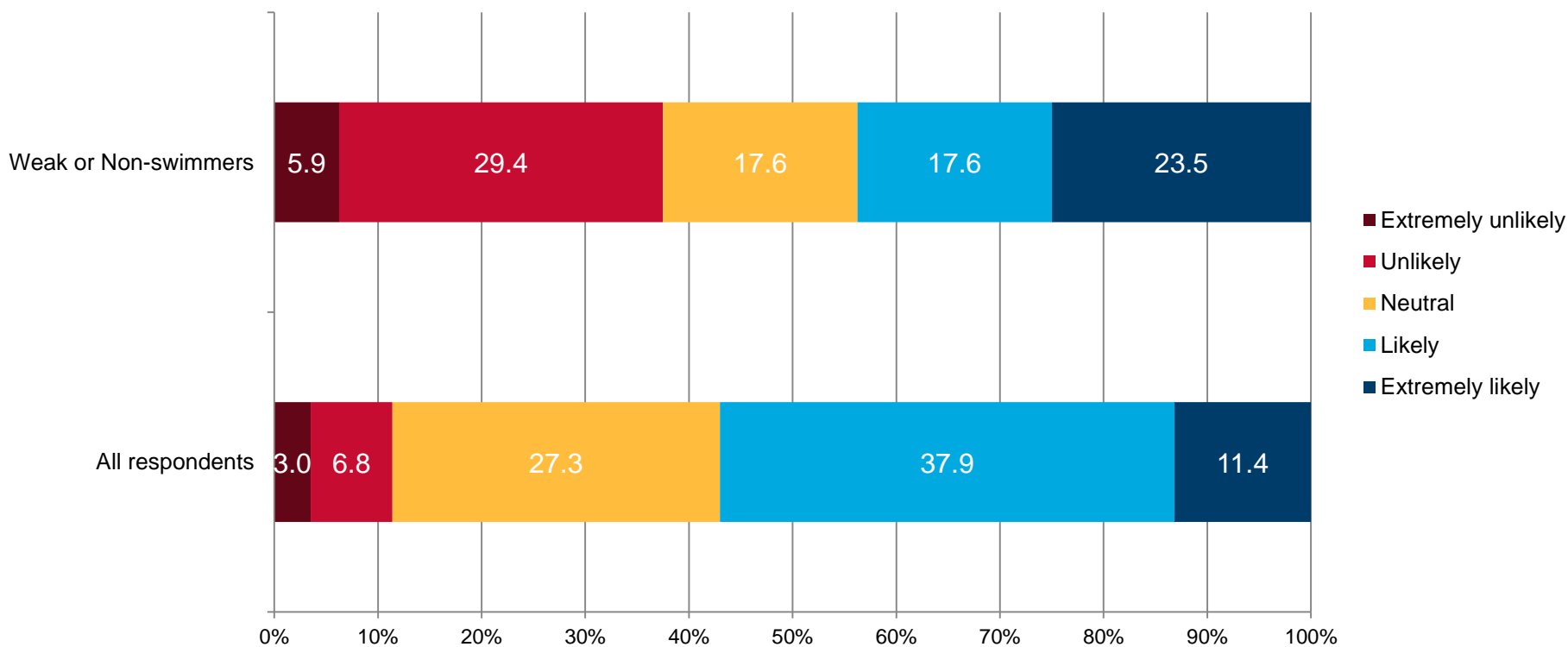
None of these: 4.9% (2)

Patron: ***“Black text on #4 difficult to read.”***

## Influence on weak/non-swimmer behaviour:

*After viewing pictures 1-5, 41.1% of weak/non-swimmers were likely or extremely likely to tell a staff member or lifeguard that they are a non-swimmer or not confident in water.*

**Figure 3: Likelihood to tell a staff member or lifeguard that they are a non-swimmer or not confident**



### **Aim 3: The most appropriate communication resources for weak/non-swimmers to increase awareness and influence behaviour change**



- Language barriers were apparent for many respondents.
- A number of respondents did not know what the term 'non-swimmer' meant. For example, some thought it was related to not being allowed to swim or someone who did not want to swim.
- One in five (18.6%) respondents who spoke a language other than English at home or with family did not answer the question regarding the key statement: *"Are you a non-swimmer? Swim safe, & let us know you're here! If you are a non-swimmer or an unconfident swimmer please identify yourself to staff, wear a wristband and swim within a safe depth within your ability."* This may indicate that the key statement and associated questions were too difficult for this group to understand.

#### **Respondent feedback in the resources:**

*"The adults look too comfortable/confident in the water."*

*"Wristbands would be better on the posters. Easy to see."*

*"None are showing someone struggling in the water."*

*"Show [a] person telling a lifeguard."*

*"Just have a big sign with no person (non-identifying)."*

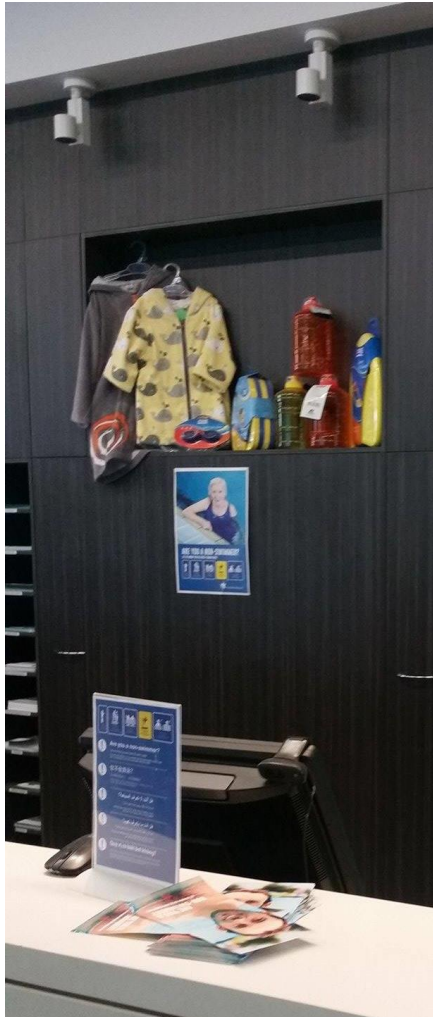
*"Children should be used in the pictures [too]."*

*"They [images] do not give a sense of warning or match the concern in the message."*

*"[I would change] the happy smiles on the pictures - if you can't swim I wouldn't be happy at a pool."*

*"The word 'non-swimmer' - or 'not confident' can make people [self] conscious/embarrassed. Use a different word."*

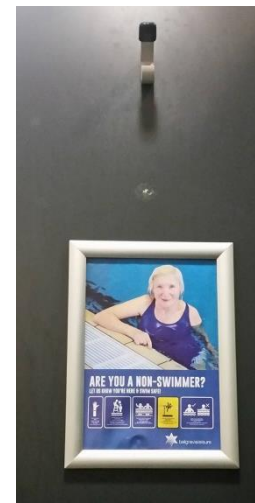
## Appropriateness of resources: WaterMarc



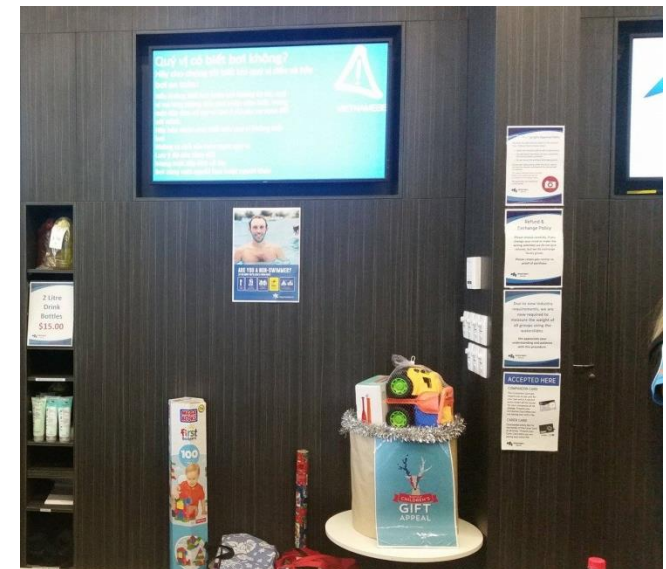
Satisfactory colour contrast here, although signage behind counter is too small and too low.



This area was not suitable for resources as they were right next to the pram entry gate where people rarely stand. Most brochures sat in bound piles next to or behind information cards placed along the counter. There were no new resources around the pool deck, aqua playground or café areas.



Female restroom, inside cubicle door.



Crowding of signage behind the reception desk.

## Appropriateness of resources: Olympic Leisure Centre



Lack of colour contrast with the new resources on the notice board. The information blended into the background and other blue-toned information.

Difficult to focus on the non-swimmer information due to signage and advertising overload in a relatively small space.



### Patron feedback:

*“What’s a non-swimmer? Is that somebody who doesn’t want to swim?”*

*“Does it mean swimming not allowed?”*

## **Aim 4: The impact on public swimming pool staff in the use of communication resources for weak/non-swimmers and in interacting with patrons**



### **WaterMarc:**

- Staff said patrons had good or neutral responses to their questions ('Can you swim?' or 'Are you confident in the water?') and recommendations (wristbands, tell a lifeguard) at the front reception desk.
- Reception staff remarked that no one refused an orange wristband, however patrons were unsure of whether they could swim – estimating their own ability was difficult.
- During surveying, staff reported and data collectors observed approximately 12 wristbands given out on Friday, 6 on Saturday, 1 on Sunday, and 5 on Monday.

### **Olympic Leisure Centre:**

- Staff had minimal input and did not use orange non-swimmer wristbands.

**Aim 5: Any barriers and enablers in the use of communication resources to encourage weak/non-swimmers to inform a staff member of their vulnerabilities before entering the water**



Barriers	Enablers
Language and comprehension	Simple messages with symbolic pictorials
Poor contrast between resource colours and surroundings	Overall sentiments were positive and the overarching idea of letting a lifeguard or staff member know was well-received (as it was for people's safety)
People in the images look too comfortable and content	Orange wristbands for ease of communicating swimming ability with pool personnel
Difficulty self-rating swimming ability	
Crowding from other signage and similar colours (e.g. Watch Around Water resources are also blue)	
Limited reminder resources around the WaterMarc pool deck or changing areas	
Patrons are often in a rush when at reception or focusing on other things such as entry fees or making sure children don't run off	

Patron: *“Non-swimmer is hard for Somali women. Does it mean no swimming?”*

# DISCUSSION



## Discussion

- Over half (54.0%) of the respondents spoke a language other than English at home or with family members, highlighting the importance of simplified, clear key messages and images.
- Almost one third (n=41 31.1%) of all respondents self-reported as weak/non-swimmers, although there was some confusion in determining their own swimming ability.
- Only 11.0% of all respondents from the two pools recalled resources specific to non-swimmers and moreover, just 5.9% of all weak/non-swimmers at the two facilities recalled these materials (0.0% from Olympic Leisure Centre).
- Recall of non-swimmer resources by all pool respondents were more than double for WaterMarc (13.3%) compared with Olympic (5.7%). This may have been due to the placement of resources and lack of contrast between the materials and their surroundings at Olympic.
- Most weak/non-swimmers agreed (60.9%) thought that they would feel safer after telling a lifeguard or other staff about their lack of swimming ability or water confidence, after reading the statement: *“Are you a non-swimmer? Swim safe, & let us know you’re here! If you are a non-swimmer or an unconfident swimmer please identify yourself to staff, wear a wristband and swim within a safe depth within your ability.”* However, one in five CALD respondents did not answer this question, possibly associated with language or comprehension barriers, suggesting it may be pertinent to rephrase the message.
- Importantly, the message did not deter respondents from wanting to swim at the pool (only 4.8% agreed that it would make them not want to swim at the pool).

## Discussion

- When weak/non-swimmers were prompted with resources in the form of 5 images reflecting the non-swimmer key message, most preferred Picture 2, represented by someone in a pool, facing away, with shoulders slightly raised, appearing mildly uncomfortable. This was also the image used for the large banner at both facilities.
- When asked whether these resources would prompt them to tell a staff member or lifeguard that they are a non-swimmer or not confident in water, 41.1% of weak/non-swimmers selected likely or extremely likely. The resources may therefore have a positive influence on weak/non-swimmer behaviour.
- Despite this, many commented that the actual content of the resources were inappropriate, did not stand out enough or did not accurately reflect the tone of the key message. For example, “They [images] do not give a sense of warning or match the concern in the message” and “The blue labels should be red/yellow to attract your attention, as I feel the blue blends into the water, and is hardly noticeable.”
- The resources were difficult for many CALD patrons to understand; the terminology used was too complicated. For example, “What's a non-swimmer? Is that somebody who doesn't want to swim?”; “Does it mean swimming not allowed?” and “Non-swimmer is hard for Somali women. Does it mean no swimming?”
- Staff at WaterMarc and Olympic appeared aware of, and behaved favourably toward, the new materials.

# RECOMMENDATIONS AND CONCLUSIONS



## Recommendations

### Print resources

- Do not use 'non-swimmer' – try 'Can you swim?'
- Less text – simplify language.
- Colours should be changed to contrast with surroundings.
- Text colours should also contrast with the background to ensure readability.
- Change images to include people looking like they're not so comfortable, wearing a wristband and/or interacting with a lifeguard.
- It appears the cultural backgrounds of people in photos are not an issue (it is noted that multiple images were displayed showing the variation in age and appearance, however as shown before, 34.1% of people preferred the image with non-identifying features.
- Perhaps it would be useful to include a short description in dot points and/or symbols of what it means to be able to swim, e.g. 'Can you swim 50 metres without getting tired?'; 'Can you float on your back for 1 minute?' etc.

### Other

- To overcome patron uncertainties and reiterate the key message, perhaps add a simple, symbolic, large text phrase to the back of lifeguard shirts, similar to:  
    'Can't swim? Talk to me'
- Review the pictorial of a person speaking to a lifeguard in a chair, this may not be recognised by people in Victoria as this is not a typical location they would see a pool lifeguard.

## Conclusions



- Overall the new resources we well received when noticed by patrons. There are however a number of recommended changes to the resources that should be made prior to a broader roll out. This will increase the likelihood that the resources and key messages reach the intended target group and encourage them to identify themselves to staff at aquatic facilities.