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# 2006 WATER SAFETY CONFERENCE



Australian  
Water Safety  
Council

## PROGRAM AND PROCEEDINGS

17-18 AUGUST

**PRODUCTION**

*2006 Conference Program  
and Proceedings*

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Water Safety Conference Program  
and Proceedings.*

# 2006 WATER SAFETY CONFERENCE PROGRAM

## PROCEEDINGS: A PROGRAM OF THE AUSTRALIAN WATER SAFETY COUNCIL

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### Disclaimer:

The Conference Program and Presentation Papers were correct at the time of printing, however, presentations and/or presenters may change due to circumstances beyond the control of the organisers, which may necessitate substitutions or alterations to the conference program.



# INTRODUCTION

## FROM AUSTRALIAN WATER SAFETY COUNCIL

Dear Delegate

### WELCOME TO THE NATIONAL WATER SAFETY CONFERENCE 2006

On behalf of the Australian Water Safety Council (AWSC) I would like to welcome you to the National Water Safety Conference 2006. You will see from the Conference Papers that we have an excellent program planned for you – one we believe you will thoroughly enjoy.

Over the past seven years there has been a huge increase in the public awareness of water safety issues and a giant leap forward in terms of government and corporate support at national, state and local levels. These success stories have been largely due to the tremendous efforts of all those involved in water safety right across Australia and we are keen to continue to identify and promote “best practice” and the sharing of great ideas.

Another of our major tasks this week will be to assess the progress of the current National Water Safety Plan after two years since it was launched in September 2004. This review will determine whether we are successfully moving ahead or whether changes to our priorities need to be made. The input from this conference will be key to identifying, analysing and prioritising the major issues for inclusion in the next National Water Safety Plan 2008-11 to be developed next year.

**Peter Agnew** - Surf Life Saving Australia

**Glen Canty** - AUSTSWIM

**Len Yeats** - Australian Swimming Incorporated

**Julie Depczynski** - Farmsafe

**Max Wells** - Surfing Australia

**Richard Franklin** - Royal Life Saving Society Australia

**David Oelrichs** - Australia & New Zealand Safe Boating Education Group

**Gary Penfold** - Aquatic and Recreation Institute

**John Egan** - Standing Committee on Recreation and Sport (SCORS)

**Ragen Chisholm** - Commonwealth Department of Communications,  
IT and the Arts

**Warren Taylor** - Australian Local Government Association

**Stan Konstantaris** - Australian National Sportfishing Association

We hope you enjoy the conference.

**ROB BRADLEY**

*Australian Water Safety Council Convenor*

*Chief Executive Officer – Royal Life Saving Society Australia*

# MESSAGE

## THE AUSTRALIAN GOVERNMENT MINISTER FOR AGEING

I am delighted to welcome all delegates to the 2006 National Water Safety Conference on behalf of my colleagues in the Australian Government.

The Australian Water Safety Council and its member organisations have set a peerless record in making Australia's shores and waterways safer for our people.

As my ministerial role covers injury prevention across Australia, I'd like to reaffirm the Government's strong support for your work. This year, the Australian Government will invest more than \$200,000 to help improve water safety, under the National Water Safety Plan 2004-07.

The plan will help Australia's state and federal governments unify their legislation covering issues like pool safety and safety fencing. Our investment also will enable more water safety education and research into drownings.

As Minister for Ageing, I am particularly impressed by the RLSSA's Grey Medallion project. This project will create a modified Bronze Medallion to encourage older people to evaluate their ability to swim and improve their water safety skills. The Government is investing \$400,000 to help the RLSSA develop, introduce and promote the Grey Medallion.

The new medallion is a timely and important idea because, over the next 50 years, there will be a significant increase in the proportion of the population aged over 65 years. The effects of Australia's ageing population therefore, are set to impact almost all aspects of water safety.

I wish you all well as you consider the future of water safety in this country.



**SANTO SANTORO**  
*Senator for Queensland*  
*Minister for Ageing*



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# MINISTER FOR THE ARTS AND SPORT

## MESSAGE FROM THE MINISTER FOR THE ARTS AND SPORT



### THE NATIONAL WATER SAFETY CONFERENCE

This conference is an excellent vehicle for a coordinated approach to water safety throughout Australia. It provides a forum for experts and practitioners to come together and share ideas, the latest research and the latest techniques for keeping Australians and our many international visitors safe in the water. It also enables all stakeholders to develop a comprehensive strategy and a shared commitment to the future of water safety.

The National Water Safety Plan 2004-07 emerged from the 2003 conference and is being implemented by the AWSC members in close partnership with governments and state/territory water safety councils. The plan presents an integrated approach to utilising programs, resources, facilities and international best practice and it is timely to review its progress. The latest drowning statistics suggest that the plan is working and this is a positive step in the right direction, but we cannot be complacent.

The Australian Government is a strong supporter of water safety initiatives and at the last election demonstrated this with a funding boost of \$10 million over four years for national water safety organisations. This brings the total funding to \$21 million for this period.

I am sure this conference will be as successful as its predecessors. I look forward to seeing the results of your discussions on the future priorities for water safety in Australia.

**SENATOR THE HON ROD KEMP**  
**MINISTER FOR THE ARTS AND SPORT**



# BACKGROUND: AUSTRALIAN WATER SAFETY COUNCIL

The Australian Water Safety Council (AWSC) was officially formed in February 1998 as a result of strong industry consultation and with the support of the Federal Minister for Sport & Tourism, The Honourable Andrew Thomson MP. The Council acts as a consultative forum comprising the major water safety and related government agencies and focuses on the presentation of key water safety issues to governments, industry and the community.

The Australian Water Safety Council does not represent an additional layer of organisational bureaucracy and it will not receive funding directly. The Council will however, provides a collective voice for its member organisations. It will also liaise closely with kindred bodies at State, National & International levels.

The AWSC is committed to enhancing Water Safety in Australia - to producing a strong directional document, to generating bipartisan support and to overseeing the successful implementation of the National Water Safety Plan. The AWSC member bodies have demonstrated their commitment by throwing the resources of their respective organisations behind the Council.

This conference is the fourth Water Safety Conference undertaken by the AWSC, previous conferences held were:

- 5 May 1998 at the Melbourne Sports & Aquatic Centre
- 22 November 2000 at Canberra Convention Centre
- 22-23 September 2003 at Bondi in Sydney.

All conferences involved a broad cross-section of the Australian Water Safety Community and including representatives of government departments, agencies and statutory authorities from throughout Australia.

The recommendations and spirit of cooperation engendered on 23 September has been incorporated into the 2004-2007 National Water Safety Plan which was released in September 2004.

Each conference allows for reflection on the current water safety plan and provides direction for future water safety activities. The National Water Safety Plan 2004-2007 can be downloaded from [www.watersafety.com.au](http://www.watersafety.com.au)

## MEMBERSHIP

### Australian Water Safety Council

ROBERT BRADLEY (CONVENOR)  
*Royal Life Saving Society Australia (RLSSA)*

GREG NANCE  
*Surf Life Saving Australia (SLSA)*

GLEN CANTY  
*AUSTSWIM*

AUSTRALIAN SWIMMING  
INCORPORATED (ASI)

MAX WELLS  
*Surfing Australia*

GARY PENFOLD  
*Aquatic and Recreation Institute*

JULIE DEPCZYNSKI  
*Farmsafe Australia*

AUSTRALIA & NEW ZEALAND SAFE  
BOATING EDUCATION GROUP (ANZSBEG)

AUSTRALIAN LOCAL GOVERNMENT  
ASSOCIATION (ALGA)

COMMONWEALTH DEPT  
OF COMMUNICATIONS,  
IT AND THE ARTS (DCITA)

JOHN EGAN  
*NSW Department of Sport, Recreation and  
Tourism – (representing Standing Committee  
on Recreation and Sport)*

STAN KONSTANTARAS  
*Australian National Sportfishing Association*

RICHARD FRANKLIN  
*(Research Committee convenor) Royal Life  
Saving Society Australia (RLSSA)*

INACTIVE MEMBERS:  
*Kidsafe Australia  
Australian Swimming Coaches  
& Teachers Association (ASCTA)*



# THURSDAY 17 AUGUST 2006

## 2006 Water Safety Conference - Program

<b>8:00am</b>	Registration (Level 2-Tatiara Foyer)	
	<b>Conference Opening and Keynote Speaker Address (Tatiara Meeting Room)</b>	
<b>9:00am</b>	Conference Opening Address	
<b>9:30am</b>	Australian Water Safety Council The National Water Safety Plan - Continuing cooperation & commitment in the fight against drowning. Rob Bradley, Convenor, Australian Water Safety Council & Chief Executive Officer, Royal Life Saving Society Australia	<i>Page 12</i>
<b>10:00am</b>	Keynote Presentation - Child Drowning - An Unrecognized Epidemic Ambassador Pete Peterson, Former U.S. Ambassador to Vietnam & President, The Alliance for Safe Children	<i>Page 16</i>
<b>10:30am</b>	<b>MORNING TEA (LEVEL 2-TATIARA FOYER)</b>	
	<b>MAIN PLENARY SESSION (Tatiara Meeting Room)</b>	
<b>11:00am</b>	Keynote Presentation - Toddlers Water Safety: Do big people always know best? Dr Kevin Moran PhD, Centre for Health and Physical Education, The University of Auckland, New Zealand	<i>Page 17</i>
<b>11:30am</b>	<b>STATE &amp; TERRITORY WATER SAFETY COUNCIL/TASKFORCE REPORTS (5 minutes)</b>	
	<b>Northern Territory</b> Graham Franklin, Director, Water Safety Branch and NT Water Safety Advisory Council Member	<i>Page 23</i>
	<b>South Australia</b> Chris Maschotta, Senior Policy Officer, Policy and Strategic Projects Branch, Office for Recreation and Sport, SA	<i>Page 24</i>
	<b>Australian Capital Territory</b> Rebecca Kelley, Manager Community and Industry Programs, Sport & Recreation, ACT	<i>Page 25</i>
	<b>Victoria</b> Nigel Taylor, Chief Executive Officer, Life Saving Victoria	<i>Page 26</i>
	<b>New South Wales</b> Debora Kanak, Senior Project Officer NSW Sport & Recreation & Executive Officer NSW Water Safety Advisory Council	<i>Page 27</i>
	<b>Tasmania</b> Nigel Carins, Co-ordinator, Swimming and Water Safety, Department of Education, Tasmania	<i>Page 28</i>
<b>12:10pm</b>	<b>LUNCH (SIROCCO RESTAURANT)</b>	
	<b>CONCURRENT SESSIONS</b>	
	<b>RISK MANAGEMENT (Tatiara Room)</b>	<b>TODDLERS/CHILDREN (Tallangatta Room)</b>
<b>1:20pm</b>	<b>Risk Management in Water Safety</b> <i>Page 30</i> Alistair Thom, Manager Aquatic Risk Services, Life Saving Victoria	<b>A Comparison of Rope Throw Rescue Techniques in a Children's to Learn-to-Swim Program</b> <i>Page 47</i> Jenny Blitvich PhD, School of Human Movement & Sport Sciences, University of Ballarat
<b>1:40pm</b>	<b>Watch Around Water - Public Swimming Pools Supervision Safety Program</b> <i>Page 32</i> Julia McNamara, Health Promotion Officer, Royal Life Saving Society (Western Australia)	<b>5 Years on since the Introduction of Swimming Competency Standards</b> <i>Page 50</i> Nigel Carins, Co-ordinator, Swimming and Water Safety, Department of Education, Tasmania
<b>2:00pm</b>	<b>Injuries at Commercial Aquatic Facilities in Victoria</b> <i>Page 35</i> Dr Bernadette Matthews, Manager Research, Injury Prevention and Health Promotion, Life Saving Victoria	<b>Improving Primary School Swimming Competence in the ACT</b> <i>Page 52</i> Eric Chalmers, Executive Officer, Kidsafe (ACT)
<b>2:20pm</b>	<b>Lifeguarding or Baby Sitting?</b> <i>Page 36</i> Steve Eccleston, National Manager Aquatic Industry Services, Royal Life Saving Society Australia	<b>Swim for Life - Developing a core life skill</b> <i>Page 54</i> Matt Claridge, Project Manager, Water Safety New Zealand
<b>2:40pm</b>	<b>Utilising GIS and GPS to Conduct Coastal Risk Assessments</b> <i>Page 38</i> Nicola Waldron, Manager Coastal Risk, Life Saving Victoria	<b>Drowning a Major Killer of Bangladesh Children: an urgent water safety programme needed</b> <i>Page 56</i> Dr Aminur Rahman, Centre for Injury Prevention and Research, Bangladesh (CIPRB) Dhaka
<b>3:00pm</b>	<b>AFTERNOON TEA (LEVEL 2-TATIARA FOYER)</b>	



# THURSDAY 17 AUGUST 2006

## 2006 Water Safety Conference - Program

CONCURRENT SESSIONS			
	RISK MANAGEMENT (Tatiara Room)	TODDLERS/CHILDREN (Tallangatta Room)	RISK FACTORS (Tallawalah Room)
3:30pm	<b>Remote Pools Project</b> Mark FitzSimons, Remote Pools Officer, Royal Life Saving Society Australia  <i>Page 38</i>	<b>Safe play areas on farms to prevent toddler drowning: Safety practices on farmers attending agricultural field days</b> Julie Depczynski, Project Officer, Child Safety on Farms Program, Australian Centre for Agricultural Health & Safety, School of Public Health, University of Sydney, Moree NSW  <i>Page 57</i>	<b>Risk factors for non-drowning injury in recreational swimming</b> Assoc Professor David Chalmers, Deputy Director, Injury Prevention Research Unit, University of Otago, Dunedin, New Zealand  <i>Page 66</i>
3:50pm	<b>Tourist Water Safety: Surf Life Saving initiatives for the Japanese inbound market</b> Monica De Nardi, Projects Manager, Strategic Development Unit, Surf Life Saving Australia  <i>Page 41</i>	<b>Under 5 Waterwise</b> Matt Claridge, Project Manager, Water Safety New Zealand  <i>Page 59</i>	<b>Older Australian Drowning Deaths</b> Richard Franklin, National Manager Research and Health Promotion, Royal Life Saving Society Australia  <i>Page 70</i>
4:10pm	<b>Spinal Injury Management in the Aquatics Environment</b> Jason Phillips, Regional Manager, Royal Life Saving Society Australia (New South Wales)  <i>Page 44</i>	<b>It's more than just swimming lessons</b> Penny Larsen, National Manager, Training and Education, Royal Life Saving Society Australia  <i>Page 63</i>	<b>Alcohol and water safety, what is the issue?</b> Lauren Nimmo, Health Promotion Officer, Royal Life Saving Society Australia (Western Australia)  <i>Page 73</i>
4:30pm	<b>Beach Safety Flags – Is it possible to achieve an International Standard?</b> Peter George AM, Chair, International Lifesaving Federation Rescue Committee and National Director of Lifesaving, Surf Life Saving Australia  <i>Page 46</i>	<b>CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) COMMUNITIES (Tallangatta Room)</b>  <b>Interactive Training Tools for the Indigenous Community</b> Melissa Rickwood, National Education Officer, AUSTSWIM  <i>Page 79</i>	<b>Drowning Deaths in the Colony of Victoria</b> Carolyn Staines, Research Fellow/ Graduate Student, Accident Research Centre, Monash University  <i>Page 76</i>
4:50pm	Summary/Close	Summary/Close	Summary/Close
5:00pm	<b>CONFERENCE DAY ONE CLOSE</b>		
6:30pm	<b>Conference Dinner</b> Pre Dinner Drinks (Level 4, Terrace, Tarcoola Ballroom) Theme 007 James Bond Casino Royale		
7:00pm	<b>Conference Dinner</b> Meal and Entertainment (Level 4, Tarcoola Ballroom) Theme 007 James Bond Casino Royale		

# FRIDAY 18 AUGUST 2006

## 2006 Water Safety Conference - Program

<b>8:00am</b>	Registration (Level 2-Tatiara Foyer)		
	<b>MAIN PLENARY SESSION (Tatiara Meeting Room)</b>		
<b>9:00am</b>	Day Two – Opening and Reflections		
	<b>WORKSHOP SESSIONS</b>		
	<b>Tatiara Room</b>	<b>Tallangatta Room</b>	<b>Tallawallah Room</b>
<b>9:30am</b>	<b>Home Pools – Pool Fencing</b> Facilitator: Royal Life Saving Society Australia  <i>Page 123</i>	<b>Australian Coastal Public Safety Standards</b> Facilitator: Surf Life Saving Australia  <i>Page 124</i>	<b>Education</b> Facilitator: Royal Life Saving Society Australia  <i>Page 125</i>
<b>10:45am</b>	MORNING TEA (LEVEL 2-TATIARA FOYER)		
	<b>CONCURRENT SESSIONS</b>		
	<b>CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) COMMUNITIES (Tatiara Room)</b>	<b>STRATEGIES (Tallangatta Room)</b>	<b>FISHING (Tallangatta Room)</b>
<b>11:15am</b>	<b>Water Safety Programs for Arabic Youth</b> Caitlin Chellew, Health Promotion Officer, Royal Life Saving Society Australia (New South Wales)  <i>Page 81</i>	<b>Water Safety: an inbuilt Programme in PRECISE - a great potential to save thousands of children from drowning in Bangladesh</b> Dr Aminur Rahman, Centre for Injury Prevention and Research, Bangladesh (CIPRB) Dhaka  <i>Page 97</i>	<b>Rock Fishing Safety Campaign</b> Debora Kanak, Senior Project Officer, NSW Sport and Recreation  <i>Page 111</i>
<b>11:35am</b>	<b>'On the Same Wave' Diversifying SLSA's Membership</b> Lee Howell, National Diversity Manager – "On the Same Wave", Surf Life Saving Australia  <i>Page 84</i>	<b>Water Safety in the Bush: A community development initiative providing water safety and awareness instruction to remote farms and stations</b> Nicole Beattie, Project Officer Combined Universities Centre for Rural Health  <i>Page 99</i>	<b>Hook, Line and Sinka' few: Risk attitudes and behaviours of Auckland's west coast rock fishers</b> Dr Kevin Moran PhD, Centre for Health and Physical Education, The University of Auckland, New Zealand  <i>Page 113</i>
<b>11:55am</b>	<b>Migrant Water Safety Education Project</b> Suzanne Peacock, Project Officer, Water Safety Council Tasmania  <i>Page 86</i>	<b>New Zealand's Drowning Prevention Strategy</b> Kate Ryder, Implementation Management Group, Stakeholder Relationships Manager, Injury Prevention Business Group, Accident Compensation Corporation (ACC), New Zealand  <i>Page 102</i>	<b>Recreational Fishing and Coastal Safety</b> Lauren Nimmo, Health Promotion Officer, Royal Life Saving Society Australia (Western Australia)  <i>Page 116</i>
<b>12:15pm</b>	<b>Water safety program for the Vietnamese Community - A pilot CALD project in Adelaide</b> Mary Han Avina, CALD Project Officer, Royal Life Saving Society Australia (South Australia)  <i>Page 90</i>	<b>The Territory's Five Point Plan to Water Safety</b> Amanda Shipway, Manager, Water Safety and Animal Welfare, Department of Local Government, Housing and Sport  <i>Page 106</i>	<b>Marine Stinger Management</b> Dr Lisa-ann Gershwin, National Marine Stinger Advisor, Surf Life Saving Australia  <i>Page 119</i>

## FRIDAY 18 AUGUST 2006

## 2006 Water Safety Conference - Program

	<b>CONCURRENT SESSIONS cont.</b>		
<b>12:35pm</b>	<p><b>“Kia Maanu, Kia Ora – Stay Afloat, Stay Alive” A Water Safety Message for Maori in Aotearoa</b></p> <p>Mark Haimona, Water Safety New Zealand Inc</p> <p><i>Page 93</i></p>	<p><b>To Break the Drowning Cycle we need a Total Service Plan</b></p> <p>Peter George AM, National Director of Lifesaving, Surf Life Saving Australia</p> <p>Chair, International Lifesaving Federation Rescue Committee</p> <p><i>Page 110</i></p>	<p><b>Shark Safety</b></p> <p>Craig Roberts, Operations Manager, Lifesaving and Education, Surf Life Saving Australia</p> <p><i>Page 122</i></p>
<b>12:55pm</b>	LUNCH (SIROCCO RESTAURANT)		
	<b>WORKSHOP SESSIONS</b>		
	<b>Tatiara Room</b>	<b>Tallangatta Room</b>	
<b>1:55pm</b>	<p><b>Local Government – A whole of water safety approach</b></p> <p>Facilitator: Surf Life Saving Australia</p>	<p><b>Culturally and Linguistically Diverse (CALD) Communities</b></p> <p>Facilitator: Royal Life Saving Society Australia</p> <p><i>Page 126</i></p>	
<b>3:10pm</b>	AFTERNOON TEA (LEVEL 2-TATIARA FOYER)		
	<b>MAIN PLENARY SESSION (Tatiara Meeting Room)</b>		
<b>3:40pm</b>	<p><b>Keynote Presentation</b> <b>Developing Lifeguard Services for Tourist Resorts: Legal, Training and Quality Service Considerations</b></p> <p>Professor Jeff Wilks Centre for Tourism and Risk Management, The University of Queensland Director, Strategic Development Unit, Surf Life Saving Australia</p> <p><i>Page 20</i></p>		
<b>4:10pm</b>	Summary and Future Directions		
<b>4:40pm</b>	<b>CONFERENCE DAY TWO CLOSE</b>		



**Australian  
Water Safety  
Council**

Each conference allows for reflection on the current water safety plan and provides direction for future water safety activities.

The National Water Safety Plan 2004-2007 can be downloaded from [www.watersafety.com.au](http://www.watersafety.com.au).

# AUSTRALIAN WATER SAFETY COUNCIL

## THE NATIONAL WATER SAFETY PLAN - CONTINUING COOPERATION AND COMMITMENT IN THE FIGHT AGAINST DROWNING

**ROB BRADLEY**

*Australian Water Safety Council Convenor*

*Chief Executive Officer – Royal Life Saving Society Australia*

### Aim of the Conference

- Review what has been achieved 1998-2006
  - Particularly looking at 2004-06 as the first two years of the current plan
- Receive presentations on Best Practice and Innovations in Water Safety
- Determine whether there are new or emerging issues and priorities
- Networking and Sharing Ideas
- Reaffirm our commitment and impetus for achieving the objectives set within the National Water Safety Plan 2004-07

### Drowning in Australia 2006

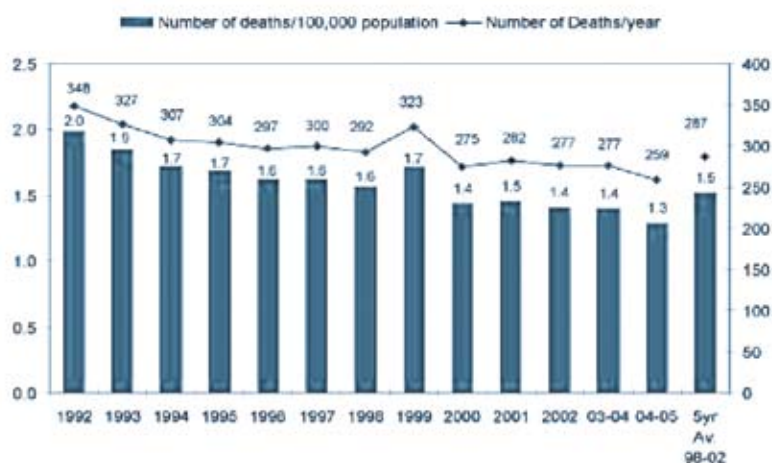
- Over 250 Australians drown every year
- Drowning is the third highest cause of accidental death
- In the 0-5 age group it is the No.1 killer
- Almost every drowning is preventable

### National Drowning Statistics

Unintentional Drowning Deaths Australia, 1992-2005

- There has been an 20% decrease in drowning deaths since 1995

Figure 1. Unintentional Drowning Deaths and Death Rates, Australia 1992-2002, 2003/04, 2004/05

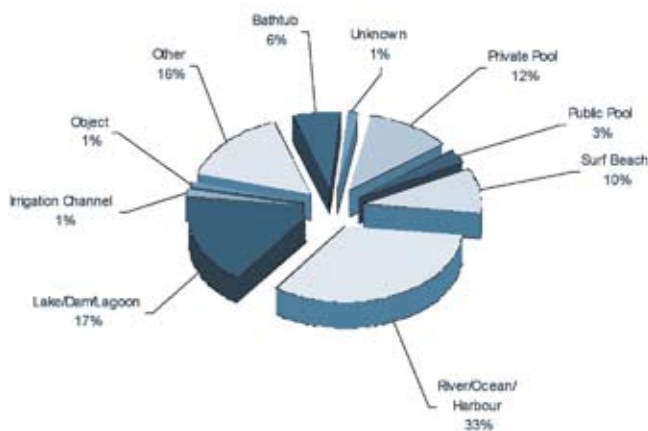


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Email: [rbradley@rlssa.org.au](mailto:rbradley@rlssa.org.au)

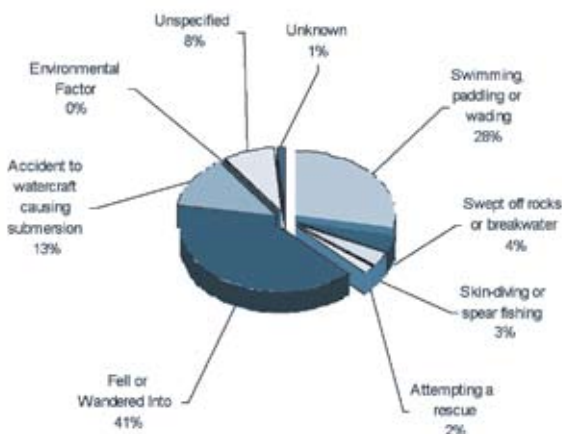
## Where?

Drowning deaths in Australia 1992-2002,  
location at time of deaths



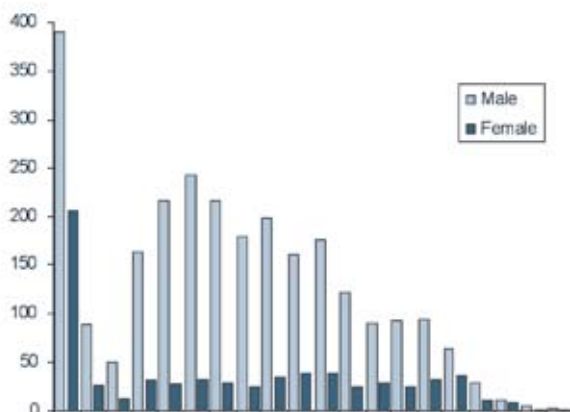
## Activity?

Drowning deaths in Australia 1992-2002,  
activity at time of deaths



## Age Groups

Drowning deaths in Australia by age group,  
1992-2002



## Formation of the Australian Water Safety Council

- AWSC is an industry driven Lobby Group representing the key Water Safety organisations.
- Officially formed in February 1998
- National Water Safety Plan – first plan launched July 1998 – reviewed at National Conferences - Canberra Nov 2000 & Sydney Sept 2003.
- National Water Safety Plan 2004-07 - launched Sept 2004
- Striving to work more closely with State Governments and stakeholder groups

## Purpose of the National Water Safety Plan

In the diverse & complex Aquatic Industry we aim to:

- Provide an apolitical Framework document that will:
  - Reduce Duplication of Effort & Resources
  - Share ideas and strategies
  - Identify the responsibilities of stakeholders
  - Help us Save Lives

## Stakeholders of the Plan

- A complex issue with many layers of stakeholders
- Water Safety sits across Governmental portfolios:
  - Sport & Recreation
  - Health & Ageing
  - Education
  - Tourism
  - Emergency Services
  - Local Government & Local Councils
  - Primary Industry
  - Transport
- State Water Safety Councils
- National Water Safety organisations – state & territory branches
- National / State organisations with a water safety interest
- Commercial operators and private providers

## Key Water Safety Priorities within the Plan

- Water Safety Education
- Water Safety Research
- Management of Aquatic Locations
- Targeting Key Drowning Demographics

## WATER SAFETY PRIORITIES

### 1. Water Safety Education

Water Safety Education has been identified as the highest priority.

Education provides the knowledge and skill base from which all other water safety considerations flow. It is clear that the public are not yet well enough educated about the dangers of aquatic locations. Quality Water Safety Education must be made available to every Australian.

#### Successful Programs:

- "Swim and Survive" (RLSSA 1982 - 2006)
- "Beach to Bush" (SLSA 2000-06)
- "Infant Aquatics" (RLSSA 1999 -2006)
- "Safe Boating" Schools Kit (ANZSBEG 2001-03)
- "Wet'n'Wise" – teacher resource kits to 12,000 Primary Schools and 2,500 Secondary Schools (RLSSA 2000-02)
- "Go Swim" (ASI – 2003-04)
- AUSTSWIM - development of "Towards Competitive Strokes" course and resources 2003
- ARI – reports that "water safety weeks" are now incorporated into the programs of many aquatic facilities

### 2. Research

- National Water Safety Research Committee (established 1999)
  - Identified areas of need for water safety research and evaluation
- National Coronial Information System
  - Established through MUNCCI – on-line 2000
  - Drowning specific Data Set Feasibility study and Report Form developed
- Major Research Studies - including:
  - "Analysis of Drowning in Australia" - A.Williamson (2000)
  - "Analysis of drowning of children under 5 years in NSW" (2002)
  - "Alcohol and Water Safety" – T.Driscoll et al (2003)
  - "Commercial Vessel fatalities in Victoria 1999-2001" (2003)
- Statistical Collation and Reporting
  - National Drowning Reports – produced annually by RLSSA – based on ABS

Coastal Incident Database – collated by SLSA (2001- )

Boating Incident Database – collated by AMSA (1999 -)

State Drowning Reports – produced annually in most States

- International Links – International Lifesaving Federation (ILS)
  - ILS Medical Commission – Medical Statements and Policies
- "Evaluation of the National Water Safety Plan 1998-2003"

### 3. Management of Aquatic Locations

- Guidelines for Safe Pool Operations (GSPO)
  - Safety Audits on Aquatic Facilities
  - Safety Audits on "Small Pools" – Tasmania
- Home Pool Safety
  - Fencing legislation now in place in each State
  - Home Pool Inspections by Local Councils or designates in some areas
  - National Home Pool Safety Forum – held in Oct 2005
- SLSA Beach Management System
- Guidelines for Safe Open Water Locations – extension of GSPO
- Vocational Training – Development and review of VET Training Packages – Community Recreation TP and Public Safety TP

### 4. Targeting Key Drowning Demographics

The highest at Risk priority groups identified for immediate action are essentially the same groups targeted in the 1998-2003 plan. It has been deemed necessary to continue work with these demographics because the current situation is still unacceptable:

- Children in the 0-4 Age Group
- Males 16-35 years - the traditional risk-taking group, particularly looking at the affect of alcohol
- The Regional and Rural Community including Farms and Rural properties
- The Aboriginal and Torres Strait Islander population
- Rock fishers
- People from Culturally and Linguistically Diverse (CALD) communities including inbound tourists.



Included Public Awareness Campaigns

- Pfizer “Keep Watch” - Toddler Drowning Prevention (RLSSA 1999-06)
- “Kids Alive – Do the Five” – Lawrence
- Kelloggs “Surf Safe Summer” (SLSA - 1998-2005)
- PlayStation “Swim & Survive” Program (RLSSA – 1997-2006) -
- “Play It Safe by the Water” – Victorian Dept of Sport and Recreation (1998-2006)
- “Safe Waters” –NSW State Dept of Sport and Recreation (1998-2006)

### Structure of the Plan

- Strategic Perspective
- Identifying the Priority Areas
  - Research
  - Water Safety Education and Awareness
  - Management of Aquatic Locations
- Best Practice
  - Identifying examples of Best Practice throughout Australia and o/s
  - Acknowledge and promote the importance of Best Practice
  - Refine and implement strategies to translate the Best Practice nationally
- SMART Goals
  - Statements of Key Principles
  - Recommendations for Action - 32 Recommendations
- Integration of State Plans
- Benchmarks & Target Setting
  - Examples: Home Pool Fencing
  - Registration of Pools by Local Councils eg: 90%
  - Compliance Targets for Homeowners eg: 75%
- Build on positive “Political Will”
  - Whole of Government approach
  - Identify the State Government “lead agencies”
- Continue the Evaluation Methodology and Review Timeframe

### Communication Strategy

- AWSC committed to ongoing reporting to, feedback from and dialogue with stakeholder groups
  - as the plan is rolled out
  - linked to the formal evaluation strategy
  - stronger communication links between AWSC & State Water Safety Councils eg: Joint meeting held October 2005
- Specific Issue Analysis
  - forums to be held to discuss single issues in detail eg: National Home Pool Fencing Forum held Oct 2005
  - involving the specific stakeholders with interest/expertise in the area
- Water Safety Interest Group Conferences and Workshops
  - to be scheduled regularly throughout the period
  - SLSA International Lifesaving Conference – Geelong Feb 06
  - AquaCon – held in Melbourne annually by VIAC



**AMBASSADOR PETE PETERSON**  
*Former U.S. Ambassador  
 to Vietnam & President,  
 The Alliance for Safe Children*

Ambassador Douglas B.(Pete) Peterson is a former fighter pilot, U.S. Congressman, educator, and business man. Pete was the first U.S. Ambassador to Vietnam following normalization of relations between the two countries. He was in Hanoi from 1998 until he resigned in 2001. While there, Pete became interested in the prevention of child injury after recognizing that injuries were creating an enormous burden on the health systems in that country. He and his wife, Vi, founded The Alliance for Safe Children, (TASC) in 2002 as a not for profit, non-governmental organization dedicated to preventing injury in children.

TASC has supported studies in Vietnam, Thailand, Bangladesh, China, Indonesia, and the Philippines which have documented that drowning is the Number 1 killer of children in Asia. TASC is now working with international and local partners on drowning prevention programs for countries in Asia. Pete and his wife Vi, as the President and Executive Director of TASC, spend their time as advocates for child safety. They live in Melbourne but spend half their time abroad on TASC business.

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## CHILD DROWNING

### AN UNRECOGNIZED EPIDEMIC

Australia has an active national drowning prevention program which is driven, in part, by good data used to better target drowning risks for all citizens. That data describes who is drowning, where they drown, and what they were engaged in. More importantly, Australia has committed to the zero drowning challenge based on the idea that all unintentional drownings are preventable. The Alliance for Safe Children, (TASC), applauds and embraces the idea that all unintentional drownings are preventable, and is applying it to our work on child injury prevention.

Since 2001, TASC has been working with partners in different countries in the region to better describe child injuries and to better define ways to prevent them. Community based surveys have been conducted in a number of developing countries, (Bangladesh, China, Indonesia, the Philippines, Thailand, & Vietnam) have revealed drowning to be overwhelmingly the number 1 killer of children between the ages of 1-18 years. For example, of the 259 deaths total reported in Australia in 2005, 46 were children under age 14yrs. That many children drown every day in Bangladesh. There is clearly an unrecognized epidemic of child drowning in this region.

The surveys have also addressed the details of place of drowning and activity at the time of the event, much as is shown in the Australian data. All of this descriptive information is useful when planning interventions to halt the problem. From a public health perspective, TASC is looking for a "vaccine" to fight this epidemic with. We believe that prevention is better than cure. There are already good models from places like Australia which can be considered when approaching this issue in less developed countries, but they need modification to be applied in resource poor environments.

In 2005, with technical assistance from Royal Life, TASC initiated a water safety program in rural Bangladesh designed to teach children who were ready to swim "survival swimming", and to begin creating a culture of water safety at the community level. With our local partners, The Centre for Injury Prevention, Bangladesh, and UNICEF/ Bangladesh, this pilot project reaches a population of over 1 million people, about 38 % kids under 18. The numbers from the project will be large enough to prove what works effectively and what doesn't.

"Survival swimming" standards are closely modelled on the RLSSA's Swim to Survive program. The intent is to make kids basically water safe, not create competitive swimmers. Even with modifications for training in the rural environment of a developing country, these standards create a process for quality and safety within the program, leading to replicable and comparable results. Monitoring and evaluation of the program is a constant feature. Results are shared with partners, (UNICEF and RLSSA). After less than a year, expansion of the program is being requested within the project areas.

Details on the current program and plans for future expansion, including work in Vietnam, China, and Thailand, are presented. The goal of training 1 million children in each country over the first 5 years is stated, based on the belief that every child drowning can be prevented.

# TODDLERS WATER SAFETY

## DO BIG PEOPLE ALWAYS KNOW BEST?

### ABSTRACT

#### Background

Between 1993-1999, 77 New Zealand children aged 0-4 years died as a consequence of drowning, an annual age-specific rate of 4.0 deaths per 100,000 person years, and the highest rate of any age group. While the circumstances surrounding toddler drowning are well reported, the related issue of parental perceptions of toddler water safety and ways of enhancing their understanding of it have not been well investigated.

#### Purpose

The purpose of this paper is to report on two sequential studies. The first study examined parental perceptions of toddler water safety; the second study examined one way of addressing identified shortcomings in parental understanding of toddler water safety in conjunction with the child's in-water lessons.

#### Method

The first study used a self-administered questionnaire to gather data from parents (n=882) whose 2-4-year-old toddlers were attending early childhood centres (n=327) or enrolled in swim schools (n=555). The second study also used a questionnaire to ascertain changes in understanding of toddler water safety as a consequence of a 10-week parent education programme among parents (n=106) whose children were enrolled in swim school lessons.

#### Results

The first study found that more swim school parents than other parents believed that swimming lessons were the best way to prevent toddler drowning (57% v 47%) and that it was better to develop swimming ability rather than rely on adult supervision (35% v 30%).

The second study found that, as a consequence of the 10-week programme, many parental misconceptions were corrected. For example, more parents were aware that familiar home pools were the most frequent sites of toddler drowning (59% before, 78% after).

#### Conclusions

Many parents held overly optimistic views of the role of swimming ability and pre-school lessons in drowning prevention. This was especially so for parents with toddlers enrolled in lessons. Swim schools in particular need to counter parental misconceptions of the protective role of swimming and reiterate the importance of close adult supervision of toddlers around water. The second study found that toddler lessons in swim schools provided a valuable opportunity to inform parents about toddler water safety.



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#### Affiliations

- Chairman, WaterSafe Auckland Inc - 1993-present
- Senior Lifeguard, Muriwai Lifeguard Service - 1973 -present
- Adviser, SLSNZ and SLSNorthern - 1985 - present
- Member, National Drowning Prevention Strategy Advisory group - 2004-2005
- Member, National Drowning Prevention Strategy - Implementation Management Group 2006

#### Research interests:

- Drowning prevention, water safety education, surf safety education

#### Current Projects

- Toddler water safety - parent and instructors perceptions
- Rock fisher's perceptions of risk and risk behaviours
- Behaviours and perceptions of risk among Auckland beachgoers
- Youth water safety knowledge, attitudes and behaviours
- Youth water safety education provision
- Youth perception of drowning risk
- Perceptions of swimming ability - real or imagined protection?

**TERESA STANLEY**  
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WaterSafe Auckland Inc (WAI),  
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## PRESENTATION PAPER

### Introduction

New Zealand has one of the highest rates of death by drowning for children aged 1-4 years and, like its nearest neighbour Australia, compares poorly with other OECD countries (Fingerhut et al. 1998). Between 1980-2002, 342 New Zealand children aged 1-4 years drowned, the highest rate (6.9 per 100,000) among any age group (Child Youth and Mortality Review Committee 2005). Of these, almost one half (49%) of the victims drowned in a pool, and almost two thirds (61%) of the drowning incidents occurred in the home and involved males.

Two studies were undertaken to determine the parental perception of the role that swimming lessons had in toddler water safety and then to evaluate the impact of a parental education programme in conjunction with in-water toddler lessons.

### Study 1

#### Objectives

The first study set out to examine parental/caregiver perceptions of toddler water safety and the perceived role of toddler swimming lessons in drowning prevention by surveying 882 parent/caregivers whose toddlers were enrolled in toddler swim lessons (n=555) or early childhood centres (n=327).

#### Method

All professional swim schools (n=38) listed in the telephone directory of the greater Auckland region were asked to conduct a survey of the parents/caregiver of toddlers aged 2-4 years enrolled in swim lessons during the summer term, 2004. Eighteen swim schools agreed to take part in the study and, on the first day of lessons, 555 parents/caregivers took part in a self-completion questionnaire on toddler water safety. A control group of 327 parents/caregivers whose toddlers were not enrolled in swim lessons completed a similar questionnaire at 23 early childhood centres located in the same localities as the swim centres.

#### Results and Discussion

The three most important reasons selected by respondents for enrolling toddlers in lessons were safety (n=500, 90.3%), learning to swim (n=491, 88.6%), and water confidence (n=407, 73.5%). Parents/caregivers thought that the three most important outcomes of the lessons were water confidence (n=445, 80.6%), the ability to come to the surface and tread water (n=408, 73.9%) and enjoyment of water (n=279, 50.5%).

Less than half of the respondents felt that being able to swim across the pool was an important outcome (n=234, 42.4%). When asked their opinion on the role of swimming in toddler drowning prevention, almost one third of respondents agreed that toddlers drowned because they hadn't learned to swim (n=168, 30.8%), two thirds agreed that the earlier toddlers learned to swim the safer they would be (n=367, 66.1%), and more than half thought that swimming lessons were the best way to prevent toddler drownings (n=310, 55.9%). Most parents disagreed that toddlers between 2-4 years of age were too young to learn to swim (n=479, 86.3%).

### Conclusions

Many parents have an overly optimistic view of what is the best age to teach swimming, and the role of swimming ability and pre-school swim lessons in drowning prevention. This was especially so for parents with toddlers enrolled in lessons. Swim schools in particular need to counter parental misconceptions of the protective role of swimming and reiterate the importance of close adult supervision of toddlers around water.

### Study 2

#### Objectives

The purpose of the second study was to develop, implement and evaluate a water safety education programme about the risk factors associated with toddler drowning for parents whose children were enrolled in toddler swimming lessons.

#### Method

A water safety programme was developed for parents (n = 106) whose 2-4 year old toddlers were enrolled in swimming lessons at two Auckland swim schools over a 10-week period during the summer of 2005. The programme was delivered to parents while their children were receiving instruction in the pool. It focused on informing parents of the risk factors associated with toddler drowning and ways of reducing risk. Parents completed a self-administered questionnaire on toddler water safety prior to their child's first swimming lesson and repeated it at the end of the swimming programme. Differences in pre- and post-programme knowledge and beliefs were measured by frequency. Chi-square tests were used to discern significant differences in parental beliefs and knowledge before and after the programme.

## Results and Discussion

In initial testing, most parents correctly identified lack of adult supervision as the main reason for toddler drowning (n = 82, 77.4%), and that constant adult supervision was the most important preventative measure (n = 77; 72.6%). More parents responded correctly after the programme (72.6% and 81.9% respectively). Awareness of the family or friend's swimming pool as a primary site of toddler drowning increased significantly after the programme (58.5% pre-lessons, 78.1% post-lessons). Parental self-reported ability to perform child CPR did not improve (66.0% pre-lessons, 63.0% post-lessons), although knowledge of the correct compression to ventilation rates for child CPR improved slightly (26.4 % pre-lessons, 35.2% post-lessons).

Positive changes in parent attitudes towards toddler water safety were evident by the end of the programme. Significantly more parents agreed that increased toddler confidence after swimming lessons required more, not less, adult supervision (84.9% pre-lessons, 97.2% post-lessons). More parents disagreed that the earlier children learned to swim the safer they will be (34.9% pre-lessons, 54.3% post-lessons) and that swimming lessons are the best way to prevent toddler drowning (49.0% pre-lessons, 71.5% post-lessons).

## Conclusion

Significant changes in parental knowledge and beliefs about toddler water safety were evident at the end of a 10-week pilot study of a water safety awareness programme run in conjunction with toddler swimming lessons. Parents were more aware of the critical role of adult supervision of toddlers around water and had a more realistic understanding of the role of swimming ability and swimming lessons in toddler drowning prevention.

This preliminary study suggests that toddler swimming lessons in swim schools may provide a valuable opportunity to address parent misconceptions about toddler water safety. Further research is required to determine how parents whose toddlers do not attend swimming lessons might similarly benefit from such a programme. The beliefs and role of the swim teacher as the third important influence on toddler water safety is currently being researched to help determine and improve the future water safety programmes.

## Note:

For further detail of these studies, including detailed results and related references, refer to:

- Moran, K. & Stanley, T. (2006). Parental perceptions of toddler water safety, swimming ability and swimming lessons. *International Journal of Injury Control and Safety Promotion*, 13(3), pp.139-143.
- Moran, K. & Stanley, T. (in press). Toddler drowning prevention: Teaching parents about water safety in conjunction with their child's in-water lessons. *International Journal of Injury Control and Safety Promotion*, 13(4), pp.?

Additional information on other water safety projects undertaken by WaterSafe Auckland Inc (WAI) is also available at:<http://www.watersafe.org.nz>

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## DEVELOPING LIFEGUARD SERVICES FOR TOURIST RESORTS

### LEGAL, TRAINING AND QUALITY SERVICE CONSIDERATIONS

#### ABSTRACT

In an increasingly competitive market for international guests, resorts in the Asia Pacific region are constantly challenged to differentiate their products and to provide quality service. Among the 10 dimensions of service quality identified by Zeithaml et al (1990) was Security – defined as ‘freedom from danger, risk or doubt’.

Safety and security have become very important for tourism operators and international visitor destinations post September 11 and SARS (Wilks et al., 2006), especially water safety following the Asian Tsunami. Injuries are a major cause of tourist hospital admissions and account for more than 25 times the number of visitor deaths from infectious disease (Wilks, 2004). Road crashes and drowning are the leading injuries for international tourists, and are a significant factor in escalating public liability insurance premiums (Parfitt, 2006).

Most hotels and resorts in the Asia Pacific region have swimming pools, and many directly access beaches, lagoons or other open water environments. Organizations like the Federation of Tour Operators (2003) recognize the legal and practical responsibilities tourism groups have for guest water safety. In addition to the EC Directive on Package Holidays extending legal responsibilities to Asia Pacific businesses that have direct dealings with EC package organizers (Atherton & Atherton, 2003), recent Australian cases show an interest by the courts in how hotels have incorporated risk management practices for water safety into their operations (Wilks & Davis, 2003).

Quality service in the area of guest water safety now means more than just providing brochures or relying on static signage to disclaim responsibility (Wilks, 2006). Having trained professional lifeguards on duty is a viable and very positive initiative for tourist resorts. As outlined in a recent report by Ernst & Young (2004), the cost of having a trained and qualified lifeguard service is not prohibitive; while the risks associated with not having a water safety service can be substantial.

Surf Life Saving Australia (SLSA) operates the Australian Lifeguard Service which supplies services to local governments, national parks, resorts and other aquatic facilities around the country. Currently there are more than 500 fully trained lifeguards working on more than 200 beaches across 65 local government authorities and parks (Surf Life Saving Australia, 2005). These lifeguards are highly trained and certified under nationally accredited Vocational Education and Training awards (Public Safety Industry Training Advisory Body, 2003).

Together with Australia’s 110,000 voluntary lifesavers, who have very highly regarded first aid and emergency management skills (De Nardi et al., 2005), SLSA members perform more than 11,000 rescues and 35,000 first aid and emergency care treatments each year. These services have been recognized by the tourism industry, with Surf Life Saving Queensland winning the Australian Tourism Award for General Tourism Services in three successive years, and being inducted into the Australian Tourism Hall of Fame (Wilks, et al., 2005).



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This presentation will describe the training and accreditation of lifeguards in Australia, their role in working with the tourism industry, and the risk management benefits for resorts in adopting best practice water safety measures to safeguard their guests. The cost/benefit discussion will include legal, insurance and quality service considerations for engaging trained and qualified lifeguards. Opportunities for program development by Asia Pacific resorts will be examined. A training and accreditation program undertaken by a resort in Fiji will be used as a case study.

## PRESENTATION PAPER

### Introduction

In an increasingly competitive market for international guests, resorts in the Asia Pacific region are constantly challenged to differentiate their products and to provide quality service. Among the 10 dimensions of service quality identified by Zeithaml et al (1990) was Security – defined as ‘freedom from danger, risk or doubt’.

Safety and security have become very important for tourism operators and international visitor destinations post September 11 and SARS (Wilks et al., 2006), especially water safety following the 2004 Asian Tsunami. For tourists, injuries are a major cause of hospital admission and account for more than 25 times the number of visitor deaths from infectious disease (Wilks, 2004). Road crashes and drowning are the leading injuries for international tourists, and are a significant factor in escalating public liability insurance premiums (Parfitt, 2006).

Most hotels and resorts in the Asia Pacific region have swimming pools, and many directly access beaches, lagoons or other open water environments. It is now well established that many international tourists are ‘at risk’ of drowning, having limited experience with swimming or involvement in water sports, and the additional challenge of language barriers in many cases (Wilks et al., 2005). Organizations like the Federation of Tour Operators (2003) recognize the legal and practical responsibilities tourism groups have for guest water safety. In addition to the EC Directive on Package Holidays extending legal responsibilities to Asia Pacific businesses that have direct dealings with EC package organizers (Atherton & Atherton, 2003), recent Australian cases show an interest by the courts in how hotels have incorporated risk management practices for water safety into their operations (Wilks & Davis, 2003).

Quality service in the area of guest water safety now means more than just providing brochures or relying on static signage to disclaim responsibility (Wilks, 2006).

Having trained professional lifeguards on duty is a viable and very positive initiative for tourist resorts. As outlined in a recent report by Ernst & Young (2004), the cost of having a trained and qualified lifeguard service is not prohibitive; while the risks associated with not having a water safety service can be substantial.

Surf Life Saving Australia (SLSA) operates the Australian Lifeguard Service which supplies services to local governments, national parks, resorts and other aquatic facilities around the country. Currently there are more than 500 fully trained lifeguards working on more than 200 beaches across 65 local government authorities and parks (Surf Life Saving Australia, 2005). These lifeguards are highly trained and certified under nationally accredited Vocational Education and Training awards (Public Safety Industry Training Advisory Body, 2003).

Together with Australia’s 110,000 voluntary lifesavers, who have very highly regarded first aid and emergency management skills (De Nardi et al., 2005), SLSA members perform more than 11,000 rescues and 35,000 first aid and emergency care treatments each year. These services have been recognized by the tourism industry, with Surf Life Saving Queensland winning the Australian Tourism Award for General Tourism Services in three successive years, and being inducted into the Australian Tourism Hall of Fame (Wilks, et al., 2005).

For tourist resorts in Asia and the Pacific the benefits of having trained lifeguards on staff have still to be fully appreciated. Legal, training and quality service considerations are critical in convincing resorts to develop lifeguard services. International law will assist this process, with recent English cases like *Jones v Sunworld* establishing that resorts in some circumstances may have duty of care responsibilities for a lagoon or open water adjoining their property, as well as the more established responsibility for swimming pools. A legal team is currently examining council and resort common law and statutory responsibilities for beach safety on behalf of Surf Life Saving Australia.

Training and accreditation of lifeguards is more straightforward, with international standards already in place. However, it is the value-adding skills lifeguards bring to a resort that must be highlighted. Of particular note are emergency management skills such as advanced first aid, oxygen administration and the use of defibrillators which are transferable for the benefit of all resort guests, not just those in the water.

In order to deliver a quality lifeguard service to resorts it is necessary to go beyond traditional activities and offer a package that includes a detailed water safety audit, risk management plan, and in many cases a training program to bring local staff through to full lifeguard status. It is only through the adoption of recognized 'best practice' water safety measures that resorts will be able to adequately safeguard their guests and meet their legal and insurance obligations.

The Outrigger on the Lagoon Fiji Resort is an excellent example of a lifeguard training and accreditation program paying off. In response to an incident in 2003 where two guests from a neighbouring resort drowned in the lagoon and two Outrigger staff were hospitalized as a result of their rescue attempt, the Outrigger requested assistance from Surf Life Saving Australia. The original package provided involved a water safety audit and risk management assessment (including signage), staff training to surf rescue level, and advice on equipment, particularly the purchase of a rescue board that could be towed by a jet ski. Currently the resort has 14 staff from Activities and Security certified at the Bronze Medallion level. Since the initial training program 20 guests have been rescued, of which 18 belonged to nearby resorts. In November 2006 SLSA staff will return to the Outrigger to provide additional training and support.

In summary, it is now well established that tourists are a particular 'at risk' group for drowning (Australian Water Safety Council, 2004) but at the same time the chance of drowning is significantly reduced if people swim at a beach or facility patrolled by lifeguards (Branche & Stewart, 2001). Changes to international law, the importance of a safe destination image and genuine interest in providing quality service for their guests are factors that should encourage resorts to consider the benefits of employing lifeguards. However, in order to effectively engage resorts in the Asia Pacific region it is necessary to provide a full service package that includes a water safety audit, risk management assessment and highly trained staff operating at international standards.

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# STATE AND TERRITORY

## WATER SAFETY COUNCIL/ TASKFORCE REPORTS

### NORTHERN TERRITORY

GRAHAM FRANKLIN

*Director Water Safety Branch and NT Water Safety  
Advisory Council Member*

### Major Achievements

1. No child (under 5) has drowned in the NT since Easter 2003.
2. Close to half of all Territory pool & spa fencing has been inspected.
3. Education and Partnering.

#### Major Achievement 1

- The NT has moved from having the highest per capita drowning rates in Australia for children under 5 to no recorded drowning since Easter 2003.
- The Government's Five Point Plan effected this change.

The Plan includes:

- The Water Safety Awareness Program,
- Pool fencing,
- Grants for safer pools, and
- The introduction of the NT Water Safety Advisory Council

#### Major Achievement 2

- 7,000 compliant pools since the introduction of legislation in 2003, and
- 10,000 pools inspected (estimated 20,000 residential pools/spas in the Territory)

#### Major Achievement 3

Education and Awareness

- Growth of Water Safety Week to Water Safety Month
- Industry briefings - REINT
- School Visits
- Remote Travel
- Water Safety Partners such as AirNorth airlines
- Media Support

#### Further Information:

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### Challenges

1. Pool Fencing
  - No compliance required if existing pool and owner not moving
  - Breaches of the Swimming Pool Safety Act
2. Resources

#### Challenge 1 - Pool Fencing

- No requirement to fence an existing pool under the legislation, if the person is not renting or selling.
  - Frequent breaches of the Act
- Properties with new pools, properties for sale or rent, are required to be fenced – some people are slow to respond!

#### Challenge 2 - Resourcing - A universal problem!

## SOUTH AUSTRALIA

**CHRIS MASCHOTTA**

*Senior Policy Officer, Policy and Strategic Projects Branch, Office for Recreation and Sport, South Australia*

### 1. 1998: Development of 1998 National Water Safety Plan

- In July 1998, the Australian Water Safety Council developed a National Water Safety Plan for implementation by relevant organisations and government across Australia.
- The purpose of the plan is to reduce the incidence of drowning and near drowning across Australia.
- National Plan reviewed resulting in a 2004-2007 plan, which builds on the achievements of the inaugural National Water Safety Plan in identifying and highlighting the new priorities - the standards, policies, programs and legislation.

### 2. 1999: Establishment of Interim SA Water Safety Council

- In response to the National Plan, In September 1999, South Australia established an Interim State Water Safety Committee. The ORS has provided limited secretariat support to date.
- The Interim SA Water Safety Council made up of industry groups and government representatives including:
  - Office for Recreation and Sport
  - Department of Education and Children's Services
  - Emergency Services
  - SA Police
  - Transport SA
  - Royal Life Saving SA
  - Surf Life Saving SA
  - Boating Industry Association
  - SwimSA
  - Kidsafe

### 3. 2000: Development Draft Water Safety Plan for South Australia

- Interim SA Water Safety Council resolves in 1999 to develop a State Water Safety Plan to respond to and further develop the directions in the National Plan.
- The Draft Water Safety Plan for South Australia completed in December 2000.
- The Draft Water Safety Plan reviewed in 2003.

- Plan suggests:

Significant financial resources are required for it to be fully implemented.

To be effectively implemented, the Plan requires a commitment from all government departments involved in water safety.

One government department needs to take a lead role in supporting a State Water Safety Committee.

### 4. 2000-2005

- State Government provides ongoing support to water safety via funding, programs, information and legislation.

### 5. 2006: Lead agency established

- ORS appointed as lead agency to drive the SA Water Safety Co-ordinating Committee (SAWSCC).
- ORS Executive Director to Chair SAWSCC.
- SAWSCC Membership once formed
  - As in page 1 plus:
    - Local Government Association of SA
    - SA Farmers Federation
- ORS to support SAWSCC within existing resources.
- Role: To coordinate a whole of government approach to water safety.
- Key focus of SWSCC:
  - Information sharing
  - Strategy
  - Coordination
- SAWSCC Terms of reference:
  - To develop a co-ordinated strategy in relation to water safety.
  - To provide comment on specific issues related to water safety and, where necessary, formulate a process whereby cross agency water safety matters may be formally addressed and resolved.
  - To work closely with local government, industry and the community in informing, educating and promoting water safety.
  - To contribute to the development of opportunities and future directions for water safety.
  - To participate in working groups, subcommittees on water safety as required.



## 6. Current State Government support

- The current annual commitment by the State Government to water safety outcomes through two of the responsible agencies, namely the Office for Recreation and Sport and Emergency Services, is approximately \$2.5m.
- Emergency Services has committed approximately \$2million in 2006/07 towards capital investment and marine rescue operations.
- The Office for Recreation and Sport has committed over \$500K in 2005/06 towards education, skill development and training programs via funding for the Vacswim program and via funding for core business and initiatives through the Royal Life Saving Society (SA Branch), Surf Life Saving SA and Austswim.

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## AUSTRALIAN CAPITAL TERRITORY

REBECCA KELLEY

*Manager Community and Industry Programs,  
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### Achievements

#### Lake Safety Review

ACT Water Police in conjunction with the Department of Urban Services are currently conducting depth soundings throughout the ACT. Testing has been conducted on several floating pontoons in swimming holes for dive injury risk, and is continuing. Urban Services have reviewed all signage around lakes and swimming holes, with new signs currently being edited. Buoy lines have also been cleaned and replaced.

#### Education Resource Development

The Royal Life Saving Society ACT (RLSS ACT) and Kidsafe ACT partnered to develop and distribute backyard home pool safety audit booklets to every household via the water rates (ActewAGL) notices. The ACT Water Safety Working Group supported the initiative to raise the awareness that self-assessment is better than no assessment of backyard pools. Encouraging pool owners to take responsibility for their pools and the surrounds for the safety of themselves and their neighbors is also considered to be of high importance.

ActewAGL supported the concept as it promoted smarter water control, year round pool maintenance and decreased water usage.

The RLSS ACT and Kidsafe ACT have also formulated the 7 Deadly Australians brochure. Whilst the title conjures up thoughts of funnel web spiders, blue ringed octopus or King Brown snakes, it is a different list of deadly Australians; "the nappy bucket", the good old ozzie "esky" an ordinary "bathtub", and of course "backyard swimming pools" are killing our children. Add to that list, boiling water, stairways, and 4WD's and thus the need for a revised danger list for children. The ACT Water Safety Working Group continues to try to raise the awareness that everyday items around homes are killing children.

Investigating Swimming Competence in the ACT Developed within the ACT Water Safety Working Group, this project is currently being undertaken by Kidsafe ACT and is funded through Sport and Recreation ACT. It aims to investigate the extent and cause of reduced swimming competence and confidence in children leaving primary school in the ACT. Furthermore it aims to identify the best options for improving competence, confidence and participation and to establish the actions needed to improve water competence and safety through members of the ACT Water Safety Working Group, in particular ACT Swimming, the Department of Education and Sport & Recreation ACT.

### Challenges

#### Pool Legislation

Regulations surrounding home pools in the ACT are currently part of the building code legislation. There is no legislation to support the need for regular safety audits of fences and pools once erected.

Identified strategies to address this challenge include:

- Continuing review of lakes and swimming pool legislation in line with national standards.
- Take any actions from national analysis of State and Territory water safety related legislation to identify and report on areas of inconsistency and deficiency.

#### Pool Management

The increasing expense of swim schools in the ACT is becoming cost prohibitive for families. The issues relate to effects from the introduction of schools-based management and the 'outsourcing' of management of government pools and related swim schools.

Identified strategies to address this challenge include:

- Improving the process to monitor and evaluate swim school programs to ensure they align with the new national standards.
- Develop private swimming pools audit program, similar to other states.

### Parent Supervision and Education

Ongoing reports of lack of supervision by parents of children in the water remain a concern for the ACT Water Safety Working Group. Water safety education is a key result area of the Safe Waters ACT Plan 2004 – 2007. The Working Group aims to continue to develop partnerships to develop appropriate resources and effectively promote water safety awareness and safe behaviours.

Identified strategies to address this challenge include:

- Ensure signage at aquatic locations is in line with national standards.
- Drowning Prevention strategy based on the RLSSA Keep Watch program continue to be implemented to reduce drowning deaths in the 0-4 age group.
- That programs that educate 16-35 year olds against “risk taking” behaviour be developed and implemented.
- In liaison with NSW increase the promotion and adoption of securely fenced safe play areas on farms and rural properties.
- Key water safety messages are publicised in a variety of different languages and promoted directly to ethnic groups through cultural specific publications. Further that people from CALD communities be encouraged to participate in specifically targeted water safety programs.

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## VICTORIA

NIGEL TAYLOR

*Chief Executive Officer, Life Saving Victoria*

### Major Achievements

- Continuation of the Play it Safe by the Water Campaign (1997-2006)
- Swim Safe Roos – Targeting Risk Takers
- Full creation of Life Saving Victoria – A single peak Water Safety Organisation

### Play It Safe by the Water

- A industry wide coordinated approach to water safety now in it's 8th year
- Continually evolving water safety strategy under a single brand
- Provides a platform for industry consultation including:
  - Life Saving Victoria
  - Marine Safety Victoria
  - Swimming Victoria
  - Aquatic & Recreation Victoria
  - Surfing Victoria

### Swim Safe Roos

- Innovative community partnership with Kangaroos FC to tackle the risk taker – Swim Safe Roos
- Using 6 ambassadors to deliver key messages.
- Trained players in Lifesaving skills to assist in the delivery messages and skills

### Life Saving Victoria

- LSV provides a coordinated approach to Water Safety and the delivery of Victoria's Water Safety Plan
- LSV Provides direct linkage to Government in regards to Water Safety issues
- A single focal point for media, for both the promotion of and response to water safety issues.



## Challenges

- CALD Communities
  - Accessing funding for broader and longer term programs assisting CALD communities around water safety.
  - Integrating with communities rather than delivering to communities
- Ongoing Funding for Water Safety
- Keeping Water Safety as a major agenda item for Government

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## NEW SOUTH WALES

### DEBORA KANAK

*Senior Project Officer NSW Sport and Recreation and  
 Executive Officer NSW Water Safety Advisory Council*

## Major Achievements

1. Rock Fishing Water Safety Campaign
2. Implementation of evaluation recommendations
3. New Name for the Taskforce and membership
4. Development of Sub Committee Plans based on Council's Strategic Plan

### Major Achievement 1

- Development and distribution of new Rock Fishing Water Safety Brochure in 4 languages.
- Development and distribution of Safety DVD with ET as the presenter.
- Conduct 2 safety workshops with Korean and Vietnamese communities.
- Development of interactive CD ROM.

### Major Achievement 2

- Implementation of recommendations from evaluation of the Water Safety Framework and Water Safety Taskforce.

### Major Achievement 3

- The NSW Water Safety Advisory Council.
- Adopting a new name for the Taskforce reflects the more strategic role rather than a hand on approach in the past.

- New membership for the Council with other members of previous Taskforce fulfilling an important role on the sub-committees.

## Challenges

1. Continuing the work of the new Council without new funding.
2. Implementing strategies outlined in the Strategic Plan and Sub-Committee plans.
3. Maintaining cooperation from organisations and agencies on the Council in the light of no new funding

### Challenge 1

- Utilising the resources of each agency on the Council.
- Developing partnerships with other agencies e.g. ARI, Police.
- Seeking out sponsorship for major research projects.

### Challenge 2

- Same as Challenge 1.
- Utilising resources.
- Seeking partnerships and research sponsors.

### Challenge 3

- "Buy in" of the strategic goals of the Council by all members of the Council
- Strategic goals remain relevant and achievable.
- Maintaining a focus on the goal of reducing drowning and near drowning incidents in NSW.

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## TASMANIA

NIGEL CARINS

*Co-ordinator, Swimming and Water Safety,  
Department of Education, Tasmania*

### Major Achievements

1. Review of the Tasmanian Water Safety Plan
2. Identified demographic risk groups 'Migrant Water Safety Education Program'
3. Developed a generic community awareness campaign for water safety
4. Developed the cooperative network of aquatic agencies available in Tasmania

#### Review Tasmanian Water Safety Plan

- Objectives:
- Review present role of Council
- identify existing gaps in service provision
- provide the council with identified projects

#### Water Safety Education

##### KEY OBJECTIVES

- Competency targets set
- Accreditation of teachers, coaches & lifeguards
- Codes of practice for diving and snorkeling
- Public Awareness Campaigns

#### Migrant Water Safety Education

Create a public education strategy to deliver swimming & water safety information to target 'at risk' demographics.

#### Aquacode Stay Afloat and Wave

##### Generic Community Awareness Campaign

- A simple message which supports each organisation
- Potential to be 'badged' by individual organisations, yet collectively supports community water safety awareness

#### Tasmania Challenges

1. Developing a public education strategy to deliver education & training, targeting further 'at risk' demographics.

Eg. diver 'hookah' education, Eco-Tourism, Personal Water Craft

2. Facilitate & identify Local government responsibilities.

- 3 Greater Government responsibility and support for community water safety education.

ISSUES	PROJECT	OUTCOMES	PERFORMANCE	RESPONSIBILITY	Time Frame	%
1.1 Evidence that there is a reduction in student achievement competencies in State Schools	1.1 Lobby for inclusion of grade 6 in Ed Dept SWSP	Implementation of Grades 3-6 SWSP for State Schools	Achieving 65% National Benchmark for grade 6	• TWSC	30/06/06	50
1.2 Number of Student Teachers not achieving minimum standard of Bronze Medallion	1.2 Develop teacher training Competency Standards	Endorsement by UTAS of life saving teacher training competency standards	Implementation by BHMS	• TWSC • RLS • SLST	31/12/05 31/12/08	
1.3 Dive Compressor use by Recreational Divers	1.3 Increase Recreational Divers awareness programs	Implementation of awareness programs Brochures included with sales info for Dive Compressors	Reduction in injuries & fatalities attributes to dive compressor use	• TWSC		

### **Public Education Strategy**

- Increase in 'hookah' diver accidents and fatalities.
- \* Implement awareness programs
- Eco-tourism.
- \* Review of current guidelines, policies and legislation
- PWC
- \* Lobby for specific PWC license standards

### **Local Government**

- Promotion of aquatic safety in country areas
- Consistent signage
- Regular coordinated home pool inspections

### **Government Responsibility and Support**

- Develop regular reporting mechanism to government
- Seek a government appointed 'chair person' for the council

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## ABSTRACT

This paper aims to discuss the emergence of formalised risk management strategies as an effective framework in providing water safety throughout the community. As a profession, risk management is one of the “new kids on the block” and the use of a risk management approach in the provision of water safety is a new concept to many involved with water safety.

Yet risk management provides an excellent decision making framework for both global and local water safety perspectives. Risk management is a process that guides people into examining potential risks and just as importantly, examining treatments to those risks, to identify and utilize appropriate water safety strategies.

This paper will go on to explore how risk management principles, based on the Australian and New Zealand Standard AS/NZS 4360: Risk management, can be used in certain water safety situations. For example, public swimming pools, private swimming pools such as pools in hotels, motels, camping grounds and body corporate developments, residential developments incorporating water features and inland open water venues such as lakes, creeks and swimming holes.

It will also go on to discuss how risk management can be used by water safety organisations to both enhance their services and to protect their name, reputation and bottom line.

# PRESENTATIONS: RISK MANAGEMENT

## RISK MANAGEMENT IN WATER SAFETY

ALISTAIR THOM

*Manager Aquatic Risk Services, Life Saving Victoria*

### PRESENTATION PAPER

#### Introduction:

This paper aims to discuss the emergence of formalised risk management strategies as an effective framework in providing water safety throughout the community. As a profession, risk management is one of the “new kids on the block” and the use of a risk management approach in the provision of water safety is a new concept to many involved with water safety. Yet risk management provides an excellent decision making framework for both global and local water safety perspectives. Risk management is a process that guides people into examining potential risks and just as importantly, examining treatments to those risks, to identify and utilize appropriate water safety strategies.

#### Discussion:

There has been an organised lifesaving and water safety presence in Australia since 1896. Throughout the years, water safety has been refined time and time again as the people and the organisations responsible for delivering it examined what they did and how they did it. As the Australian affinity with water grew along side its population, water safety needed to adapt and change to cover the many different scenarios it was required to deal with. This expansion of the demands on the provision of water safety continues today as the way we interact with water continues to evolve.

Risk management is a relatively new profession although the history of risk is at least as old as that of gambling. As business in the 20th century went from one management model to another, another model began to emerge, principally from the insurance industry. This model allowed an insurance company to identify the risks and at the same time allowed them to look at ways of reducing these risks and this was the genesis of risk management.

Risk management has grown and developed since the early 1970's when it first (formally) started to emerge. It is now an integral part of most businesses and a legislative requirement for all companies listed on the Australian Stock Exchange. Perhaps more pertinent to the aquatics industry, risk management is also a legislative requirement in many Dangerous Goods and Occupational Health and Safety legislations across the states and territories.

#### So what is risk management and how does it fit into water safety?

Risk management is principally and primarily, a decision making tool. Risk management consists of three key elements, risk identification, risk analysis and risk treatment. Risk identification is the founding block of all risk management as you simply can not treat or deal with a risk that has not been identified.

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Risk identification, by its very nature must be systematic, otherwise there is a much greater chance of risks remaining unidentified.

Risk analysis is where you go through a process of looking at the likelihood of a risk occurring and the severity of the outcome should it happen. There are three ways to do this, qualitatively or subjectively (we don't think it will occur and it would be bad if it did happen), semi quantitatively with the introduction of scale (we think it will occur frequently and the outcome will be negative, but not too bad) and quantitatively, which is based on evidence (it happens once every year and a person drowns every time). Most commonly, semi quantitative methods are used as often qualitative evidence is too scarce or perceived as being too hard to access. The most common tool used for a semi quantitative risk analysis is a 5 x 5 matrix, listing the possible likelihood on one axis and the possible consequences on the other and giving each outcome a score, highlighting hazards whose risks are high, medium and low.

The next and final step, risk treatment is about looking at the identified risks and deciding what to do about them. Risk management is frequently thought of as a way of dealing with things that may go wrong, but it is also about identifying areas where there is opportunity, without some risk, there is no growth or development. Risk management is about managing the negative impacts and at the same time maximising the opportunities of the identified risks. While the above three steps are the principal blocks of risk management, continual review is also a vital element. A risk management process needs to be continually reviewed in light of ever changing circumstances. A risk assessment is potentially redundant as soon as the circumstances it reviewed change and so risk management is an ongoing process.

One of the best sources of information in relation to risk management is the Australian Standard AS 4360:2004 Risk Management. While recently reviewed and re-released in 2004, this document was the first standards document on risk management in the world when it was first published in 1995. It is seen by many across the world as the pre eminent document in relation to risk management and has been adopted by several countries or used as a base for their own documents. There are several accompanying publications that support AS/NZS 4360 but a particularly good one is the handbook published as a companion to the standard by SAI Global HB436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004. In a water safety context, Life Saving Victoria has had to provide water safety advice across numerous situations. Some of these situations would be essentially similar with small or subtle differences between them while others would be completely different when compared to each other.

Faced with the need to provide expert advice from settings as varied from toddlers in baths to thousands of patrons in commercial pools and from lakes to coastal beaches, Life Saving Victoria needed to implement a strategy that would allow a comprehensive assessment and water safety plans to be developed, that took the local factors into consideration while at the same time allowing comparison between the differing situations. A risk management approach has been implemented by Life Saving Victoria and has been received well by the aquatics industry including local government authorities, insurance agencies and industry operators.

Life Saving Victoria has been able to develop aquatic risk management into a successful business. It conducts safety assessments across all types of water including swimming pools both commercial and private, coastal beaches, lakes, canals, rivers and dams. Risk management has also recently been included in several water safety publications from the Royal Life Saving Society Australia. This allows the individual such as a pool manager or a land manager to incorporate their local factors into the overall framework provided by the water safety publications.

#### **Conclusion:**

While it is very early days, the introduction of formalised risk management processes into water safety anecdotally seems to have been well received. However, there is yet to be a critical assessment of the risk assessments that have been done by the aquatics industry nor has there even been a study on the number of risk assessments that have been or are currently being done by the industry as a whole or by Life Saving Victoria.

From a Life Saving Victoria organisational perspective, the development and selling of risk management services to the aquatics industry within Victoria has been very successful. Life Saving Victoria has also been able to provide risk management expertise and services to other states and territories via both national life saving organisations, The Royal Life Saving Society Australia and Surf Life Saving Australia. As a result of the success of this approach in relation to risk management and water safety, Life Saving Victoria currently is looking to expand the number of staff currently employed in this area.

#### **Acknowledgements:**

There are many risk management texts available but perhaps one of the most comprehensive, and the one used as the basis for the introduction of risk management into aquatics was the Australian Standard AS/NZS 4360:2004 Risk management and its accompanying handbook HB436:2004 Risk Management Guidelines Companion to AS/NZS 4360:2004. Both publications are available from SAI Global Limited, Sydney.





### Acknowledgements

The Royal Life Saving Society would like to acknowledge and thank everyone involved in the pilot and state wide intervention and supporting organisations that assisted in the development and implementation.

- Leisure Institute of WA Aquatics (Inc.)
- Bill Kirby, program patron
- 303 Advertising
- The Watch Around Water Advisory Committee
- The Watch Around Water Working Party
- Royal Life Saving Society- NSW Branch
- All pilot and 2005/2006 accredited Watch Around Water centres

# WATCH AROUND WATER

## PUBLIC SWIMMING POOLS SUPERVISION SAFETY PROGRAM

JULIA MCNAMARA

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### ABSTRACT

#### Aims and Purpose

Watch Around Water aims to raise awareness of the importance of parental supervision of children in public aquatic facilities and educate parents as to what constitutes adequate supervision.

The project was developed in response to industry concern regarding the excessively high number of incidents in facilities involving young children. Prior to Watch Around Water no program existed at a state level addressing parental supervision levels in public aquatic facilities.

#### Methodology

The pilot intervention was conducted during the 2004/2005 summer season in 15 centres throughout WA and 1 centre in NSW. The intervention package consisted of: policy requirements, public education campaign, environmental analysis, professional development sessions with management and staff and centre accreditation.

Pre and post evaluation surveys were conducted in each pilot centre to assess parental knowledge, attitudes and behaviours regarding supervisory behaviours at facilities.

On completion of the pilot program, interviews were conducted with managers of each centre evaluating the implementation process and relative success of the program in their facility.

#### Summary of Outcomes

Public Survey results found that there was a 10% increase in the number of people who felt that supervision was the most important way to prevent young children drowning. 48% of respondents recognised the campaign logo and 62.6% understood the campaign message. Centre Manager interviews indicated that the campaign was a positive experience with the largest benefit being the state wide support.

#### Conclusions and recommendation

The success of the pilot has seen the expansion of the project with 43 centres from WA and 3 centres from NSW signed on for the 2005/2006 summer season. Recommendations from the pilot campaign have been utilised to further develop and refine the nation-wide initiative.

## PRESENTATION PAPER

### Background/Introduction

Public aquatic facilities are popular venues for aquatic recreational activities in Western Australia. The public perceive them as safe locations for participation as there is guaranteed water quality, a fixed environment, safety from dangerous coastal conditions and the employment of qualified lifeguards and other safety personnel.

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Although all aquatic facilities go through rigorous risk management procedures, there is still an inherent risk in participating in water based activities. Between 2000 and 2004, there were four drownings at public aquatic facilities in Western Australia. In three of these incidents the victim was under 12 years of age. In 2003, the rate of near drowning incidents in public aquatic facilities was 34 per 100,000 patrons, an excessively high number (RLSSWA 2004). The majority of these incidents involved young children who are the most at-risk age group for injuries and incidents at aquatic facilities (including near-drowning/near-miss incidents) and in 2003 accounted for approximately 75% of all incidents (RLSSWA 2004).

The supervision of young children at public aquatic facilities is an ongoing issue of concern for operators and owners of public aquatic facilities in Western Australia. There is often a misconception by parents that the supervision of young children is the sole responsibility of lifeguards. With lifeguards employed on a 1:100 ratio, it is unrealistic for parents to expect lifeguards to provide the constant and direct supervision that is needed for every young child in the facility at all times. Although lifeguards are present, the responsibility of supervision of children still rests with parents and carers.

As a result of coronial recommendations and following the evaluation of PoolWatch a public supervision and safety project at Beatty Park, the Royal Life Saving Society – WA Branch, worked in consultation with the Leisure Institute of Western Australia Aquatic (LIWA) and aquatics industry professionals to develop the Watch Around Water program. This program draws on statistical and anecdotal evidence pertaining to the incidence of injury of young children in the absence of adequate parental supervision in public aquatic facilities.

The aims of the Watch Around Water program are to:

- Provide state-wide supervision standards and practices at public aquatic facilities
- Increase lifeguard skills in addressing parents on aquatic centre supervision requirements
- Raise awareness of, and provide knowledge to, parents of what constitutes appropriate levels of supervision of children
- Increase the proportion of parents who effectively supervise their children in public aquatic facilities
- Reduce the incidents of drowning and near-drowning and associated injury at public aquatic facilities in Western Australia.

The Watch Around Water program was launched on the 20th January 2005 by the Western Australian State Coroner Alistair Hope.

It was piloted in 15 centres throughout metropolitan and regional WA and one centre in NSW. The 2005/2006 program included 43 centres from WA, three from NSW and two in QLD. Registrations for the 2006/2007 program will begin in August.

### Methods

An awareness raising, education and policy development package, consisting of five elements, was developed.

#### (1) Aquatic Facility Centre Policy

A number of mandatory and recommended policies were developed to address parental supervision of children in aquatic facilities, including age recommendations and ratio specifications. The policies have been developed to compliment and support existing legislation and the Guidelines for Safe Pool Operations which provides best practice guidelines for operating aquatic facilities in Australia.

#### (2) Public Education

The Public Education component of the program is designed to challenge the ingrained behaviour of relying on lifeguards to provide supervision of children and to encourage parents to actively and effectively supervise children. Resources distributed to participating centres promoting the supervision message included posters, brochure inserts, PA announcements, wristbands, car park signage and stickers. Accredited centres were entitled access to all program artwork and logos and were encouraged to develop their own initiatives.

#### (3) Professional Development

Professional Development was conducted with both management and staff and involved the training of both groups on the philosophy and implementation of the Watch Around Water program in their facility. In addition centre staff received training to equip them with conflict resolution skills to manage centre patrons.

#### (4) Environmental Analysis

The program also recommended modifications at centres that would assist in the creation of an environment that is more conducive to safe supervision practices. Certain barriers to parents/guardians adequately supervising their children are the result of relatively unchangeable factors inherent in the pool design. There may however, be other ways that the pool deck layout can be changed including the provision of additional seating and shade to make it easier for parents/guardians to supervise their children.

#### (5) Accreditation

Upon agreement to operate under Watch Around Water policy and to promote Watch Around Water through their centre, aquatic facilities are accredited under the Watch Around Water scheme.

## Results/Evaluation

A pre and post survey were conducted within participating centres to measure the awareness and knowledge of the general public regarding adequate supervision of children in aquatic facilities and to identify areas where the program can develop in future.

Findings from the pilot of 16 centres indicated an improvement in respondents understanding of appropriate supervision of young children as a result of the campaign. There was a 10% increase in the number of people who felt the most important way to prevent young children aged between 0 and 5 from drowning was to supervise them.

Additionally, a substantial increase in the number of people who had seen or heard information regarding aquatic facility supervision safety was recorded. The Watch Around Water logo was recognised by 48% of respondents with approximately 62% demonstrating an understanding of the campaign message of the importance of supervision and watching your children.

Interviews were also conducted with Centre managers at the conclusion of the pilot addressing the implementation process, evaluation of the campaign and future directions of the program. The interviews revealed that centres who undertook training with reception and other Centre staff reported greater success in cross-Centre promotions and reinforcement. Overall the campaign was a positive experience for Centres, with the state wide industry support a highlight.

The evaluation of the 2005/2006 program was structured similarly to the pilot with pre and post surveys conducted in each participating centres. Due to the variation in the opening times of centres and the date of commencing the program, not all centres completed pre surveys.

The overwhelming majority of respondents in the post survey (74.8%) identified adequately supervising a young child aged three around water as keeping them within arms reach. This is an increase of 13% compared to the responses from the pilot. There was an increase in the number of respondents who recognised the Watch Around Water logo compared to the pilot (59.1% as compared to 48%).

The number of Centres involved and their locations made interviews with individual centre managers difficult, therefore an industry forum was conducted to provide Centres with the opportunity to give feedback on the program and its future directions. Feedback received during the forum centred on training and the further development of conflict resolution skills, especially for younger staff, and giving the program a higher profile within the community.

## Discussion

Registration for the 2006/2007 campaign is due to begin in August 2006 with the aim of furthering the program throughout regional WA. The success of the program in WA has created significant interest from aquatic facilities in the Eastern states as currently there is no program that addresses this area of concern in other states. The components of the developed package are transferable, but slight modifications will always need to be made depending on aspects like pre-existing policies, state legislation and the extent of need determined by near-drowning/near-miss incidents in each region. An important message to pass on to other interested groups is that flexibility in certain components in the package is always advised to tailor to the needs and concerns of individual Centres. Each Centre has patrons from specific socio-economic and cultural backgrounds and health promotion messages and educational packages will need to be modified to suit each group.

Adequate preparation time and follow-up should not be underestimated as travel to various centres (in particular regional centres), training staff, and communicating with Centres at both busy and quiet times can be challenging. As the Centres incur a cost to be involved in the program pricing should be reviewed annually and consideration given to the size of the pool, its location and the pool Centre's previous support of RLSSWA and LIWA programs.

Evaluation is a key aspect of any ongoing program. We learned for example, in the WA Watch Around Water pilot that there was inconsistency in message promotion within Centres and this aspect was addressed in the 2005/2006 program. As the target group is always changing with new parents, grandparents and others bringing children to public swimming pools, ongoing evaluation is advised to ensure the program is reaching the target audience.

## Conclusion

Overall the Watch Around Water program has been successful and has been a positive experience for participating Centres in WA. The industry support for this initiative has contributed to its success and ensures its ongoing viability. The program provides a state-wide standard that falls in line with best practice in the aquatics industry. Evaluation of the program indicated that patrons had a greater awareness of aquatic facility supervision safety following the promotional campaign. The program will continue as the aquatics industry remains concerned about the statistics of near-drowning and near-miss incidents and the supervision standards required to address this important issue.

# INJURIES

## AT COMMERCIAL AQUATIC FACILITIES IN VICTORIA

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### PRESENTATION PAPER

#### Background / Information

At present, in the aquatic industry incidents are reported using one or more first aid and/or incident report forms that are facility specific. Some facilities use forms that gather a great deal of information, others have no minimum requirement of information. In addition, there is no evidence of this information being cross referenced between centres for comparison. As a result there is very little evidence to describe the extent of injuries/incidents that occur in commercial aquatic facilities.

The Guidelines for Safe Pool Operation (GSPO) developed in 1991 by Royal Life Saving Society Australia- Victoria branch is recognised as the Best Practice Manual for the aquatics industry across Australia. Evidence from the current study will help provide further directions for the GSPO. Any Guidelines that are updated as a result of the findings from the study will reach the aquatics industry and will thus help raise the standard expected of the aquatics industry.

Therefore, the current study aimed to describe the type of incidents (including first aid incidents and rescues) that occur at public swimming pools. Further aims were to describe the locations within the pools where incidents occur, the type of medical treatment required, and the rate of incidents.

#### Methods

Six months of data in relation to all incidents at 18 aquatic centres across Victoria was collected retrospectively. A cross-section of metropolitan and regional centres as well as seasonal and year round centres was selected.

Centre managers provided all major and minor incident report forms for the period of July 1 – December 31, 2004. For seasonal pools all data for the time they were open during that period was collected. Only information relating to the aquatic area of centres was included in the analysis, thus the pool itself, the walkways around the pool or pool concourse and the change rooms connected to the pool area. Any injuries occurring outside the aquatic area for example, fitness centre and that were not consistent with other centres were excluded from the analysis.

### ABSTRACT

Swimming is an integral part of the Australian lifestyle with the third highest participation rate of physical activities in adults and the highest participation rate in 5-11 year old children. Previous research has assessed drowning fatalities in public and residential swimming pools and the potential risk factors. However, there is very little evidence to describe the extent of other injuries that occur in commercial aquatic facilities. Therefore, the current study aimed to describe the type of incidents (including first aid incidents and rescues) that occur at public swimming pools. Further aims were to describe the locations within the pools where incidents occur, the type of medical treatment required, and the rate of incidents. Major and minor incident report forms were collected from a cross-section of metropolitan and regional commercial aquatic facilities in Victoria.

In the six month period from July - December 2004, 1715 incidents were recorded in commercial aquatic facilities. This represents an incidence rate of 142.2 per 100,000 pool visitations. There was no significant difference found in number of incidents between males and females. The highest proportion of incidents was found in children aged between 5-14 years, accounting for 50% of all incidents. Injuries were more frequent in the extremities, particularly the foot (29%), hands (10%), face (23%) and head (4%). The nature of injuries were typically minor cuts (45%), bruises (12%) and grazes (10%). Individuals were usually involved in water recreation (45%) or swimming lessons (26%) when the injury occurred, with injuries being caused by collisions, falls and cuts.

This study provides an indication of the typical incidents that occur in commercial aquatic facilities.

The data items on the report forms varied from centre to centre. Thus a common dataset was developed based on all data items, documenting and mapping the variations. A data collection form was developed using Microsoft Excel and data from the forms was then entered in a de-identified manner. The data was examined using descriptive statistics to identify trends and patterns in the data.

### Results / Evaluation

In the six month period from July - December 2004, 1715 incidents were recorded in commercial aquatic facilities. This represents an incidence rate of 142.2 per 100,000 pool visitations. There was no significant difference found in number of incidents between males and females. The highest proportion of incidents was found in children aged between 5-14 years, accounting for 50% of all incidents. Injuries were more frequent in the extremities, particularly the foot (29%), hands (10%), face (23%) and head (4%). The nature of injuries were typically minor cuts (45%), bruises (12%) and grazes (10%). Individuals were usually involved in water recreation (45%) or swimming lessons (26%) when the injury occurred, with injuries being caused by collisions, falls and cuts.

### Discussion

Further research is planned to extend this project further and capture standardised information from a greater number of centres in Victoria.

### Conclusion

This study provides an indication of the typical incidents that occur in commercial aquatic facilities.

### Acknowledgments

We would like to acknowledge the support of the Royal Life Saving Society Australia in providing a grant for this project. We are also most grateful to the Management, and Operators of those centres that participated.

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# LIFEGUARDING OR BABY SITTING?

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## ABSTRACT

Go to any modern day aquatic/leisure centre and ask the staff, 'What is the main challenge you face within your centre', 9 times out of 10 the answer will be, 'Parents not supervising their children'.

Every year children die in drowning tragedies. Even more children are involved in near drowning incidents. The main cause of any child related drowning can be attributed to the lack off or poor adult supervision.

So with the risk been so high for children under the age of 10 years in aquatic environments, why do so many parents and guardians find it easy to leave their children unattended in our modern day aquatic centres?

This presentation will provide an overview of challenges facing lifeguards in regards to supervision, look at some techniques facility managers and lifeguards can employ to improve parental supervision and look at a range of Royal Life Saving services that are committed to supporting Lifeguards in their duties.

## PRESENTATION PAPER

### Background / Introduction

Go to any modern day aquatic/leisure centre and ask the staff, 'What is the main challenge you face within your centre', 9 times out of 10 the answer will be, 'Parents not supervising their children'.

Royal Life Saving Society Australia is committed to 'saving lives' through a range of public water safety services and risk management strategies.

Committed to increasing 'active' supervision in aquatic environments, RLSSA are tailoring their services to combat the emerging trend of poor 'inactive' parental supervision of children within public swimming pools and aquatic leisure centres.



The products and services targeted at the aquatic industry engage both aquatic centre users and facility operators. These programs include;

- KeepWatch
- Everyone can be a Lifesaver
- Guidelines for Safe Pool Operations
- Swim & Survive
- Lifesaving Course's and Vocational Training
- The development of an Australian Lifeguard Network and closer ties between industry and Water Safety provider.

### Methods

The promotion of supervision within public swimming pools and aquatic facilities are implemented through a range of mediums. These include;

- Provision of water safety resources, rescue and emergency aid equipment
- Signage
- Swimming Pool Safety Audits
- Pool Lifeguard Training
- Endorsement of Learn to Swim Centres and Programs
- Active Family Fun Days
- Industry Best Practice
  - Guidelines for Safe Pool Operation
- Development of relationships with key industry, state and national government agencies to promote water safety and supervision within all water ways and facilities.

### Results / Evaluation

The best way to gauge the effectiveness of the promotion of supervision with public swimming pools and aquatic leisure centres is to look at drowning incidents specific to public swimming pools.

- 88 Recorded Drowning deaths across Australia 1992 – 2002
- Average 8 per annum
- Rate of <0.8 per 100,000 people participating
- Approx 1 Death per 5-6 million visits

Public Swimming Pools are SAFE places to swim – but does that mean parents & lifeguards alike are 'Active' in the supervision within public swimming pools and aquatic leisure centres?

The 88 are reported drownings, no record has been maintained for preventable near drowning and aquatic related incidents.

### Discussion

Every year children die in drowning tragedies. Even more children are involved in near drowning incidents. The main cause of any child related drowning can be attributed to the lack off or poor adult supervision.

So with the risk been so high for children under the age of 10 years in aquatic environments, why do so many parents and guardians find it easy to leave their children unattended in our modern day aquatic centres?

This presentation will provide an overview of challenges facing lifeguards in regards to supervision, look at some techniques facility managers and lifeguards can employ to improve parental supervision and look at a range of Royal Life Saving services that are committed to supporting Lifeguards in their duties.

Each product and service that promotes supervision within public swimming pools and aquatic leisure centres will be examined and the key elements outline for participates to gain an understanding and perspective on how it can work within their public swimming pool or aquatic environment.

### Conclusion

The statistics show that the services and programs have been successful in the promotion of safety within public swimming pools and aquatic centres, but, drowning related incidents still occur.

The promotion of supervision with public swimming pools and aquatic centres is an ongoing, long term project that will always be a basis for any water safety effort. 'Active' supervision by parent/guardians and lifeguards alike should be the basis of any aquatic facilities risk management strategy to eliminate preventable drowning incidents.

### Acknowledgements

RLSSA Guidelines for Safe Pool Operations  
 RLSSA KeepWatch Information Manual  
[www.keepwatch.com.au](http://www.keepwatch.com.au)  
 RLSSA Lifeguarding 3rd Edition  
 Aquatic & Recreational Signage Manual Style Guide

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# UTILISING GIS AND GPS TO CONDUCT COASTAL RISK ASSESSMENTS

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## ABSTRACT

A coastal risk assessment is an effective method of identifying potential risks at a coastal location and suggesting appropriate mitigation actions, with the aim to promote safer use of the coastal environment. At present coastal risk assessments are conducted using a variety of different techniques.

The need to develop a standardised risk assessment methodology was identified. Consequently, the use of Geographic Information Systems (GIS) and Global Positioning Systems (GPS) as tools to standardise the risk assessment process was investigated.

The focus of this paper is on the field data collection component of the risk assessment process and how the use of GPS and mobile GIS has contributed to the standardisation of the risk assessment process and the reduction of time required for field data collection.

A series of mobile GIS field data collection forms were designed in-house. These forms were specifically designed to accommodate the typical field data collected when conducting a coastal risk assessment. In the field these forms are accessed using a mobile GIS application and used to record and store data. Unique GPS coordinates are recorded automatically with each form completed and provide a spatial reference for field data recorded on an individual form. Data collected in the field can then be uploaded to a desktop computer, analysed and represented spatially (e.g. as a map).

The use and customisation of GIS and GPS technology for field data acquisition has contributed to the standardisation of the coastal risk assessment process. In addition, the amount of time required to record data in the field has also been reduced.

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# REMOTE POOLS PROJECT

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## ABSTRACT

The Royal Life Saving Society Australia Remote Pools Management Support Program (RPMSP) is designed to provide safe and enjoyable aquatic participation in selected remote locations of the Northern Territory.

The swimming pool plays a vital role as the social centre of many remote indigenous communities and the local people benefit enormously.

Establishing quality self-sustaining, self-managed and well resourced aquatic facilities is the ultimate outcome of this project.

The project builds on Royal Life Saving's experience in the pilot program conducted at Nguuiu in 2002-03 which now has a well managed and extensively used aquatic facility. Our previous experience shows that well managed aquatic facilities assist in improving the health of the community, reducing truancy and school absenteeism and in providing a quality environment that encourages active participation and enjoyment.

The project supports the achievement of recommendation 26 of the Australian Water Safety Plan 2004-07; Access and availability, water safety programs and services must be appropriately increased to meet the needs of Aboriginal and Torres Strait Islander communities.

## Goal and purpose

1. To develop a central management and operation support service for all community pools promoting self sufficiency in operations, management and training.
2. To promote training and safety standards enabling communities to manage their pool.
3. To promote opportunities for participation in swimming, lifesaving, water safety and aquatic recreation activities for all community members but particularly school aged children.

## PRESENTATION PAPER

### Introduction:

It has been recognised that Aboriginals and Torres Strait Islanders are more likely to die or be hospitalised from injury and are three times more likely to drown than the rest of Australia. As such the Australian Water Safety Council in the National Water Safety Plan 2004-2007 identified The Indigenous Population of Australia as an at risk group of drowning and recommended:

"...Recommendation 26: Access and availability of facilities, water safety programs and services must be appropriately increased to meet the needs of Aboriginal and Torres Strait Islanders..."

### Remote Pools Program:

The Royal Life Saving Society Australia (RLSSA) in 2005 commenced a Remote Pools Project to work towards addressing the recommendation.

The RLSSA Remote Pools Project aims to build the capacity of indigenous communities in the following areas;

- Community Pool Manager/Operator Support
  - Maintain contact with all community based pool managers
  - Provide technical and operation advice and assistance to community pool managers
  - Facilitate a network of indigenous community pool managers
  - Provide access to professional development activities.
- Training and safety standards
  - Provide a safety improvement plan for each community swimming pool
  - Facilitate the development of sustainable community training models.
- Community involvement and program participation
  - Facilitate swimming and water safety education activities
  - Facilitate aquatic recreational activities
  - Liaising with other community agencies in order to maximise the use of the facility by all groups within the community.

To ensure the success of an aquatic recreation facility, it needs to be used by all segments of the community, particularly in communities with a small population.

To achieve this there needs to be;

- Structured aquatic programs for all ages
- Activities and events that use the facility
- People need to feel that the facility is a safe and secure community meeting place
- Regular access for recreational purposes

To achieve this, the community needs to be involved in the management of the facility, there has to be a strong commitment from and involvement by all agencies working within a community, and the capacity of the communities needs to be increase through training, skill development and support.

RLSSA as the leading aquatic trainer in Australia has a range of lifesaving programs for use in remote communities such as;

- Swim and Survive
- Bronze Medallion
- Infant Aquatics
- Junior Lifeguard Club

### Successes to Date:

To date 13 communities participate in the remote pools project. These communities range in areas from the desert country, the top end and island communities.

There are a number of barriers that need to be addressed when working in remote communities. Language barriers are ever present with over 385 tribal language group names in Australia and over 89 tribal language group names in the NT alone it is no wonder that some communities have up to 14 languages. Children can sometimes speak up to 4 languages and English is not one of them. To address the language barrier RLSSA works closely with the community and provides practical tuition that is not heavily loaded with written material.

RLSSA is committed to working with communities to identify, train and support local indigenous people to work in and around the community aquatic recreation facility. These community roles include;

- Management and operations
- Supervision and emergency rescue
- Aquatic recreation
- Aquatic instruction

RLSSA maintains a network of indigenous pool managers and aims to provide regular activities to build and foster relationships across this network. By creating this community network of swimming pool managers, it is hoped that managers will be able to learn from one another's experiences in order to come up with a best practice for their particular swimming pool and situation. This network would also help managers with problem solving when things are not working, as well as encouraging inter community activities such as swimming carnivals and community fun days.

RLSSA provides assistance to these managers in all areas of pool management and operations.

This assistance has included:

- Plant room and pool maintenance advice
- Facility design audits to help pool managers set up a risk management plan
- On-going water safety training, such as Bronze Medallions and Senior First Aid.
- Providing pool managers with technical information, such as pumps and dosing equipment when these have failed.

This assistance all ties in with the setting up of the community network to enable managers to contact each other to work out the best solutions to problems as well as best work practices.

Eighteen Indigenous Pool Managers attended the inaugural Northern Territory Remote Pools Conference in April 2006 in Batchelor. The conference covered: administration, plant room knowledge, water quality, qualifications, learn to swim, water sports, Shared Responsibility Agreements (SRA) and Health Issues.

From the Conference there were a number of recommendations about how to make the remote pools project more successful by helping to reduce the learning barriers facing indigenous people, there were:

- Ensure courses met the needs of people, where English is not their first language.
- Ensure training material is practical based. As a general rule indigenous people are very good learners, but need to be shown how to do a task rather than told how to do it.
- Ensure training is hands on. A more hands on approach to training is needed. Experience shows that indigenous students are very good site learners.
- Integrate water safety into the wider community
- Ensure the aquatic facility is seen as an integral part of the community.

#### **Conclusion:**

Future training packages have to accommodate to the students needs. No student can be discriminated against and all people must have access to High Quality, Relevant Training.

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# TOURIST WATER SAFETY

## SURF LIFE SAVING INITIATIVES FOR THE JAPANESE INBOUND MARKET

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### ABSTRACT

Australia is viewed as a desirable tourist destination – it has spawned a spectacular industry that is vital to the continent's economy. Traditionally, the tourism industry has relied heavily on particular market sectors for numbers increase and economical performance – one of them being the Japanese inbound market. Queensland, especially the Gold Coast, was, historically, the number-one Australian tourist destination preferred by Japanese tourists (Tourism Australia, 2005).

In recent years though, the largest and most lucrative inbound market to Australia has been faced with adverse travel advisories which warned tourists of the dangers and risks of the continent (Houghton, 2005).

Quite rightly, the Japanese standpoint is to inform their travelling citizens of the potential risks they could be faced with at an unfamiliar travel destination. Although tourists' well-being may seem like a new concept for the tourism industry, it is a number-one priority, particularly in this unstable new millennium (Walker and Page, 2003).

In response to the decreasing number of Japanese tourist arrivals, Tourism Australia has launched the new "Uniquely Australia Invitation" in Tokyo in March 2006 (Tourism Australia, 2006).

Surf Life Saving Queensland has been inducted into the Hall of Fame for contribution to general tourism services. This prestigious award reflects the commitment of 24,900 members who, in conjunction with the traditional beach patrols, run additional activities for the benefits of both local residents and tourists alike (Surf Life Saving Queensland, 2004). Some initiatives are aimed at specific target groups, mostly at high-risk groups such as tourists, identified by a seven-year drowning report (Surf Life Saving Queensland, 2005). Data from this study highlights that about 50 per cent of drownings on Queensland's beaches involve overseas visitors.

This report outlines some of the programs run specifically on the Gold Coast, a highly regarded tourist destination by the Japanese tourism market. These initiatives include the Staying Alive Surf Safety Campaign, Sunrise-to-Sunset patrols and the Beach Walk.



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## PRESENTATION PAPER

### Introduction

Japanese visitors to Australia are a very important tourist group. In 2005 there were 685,500 Japanese inbound visitors to the country (Australian Bureau of Statistics, 2006). As a well-established and preferred vacation destination the Gold Coast received 198,452 of these visitors, making the Japanese our top tourist group (Gold Coast City Council, 2006). Asked about their reasons for choosing Australia as a holiday destination, surveys consistently show that 'going to the beach', which includes swimming, surfing and diving, is an important and popular leisure activity (Tourism Australia, 2005). Indeed, a recent Japanese survey (with more than 2000 respondents) carried out on the Gold Coast by the Japanese Tourism Association of Queensland (JTAQ, 2005) found that a quarter of respondents mentioned the beach/ocean as one of the main reasons to visit Australia. When asked how they spent their free time while on the Gold Coast results showed that 14.5% of respondents participated in marine sports; 27.1% went to the beach, and 24.7% participated in the Surf Life Saving Queensland Beach Walk.

At a time when many international tourist destinations are plagued by safety and security issues (Wilks et al., 2006a) it is interesting and gratifying to note that Japanese visitors say they feel very safe on the Gold Coast (JTAQ, 2005). However, overseas tourists collectively are recognised as an 'at risk' group in relation to drowning (Australian Water Safety Council, 2004), and Japanese visitors have been specifically identified alongside American, British and German tourists as requiring additional attention and support (Wilks et al., 2003; Surf Life Saving Queensland, 2006). Like other international visitors, Japanese tourists have certain challenges in relation to water safety, and these may include: limited swimming ability, unfamiliarity with beach and surf conditions, lack of awareness about swimming between the red and yellow flags on lifesaver or lifeguard patrolled beaches, and language barriers which may hinder understanding of beach signage or the ability to ask for information or assistance (Wilks et al., 2005a).

In order to address the specific needs of Japanese tourists on the Gold Coast, Surf Life Saving Queensland has developed a series of lifesaving and educational initiatives under its Patrol Smart 7/52 Plan (Wilks et al., 2005b). Patrol Smart 7/52 seeks to be an innovative, integrated and 'smart' lifesaving service – 24 hours a day, seven days a week, 52 weeks a year. The Japanese inbound visitor beach safety initiatives are a core element of quality service provision for all tourists – a service program that has resulted in Surf Life Saving Queensland winning several national tourism awards and being inducted into the Australian Tourism Hall of Fame.

### Staying Alive Surf Safety Campaign.

This "meet and greet" campaign is the first point of contact with Surf Life Saving for tourists arriving on the Gold Coast. Initiated in 1998, the campaign involves the distribution of an information map at Coolangatta Airport and since December 1988 Surf Life Saving Queensland has welcomed more than 10 million visitors through this approach. The map highlights time, seasons and location of all patrolled beaches on the Gold Coast, the SLSQ supporters clubs and reminds visitors in seven languages, including Japanese, to swim between the red and yellow flags at all times (Wilks et al., 2006).

### Beach Walk

The beach walk commenced in 2002 specifically for the Japanese market, and to date 98% of all participants have been Japanese tourists. The beach walk consists of a 45-minute free guided walk on the beach lead by one or more Japanese-speaking Surf Life Saving personnel. The 'walk on the beach' emphasises the necessity to swim between the red and yellow flags, but also explains other beach realities such as rips and waves, and signage. During summer, the beach walk takes place three times a day, seven days a week, but this is constantly reviewed according to demand. No booking is required and individuals wishing to participate just turn up on the beach at Surfers Paradise.

The direct benefits of this initiative have not yet been formally evaluated, but feedback from participants and tourism industry stakeholders strongly supports the value of beach walks as an effective way to communicate beach safety information. The beach walk is promoted in Japan through guide books, Tourism Queensland and the Japanese tour operators on the Gold Coast who offer this initiative as part of their packages.

### Half-day Surf Safety Interactive Experience

This program is a spin-off from the beach walk and started in 2004. Japanese inbound tour operators on the Gold Coast organise, on the basis of their clients' request, in conjunction with Surf Life Saving Queensland personnel, a half-day surf safety education for groups (up to 300 people) of young Japanese school and university students.

The program includes a walk on the beach, some basic survival skill techniques, and ends with a supervised swim in the ocean followed by typical Aussie BBQ. The aim is very similar to the beach walk: delivery of surf safety awareness to minimize drowning incidents and maximise enjoyment through a "fun day at the beach".

### Surf Clinics

Surf clinics are the practical extension of the beach walk. In addition to the traditional 'walk on the beach', participants immerse themselves in a half-day surf safety education program. It consists of three one-hour sessions with a maximum of 30 participants. Surf safety awareness is highlighted through water based activities, such as body surfing, wave jumping and boggy board riding. It is available to both locals and tourists.

This program is advertised through accommodation providers and local newspapers, and through a direct approach and invitation to participate by Surf Life Saving personnel to all the people on the beach.

### Sunrise to Sunset Patrols

These patrols were introduced in response to two deaths involving tourists on the Gold Coast in March 2001. These two deaths occurred some 50 hours apart in an almost identical location at the Surfers Paradise beach. Both deaths were prior to the commencement of normal patrol services. Since then patrols have operated from 6am to 6pm on Saturdays and Sundays throughout the summer season at Surfers Paradise.

The program was extended in March 2005 with the use of Rescue Water Craft and a land vehicle on northern Gold Coast beaches following six drowning incidents that occurred before 8am during the 2004/2005 season. Four of these deaths involved tourists. The Rescue Water Craft patrols operate daily between 5am and 8am as part of an integrated lifesaving program.

They have proved to be particularly successful, with no drowning incidents before 8am occurring since the program commenced. Other positive aspects of the patrol activities between September 2005 and May 2006 include 1426 preventive actions performed (such as intercepting swimmers intending to enter the water at dangerous locations), 33 lives saved through direct rescues, 39 searches conducted, two resuscitations and two major first aid treatments. At 8am the lifesavers from Surf Life Saving Queensland hand over responsibilities to city council lifeguards who then set up their flags for the day.

In summary, Japanese visitors to the Gold Coast are a very important part of regional tourism. Recognising that they require additional attention and support in the marine environment, Surf Life Saving Queensland has developed specific educational and lifesaving programs for Japanese tourists. The challenge remains to formally evaluate these programs and continue working with local tour operators to extend visitor lifesaving services.

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# SPINAL INJURY MANAGEMENT IN THE AQUATICS ENVIRONMENT

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## ABSTRACT

The management of spinal injuries and the associated protocols are an integral part of aquatic rescue training programs delivered by Royal Life Saving to lifesavers and lifeguards.

Water related sports such as diving in pools or surfing, resulted in 10% of all Spinal Cord Injuries from external causes in Australia in the financial year 2003 – 04 (Cripps, 2006).

This literature review will highlight the current practices of water extraction and define the criteria for the best practice methods of water extraction and will provide a guide for the future development of both shallow and deep water spinal injury management and extraction protocols.

In order to address specific issues pertaining to spinal injury management in the aquatic environment a review of the relevant literature was undertaken. Specific areas addressed in the literature review were:

1. What evidence is there to suggest victims of a suspected spinal injury in the water require the documented patient management techniques.
2. What best practice techniques are training bodies and emergency services currently using.
3. What is the evidence suggesting the techniques currently being used are adequate and reliable.
4. Are there additional techniques and standards that could be investigated as per the evidence gathered through the literature review.

A lack of evidenced based research has led to the development of this research project with an aim to provide guidelines and evidence for the future development and review of a spinal injury management protocol for both shallow and deep water environments.

The current protocols for pre-hospital spinal immobilization has a strong historical rather than scientific precedent, based on the concern that a patient with an injured spine may deteriorate without immobilization (Kwan, et al., 2001).

The current protocols also fail to provide guidance on various scenarios that could arise when a patient has suffered a suspected spinal cord injury in the aquatic environment.

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A review of the literature has found:

1. There is little evidence and no data available that supports the current protocols being used by lifeguards in the management of a victim of a suspected spinal injury in the water.
2. Some international protocols vary from the current protocols being used in Australia.

Recommendations from this review highlight the need for additional research into the management of victims of a spinal injury in the water to form an evidence based best practice model.

## PRESENTATION PAPER

### Background/Introduction

The safety of people undertaking aquatic recreation is paramount and the occurrence of spinal injuries in aquatic activities are well documented. Knowledge and training in appropriate rescue techniques can avoid further injury to a casualty and can also assist in the long term benefits in reducing secondary injury and long term care.

Royal Life Saving has a vested interest in developing rescue and extrication protocols for casualties of suspected spinal injuries in aquatic environments.

The review of the current practices indicated further research is required into the future development of spinal injury management techniques for both shallow and deep water environments. This research is to be supported by a literature review of spinal injury management practices in the aquatic environment.

The review of literature included research from both Australia and overseas and will provide evidence based guidelines for future rescue and training protocols. This research will have implications for all organisations and individuals involved with water safety education and training.

### Methods

A literature search (including grey literature) was undertaken using relevant databases including MEDLINE to identify spinal injury management protocols that are used for patients with a suspected spinal injury in both shallow and deep water.

The review of the literature with an examination of the level of evidence is similar to a Cochrane Review. Key word searched included; spinal injury, rescue, water rescue, deep water spinal injuries, water extrication.

The project was undertaken over a 12 month period.

### Results/Evaluation

Due to the significant number of research papers on spinal injury management (the study by Kwan, et al, located 4453 reports) this review will be based on water rescue techniques inclusive. A number of studies identified differing spinal immobilisation strategies in healthy volunteers which may provide some useful insight into their relative effectiveness in trauma patients (Kwan, et al, 2001).

There were no papers that indicated that the current shallow and deep water spinal injury management protocol was ineffective. There were however, many studies questioning the reliability of current pre-hospital strategies in trauma patients outside of an aquatic environment.

There is a definite lack of research to support the practice of pre-hospital spinal immobilisation in trauma patients and even less for those victims who suffered their injury in aquatic environments.

### Discussion

No research papers were located in this review that indicated the current spinal immobilisation techniques are effective in both shallow and deep water environments.

While it may not be possible to conduct randomised controlled trials of spinal immobilisation versus no immobilisation in trauma patients, it may be feasible to consider such trials comparing the various spinal immobilisation strategies, in outcomes of immobilisation efficacy, respiratory effects, tissue pressure and patient comfort. Further studies are needed to validate the future development of spinal injury management protocols in trauma patients with a high risk of SCI. Additionally, randomised controlled trials to compare the efficacy of different immobilisation and stabilisation techniques on trauma patients need to be considered in order to establish an evidence base for the practice of pre-hospital emergency spinal immobilisation.

These trials are to take into account the various environmental, situational and patient status factors to validate any future development of spinal immobilisation protocols.

### Conclusion

The literature review found 2 additional spinal immobilisation techniques that are currently being used throughout the United States of America in their lifeguard training programs that differ from the teaching practices in Australia and the United Kingdom involving a victim of spinal injury in the water. These practices need to be researched via randomised controlled trials before being widely adopted as best practice.

# BEACH SAFETY FLAGS

## IS IT POSSIBLE TO ACHIEVE AN INTERNATIONAL STANDARD?

PETER GEORGE AM

*Chair, International Lifesaving Federation Rescue Committee. National Director of Lifesaving, Surf Life Saving Australia*

### ABSTRACT

The International Lifesaving Federation (ILS) is working with the International Standards Organisation (ISO) to reach common ground on an International standard for beach safety flags.

The benefit of a common world wide beach safety flag message is obvious and Australia and the two major International bodies (ILS and ISO) have spent many years trying to come up with a set of flags with universal colour and meaning. However, what appears to be simple on the surface has proven to be much more difficult in practice.

This paper explores the differences between the current Australian Standards, the proposed International standard and the position taken by ILS and why the adage "Good in theory but no good in practice" applies in this case.

Issues covered are

- Is it a Shark flag or an Emergency Evacuation flag?
- To feather or not to feather!
- Does Red mean swim with extreme caution or beach closed, don't swim?
- Should we use a Green flag to denote a 'safe' swimming area?
- Can we use signs in conjunction with flags?
- Should we allow people to use flags not adopted by Australian Standards?

### PRESENTATION PAPER

#### Background/Introduction

The aim of the presentation is to highlight the differences between Australia and International standards in relation to beach safety flags.

#### Methods

- Work is currently being done at International level to formulate a Beach safety Flag standard.
- Input has been given within the ISO Committee on beach safety flags (ISO/TC 145/SC2/WG4).

#### Results/Evaluation

- ILS adopted a range of beach safety flags in 2002.
- ISO are currently developing their own standard which differs both in the number of flags proposed and the colour and meaning of certain flags.
- Standards Australia also has a number of variations in relation to beach safety flags.
- Currently all organisations believe that their standard is the preferred method.

#### Discussion

- It is in everyone's interest to derive one common standard for beach safety flags so that there is no misunderstanding when people visit a beach anywhere within the world.
- A common standard will assist in warning the public on where and where not to swim.
- Detailed discussions are continuing at all levels to attempt to resolve this issue.
- The major challenge remains the personal preference and long standing tradition in various countries with all countries reluctant to change their current system as it will require time, effort and money to re-educate the public.

#### Conclusion

- The current differences within beach safety flags will be highlighted together with a proposed way forward in an attempt to move the various organisation's standards closer together.

#### Acknowledgements

- Policy statements by ILS, Standards Australia, and proposed standard by ISO.

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# PRESENTATIONS: TODDLERS/CHILDREN

## A COMPARISON OF ROPE THROW RESCUE TECHNIQUES IN A CHILDREN'S LEARN-TO-SWIM PROGRAM

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G KEITH MCELROY,

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### PRESENTATION PAPER

#### Introduction

The rope throw rescue is a non-contact rescue included in almost all comprehensive learn-to-swim programs in Australia. It is a skill which can be effective and efficient in enabling the rescue of a weak swimmer and can be performed with relative safety by someone who does not have the capacity to perform an in-water rescue. Because it does not require the rescuer to enter the water, it is an excellent rescue choice even for those competent in in-water rescues as it minimises risk to the rescuer.

Rope throw rescues are part of the Royal Life Saving Society – Australia (RLSSA) Swim and Survive Award sequence and the Rescue Strand of Awards, progressively increasing in difficulty with higher awards (RLSSA, 2004). The RLSSA National Swimming and Water Safety Framework recommends that a child in year six of school (about 11 years of age) should be able to perform a rope throw rescue over a distance of six metres using an unweighted rope. At year seven, the expectation is that a rope throw rescue can be performed over a distance of 10 metres within a time limit of one minute (RLSSA, 2004).

To date there is no empirical evidence to recommend an appropriate and effective technique for this skill, and learn-to-swim teachers tend to teach based on tradition, using the method they were taught as children. The purpose of this study was to investigate three common rope throw techniques to determine which is most suitable for inclusion in children's learn-to-swim programs.

#### Methods

All children in levels 3-6 in the Unisports learn-to-swim program in Ballarat were invited to take part in the study. Ninety-three agreed to do so, with 70 (9.1 years  $\pm$ 1.6) completing the study. Participants' prior experience in rope throw rescues was surveyed. A pre-test established participants' rope throw speed and accuracy. Two rope throw rescue trials were measured for time and accuracy. Participants started with the untangled rope (see figure 1) positioned at their feet. Their instructions were to wait for the starting signal then throw the rope to reach the target which was positioned in the pool 6 metres from the edge.

### ABSTRACT

The rope throw rescue is a non-contact rescue included in almost all comprehensive learn-to-swim programs in Australia. To date, there is no empirical evidence to recommend an appropriate and effective technique for this skill and techniques used in learn-to-swim programs tend to be based around instructor experience. This study investigated three common rope throw techniques to determine which is most suitable for inclusion in children's learn-to-swim programs. It provides rope throw rescue speed and accuracy data before and after 45 minutes of instruction, spread over four sessions. Seventy children (mean age 9.1 years, range 5-12) from the Unisports learn-to-swim program completed the study. An initial pre-test established participants' rope throw speed and accuracy and was used to group children into a control group (no instruction) and three experimental groups, each of which received instruction and practice in one of three commonly used rope throw techniques. Following instruction, post-test data demonstrated significant performance differences between groups. Method One recorded the fastest throwing times ( $p < 0.01$ ), while Methods One and Three were the most accurate. It was concluded that Method One, involving coiling directly into the stationary throwing hand and throwing without any subdivision of coils, is the most appropriate technique to teach children. It produced fast and comparatively accurate results, and was easier for children to perform. It would also provide a greater chance of sufficient time for a second throw to reach a drowning person if the first was unsuccessful. A minimum of 45 minutes of instruction and practice appears necessary for the achievement of base level rope throw performance in children of sufficient developmental age.

The target design (see Figure 2) was based on the reach of a typical nine year old child. Three points were allocated to throws which landed directly on the circle in the centre of the target (indicating a throw which landed directly on the drowning child). Two points were awarded to throws which landed on the part of the target representing the area a child could reach with bent arms, while one point was awarded for throws in the section of the target representing the typical width of a child's full arm span with both their arms extended. Throws falling short or wide of the target received zero.



Figure 1. Rope throw set up position

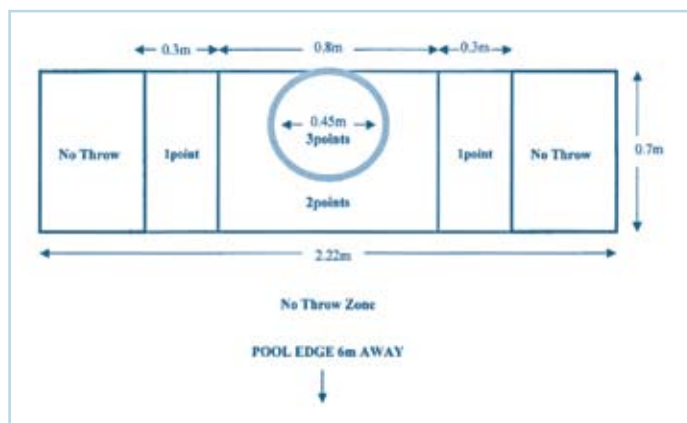


Figure 2: The target

Based on pre-test results, children were grouped into a control (no instruction) and three experimental groups. Experimental groups learned one of three commonly used rope throw rescue techniques, receiving 45 minutes of instruction over four sessions. One week after the conclusion of instruction, rope throw speed and accuracy tests were repeated. Again, participants performed two throw trials. All trials (pre and post) were video recorded.

In Method 1, children crouched down and coiled the rope into their stationary throwing hand. Once coiling was complete, they stepped forward in an underarm bowling-like action and released the rope toward the target.

For Method 2, in a standing position, children coiled the rope into their non-throwing hand then split the coils into two halves, holding half of the rope in each hand. They then stepped forward and released the rope toward the target in a similar way to Method 1. In Method 3 children, again in a standing position, coiled the rope this time into their throwing hand. Once coiling was complete, they again split the coils into two halves (one in each hand) and released the rope toward the target as per Methods 1 and 2.

## Results

Survey findings were used to allocate children into groups, ensuring that age, swimming level, number of terms of learn-to-swim classes that they had completed and prior experience in rope throw rescues was matched as closely as possible.

Method 1, the 'crouch to coil' rope throw rescue technique, was found to be the most effective technique. For throw speed, Kruskal-Wallis tests showed significant differences between groups ( $p < 0.0005$ ) and Mann-Whitney tests showed that Method 1 was the fastest ( $p = 0.000$ ) of experimental techniques. Figure 3 shows post test speed of throw results for both trials. C1 indicates coiling time for the first trial, and C2 coiling time for the second trial. T1 and T2 indicate throwing time for trials one and two, respectively. For throw accuracy, Cross-tabulations and Chi-Squared tests showed Methods 1 and 3 were most accurate.

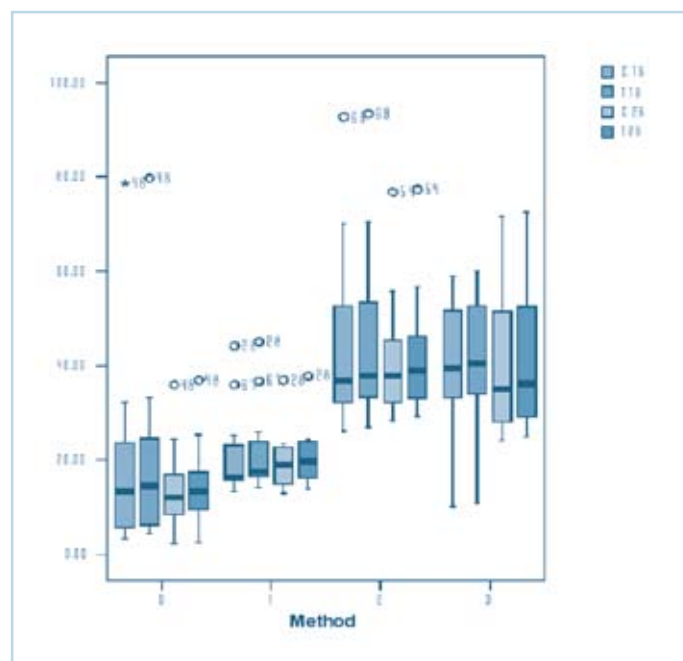


Figure 3. Box plot of post-test data for coiling and total times of all four groups

## Discussion

Despite all children claiming that they had experience with rope throw rescues, pre-test rope throw performance was very poor. Of 186 pre-test throws, only 29 reached the target. Many children did not coil the rope, rather they gathered it from its untangled position on the ground and threw it towards the target. Children who were in the control group did not receive rope throw instruction and many repeated the 'gather and throw' technique during their post testing also. This technique would not be successful in a real life setting. It is most unlikely that a rope would be present in the 'set-up' position and such a non-coiled mass of rope would almost certainly tangle in flight.

Methods such as 2 and 3, which required splitting the coiled rope into two bunches, were shown to be significantly slower than Method 1 ('crouch and coil'). Many children had difficulty splitting the coils into two halves, and this hindered the speed of the throw. The movement of the coils during the splitting process also increased the likelihood of tangling, and hence impacted on accuracy.

The 'crouch and coil' technique of Method 1 (see Figure 4) provides children with a technique which minimises the risk of rope tangling, and therefore increases the likelihood of accurate results. This method was found to have equal best accuracy. It is the fastest of the three techniques and hence offers the best opportunity for a rescuer to have a second attempt at a rope throw rescue before the swimmer in difficulty drowns.

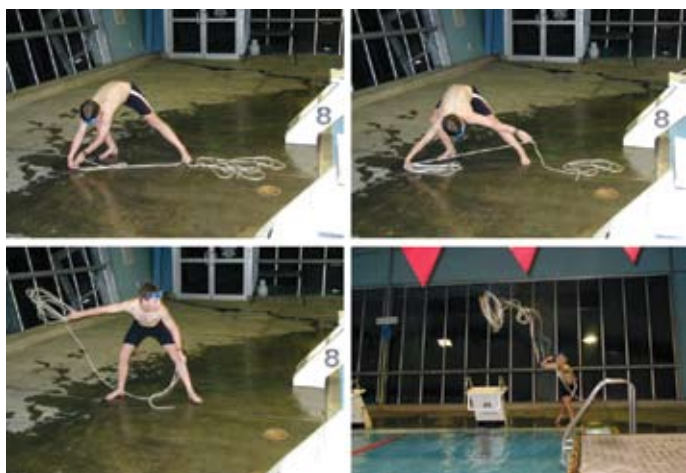


Figure 4. Crouch and Coil Rope Throw Technique

## Conclusions

- The rope throw rescue skill does not appear to be easily retained, as evidenced by poor technique in the pre-test trial of this study.
- At least 45 minutes instruction appears necessary for acquisition of rope throw skills in children.
- The 'crouch and coil' method provides learners with the most effective rope throw rescue technique.

## Reference

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## ABSTRACT

The Tasmanian Government has endorsed the concept of a minimum standard of achievement for pupils leaving primary school. The Tasmanian implementation of the minimum national benchmark for the Swimming & Water Safety Program was introduced in 2001, and students achieving this standard at the completion of their grade 5 year all receive RLSS Swim and Survive level 4 certificates in addition to their personal Record of Development Card issued by the Department of Education.

This presentation will provide a summary review of the implementation of a competency standard; statistics of achievement levels for grades 3, 4 & 5 for Tasmanian Government schools; the political leverage achieved through the introduction and collation of results and other important relevant factors encountered in program delivery.

# 5 YEARS ON SINCE THE INTRODUCTION OF SWIMMING COMPETENCY STANDARDS

**NIGEL CARINS**

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## PRESENTATION PAPER

### Background of the Swimming & Water Safety Program (SWSP)

- It is Tasmanian Government policy that compulsory swimming & water safety instruction for Government Primary Schools is conducted annually and every child must have an equal opportunity to participate.
- The program is directed towards years 3, 4 & 5, participating in thirty 45 minute lessons, organised over ten consecutive days per year.
- Administration is through a central SWSP office. Parents pay a nominal fee \$1.60 per lesson, for those students on the 'student assistance scheme' – no charge.

### Swimming Competency Standards

- In 2001 the Tasmanian Government endorsed the concept of a minimum standard of achievement for pupils leaving primary school to be termed the national benchmark for the SWSP, aligned with the AWSC Competency & Success targets.
- The Tasmanian target was based on the AWSC recommended grade 6 achievement level, RLSS Swim and Survive level 4.
- In consultation with RLSS-T branch the achievement competencies of the SWSP Record of Development Card were aligned with the RLSS Swim and Survive level 4. The net result of the aligned competencies is a slightly higher expectation than Swim & Survive level 4 based on the agreement that students be required to achieve a minimum of 50m recognised Freestyle, 50m recognised Backstroke, 50m recognised survival backstroke and complete a 3 minute survival swim.
- Coinciding with the introduction of the National Benchmark, the Tasmanian Labour Government announced increased funding to include all year 5 students. Prior to 2001, the program was only for years 3 & 4.
- The positive action taken by the Labour Government to include year 5 was argued on the statistical analysis of achievements of the year 4 students after twenty lessons (two years). Only 33% of grade 4 students were achieving the national benchmark and went onto High School with no further instruction. Prior to an election this proved a positive incentive for an announcement by the government.

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## Methods

- The SWSP program is organised as 10 lessons annually and is taught by the Qualified Primary Physical Education teacher assisted by Austswim Instructors at a ration 1:10.
- Students are divided into three major ability groups.
- Lessons are planned to allocate approximately 70% of the in pool work time to stroke development and 30% to Safety & Survival skill development.
- Classroom teachers are encouraged to integrate the many opportunities swimming & water safety offers with other curriculum areas. We offer on-line, a number of recommended resources.
- Students are issued with a 'pupil diary' which is completed back in the classroom. The diary reflects on the topics taught each day at the pool and provides challenges and activities supporting safety and survival knowledge and practices.
- A two day professional development workshop is organised annually for all Phys Ed teachers and Austswim Instructors to ensure state wide moderation of teaching instruction and assessment.

## Results / Evaluation

- Student's progress is monitored with on-going evaluation, with a final assessment on the last or second last day of each program. Results are recorded and forwarded to the SWSP office.
- Results are entered into a data base for each school. A report is returned to the Principal comparing results from the current year with the previous year and aligned to the State average.
- Our initial achievement target for grade 5 students was 65%. Considering the AWSC set this level for grade 6, we considered 65% to be achievable.
- Grade 5 results - National Benchmark

Year	% DoE Stage 2 (Freestyle as over water recovery stroke)	% Swim & Survive Lvl 4 (Back stroke as over water recovery stroke)
2002	37%	60%
2003	49.6%	70%
2004	50.8%	69%
2005	51.4%	71%

## Discussion

- Should the SWSP be achieving the target of 65% or is this unrealistic for grade 5 students (10 – 11 yrs)?
- AWSC expectation is for 100% achievement for grade 6 students (11-12 yrs) at Swim & Survive lvl 4.
- Are the results affected by the type of venue the program is conducted in? Most pools in Tasmania are outdoor, 1950's -60's style, with min 3'6" shallow ends. Only 6 indoor venues in the State.
- Are the results affected by the DoE teaching philosophy which recognises the acquisition of aquatic breathing as essential for a student if they are to acquire swimming & water safety competency? Assessment requires a student to demonstrate 50m Freestyle with aquatic breathing.
- The National Benchmark criteria are an important topic for teacher and Instructor workshops to ensure consistency of delivery of the program.
- On going evaluation of results has also focused teachers on developing a strong personal philosophy about how to teach swimming and water safety. We have seen further development of classroom resources, improved support for students with 'high needs', the introduction of a wider range of teaching equipment, and other innovative ideas introduced during the last 4 years.
- The aim for all students is to achieve 50m efficient stroke technique in Freestyle, Survival Backstroke, Backstroke, Sidestroke and Breaststroke plus complete a 5 minute survival swim fully clothed. This is only achieved by 10% students in grade 5.

## Conclusion

- The introduction of the National Benchmark has strongly promoted and highlighted the development of student's swimming and water safety skills with parents and school communities.
- Fostered a strong focus on Professional Development for all HPE teachers and Austswim Instructors, continually promoting discussion and consolidating aims and objectives for ability groups.
- The benchmark results have proven to be a strong tool or incentive for local school communities to present cases for funding assistance for programs such as early childhood water awareness.

## Recommendation

- Recommend the AWSC competency level for students exiting Primary School be raised to a minimum RLSS Swim & Survive level 5 which includes 25m of Freestyle competency.



# IMPROVING PRIMARY SCHOOL SWIMMING COMPETENCE IN THE ACT

ERIC CHALMERS

*Executive Officer, Kidsafe (ACT)*

## ABSTRACT

The ACT Water Safety Working Group, comprising 15 government agencies and non-government organisations, has been concerned for some time about the apparent and alarming reduction in the swimming and water safety competency of children leaving primary school at age 11 or 12 in the ACT.

Our concern is that the ACT is developing a generation of young adults who cannot swim or save themselves.

The project, made possible with funding from Sport & Recreation ACT, involves a relatively informal review of the current system, analysis of the information received and the development of solutions by the Working Group members for consideration by Government and the community.

The issue appears to have arisen as a result of the specific structures in the ACT for both swimming pool management and school-based management. The solutions thus also need to address these areas.

The project will involve talking to Swimming Pool operators and owners, regulators, primary school principals and sports supervisors and surveying ACT primary school parents.

By the time of the conference, we will have output from the research to share and some of the likely recommendations from the Working Group.

## PRESENTATION PAPER

### Background

Twenty years ago, it would have been unthinkable for many children to finish primary school without having learned to swim.

But today, according to a range of anecdotal evidence collected by the ACT Water Safety Working Group, an alarming number of local 12-year-olds cannot swim at least 50 metres or save themselves in water.

One can easily imagine the consequences of this apparent widespread lack of swimming ability among our children. If the trend continues, drowning and near drowning rates are likely to skyrocket in the next decade.

### The Project

Kidsafe ACT, a non profit organisation dedicated to preventing the accidental death of children, has received funding from Sport and Recreation ACT to investigate the causes of this apparent deterioration in swimming competency and to develop a strategy to address the issue.

Kidsafe's research methodology consists of:

- Structured interviews with principals and senior sports staff in a cross section of 25 primary schools (public and private)
- Mail survey of parents/caregivers at the schools interviewed (350 to be distributed)
- Structured interviews with public swimming pool owners and managers
- Interviews with key Education Department and Department of Urban Services staff involved in water safety, pool regulation and other interested parties.

Through interviewing and surveying hundreds of pool owners/managers, school and government officials, and caregivers, Kidsafe will gain a better understanding of what is actually happening and why so few ACT children today appear to learn to swim properly.

### Outcomes

The results of the research will be used by the ACT Water Safety Working Group to inform its recommendations on how best to address the issue. The Working Group comprises 14 ACT and Commonwealth government agencies and community organisations such as Kidsafe, Royal Life Saving Society, Swimming ACT and Snowy Hydro Southcare.

The results of this research, Kidsafe hopes, will act as a catalyst for change, allowing the government and community to take steps to ensure that all children learn to swim by the time that they leave primary school.

### Likely Directions

Anecdotal evidence currently suggests that common reasons children don't learn to swim include

- the high cost of swimming lessons (school-based lessons are reduced, but not fully subsidised)
- inconsistent levels of involvement by individual schools in learn to swim classes
- the lack of volunteer-run swimming clubs that provide broad access to very low cost, regular involvement in structured swimming activities
- increasingly sedentary lifestyles
- in some families, cultural or religious barriers to swimming

It appears that the core recommendations are likely to suggest changing a combination of government, pool management, school and community responses to the issue.

Should research results confirm the above reasons to be the main barriers to swimming competency, the Working Group may advise the government to take actions such as:

- Encouraging the development and maintenance of regular, community based swimming clubs and activities
- Reviewing the way schools support learn to swim activities under the ACT's School-based management structures
- Encouraging parents to make sure their children can swim competently and confidently
- Reviewing the way pools and schools are supported by Government to encourage and support the cost of swimming lessons, especially for those families least able to support lessons themselves
- Developing a public awareness campaign to promote both learning to swim competently and regular water based activities as both a safety and health issue
- Linking this campaign to campaigns focused on the dangers of childhood obesity and the importance of physical activity
- Working with community leaders to make special arrangements for students where there are social or religious barriers to learn to swim.

### Conclusion

Our aim is to achieve an environment in which all students can swim 50 metres and save themselves in water before moving from primary school to high school. This will avert a significant increase in drowning rates among older children and young adults in years to come. Encouraging the physical activity associated with regular swimming will also help to combat childhood obesity.

The project is currently under way. At the presentation Eric Chalmers will present emerging results and discuss where these might lead the Working Group as it seeks solutions.

The Working Group's recommendations should be completed by October 2006.

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Swim For Life is a water safety initiative to provide primary and intermediate school aged children with a life skill that's essential for all New Zealanders: the ability to swim and survive in water.

#### Further Information:

Check out our website at [www.swimforlife.org.nz](http://www.swimforlife.org.nz)

# SWIM FOR LIFE

## DEVELOPING A CORE LIFE SKILL

MATT CLARIDGE

*Project Manager, Water Safety New Zealand*

### ABSTRACT

Swim For Life is a water safety initiative to provide primary and intermediate school aged children with a life skill that's essential for all New Zealanders: the ability to swim and survive in water.

The belief that all school children in New Zealand learn to swim as part of their education is no longer true. Without the ability to swim, young people of today and adults of tomorrow will have limited ability to participate safely in water related activity. Swim For Life is a water safety initiative with the its sole purpose being that all New Zealand children are able to swim 200 meters, confidently and competently, by the time they are 12 years old.

Swim For Life was developed and is being implemented in a collaborative effort involving Water Safety New Zealand, the Swim Coaches and Teachers Association, the New Zealand Recreation Association, as well as local and central government agencies.

After surveying primary schools, it was identified that professional development for teachers was the number one priority for a programme to teach young children to swim and survive. In order to address this need, Water Safety New Zealand began funding Professional Development training. This provided School Teachers with the basic skills and confidence to deliver an effective learn to swim programme.

The task now is to create relationships between schools and professionals that will facilitate the development of a learn to swim and survive programme for every school. This will help ensure that more of New Zealand's children can safely enjoy our vast and varied aquatic environments.

### PRESENTATION PAPER

The foundation skill for enjoying New Zealand's vast and varied aquatic environments safely is the ability to swim and survive.

#### Background

New Zealanders have an affinity with rivers and the sea. Summertime inexorably draws us, with boats, jet skis, kayaks and windsurfers in tow, to the water. Water Safety New Zealand (WSNZ) is partnering with the New Zealand Recreation Association and the Swim Coaches and Teachers Association of New Zealand to encourage New Zealanders to take greater cognisance of their own safety, and that of friends and family members. Ensuring we all have the ability to swim competently is a prerequisite to the New Zealand lifestyle.

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Significant changes to the structure of New Zealand society have prompted WSNZ to take a wider, pro-active approach to water safety in this country. The belief that all young children learn to swim, as the normal course of growing up, no longer exists.

In order to address the issue Water Safety New Zealand is driving Swim For Life.

### Purpose

Every New Zealand child by the age of 12 will be able to swim 200m confidently and competently with associated survival skills and understand the key water safety messages.

### Target Market

Swim For Life focuses on the development of the core life skill of swim and survive. Parents and teachers of primary school children are the target market along with School Principals, Boards of Trustees, aquatic facilities and swim schools.

### Aims

- Children will participate in effective and appropriate swim and survive lessons through school and/or public pools and swim schools.
- Parents and school teachers will be aware of the importance of swim and survive skills and the correlation with recreational activities and drowning in New Zealand.
- Schools will be compelled to offer and/or deliver effective swim and survive lessons with tuition from appropriately qualified teachers.

### Marketing Mechanisms

A Mass Media Campaign utilising television, radio and print advertising will be tailored to affect the above Aims. The campaign will cover two significant driving forces:

1. Raise awareness
2. Drive participation

The campaign will recognise the valuable contributions of the Swim For Life partners and present influential messages around recreational activities available to New Zealanders should they possess swim and survive skills.

### Partnerships

WSNZ will utilise its industry experience and expertise to deliver a credible water safety message to the community.

Significant partnerships exist with the New Zealand Recreation Association and the Swim Coaches and Teachers Association of New Zealand who together are the delivery agents for learning to swim in New Zealand.

WSNZ will interact with the community through effective and coordinated marketing to influence parents and schools of the value of swim and survive skills.

### Current Snapshot

- Over 1200 New Zealand Primary Schools have signed an expression of interest form to be involved in Swim For Life.
- Over 80 aquatic centres and swim schools have signed a licensing agreement to utilise the Swim For Life brand for promotional purposes.
- Swim For Life is being utilised as a vehicle to generate funding and to offer a collective approach to meeting the communities needs of children learning to swim and survive.
- WSNZ has showcased Swim For Life on the popular children's television show What Now, reaching an audience of 200,000 per screening for four weeks.
- WSNZ currently has a team dedicated to the Swim For Life project and is looking to expand that by two persons over the next six months.

# DROWNING A MAJOR KILLER OF BANGLADESHI CHILDREN

## AN URGENT WATER SAFETY PROGRAMME NEEDED

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### ABSTRACT

#### Introduction

Given the geographical and socio-cultural features deaths from drowning can be expected to be a major killer of children in Bangladesh.

#### Objectives

The objectives of the study were to determine the magnitude and explore the determinants of drowning among Bangladeshi children.

#### Methods and Materials

A population-based survey and a case-control study were conducted between November 2002 and August 2003 in Bangladesh. A nationally representative sample of 171,366 households from both the rural and urban areas of the country comprising of a total of 351,651 children population were included in the study. For each drowning case two controls were selected by matching age, sex and location to conduct the case-control study. Data were collected by face-to-face interview by 48 trained data collectors.

#### Results

In children aged 1 – 17 years, drowning was the leading cause of death with a rate of 28.6 per 100,000 children-year. The estimated number of drowning death is about 17,000 annually. The highest incidence was observed among 1 – 4 year children. The drowning rate sharply decreased with the increase of age. A reciprocal relationship was observed between the drowning rate and proportion of swimming ability. Significantly higher drowning rate was observed among rural children in Bangladesh. Having a mother who was illiterate (OR 1.7; 95%CI 1.01 – 2.81) or having five or more children in the family (OR 1.95 95%CI 1.2 – 3.3) were significantly associated with childhood drowning.

#### Conclusion

Drowning is one of the leading killers of children after infancy. Illiteracy of mothers, having five or more children in the family, lack of supervision and lack of swimming ability are the major determinants of childhood drowning. Urgent water safety measures including improved supervision of 1-4 years children and teaching swimming to children over 4 years of age are needed to prevent these unexpected childhood deaths.

### PRESENTATION PAPER

#### Background / Introduction

Given the geographical and socio-cultural features deaths from drowning can be expected to be a major killer of children in Bangladesh. The objective of the study was to determine the magnitude of drowning among Bangladeshi children.

#### Methods

A population-based survey was conducted between November 2002 and August 2003 in Bangladesh. A nationally representative sample of 171,366 households from both the rural and urban areas of the country comprising of a total Drowning is one of the leading killers of children after infancy. Children 1-4 years old are the most vulnerable group. When single year of age is considered, 1 year-old children are most critical. Urgent water safety measures are needed to prevent these unexpected childhood deaths. of 351,651 children population were included in the study. Data were collected by face-to-face interview by 48 trained data collectors.

#### Results / Evaluation

In children aged 1 – 17 years, drowning was the leading cause of death with a rate of 28.6 per 100,000 children-year. The estimated number of drowning death is about 17,000 annually. The highest incidence was observed among 1 – 4 year children. The drowning rate in this age group was 86.3 per 100,000 children-year. Children of 1-year age were the worst victims of drowning (175.2 per 100,000 children-year). The drowning rate sharply decreased with the increase of age. A reciprocal relationship was observed between the drowning rate and proportion of swimming ability. Significantly higher drowning rate was observed among rural children in Bangladesh.

#### Conclusion

Drowning is one of the leading killers of children after infancy. Children 1-4 years old are the most vulnerable group. When single year of age is considered, 1 year-old children are most critical. Urgent water safety measures are needed to prevent unexpected childhood deaths.

#### Acknowledgements

This research was a part of Bangladesh Health and Injury Survey, which was supported by UNICEF-Bangladesh and The Alliance for Safe Children (TASC). We thank the UNICEF and TASC personnel for their support.

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# SAFE PLAY AREAS ON FARMS TO PREVENT TODDLER DROWNING: SAFETY PRACTICES ON FARMERS ATTENDING AGRICULTURAL FIELD DAYS

## ABSTRACT

Drowning is the major cause of death to children on Australian farms, with children under five most at risk. Arising from research of evidence-based solutions, providing children with a securely fenced safe play area on farm is a key recommendation of the Child Safety on Farms Program of Farmsafe Australia. A safe play area helps to prevent young children gain unsupervised access to dams, creeks and other farm hazards.

This presentation provides an overview of findings from ongoing research into the safety awareness and practices of farmers, who attended major agricultural field days between 2003 and 2005. Prevalence of safe play areas on farms; the security of fencing materials used for this purpose; recall of safety messages in the media; and any trends over time / between locations will be presented - focusing on safe play areas to prevent drowning.

The field days research provides insight into the current and changing safety practices of farmers in relation to a key drowning prevention strategy for farm families. It also provides feedback on the reach and impact of child safety promotional campaigns to prevent drowning on Australian farms.

## PRESENTATION PAPER

### Background / Introduction

Drowning is the major cause of death to children on Australian farms, with children under five most at risk. Providing a securely fenced safe play area helps prevent young children gaining unsupervised access to dams, creeks and other farm hazards; and is a key recommendation of the Child Safety on Farms Program of Farmsafe Australia. This program operates out of the Australian Centre for Agricultural Health & Safety, located in Moree NSW, and is part of the School of Public Health, University of Sydney.

Ongoing research conducted at major agricultural field days, has provided an insight into the current and changing safety practices of farm families in relation to this key drowning prevention strategy for farm families. It also provides feedback on the reach and impact of the child safety on farms program toward prevention of toddler drowning and other child death and injury on Australian farms.

### Methods

Quota sampling methods were used to survey 1757 farmers / farm workers attending major agricultural field days across Australia between 2003 – 2005. Respondents were asked a range of questions relating to child farm safety practices and recall of child safety messages in the media. In particular, questions were asked about the presence of safe play areas on farms and the security of the fence as a safety barrier for children under five years.



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The pilot survey in 2003 also included questions on farm hazard awareness and fencing types /materials used for safe play areas on farms.

### Results / Evaluation

Field day surveys were conducted at major agricultural field day in NSW, SA, WA and Victoria. A range of fencing types were used for the purpose of securing safe play areas for small children, in the pilot survey at Ag-Quip NSW 2003. Major types shall be described.

Across all field day sites, around three quarters of those surveyed indicated that they had a fenced safe play area, but only half of these were self-rated as being difficult or almost impossible for a child under five to breach. At the Ag-Quip field days in NSW, where surveys have been conducted over all three years, the proportion and security level of safe play areas has not significantly changed.

In 2005, about one third of survey respondents reported having done something to address child farm safety in the previous 12 months. Improvements to fences and safe play areas were the most commonly "specified" action. Around three quarters of respondents reported having seen something on TV about child farm safety. Recall of the content of child farm safety messages was highest in 2005, which corresponded with a TV campaign by the Child Safety on Farms Program.

### Discussion

In general, TV campaigns show promise as an effective means of reaching farm families with child safety messages - including safe play areas as a priority intervention to prevent drowning and access to major farm hazards.

Some farmers specified actions to improve fenced play areas in the field day surveys. However, the data suggests that a blanket shift from awareness to behavioural change (provision / improvement in fenced safe play areas) has not yet occurred. This is not an unexpected outcome and is consistent with long-term timeframes for other behavioural change programs such as road safety and anti-smoking campaigns.

Finer analysis of responses by field day site, age, gender and comparison across years, will be undertaken when the 2006 field day data collection is complete. Major challenges include ongoing project funding to maintain the momentum gained in achieving awareness of safe play areas on farms. This will need to continue if there is any chance of achieving longer term behavioural change.

Field day surveys have become one measure of the CSOF program's reach and impact. Direct feedback, resource requests, website visits and the number of partner organizations involved are other valid measures. The Child Safety on Farms Program has focused on 5 key messages, as the most effective interventions to prevent serious injury and death of children on Australian farms, of which provide a safe and secure place for children to play is the number one priority to prevent toddlers gaining unsupervised access to farm hazards, including dams, creeks and channels.

Promotional campaigns alone will not succeed in either the short or long-term without significant investment into research of the main causes of injury and best practice solutions. Involvement of farming community networks in development of priority messages for promotion has grounded the research. Insights into current and changing practices by farmers through the field days research, provides an evaluative tool, as well as feedback to further inform and direct promotional strategies.

### Conclusion

Cultural and behavioural change in child safety on farms is a long term goal and may not be achieved for many years to come. Whilst awareness of safe play areas on farms to prevent drowning and access of small children to farm hazards is improving, further work needs to be done to normalise this intervention and convert awareness into action for child safety on farms.

### Acknowledgements

The agricultural field days survey, is a research activity of the Australian Centre for Agricultural Health & Safety (ACAHS), University of Sydney.

The data is used to inform the Child Safety on Farms Program, funded through the Commonwealth Department of Health & Ageing. A range of resources on child farm safety have available to farm families and others on request from ACAHS (Ph. 02 6752 8218) or on-line at [www.farmsafe.org.au](http://www.farmsafe.org.au).

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# UNDER 5 WATERWISE

MATT CLARIDGE

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## ABSTRACT

In the last 10 years 112 infant and preschool children have drowned in New Zealand. This figure consistently represents between nine and ten percent of the total drowning toll in New Zealand on an annual basis. An average of 125 New Zealanders drown every year.

Twice as many preschool children drown in New Zealand (0.27 per 100,000) than Australia (0.14 per 100,000) per capita.

67% of all infant (up to 12 months of age) drownings occur in the bath. Nearly 50% of all preschool (1-5 years) children drown in home swimming pools. Maori drownings account for 37% of all drownings in this age group. 73% of all preschool drownings occurred on a residential property, namely the victims home.

Parents and caregivers determine what infant and preschool children do around water. The supervision factor is the number one determinant in 96% of all drownings. Failure to adequately maintain hand contact while bathing infants or entrusting the care of small children to siblings is problematic in New Zealand.

Complacency is identified by WSNZ as a major contributing factor to compromised supervision. New Zealand's climate is not as conducive to outdoor aquatic activity like Australia, nor do we have as many home pools as Australia. But the trend of home pool drownings continues to blight New Zealand. Inadequate barriers in place or a lack of compliance of fencing at the time of drowning are significant factors also.

Parents/caregivers are constantly reminded to supervise children near water, to ensure their home pool is fenced in accordance with the Fencing Of Swimming Pools Act 1987 (FOSP 1987) and to take their children to the pool for valued time together in the water to develop water confidence skills. Historically, WSNZ has always included the key message of supervision in its media campaigns.

The Under Five WaterWise project is a comprehensive drowning prevention program with specific interventions and strategic actions geared at preventing Infant and Preschool Drowning in New Zealand.

## PRESENTATION PAPER

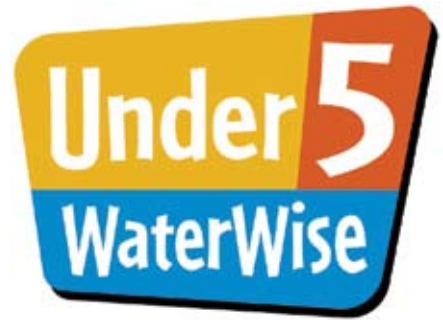
### Mission

To reduce drowning as a cause of death in infant and preschool children in New Zealand.

Under Five Waterwise is a major project in WSNZ's Drowning Prevention Action Continuum.

This project extends from 2006 – 2010.

Five years is optimal time to allow for full review and measurement of effect as well as process.



## Drowning Analysis

All New Zealand drowning data is sourced from DrownBase®.

In the last 10 years 112 infant and preschool children have drowned in New Zealand. This figure consistently represents between nine and ten percent of the total drowning toll in New Zealand on an annual basis. An average of 125 New Zealanders drown every year.

- Twice as many preschool children drown in New Zealand than Australia per capita<sup>1</sup>.
- 67% of all infant (up to 12 months of age) drownings occur in the bath<sup>2</sup>.
- Nearly 50% of all preschool (1-5 years) children drown in home swimming pools<sup>3</sup>.
- Maori drownings account for 37% of all drownings in this age group<sup>4</sup>.
- 73% of all preschool drownings occurred on a residential property, namely the victims home<sup>5</sup>.

## Activity Analysis

Parents and caregivers determine what infant and preschool children do around water. The supervision factor is the number one determinant in 96% of all drownings. Failure to adequately maintain hand contact while bathing infants or entrusting the care of small children to siblings is problematic in New Zealand.

Complacency is identified by WSNZ as a major contributing factor to compromised supervision. New Zealand's climate is not as conducive to outdoor aquatic activity like Australia, nor do we have as many home pools as Australia. But the trend of home pool drownings continues to blight New Zealand. Inadequate barriers in place or a lack of compliance of fencing at the time of drowning are significant factors.

Of the recreational based drownings, they all involved a lack of supervision on behalf of the parent or caregiver, whether at a thermal pool, public pool or on a boat.

## Site Analysis

The home is the pre-eminent location for infant and preschool drownings with 73% occurring in a domestic setting<sup>6</sup>. Pre school children are often taken to the beach, public pools and on boats. Additional statistical analysis indicates that drownings occur at sites (other than the home) where other means of supervision exist, such as thermal and public pools, rivers and creeks. The above listed sites are not problematic themselves.

The origin of the problem is again complacency from parents that their child will be adequately supervised by a person or persons whose responsibility is for numerous, often hundreds of others and not specifically one small child.

## Key Messages

The number one water safety message currently being reinforced is "Always supervise children near water, ALWAYS!"

Parents/caregivers are constantly reminded to supervise children near water, to ensure their home pool is fenced in accordance with the Fencing Of Swimming Pools Act 1987 (FOSP 1987) and to take their children to the pool for valued time together in the water to develop water confidence skills. Historically, WSNZ has always included the key message of supervision in its media campaigns.

## The Key Objectives

### 1.Reduce Bath Time Drownings

- I. Maintain hand contact at all times when bathing infants.
- II. Do not answer the door or phone, check on dinner or washing.
- III. Do not leave small children supervised by older siblings.
- IV. Do not use bath seats

### 2.Reduce Home Pool Drownings

- I. Promote and advocate for the enforcement and adherence of the FOSP 1987 – soon to be replaced by the Pool Safety Standard.
- II. Ensure preschool children do not have direct access from the dwelling to the home swimming pool.
- III. Infant and preschool children enrolled in water confidence lessons at SCAT/NZRA providers/facilities.

### 3. Reduce all drownings in New Zealand by aiding preschool children develop water safety knowledge, attitudes, skills and values for life.

- I. Preschool children can learn that they must be supervised when around and near water.
- II. Preschool children begin development of buoyancy and propulsion skills in water confidence classes.
- III. Ensure all ethnicities are adequately represented in targeted approach.
- IV. Parents are the most important link in ensuring children learn water safety skills. Parents must be targeted through the mass media, early childhood centres, swim schools and swimming pools as they are the providers and determinants ensuring children develop water safety skills.



## The Drowning Prevention Actions for Under Five Waterwise

### 1. Home

- a. Plunket resource – systematic and progressive, distributed upon each Plunket Nurse visit. Meets the developmental milestones of small children and the relevant hazards including bath, buckets, home pool, and ponds.
- b. Pool Safety Standard – Currently being developed with a multi party consultation process required of the sector. An update and opportunity to consistently enforce Pool Fencing Legislation.
- c. Consistent reinforcement of Water Confidence lessons and the importance of water discovery and exploration at a public pool.

### 2. Water Safety Resources

- a. Keep kids Safe Near Water is a guide to children having fun and being safe near water –available directly from WSNZ, via Plunket, Swim Schools, Public Pools and relevant agencies.
- b. Home Water Safety Checklist – A guide to keep children safe from drowning by ensuring the hoe is 'Water Safe' and through constant supervision - available directly from WSNZ, via Plunket, Swim Schools, Public Pools and relevant agencies.
- c. The Swim Coaches and Teachers Association of New Zealand (SCAT), Plunket and NZRA have been involved in developing and distributing of these resources. All of NZRA, Plunket and SCAT have an important role to play in the multi faceted approach to reducing preschool drownings in New Zealand.
- d. Consistent reinforcement of Water Confidence lessons and the importance of water discovery and exploration at a public pool.

### 3. Early Childhood Education Kits – English/Te Reo

- a. WSNZ in partnership with ACC and the Todd Foundation have developed an Early Childhood Education (ECE) Kit for both English and Te Reo (Kohanga Reo) institutions. There will be 600 copies distributed to every Kohanga Reo in New Zealand, along with 6500 available for ECE Centres nationally. The Kit has a discussion and activity based learning process for ECE Centre and Kohanga Reo setting. It also incorporates the ever-important take home component for work to be done with parents. The key desired outcomes are three fold:
  - I. Small children learn to identify that there must be adult supervision when playing or around water
  - II. Parents and caregivers again receive the supervision message reinforced through learning with their children

- b. Consistent reinforcement of Water Confidence lessons and the importance of water discovery and exploration at a public pool.

### 4. Marketing

- a. Reminders are targeted at parents and caregivers via public awareness campaigns (Television, Radio and Print), Internet, Plunket and the Keep Kids Safe Near Water brochure series.
- b. WSNZ also uses a targeted approach in all media releases to emphasise the need for both supervision of small children and water confidence lessons. WSNZ uses drowning and other activity cues to make media comment to highlight the problem of small children drowning in New Zealand.
- c. Consistent reinforcement of Water Confidence lessons and the importance of water discovery and exploration at a public pool.

### 5. Professional Development

- a. WSNZ, wherever possible links the supervision message to the need for parents to take their small children to the pool, be it for water confidence lessons in a structured, professional environment, or merely for time to discover and explore the water. The involvement of small children in structured programmes is identified internationally<sup>7</sup> as a key tool in optimising the acquisition of highly valued swim and survive skills during the formative, education years of ages five to 12.
- b. The AUSTSWIM Teaching Infants and Preschool Aquatics Professional Development Tool is a benchmark globally for developing teachers of small children into suitably skilled Instructors of this age group. The resource will:
  - i. Be flexible for swim schools and available to use at their preferred timing.
  - ii. Be delivered in house by AUSTSWIM/WSNZ recognised presenters who will also moderate the first stages of instructor assessment.
  - iii. Have AUSTSWIM Policies adopted for International Equivalency and credibility, including using AUSTSWIM for all moderation and sign off.
  - iv. Be cost effective and give swim schools the opportunity to meet internal costs by inviting other swim instructors to their courses.



c. Consistent reinforcement of water confidence lessons and the importance of water discovery and exploration at a public pool.

#### 6. World Aquatic Babies Congress 2007 – Wellington New Zealand

- a. WSNZ and New Zealand will benefit greatly from facilitating the WABC 2007 Conference in Wellington. Bringing large numbers of teachers from New Zealand and Australia together along with the worlds foremost teachers, directors and researchers is an opportunity that most New Zealand teachers will get to experience only once (if at all) in their career.
- b. Scheduled for October 2007, major developmental work will need to be undertaken to ensure this conference is a success both domestically and internationally.
- c. AUSTSWIM have signalled their intentions to fully support and endorse the WABC 2007 conference for its members.
- d. WSNZ will partner with key organisations such as SCAT, the New Zealand Recreation Association and Plunket to ensure the overwhelming success of this initiative.

#### The Continuum

Guru (design Company) to design continuum/project wheel based on above detail.

#### Partnerships

Plunket  
New Zealand Swim Coaches and Teachers  
Association Of New Zealand  
New Zealand Recreation Association  
SafeKids  
AUSTSWIM  
National Kohanga Reo Trust  
Te Puni Kokiri  
Iwi  
ACC  
WSNZ Member Organisations

#### Measure of Success

The ability to effectively counter the drowning issues in New Zealand, be it activity or site related, specific to relevant ethnic groups as well as an overall message to enhance supervision of small children.

The Under Five Water Wise project's success should not be measured by the number or percentage of infant and preschool drownings but by utilising a gap analysis of all drowning statistics for this age group and ensuring that any identified gaps are consistently covered off and catered for.

The value of the project may not best be measured by way of the activity involved with it, but more by the potential if there was no activity in this sector

#### Project Summary

An eight-pronged approach to reducing drownings of infant and preschool children in New Zealand is required.

Recognition of the following key statements:

1. Children require constant supervision whilst bathing
2. Household water hazards (including home pools/ ponds etc) must be identified and eliminated
3. Preschool children ideally will undertake water confidence lessons
4. The supervision message to parents can never be under delivered
5. Preschool children can and should learn that when near or around water they should have an adult supervising them.
6. Maori present the greatest risk, proportionately and must not be marginalized
7. The use of profile raising media attention is often the best form of awareness raising when accompanied by a structured public awareness campaign.
8. Swim instructors of infant and preschool children must have adequate training and understanding of both the developmental needs of children and the water safety reasons for tuition. They should be recognised as a provider of instruction to this age group by WSNZ.
9. Swim instructors, swim schools and pools must be offered extensive opportunities to benefit from this project, both personally and as an organisation.

<sup>1</sup> RLSSA Drowning Report 2001, 2002, 2003, 2004, 2005

<sup>2</sup> Water Safety Report, MOH & WSNZ 2005

<sup>3</sup> Water Safety Report, MOH & WSNZ 2005

<sup>4</sup> DrownBase@ 1996-2005

<sup>5</sup> DrownBase@ 1996-2005

<sup>6</sup> DrownBase@ 1996-2005

<sup>7</sup> World Aquatic Babies Congress 2005, Malmo, Sweden. Conference Notes.

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# IT'S MORE THAN JUST SWIMMING LESSONS

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## PRESENTATION

### Introduction

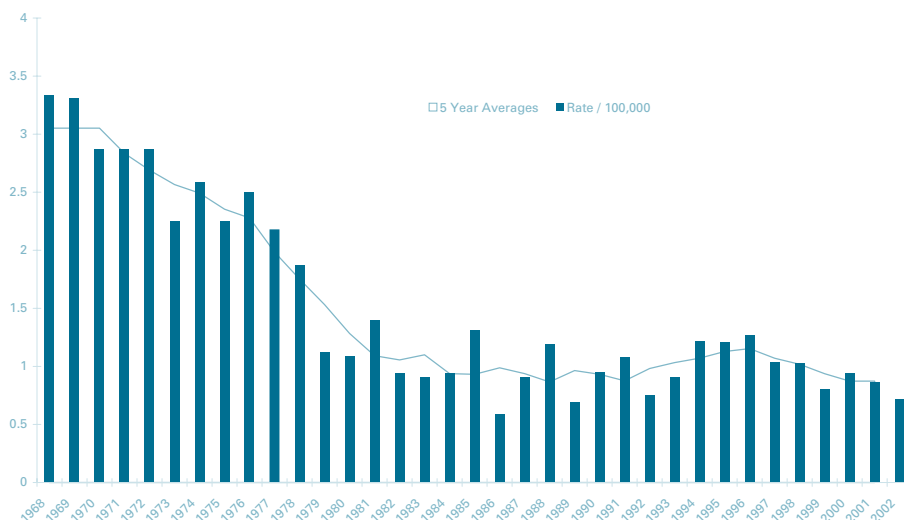
In 1979 a major change in the Australian Aquatic Industry occurred; the development of a formalised program of training swimming and water safety teachers nationally, now widely known as AUSTSWIM. Shortly after in 1982, the Royal Life Saving Society Australia developed a National Swimming and Water Safety program called Swim and Survive.

Swim and Survive is a broad, balanced program of swimming, water safety and survival skills which has been educating 5-14 year olds for over 20 years. It is delivered by qualified instructors in schools, school schools, pools and government departments throughout Australia. Swim and Survive aligns itself with the National Water Safety Framework and School Curriculum ensuring that competencies are matched with a child's development.

Swim and Survive aims to reduce the drowning deaths and aquatic incidents of the 5-14 years age group throughout Australia by ensuring that children have a sound knowledge of how to be safe when in, on and around the water, as well as skills in swimming, personal survival and basic rescue. It is believed that for a reduction of drowning deaths to occur there needs to be a change in behaviour regarding water safety as a result of changed knowledge, attitude and skills.

Since the commencement of Swim and Survive, approximately 10 million Australians have participated in the program. Since 1978, there has been a 75% reduction in the rate of drowning deaths in the 5-14 years age group. (Figure 1)

**Figure 1. Drowning deaths per 100/000 of children aged 5-14 years, Australia 1968-2002**



## ABSTRACT

In 1979 the development of a formalised program of training swimming teachers, now widely known as AUSTSWIM occurred. Shortly after in 1982, the Royal Life Saving Society Australia developed a National Swimming and Water Safety program called Swim and Survive.

Since the commencement of Swim and Survive and the development of the aquatics industry including commercial swim schools, there has been a 75% reduction of the drowning deaths in the 6-14 years age group over the last 20 years.

Traditionally swimming and water safety lessons were predominantly conducted by government organisations who hired lane space at local council operated facilities. The lessons were generally organised in two week blocks either during the school term or holidays in the summer months.

Today the operation has expanded not only to include the more traditional methods of delivery but more than likely children are being taught throughout the year in indoor heated facilities attending lessons on a weekly basis.

As the aquatic industry has progressed, Royal Life Saving recognised the need to provide a comprehensive program that not only offered a structured program of skills. The realisation that it is more than just lessons has led Royal Life Saving to take a holistic approach to endeavour to encompass all areas of water safety education and engage a wider target market than those undertaking lessons.

This presentation will focus on the Swim and Survive program and the associated initiatives that Royal Life Saving has developed for Swim Schools, Schools, Swimming and Water Safety Teachers, Children and Families in order to provide and promote water safety education with the aim of reducing the drowning death statistics.

### Links to the National Water Safety Plan

In the most recent National Water Safety Plan 2004-07, Water Safety Education was identified as the highest priority in the Key Result Areas, as it provides the knowledge and skill base required to further develop all other water safety concerns. The drowning statistics and associated injuries demonstrate that the community is not yet well educated on the dangers of aquatic environments.

All Australian children must be given the opportunity and encouraged to achieve a minimum benchmark level of competence prior to leaving primary school as specified in the Personal Aquatic Survival section of the National Swimming and Water Safety Framework . For primary school children the benchmark is best represented by the competencies equivalent to those outlined in RLSSA "Swim and Survive Level 4".

Royal Life Saving is continuing to work towards this key result area.

### Holistic Approach to Water Safety Education

As the aquatic industry has progressed, Royal Life Saving recognised the need to provide a comprehensive program that not only offered a structured program of skills. The realisation that it is more than just lessons has led Royal Life Saving to take a holistic approach to endeavour to encompass all areas of water safety education and engage a wider target market than those undertaking lessons.

To achieve this and the aims of the Swim and Survive program, Royal Life Saving has implemented a number of initiatives in the areas of education for children, swim schools and teachers, parents and community including:

#### Child Education

Water Safety education for children has been targeted in 3 areas; at the pool, at school and at home.

#### At the Pool:

- National swimming and water safety program: Swim and Survive

The Swim and Survive program was developed to provide practical swimming, water safety and survival skills that could be implemented in a range of locations nationally providing access for as many children as possible.

#### At school:

- Wet 'n' Wise / Swim and Survive Schoolpak

The Wet 'n' Wise Water Safety Classroom Resource Kit was produced in 2000 offering a diverse range of multimedia, hands on classroom resources and teaching ideas about water safety. The kit contains curriculum materials linking with the Australian national and state curriculum profiles including activities directed towards achieving learning outcomes.

Currently the resource is being re-developed as the Swim and Survive Schoolpak.

#### At home:

- Website: [www.swimandsurvive.com.au](http://www.swimandsurvive.com.au)

The website is a comprehensive and dynamic resource aimed towards enhancing children's learning of water safety knowledge and skills. It provides the opportunity for children to continue their learning and development in water safety through fun games, activities, quizzes and competitions.

This quote from a mother of a child participating in the monthly website competition demonstrates the positive experience... "Thank-you for a wonderful site for the kids, it has taught Travis and his brothers and sisters a lot of useful stuff when it comes to swimming and water safety" (Tracey, Qld)

- Aquaquiz

A booklet with a range of fun water safety activities for children participating in all levels of the Swim and Survive program including crosswords, fill in the words, matching pictures and other puzzles.

### Swim School and Teacher Education

Royal Life Saving have developed resources and professional development to enhance the quality of lessons conducted and the standard of instruction in order to improve water safety education for participants.

- Aquapak

A comprehensive and practical planning resource that assists the teacher to understand and develop skills in the Swim and Survive program for each individual, to develop a well balanced program and provide a wide range of activities and drills to involve all students in challenging aquatic activity.

- Professional Development

The continuing development of teachers is extremely important in improving water safety education and instruction. A Swim and Survive professional development course to assist current and new teachers in the delivery of the program was developed. Providing avenues for the updating of skills and knowledge through learning and networking can only further enhance the experience of water safety education for children.

### Parent & Community Education

Royal Life Saving has adopted a number of strategies to educate parents and the general community on water safety including through the media, newsletters events and fact sheets.

- Active Family Fun Days

These special events conducted at Endorsed Swim Schools were introduced to promote the Swim and Survive program to a wider community audience and promote active participation in learning basic water safety, survival and rescue skills. The aim was to encourage families to learn together and emphasise the importance of parents and carers responsibility in children's water safety education.

- Fact Sheets

A series of 16 informative fact sheets have been developed to educate parents, carers and the community of a range of water safety issues, dangers of aquatic environments and activities and tips for safe participation and supervision.

### Evaluation of the Swim and Survive Program

It is recognised that evaluation of Swim and Survive is critical to further developing and improving the program to ensure that it meets the education needs of participants. It provides an opportunity for the stakeholders to provide valuable feedback, to review all aspects of the program including content, delivery, marketing, and to analyse the outcomes. From there recommendations are made and strategies implemented to ensure the program is up to date with the progressions in the aquatic industry and to meet the needs of all stakeholders.

The program underwent a National review in 1997-98 and recently in 2004-05. A number of major outcomes resulted from these reviews including developing new support resources, strategies to build relationships with stakeholders, implementing professional development and increasing promotion and awareness of the Swim and Survive program. Continuing evaluation of the Swim and Survive program is vital to ensuring provision of a broad and well balanced water safety education program.

### Conclusion

In conclusion, if we want to change the water safety behaviours of individuals we must understand that a change of knowledge, skills and attitude must occur. As Water Safety is not common sense, knowledge, skills and attitude need to change through education and experience, both theoretical and practical. Practical swimming and water safety skills and the application of knowledge and attitude can be consolidated through participation in lessons. The development of knowledge and attitude can be encouraged through dry land experience. A quality swimming and water safety program must encompass all areas of learning; provide opportunities to learn in a range of environments through a range of experiences and through a number of different channels. It is not only the child that needs to be educated but schools, teachers, parents and the community.

*So you see...it's more than just swimming lessons.*

### Acknowledgments

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# PRESENTATIONS: RISK FACTORS

## RISK FACTORS FOR NON-DROWNING INJURY IN RECREATIONAL SWIMMING

### ABSTRACT

Swimming is a popular recreational activity and is the leading cause of aquatic injury in New Zealand, costing \$8m p.a. in compensation claims. While many postulated risk factors have been identified in the literature, few have been confirmed through analytic studies. The aim of this study was to measure the independent effect of a number of commonly postulated factors, as a means of facilitating the development of targeted interventions.

An unmatched case-control study was undertaken, with the source population swimming events: i.e. events in which a person is substantially immersed in water for the purpose of swimming or bathing. Information on events was obtained from compensation claimants aged 5 to 65 years. For cases claimants were asked about the swimming event responsible for their claim, while for controls claimants were asked about a recent non-injury swimming event. Data collection was by telephone interview. Questionnaires were completed for 997 case and 1,165 control events.

The commonest injury was laceration, the commonest body region the head/neck, and the commonest cause collision. Regression analyses were undertaken, with adjustment for confounding factors and a single model was fit to the data. Significant risk factors in the final model included ability to swim 200 metres comfortably in open water (2.24; 95% Confidence Interval: 1.77, 2.82), unfamiliarity with the water body concerned (1.51; 1.19, 1.92) and first entry from a height greater than 1 metre (2.81; 1.78, 4.42). Significant protective factors included swimming once or more a month versus less than once a month (0.66; 0.48, 0.90).

This study has identified several factors which may be targeted in the development of interventions aimed at reducing the risk of injury in recreational swimming, particularly swimming ability, experience and entry to the water. The study has also confirmed some commonly promoted water safety messages, while questioning others.

### PRESENTATION PAPER

#### Introduction

Swimming is a popular recreational activity and is the leading cause of compensation claims for aquatic injury in New Zealand, costing \$8m per annum.<sup>1</sup> While many postulated risk factors have been identified in the literature, few have been confirmed through analytic studies.<sup>2</sup> The aim of this study was to measure the independent effect of a number of commonly postulated factors, as a means of facilitating the development of targeted interventions.



The factors of interest were gender, age, ethnicity, swimming ability, swimming experience, reason for swimming, type of water body, familiarity with water body, first entry (height, depth of water, clarity of water), alcohol consumption, swimming alone, swimming at night, wearing clothing, water flow (rivers), swimming between the flags (beaches), checking depth of water, checking for hazards, swimming aids, flotation devices and warning signs.

### Methods

An unmatched case-control study was undertaken, with the source population being swimming events (occasions): i.e. events in which a person is substantially immersed in water for the purpose of swimming or bathing, commencing from the moment the person approaches the water and ceasing the moment the person leaves the immediate vicinity of the water. Included were competitive swimming and diving, snorkelling, being rescued, wading, slipping or falling from structures and entry by any means (e.g. diving, jumping, walking).

Excluded were deaths, work-related activities, swimming associated with boating or surfing, organised games (e.g. water polo), undertaking a rescue and being pushed or falling into water when not intending to swim.

Data on case and control events were obtained from compensation claimants aged 5 to 65 years, who had lodged a claim with the Accident Compensation Corporation (ACC) - administrators of New Zealand's compulsory, no-fault accident compensation scheme, in the period November 2004 to April 2005.

For case events (hereafter referred to as cases) claimants were asked about the swimming event responsible for their claim, while for control events (controls) claimants were asked about a recent non-injury swimming event. To reduce recall bias the swimming event had to have occurred within four weeks prior to interview. All data collection was by telephone interview. Questionnaires were completed for 997 case and 1,165 control events.

**Table 1. Nature and circumstances of injury (cases)**

	Number	Percentage	
<b>Type<sup>1</sup></b>	Haematoma, bruising, swelling	313	33
	Cut, laceration	233	26
	Sprain, strain	233	24
	Damage to teeth	121	13
	Graxing, abrasion	70	7
	Fracture	56	6
<b>Body region<sup>1</sup></b>	Head, neck	476	50
	Lower limb	373	39
	Torso	199	21
	Upper limb	106	11
<b>Circumstances</b>	Collision	577	60
	Object/person in water	198	21
	End/side of pool/water body	169	18
	Bottom of pool/water body	150	16
	Fall	117	12
	Poolside/ground	74	8
	Into water	43	4
	Struck by wave	63	7
	Stood on sharp object	36	4

<sup>1</sup>Multiple responses were permitted.

## Results

In 54% of cases and 57% of controls the swimmers were male. The mean age of cases was 21.8 years and the mean age of controls 22.2 years. In 81% of cases and 80% of controls the swimmers were New Zealand European, and in 13% of cases and 11% of controls the swimmers were Maori.

For the cases, the commonest injury was a haematoma, bruising or swelling; the commonest body region injured was the head/neck; and the commonest cause of injury was a collision (Table 1).

Separate regression analyses were undertaken for each of the 23 factors investigated, with adjustment for potential confounding factors.

A multivariate regression model was then fit to the data. On the basis of the initial analyses, swimming alone or out of sight of others and swimming at night in unlit water were omitted from the multivariate model. Water flow and swimming between the flags were also omitted from the model because they were restricted to events occurring at rivers and beaches.

**Table 2. Multivariate model**

		Odds Ratio	(95% CI)
<b>Demographic</b>			
Gender	Female	1.00	
	Male	0.95	(0.77, 1.16)
Age group (years)	Less than 15	1.00	
	15-24	1.16	(0.86, 1.55)
	25-44	0.58	(0.43, 0.77)
	45 or more	0.59	(0.42, 0.83)
Ethnicity	Non-Maori	1.00	
	Maori	1.25	(0.92, 1.69)
<b>Swimming ability and experience</b>			
Able to swim 200 metres in open water	No/don't know	1.00	
	Yes, feel anxious/very anxious	1.30	(0.92, 1.83)
	Yes, feel comfortable	2.24	(1.77, 2.82)
Frequency of swimming	Less than once a month	1.00	
	Once a month or more	0.74	(0.52, 1.05)
<b>Event</b>			
Main reason for swimming	Other (exercise, training, competition)	1.00	
	Recreation	1.54	(1.16, 2.03)
Type of water body	Swimming Pool	1.00	
	Natural water body	0.57	(0.44, 0.74)
Familiarity with water body	Very familiar/Familiar	1.00	
	Not very familiar/Extremely unfamiliar	1.51	(1.19, 1.92)
<b>First entry</b>			
Height of first entry	Less than 1 metre	1.00	
	1 metre or more	2.81	(1.78, 4.42)
Depth of water on first entry	1 metre or more	1.00	
	Less than 1 metre	1.35	(1.09, 1.69)
Water cloudy on entry	Not cloudy	1.00	
	Cloudy	1.41	(1.06, 1.88)

**Table 2. Multivariate model cont.**

		Odds Ratio	(95% CI)
<b>Reckless behaviour, precautions &amp; environment</b>			
Wearing clothing	No	1.00	
	Yes	0.77	(0.61, 0.96)
Wearing swimming aids/flotation devices	Neither	1.00	
	Either	0.45	(0.36, 0.57)
Warning signs present	No	1.00	
	Yes	0.52	(0.41, 0.66)

In the initial analyses, swimming in a fast or moderately fast flowing section of a river was shown to increase the risk of injury (OR=2.82; 95% CI: 0.98, 8.10), while no effect was obtained for not swimming between the flags at a beach [OR(adjusted for age and BAC)=0.97; 95% CI: 0.60, 1.57]. A further five factors were discarded because they made no contribution to the model: uncontrolled entry, checking for submerged objects, checking for submerged swimmers, blood alcohol concentration and knowing or checking the depth of water before first entry. A total of 14 factors were retained in the final model (Table 2).

### Discussion

Of the 14 factors remaining in the model, eight were shown to be associated with increased risk of non-drowning injury: age, ethnicity, swimming ability, reason for swimming, type of water body, familiarity with water body, height of first entry, depth of water at first entry and clarity of water at first entry. Four were shown to be associated with reduced risk of injury: frequency of swimming, clothing, swimming aids/floatation devices and warning signs. The finding that wearing clothing while swimming reduced the risk of injury is counterintuitive and may have resulted from our classification of 'shorts' as clothing. This factor will be re-examined. No effect was obtained for gender but this factor was retained in the model. This finding may have resulted from a gender bias in the population from which controls were sampled. Factors ruled out by the analysis are alcohol consumption, checking for depth and submerged hazards, swimming alone and swimming at night.

The findings suggest that 5-14 year olds, Maori, recreational swimming, swimming pools and first entry are factors that should be targeted for intervention. Common water safety measures relating to familiarity, swimming aids, flotation devices, signs, swimming between the flags (beaches) and avoidance of fast flowing water (rivers) are reinforced by these findings.

Of particular interest is the contrast between swimming ability and swimming experience. Whereas swimmers who felt comfortable about swimming 200 metres in open water were at more than twice the risk of injury compared to those who were unable to swim this distance, those who swam once a month or more were at a 25% lower risk of injury than those who swam less than once a month. These contrasting findings may provide the basis for an intervention that takes account of 'over-confidence' and lack of experience.

### Conclusion

This study has identified several factors which may be targeted in the development of interventions aimed at reducing the risk of non-drowning injury in recreational swimming, particularly swimming ability, experience and entry to the water. The study has also confirmed some commonly promoted water safety messages, while questioning others.

### Acknowledgements

ACC funded this research and provided access to claimants. ACC and Water Safety New Zealand assisted in the development of the questionnaires.

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## ABSTRACT

As the profile of the Australian population changes there will be different problems and challenges that will need to be addressed. Every year there are about 60 people aged 55 years and over, who drown in Australian waterways from the beach to inland rivers and many more who are injured or suffer heart attacks in these locations.

Population projections to the year 2020 have been undertaken examining the effect on the number of older people drowning in Australia. If all other factors except for number of older people are kept constant, there would be between 109-127 drowning deaths in Australia in 2020. Drowning deaths of older people is a unique problem as many older people have not been actively engaged in aquatic activities for many years, they have less mobility, increasing leisure time due to retirement, move closer to water locations, poor resuscitation skills, increasing ownership of boats, and less water safety skills.

This paper examines the drowning deaths of Australians 55 years of age and older using information from the Australian Bureau of Statistics (ABS) for the years 1992-2003. It examines age standardised rates, gender, location, activity, alcohol, season and state information.

With better information on the circumstances of drowning deaths of older Australians programs can be established to address the issues and help prevent these deaths from occurring.

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# OLDER AUSTRALIANS DROWNING DEATHS

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## PRESENTATION PAPER

### Introduction

Every year there are approximately 60 people aged 55 years and over who drown in Australia<sup>1</sup>. Population projections to the year 2020 have been undertaken examining the effect on the number of older people drowning in Australia. If all other factors except for number of older people are kept constant, there would be between 109-127 drowning deaths in Australia in 2020. In conjunction with this, the 'seachange' lifestyle movement will result in a greater number of older Australians being exposed to an aquatic environment<sup>2,3</sup>.

Despite this, most studies on the epidemiology of drowning and water safety programmes in Australia and around the world have focused on children and adolescents<sup>4</sup>. As such, the circumstances surrounding the deaths due to drowning in the older population are largely unknown, and prevention strategies for this age group may differ from those that are currently in place.

A study by Quan and Cummings<sup>5</sup> in Washington State USA, established that drowning deaths in those aged 65 years and older were evenly divided between bathtub and open water, and pre-drowning activities were divided into boating, swimming, car passenger, bathing and falling in whilst doing something else. They concluded that drowning in this age group has not been well described, and the characteristics of this age group differed from other age groups.

This paper examines the circumstances surrounding drowning deaths of Australians 55 years and older.

### Methods

Information from the Australian Bureau of Statistics deaths information database were analysed for trends in deaths from 1992-2002. This information was supplemented with data surrounding drowning deaths extracted from the National Coroners Information System. This database contains information about every death reported to an Australian coroner since July 2000 (January 2001 for Queensland). Only closed cases were examined that had been registered between 2004-2006. Data extracted included age, gender, date of drowning, water type (eg bath, pool, ocean etc), activity prior to death, alcohol/drugs and a short description of circumstances.

## Results

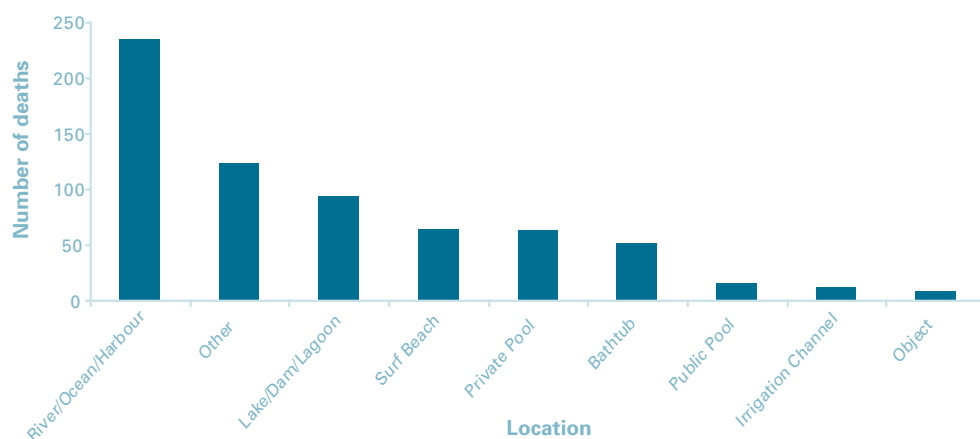
Between 1992 and 2002 there were 681 people aged over 55 years who died following a drowning incident. The most common locations where they drowned were river/ocean/harbour, and lake/dam/lagoon (Figure 1). The most common activities people were undertaking immediately prior to drowning were fell or wandered into, swimming, watercraft accident (Figure 2).

The circumstances surrounding 74 accidental drowning deaths of people aged 55 years or older were analysed. The median age was 67 years, with the oldest person being 89 years. 72% of the victims were male, with most of the drowning deaths occurring in NSW (Table 1).

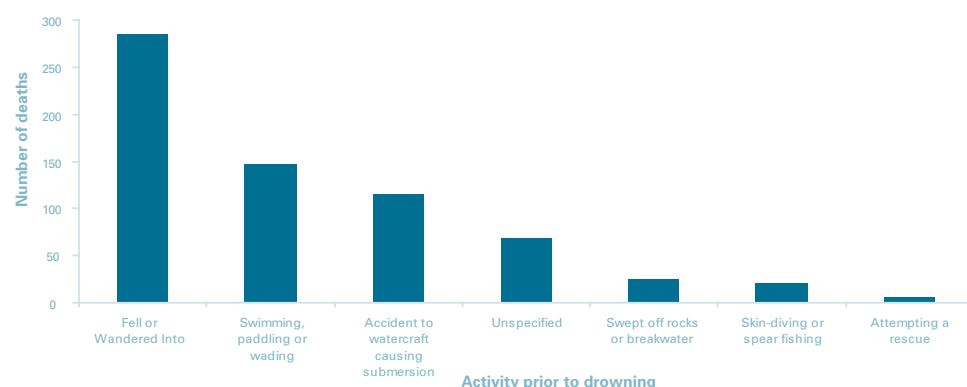
**Table 1: Demographic details of 74 drowning deaths occurring in Australia 2004-2005, NCIS Data**

Demographics	n	(%)
Age	55-59	12 (16)
	60-64	21 (28)
	65-69	12 (16)
	70-74	6 (8)
	75-79	10 (14)
	80-84	10 (14)
	85-89	3 (4)
Gender	Male	53 (72)
	Female	21 (29)
State	New South Wales	25 (34)
	Queensland	15 (20)
	South Australia	11 (15)
	Tasmania	4 (5)
	Victoria	19 (26)

**Figure 1**  
Location of drowning death, ABS Data 1992-2002



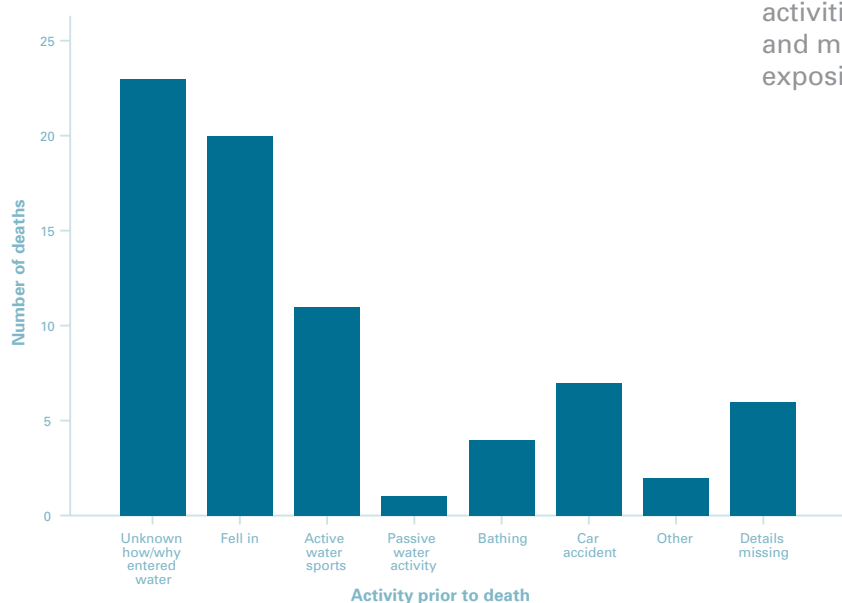
**Figure 2**  
Activity prior to drowning, ABS Data 1992-2002





It is unknown how or why the 23 of cases entered the water, as all of these cases were alone prior to their death. All those who were deemed to have fallen in the water whilst walking were also alone prior to their death (4 cases). Other activities prior to death include falling in (on a boat or fishing), water activities, bathing and car accidents. The majority of all deaths occurred while the victim was alone (Figure 3).

**Figure 3**  
**Activity prior to death, 2004-2005 NCIS Data**



Alcohol or drugs was a factor in 13 deaths, however 26 cases had insufficient information for this to be determined. Other medical events (eg. heart attack, seizure) may have attributed to, or directly caused ten deaths, however the autopsy report is inconclusive. A further 11 deaths do not have enough detail to determine if other medical problems may have contributed.

A greater number of deaths occurred during the warmer months (October-March, 48 deaths), with 11 deaths occurring in January. Fewer deaths were recorded in the colder months, with July and August registering 3 deaths each.

#### Discussion / Recommendations:

The majority of drowning deaths in those aged 55 years and older occurred while alone. As a result, the specific details surrounding these deaths are unknown and merely speculated. In many of these cases, how the individual came to be in the water is never known. It must be wondered if these deaths could have been prevented by being in the company of others.

Although only a small number of deaths that may have been associated with either drugs/alcohol or other medical events, the substantial number of cases without sufficient information is an issue of reporting that needs improving.

It is widely accepted that as people age, competing mortalities increase, and mobility gradually decreases. It would be beneficial for those people who plan on participating in water activities (swimming, boating etc) to have regular check-ups with their doctor and seek advice regarding planned activities. Being aware of one's limitations, stability and medical conditions may result in fewer people exposing themselves to potentially fatal situations.

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# ALCOHOL & WATER SAFETY

## WHAT IS THE ISSUE?

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### ABSTRACT

#### Aims and Purpose

Don't Drink and Drown aims to increase the awareness and knowledge of 15-29 year olds of the risks of consuming alcohol and participating in aquatic activities.

#### Methodology

Drowning statistics and identification of the issue within the National Water Safety plan was the impetus for developing a campaign to address the issue. Focus groups were initially conducted with the target group to better understand their current awareness, knowledge, attitudes and behaviours in regard to the consumption of alcohol and participation in aquatic-based activities.

Based on these findings, a pilot project within the City of Stirling (a large local government municipality in Perth) was developed and implemented. A state-wide media campaign supported the initiative.

#### Findings

At the conclusion of the project there were prominent improvements in the awareness of the target group. Within the City of Stirling there was a 35% increase in those able to name alcohol as the main factor contributing to drowning. There was a 50% unprompted slogan recall and when prompted, this rose to 82%.

There were changes in knowledge with a significant increase in recall of disturbance of the inner ear as an effect of alcohol consumption.

#### Conclusions and Recommendations

The pilot strategy evaluation indicated that attempting to reach the target group through geographic communities was not the most effective strategy. Based on these findings, a state-wide Don't Drink and Drown campaign was developed and launched in 2004 that promotes the message to the target group through youth-based clubs and events that centre their activities on or around the water.

## PRESENTATION PAPER

### Background / Introduction

Australia's climate and geographic conditions are conducive to water-related activities and recreation around the water has become a popular leisure activity for many Australians. Unfortunately, these activities can be associated with injury and the loss of life through drowning. Drowning represents the fifth most common 'external cause of death' in Australia behind suicide, motor vehicle accidents, accidental falls and homicide. The costs associated with drowning are extensive. A recent report placed the cost of drowning at \$1.6 million per individual who drowns (Hendrie, 2003). The real tragedy is that every drowning is preventable.

**Don't Drink  
and DROWN**



Younger members of the community bear the greatest burden of injury that arises as a result of drowning. Drowning is responsible for a greater number of potential years of life lost (PYLL) per incident than any other injury (Gillam, Legge, Stevenson & Gavin, 2003). Drowning is the third leading cause of unintentional injury deaths among males aged 15-29 years (NHMRC, 1996) and alcohol has been identified as a major contributing factor to these drownings (Australian Water Safety Council, 2004; Steenkamp, Harrison & Allsop, 2002).

High-risk drinking in males is most common among 18-24 year olds (Australian Bureau of Statistics, 1990). It is typical for young adults to regularly participate in risky behaviour. The practice of the consumption of alcohol as part of or preceding aquatic activity is also common among this age group. The lethal combination of alcohol, risky behaviour and aquatic activity has resulted in many injuries and fatalities over the past 10 years and as a result has been identified as a priority area in both the 1998 and 2004 National Water Safety Plans (Australian Water Safety Council, 2004)

In 2003, young adult males accounted for 17% of total drowning deaths in Western Australia (Royal Life Saving Society – WA Branch, 2004). Alarming, 43% of these drownings involved alcohol. This evidence supports the results obtained from a review of studies that found it is generally accepted that between 25% and 50% of drownings may be contributed to by alcohol consumption (Driscoll, Steenkamp & Harrison, 2002).

In response, the Royal Life Saving Society and Surf Life Saving Western Australia initiated the Don't Drink and Drown campaign. Don't Drink and Drown is the latest initiative to tackle the incidence of alcohol related drownings in Western Australia. The campaign aims to reduce the proportion of 15-29 year olds in Western Australia who consume harmful levels of alcohol and participate in aquatic activity.

### Methods

A study of the target population revealed that alcohol was commonly associated with recreational aquatic activity and that there was a seemingly 'positive' risk associated with alcohol and water activities (King & Cross, 2003). Furthermore young people recognised that the potential to injure themselves or others was an issue when drinking around the water. The perceived risks and consequences for others and not themselves seemed to discourage them from drinking around the water (King & Cross, 2003).

Based on these findings, the Don't Drink and Drown campaign was developed and launched in February 2004.

The campaign targeted young adults within the City of Stirling (a small local government area in the Perth metropolitan area) and aimed to inform them of the dangers of consuming alcohol and participating in aquatic activity.

Within the City of Stirling the Royal Life Saving Society specifically worked to not only increase awareness of the issue and the campaign, but also to increase knowledge and promote a responsible attitude towards the consumption of alcohol and participation in aquatic based activity. City of Stirling interventions included promotions and staff training in water-front pubs, clubs and venues. The two surf life saving clubs within the area were approached and the campaign was introduced in these two venues through promotional activities and responsible service of alcohol training for bar staff. The campaign message was also promoted at the Cosmonautical Youth Music Festival.

In addition the campaign worked with the Department of Education and the Department of Planning and Infrastructure to include alcohol and water safety messages within the Alcohol and Drugs School Strategy and Boat Smart training. Alcohol and water safety messages were also included in both the Royal Life Saving and Surf Life Saving Bronze Medallion awards.

### Results / Evaluation

Pre and post-phone surveys were conducted to assess the awareness, knowledge and attitudes of both the City of Stirling youth as well as youth from the rest of the state. Results found that there was a 48% unprompted response of the campaign brand and 82% prompted recall of the brand. 67% perceived that the campaign would affect attitudes towards the issue. There was a significant increase in the knowledge of City of Stirling residents regarding alcohol and water safety issues and prevention. The media campaign was evaluated as being very effective with over 80% of respondents having seen the advertisement.

The key recommendations for the campaign were based on the event surveys and the final evaluation results. These included:

- To continue the media campaign as an effective awareness strategy
- To promote the message in activities that specifically target the 15-29 year old age group as we found that if parents or younger children were present, they were less likely to approach us and become involved in the activities and
- Likewise to promote the message in association with an aquatic activity or near an aquatic environment to contextualize the message.

Based on these recommendations the state-wide intervention was developed and launched in November 2005. The aims and objectives of the state-wide campaign are similar to that of the pilot project with objectives focusing on target group awareness, knowledge and attitudes towards alcohol and water safety issues. The additional objective in the state-wide campaign is to increase collaboration between the government, private sector and community organisations on the issue of alcohol and water safety.

The purpose of the campaign is to implement Don't Drink and Drown to the target group in Western Australia through the distribution of the Don't Drink and Drown Kit to targeted youth-based activities, clubs and events that centre their activities on or around the water.

### Discussion

The campaign with support from the Alcohol Education and Rehabilitation Foundation has been successful and is continuing to prevent damage to property, injury and drowning caused by the consumption of alcohol and participation in aquatic activities among young adults in Western Australia.

The experiences gained from both the pilot and the state-wide interventions have provided us with a good understanding of the target group and the issue. It has also provided a good understanding on how best to access and influence a traditionally difficult target group. The challenge now is to maintain and further enhance the levels of knowledge and awareness amongst the target group and begin to influence their attitudes towards alcohol and water safety issues and their subsequent behaviour. These are long-term goals of the campaign and significant results are not expected to be seen in the short-term.

The Don't Drink and Drown campaign has now reached a point where it has been developed into a succinct and easy to use package which can be transferable as the campaign continues to expand.

### Conclusion

The Don't Drink and Drown campaign has now been running for two years and has been successful in increasing the awareness and knowledge of the risks and dangers associated with the consumption of alcohol and participation in aquatic activities among young adults. The media campaign has been particularly successful with a high percentage of the target group recalling the television advertisement. The results of the state-wide intervention will be available in July 2007.

The next challenge is to affect the attitudes of the target group regarding levels of alcohol consumption considered appropriate for participation in aquatic activities and their subsequent behaviours.

### Acknowledgements

The Royal Life Saving Society and Surf Life Saving Western Australia would like to acknowledge and thank everyone involved in the development and implementation of the campaign. In particular we would like to thank:

- The Alcohol Education and Rehabilitation Foundation for their continued funding and support of the campaign
- The members of the Working Party for both the pilot and the state-wide interventions for their assistance and expert advice through the development and implementation of the campaign.

Representatives include:

- Department of Planning and Infrastructure
- Drug and Alcohol Office
- Office for Children and Youth
- Local Drug Action Groups
- Sports Medicine Australia
- Rottnest Island Authority
- Hotel Chaplaincy
- Our network of volunteers for their support and enthusiasm
- The participating Don't Drink and Drown clubs and events for assisting us to reduce the number of alcohol-related drownings in Western Australia.

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# DROWNING DEATHS IN THE COLONY OF VICTORIA

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## ABSTRACT

### Introduction

Death due to drowning was historically a substantial problem in Australia, but over time this cause of death has been markedly reduced. However, recent data has indicated that in low and middle-income countries, drowning deaths continue to be a substantial problem. The drowning rates in these countries resemble those experienced in high-income 100 years ago. However, while it is apparent that dramatic improvements have been made in Australia, it is not clear exactly how this has been achieved. It is expected that an understanding of how this was achieved could inform drowning prevention in developing communities.

This study determines the circumstances associated with drowning deaths in the state of Victoria, Australia, in its early development.

### Methods

Drowning rates were determined for the nineteenth and twentieth centuries. Records of Coronial Investigations were accessed to determine the circumstances associated with drowning deaths.

### Results

1863 was identified as a year of very high risk for drowning, with children aged 9 years and younger being particularly at risk. Analysis of Coronial Investigations for that year showed drowning deaths were associated with a number of social and environmental factors including the presence of water hazards, level of development of built environment, supervision of young children and lifestyle.

### Conclusion

Historical analysis of Victoria's experience of drowning has identified a number of factors associated with drowning deaths in a developing community. It is expected that these findings and those of further research could be used to inform the process of drowning prevention in developing countries.

## PRESENTATION PAPER

### Introduction

Death by drowning is a substantial global problem. The World Health Organisation has estimated that almost 400,000 people drowned in 2002 (1) and drowning is the second leading cause of unintentional injury death globally after road traffic. However, the burden of drowning is not distributed evenly, with 97% of drownings occurring in developing countries.

Australia, along with other high-income communities, now experiences relatively low drowning rates. However, in earlier times the drowning problem in Australia resembled that of lower income countries today.

While it would be hoped that developing countries could draw on the experience of higher income countries to inform their drowning prevention strategies, there has been only limited systematic evaluation of interventions on which their prevention processes can be based.

This study is part of a broader research program that attempts to inform the prevention of drowning in developing countries by investigating drowning and its prevention in the state of Victoria. The broad study investigates drowning during Victoria's phases of social and economic development from the 19th to 21st centuries. The present paper presents results from one part of the broader study.

The aims of this study were to:

1. determine magnitude and patterns of drowning in 19th century Victoria,
2. identify periods of particular interest,
3. and for the periods of interest, determine causes, circumstances and other factors associated with the deaths.

### Method

Historical mortality and population records (2) were used to determine drowning death rates from 1861 to 1899.

On the basis of the mortality data, a year of especially high drowning mortality was identified and investigation was carried out to determine the causes and circumstances associated with the drownings in that year using records of coronial investigations. From 1840, coronial investigations were conducted into drowning deaths in Victoria, and written records of these inquiries are held by the Public Records Office of Victoria.



Relevant cases were identified through the Macbeth Inquest Index (3) and information was extracted from narrative accounts and statements in the coronial records for the year of interest. The data were analysed to identify a range of factors including age and gender, typical scenarios and main causal themes.

## Results and Discussion

### Drownings from 1861 to 1899

A total of 11,852 drownings were recorded. At all years the male drowning rates (maximum 80.7/100,000 to minimum 22.9/100,000) were substantially higher than female rates (maximum 19.2/100,000 to minimum 4.8/100,000), with both sexes showing a general downward trend over time.

For both males and females, drowning rates were highest in 1863. For males this was particularly marked, with a rate of 80.7 compared to the male average of 38.4 for the 1861-1899 period.

### Drownings in 1863

While the full findings of this study are to be reported elsewhere, the focus of this paper is the year 1863, as this was identified as having the highest drowning rate for the period. It also focuses on child drownings as it was found that in 1863 drowning was predominantly a problem of the young. Half of the drowning cases were found to be children aged 9 years or younger.

Six main scenarios were identified as being associated with child drownings in 1863:

- Mother is engaged in some other activity, and a young child drowns in a body of water, or container of water at or near the dwelling.
- A child accompanied by other children playing, fishing or walking near water unintentionally enters the water.
- A child is sent on an errand, fails to return and is found in a waterhole, creek or dam.
- A young child in the care of an older child is left unsupervised by that child.
- A child attempts to cross a creek or river on a log or plank and falls into the water.
- A child is found drowned in a digging or hole that is usually dry but has been recently filled with rainwater.

There were three main causal themes identified. Firstly, it appeared that children were exposed to a relatively large number of water hazards in their daily environment. Many of the children drowned in bodies of water at or near their home (creeks, rivers, waterholes, dams, wells) or that they passed near, or had to cross, to get to school.

Secondly, most cases were associated with an absence of adult supervision. For some cases younger children were left in the care of their older siblings, and this arrangement had failed to provide adequate protection, the older child being unaware of the need for vigilance or being unable to assist when difficulties arose.

Thirdly, it appeared that very few children, or adults, were able to swim, and had little knowledge of rescue or resuscitation

This combination of hazardous environment, absence of supervision and lack of water survival skills proved fatal for many young children.

### Why was 1863 so bad?

The finding that 1863 was associated with substantially higher drowning rates is worthy of attention. This issue is still under investigation, and is likely to involve a number of factors. One factor that became apparent in the coronial records was the occurrence of high rainfall levels. However, while for a small number of cases heavy rains resulted in people being swept away by floodwaters running across land, mostly the effect was less direct than this.

For children, high rainfall levels became a problem as the water hazards present in their environment became even more hazardous. Previously empty holes were filled with water, shallow waterholes became deeper holes, levels of creeks and rivers rose, and the force of their current was greater. So if unintentional water entry occurred under these conditions, the outcome may have been more likely to be fatal.

For adults, the crossing of rivers appeared to present particular problems during periods of high rainfall levels. In the absence of bridges, adults crossed rivers on horseback, in horse drawn vehicles, on foot, by boat or by swimming.

The increased levels and flow rates of rivers after rain were seen to cause problems with all types of crossing. Horses were either panicked by the situation or lost their footing in the strong currents and were swept away. Attempts to cross at previously safe fords were now dangerous due to changed levels and flow rates. Where bridges existed but were covered with water, attempts to cross them could result in people or horses being swept off the bridge, or stepping over the edge as they were unable to see its boundaries.

### Developing countries

As the aims of this, and the broader study, are to inform drowning prevention in developing countries it is important to ascertain that the findings have relevance to the contemporary situation. Recent findings (4, 5) are showing close parallels between current drowning patterns in developing countries with those of 19th century Victoria. This demonstrates the relevance of this history to inform the present and therefore the future, as it is expected that the findings of the broader study will provide sign posts for these countries as their conditions change.

### Conclusion

Historical resources can be a rich source of information having relevance to the present and the future. The records of coronial investigations conducted into 19th century drowning deaths were found to provide a clear picture of the circumstances and causes of the deaths. The study highlighted the particular problems for children living in a developing community where the combination of hazardous environment, absence of supervision and lack of water survival skills put them at particular risk of drowning.

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5. 1st International Workshop on Drowning Prevention in China, Beijing, November 2005.

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# PRESENTATIONS

## CULTURALLY AND LINGUISTICALLY DIVERSE COMMUNITIES

# INTERACTIVE TRAINING TOOLS FOR THE INDIGENOUS COMMUNITY

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FLOSS ROBERTS

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## PRESENTATION PAPER

### BACKGROUND/INTRODUCTION

#### 1. What are the aims and objectives for the project/program/service?

- Develop training and assessment tools for the AUSTSWIM Teacher of Swimming and Water Safety course that meets the learning needs of the indigenous participant but still satisfy the learning outcomes of this course.
- Increase training opportunities to the indigenous community to gain AUSTSWIM accreditation to provide them the skills to teach swimming and water safety to children and adults in their own communities.
- This initiative will ultimately increase the number of AUSTSWIM teachers in indigenous communities
- By training more AUSTSWIM teachers it is anticipated more children will be exposed to water safety education programs.

It has been identified that training and some assessment could be delivered using an interactive resource called 'Marvin'. MARVIN has been successfully used by the NT Government on a range of initiatives. MARVIN is a training and education solution that produces interactive presentations using easily identifiable digital personalities tailored to target audiences. In effect, using an AUSTSWIM prepared script; an indigenous 3D animated character explains the various elements of the AUSTSWIM course content, in the most common local dialects of the NT. A library of 15 characters can also be used for other audiences, with even an option of developing personalised AUSTSWIM characters in the future.

#### 2. Why was the project/program/service developed?

- It has been identified through the AUSTSWIM NT State Advisory Committee that the current delivery and assessment methods of the AUSTSWIM Teacher of Swimming and Water Safety course did not meet the needs of the indigenous participants.
- There is a demand in the NT and other states to provide opportunities for indigenous communities to gain AUSTSWIM accreditation.

## ABSTRACT

AUSTSWIM is currently developing an interactive learning resource to assist in the delivery of the AUSTSWIM Teacher of Swimming and Water Safety course in the indigenous community. This initiative will ultimately increase the number of AUSTSWIM teachers in indigenous communities. By training more AUSTSWIM teachers it is anticipated more children will be exposed to water safety education programs.

The interactive resource is called MARVIN and has been successfully used by the NT Government on a range of initiatives. MARVIN is a training and education solution that produces interactive presentations using easily identifiable digital personalities tailored to target audiences. In effect, using an AUSTSWIM prepared script, an indigenous 3D animated character explains the various elements of the AUSTSWIM course content, in the most common local dialects of the NT. A library of 15 characters can also be used for other audiences, with even an option of developing personalised AUSTSWIM characters in the future.

AUSTSWIM intends to trial the use of this resource in the NT then implement it throughout other states. The AUSTSWIM National Strategic Plan for 2004 – 2007 has highlighted the need to commit to ESL Sustainability. With this Key Result Area in mind, MARVIN can also be applied to other ESL communities therefore providing AUSTSWIM the opportunities to deliver the AUSTSWIM course to specific ESL groups.

### 3. Where is it located?

- The initial training courses will be trialled in the NT with the long term objective to offer the training in all states.

### 4. Who are the target group/stakeholders?

- Indigenous communities.
- MARVIN can also be applied to other ESL communities, therefore providing AUSTSWIM the opportunities to deliver the AUSTSWIM course to specific ESL groups.

### 5. Was there any community participation

- In conjunction with RLSS NT input will be sort from local indigenous communities before the first course is delivered to gain feedback and input to ensure it meets their needs.

## METHODS

The program is currently in development phase in consultation with AUSTSWIM representatives in NT. It is planned that the revised training material using MARVIN will be trialled in an indigenous community later this year.

## RESULTS/EVALUATION

Not able to provide this yet a product still under development

## DISCUSSION

- The growing need to train swimming instructors in the remote regions of Australia
- Issues faced when delivering the AUSTSWIM course in indigenous communities
- How the program can be adapted to other sectors of the community including CALD
- Using MARVIN to increase client responsiveness to training programs
- Tailoring the program to meet individual needs will increase the opportunities of those otherwise unlikely to attend or complete a course.

## CONCLUSION

The trial will determine the sustainability of the project and opportunities to replicate the model for other minority groups. Through feedback from the indigenous community and presenters of the program using MARVIN, effectiveness of the program will be evaluated.

## ACKNOWLEDGEMENTS

AUSTSWIM would like to acknowledge the generous support provided by the Commonwealth Government, through the Department of Communications, Information Technology and the Arts.

Relevant links: [www.marvin.com.au](http://www.marvin.com.au)

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# WATER SAFETY PROGRAMS FOR ARABIC YOUTH

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## ABSTRACT

### Introduction

Culturally and linguistically diverse (CALD) communities in Australia have been identified as "at-risk" of drowning. CALD communities are one of the priority areas for action in the National Water Safety Plan 2004-2007. The Arabic speaking population in metropolitan Sydney is one of the largest CALD groups, as such, it is important to develop culturally appropriate aquatic water safety and recreational programs to address water safety issues for Arabic speaking people.

### Aim

The aims of the project are to:

- Identify water safety and aquatic recreational issues relating to Arabic Youth
- Develop strategies to address the identified issues

### Methods

A Steering Committee was established in July 2005, and consisted of key stakeholders within the Arabic community and aquatic recreation industry. Focus groups were conducted with a number of selected groups to gain information about their views and experiences of safety, recreation and employment within the aquatic industry.

### Results

A scholarship program was established, with over 40 participants completing aquatic training in Bronze Medallion, Pool Lifeguard, Senior First Aid and AUSTSWIM teacher qualifications. An Active Family Fun Day was organised to promote healthy, active, and fun participation of Arabic families in aquatic activities. These Vocational Educational Training (VET) programs will increase the capacity of the Arabic community to improve access to water safety and aquatic recreational activities.

This paper will discuss the project, issues arising during the project and how they were addressed, as well as future water safety activities planned in partnership with Arabic community organisations, Royal Life Saving and the aquatic recreation industry.



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### Acknowledgements

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Recreation  
Granville Swim Centre  
Canterbury Hurlstone-Park RSL



## PRESENTATION PAPER

### Background / Introduction

In July 2005, the Royal Life Saving Society Australia (RLSSA) through the NSW Branch (RLSNWS) conducted a pilot program working with the Arabic Community of Sydney to improve water safety.

The Australian Water Safety Council identifies people from Culturally and Linguistically Diverse (CALD) backgrounds as being at a higher risk of drowning and it has been found that people from CALD backgrounds are under-represented in sport and recreation activities due to:

- A reluctance to use services due to language and cultural differences;
  - Culturally insensitive attitudes of organisations and service providers;
  - Lack of information available in community languages;
  - Lack of culturally appropriate services;
  - Lack of interpreter use or misuse of interpreters;
- and
- Lack of appropriately trained staff to work with CALD people.

RLSSA believes that no CALD group should be disadvantaged due to language difficulties and programs should be developed and implemented to provide CALD groups with access to crucial water safety information and training.

The Arabic language group is the second largest CALD group in NSW. From the 2001 Australian Census, there are 213,940 people from Arab countries who have settled in Australia and it has been estimated that the number of Australians of Arab origin is almost one million.

The aims of the Arabic Youth Aquatic Recreation Project were to:

- Identify aquatic recreation issues relating to Arabic Youth aged 15-24
- Address water safety and aquatic recreation issues identified by the target group
- Develop strategies to increase employment opportunities amongst the target group
- Develop strategies to increase use of aquatic facilities by the target group

Three main areas in Sydney were chosen as the target areas due to their high population of Arabic people; Bankstown, Parramatta and Auburn.

Youth aged 15 to 24 were the target group of this program, as there is an increase in drowning deaths among this group, reflecting behavioural differences such as greater involvement in water recreation, less supervision than applies to those under 15, and a greater tendency to take risks.

### Methods

**Steering Committee-** A steering committee was established with representatives from Royal Life Saving, The Department of Sport and Recreation, Arab Council Australia; and Granville Swim Centre. The representatives involved performed an integral role in supporting the Project Officer in the planning and delivery of the community events and information sessions. Meetings evaluating the progress and delivery were held throughout the program.

**Focus group research-** This research involved organised discussions with selected groups of individuals to gain information about their views and experiences of the Aquatic and Recreation Industry. Three groups were interviewed, including a group of Arabic male and female high school students and a group of high school Careers Advisors from all three targeted areas.

**Scholarship Program-** The main focus of the scholarship program was to provide employment awareness and development in the Aquatic and Recreation Industry. To be eligible to apply for the scholarship, respondents had to have an Arabic background; be aged between 15 and 24 years; speak English and Arabic; have a reasonable level of swimming ability; and be prepared to work in the industry in either a part time or a full time position. The three programs that were offered to recipients of the scholarship were Bronze Medallion Pool Lifeguard & Senior First Aid and AUSTSWIM Teacher of Swimming and Water Safety. To overcome the obstacle of recipients not continuing on to employment at the completion of the courses, partnerships were formed with aquatic centres in the area. These centres provided work experience positions for the recipients and an opportunity to progress onto part-time or full-time employment. This strategy was employed to make the transition from training to employment easier for the recipients.

**Presentation to Careers Advisors-** The focus group evaluation established that teachers frequently consulted with students and had a strong influence on their career paths. As a result of these findings, the Project Officer presented a half an hour information seminar at the New South Wales Careers Advisors Association Forum to discuss the objectives of AYARP and disseminate information brochures on Royal Life Saving Courses and related career opportunities.

**Active Family Fun Day (AFFD)-** The Royal Life Saving Active Family Fun Days encourage healthy, active, and fun participation of families in aquatic activities. To increase the use of aquatic facilities by the Arabic Community, Royal Life Saving and Granville Swim Centre organised an afternoon of activities and invited the community to participate. Features of the day included free entry, activities and resuscitation demonstrations, and a halal barbecue.

### Results / Evaluation

**Steering Committee-** Members of the steering committee, as well as meetings and discussions with employees from Arabic and Islamic Organisations were very valuable in assisting with the organisation of focus groups and developing a culturally sensitive program that targeted the appropriate groups. They assisted in disseminating information about the program and informed the Project Officer of cultural considerations.

**Focus group research-** The majority of the participants were not aware or had not previously considered a career in the Aquatic and Recreation Industry industry. All of the female students were highly involved in sporting activities but due to their adherence to Islam, they were very limited in what aquatic activities they could participate in. This particular group of students face many barriers in relation to swimming attire, location and issues with the presence of males. The majority of the group spoke Arabic at home with their family, but only a few of the respondents could read Arabic. The students suggested that their parents would prefer translated materials. Only a small number of the teachers present were aware of Royal Life Saving's mission and courses. They rarely mentioned career opportunities in the Aquatic and Recreation Industry to their students, citing that they do not have any materials to give them, but were eager to receive student brochures, teacher information manuals and posters.

**Scholarship Program-** 23 (15 males, 8 females) young Arabic people participated in the Bronze Medallion course. 10 (5 males, 5 females) of the recipients who gained their Bronze Medallion continued on to successfully complete their Pool Lifeguard Certificate and Senior First Aid, making them all fully qualified Pool Lifeguards. 8 (4 male, 4 female) of the recipients completed an AUSTSWIM Teacher of Swimming and Water Safety Award, successfully completing the practical and theory components.

**Presentation to Careers Advisors-** The teachers were interested in acquiring brochures and information on Royal Life Saving courses and employment as it became available. Regular and ongoing contact is maintained with the teachers which will be beneficial for possible future interventions.

**Active Family Fun Day-** The AFFD was organised to fulfil the aim of developing strategies to increase use of aquatic facilities by the Arabic Community. A thirty-one degree day ensured approximately four hundred people participated in the activities, games and resuscitation displays.

### Discussion

The ability to swim and first aid skills is a highly valued skill in the Arabic Community and the program has led to safer use and enjoyment of the aquatic environment via the provision of Arabic lifeguards and swim teachers. The program has established a successful collaborative community model and generated research that will be used to address water safety, aquatic recreation and employment issues in other CALD communities.

At the program level, safe aquatic access for the Arabic community was enhanced via the following outcomes:

- Trained bilingual instructors and pool lifeguards
- Increased vocational opportunities for trained instructors and pool lifeguards
- Improved links between Royal Life Saving and Arabic Organisations and the Community, paving the way for future programs

The initiative was very well received by the community. The scholarship recipients and their parents found the program to be beneficial and recommended that it should continue. The appreciation of the community was conveyed through the organisation of the presentation ceremony by Dr. Jamal Rifi. Dr Rifi is a prominent member of the Arabic Community and amongst other things is the Chairperson for Voice of Islam in NSW and a Representative on the Implementation Committee for Arabic Youth Partnership Program.

### Conclusion

All organisations must endeavour to take steps to address the emerging issues about culture, religion & spiritual values and their links to the wellness of communities. While this project demonstrates the ability for programs to be run in CALD communities, there is a need to go beyond the pilot, to develop sustainable programs with focus on these communities. To ensure sustainability and quality control in relation to the dissemination of culturally appropriate information, organisations should have a plan to disseminate materials to health workers and the community. In order to conduct a program with CALD communities, long term goals and strategies combined with flexibility in programs and services is needed – discovering what these communities want rather than only providing what we offer.

# ON THE SAME WAVE

## DIVERSIFYING SLSA'S MEMBERSHIP

LEE HOWELL

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### ABSTRACT

Traditionally, Surf Life Saving in Australia has been a predominantly mono-cultural organisation. As the cultural mix within society becomes more diverse, our organisation will continue to be challenged by our mono-cultural nature as we aim to remain relevant to all Australians.

In 2000, 'Big Picture Consulting Group' published a report which explored the changing face of Surf Life Saving in Australia. This report called 'Sound the Sirens' provided a research base that supported the anecdotal view that surf life saving's membership was made up predominantly of white 'Anglo' Australians. While this did not come as a shock, it provided the impetus for action. Since the release of this report, Surf Life Saving Australia (SLSA) has taken active steps to embrace and promote cultural diversity within the organization, having joined with the Federal Government as a 'Harmony Day partner' for the past 5 years. Harmony Day is a day in which all Australians have the opportunity to say no to racism.

In addition to this national program, numerous surf life saving clubs around the country have embraced diversity within their own region. One particular example of this is the program that was rolled out by Scarborough Surf Life Saving club in Perth. In response to a series of drownings involving people from non English speaking backgrounds, Scarborough SLSC took proactive steps in educating and training local migrant youths in surf education and rescue techniques. Contact with these young people was made through the Perth Modern School, a school set up for local migrant children. Over the ensuing 2 years, members of the club trained these youngsters in the skills of swimming, reading the surf and saving lives. At the end of the two year program 13 participants had completed their Basic Resuscitation certificate and 7 had attained their bronze medallion. These young surf lifesavers are now patrolling our beaches.

On 11 March 2006, the Federal Government and Surf Life Saving Australia launched a partnership titled 'On the Same Wave' that aims to improve water safety amongst Culturally and Linguistically Diverse (CALD) Australians; diversify SLSA's membership and improve beach harmony.

Prior to this time, numerous programs, such as the one operating out of Scarborough SLSC were being run in various locations around Australia. While this has provided a good base to work from, it has lacked a national coordinated approach. This partnership provides SLSA with an opportunity to develop this coordinated strategy through the employment of human resources, development of promotional and educational resources and sharing information and lessons learnt. This program will be rolled out during the 2006/07 season.

### PRESENTATION PAPER

Traditionally, Surf Life Saving in Australia has been a predominantly mono-cultural organisation. As the cultural mix within society becomes more diverse, our organisation will continue to be challenged by our mono-cultural nature as we aim to remain relevant to all Australians. In 2000, 'Big Picture Consulting Group' published a report which explored the changing face of Surf Life Saving in Australia. This report called 'Sound the Sirens' provided a research base that supported the anecdotal view that surf life saving's membership was made up predominantly of white 'Anglo' Australians. While this did not come as a shock, it provided the impetus for action. Since the release of this report, Surf Life Saving Australia (SLSA) has taken active steps to embrace and promote cultural diversity within the organization, having joined with the Federal Government as a 'Harmony Day partner' for the past 5 years. Harmony Day is a day in which all Australians have the opportunity to say no to racism.

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While this has provided a good base to work from, it has lacked a national coordinated approach. This partnership provides SLSA with an opportunity to develop this coordinated strategy through the employment of human resources, development of promotional and educational resources and sharing information and lessons learnt.

“ON THE SAME WAVE”, aims to provide support to young Australians of all backgrounds, to engage Surf Life Saving around Australia. The partnership aims to achieve greater harmony between all beach users and promote a culture that the beach is there to share. It also aims to increase Surf Life Saving’s openness and responsiveness to cultural diversity and increase diversity within surf life saving clubs.

The program seeks to do this through:

- (a) working with community leaders from identified target communities, including the Middle Eastern communities in Sydney;
- (b) developing and implementing an extensive engagement strategy for these target communities;
- (c) enhancing the awareness of the beach amongst the Australian multicultural community;
- (d) encouraging diverse membership of volunteer surf life saving clubs amongst target communities;
- (e) developing support for retention of diverse membership in clubs.

The program will be initiated throughout the 2006/07 season and will comprise a number of pilots in Sydney, conducted in association with Surf Life Saving NSW and with local authorities such as Sutherland Shire Council. These pilots will be developed further through the establishment of a national delivery platform. It is also essential that the program develops a strong strategic base to direct SLSA’s efforts towards a holistic national outlook. A number of key objectives have been identified for this program to achieve its outcomes. These outcomes are listed below.

**Objective 1.** To provide the strategic framework to enable SLSA and partners to engage the multicultural Australian community

- Establish a national Strategic Reference Group for the Program
- Recruitment of four staff
- Develop and deliver national strategic and operational plans through engagement of local clubs and authorities

**Objective 2.** To undertake community engagement and public consultation to inform the programme

- Develop working relationships with key stakeholders, including target communities, 18 to 25 year olds, and schools (predominantly secondary)
- Community Leaders provide input and support on initiatives

- Young surf lifesavers aged 18 to 25 provide input and support on initiatives
- Primary and secondary schools provide input into development of initiatives

**Objective 3.** To enhance the awareness of surf life saving and beach safety amongst the Australian multicultural community

- A co-ordinated communication strategy is developed with SLSA, in association with project partners
- Education programme on beach usage and safety implemented across schools and the broader community
- Educational and marketing resources are developed for specific audiences, particularly within targeted communities

**Objective 4.** To increase the capacity of surf life saving clubs to diversify their membership

- Encourage diverse membership of volunteer surf life saving clubs amongst target communities
- Enhance understanding by SLSA staff and volunteer members of diversity issues

**Objective 5.** To evaluate programme and ensure sustainability is factored into future planning activities of SLSA and SSC

- Evaluation is conducted throughout life of partnership
- Learnings are documented throughout life of partnership

This project has now been initiated and its initial term will run throughout the 2006/07 season, however plans have been initiated in order to extend the program (through both funded and non-funded strategies) over a longer period of time.

Surf Life Saving Australia would like to acknowledge the support and commitment of the Australian Government through the Department of Immigration and Multicultural Affairs (DIMA). Not only is the department a partner in this project, but they are also the key funding body. DIMA’s involvement in the partnership will ensure a wide range of expertise is available to our members, clubs and the strategic reference group. In order for this program to be successful, there will also need to be consultation and liaison with other water safety organisations to provide a seamless education pathway. Project staff will initiate this interaction.

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- 2006/7 - \$20 000

### Links and Resources

- Migrant Water Safety Resource Kit (Water Safety Council Tasmania)
- Signage Style Guide
- Swimming and Lifesaving (Royal Life Saving)
- Swimming and Water Safety Teachers Handbook (Department of Education Tasmania)
- Swimming Diaries (Department of Education Tasmania)
- Swim and Survive Aqua Quiz
- Department of Health and Human Services (Multicultural Health and Wellbeing)
- Education Department (primary, high school and college ESL)
- Migrant Resource Centre
- Adult Migrant English Service (Adult Migrant English Program, Language Literacy & Numeracy Program)
- Community Support for Refugees

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# MIGRANT WATER SAFETY EDUCATION PROJECT

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## ABSTRACT

With an ever increasing number of immigrants especially those from Africa who have very limited or no swimming and water safety experience, we as the community have a responsibility to provide water safety education opportunities for these people.

The Tasmanian Water Safety Council facilitated in the financial years 2004 -2005, 2005 – 2006, a part-time project officer to work with the community services that support the migrant community, in particular the section supporting newly arriving African refugees. Tasmania has a high number of refugees from Sudan and Ethiopia and these became the initial target group for the Water Safety Education Project.

Ours is a nation of water-lovers – it is one of the defining features of our island home. Many Australians live near or visit our beautiful coastline, and for those who don't, trips to the local pool or swimming hole are a favourite pastime. But participation in water-based recreational activities comes with certain risks and responsibilities. Each year, too many people lose their lives as a result of drowning. What makes these deaths even more tragic is that they are nearly always preventable.

This presentation will provide a review of the initial objectives, the resources developed to support the objectives, programs suitable for the target group and issues and problems encountered in program delivery, plus the future directions of the project.

## PRESENTATION PAPER

### BACKGROUND / INTRODUCTION

#### Aims and Objectives

- To provide safe educational opportunities for migrants to explore and understand simple water safety messages and to influence safe practise in pool and beach environments.
- To encourage migrants participating in our program to pass on this knowledge to their family and friends.
- To facilitate classroom workshops for migrants that focus on signage translation and basic water safety messages for the pool and beach.
- With the support of Water Safety Council member organisations, to facilitate practical pool and beach sessions for migrants.
- To build trusting relationships with migrants and organisations such as the Adult Migrant English Service, Migrant Resource Centre, school ESL (English as a second language) departments.
- To develop resources to support the migrant water safety project's aims.



### Reasons for Project Development

- To target a key drowning demographic
- vi. Water safety messages to culturally and linguistically diverse communities be developed and promoted (including inbound tourists).
- Tasmanian Refugees are largely from African countries. The following describes their situation:
  - from land locked countries so little experience with water environments
  - generally have never seen a pool or beach
  - are non swimmers or poor swimmers
  - speak little if any English so have difficulties understanding signage and safety messages
- To participate safely in water based recreational activities enjoyed by Australians, migrants need guidance to develop appropriate skills and knowledge regarding pool and beach environments.

### Location

- Southern Tasmania
- Launceston program introduction scheduled for 2007

### Target Groups / Stakeholders

- AMES (Adult Migrant English Service): Hobart, Launceston
- Targeting 200 migrants
- Bonza Youth Group (Migrant Resource Centre): Hobart
- Targeting 50 youth
- Elizabeth and Rosny College
- Targeting 50 migrants aged 17-30
- CSR (Community Support for Refugees: Hobart)
- Targeting the volunteers who assist migrants
- Southern Tasmanian Migrant Community
- Targeting up to 1000 migrants with an emphasis on those who are new arrivals to Tasmania

### Community Participation

- Volunteers – from Surf Life Saving, AUSTSWIM teachers
- CSR volunteers (Community Support for Refugees)
- Promotional support – Kingborough City Council, Community Support for Refugees, Adult Migrant English Service, Migrant Resource Centre, Education Department

## METHODS

### Project Implementation

- Developed and presented by the Project Officer with assistance from member organisations of the Tasmania Water Safety Council and volunteers
- Classroom PowerPoint presentations, pool and beach sessions for students at the Adult Migrant English Service, colleges and youth groups
- Community pool and beach days in Southern Tasmania
- Program supported by resource kit: photographs, posters, worksheets, mix and match cards, questionnaires and evaluation forms

### Timeframe

- The Migrant Water Safety Education Project commenced late 2004. The first programs were implemented in January 2005. Due to weather considerations, the programs have been largely presented from November – March.
- The Adult Migrant English Service (Hobart) program is a component of the Summer School coordinated by TAFE and is programmed for January/February.

## RESULTS / EVALUATION

### Project Monitoring and Evaluation

- Feedback from AMES and college teachers via the evaluation forms
- Feedback from migrants in the AMES and college programs via the questionnaires
- Attendance at the events and number actively participating
- Verbal and written feedback from council member organisations
- Verbal and written feedback from organisations such as the Migrant Resource Centre and Community Support for Refugees

### Changes/Benefits experienced by the Target Group

- They feel more comfortable and safe when going to a pool or beach
- They can join in with recreational activities enjoyed by family and friends with some knowledge regarding safety issues.
- They have an understanding of basic water safety rules.
- The migrants can more confidently use the local pool and beach facilities.

## Outcomes

- The project has continued to provide a valuable and effective program for migrants. It is difficult to effectively evaluate the extent of knowledge imparted, particularly due to language barriers but we are confident from the evaluation feedback from teachers that the program has achieved its aims.
- We are now in a phase of ongoing program development. We are expanding our programming to include Launceston.
- The project now includes extensive support materials that have been refined as feedback has been provided.
- The project now offers a two program focus, one developed specifically for youth and one more suited to the more mature migrant.

## Unexpected Outcomes

- A second PowerPoint has been developed for youth. This meets the needs of a high risk age group. They are presented with a more intensive theory session and a structured practical.
- A number of volunteer based learn to swim programs have been implemented as a direct result of our project.

## DISCUSSION

### Future Directions and Benefits

- The Water Safety Council has budgeted for programming to continue until March/April 2007. The programs will include college programs for the first time as well as the integration of our program at AMES, Launceston.
- It is the aim of the Council to see the program continue into the future with some level of funding available yearly for its implementation.
- The Tasmania Water Safety Council has the full support of AMES teachers and team leaders to see the project's implementation as an ongoing component of their programming.
- There is a wealth of ideas for future directions. Depending upon future funding, some of the following programs might be accepted for implementation in the near future. Ideas include:
  - a website to present our resources
  - the publishing of books using photographs that highlight our pool/beach safety messages
  - the implementation of family days with smaller numbers for better communication.

- Ultimately, we may be able to identify leaders within the communities that are interested in furthering their skills and knowledge in order to become trainers in water safety.

### Project Replication

- There is potential for the project to be implemented by other state branches of the Water Safety Council in AMES programs throughout Australia.
- There is also potential for this project to be expanded to other areas of Tasmania, depending on funding allocations in the future.

### Knowledge Gained

- We learnt that language barriers should not hold us back when trying to implement new programs.
- The aims of the Adult English Migrant Service with regards to English language development can be satisfied alongside the aims of the Tasmania Water Safety Council.
- We learnt that this is only the beginning. The potential of this project in Tasmania as an ongoing program has been recognised. Many exciting proposals for the future are being considered.

### Challenges

- Language barriers. Interpreters were not always available.

### Unexpected Occurrences

- During our first year of implemented, a person jumped in the 50m pool fully clothed. We were on the pool tour and there was an awareness of the depth of this pool. He wanted to show the group his swimming ability. Fortunately, he could swim well enough not to be in any difficulties. After this occurrence I ensured lifeguards were fully versed on the possibilities of this happening. I always carry rescue equipment with me during a pool tour. During our classroom theory sessions we discuss which pools we will be swimming / playing in with firm guidelines given on behaviour expectations at the pool.
- No interpreters arrived to support a classroom session of migrants with little or no English. This helped to emphasise the need for a very visual PowerPoint presentation and props such as bathers, towels and signage. Presenters will benefit from some basic training and knowledge in communication skills for work with migrants. Such things as using body language and slowing the rate of speech assist greatly.

## Advice

- I would ensure small class sizes at all times, if the budget permits.
- Ask for feedback from trained ESL teachers and thus gain insights into effective communication and resource development. Such things as double spacing between words, the use of comic sans as a type face and the analysis of colours used to assist migrants with poor vision, were all areas where changes have been made to ensure clearer communication of our messages.
- Begin the project with an analysis of the community demographics and with appointments with organisations that support migrants in order to gain valuable insights into the community and the potential target groups. The success of the project is largely due to the support from these organisations.
- Evaluate and redefine if necessary the original aims of the program in light of the potential successes or difficulties of implementation.
- Be flexible. The project evolves and will lead you to new and exciting opportunities as you learn more about the migrant communities and the needs of the people.
- Develop sound working relationships with all staff and volunteers coordinating the program. It is a group effort and requires good organisational and communication skills.
- Contact groups such as the Adult Migrant English Service and the Migrant Resource Centre in your state.
- Make contact with schools, determine how your project can assist their needs, and implement a program of classroom, pool and beach sessions whether for primary, secondary or college level.
- Use the Migrant Water Safety Education Project's resources. Modify the PowerPoint with your own photographs of the pools and beaches you will use. With a few changes, you will have a very valuable resource at hand.
- Try to organise the use of interpreters for groups where you expect there will be a language barrier.
- Budget for low ratios of students to teachers so there is improved supervision during all water sessions.
- Contact Surf Life Saving and Royal Life Saving to request the assistance of qualified volunteers to support the program.
- Ensure timely and accurate feedback on the program is gained from participants at all levels. This will support future funding requests.
- Ensure the privacy of participants by gaining their consent for photos used by the organisation for educational purposes.
- Ask ESL teachers to add to the resource kit with any materials they and their students have developed while on the program.
- Be gentle and supportive. Participants will be involved at a level that relates to their past experience, age and comfort zones. We must not rush them but always provide encouragement and a helping hand. Do not

expect all migrants to enter the water during their first water sessions.

- Ensure the local pool is supportive of your groups not wearing bathers. It is common for the migrants to wear clothes of all descriptions. This may be due to the fact that they do not own bathers or because the women want to cover their bodies.
- Always conduct a pool tour demonstrating the procedures for entry and exit, location of change rooms, clarification of the depth of pools, introduction of lifeguards, recognition of signs and defining of swimming areas that are safe.

## CONCLUSION

### Summary of the Major Findings - AMES 2006

The following information is based on findings collected via questionnaires and from participation results of sessions conducted for the Adult Migrant English Service.

- Classroom sessions: 84 migrants participated
- Pool Sessions: 78 migrants, 50% swam
- Beach Sessions: 78 migrants, 35% swam
- Four interpreters
- 25% owned their own bathers (percentage dependent on number of youth and men taking part as they are more likely to own bathers)
- 50% previous visit to the pool
- 65% previous visit to the beach

Though the overall number of participants did not vary much from the previous year, we did note that the active participation in the water did increase when compared to 2005. This was partly due to the emphasis in 2006 of small class sizes, providing a more secure and comfortable environment. Another reason could be the higher numbers of youth and men as women generally have a lower participation rate due to cultural reasons. We also programmed pool sessions for all class groups while in 2005 there was only one pool session and it conflicted with normal classes so was not well attended.

### Family Pool and Beach Sessions 2006

- Two pool sessions: 35 adults, 92 children, 13 families of 4 or more
- Beach session: over 100 participants, activities included volleyball, kite flying, sandcastle competitions, flag races, paddle boards and kayaks.

Family days will not be a focus of our programming this year. Due to the large numbers, noise and excitement, we had difficulties providing an environment conducive to the learning of sound water safety practices. Therefore we had hoped to offer opportunities for family members to be involved in smaller groups but due to budget constraints, this proposal was put on hold.



Top: Vietnamese Elderly Water Awareness Program

Bottom: Vietnamese Safe Fishing Day

# WATER SAFETY PROGRAM FOR THE VIETNAMESE COMMUNITY - A PILOT CALD PROJECT IN ADELAIDE

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## ABSTRACT

Australia is increasingly becoming a more diverse and multi-cultural society. There are many Australians who only communicate in their native languages. These people tend to be those most at risk of injury as they are not aware or do not have access to information which other Australians receive. As Vietnamese is the third most spoken language at home in South Australia after English and Chinese, it was chosen as a pilot language group for water safety.

## Methods

Focus groups and consultation with the Vietnamese community was undertaken to establish priority areas for the program. The areas of greatest concern to community were lack of swimming skills of the elderly, fishing safely, and lack of community awareness of water safety. To help develop and implement the project a Vietnamese project officer was employed.

## Results

A learn to swim program was delivered to elderly Vietnamese ladies. Two fishing safety days were undertaken. Promotional activities have been undertaken at the Full Moon Festival and Tet Festival. RLSSA water safety information has been translated into Vietnamese and provided to the community. Water safety information in Vietnamese has been provided via radio and newspaper announcements.

## Discussion

The results show that the Vietnamese people who have had the opportunity to participate in these activities and program have directly benefited and their families have also benefited. Further work needs to be undertaken to maintain the high level of water safety awareness among the community. In addition RLSSA needs to be flexible in its programs, so that the needs of Australians from diverse backgrounds are met.

## Conclusion

It is only the beginning but an important start to the evolution of what we can describe as a new communication to water safety and health promotion.

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## PRESENTATION PAPER

### Introduction

Australia is increasingly becoming a more diverse and multi-cultural society. There are many Australians who have limited literacy skills and may communicate predominately in their native languages. These people tend to be those most at risk of injury and accidents as they are not aware, or have access to information and health resources which other Australians receive. In addition some of these non-English speaking communities are refugees that have escaped poverty or war to live in a more democratic and wealthier society; as such they are not concerned about water safety until something happens. To achieve Royal Life Savings aims of drowning prevention a multi-faceted health promotion approach is required which has been specifically tailored to meet the needs of non-English speaking communities.

In South Australia the Vietnamese language is the third most widely spoken language at home according to the Australian Bureau of Statistics (1996 census).

### Methods

Focus groups with the Vietnamese community were undertaken to gain an understanding of the issues facing the Vietnamese community in undertaking aquatic activities and water safety. There were a number of issues identified during the focus groups, including fishing, learning to swim of adults, awareness of water safety, and lack of first aid training which were to be targeted during the program.

Fishing was identified as a high risk activity that was undertaken by a large number of people from the Vietnamese community. A large number of Vietnamese are not aware of water safety issues and they often do not know how to swim well. Vietnamese people who do not comprehend English are disadvantaged as all water safety material is in English. Many elderly people discourage other members in their family when it comes to participating in aquatic environments as they can not swim. Not a lot of Vietnamese people realise the importance of knowing what to do in an emergency.

The Royal Life Saving Society of Australia employed a CALD Project Officer to undertake a program of work in water safety for the Vietnamese community. The project officer was required to be bi-lingual to be able to speak to the people in their language, understand and relate to the culture and be sensitive to the specific needs of the community.

### Results

The pilot project was established in South Australia to:

- Increase water safety awareness among the Vietnamese Community,
- Provide elderly Vietnamese with water safety lessons 'Vietnamese Elderly Water Awareness Program',
- Promote safe fishing through Fishing Activity days to the Vietnamese Community
- Increase awareness of water safety
- Provide first aid to the Vietnamese Community.

The Vietnamese Elderly Water Awareness Program aimed to encourage the elders of the community to be more familiar with an aquatic environment for leisure, health and fitness. By encouraging the elderly to participate this aquatic program it was hoped that the elderly Vietnamese would understand the importance of water safety, in particular learning to swim to prevent drowning deaths. Thus encouraging others within their community to learn to swim and enjoy safely the aquatic environments.

The Vietnamese Elderly Water Awareness Program was established in partnership with the Vietnamese Community Respite Program. An evaluation was undertaken during the program via verbal suggestions, which were used to vary the program. This made the program flexible and appropriately addressed the needs of the individual participants and that of the entire group.

The Vietnamese elderly people who participated in the programs have gained greater water confidence. It is unclear if this will have a positive long-term effect, as it appears the elderly are only confident if they go into the water as a large group. The majority of the participants are not able to float unaided and still need a lot of practice and ongoing encouragement. However, due to the program they are more positive about being in the water and do not cling onto the wall as they did when they first entered the water. In addition, some of the participants go to the pool on weekends to practice.

The Vietnamese Safe Fishing Days aimed to increase participants understanding of the risks involved in fishing. In the Vietnamese community the most popular aquatic activity is fishing and as such the Vietnamese Safe Fishing Days were established to promote water safety around fishing and boating.

Other activities that were undertaken as part of the program include community stall and activities at the cultural festivals and celebrations specific for and organised by the Vietnamese community.



A program of work by the Royal Life Saving Society Australia was undertaken to translate our fact sheets and provide information about water safety signs and how to use public pools in Vietnamese.

### Discussion

The results show that the Vietnamese people who have had the opportunity to participate in the programs activities have benefited from the information provided and this information has been passed onto their families, who have in turn also benefited. Further work needs to be undertaken to sustain and maintain the high level of water awareness among the community. However, on-going evaluation will be required to monitor whether there are any changes of behaviour. The Society also needs to ensure flexibility in delivery of its programs to the community, so that it meets the needs of the community, in particular those who do not speak English as their first language.

The challenges faced during the program, included attaining peoples' interest in enrolling in first aid training. The awareness of water safety among the community has increased dramatically with a number of resources developed in Vietnamese made available to the Vietnamese community. The next stage of the program is to empower people to change their behaviour when it comes to taking risks around water areas especially recreational fishing. It seems bleak that only a tragic accident due to either non-supervision or lack of swimming or life skills will be the only answer in raising the awareness of the dangers about water and for the community to take action. There must be a better answer to health promotion to water safety. Addressing the language issue is just the beginning. Other important factors are the culture and social embedment within what is of face value within the community.

### Conclusion

This program is only the beginning of working with the Vietnamese community. It is however an important start to the evolution of what we can describe as improved communication about water safety. The emphasis on cultural and linguistic needs ensure that all people in Australia will be able to enjoy our aquatic environments safely.

### Acknowledgements

We would like to thank supportive welfare staff at The Vietnamese Community in Australia, S.A Chapter Inc. In particular special acknowledgements to the Vietnamese Social Worker at The Migrant Resource Centre – Northern Volunteering Truyen Phung, the Vietnamese Community Weekly Newsletter “Bao Nam Uc” and Vietnamese Radio “Tieng Nuoc Toi” and mainstream co-facilitators such as Primary Industries, Volunteers and Fishing Experts and our Sponsors.

Many thanks also to the present and past staff at Royal Life Saving both in the S.A Branch and National Branch.

# “KIA MAANU, KIA ORA – STAY AFLOAT, STAY ALIVE”

## A WATER SAFETY MESSAGE FOR MAORI IN AOTEAROA

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### ABSTRACT

Aotearoa (New Zealand) has some of the most extensive and beautiful waterways in the world. The seas, rivers, beaches, and lakes provide endless opportunities to enjoy water activities such as gathering kai, swimming, hoe waka, diving, and fishing to name a few. For Māori, water is one of the greatest taonga (treasures) of this land - both physically and spiritually. However, while the number of people drowning in Aotearoa is decreasing overall, the number of Māori drowning is increasing.

Consider the following facts:

- Māori make up 12% of the total population, but represent 25% of total drownings
- 84% of Māori who drown are male aged between 25 and 64 years
- Gathering kai is one of the biggest causes of drowning amongst Māori
- Māori children represent 44% of all the under five drownings

Whilst it might seem Māori are not giving water the respect it deserves, it is imperative to have Māori input into water safety content and design. ‘Kia Maanu, Kia Ora – Stay Afloat, Stay Alive’ is a water safety strategy that aims to integrate Māori language and tikanga to reduce the risk of water accidents or drowning amongst whānau. Water Safety New Zealand in association with Mā Te Reo has already supported this strategy by funding a Māori language resource pack for marae in the Waikato area. In an effort to promote ‘Kia Maanu, Kia Ora’ to Māori groups it is also meaningful that communication and interaction is done on a personal basis, ‘kanohi ki te kanohi’ (face to face).

This presentation will identify how Māori perspectives can assist in the development of a water safety strategy that embraces Māori tikanga and can be integrated throughout the wider community.

### PRESENTATION PAPER

#### Abstract

In Aotearoa water is a major feature of our landscape and lifestyle. The seas, rivers, lakes and ponds provide us with some of the most spectacular and challenging sites in the world. Every day, people of all ages from a wide range of communities enjoy easy access to water for recreational, non-recreational and cultural use. Traditionally, Maori like many indigenous peoples have adapted to and utilised the water environment for the benefit of the physical and spiritual realms within which we all share. It is important that Maori have opportunities to sustain core life water skills for individual and whanau needs.



Today, education is still the most effective means of developing water skills to transform behaviour and attitude. This paper is an outline of the strategies that have been adopted in the last few years specifically to reduce the risk of drowning and water related injuries to Maori. *Kia Maanu, Kia Ora (Stay Afloat, Stay Alive)* is the key water safety message that is being used to promote safer awareness and care in, on and near the water. Here, the emphasis is on how a cultural perspective can assist in delivering water safety education to Maori that can also be integrated through the wider community.

### Introduction

In 2003 Water Safety New Zealand took a proactive approach to establish a water safety strategy for Maori. The purpose of this strategy was to specifically lower the number of Maori drowning in Aotearoa. It is to be reviewed in 2006; if the results are positive, it will become a regular part of Water Safety New Zealand's ongoing commitment to drowning prevention through community education.

On average, 27 Maori people drown and many more are hospitalised every year as a result of water related injuries (Chalmers, 2004). Whilst it might seem Maori are not giving water the respect it deserves, there is a school of thought that identifies cultural perspective, or lack thereof, as a contributing factor in enabling effective delivery of water safety messages and education programmes to Maori. Clearly water is one of our greatest taonga (treasures) both physically and spiritually. Physically, water is a vital element to sustainable life and well being on Earth, yet, possesses the power to wipe out a community in an instant. Spiritually, water is the life force of our environment and has significant meaning depending on its shape and form.

### Early Observations of Maori Aquatics

Maori and Polynesian have always been acknowledged as indigenous people that possess expertise in swimming and aquatic activities. Early European historians observed Maori lifestyle and wrote extensively about Maori games and pastimes in, on and near water. Maori adapted various ways of swimming to ensure safer practice whilst swimming near marae at local beaches, rivers, lakes, springs and ponds. Best (1976) maintains "Maori knew four different methods of swimming, though, apparently confined himself to the sidestroke (kau tahoe)". Other strokes that were constantly practised included kau apuru (breaststroke), overarm or freestyle, as it is known today, and a form of backstroke known as kau kiore. Maori children were taught to swim almost before they could walk sometimes with poito (floats) fastened to them when learning their swimming skills. Maori youth were experienced at paddling or sailing waka (canoe) for long periods in changeable conditions. "

All forms of canoe were much appreciated by young folk and both sexes learned the use of paddle (hoe) in youth. Children manipulated small canoes and capsize merely added to their enjoyment" (Best, 1976) Food gathering and harvest in water environments was a customary and shared experience of cultural activity amongst whanau members. Maori used a maramataka (calendar) to recognize ideal fishing and tidal conditions. Having an in depth knowledge of the moon meant whanau were accustomed to fishing methods best practised only on certain days or nights. Furthermore, Maori exercised rahui, the method of restricting and protecting access to local water sites if a drowning or conservation crisis occurred. "Rahui is a mark to warn people against trespassing; used in the case of tapu, or for temporary protection of fruit, birds, or fish" (Williams, 1992). Taniwha is a term generally used to describe a mythical monster that lives in water. On the contrary, Maori refer to taniwha as a kaitiaki or guardian with innate power to protect and foster the life principle and general welfare of local water sites.

Water as a means of transport throughout Aotearoa on connecting rivers, lakes and seas remained common practice until the early 1900s, particularly in the Waikato, Wanganui and Rotorua regions. King (1983) talks about how "coastal tribes were involved heavily in sea transport, especially on the East Coast of the North Island where some Ngati Porou hapu operated their own trading vessels between Gisborne and Auckland". Maori were dependant on the waterways for transport to trading stations and other settlements.

### Maori Drowning in Aotearoa

A problem question before us now is: Why are so many Maori drowning disproportionately to non-Maori? We know that in the past Maori acquired a wealth of knowledge, experience and skill in water environments. Indeed, further study on this topic can be justified and will no doubt provide a better explanation to the whole issue. Nevertheless, this problem trend seems to have been ongoing for some decades. Ruhia Sage, Dominion President of the Maori Women's Welfare League, wrote an article for *Te Ao Hou* in 1965 exposing the high rate of Maori drowning compared to that of non-Maori. Mrs Sage writes, "It is a serious cause for concern that so many of these tragedies should involve our Maori people. The Maori population ratio is about one in 14, but this drowning rate is about one in six" (Sage, 1965). Research carried out by the University of Otago Injury Prevention Research Unit on data collated over the last 20 years shows that although the total number of people who have drowned in New Zealand has declined by 45 percent from 1985 to 2004, the number of Maori drowning had steadily increased. 'Maori are over represented in drowning statistics. "

Drown Base data from 1994-2003 show that 22 percent of people who drowned were Maori. The 2001 Census showed that 15 percent of the New Zealand population identified as Maori.' (Statistics New Zealand, 2001)

### Identified Risk Areas for Maori

The most common sites for Maori drowning are:

1. River
2. Beaches
3. 0-1km from shore

The most common activities for Maori drowning are:

1. Accidental immersion
2. Swimming
3. Fishing/food gathering

The most at risk age groups are:

1. 15 – 44 years
2. Preschool aged children 0 – 4 years
3. 84 percent of Maori who drown are male.

The most at risk regions are:

1. Waikato
2. Bay of Plenty
3. Northland

### A Drowning Prevention Strategy

A substantial effort to lower the drowning rate in New Zealand has signalled the recent release of a Drowning Prevention Strategy (DPS): Towards a Water Safe New Zealand 2005 – 2015 Te Rautaki Arai i te Toremanga: Kia Tupu ai a Aotearoa hei Whenua Haumarua Wai, 2005-2015. 'The strategy is a plan to prevent death and injury due to drowning and other water related causes, and for enhancing water safety in New Zealand'. A desired outcome of this plan is to have iwi involved as key water safety partners to assist in guiding the Strategy's implementation and work to prevent people drowning. One of the main principles behind the Strategy is Appropriateness, defined as:

Appropriateness - Working under the Strategy must recognize that different communities and groups have different needs. What may work for one population group may not work for another. The Strategy must respond to the needs of New Zealand's different cultures, genders and age groups. (Drowning Prevention Strategy 2005)

Kia Maanu, Kia Ora ( Stay Afloat, Stay Alive)

The phrase Kia Maanu, Kia Ora originated from the Nga Waka Federation in the year 2000 to help raise the profile of water safety awareness amongst waka groups. In 2004, Water Safety New Zealand in association with The Maori Language Commission supported an initiative in the Waikato region to support a 'Kia Maanu, Kia Ora' water safety resource on local marae.

The project outcome for using Kia Maanu, Kia Ora as a key water safety message was to:

- Support the use of Maori language when in, on and near the water.
- Get the message of 'kia maanu' meaning 'to float', promotes the notion of being able to stay afloat in order to survive in water. The emphasis is on promoting learning to swim to stay afloat; wearing a lifejacket to stay afloat; using safe buoyancy equipment to stay afloat; through proper supervision keep the whanau afloat.

### Through Education Prevent Drowning

Now two years on, the proposed strategic direction is to build on previous projects and focus on providing education resources and programmes for students whose first language is Maori, or who are involved in Kohanga Reo/Early Childhood Education, Kura Kaupapa/Primary-Intermediate schools and community groups. The teaching resources will be linked to Te Whariki/Early Childhood and the Health and Physical Education curriculum with appropriate other curricula, specifically Te Reo Maori, English, Social Studies and Technology. These resources will also be provided as a website source that link to other water safety educational programmes.

The New Zealand Fire Service has already used this model of education to good effect by producing a Maori language fire safety resource called 'Maui tinei ahi' – 'Get Firewise'. The effectiveness of Maori children learning skills that impact significantly on their own safety needs to happen in a space where they feel comfortable and have the confidence to participate. The water safety resources will reinforce the traditional relationships of Maori and water combined with helpful key messages that convey safer practice near water.

## Conclusion

The strategies employed to reduce Maori drowning in Aotearoa have produced positive outcomes in terms of promoting water safety initiatives specifically to Maori. Next year these strategies will be evaluated and reviewed based on statistical and performance criteria. Water safety for Maori is about including a cultural view based on practical skill development with best use of community facilities and resources. The challenge is to retain these strategies, through strong partnerships with Maori and local community groups, to educate and foster the life principle and well being of Maori being safe in, on and near water.

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# PRESENTATION: STRATEGIES

## WATER SAFETY AN INBUILT PROGRAMME IN PRECISE – A GREAT POTENTIAL TO SAVE THOUSANDS OF CHILDREN FROM DROWNING IN BANGLADESH

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### ABSTRACT

#### Background

Bangladesh Health and Injury Survey revealed that drowning is a major killer of Bangladeshi children after infancy. So far no effective programme has been developed to prevent these unnecessary deaths. Centre for Injury Prevention and Research, Bangladesh has initiated a pilot programme "Prevention of Child Injuries through Social intervention and Education (PRECISE)"-a comprehensive Child injury prevention programme among 600,000 populations in which water safety is a major component.

#### Objectives of the Water Safety Programme

1. to aware children and parents on water hazards and prevention of drowning
2. to equip children with live saving swimming skills
3. to advocate the community for necessary environmental changes to prevent childhood drowning

#### Strategy

1. Developing linkages with relevant organizations involved in live saving skills and training.
2. Mobilizing community towards water safety programme
3. Using local resources

#### Acknowledgements

PRECISE is a collaborative effort of CIPRB, Directorate General of Health Services-Bangladesh, UNICEF-Bangladesh and TASC. RLSSA and BSF are providing technical support for the water safety programme.

## Activities

1. Establish collaboration with Royal Life Saving Society Australia (RLSSA) for developing a standard water safety programme, and with Bangladesh Swimming Federation (BSF) for training of community swimming instructors.
2. Involving community people in designing, implementing and evaluating community water safety programme. For example, formation of village injury prevention committee.
3. Communication programmes towards making the community water safe.
4. Developing community swimming pool through renovating existing ponds for teaching swim
5. Involving local people as community swimming instructors.
6. Developing community swimming instructors as broader community educators.
7. Distribution of additional water safety materials to parents via the children involved in instruction.
8. Establishment of community crèche for direct supervision of children 1-4 years.

## Conclusion:

By June 2006, 75 swimming learning centres have been established. Community people are now much concerned regarding the water hazards. Although the whole programme yet to be evaluated, it has been envisaged that the water safety programme will contribute a lot in saving thousands of children from drowning in Bangladesh.

## PRESENTATION PAPER

### Background / Introduction

Bangladesh Health and Injury Survey revealed that drowning is a major killer of Bangladeshi children after infancy. So far no effective programme has been developed to prevent these unnecessary deaths. Centre for Injury Prevention and Research, Bangladesh (CIPRB) has initiated a pilot programme "Prevention of Child Injuries through Social intervention and Education (PRECISE)" -a comprehensive Child injury prevention programme among 600,000 populations in which water safety is a major component.

The objectives of the Water Safety Programme are to aware children and parents on water hazards and prevention of drowning and to equip children with live saving swimming skills to advocate the community for necessary environmental changes to prevent childhood drowning

## Strategy

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# WATER SAFETY IN THE BUSH

## A COMMUNITY DEVELOPMENT INITIATIVE PROVIDING WATER SAFETY AND AWARENESS INSTRUCTION TO REMOTE FARMS AND STATIONS

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### ABSTRACT

Water Safety in the Bush is a community-based project aimed at reducing risk of drowning and near drowning across remote Australia. The project was developed by the Combined Universities Centre of Rural Health, in consultation with the Commonwealth Department of Health and Ageing (DOHA) - Injury Prevention Unit and the Royal Lifesaving Society of Australia. The project aims to teach water safety knowledge and skills to isolated children and their families, and to provide water safety signage for installation in local areas. These strategies are designed to increase local skills and awareness and strengthen the community's capacity to create and maintain a water safe culture within the local community.

Throughout Australia, swimming and water safety training is most often provided to children through schools and local aquatic centres. While this reaches most children around the country, children who receive distance education often do not have access to these organized water safety programs. Water Safety in the Bush provides the opportunity for those who miss out on mainstream swimming and water safety education to receive nationally accredited training and education in water awareness, familiarisation and safety.

In 2005, the project was piloted in the Murchison Shire of Western Australia. The pilot proved a great success and allowed for the development of a flexible training model to effectively provide a community-based water safety program to isolated communities. Based on the success of the pilot the DOHA has approved the national rollout of the Water Safety in the Bush project, to include the implementation of the program in 12 isolated communities across Australia in 2006.

This paper will track the project from its inception in the mid west of Western Australia, as a community-based pilot project, in the Murchison Shire, to the selection of 12 communities throughout the country to delivery the project this year.

## PRESENTATION PAPER

### Background/Introduction

Water Safety in the Bush is a community-based project aimed at reducing risk of drowning and near drowning across remote Australia. The project was developed by the Combined Universities Centre of Rural Health, in consultation with the Commonwealth Department of Health and Ageing (DOHA) - Injury Prevention Unit and the Royal Lifesaving Society of Australia, as a strategy to address childhood drowning and farm safety. In 2006 the project will be implemented in 12 communities across the country providing vital water safety education to children across Australia.

The project aims to teach water safety knowledge and skills to isolated children and their families, and to provide water safety signage for installation in local areas. These strategies are designed to increase local skills and awareness and to develop the community's capacity to create and maintain a water safe culture within the local community.

The Water Safety in the Bush project was developed in response to concerns expressed by the Murchison community in Western Australia around their children's water safety. In consultation with the community, families identified a need for their children to learn water awareness and water safety, and expressed a desire to increase their capacity, as parents, to teach their children these skills. Recognising that the needs expressed by the Murchison community mirrored those of isolated farm and station people around the country, a project proposal was developed to meet the needs of the Murchison community and potentially for broader application in other isolated communities.

Drowning is a central concern of isolated farm and station people around the country. It is the principal cause of death for children aged 0-15 years living on farms and accounting for approximately 41% of all child deaths<sup>2</sup> in this environment. The project is targeted at this particular population: rural and remote farm and station communities across the country. Throughout Australia, swimming and water safety training is most often provided to children through schools and local aquatic centres. While this reaches most children around the country, many of those living in isolated areas do not have access to organised water safety education. Water Safety in the Bush addresses this gap and provides an opportunity for isolated children to receive nationally accredited training and education in water awareness, familiarisation and safety.

### Pilot phase

The project was piloted in the Murchison Shire of Western Australia in 2005. During the pilot, five days of water safety instruction were delivered to the residents of the Murchison community. The training delivered was based on the Royal Lifesaving Infant Aquatics, Swim and Survive and Heartbeat Club courses, modified to best equip the community with survival and safety skills within the limited timeframe. In addition to the training water safety resources and signage was purchased from the Royal Life Saving Society, and were distributed to the community library and participating stations respectively.

The pilot was evaluated at key points in the delivery and one month after the completion of the project. The evaluation has shown the program to be highly effective for both children and parents, with all participants showing an increase in skills in both water safety and first aid knowledge. This efficacy was also evident in the high levels of satisfaction expressed by participants with regard to both individual training sessions and the overall project.

The delivery of the pilot allowed for the development of a flexible training model to provide a unique remote, community based water safety program to isolated communities.

This model consists of three key elements, including:

- A collaboration of local stakeholders, including:
  - An isolated community;
  - A community organisation; and
  - A team of AUSTSWIM accredited, experienced swimming instructors
- A water safety instruction program based on Royal Life Saving Society Australia courses. The training program is designed to flexibly cater for children and adults of all ages and skill levels. It includes two key elements, a swimming instruction component and a lifesaving aspect. The swimming instruction element is based on the Royal Life Saving Society courses Infant Aquatics and Swim and Survive emphasising water safety and basic swimming skills. The lifesaving component is derived from Royal Life Saving Society Australia's resuscitation programs such as Heartbeat Club course with a focus on first aid and water hazard awareness.

Both elements of the training are delivered by nationally accredited AUSTSWIM and Royal Life Saving Society instructors and are delivered to the target audience in their communities, within their family groups. Collectively, this program is designed to equip participants with basic water safety knowledge and skills. The program includes a minimum of 10 hours of swimming and water safety instruction and 10 hours life saving instruction, and is delivered over at least 2 sessions, a minimum of one week apart.

- Opportunities for sustaining the skills and water safety culture fostered within the training, including, but not limited to:
  - Water Safety Signage provided for installation in and around water hazards in the community;
  - The provision of Royal Life Saving Society Australia teaching resources to participants and local library or shire office; and
  - The training of local community members as AUSTSWIM instructors to further build on the skills established within the Water Safety in the Bush program.

### National phase

Based on the success of the pilot project, the Commonwealth Department of Health and Ageing - Injury Prevention Unit have approved a National Phase of the Water Safety in the Bush project. In 2006 the Water Safety in the Bush program will be implemented in 12 isolated communities across Australia.

Funding for the National Phase was approved in February this year. Since that time a targeted promotion strategy has seen the extensive promotion of the project. The particular promotional strategies have included: the development of a comprehensive contact list; the maintenance of a Water Safety in the Bush Website; and print media promotion. These strategies were designed to allow the project team to access the specific target group of the project. Liaising with and promoting through these networks maximised the reach of the promotion of the project and aided in the identification of potential applicants across the country.

The application phase of the project has included two stages, an Expression of Interest round and a formal Application period. The Expression of Interest period ran through April and May of this year and was relatively successful, with Expressions of Interest coming from a broad range of applicant organisations, and most states around the country. All Expressions of Interest were eligible to participate in the Water Safety in the Bush program and were invited to submit a formal Application. The formal Application period closed in early July. The process of selecting project sites is currently underway and will be finalised shortly.

### Summary / conclusion

Over the next few months the Water Safety in the Bush project will be implemented in each of the 12 sites selected. As a product of this program, a minimum of 180 children across the country, who otherwise would have no access to organised water safety programs, will receive 20 hours of swimming, water safety and life saving instruction. Additionally, skills within these isolated communities will be developed to ensure these skills are built on in the future.

### Acknowledgements

- The water safety in the bush project is funded by the Commonwealth Department of Health and Ageing – Injury Prevention Unit.
- The project team would like to acknowledge the valuable contribution of the Royal Life Saving Society of Australia to the Water Safety in the Bush project.

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<sup>1</sup> The Accident Compensation Corporation (ACC) administers New Zealand's Accident Compensation Scheme. This scheme provides cover for accidental injury for all New Zealand citizens, residents and visitors. The Corporation provides no fault injury cover for everyone, everywhere in New Zealand, seven days a week. ACC also works to reduce the overall incidence and impact of injury in New Zealand, through delivery of injury prevention, effective rehabilitation and compensation services.

# NEW ZEALAND'S DROWNING PREVENTION STRATEGY

## TOWARDS A WATER SAFE NEW ZEALAND 2005-2015

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### ABSTRACT

#### Purpose

The purpose of the paper is to describe New Zealand's Drowning Prevention Strategy and the opportunities it creates, including the proposed governance review for the water-safety sector.

#### Context

The New Zealand Government recently launched an ambitious project called the New Zealand Injury Prevention Strategy (NZIPS). This concentrates on six priority injury areas that most contribute to death and disability. One of these priority areas is drowning.

New Zealand's Accident Compensation Corporation (ACC) is leading the development of the Drowning Prevention Strategy. ACC and the water-safety sector worked together last year to produce this Strategy. It outlines challenging goals and objectives that we need to achieve in order to reduce deaths and injury by drowning (see Appendix 1.) The next task is to develop the first of a series of Implementation Plans, by which these objectives will be realised. Each plan spans five years. The work on the first plan to 2010 is well underway. (Participating organisations are listed in Appendix 2.)

#### Challenges

Leaders within the water-safety sector have identified several challenges that impede the sector's effectiveness. These include:

- the substantial effort required by the Non Government Organisations (NGOs) to secure annual funding;
- constraints in relation to forming intra-sectoral partnerships (ie, a lack of co-ordination and collaboration);
- current service quality in drowning prevention initiatives; and
- governance needs.

#### Opportunities: The Drowning Prevention Strategy

The Drowning Prevention Strategy is providing a focal point for debate and decision-making within the sector, as strategic priorities are determined.

- The DPS objectives recognise strategic requirements: a governance structure for the water-safety sector, and related infrastructure and resourcing to ensure the efficacy of efforts to reduce drowning.
- There are also three major operational themes: rescue, water-safety education, and environments.

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- Underpinning these strategic and operational objectives is the need for research to establish priorities and effectiveness; and the need for sector, stakeholder and community buy-in to drowning prevention.

### Governance review

Each of the NGOs has advised that a governance framework is needed if New Zealand's drowning rates are to be further reduced. Establishing strategic leadership is therefore regarded by the sector as the first priority of the Implementation Plan. Infrastructural and resourcing priorities would be determined under that framework; and operational aims and activities would likewise be prioritised and co-ordinated.

In close consultation with the sector CEOs, ACC is commissioning an independent governance review for the water-safety sector. The governance review will be completed by December 2006, and aims at producing leadership options for the sector and for government.

## PRESENTATION PAPER

### Purpose

This paper outlines New Zealand's Drowning Prevention Strategy: towards a Water Safe New Zealand-2015 and the opportunities it creates, including a governance review for the water-safety sector which aims to strengthen strategic leadership.

### Team

Ten organisations are driving the Strategy: the Accident Compensation Corporation, New Zealand Recreation Association, Surf Life Saving New Zealand, Royal New Zealand Coastguard, Water Safety New Zealand, WaterSafe Auckland Incorporated, Swimming New Zealand, Maritime New Zealand, the Injury Prevention Research Unit of the University of Otago, and the New Zealand Injury Prevention Strategy (NZIPS) Secretariat. These are national agencies and other key organisations concerned with water safety education, environments, rescue, regulation, research and funding.

### Summary

The Drowning Prevention Strategy is a Government and sector initiative aimed at addressing New Zealand's rate of death and injury by drowning. The Strategy was developed by sector leaders and approved by Cabinet in June 2005, following community consultation. The Strategy is being implemented by a series of five-year plans to 2015.

An Implementation Management Group, convened by ACC<sup>1</sup> and comprising the organisations listed above, is developing the first of these plans. Comprehensive in scope, the Implementation Plan will identify and progress key strategic priorities (leadership, infrastructure and resourcing) and operational imperatives (education, rescue and environments). Underpinning each of these objectives is the need for strategic and operational research; and strong community engagement.

The goals and objectives of the Drowning Prevention Strategy are listed in Appendix 1, along with the personnel on the Implementation Management Group.

### Background

In June 2003 the New Zealand Government launched an ambitious project aimed at addressing the national injury burden. The New Zealand Injury Prevention Strategy (NZIPS) identifies six priority injury areas that most contribute to death and disability. One of these priority areas is drowning.

Due to the efforts of the water-safety sector, the number of deaths by drowning in New Zealand has been halved in the past 20 years. In 2005, we experienced the lowest incidence for some time; and half-year figures for 2006 show a further decline – which is heartening. Notwithstanding the progress that is being made, New Zealand's rate of drowning is still unacceptable. There were 112 deaths by drowning in 2005, which is more than double the rate of such deaths in Australia.

Australia experienced 250 drownings last year for a population of 20,000,000. That's a rate of 12.5 deaths per million. New Zealand had 112 drownings, at a rate of 28 per million. It would be a worthwhile project for New Zealand to look in detail at why there are differences. (One distinct possibility is that our capture and recording is fuller in New Zealand, but we're also aware that there are other factors impacting.)

Government agencies and the water-safety sector together produced the Drowning Prevention Strategy to address the drowning rate. This was finalised in June 2005.

### The Drowning Prevention Strategy

The Accident Compensation Corporation (ACC) is leading the development of the Drowning Prevention Strategy (DPS) and its Implementation Plan, working in partnership with the water-safety sector. Appendix 1 refers.

The Drowning Prevention Strategy is providing a focal point for debate and decision-making within the sector, as strategic priorities are determined.

- The DPS objectives recognise strategic requirements: a governance structure for the water-safety sector, and related infrastructure and resourcing to ensure the efficacy of efforts to reduce drowning.
- There are also three major operational themes: rescue, water-safety education, and environments.
- Underpinning these strategic and operational objectives is the need for research to establish priorities and effectiveness; and the need for sector, stakeholder and community buy-in to drowning prevention.

### Progress with the first Implementation Plan

An Implementation Management Group (IMG) has been formed by ACC to identify and prioritise the activities and outputs that will support the eight DPS objectives. A comprehensive Implementation Plan is being developed which will operate until December 2010. During that year, another plan will be developed to guide drowning prevention through to 2015.

Sector representation within the IMG comprises six Non Government Organisations (NGOs), along with Maritime New Zealand. The NGO input is provided by the CEOs or Board Chair of key national and regional organisations. Other IMG members represent ACC, NZIPS and the Injury Prevention Research Unit of the University of Otago. The IMG has 10 members at present (see Appendix 1).

Consultation is occurring by involving operational staff and other organisations via IMG sub-groups; and providing regular updates on progress with the Implementation Plan to IMG organisations' staff and members, IMG Boards, and to the range of specialist and interest groups within the community who provided feedback on the draft Strategy last year.

### Context for the Drowning Prevention Strategy: Challenges faced by the sector

Leaders within the water-safety sector have identified several challenges that impede the sector's effectiveness. These include:

- the substantial effort required by the Non Government Organisations (NGOs) to secure annual funding;
- constraints in relation to forming intra-sectoral partnerships (i.e., a lack of co-ordination and collaboration);
- current service quality in drowning prevention initiatives; and
- governance needs.

**Funding.** The sector comprises Non Government Organisations, which are funded partially through the Lotteries Grants Board and also through sponsorships and annual fund-raising efforts (for example, the Royal New Zealand Coastguard receives approximately \$1.2m per annum in lotteries grants and fund-raises a further \$4m per annum in order to maintain its rescue operations). The NGOs expend substantial effort each year in tendering for and securing funding; there is no "sustained" funding stream for business continuance year by year; and the organisations at times compete with each other for funding from the same pool. Some organisations within the sector believe that water safety is perhaps adequately funded overall, but that the resourcing needs to be redistributed to maximise its impact; others believe that a multi-million dollar injection of funds is needed in order to further reduce death and injury by drowning.

**Partnerships.** There are constraints and opportunities in relation to co-ordination, co-operation and collaboration in the sector. Existing constraints compromise drowning prevention efforts and effectiveness.

**Service quality in drowning prevention initiatives / programmes.** There is little research available that determines the effectiveness of drowning prevention interventions. This is a strategic need. Under the Drowning Prevention Strategy:

- Proven interventions need to be established.
- Opportunities then need to be created and funding sourced in order to maximise the roll-out of successful interventions nationally.
- Programme impact then needs to be evaluated at that level.

**Governance requirements.** Sector leaders have advised that a governance framework is needed to address the above set of challenges and to establish cohesion and efficiencies, if deaths and injury by drowning in New Zealand are to be further reduced. Infrastructural and resourcing priorities would be determined under that framework and operational aims and activities would also be prioritised and co-ordinated. Establishing a governance framework is regarded by the sector as the first priority of the Implementation Plan.

**Governance review.** In close consultation with the Implementation Management Group, ACC has commissioned an independent governance review. This review started in June and will be completed in early 2007, presenting pragmatic, strategic solutions to the water-safety sector and to Government. This decision is indicative of the potential for the Drowning Prevention Strategy to influence major change in current practice.

Each non-government IMG member has much at stake, should a new governance framework be implemented; however, each NGO has put the overall needs of the sector – and the New Zealand public – ahead of these personal and organisational considerations in supporting this review. ACC is briefing its Minister and the wider Injury Prevention Ministerial Committee (which has been established directly as a result of the New Zealand Injury Prevention Strategy) on the governance review, discussing opportunities and implications.

**Other priorities emerging under the (draft) Implementation Plan.** Efforts of the water-safety sector have halved the rate of drowning in the past 20 years, but the fatality rate is still unacceptably high. The Implementation Plan is seeking to address this and other needs within the sector. The plan is ambitious in scope and will require additional (or re-distributed) funding to realise key priorities. The IMG is in the process of prioritising the 57 activities within the draft plan, and positioning these realistically across a four-year timeframe for delivery. Key priority activities within the Implementation Plan will be presented at the conference, following the Implementation Management Group's discussions in July and August.

### Conclusion

The New Zealand Injury Prevention Strategy has created a platform for improved communication within the water-safety sector over the past two years. Joint development of the Drowning Prevention Strategy, and more recently its first Implementation Plan, has created a forum for strategic debate and decision-making across the sector on the priorities and needs of water safety and for drowning prevention.

IMG decision-making has resulted in the governance review being commissioned; and this decision represents a unanimous effort to put the needs of the water-safety sector ahead of any organisation or individual currently within it. The results of the review will be available to the IMG in December 2006, and can be presented to government early in 2007.

The Drowning Prevention Strategy has the potential to provide critical leverage to New Zealand's ability to continue to reduce death and injury by drowning. The Strategy enables the sector and government to work together to establish the strategic leadership that will provide the vision, capacity and drive for generating efficiencies within the sector and, ultimately, for achieving further drowning reduction.

## Appendix 1:

### THE DROWNING PREVENTION STRATEGY: TOWARDS A WATER SAFE NEW ZEALAND 2005-2015

#### The vision is:

- A water safe New Zealand, free from drowning; a water safety culture established in New Zealand.

#### The goals are:

- Provision of effective leadership by the water safety sector and government;
- Delivery of exceptional water safety services.

#### There are eight objectives, covering:

- Strategic direction and co-ordination
- Ensuring an appropriate water safety infrastructure
- Resourcing levels and distribution
- Research and development
- Emergency rescue services
- Water safety education and awareness
- Safer environments in, on, under and around water
- Community and sector engagement.

#### The key risk areas to be addressed are:

- Environments (inland waterways, surf beaches, open sea, domestic)
- Activities (swimming, fishing and boating)
- Demographic groups (males, the 0-4 year age group, 15-44 years, and Maori)

### THE IMPLEMENTATION MANAGEMENT GROUP

An Implementation Management Group (IMG) has been formed to identify and prioritise the activities that will support the Strategy's goals and objectives. The first Implementation Plan will operate until 2010; then another plan will be developed.

The Implementation Management Group is made up of the following organisations (listed here in alphabetical order):

- Accident Compensation Corporation (Kate Ryder, Stakeholder Relationships Manager)
- Injury Prevention Research Unit, University of Otago (David Chalmers, Associate Professor, Deputy Director)
- Maritime New Zealand (Sharyn Forsyth, Manager Strategic Analysis and Planning)
- New Zealand Injury Prevention Strategy (NZIPS) Secretariat (Megan Bly, Programme Manager)
- New Zealand Recreation Association (Brendon Ward, CEO; IMG Chairperson)
- Royal New Zealand Coastguard Incorporated (Kevin Rangi, CEO)
- Surf Life Saving New Zealand (Geoff Barry, CEO)
- Swimming New Zealand (Paul Veric, CEO)
- WaterSafe Auckland Incorporated (Kevin Moran, Chairman of the Board)
- Water Safety New Zealand (Alan Muir, Executive Director).



# THE TERRITORY'S FIVE POINT PLAN TO WATER SAFETY

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## ABSTRACT

### Background

In 2001 the Northern Territory had the highest rate of drowning of children aged 0 – 5 in Australia. With a drowning rate three times the national average.

Intense media coverage, public debate and a comprehensive and compelling submission from lobby groups, regarding the issue of swimming pool fencing, and the growing problem of child drowning in under fives, become a catalyst for much needed change to legislation and attitude.

In 2002 the newly elected Labour Government introduced a plan to tackle the alarming rate of drowning. They called the initiative the Five-point Water Safety Plan.

### Program Description

The Plan had a number of aims.

#### It had to:

- reduce the rate of drowning by providing children with a safer environment,
- preserve the Territory's outdoor lifestyle,
- broad, uniform and include enforceable legislation, and
- include public awareness and education.

#### The Five-point Water Safety Plan

1. Introduction of uniform swimming pool fencing legislation throughout the Northern Territory.
2. Early registration incentive scheme with a cash bonus.
3. Interest-free five year loans to help fund upgrades.
4. Government subsidised water awareness program for children under five.
5. Establishment of a Water Safety Advisory Council to advise government on broader safety issues.

The key objective of the NT Government in addressing the water safety issue was to reduce the drowning rate as a result of the regulation of pool fencing, improved public awareness and education programs, and incentives toward change.

The Pool Fencing Act was reviewed due to growing community concern that the laws and the requirement to conform to Australian Standard 1926.1 were inflexible and too rigid. The Pool Fencing Act was superseded by the Swimming Pool Safety Act 2004 which accommodated self certification and greater flexibility.

### Outcome

The success of the Five-point Plan and the consequential journey is in the statistics. The Northern Territory has recorded no death by drowning of a child under five years of age since the introduction of the Five Point Water Safety Plan.

## PRESENTATION

Government is committed to ensuring that we provide the safest possible environment for children around water<sup>1</sup>. The Hon. John Ah Kit, then Minister for Community Development.

The Northern Territory water safety policy agenda is bigger than just pool fencing. It is an agenda based on years of public and private debate and finally set in motion in 2002 after the number of young children drowned in unfenced back yard pools and spas in the Northern Territory tripled the national per capita average.

### SIX YEARS IN THE MAKING!

The average annual incidence of drowning and near-drowning from 1994 to 1997 for children aged 0 - 4 years in the Northern Territory (67.82 per 100,000) was significantly higher than for Australia (24.45 per 100,000). The proportion of children aged 0 – 4 years drowning or near drowning in the Northern Territory (83%) than Australia (64%)<sup>2</sup>.

Between 1983 and 1998, 40 children aged 0-4 years drowned in a swimming pool in the NT.

With these alarming statistics came intense media focus, lobbying and public debate.

<sup>1</sup> Parliament Record No. 17 Debates – Ninth Assembly. Mr John Ah Kit Swimming Pool Safety Bill, 2004.

<sup>2</sup> Edmond, KJ, Attia JR, D'Este CA, Condon JT. Drowning and Near Drowning in Northern Territory children, 2001.



In July 1996, following the drowning deaths of 5 infants in 1995 and early 1996, the then Coroner for the Northern Territory, Mr John Lowndes, released a report recommending the introduction of 'working party' to investigate the incidence of child drowning. He recommended that the working party consist of representatives of both Territory and local government, aquatic and interested parties and bodies.

The aim of the working party was to assess a Territory wide approach to the regulation of private swimming pools.

In August 1997, the working party was formed. Considerable research was undertaken and the working party held a workshop in November 1997 to finalise recommendations. In February 1998 the working group reported its findings.

The key recommendations put to government were:

- (a) that there should be overarching pool fencing legislation enacted by the Government, and
- (b) the legislation should apply to all residential swimming pools in the Territory.

At this time there was no continuity in the Northern Territory between Councils, had either no laws or its own set of by-laws regarding what, if any, fencing was required. Change was inevitable.

In late 2000 the Northern Territory Government broached the option of enforcing the Australia Standards at Darwin City Council the largest of all municipal Councils. The Darwin City Council rejected the call for the introduction of by-laws for Australian Standard isolation and separation fencing, preferring their laws which included perimeter fencing with drive way gates.

Public opinion on pool fencing and water safety in the Northern Territory was strong and divided. Despite the alarming drowning statistics and the findings of the working party, not all members of the community were supportive. Some individuals were concerned that while their pool fence complied with the existing council by-laws, it may not be compliant under the new legislation and would be expensive to bring up to the required standard.

There were also people who were opposed to isolation fencing "in principle"; because they did not have children and felt they should not have to fence their pool for the sake of children who may wander onto their property.

Others held the view that legislation would be an imposition on the Territory's laid back lifestyle.

In January 2001, the Royal Life Saving Society prepared a submission to the NT Government urging the adoption of water safety legislation. It was reinforced by a strong media led campaign which encouraged the tough pool fencing laws to be introduced including the adoption of Australian Standards.

These sentiments were strongly supported by evidence released by Kidsafe in February 2002. Its 10 year data showed that in that period almost 80 children had either drowned or nearly drowned in the NT with 57% of these incidents occurring in back yard swimming pools or spas.

Territory toddlers were at risk.

February 2002 brought more tragedy and action. Following the drowning of a toddler at a suburban recreational park called Lake Leanyer, calls for water safety reach new levels...levels that could no longer be ignored.

Action was required.

In March 2002 the Northern Territory Government announced a review into pool fencing legislation. Government considered mandatory isolation fencing in response to calls from Royal Life Saving Society and Kidsafe.

By mid 2002 the momentum increased when mothers who had lost children joined in a campaign fuelled by the local newspaper the Northern Territory News.

## THE PLAN

The Northern Territory Government wanted to create, a policy that met the desire of the community to reduce the numbers of child drownings, and a commitment to providing the safest possible environment for our children around water.

The Government also wanted a policy that struck the right balance between protecting children and preserving the Territory's outdoor lifestyle.

The fundamental values were to bring in a regulatory regime that was equitable, provided protection for young children around swimming pools, and did not penalise those who had already done the right thing (i.e. they had put in fencing to the local council standard).

The result was the Swimming Pool Fencing Act 2002 which incorporated the five point plan to water safety.

## THE TERRITORY'S FIVE POINT PLAN TO WATER SAFETY

1. Introduction of uniform swimming pool fencing legislation throughout the Northern Territory.
2. Early registration incentive scheme with a cash bonus.
3. Interest-free five year loans to help fund upgrades.
4. Government subsidised water awareness program for children under five.
5. Establishment of the NT Water Safety Advisory Council to advise government on broader safety issues.

### Uniform Legislation

The main objective of the legislation was to bring the requirements for pool fencing in the Northern Territory up to the Australian Standard for pool fencing 1926.1. The overall aim was to improve pool fencing standards to give those that care for children more time to react to prevent a child drowning.

The legislation repealed existing local government pool fencing by-laws and mandated that new pools needed to be fenced to comply with the appropriate Australian Standard. This meant barriers for new pools could not include doors from the house. Existing pools that were compliant with the repealed council by-laws satisfied the new legislation (even though they may not have complied with the Australian Standard) unless the owner wanted to sell the property.

The legislation required all pools to be registered. Existing pools had to be registered within 18 months and new pools within 4 weeks of installation. The legislation prevented the sale of properties unless a compliance certificate (to the Australian Standard) had been obtained.

This meant that at the time of sale, all pools had to be fenced to the Australian Standard. The requirements were the same for leased properties where pools had to be registered and enclosed to the Australian Standard before a lease could be renewed.

Blocks of 2 hectares and larger were exempt under the legislation. Some parliamentarians argued that all pools should be fenced, regardless of size. The exemption was made on the basis that the relative risk of children drowning in those pools was lower, and the existence of hazards such as creeks and dams in the surrounding areas which were not covered by the legislation. In addition, it would be significantly harder to enforce the legislation in remote and regional areas where the larger blocks are predominantly located.

The legislation was largely inflexible in how it required pool owners to comply with certain standards of pool fencing. There were some prescriptive elements whereby the legislation gave specific powers to pool inspectors so that they could carry out their duties. Public debate raged again as pool fences failed compliance to the Australian Standards.

### EVALUATION & REVIEW

While the Swimming Pool Fencing Act 2002 largely achieved its intended objectives, unforeseen issues were raised publicly through letters to the editor, talk back radio and through complaints to the Pool Fencing Unit, about the workability and equity of the legislation.

The initial problems related to the size of the blocks that were exempt from the legislation (large premises) and the discretionary powers of the Swimming Pool Fencing Authority to register non-standard enclosures. The legislation specified that large premises were those larger than 2 hectares.

It was then pointed out that some blocks in the rural areas were less than 2 hectares and were not exempt from the Swimming Pool Fencing Act 2002, while surrounding blocks were larger and thus exempt. The intention of exempting large blocks was being misconstrued and the Swimming Pool Fencing Amendment Act 2003 changed the definition of large premises to be those greater than 1.8 hectares.

The other amendment enacted by the Swimming Pool Fencing Amendment Act 2002 was in relation to the discretionary powers of the Swimming Pool Fencing Authority. The previous legislation allowed non-standard enclosures to be registered provided that it was impracticable and unreasonable to require the Australian Standard and certain preconditions were met. This was found to be unworkable. The amendment expanded the authority's discretionary powers and gave the flexibility to register a non-standard pool enclosure where it was impracticable and unreasonable to require the Australian Standard or the specified preconditions were met. The change allowed the authority to register some pools that did not meet the required standard without compromising the intent of the legislation. A review was conducted twelve months after the legislation was put in place.

The review found that the legislation, as it stood, did not accurately reflect community values and standards. The community wanted greater flexibility regarding fencing standards and a higher level of personal responsibility for pool owners. It was also found that many elements of the Swimming Pool Fencing Act 2002 were unworkable and not practical. A time for change was near.

## CHANGE

The Government decided a new pathway was needed to make its pool fencing legislation more workable. The new Swimming Pool Safety Act 2004 came into effect on 15 March 2004.

The key problems identified, and subsequent changes made in the new legislation are set out below:

- The Australian Standards required fences that adjoined a neighbouring property to be measured from the neighbour's side of the fence. This was not practical, so the Australian Standard was modified so that a neighbouring property does not affect a pool or spa's compliance;
- A new Community Safety Standard was introduced for 'existing pools' (those installed before January 2003). This is a self certification option that allows a pool owner to self declare that their pool has an effective barrier in place that will prevent a young child from gaining unsupervised access to the pool. \*Perimeter fencing alone does not comply with the Community Safety Standard;
- A more practical approach to change of ownership and upgrading a barrier was required. Owners of 'existing pools' wishing to sell a property with a non-compliant pool fence now have an alternative option available to them. The Provisional Compliance Certificate was introduced and is sufficient to allow transfer of title. The purchaser can also now assume responsibility to upgrade the pool fencing. Additionally, in situations where there is no pool, an inspection is no longer required to confirm this. The purchaser and vendor can now sign a joint declaration to that effect, or a real estate agent or licensed conveyancer can sign a statutory declaration;
- Pool Safety Inspectors were superseded by Pool Safety Advisers. Advisers give free pool safety advice and compliance visits as well as education;
- Registration of pools is no longer required and refunds were given to those who paid under the previous legislation;
- The fees for new pools were removed. Contractors and owners are required to make an application before installing a new pool;
- A new, more generous, Safer Pool Grant Scheme was introduced to assist with the costs and encourage pool owners to upgrade fencing. Under the new scheme the Government will contribute 75% of the cost, up to a maximum of :
  - \$3,000 for the new Community Safety Standard; and
  - \$4,000 for the modified Australian Standard.

## CONCLUSION

Pool fencing legislation in the Northern Territory is a contentious issue; it affects approximately one in three households in the Territory, and is far reaching. There were, and still are vocal lobbyists on both sides of the argument. Whichever position the Government took; there would be a large proportion of the community who would be unsatisfied with the outcome.

In this regard, when the Chief Minister said "I believe it is the responsibility of Governments to make hard decisions for the benefit of the electorate as a whole", she spoke of legislation such as the 2002 Pool Fencing legislation. No child has drowned in the Northern Territory since Easter 2002, but the job is not done. It is estimated that half of the pools in the Northern Territory have been inspected; some 10,000 and 10,000 remain unchecked, potentially unfenced, potential dangers. What is more worrying is that approximately 1,000 new pools are being installed every year. Vigilance in regulating the legislation is required. In conclusion, legislating for pool fencing implemented one set of rules Territory wide.

When a Government makes change, it can often be accompanied by a certain amount of political heartache as was the case in 2002. History tells us however that what sparked unprecedented debate then, can now be looked back at, as bold and courageous decision making. The results are irrefutable. The Northern Territory pool fencing laws have saved lives. The Territory can now stand proudly as a national leader in water safety.

The Northern Territory has achieved its goal – so far. There is always more to do. Legislation was the beginning. The new era will include education, regulation and prosecution.

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# TO BREAK THE DROWNING CYCLE WE NEED A TOTAL SERVICE PLAN

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## ABSTRACT

There are 4 factors that could lead to a drowning. This is known as the drowning cycle and is summarised as follows:

- (1) Ignorance, disregard or misjudgement of, or, unprepared for the danger,
- (2) Uninformed, unexpected or unrestricted access to the hazard,
- (3) Lack of supervision or surveillance,
- (4) An inability to cope once in difficulty,

A 'preventable drowning' is therefore a drowning which could be avoided if the appropriate preventative action was in place to 'break' the drowning cycle described above. We must look at strategies to address all 4 factors if we want to reduce drowning - not just to provide additional surveillance.

## A Total Service Plan

The Australian Surf Life Saving Board of Lifesaving has addressed the above issues by developing a Total Service Plan. This helps us identify the gaps, and also enables priorities to be set when addressing the strategies that we need to put in place to address each of the 4 aspects of the drowning cycle. The strategies can be grouped as follows:

- (1) Education and information
- (2) Denial of access and or provision of warnings
- (3) Provision of supervision, and
- (4) Acquisition of survival skills

Surf Life Saving Australia (SLSA) has addressed each of these 4 areas with appropriate programs. In relation to misjudgement of the danger, we have introduced education programs such as Beach to Bush where trained surf lifesavers travel to schools in regional and remote areas to educate children in beach and aquatic safety, we place brochures in airports and hotels and use advertising to spread the water safety message.

Our standard signage manual, coastal auditing, Australian Coastal Public Safety Standards and ABSAMP data bases have assisted us to provide appropriate warnings while lifesavers blowing a whistle to move people back into safe swimming zones, also act as a warning.

We are working with local councils to ensure access points are appropriate to the beach. We have established 305 volunteer surf lifesaving clubs around Australia, together with support services, coastal and aerial surveillance and paid lifeguard services to cover both peak and non peak bathing times. Our comprehensive Nipper or junior lifesaving program and our Surf Education programs help teach people how to look after themselves, and others, should they get into difficulty, both at the beach, at home or in swimming pools.

## PRESENTATION PAPER

### Background/Introduction

- The aim of understanding the drowning cycle is to ensure that all aspects of how and why people drown are covered within our strategies to reduce drowning, both in Australia and worldwide.
- Target groups are identified through analysis of the reasons people drown so that appropriate strategies to reduce drowning can be implemented.

### Methods

- SLSA has provided 100 years of surveillance and rescue capability to the Australian beach going public.
- In addition SLSA has a number of educational and preventative strategies in place to help reduce drowning at our beaches.

### Results/Evaluation

- Data on drowning is provided each year within drowning reports.
- Each State prepares a Frontline First document that has key performance indicators against which progress on initiatives to implement a Total Service Plan are measured.

### Discussion

- A GAP analysis has been completed in relation to the Total Service Plan and initiatives put in place to close the identified gaps.
- Initial results of the additional service provision in Tasmania and Western Australia are extremely promising, not only from a surveillance point of view but also educational and revenue generation.
- The main challenges in implementing the initiatives have been funding?
- We have partnered with a number of sponsors to enhance and supplement the program.

### Conclusion

- An awareness of all of the factors that lead to accidental death by drowning will enable a Total Service Plan to be implemented so that a reduction in drowning can be achieved.

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# PRESENTATIONS: FISHING

## ROCK FISHING SAFETY CAMPAIGN

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### ABSTRACT

Rock fishing is considered one of the most dangerous pastimes in NSW, accounting for more than 74 fatalities in the nine year period between 1992 and 2000. In 1993 the NSW Coroner stated that "rock fishing has the highest fatality rate of any sport in NSW".

The latest indicative figures gathered by Monash University from Coronial records for the period 2000 to 2004 show that the average is still around 7 deaths each year. Males account for most deaths with people from culturally and linguistically diverse backgrounds such as Chinese and Vietnamese accounting for a high percentage.

At a Coroner's inquest held into the deaths of Norman Munsie and Donald Gunn in April 2005 the Deputy Coroner made recommendations in relation to the ongoing education for rock fishing safety and cooperation between relevant government and volunteer organisations to raise awareness of the dangers of rock fishing. Recommendations included: NSW Sport and Recreation in cooperation with ANSA implemented the "Don't put your life on the line" rock fishing safety campaign in 2002.

Following on from the original "Don't Put your Life on the Line" campaign NSW Sport and Recreation, ANSA and Recreational Fishing Alliance made an application to the recreational Fishing Trust for funding to develop a four stage safety campaign. This campaign included:

- Production of 50,000 copies of the new (2005) version of the Rock Fishing Safety brochure translated into four languages
- Production and distribution of a Rock Fishing Safety DVD presented by Andrew ET Ettingshausen. Distribution of 17,000 copies through Fishing World magazine to NSW and Victoria
- Conducting two rock fishing safety workshops for the Vietnamese and Korean communities (80 participants)
- Production of a CDROM resource to be distributed to all fishing clubs and associations and targeted Asian communities.

The original "Don't put your life on the line" campaign has been picked up by Victorian Life Saving. Posters and brochures will be re-branded with Victorian Life Saving logo and disseminated throughout their networks. Victorian Life Saving will also trial the angel ring lifebuoy program in known blackspots along the Victorian coastline. There are plans to take the campaign national.



### Acknowledgements

The total funding for the project was \$80,000. Funding was obtained from the Recreational Fishing Trust. [www.dpi.nsw.gov.au](http://www.dpi.nsw.gov.au)

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**MAL POOL**

*Recreation Fishing Alliance of NSW*



The Australian National Sportfishing Association (ANSA) has also implemented a number of activities to encourage safe fishing. Some of these projects include:

- The Angel Ring Project – installation of angel ring life buoys at known blackspots that originated within NSW and is being developed throughout Australia. A pilot project has been under development in VIC since Jan 2006 and a WA project is being progressed.
- Distribution of National Rockfishing Safety Package to all its member associations across Australia, including an Angel Ring Kit and all available rockfishing safety material.

## PRESENTATION PAPER

### Team/Organisation

The project team for the Rock Fishing Safety Campaign included representatives from NSW Sport and Recreation, Australian National Sportfishing Association, the Recreational Fishing Alliance of NSW and Multicultural Marketing and Management.

### Background

The aim of the project was to target rock fishers particularly of Asian backgrounds including Vietnamese, Korean and Chinese. Rock fishing is considered one of the most dangerous pastimes in NSW, accounting for more than 74 fatalities in the nine year period between 1992 and 2000. In 1993 the NSW Coroner stated that "rock fishing has the highest fatality rate of any sport in NSW". The latest indicative figures gathered by Monash University from Coronial records for the period 2000 to 2004 show that the average is still around 7 deaths each year. Males account for most deaths with people from culturally and linguistically diverse backgrounds such as Chinese and Vietnamese accounting for a high percentage.

The workshop sessions of the project for the Korean and Vietnamese communities was conducted at Eastern Suburbs rock fishing locations; Maroubra and Botany Bay.

### Methods

The project consisted of four parts:

- Production of 50,000 copies of the new (2005) version of the Rock Fishing Safety brochure including instruction on angel ring deployment
- Production and free distribution of a Rock Fishing Safety DVD presented by Andrew 'ET' Ettingshausen. Distribution of 17,000 copies through Fishing World magazine to NSW and Victoria and a further 8,000 distributed to all fishing clubs and associations and targeted Asian communities.

This includes 30 second Community Service Announcement on radio and TV.

- Conducting two rock fishing safety workshops for the Vietnamese and Korean communities (80 participants)
- Production of a CDROM resource to be distributed to all fishing clubs and associations and targeted Asian communities (still under development).

The project has been implemented in stages over the past 12 months.

### Results/Evaluation

So far evaluation of the success of the project has been through direct survey results from the two Asian workshops. Initial indications are that the safety messages emphasized in the workshops had an immediate impact of the groups and results from the Vietnamese survey were positive with participants showing an understanding of the safety messages. It is anticipated that the project team will seek further funding from the Recreational Fishing Trust to complete a full evaluation of the entire campaign and revisit these community groups to gauge the longer-term success of the campaign.

The success of the project can be measured against the recommendations made by the NSW Coroner at an inquest into the deaths of Norman Munsie and Donald Gunn in April 2005, where the Deputy Coroner recommended ongoing education for rock fishing safety and cooperation between relevant government and volunteer organisations to raise awareness of the dangers of rock fishing. Comprehensive results would not be known until further evaluation is carried out.

Unexpected results have been that the campaign has generated interest among the wider fishing community with over 9,000 hits a month on the website where visitors can download a copy of the DVD and on average 300 emails a month requesting a copy of the free DVD. In a recent fishing report in the Daily Telegraph one of the campaigns safety messages was included at the end of the report about not fishing alone on the rocks.

### Discussion

The project will seek funding from the Recreational Fishing Trust each year to conduct further workshops with other community groups. The campaign has been picked up by Life Saving Victoria and will be replicated there after an initial pilot project which includes the installation of angel rings on blackspots of the Victorian coastline. The Australian National Sportfishing Association, Victorian branch initiated the interest in rolling out the campaign in that State.

The main challenges of the project related to resources and the diverse unstructured nature of the sport of rock fishing. By that we mean that it was difficult to locate and communicate with rock fishers on a collective basis particularly Asian communities. These difficulties were overcome by using contacts within the sport from volunteers and commissioning a project manager for certain parts of the project including the Asian community workshops and translation of material. Another challenge related to obtaining the services of Andrew Ettingshausen to be the presenter on the DVD.

This held up the start of this part of the project trying to secure dates for filming. The only way to overcome this issue was to ensure that the presenter's commitment prior to the commencement of the project.

The use of an external project manager was invaluable in relation to tapping into their contacts and managing the project allowed other resources to concentrate on other issues.

### Conclusion

The project was essentially developed to increase the level of education on rock fishing safety particularly to Asian communities as they feature highly in the death statistics. The project achieved these outcomes as the results of the survey indicated and the generated interest in the wider community for information about rock fishing safety.

The profile of Andrew Ettingshausen was an important part of achieving this profile. Gaining the support of all stakeholders has also been an essential element in the success of the project which will ensure momentum into the next phase of the education campaign.

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# HOOK, LINE AND SINKA' FEW

## RISK ATTITUDES AND BEHAVIOURS OF AUCKLAND'S WEST COAST ROCK FISHERS

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### ABSTRACT

#### Background

Rock fishing is one of New Zealand's most dangerous pastimes. In spite of the persistence of rock fishing fatalities on Auckland's rugged west coast, little is known about the rock fishing fraternity, their demographic make up, water safety knowledge, attitudes and behaviours when fishing at hazardous locations.

#### Purpose

The purpose of the study was twofold, firstly, to pilot a rock fishing safety education programme and, secondly, to conduct a survey of rock fishing participants to enhance our understanding of their water safety practices and beliefs about the risks associated with rock fishing.

#### Method

Four high-risk rock-fishing locations were selected as sites to conduct the study during the summer months of 2006. All rock fishers either on-site or in transit to the site were asked to complete a self-directed, written questionnaire that sought information on fishing practices and beliefs.

#### Results

Many fishers were not frequent users of the sites where they were interviewed. For more than one third ( $n = 91$ ; 36%), it was their first time at the site. In terms of survival ability, one third ( $n = 81$ ; 32%) of fishers estimated that they could swim less than 25 m. In terms of at-risk behaviours, almost three quarters ( $n = 180$ ; 72%) never wore a life jacket, and almost one half had gone to the water's edge to retrieve a snagged line ( $n = 120$ ; 48%).

One third of fishers thought that other fishers were at greater risk than themselves ( $n = 81$ ; 32%) and almost half ( $n = 116$ ; 46%) thought that they were strong swimmers in comparison with others. One half ( $n = 127$ ; 50%) also thought that their local knowledge of the site would prevent them from getting into difficulty.

## Conclusions

Many rock fishers appeared to overestimate their ability and underestimate the risk associated with rock fishing, a potentially lethal combination. Ways of addressing rock fisher water safety are discussed.

## PRESENTATION PAPER

### Introduction

Rock fishing is one of New Zealand's most dangerous pastimes. In the 16 years between 1980-1995, 63 people lost their lives while fishing off New Zealand's rugged coastline. The five most recent fatalities leading up to the summer season of 2005-06 created a great deal of concern among both rescue and water safety groups and the public at large. In response to this concern, the Auckland Regional Council (ARC), WaterSafe Auckland Inc (WAI) and Surf Life Saving Northern Region (SLSNR) jointly commissioned a project to address mounting concerns over the increasing number of rock fishing fatalities on Auckland's west coast. The purposes of the project were threefold: 1) to pilot an on-site rock fishing safety education promotion; 2) to study the demographics, beliefs and behaviours of Auckland's west coast rock fishers and 3) to make recommendations for future rock fishing safety promotion based on the information obtained.

### Method

Four high-risk rock fishing locations – Muriwai, Piha, Karekare and Whatipu – were selected as sites to pilot the safety campaign and survey rock fishers during the summer months of 2005-06. Four temporary rangers, fluent in Chinese, were employed and trained as rock fishing safety advisers and survey administrators. All rock fishers either on-site or in transit to the site were asked to complete a self-directed, written questionnaire that sought information on fishing practices and beliefs. A very high response rate (91%) was obtained with only 21 refusals during the 10-week data-gathering period resulting in a final database of 250 fishers.

### Results and Discussion

Ten times as many males than females (males, 229; females, 21) took part in the study and more than half (n = 142; 57%) were in the 25-44 year age group. In terms of ethnicity, proportionally more Asian peoples (n = 123; 49%) were included in the study whereas proportionally less European (n = 83; 33%) and Maori (n = 16; 10%) New Zealanders were included. Almost one half (n = 105; 42%) of those surveyed were of recent residency (< 4 years).

Many fishers were not frequent users of the sites where they were interviewed. For more than one third (n = 91; 36%) of respondents, it was their first time at the site.

Cumulatively, more than two thirds (n = 173; 69%) of rock fishers had fished at that location less than 5 times. Only one fifth (n = 51; 20%) had fished at that location more than 10 times.

In terms of survival ability, one third (n = 81; 32%) of fishers estimated that they could currently swim non-stop for 25 m or less and almost one third (n = 79; 32%) estimated that they could currently swim 100 m. More than half (n = 144; 58%) of rock fishers had no ability to perform a deep-water rescue and one fifth (n = 47; 19%) estimated poor rescue ability. Most fishers (n = 155; 62%) also had limited or no ability to perform CPR with one third (n = 87; 35%) estimating no knowledge of CPR and a more than one quarter (n = 68; 27%) estimating poor ability.

In terms of at-risk behaviours, almost three quarters (n = 180; 72%) of fishers never wore a lifejacket, almost one half had gone to the water's edge to retrieve a snagged line (n = 120; 48%) or turned their backs to the sea (n = 103; 41%), more than a third (n = 90; 36%) had worn gumboots or waders, and one fifth (n = 50; 20.0%) had consumed alcohol while rock fishing.

One third of fishers thought that rock fishing was no more risky than other aquatic activities (n = 97; 39%) or didn't consider drowning as a constant threat (n = 75; 30%). One third (n = 81; 32%) felt that others fishers were at greater risk than themselves and almost half thought that they were strong swimmers in comparison with others (n = 116; 46%). These latter two perceptions are interesting given that only one third (36%) of respondents thought that they could currently swim more than 200 m. These findings suggest that many fishers may overestimate their ability and underestimate the risk associated with rock fishing, a potentially lethal combination.

Most fishers agreed that always wearing a lifejacket made fishing a lot safer (n = 176; 71%) and that turning their backs to the waves when rock fishing was very dangerous (n = 230; 92%). However, as previously indicated, many rock fishers admitted that they had never worn a lifejacket (n = 180; 72%) and had turned their backs to the waves (n = 103; 41%) when fishing. This gap between what rock fishers think and what they do with regards to their safety suggests that entrenched risky practices persist even when participants are aware of the danger.

One half (n = 127; 51%) of the fishers agreed that their local knowledge of the site at which they were fishing meant that they were unlikely to get into difficulty. It would appear unlikely that this is the case however, since it was the first visit to the site for one third (n = 91; 36%) of fishers and more than two thirds (n = 173; 69%) had only visited the site a maximum of five times.

Furthermore, more than half (n = 145; 58%) thought that their experience of the sea would keep them safe when fishing. This confidence in their experience of New Zealand sea conditions also seem misplaced given that almost half (n = 105; 42%) were of recent residency (< 4 years) and most (n = 174; 60%) participants in the survey were not long-term residents. As was the case with their practical survival abilities, many fishers appear to have overly optimistic perceptions of their preventive skills and knowledge in reducing their risk of drowning at high-risk west coast locations.

### Conclusions

In light of these findings, several recommendations are made. These are:

- Retain the rock fishing safety adviser summer campaign for a further two years in order to refine and reinforce the pilot project messages as well as to assess the effect of the programme on rock fisher's beliefs and entrenched at-risk behaviours.
- Promote the use of collar-type inflatable lifejackets among the rock fishing community. Several strategies may achieve this goal. A promotion similar to that currently being conducted with regard to lifejacket use in boats would be a useful awareness- raising starting point. Inducements to purchase collar-type lifejackets, joint promotions with fishing tackle shops, fishing magazines and fishing programmes pamphlets and television/ radio safety promotion messages could be valuable ongoing reinforcing strategies.
- Target rock fishing safety promotion at rock fishers from among the Asian community and among those of recent residency. Multilingual information via DVD's and videos, community TV and radio programmes, and written material such as posters, pamphlets are some ways to reach this audience.
- Promote swimming survival and other emergency skills among all fishers, but especially among those with poor or no swimming ability. Free or subsidised swimming survival and water safety lessons at community pools or through commercial providers may be a way of promoting swimming survival proficiency.
- Erect multilingual signage at all high-risk sites indicating site-specific dangers and emergency instructions.
- Given the extensive lack of personal floatation aids used by fishers, angel rings and other appropriate flotation devices should be placed at all high-risk locations and regularly maintained (as is current practice on Flat Rock, Muriwai).

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### Further Information

Copies of the report entitled Water Safety and Auckland's West Coast Fishers. Report to the Auckland Regional Council, Surf Life Saving Northern Region and WaterSafe Auckland is available in PDF format on the website of Watersafe Auckland at: <http://www.watersafe.org.nz>

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# RECREATIONAL FISHING AND COASTAL SAFETY

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## ABSTRACT

### Aims and Purpose

The Coastal Safety and Near-Drowning Survey investigates the occurrence of near-drowning and perceptions of coastal safety as part of a community-based action plan to raise awareness and ownership of local coastal safety issues.

### Methodology

The survey was adapted from the Coastal Safety and Near Drowning survey developed by Gill & Buttfield (2004).

The design of the tool is such that it utilises a community action approach and the community implements the collection of the data. The collection process encourages community participation and ownership of the issue. Once data analysis is complete, the results and recommendations are presented to the community and key stakeholders.

### Findings

The Coastal Safety and Near-Drowning surveys have been successfully completed in Albany and Bremer Bay and are currently being implemented in the Denmark, Geraldton, Kalbarri, Bunbury and the South West region. Results will be available by April 2006.

In Albany, 77% of near-drownings involved males and 74% were Lower Great Southern residents. 70% of near-drownings were people aged 15-39 years and 58% involved rock fishing with slippery rocks and large swell the main factors.

In Bremer Bay there were 36 near-drowning incidents reported with rock fishing again reported as the main activity being undertaken. Doubtful Island was identified as particularly dangerous and respondents perceived coastal safety signage to be inadequate.

### Conclusions and Recommendations

Based on recommendations from the Albany report, we are working with the Nathan Drew Memorial Trust and the Great Southern Population Health Service to develop an education package to be delivered through primary schools in the region.

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## PRESENTATION PAPER

### Background / Introduction

The death of a 15 year old Albany boy washed from rocks while fishing in 2003 was the catalyst for an introspective look by all those involved in water safety within the Great Southern region of Western Australia.

Although only 15% of Western Australians live in regional areas, a disproportionately high number of drownings occur in regional areas of the state (Royal Life Saving Society – WA Branch, 2003). While the metropolitan health region recorded the most drownings of any single health region, the majority (59%) were recorded in regional or remote areas of Western Australia (Royal Life Saving Society – WA Branch, 2004).

The Great Southern Health Region encompasses 38,921 square kilometres and is located near the south west corner of Western Australia. The region is bounded by the Shire of Katanning (north), the City of Albany (south); the Shire of Jerramungup (east), and the Shire of Denmark (west).

Drowning is one of the top four causes of injury death in the Great Southern region, compared with the state ranking of sixth (Gillam et al, 2004). Drowning accounted for 11% (Gillam et al, 2004) of all injury deaths in the Great Southern Health region. Approximately 3.3 drownings occur each year in this region (Gill & Butfield, 2004).

Young and Associates (1989) investigated drownings and the dangers facing shore-based fishermen along the Western Australian coastline, dividing the coastline into three main stretches: northern, central and southern.

The southern coastline was identified as being the most treacherous area for recreational fishermen. Large swells were identified as the most common cause of entry into the water and rocks and hypothermia were indicated as most common causes of death. The report recommends that education and community strategies would have the greatest effect on locals and that these strategies should be implemented through a community action plan.

The report was unable to accurately identify exact numbers of drownings of shore-based fishermen, and did not address the issue of near-drowning, or the broader knowledge and perceptions of coastal safety.

The Recreational Fishing and Coastal Safety project addresses the issue of coastal safety in Western Australia through region specific research and interventions. The program objectives are to:

- Create a profile of coastal usage and near-drowning in selected regions
- Provide communities with a process to assist them in the identification of local coastal safety priority areas
- Collate data from surveys to provide an overview of coastal safety and near-drowning along the coastline of Western Australia
- Raise community awareness of coastal safety and the incidences of near-drowning in each region

### Methods

Priority regions in Western Australia were identified to implement the project, based on drowning statistics and community interest.

The current survey tool was initially developed by the Great Southern Population Health Unit and the Nathan Drew Memorial Trust. This was later modified by the Royal Life Saving Society – WA Branch to be region specific and to allow it to be implemented by the community to enhance ownership and awareness of the issue.

The Coastal Safety and Near-Drowning/Near-Miss Survey Package consists of two survey forms and accompanying instructions. Survey forms include the Coastal Safety Survey and the Near-Drowning/Near-Miss Survey.

The Coastal Safety Survey features questions addressing the usage of the coast, perceptions of coastal dangers and the respondents' ability to react to them, near-drowning incidents and community support for intervention strategies.

The Near-Drowning/Near-Miss Survey features questions addressing the factors leading up to the incident, the specifics of the incident and the victim and the use of emergency services following the event. The Near-Drowning/Near-Miss Survey also contains two screening questions to improve the quality of the data.

- The two screening questions were included to:
1. Avoid collecting incomplete information due to the incident occurring a long time ago and
  2. Minimise the risk of duplicate data

The design of the tool is such that the community implements the collection of the data. The collection process itself encourages community participation and ownership of the issue. Once the data analysis is complete, the results and recommendations are reported back to the community.

## Results / Evaluation

The surveys were completed in three locations within the Great Southern region; Albany, Bremer Bay and Denmark.

Key findings from the Albany Near-Drowning Report (Gill & Buttfield, 2004) revealed that of those who experienced a near-drowning, 77% were male and 74% were Lower Great Southern residents. The results indicated that older people were more likely to drown than younger people. However, it was also found that younger people were more likely to experience a near-drowning with 70% aged between 15-39 years. Rock fishers accounted for 58% of near-drowning incidents, with one fifth of these occurring at Salmon Holes. Key environmental factors for near-drowning incidents in Albany were large, unexpected swells, slippery rocks and rips. Personal behaviour of standing too close to the edge of rocks was also reported to be a factor.

This report identified that education was the single most important and potentially effective means of reducing drowning and near-drowning in the region.

Findings from the Bremer Bay Coastal Safety and Near-Drowning Report indicate that 50% of respondents strongly agreed that the Bremer Bay coastline was dangerous. Respondents perceived that signage warning of coastal dangers was inadequate and that education and signage development were the most effective strategies to raise community awareness of coastal safety issues.

Amongst near-drowning reports, rock-fishing was the activity most commonly being undertaken at the time of the incident. Ocean swell was the most common environmental factor contributing to these near-drowning incidents and Doubtful Island was identified as a particularly prevalent location for near-drowning incidents. A community-based education intervention was recommended to tackle the issues of coastal safety and near-drowning in the region.

50.3% of respondents perceived the Denmark region coastline as dangerous. The majority of respondents reported engaging in risky behaviour while participating in coastal activities at least some of the time. Those completing the survey also had a high recognition and knowledge of the emergency actions to take if someone required assistance on the coast. Respondents perceived safety rescue equipment, personal safety rescue equipment and warning signs relating to coastal dangers as the most effective strategies to raise community awareness of coastal safety issues.

Amongst reports of near-drowning incidents, males and those aged 0-19 years were most likely to be involved. Surfing, swimming and rock-fishing were the most commonly reported activities being undertaken prior to the incident. Swell and rips were the most common environmental factors leading to the incident and a lack of knowledge and awareness was the most commonly cited contributing factor. Ocean Beach and Lights Beach were identified as particularly prevalent locations for near-drowning incidents.

A community-based education intervention was recommended to tackle the issue of coastal safety and near-drowning in the Denmark region, particularly among males aged 0-19 years. The study also recommended that interventions should target surfing, swimming and rock-fishing safety.

## Discussion

The Recreational Fishing and Coastal Safety project has given gain insight into what the communities perceive are the major coastal dangers and what will be the most effective strategies to raise awareness of coastal safety and near-drowning issues in each of the locations. The research has also assisted with the identification of priority at-risk groups, activities and locations within the region, which will direct the target groups and focus areas for future interventions.

The Coastal Safety and Near-Drowning/Near-Miss survey is now in a format that allows more detailed information to be collected and can be utilised in any region or location in Western Australia. The key recommendation from this research is that the survey should be conducted in other coastal communities along the Western Australian coastline, to provide better information relating to the prevalence of near-drowning incidences. Research has already been completed in the South West region and is currently being undertaken in the Goldfields, Midwest and Murchison and Perth Metropolitan regions of Western Australia.

## Conclusion

The Recreational Fishing and Coastal Safety project has allowed the Royal Life Saving Society to obtain detailed information regarding coastal usage and perceived dangers, effective intervention strategies and near-drowning incidents in the various locations within the Great Southern region. The results and recommendations from this research have resulted in the development of a coastal safety education package. This package is currently being trialled in selected local Albany primary schools.

# MARINE STINGER MANAGEMENT

DR LISA-ANN GERSHWIN

*National Marine Stinger Advisor Surf Life Saving Australia*

## ABSTRACT

Marine stingers currently pose the primary aquatic health and safety risk in tropical Australia, and are additionally associated with massive financial losses to tourism and wide-spread community fear. Australia's two main stinging concerns are box jellyfishes, with 70 confirmed fatalities in the past 120 years, and Irukandji jellyfishes, with only 2 confirmed fatalities but about 20% of cases requiring some level of life support. Additional Irukandji-related fatalities have likely occurred, but were likely attributed to heart attack, stroke, or drowning. Current research efforts are intensive toward prediction, prevention, and treatment, with 13 different research groups in Australia working on solving marine stinger problems. Tremendous leaps forward have been made in recent years toward improved clinical treatment, especially for Irukandji, but the primary focus of marine stinger management remains prevention, generally by some means of a barrier between stingers and human skin.

Box jellyfishes are successfully managed in northern Queensland with the use of stinger-resistant swimming enclosures, but fatalities and serious envenomations still occur at beaches without nets. Irukandji jellyfishes are not excluded by these enclosures, and are responsible for about 40-50 hospitalizations each year throughout Queensland. Preventative management of Irukandjis is focused on beach closures based on detection of the presence of stingers, or on wearing of protective clothing (ideally a full-body Lycra suit), especially offshore. Medical management of both types of envenomations is based on treatment of the symptoms.

First-aid for both types of envenomation is simple:

- 1) Call for help (dial 000 or lifeguard).
- 2) Treat the patient (emergency care, CPR if necessary).
- 3) Treat the sting (douse with vinegar).
- 4) Seek medical aid.

Studies are underway to re-examine the relative utility of vinegar and ice in stopping additional envenomation, and also other substances to relieve pain and discomfort of stings.

## PRESENTATION PAPER

### Introduction

The number one marine aquatic health risk in tropical Australia is death or injury due to dangerous marine stingers. Hundreds of species of jellyfish make their homes in Australian waters (Figure 1), but two quite different types of marine stingers pose a primary health and safety concern: Chironex-type box jellyfish, which are large and transparent, with multiple tentacles on each corner; and Irukandji-type box jellyfish, which are small and invisible, with only a single fine tentacle on each corner. Neither is easily seen by the typical beach-goer; yet both can cause comprehensive morbidity or mortality.



### Tips for safer swimming in tropical waters

- Lifesavers and lifeguards patrol the beaches for your safety and enjoyment. Please swim at patrolled beaches and between the red and yellow flags.
- Look for, and observe, warning signs.
- Swim in stinger resistant enclosures where provided.
- Stinger resistant enclosures afford a high degree of protection against Box Jellyfish; however, they are "stinger resistant" (not "stinger proof"). Lifesavers regularly drag inside and outside the net for Irukandji. If Irukandji are found the net will be closed. To avoid Irukandji stings, check with your local lifeguard or lifesaver.
- Wear protective clothing (wet suit or Lycra body suit), to reduce exposure to potential stings.
- If you can't access a full lycra suit, wear other protective clothing such as long pants tucked into socks.
- Enter water slowly (Box Jellyfish will often swim away from people given the opportunity and time).
- Do not swim when beaches are closed.

Chironex-type box jellyfish inflict a searing-hot sting, and can cause death in as little as 2-3 minutes with the heart locking in a contracted position; survivors typically bear permanent disfiguring scars. Seventy deaths have occurred in Australia from Chironex-type box jellyfish since 1884 (Currie & Jacups, 2005). In contrast, Irukandji-type box jellyfish give a minor sting, followed 5-40 minutes later by a constellation of severe systemic symptoms, including unbearable pain, profuse nausea and vomiting, cramping, spasms, drenching sweating, difficulty breathing, a feeling of impending doom and in some cases, life threatening runaway hypertension. Two overseas tourists are known to have died from Irukandji syndrome in early 2002 (Fenner & Hadok, 2002). Irukandji-related fatality might manifest as a heart attack, stroke or drowning and no diagnostic mark remains; thus, it is not difficult to imagine that some deaths may have occurred historically that were not accurately attributed.

The number of fatalities due to jellyfish in Australia is extremely low compared to other sources such as road deaths, diabetes, skin cancer and heart disease. However, dangerous marine stingers have a profound effect on our perception of recreational aquatic safety, similar to that with sharks or crocodiles. Consequently, this can have powerful effects on how and where we choose to invest our recreational time. For example, in the year following two confirmed fatalities from Irukandji stings in 2002, Queensland tourism estimated a \$65M loss due to worldwide negative publicity (R. Williams, Irukandji Task Force presentation Feb 2004).

Surf Life Saving is part of a total management initiative to reduce stings and further curtail the public anxiety that surrounds the marine stinger issue via the Queensland Government Irukandji Response Task Force. The ITF is a body of government and non-government organisations that was developed in 2002. By working closely with stakeholders involved in marine stinger management, the fundamental goal is to foster the innovation and practice of better methods of prediction, prevention and treatment of marine stingers and sting occurrences, as well as to "take the sting out" of the fearful perception by mainstreaming marine stinger safety. A full-time Marine Stinger Coordinator position was created in 2005 to act as a liaison between information providers (such as researchers, lifeguards, lifesavers and health and emergency workers) and information consumers (such as tourism operators, local governments, media and the public) and to facilitate a pro-active flow of knowledge among interested parties. One of the key targets of this program is to demystify the marine stinger problem by offering practical information and preventative advice to all members of the community.

## Methods

The marine stinger management method employed by Surf Life Saving is based on a three-pronged approach:

- Increasing beach safety through daily monitoring and preventative actions;
- Education of front-line personnel such as lifesavers, charter operators, hoteliers, health and emergency professionals and the media so that questions are answered accurately while also providing practical safety advice;
- Mainstream stinger safety through public awareness and useful information.

Safer beaches are the primary concern, as the beach is both the place where most visitors spend their recreational time and statistically where the most stings occur. Stinger-resistant swimming enclosures have been in use since 1982 in many high-use locations throughout northern Queensland; these "stinger nets" provide a good measure of protection against Chironex-type box jellyfish. However the mesh is too large to exclude Irukandji-type jellyfish; research is underway to produce finer-mesh enclosures, unfortunately without success thus far due to engineering and mechanical reasons. A beach monitoring method has been in use since 2003 to detect Irukandji jellyfish: two to three times daily, specially designed nets are dragged through sections of water; the catch is compared to identification charts of common species of plankton known to associate with Irukandjis which enable the lifeguard to assess the relative risk to the bathing public at that time and place.

Front line education and public communication have been targeted through a variety of means: community awareness seminars ("stinger night" seminars in different localities), school safety programs, tourism industry workshops and brainstorming sessions, hospital and ambulance update seminars and workshops and media releases. Furthermore, a monthly Marine Stinger Management Newsletter has been developed, with a monthly distribution to 10,000 recipients, providing information that stakeholders, such as beach managers and charter operators, can use to put the marine stinger issue into a balanced and manageable context. Finally, regional working groups are being developed to provide a local forum for marine stinger issues to be aired and implemented.

In the coming year, Surf Life Saving will be developing additional tools for marine stinger safety, with particular focus on offshore and remote marine stinger management issues.



## Results

The beach management strategies are working well for reducing the numbers of stings. Since deployment of the stinger nets throughout tropical Queensland, the number of fatalities due to Chironex-type box jellyfish has reduced dramatically compared to regions without these enclosures (Table 1), indicating that they are working both as a barrier for those who swim inside and also as an educational device about where and when to swim.

The frequency of reported Irukandji stings is also improving: from 2003-2005, a 75% reduction in the number of envenomations at patrolled beaches was recorded, simultaneous with an increase in the number of Irukandji specimens captured. However, the summer of 2005-2006 was particularly severe, with increased sting numbers in all sectors - including patrolled beaches.

The awareness strategies are working as well. Seminars are well attended, brochures are distributed and the newsletter continues to accrue large numbers of subscription requests each month.

## Discussion

The growth areas identified for focus in the coming years are threefold:

First, to increase the adoption of protective clothing (i.e., a lycra body suit or neoprene wetsuit) as a means of personal sting prevention. Currently, an estimated 2-5% of the beach-going public and 20-40% of the offshore recreational users wear protective clothing, whereas about 90% of stings occur on parts of the body that would be covered by a standard lycra suit (Surf Life Saving sting database, unpublished).

Second, to develop a means of offshore monitoring, similar to the sampling program used at patrolled beaches. The beach monitoring serves several simultaneous purposes: early detection of stingers, so that preventative actions can be taken prior to a sting occurrence; opportunity for public education, by the high profile and interesting nature of the sampling procedure; and production of large amounts of data for predictive study of when jellyfish are more likely and less likely to occur. Without doubt, these same benefits would manifest from a similar offshore program.

Third, to work closely with indigenous communities to develop stinger management programs that are consistent with their cultural expectations. Approximately 60% of box jellyfish fatalities have been indigenous children, and this group further comprises about 20% of Queensland Irukandji hospitalisations each year (Surf Life Saving sting database, unpublished).

We envisage a reciprocal relationship between pro-active sting prevention and increased public education, with the outcome being successful management of marine stingers in onshore and offshore venues, in both regional and remote areas.

## Conclusion

Marine stingers are manageable, and the prognosis looks good for the government and non-government organisations that have come together to work with local communities on the marine stinger problem. The primary means of management are still stinger nets and protective clothing.

First aid priorities for severe marine stings (i.e., box jellyfish and Irukandji stings):

- 1) Call for help (dial '000' or signal the lifeguard).
- 2) Treat the patient (emergency care, CPR if necessary)
- 3) Treat the sting (douse with vinegar).
- 4) Seek medical aid

## Literature Cited

Currie, B. and S. Jacups. 2005. Prospective study of Chironex fleckeri and other box jellyfish stings in the "Top End" of Australia's Northern Territory. *Medical Journal of Australia* 183(11/12): 631-636.

Fenner, P. J. and J. C. Hadok. 2002. Fatal envenomation by jellyfish causing Irukandji syndrome. *Medical Journal of Australia* 177(7): 362-363.



**Figure 1.**

Marine stingers. Clock-wise, from upper left: Chironex fleckeri (box jellyfish), Malo sp. (Irukandji), Catostylus mosaicus (blubber), Carukia barnesi (Irukandji), Physalia utriculus (blue bottle), and Pelagia noctiluca (mauve stinger).



**Table 1.**

Chironex (box jellyfish) fatalities in tropical Australia, before and after implementation of the Stinger Resistant Swimming Enclosures (SRSEs) in 1982. Note that the two fatalities occurring in North Queensland, where the SRSEs are routinely deployed at beaches from November to May, both occurred at unpatrolled beaches without SRSEs.

	<b>Before SRSEs 1884-1981</b>	<b>Since SRSEs 1982-2006</b>
<b>N QLD where SRSEs are used</b>	28 (more than 1 per 4 years)	2 (1 per 12 years)
<b>Central QLD or Cape/Gulf where SRSEs are not used</b>	4 (1 per 25 years)	2 (1 per 12 years)
<b>NT where SRSEs are not used</b>	24 (about 1 per 4 years)	8 (about 1 per 3 years)

# SHARK SAFETY

**CRAIG ROBERTS**

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Surf Life Saving Australia*

## ABSTRACT

Following the Death of a lady at Amity Point on QLD's North Stradbroke Island late last year, Surf Life Saving has developed a number of strategies for both Industry and Surf Life Saving in the progression of public safety and research of Dangerous Shark Species.

Surf Life Saving NSW was a key expert at a recent NSW Government Shark Safety Forum in which a number of the Initiatives of SLSA were taken up by the state government to consider and/or implement.

Surf Life Saving has an excellent working relationship with State Government Departments of Fisheries or Primary industries and has extended those relationships with a number of initiatives following the fatal attack.

Surf Life Saving have recently adopted a NSW Shark Safety Plan, Shark Report Log, research strategies and a number of education initiatives for the safety of the public which is best practice in Shark Safety.

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# WORKSHOP SESSIONS

## WORKSHOP: HOMES POOLS - POOL FENCING

FACILITATOR: ROYAL LIFE SAVING SOCIETY AUSTRALIA

### Legislation

- 1.1 Strengthening the Australian Standard
- 1.2 Amendment to the Australian Building Code
- 1.3 Consistency of Legislation is seen as essential.
- 1.4 Greater Awareness by the Pool Building Industry
- 1.5 A Register of Home Pools to be established as a directive within each jurisdiction
- 1.6 Contracts between Pool Builders and Home Owners to include the requirement for the Pool Fence to be in place "before the pool is filled"

### Education

- 2.1 Education is an essential ingredient that needs to be addressed in three parts:
  - General public awareness of the 0-5 drowning issue must continue on an ongoing basis.
  - Education of the legislative and compliance requirements, including the technical requirements is essential for the Home Pool owner and those builders and suppliers
  - An Information Package to be produced for the Pool Builder to provide to Pool owners – explaining the requirements. In the form of a user friendly guide or fact sheets – multi-lingual.

### Compliance

- 3.1 Mandatory Inspections are recommended for all Home Pools
- 3.2 Quality Inspection systems are currently in place in some jurisdictions but are hampered by:
  - Lack of resources – financial and human
  - Lack of power of entry in some jurisdictions
- 3.3 A Dramatic Increase in Compliance Levels is needed
- 3.4 Pool Inspector Training Program
- 3.5 Fining Systems for non-compliance were successful in letting the public know that the issue is serious
- 3.6 Inspection System Funding Models:

To ensure that we continue to reduce drowning deaths of children an approach needs to be developed at a national level that addresses the above issues.

Drowning deaths of children in backyard pools continues to be a problem in Australia despite all State and Territories having legislation requiring pool fencing. In 2005 the Australian Water Safety Council ran a Home Pool Safety Forum.

From this forum it was agreed that:

- A holistic, integrated approach to Home Pool Safety is required to ensure behavioural change.
- All Stakeholder groups must be engaged and committed to the process.
- The three major areas to be addressed are:
  - Legislation
  - Education
  - Compliance

### By the end of this workshop we would like to:

- Confirm best practice in Home Pool Safety Legislation and compliance
- Confirm that each State/Territory would be prepared to adopt the legislation
  - a) As presented or
  - b) Identify the areas of concern and/or barriers to adoption
    - Prioritise the issues that need to be addressed
- Have a recommendation for how to progress towards national adoption and implementation

**Session outcomes**

At the end of this session, conference delegates will

- Be aware of the existence, aims and relevance to the coastal public safety “industry” of the Standards
- Be aware of Surf Life Saving Australia’s plan to inject the Standards into the wider industry and identify the potential role their organisation can play in reviewing the Standards to ensure they represent industry best practice
- Have the opportunity to formally express their interest in being a part of the consultative process.

# WORKSHOP: AUSTRALIAN COASTAL PUBLIC SAFETY STANDARDS

**FACILITATOR: SURF LIFE SAVING AUSTRALIA**

SLSA will present at the 2006 Water Safety Conference a world breaking initiative that will result in a further reduction of death and injury on Australia’s coastline – the Australian Coastal Public Safety Standards. This initiative will provide direct and valuable guidance to those hundreds of organisations and their many thousands of volunteers and staff Australia wide who are charged with managing the coast with an emphasis on public safety.

**Why is there a need for the Australian Coastal Public Safety Standards?**

“To reduce the number of deaths and injuries on the Australian coast”.

The Australian Coastal Public Safety Standards will provide readily available guidance to coastal managers, government authorities (Local & State), lifesaving service providers, and lifeguards and their supervisors. Coastal land managers will be able to refer to standards covering all aspects of coastal public safety risk management from one source – the Australian Coastal Public Safety Standards. The standards will represent a collaborative effort between peak agencies and industry experts, and will ensure ongoing development and currency by a schedule of regular monitoring and review.

Some examples of topics covered in the Australian Coastal Public Safety Standards are:

- Lifesaving services & equipment
- Aquatic activity zoning and safety zones
- Dunes and cliffs safety
- Aquaculture and public safety
- Rock fishing safety
- Minimum conditions; hirers of beach gear
- Recreational watercraft safety management
- Management of coastal signage systems
- Beach safety flags and Information signs
- Tourist operators
- Special venues such as Rock pools
- Piers, jetties, marinas

# WORKSHOP: EDUCATION

FACILITATOR: ROYAL LIFE SAVING SOCIETY AUSTRALIA

The National Water Safety Plan 2004-07 stated that Water Safety Education was the highest priority of its four key result areas. Education is described as providing the knowledge and skill base from which all other water safety flows. The basic principles of this section of the plan are to build upon past successes, increase access to quality programs and cooperation across a number of agencies.

This workshop will review progress against these recommendations and identify the challenges for the coming period. The workshop format will be participatory and those with working in each of the above subsets are encouraged to bring their perspectives to this debate.

Subset	Recommendation
Education Policy And Standards	<b>Recommendation 1:</b> That Water Safety Competency and Success Targets be set for all Australian children - established at appropriate age/developmental levels as set out below.
Accreditation Of Water Safety Instructors, Teachers And Coaches	<p><b>Recommendation 2:</b> That all Teachers of Swimming and Water Safety be required to hold an appropriate level of accreditation that recognises their initial training, ongoing demonstration of current competence and professional development, and safety skills. It is recognised that the AUSTSWIM Teacher of Swimming and Water Safety offers such an accreditation system.</p> <p><b>Recommendation 3:</b> That all Coaches of Swimming be required to hold an appropriate level of accreditation that recognises their initial training, ongoing demonstration of current competence and professional development, and safety skills. It is recognised that the ASI/ASCTA offer such an accreditation system.</p>
Accreditation Of Lifeguards	<b>Recommendation 4:</b> That all Pool and Beach Lifeguards be required to hold an appropriate level of accreditation that recognises their initial training, ongoing demonstration of current competence, professional development and rescue skills. It is recognised that the RLSSA offers such an accreditation system for Pool Lifeguards and that SLSA offers an accreditation system for Beach Lifeguards.
Water Craft - Boating	<p><b>Recommendation 5:</b> That State and Territory Governments require that lifejackets (Personal Flotation Devices (PFD) are worn as a mandatory piece of Safety Equipment for all recreational boaters when under power. Responsibility for the wearing of lifejackets in these circumstances is the boat's skipper/driver.</p> <p><b>Recommendation 6:</b> That State and Territory Governments require that lifejackets (Personal Flotation Devices) are worn as a mandatory piece of Safety Equipment for children under 12 years of age in watercraft at all times. Responsibility for the wearing of lifejackets in these circumstances is the boat's skipper/driver.</p>
Diving And Snorkelling	<b>Recommendation 7:</b> That all States and Territory Governments develop and implement Codes of Practice for Diving and Snorkelling that meet the minimum training requirements within the Australian Standard AS4005.1.
Fishing	<b>Recommendation 8:</b> That recreational fishers, particularly rock fishers and people fishing from boats, be provided with improved access to educational programs and safety systems.

**This workshop will:**

- Explore methods appropriate to working with CALD communities
- Provide recommendations about how to work with CALD communities
- Provide a direction for future work

## WORKSHOP: CULTURALLY AND LINGUISTICALLY DIVERSE (CALD) COMMUNITIES

FACILITATOR: ROYAL LIFE SAVING SOCIETY AUSTRALIA

The Australian Water Safety Council has identified CALD communities (people from Non-English speaking backgrounds – NESB) as one of the areas of work in the National Water Safety Plan.

This group was identified as they are often difficult to access through mainstream communication mediums, and consequently members of this group place themselves and those in their care at-risk because of their lack of understanding of Australian aquatic conditions. Predominately CALD communities are not the focus of education and training programs due to language and cultural barriers.

Higher rates of drowning in Australia exist for people who were born in Vietnam, China, Korea, Germany, Poland, Italy, France, United Kingdom, United States and New Zealand.

Recommendation 27 of the National Water Safety Plan 2004-2007 was "That key safety messages be publicised in a variety of difference languages and promoted directly to ethnic groups through working closely with appropriate CALD community organisations, Local Councils, and through cultural specific publications. Further that people from CALD communities be encouraged to participate in specifically targeted water safety programs.

Over the last few years there has been an increase in the number of programs being delivered to CALD groups in Australia, a number of these are being delivered at this conference. However this is only the start of preventing drowning deaths to CALD communities.



# POSTER PRESENTATIONS

POSTER PRESENTATIONS WILL BE ON DISPLAY FOR THE ENTIRE CONFERENCE. AUTHORS WILL BE AVAILABLE TO DISCUSS THEIR PRESENTATIONS DURING THE CONFERENCE.

## 1. NATIONAL WATER SAFETY PLAN

AUSTRALIAN WATER SAFETY COUNCIL, SYDNEY

AUTHOR/S: RC FRANKLIN, R BRADLEY, G NANCE, P AGNEW, G MALLET

The National Water Safety Plan (NWSP) 2004-07 was written in consultation with the many and varied stakeholders with the goal of providing a coordinated and cooperative approach to Water Safety throughout Australia. The plan builds on the achievements of the inaugural NWSP 1998-2003. Implementation of the NWSP 2004-07 will be undertaken by the members of the Australian Water Safety Council in close partnership with the three tiers of government and State/Territory Water Safety Councils. The NWSP is an integrated approach, incorporating State/Territory water safety objectives to ensure effective delivery.

The objectives of the NWSP are; Identify, prioritise and benchmark the major Water Safety issues; Establish Water Safety Standards and Policies to be applied and monitored nationally; Commit to improve the expertise, programs and resources that currently operate within the system ; Maximise organisational linkages; Ensure that duplication of effort and resources are avoided; Ensure that positive ideas and best practice are shared throughout Australia.

The objectives will be achieved in four Key Result Areas; 1) Water Safety Education, 2) Water Safety Research, 3) Aquatic Locations, 4) Targeting of Key Drowning Demographics.

When the inaugural National Water Safety Plan was launched in 1998 over 300 Australians drowned each year. Five years on that figure now stands at 250 drowning deaths – a reduction of over 17%. While the reduction in the drowning rate is acknowledged our ultimate goal remains “zero drowning deaths and the establishment of a water safety culture in Australia”. The objective for the period of this plan is to achieve a continuing reduction of drowning deaths to 200 by 2007. This represents a 20% decrease on the 250 drowning deaths in 2003 or a 5% decrease per annum over the period of the plan.

Poster presentations include:

### 1 National Water Safety Plan

Australian Water Safety Council, Sydney

Author/s: RC Franklin, R Bradley, G Nance, P Agnew, G Mallett

### 2 National Lifesaving Strategy

Brett Sullivan, Surf Life Saving New Zealand

### 3 Integrated Aquatic Programme (IAP)

Surf Life Saving New Zealand, WaterSafe Auckland, Swimming New Zealand, Coastguard Boating Education, New Zealand Schools Waterwise, Yachting New Zealand

Brett Sullivan, Surf Life Saving New Zealand

Siobhan Harrod, WaterSafe Auckland

### 4 Her Hat was Floating in the Creek. Researching Australian History to Prevent Drowning Deaths in Developing Countries

Carolyn Staines, Research Fellow/Graduate Student, Accident Research Centre, Monash University

Professor Joan Ozanne-Smith, Accident Research Centre, Monash University

### 5 Surf beach swimmer and surfer drowning deaths in Australia

Damian Morgan, Monash University Accident Research Centre

### 6 Magna-Latch. Magnetic Safety Gate Latch

Amber Whitehead, Sales and Marketing Co-ordinator, D&D Technologies

## 2. NATIONAL LIFESAVING STRATEGY

BRETT SULLIVAN

*Surf Life Saving New Zealand*

People are drowning at beaches throughout New Zealand. Unfortunately the vast majority occur when Surf Lifeguards are not patrolling OR at locations where there are no patrols. The National Lifesaving Strategy provides a framework to do something about this. It intends to best meet the provision of all surf lifesaving activity in New Zealand through to.

It is imperative that any strategy has clear and obvious connections to our purpose 'preventing drowning and injury at New Zealand beaches'. Reducing drowning in the 'surf turf' is at the core of the strategy. Upstream it is the means for the organisation to substantially contribute to 'a watersafe New Zealand, free from drowning'.

So, what's the strategy all about?

Surf Life Saving has identified the four (4) causal factors associated with drowning and set realistic and achievable goals to counteract each of these factors. Five interrelated objectives support these goals and together will provide the framework for coordinating work under the strategy.

1. People drown because of ignorance, disregard or misunderstanding of the hazard

Surf Life Saving must aim to educate and inform by increasing knowledge through quality public education and awareness. This increase in knowledge will lead to positive beach behaviour and in turn ensure the beach going public of New Zealand participate wisely and safely in our environment. Public education may be one of the more difficult objectives to quantitatively measure against however it is critical to the success of the strategy.

2. People drown because they are uninformed or have unrestricted access to the hazard

By taking the high ground and providing warnings and denying access where possible, Surf Life Saving will create safer environments at New Zealand beaches.

As Surf Lifeguards we can't be everywhere all of the time. It is important we understand where the hazards are in our turf and be innovative in managing these hazards. Central to the objective of safer environments is the concept of personal responsibility.

3. People drown because of a lack of supervision or surveillance

'Lifesaving services' covers the preventative and rescue aspects of our organisation. Such services are often the last chance for people in trouble in the ocean. To truly say we are experts in our turf we will need to build on our firm foundations and fill gaps innovatively ie extend as required. Surf Life Saving must 'think outside the square', when it comes to future service provision.

4. People drown because of their inability to cope once in difficulty

A determined effort to increase survival skills will contribute to a population of New Zealanders who can use the countries many beaches safely and skilfully. The fact that hazards exist at beaches means we must look for ways to increase the ability of people to survive in an environment they are unfamiliar with.

At the core of the strategy is direction and effective coordination. This means policy development, resourcing, reviews along with essential research and development will infiltrate all parts of the Surf Life Saving and ultimately contribute to work under each of the goals.

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# 3. INTEGRATED AQUATIC PROGRAMME (IAP)

SURF LIFE SAVING NEW ZEALAND,  
WATERSAFE AUCKLAND, SWIMMING NEW ZEALAND,  
COASTGUARD BOATING EDUCATION,  
NEW ZEALAND SCHOOLS WATERWISE,  
YACHTING NEW ZEALAND

**BRETT SULLIVAN**

*Surf Life Saving New Zealand*

**SIOBHAN HARROD**

*WaterSafe Auckland*

The Integrated Aquatic Programme is a resource for teachers and has been collaboratively produced by a team of aquatic recreational organisations and members of the education sector. The organisations who have collaboratively worked together to produce this resource are:-

- WaterSafe Auckland
- Surf Life Saving New Zealand
- Swimming New Zealand
- Coastguard Boating Education
- New Zealand Schools WaterWise
- Yachting New Zealand

The Integrated Aquatic Programme is the 'Roadmap' for primary and intermediate teachers. It identifies the learning needs of students through detailed competency models for skills, knowledge, attitudes and values.

This enables teachers to select the appropriate curriculum based programme(s) /resources provided by key water safety stakeholders.

## THE AIM OF THE INTEGRATED AQUATIC PROGRAMME:

- To provide teachers with a visual tool to develop sequential pathways of teaching and learning for Year 0 – 8 students
- To provide pathways for scaffolding of learning, enabling students to have safe, meaningful and purposeful learning experiences
- To increase understanding of what an 'aquatically educated' student could look like

- To make links to relevant resources and aquatic agencies which support the teaching and learning within the Integrated Aquatic Programme

## WHY IS AQUATIC EDUCATION IMPORTANT?

"Water is a dominant feature of the New Zealand landscape, and many New Zealanders spend much of their recreational time in, on or by water."

(Health and Physical Education, The Curriculum in Action. Bubbles to Buoyancy, Aquatic Education: Years 1 – 3. Ministry of Education 1999)

But, the aquatic environment presents a range of unique risks in, on and near water, which needs to be addressed by:

- Providing all students with a safe environment when participating in activity in, on or near water.
- Promoting the teaching of swimming and water safety skills to develop water competence.
- Providing students with the opportunity to investigate and clarify their attitudes and behaviours around water so they can make informed decisions before, during and after participation in aquatic activities.

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## 4. HER HAT WAS FLOATING IN THE CREEK.

RESEARCHING AUSTRALIAN HISTORY TO PREVENT DROWNING DEATHS IN DEVELOPING COUNTRIES

CAROLYN STAINES

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PROFESSOR JOAN OZANNE-SMITH

*Accident Research Centre, Monash University*

### Introduction

Death due to drowning was historically a substantial problem in Australia, but over time this cause of death has been markedly reduced. However, recent data has indicated that in low and middle-income countries, drowning deaths continue to be a substantial problem. The drowning rates in these countries resemble those experienced in high-income 100 years ago. However, while it is apparent that dramatic improvements have been made in Australia, it is not clear exactly how this has been achieved. This study explores the history of drowning deaths in Victoria, Australia, to identify the circumstances, and patterns of change, associated with drowning deaths since early European settlement.

### Methods

For the nineteenth and twentieth centuries, periods of high drowning mortality or marked changes in drowning death rate were identified and records of Colonial Investigations were accessed to determine the circumstances associated with drowning deaths during the periods of interest. Comparisons were made between scenarios associated with drowning deaths in mid-19th and 20th centuries.

### Results

The study found that changes of patterns of drowning deaths were associated with changes in a number of social and environmental factors including the presence of water hazards, level of development of built environment, supervision of young children and lifestyle.

### Conclusion

Historical analysis of Victoria's experience of drowning has identified a number of factors associated with the reduction of drowning deaths in a developing community. It is expected that these findings could be used to inform the process of drowning prevention in developing countries.

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## 5. SURF BEACH SWIMMER AND SURFER DROWNING DEATHS IN AUSTRALIA

DAMIAN MORGAN

*Monash University Accident Research Centre*

A better understanding of surf beach drowning will assist in the development of more effective countermeasures. With this in mind, the aim of the study was to identify the factors associated with unintentional drowning deaths of surf beach swimmers and surfers in Australia. Data for the study was sourced from the National Coroners Information System (NCIS) and the Incident Report Database (IRD), maintained by Surf Life Saving Australia.

Summated results over a four year period revealed that males comprised the majority of drowning deaths. Drowning was most frequent in young adults, although older adults were also frequent victims. Drowning was also shown to be associated with a range of person and situation related factors.

The study identifies target groups for beach safety awareness and education, particularly young adult males, water users with existing health conditions and international tourists. Further, the study demonstrated the capabilities of the NCIS and IRD to provide detailed and timely information on surf beach drowning.

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## 6. MAGNA-LATCH. MAGNETIC SAFETY GATE LATCH

AMBER WHITEHEAD

*Sales and Marketing Co-ordinator, D&D Technologies*

Since its founding in the late 1980s, D&D Technologies has fostered excellent relationships with fencing manufacturers, contractors and fabricators worldwide to provide innovative solutions to their everyday problems.

Our aim was, and still is, to reduce toddler drownings in swimming pools (and near drownings inflicting brain damage), but our horizons have expanded to encompass a comprehensive range of safety and security products.

MAGNA•LATCH safety gate latches are a revolutionary breakthrough in latching security for most gates around swimming pools, homes and other child safety areas such as childcare centers. Powered by the latest 'Permanent Magnets' (which never lose power) these quality latches incur no mechanical interference to closure and so offer unprecedented reliability, safety and child resistance. All latches adapt readily to most new or existing gates of any material – metal, wood or vinyl. Two of the models are key-lockable for added safety. MAGNA•LATCH has been tested to more than 400,000 cycles. Swimming pool safety codes require all gates to be self-closing and self-latching. The latch has been designed and independently tested to meet strict international safety codes.

Awards and endorsements include a prestigious Australian Design Award, a Silver Medal from the International Exhibition of Innovations & New Techniques (Geneva), the Kidsafe Award 2000 (Australia), support by the Royal Life Saving Society (Australia) and endorsement from Water Safety New Zealand, Laurie Lawrence ...to name a few.

We are a market leader, not an imitator!

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