

DROWNING PREVENTION REPORT SRI LANKA

DECEMBER 2014



“Let’s join in preventing drowning in Sri Lanka”

Sanath Wijayaratne
President, Life Saving Association of Sri Lanka

IN PARTNERSHIP WITH



CONTENTS

MESSAGE FROM THE AUSTRALIAN HIGH COMMISSIONER TO SRI LANKA	3
FOREWORD	4
SUMMARY	5
NATIONAL OVERVIEW	7
INTERNATIONAL COMPARISON	9
PROVINCE DROWNING PROFILES	10
Central province	12
Eastern province	13
North Central province	14
North Western province	15
Northern province	16
Sabaragamuwa province	17
Southern province	18
Uva province	19
Western province	20
DROWNING PREVENTION AND WATER SAFETY ACTIVITIES	21
LIFESAVING IN SRI LANKA	24
RECOMMENDATIONS	34
METHODS	36
REFERENCES	37
ACKNOWLEDGEMENTS	38



MESSAGE FROM THE AUSTRALIAN HIGH COMMISSIONER TO SRI LANKA

I am pleased to endorse this Drowning Prevention Report for Sri Lanka which has been compiled by the Life Saving Association of Sri Lanka and Life Saving Victoria, with the support of the World Health Organization.

Drowning is a significant cause of death and injury in Sri Lanka. Those affected are from all age ranges, and incidents occur around the country in many different circumstances.

Up to now, accurate statistics on the number and causes of drowning incidents in Sri Lanka have not been analysed and compiled. The extent of the issue, the characteristics of drowning victims and the activities they were undertaking at the time has not been analysed at a nation-wide level.

This means that the best methods to combat the causes of drowning have not necessarily been employed.

This report provides an evidence-based analysis of drowning incidents in Sri Lanka and evidence-based recommendations for drowning prevention and improved water safety. It will provide the basis for the development of a holistic approach to the drowning issue in Sri Lanka.

Australia shares the common goal of drowning prevention, and I am very pleased that Australian expertise has been used to help compile the report.

I congratulate the Life Saving Association of Sri Lanka, Life Saving Victoria, and the World Health Organization in Sri Lanka on their initiative and collaboration in taking forward this important and valuable project.

I hope that this report will provide the basis for further steps in Sri Lanka's efforts to combat causes of drowning and that it will contribute to a significant drop in the toll taken by drowning in Sri Lanka in the future.

The launch of the report, a decade after the Indian Ocean tsunami on 26 December 2004, is a symbolic reminder of the terrible toll that can be taken by drowning, whatever the circumstances.

As the report is launched, we have an opportunity to remember and pay tribute to victims of the tsunami and to express the hope that, regardless of the circumstances, deaths by drowning in Sri Lanka will be significantly reduced in the future.

Robyn Mudie
Australian High Commissioner



26 DECEMBER 04

**TSUNAMI STRUCK
NEARLY 2/3 OF THE
SRI LANKAN COAST**

6,300

MISSING

21,400

INJURED

FOREWORD



As the President of the Life Saving Association of Sri Lanka, I am honoured to unveil this long awaited and much needed Drowning Prevention Report for Sri Lanka.

The report analyses the incidence of drowning deaths, a silent killer that accounts for over 850 deaths each year in our beautiful island nation. The report provides evidence-based recommendations for drowning prevention that are aligned to global actions and tailored to Sri Lankan circumstances.

I am pleased to say it was our dream to establish the evidence base for drowning prevention in Sri Lanka. This information is integral to becoming a stronger nation in addressing the drowning issue in a productive and effective manner.

We are a country that is blessed with breathtaking inland waterways and surrounded by untamed seas. The issue of drowning is a priority as we set out to achieve both economic and tourism benefits linked to our inland waterways and seas.

As a National Association listed under the Ministry of Sports and the national representative for the International Life Saving Federation and the Royal Life Saving Society, the Life Saving Association of Sri Lanka has received many accolades in the recent past. We have become stronger and progressed with the nation in improving drowning prevention activities and lifesaving services in Sri Lanka.

Our strategy is to make drowning prevention activities more widespread. We are working closely with both government and non-government organisations and at multiple socio-economic levels in the community to address the issue of drowning. Our work ranges from providing internationally recognised lifesaving training to raising awareness of water safety issues within rural communities. Our work goes unnoticed to an extent but our commitment is unwavering.

The engagement and support that we continuously receive from the Disaster Management Center, Sri Lanka Police, Sri Lanka Coast Guard, Sri Lanka Navy, Civil Defence Service, Sri Lanka Army, World Health Organization, Life Saving Victoria and the Australian Government through the Australian High Commission is praiseworthy. It is essential that these collaborative partnerships continue for Sri Lanka to achieve success in drowning prevention.

This report should be referred to, not only by those who are currently engaged in drowning prevention activities, but also those who are willing to become future stakeholders of this altruistic activity. Involvement of the private sector is a must and would benefit both drowning prevention and business.

The release of the Drowning Prevention Report for Sri Lanka is the beginning of a series of activities that form our strategic approach to drowning prevention. I am grateful to the Life Saving Association of Sri Lanka and Life Saving Victoria team who worked assiduously to publish this report.

Saving lives is filled with unexpected adventures. Join me in continuing to help save lives in Sri Lanka.

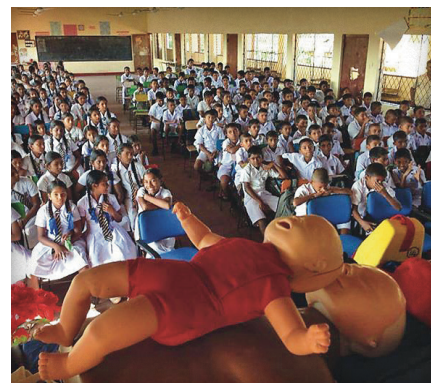
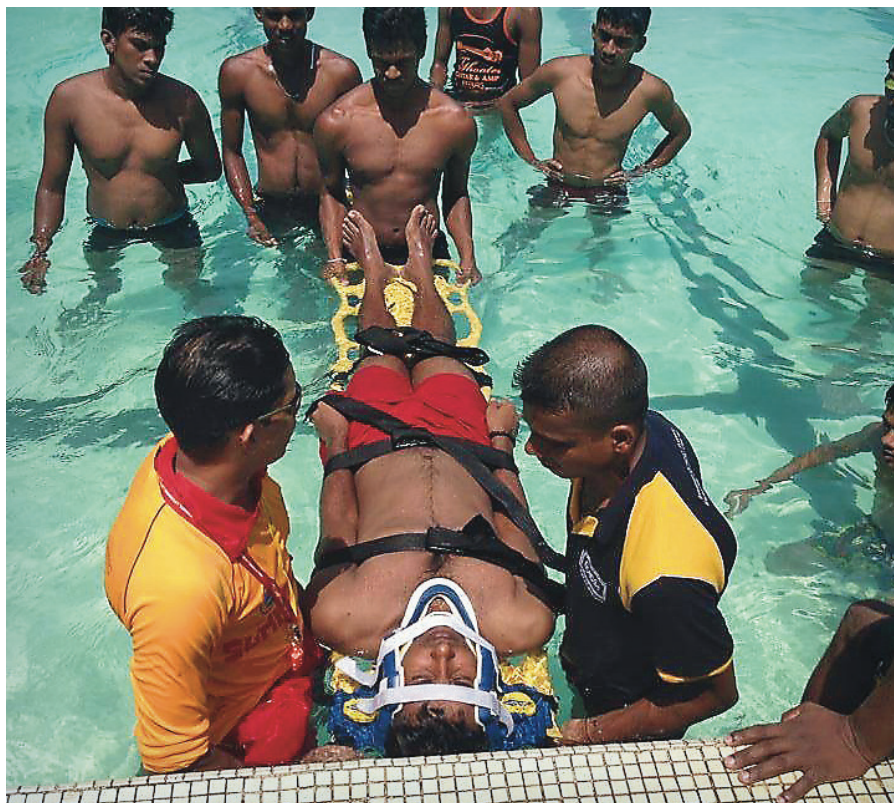
Yours in lifesaving,

Sanath Wijayaratne
President
Life Saving Association of Sri Lanka

**THE REPORT
ANALYSES
THE INCIDENCE
OF DROWNING
DEATHS, A SILENT
KILLER THAT
ACCOUNTS FOR
OVER 850
DEATHS EACH
YEAR IN OUR
BEAUTIFUL
ISLAND NATION.**



SUMMARY



The Drowning Prevention Report is the first report detailing the extent of the drowning problem in Sri Lanka. The report has been compiled by the Life Saving Association of Sri Lanka and Life Saving Victoria, with the support of the World Health Organization.

On average, 855 people drowned in Sri Lanka each year, a drowning rate of 4.4 deaths per 100,000 persons (from 2001-2006 and 2009). Sri Lanka has one of the highest drowning rates internationally, ranking 12th highest in a comparison of 61 countries, and 10th highest when compared to 35 low and middle income countries (LMIC).

Given issues with reporting, these figures may indeed be even higher. The impact of these deaths on family, friends, rescue and response personnel and the entire community is immeasurable.

Similar to other countries, males were at higher risk of drowning than females. When considering age, Sri Lanka had a higher drowning rate across all age groups compared to the average drowning rate in both LMIC and high income countries (HIC). This difference was greatest in those aged 15-44 years and those aged over 65 years of age.

To complement the statistical data, focus group sessions were conducted in developing this report with rescuers and responders of drowning incidents from each of the provinces in Sri Lanka. In addition, organisations that were involved in drowning prevention activities in Sri Lanka in the past 10 years (2004-2014) were surveyed.

Consumption of alcohol and lack of lifejacket wear were key themes reported when asking rescuers and responders to drowning incidents about the key drowning risk factors. Factors reported by organisations working in drowning prevention included lack of supervision, lack of water safety skills and knowledge, lack of flood warning information in at-risk areas, uncontrolled access to uncovered or unprotected wells and reservoirs/tanks.

Importantly the first Drowning Prevention Report for Sri Lanka goes a step further and outlines the important work that is being done to prevent drowning and highlights key areas of focus for the future.

A great deal of work is being done to prevent drowning by a number of non-profit organisations, government agencies, armed forces and schools. The majority of water safety activities have focused on education, followed by training and rescue and response services. The most common programs delivered were water safety education programs, First Aid training, and swimming lessons. This report provides evidence to help guide these programs and interventions into the future.

This report also provides an insight into lifesaving services in Sri Lanka. A lifesaving service is comprised of trained lifeguards on duty with rescue and First Aid equipment. Lifesaving services are a key solution to addressing drowning deaths in open water environments such as beaches, rivers, lakes and reservoirs/tanks. There are 51 lifesaving service locations in Sri Lanka with a total of 1,319 qualified lifeguards performing duties. Over 400 rescues are reported to be performed each year by lifeguards - that is over 400 lives saved from drowning.

SUMMARY CONT.



It is reassuring to note the significant increase in lifesaving skill development in Sri Lanka, with over 11,000 people trained since 2012.

Since the end of the civil war in Sri Lanka in 2009, many personnel from the armed forces have been deployed to lifesaving services in Sri Lanka. This has helped boost the safety for local communities and tourists alike.

From a tourism perspective, lifesaving services help better utilise natural waterways in Sri Lanka and offer an untapped opportunity for promoting the country.

Drowning is preventable and the key areas of focus for Sri Lanka in the coming years recommended in the report are:

1. **Teach basic swimming, water safety and safe rescue skills to at-risk groups**
2. **Train bystanders in safe rescue and resuscitation**
3. **Implement drowning prevention public awareness campaigns to at-risk groups**
4. **Continue to develop lifesaving services operation**
5. **Develop a national water safety plan**
6. **Improve research capability**
7. **Harness the value of tourism from lifesaving**
8. **Control access to water and/or provide safety warnings**
9. **Develop guidelines for safe swimming pool operation**
10. **Build resilience and manage flood risks**

We commend the Life Saving Association of Sri Lanka for this initiative, expanding their work since 1947 in lifesaving services, to prevent aquatic related injury and death to ensure all Sri Lankans and visitors to this beautiful country can enjoy the water, safely.

This report provides the critical link to inform government, industry, non-profit organisations, lifesaving organisations and the whole community for the prevention of drowning in Sri Lanka. We are proud to support this work and the vision of the Life Saving Association of Sri Lanka, Life Saving Victoria and the World Health Organization in taking an evidence-based approach to drowning prevention.

Dr Bernadette Matthews
Principal Research Associate
Life Saving Victoria

Mevan Jayawardena
General Manager
Life Saving Victoria



NATIONAL OVERVIEW

On average, 855 people drowned each year from 2001-2006 and 2009 in Sri Lanka (Figure 1). The drowning rate was 4.4 deaths per 100,000 people in Sri Lanka averaged over the seven year period.

The average number of drowning deaths and rate of drowning for each province is provided in Figure 2. Western province had the highest number of drowning deaths compared to the other provinces however North Western province had the highest crude drowning rate per 100,000 population. The breakdown of statistics as well as qualitative evidence for drowning within each province is provided on pages 10 through 20.

WHO IS DROWNING?

Sex

Males were four times more likely to drown than females with a drowning rate of 7.2 deaths per 100,000 population compared with 1.6 deaths per 100,000 for females. Drowning rates were highest among males aged over 15 (Figure 3). The male to female rate ratio was highest in those aged 15-24 years (7.5), closely followed by those aged 25-44 years (7.0). The ratio was closest to 1 in those aged 0-4 years (1.8) and over 65 years of age or older (1.9).

Age

Adults aged 25-44 years had the highest number of drowning deaths followed by those aged 45-64 years (Figure 4). However, those aged over 65 years had the highest age-specific drowning rate (8.25 deaths per 100,000), followed by those 45-64 years (5.38 deaths per 100,000). The drowning rate was lowest in the 5-14 years age group (1.94 deaths per 100,000).

Race

Data on drowning by ethnic group was available for six years (2001-2005 and 2009). Most drowning deaths over this period involved Sinhalese (78%), followed by Sri Lanka Tamil (12%), Sri Lanka Moor (5%) and others (4%; Figure 5).

In all provinces except Northern and Eastern the majority of drowning deaths involved Sinhalese. In the Northern province the majority of drowning deaths involved Sri Lanka Tamil (88%) and in the Eastern province, Sri Lanka Tamil (40%) followed by Sinhalese (33%) and Sri Lanka Moor (25%).

The figures nationally and by province, largely reflect the ethnic breakdown of the population as reported in the 2001 and 2012 Census of Population and Housing Sri Lanka.

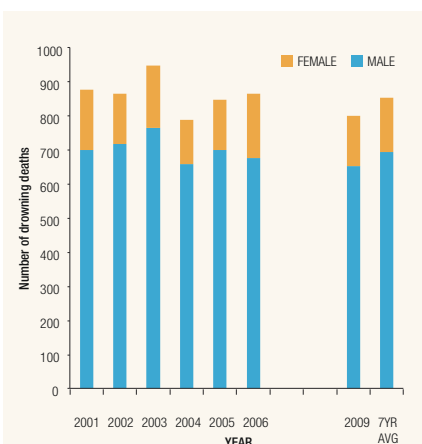


Figure 1 Drowning deaths by sex and year, Sri Lanka, 2001-2006 & 2009

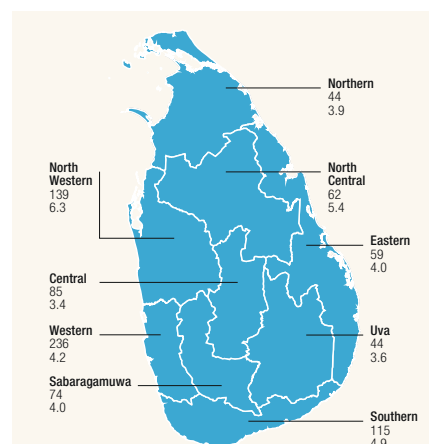


Figure 2 Average drowning deaths by frequency and rate (deaths per 100,000 population) by province, Sri Lanka, 2001-2006 & 2009

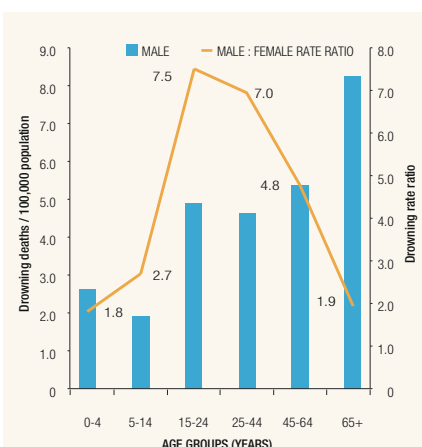


Figure 3 Average drowning rate and male to female rate ratio, by age group, Sri Lanka, 2001-2006 & 2009

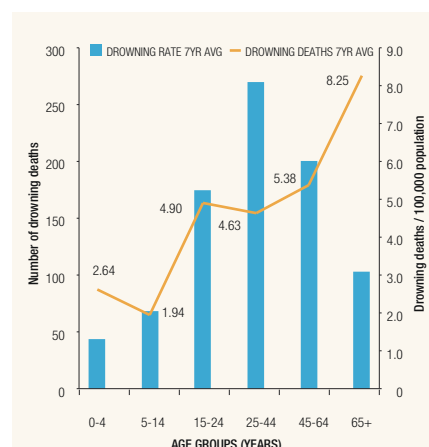


Figure 4 Average number of drowning deaths and drowning rate by age group, Sri Lanka, 2001-2006 & 2009

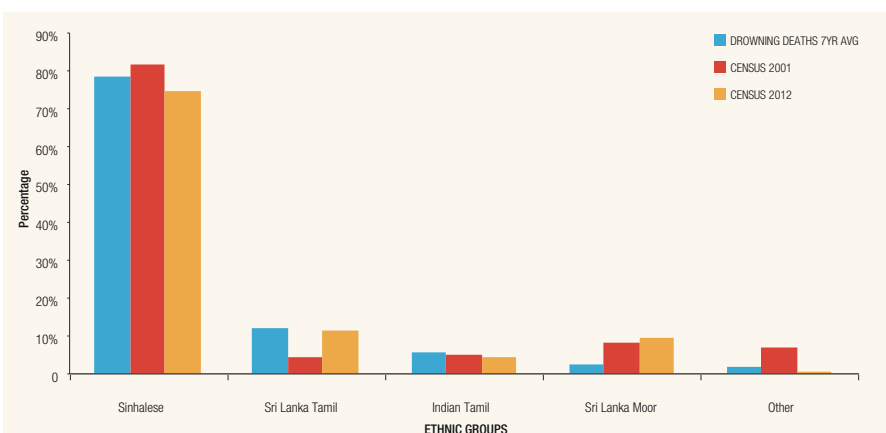


Figure 5 Proportion of drowning deaths 2001-2005 & 2009, and population at Census 2001 and 2012 by ethnic group, Sri Lanka

NATIONAL OVERVIEW CONT.



WHERE AND HOW DO THESE DROWNING DEATHS OCCUR?

Evidence provided from local rescuers and responders revealed key themes. Males were identified as at greatest risk as confirmed by the statistics. Adults aged 15-44 years were also thought to represent the greatest proportion of drowning victims which was also consistent with the statistics.

Location

Lakes were reported as the key location for drowning incidents in six of the nine provinces. This was followed by oceans/beaches in four provinces; wells/open cisterns also in four provinces; rivers in three provinces; reservoirs/tanks in three provinces; and irrigation channels and waterfalls in one province each.

Activity

Common aquatic activities in the provinces that may place people at risk included, general recreation or play in, on or near water, fishing either for employment or sustenance, other

work related activities such as in rice paddies or construction, activities of daily living such as bathing or doing washing in water, as well as participating in recreational aquatic sports and tourism activities.

Contributing Factors

Key factors reported to be involved in drowning were, alcohol consumption around water, lack of lifejacket wear on boats, lack of supervision, lack of water safety skills and knowledge, flooding from monsoonal rainfall, uncovered or unprotected wells and reservoirs/tanks.

Drowning prevention issues

Key issues in tackling drowning were a lack of learn to swim programs, lack of identified safe swimming zones with lifesaving services, difficulties for many to access safe swimming environments and/or lessons, lack of resources to promote and deliver water safety education and awareness, and a lack of legislation or ability to enforce legislation governing water safety (such as lifejacket wear and alcohol free zones on beaches).

TOP DROWNING LOCATIONS

Lakes



Wells/open cisterns



Rivers



Oceans/Beaches



Reservoirs/tanks



INTERNATIONAL COMPARISON

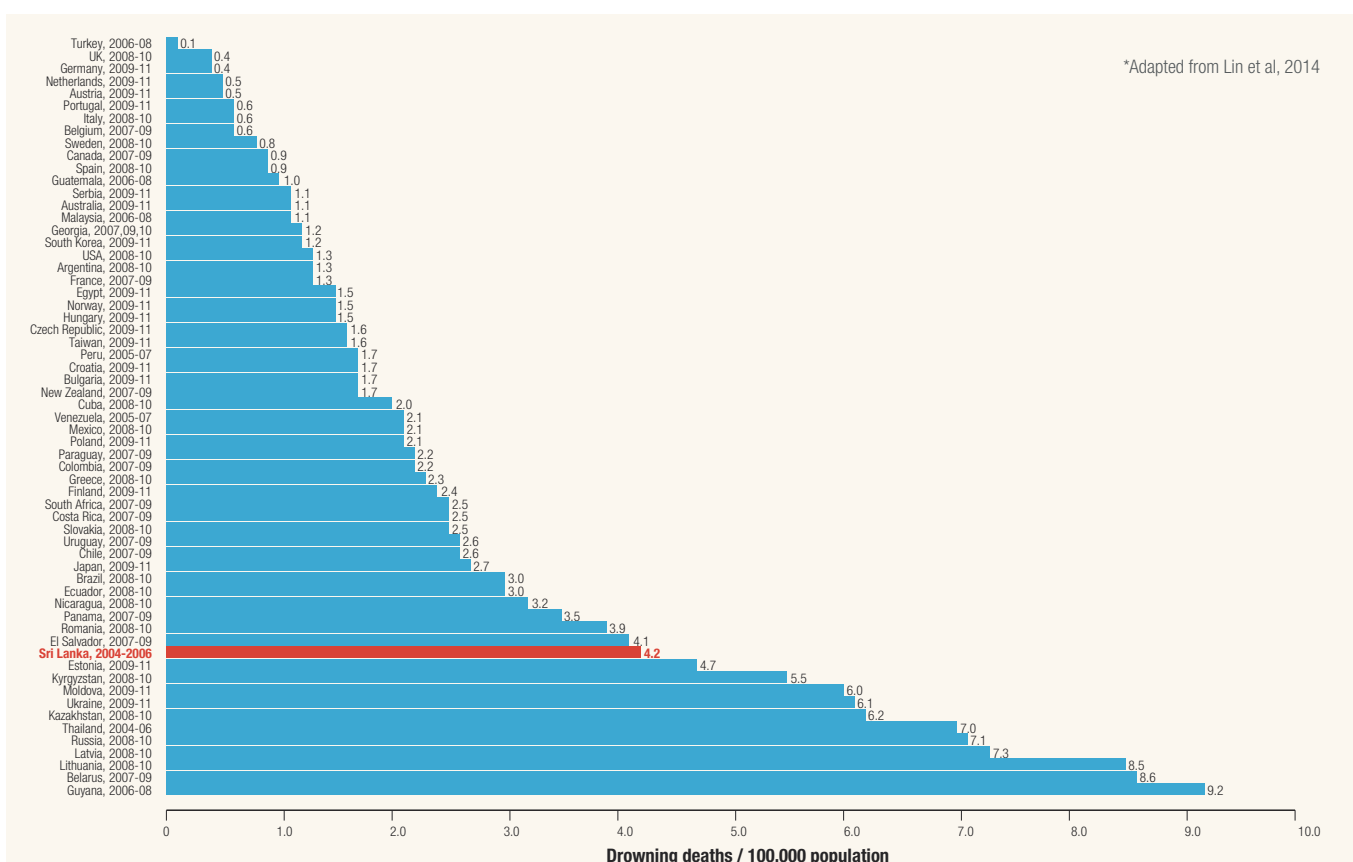


Figure 6 Drowning rate (deaths per 100,000 population) by country, 3 year averages*

Drowning is a significant cause of death and injury worldwide, as most recently highlighted in the Global Report on Drowning (WHO, 2014a). While it is difficult to compare drowning rates internationally due to inconsistencies in the completeness and quality of data, it is recognised that drowning rates are highest in many LMIC.

A recent study by Lin et al (2014) compared unintentional drowning rates across 60 different countries. The latest available three years of mortality data for each country were extracted from World Health Organization Health Statistics and Information and the mortality rate of unintentional drowning by age group for each country calculated. We have added the drowning rate for Sri Lanka over the years 2004-2006 to serve as a comparison to the other 60 countries studied.

The drowning rate for Sri Lanka averaged over three years from 2004-2006 was 4.2 deaths per 100,000 (Figure 6). Sri Lanka ranked 12th highest in the comparison of 61 countries, and 10th highest when compared to 35 LMIC (average of 3.5 deaths per 100,000).

Sri Lanka had a higher drowning rate across all age groups when compared to the average drowning rate in both HIC and LMIC (Figure 7). This difference was greatest in those aged 15-44 years and those aged over 65 years of age.

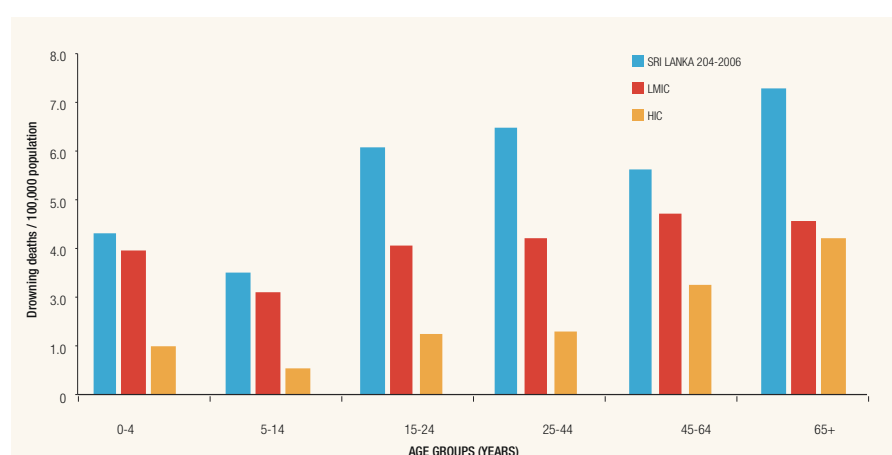


Figure 7 Drowning rate (deaths per 100,000 population) by age group in Sri Lanka, low and middle income countries (LMIC) and high income countries (HIC), 3 year averages

PROVINCE DROWNING PROFILES

Table 1 Summary of province drowning profiles

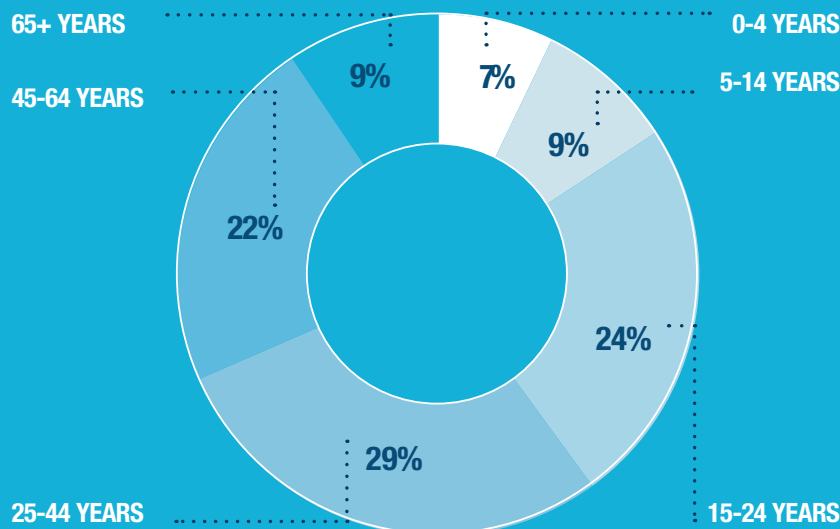
Province	Central	Eastern	North Central	North Western
Districts (Capital in bold)	Kandy Matale Nuwara Eliya	Trincomalee Ampara Batticaloa	Anuradhapura Polonnaruwa	Kurunegala Puttalam
Drowning Frequency (per year)	85	59	62	139
Drowning Rate (per 100,000 population)	3.4	4.0	5.4	6.3
Male:Female drowning ratio	3.2	4.7	4.5	4.1
Most at-risk age groups (>25%)	25-44 years	15-24 years 25-44 years	25-44 years	25-44 years 45-64 years
Common aquatic activities	- Collecting water from open wells - Fishing - Recreating around reservoirs	- Fishing - Employment (rice paddies, brick making) - Recreating around lakes and beaches - Water sports	- Recreating around lakes and reservoirs - Religious reasons (pilgrims bathing) - Fishing - Rice paddies	- Recreating around lakes and reservoirs and beaches - Collecting water from open wells - Bathing and washing
Top drowning locations	Reservoirs/tanks	- Lakes - Oceans/beaches - Irrigation channels	- Lakes - Reservoirs/tanks - Wells/open cisterns	- Oceans/beaches - Lakes
Reported contributing factors for current drowning characteristics	- Lack of lifeguard service - Slips/falls around reservoirs - Flooding downstream of reservoirs/tanks	- Lack of water safety knowledge - Lack of swimming ability	- Alcohol - Lack of lifeguard service - Lack of swimming ability - Tourists in unfamiliar areas - Flooding downstream of reservoirs/tanks	- Alcohol - Fishing and boating without lifejacket - Bathing in river and ocean - Slips/falls around reservoirs/tanks
Reported significant issues in tackling drowning	1) Lack of safe swimming zones with lifeguards 2) Lack of signage 3) Risk-taking behaviour	1) Lack of water safety education and awareness 2) Lack of resources to deliver programs	1) Lack of water safety education and awareness 2) Lack of resources to deliver programs 3) Lack of awareness of local conditions	1) Lack of learn to swim programs 2) Lack of resources to enforce water safety regulations

Breaking down the available drowning data by province highlights the variability in drowning trends across Sri Lanka (Table 1). The estimated drowning rate varied from 6.3 deaths per 100,000 population in North Western province, to 3.4 deaths per 100,000 population in Central province. Similarly, an average of 236 people drowned in Western province each year, compared to 42 in Northern province. Males consistently had a higher drowning rate ratio than females, ranging from 6.5 in Western province to 2.5 in Uva province. Variation was also observed in the reported common aquatic activities, drowning locations and factors that contribute to drowning in each province. Age was the only consistent factor, with people aged 25-44 years the most commonly represented in drowning incidents in every province.

Northern	Sabaragamuwa	Southern	Uva	Western
Jaffna Kilinochchi Mannar Mullaitivu Vavuniya	Ratnapura Kegalle	Galle Hambantota Matara	Badulla Monaragalla	Colombo Gampaha Kalutara
42	74	115	44	236
3.9	4.0	4.9	3.6	4.2
2.9	4.1	4.0	2.5	6.5
25-44 years	25-44 years 45-64 years	25-44 years	25-44 years	25-44 years
• Collecting water from open wells • Fishing • Recreating around lakes and reservoirs/tanks • Play in water holes	• Gem mining • Fishing • Recreating around lakes and rivers • Water sports • Swimming	• Fishing • Employment (construction) • Recreating around beaches • Water sports Whale watching	• Fishing • Employment (construction) • Recreating around beaches • Water sports Whale watching	• Fishing • Tourism • Bathing and washing • Collecting water from open wells • Recreating around waterfalls
• Lakes • Reservoirs/tanks	• Rivers • Lakes	• Oceans/beaches • Rivers • Wells/open cisterns	• Oceans/beaches • Rivers • Wells/open cisterns	• Wells/open cisterns • Waterfalls • Lakes
• Fishing in dangerous conditions • Fishing without lifejacket • Civil unrest • Flooding downstream of reservoirs/tanks	• Alcohol • Lack of swimming ability • Fishing and boating without lifejacket • Difficulty accessing people • Lack of signage • Adventure sports and tourism	• Alcohol • Unregulated tourism • Some fishing without lifejacket	• Alcohol • Unregulated tourism • Some fishing without lifejacket	• Alcohol • Poor communities • Remote area
1) Lack of water safety education and awareness 2) Poverty 3) Civil unrest	1) Lack of water safety education and awareness 2) High illiteracy/Low education 3) Lack of signage	1) Lack of learn to swim programs 2) Lack of swimming facilities to provide swim lessons 3) Lack of laws, policy or standards governing water safety	1) Lack of learn to swim programs 2) Lack of swimming facilities to provide swim lessons 3) Lack of laws, policy or standards governing water safety	1) Lack of drowning prevention programs 2) Remote/rural location 3) Lack of water safety education and awareness

CENTRAL PROVINCE

AGE GROUPS



DROWNING RATE

85 DEATHS PER YEAR

3.4 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

An average of 85 people drowned each year in Central province, with a drowning rate of 3.4 deaths per 100,000 people, the lowest in Sri Lanka. Males had the highest drowning risk in Central province and people aged 25-44 years represented the highest proportion of drowning incidents.

Common aquatic activities include recreating around water, fishing in inland waters and collecting water from wells. Drowning reportedly occurs mainly in reservoirs/tanks. It is reported that a lack of safe swimming zones with lifeguards and recreating around muddy water contribute to drowning in the province.

PROVINCE SNAPSHOT

Districts Kandy (Capital)
Matale
Nuwara Eliya

Province area **5,674 km²**
(8.6 % of Sri Lankan total)

Estimated population **2.52 million**
(12.9% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

3.2

LOCATION



TOP DROWNING LOCATIONS



Reservoirs/
tanks

COMMON AQUATIC ACTIVITIES



Collecting water
from wells



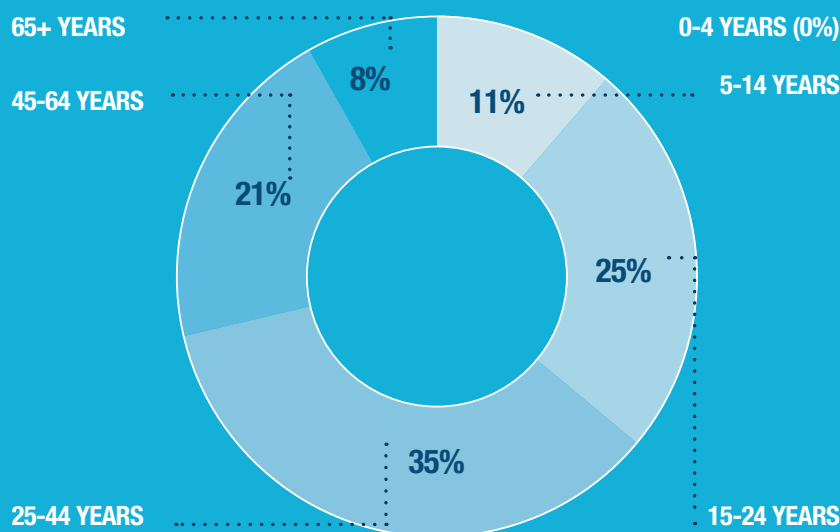
Recreation



Fishing

EASTERN PROVINCE

AGE GROUPS



DROWNING RATE

59 DEATHS PER YEAR

4.0 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

On average, 59 people drowned each year in Eastern province, with a drowning rate of 4.0 deaths per 100,000 people. Males had the highest drowning risk in the province and people aged 25-44 years represented the highest proportion of drowning incidents.

Common aquatic activities include recreating around lakes and beaches, employment (e.g. fishing, work in rice paddies and brick making) and aquatic sports (e.g. surfing and wind surfing). Drowning is reportedly common in lakes, oceans/beaches and irrigation channels. It is reported that a lack swimming ability and water safety knowledge contribute to drowning in Eastern province.

PROVINCE SNAPSHOT

Districts Trincomalee (Capital)
Ampara
Batticaloa

Province area **9,996 km²**
(8.6 % of Sri Lankan total)

Estimated population **1.48 million**
(15.2% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

7.6

LOCATION



TOP DROWNING LOCATIONS



Lakes



Irrigation channels



Oceans/
beaches

COMMON AQUATIC ACTIVITIES



Fishing



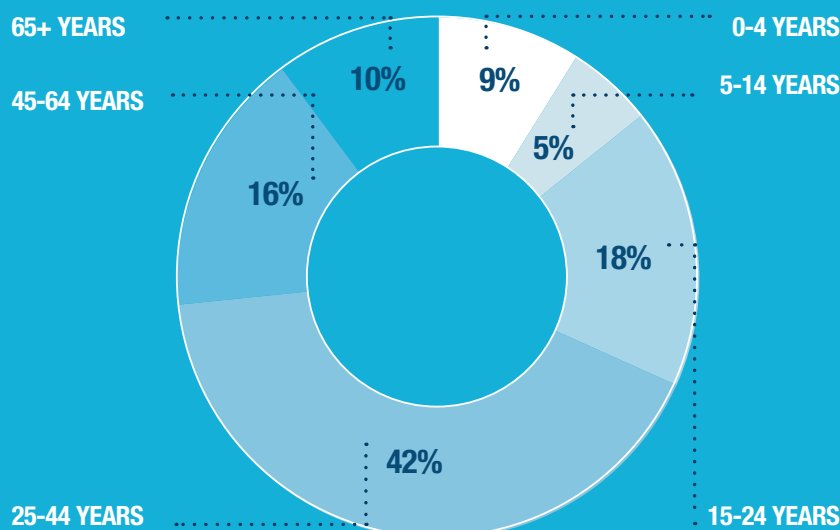
Recreation



Employment

NORTH CENTRAL PROVINCE

AGE GROUPS



DROWNING RATE

62 DEATHS PER YEAR

5.4 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

On average, 62 people drowned each year in North Central province, which had the second highest drowning rate in Sri Lanka at 5.4 deaths per 100,000 people. People aged 25-44 years were the most commonly represented in drowning statistics, comprising 42% of all drowning deaths in the province. Males were also over-represented compared to females.

Common aquatic activities include bathing (including for religious reasons), fishing and water-based employment (e.g. work in rice paddies, fishing). Drowning is reported to occur typically in lakes, reservoirs/tanks and unprotected wells. Alcohol, lack of lifeguard services, poor swimming ability, flooding and visitors recreating around unfamiliar environments are reported to contribute to drowning in this province.

PROVINCE SNAPSHOT

Districts Anuradhapura (Capital)
Polonnaruwa

Province area **10,472 km²**
(16% of Sri Lankan total)

Estimated population **1.15 million**
(5.9% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

4.5

TOP DROWNING LOCATIONS

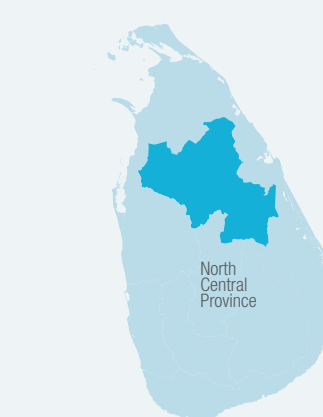


Reservoirs/
tanks



Wells/open
cisterns

LOCATION



COMMON AQUATIC ACTIVITIES



Recreation



Employment



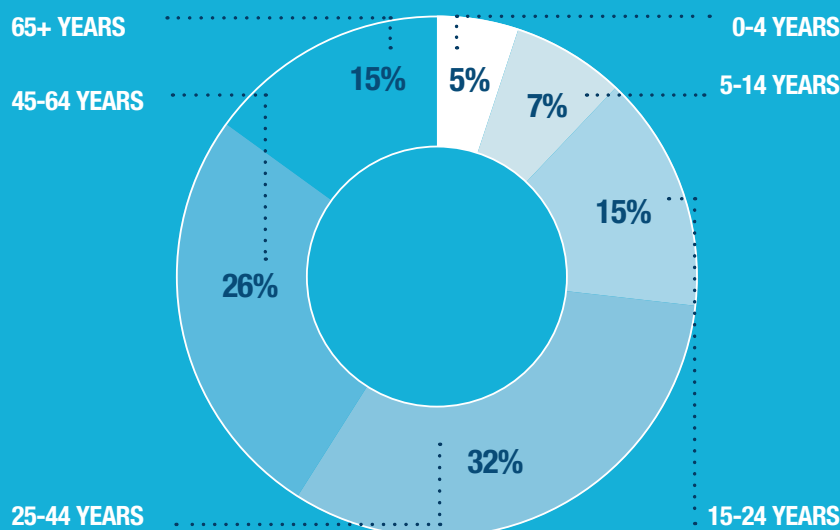
Religious
reasons



Fishing

NORTH WESTERN PROVINCE

AGE GROUPS



DROWNING RATE

139 DEATHS PER YEAR

6.3 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

North Western province had the highest drowning rate in Sri Lanka, at 6.3 deaths per 100,000 people. An average of 139 people drowned each year in the province. Males had the highest drowning risk and people aged 25-64 years represented the highest proportion of drowning incidents.

Common aquatic activities include recreating around water, bathing, fishing and swimming at lakes and beaches and collecting water from wells. Drowning reportedly occurs mainly in oceans/beaches in Puttalam and lakes in Kurunegala. It is reported that alcohol, lack of lifejacket wear and activities such as recreating around muddy water and fishing around reservoir outlets contribute to drowning in the province.

PROVINCE SNAPSHOT

Districts Kurunegala (Capital)
Puttalam

Province area **7,888 km²**
(12% of Sri Lankan total)

Estimated population **2.23 million**
(11.5% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

4.1

LOCATION



TOP DROWNING LOCATIONS



Lakes



Oceans/
beaches

COMMON AQUATIC ACTIVITIES



Recreation



Swimming



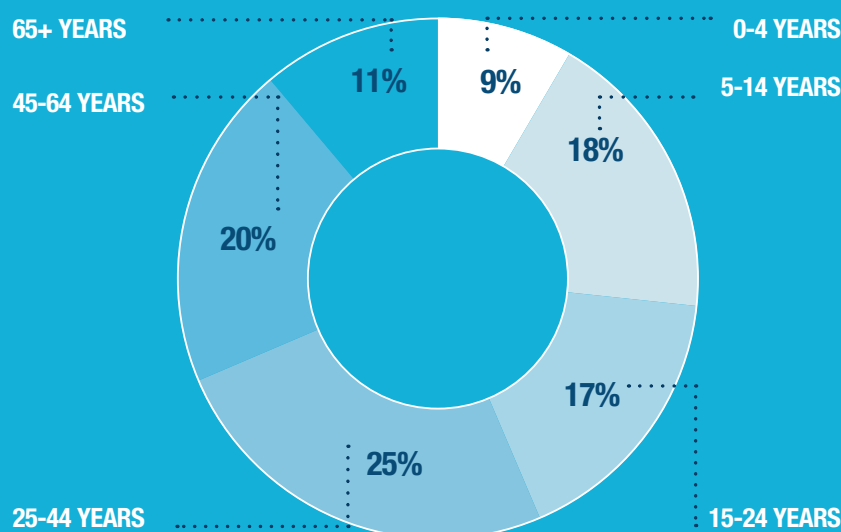
Fishing



Collecting water
from wells

NORTHERN PROVINCE

AGE GROUPS



DROWNING RATE

44 DEATHS PER YEAR

3.9 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

Northern province had the smallest population in Sri Lanka. The drowning rate was 3.9 deaths per 100,000 people, which equates to an average of 44 people each year. Males had the highest drowning risk and people aged 25-44 years represented the highest proportion of drowning incidents.

Common aquatic activities include recreating around lakes, fishing with nets or from boats and collecting water from wells. Drowning reportedly occurs commonly in lakes, reservoirs/tanks. Fishing in dangerous conditions, lack of lifejacket wear, civil unrest and flooding reportedly contribute to drowning in Northern province.

PROVINCE SNAPSHOT

Districts Anuradhapura (Capital)
Polonnaruwa

Province area **8,884 km²**
(13.5% of Sri Lankan total)

Estimated population **1.09 million**
(5.6% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

2.9

LOCATION



TOP DROWNING LOCATIONS

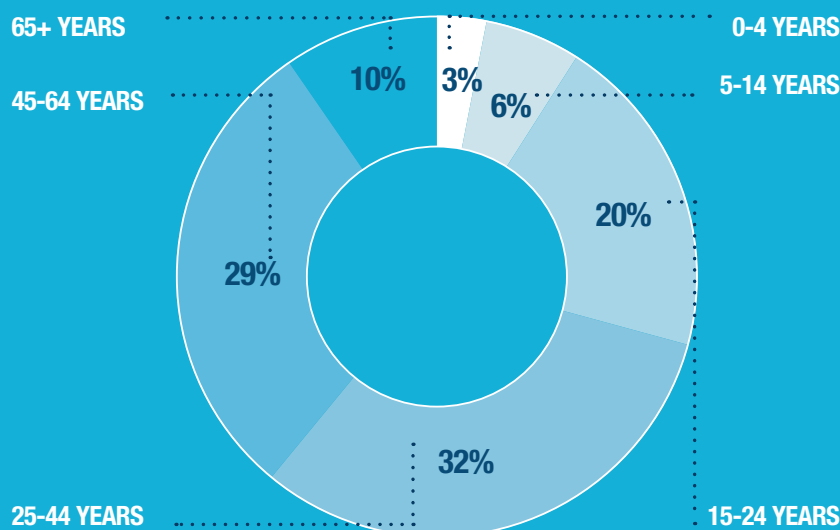
-  Reservoirs/tanks
-  Wells/open cisterns

COMMON AQUATIC ACTIVITIES

-  Collecting water from wells
-  Fishing
-  Digging wells
-  Recreation

SABARAGAMUWA PROVINCE

AGE GROUPS



DROWNING RATE

74 DEATHS PER YEAR

4.0 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

An average of 74 people drowned in Sabaragamuwa province each year, which equates to a drowning rate of 4.0 deaths per 100,000 people. Males and people aged 25-64 years were the most commonly represented groups in drowning statistics in this province.

Common aquatic activities include recreating around lakes and rivers, fishing, gem mining, swimming and adventure sports (e.g. kayaking, white-water rafting). Drowning reportedly occurs mainly in rivers and lakes. Factors thought to contribute to drowning in Sabaragamuwa province include alcohol, lack of lifejacket wear and high levels of tourism and aquatic sports.

PROVINCE SNAPSHOT

Districts Ratnapura (Capital)
Kegalle

Province area **4,968 km²**
(7.6% of Sri Lankan total)

Estimated population **1.85 million**
(9.5% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

4.1

LOCATION



TOP DROWNING LOCATIONS



Lakes



Rivers

COMMON AQUATIC ACTIVITIES



Recreation



Employment



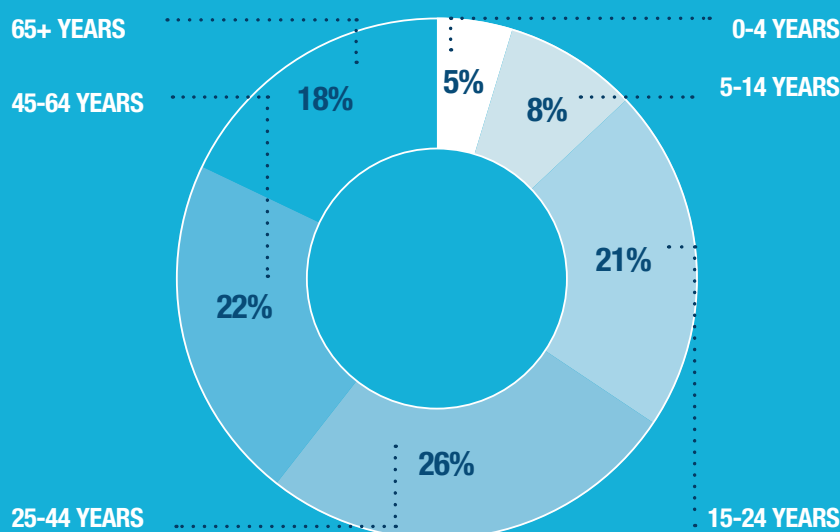
Fishing



Water Sports

SOUTHERN PROVINCE

AGE GROUPS



DROWNING RATE

115 DEATHS PER YEAR

4.9 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

On average, 115 people drowned each year in Southern province, which had a drowning rate of 4.9 deaths per 100,000 people. Males had the highest drowning risk in Southern province and people aged 25-64 years represented the highest proportion of drowning incidents.

Common aquatic activities include fishing (e.g. from boats, stilts), employment (e.g. construction), recreating around beaches, and aquatic sports (e.g. surfing, snorkelling and diving). Drowning reportedly occurs mainly in oceans/beaches, rivers and unprotected wells. It is reported that alcohol, lack of lifejacket wear and unregulated tourism contribute to drowning in the province.

PROVINCE SNAPSHOT

Districts Galle (Capital)
Hambantota
Matara

Province area **5,544 km²**
(13.5% of Sri Lankan total)

Estimated population **2.35 million**
(12.1% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

4.0

LOCATION



TOP DROWNING LOCATIONS



Oceans/
beaches



Wells/open
cisterns



Rivers

COMMON AQUATIC ACTIVITIES



Fishing



Recreation



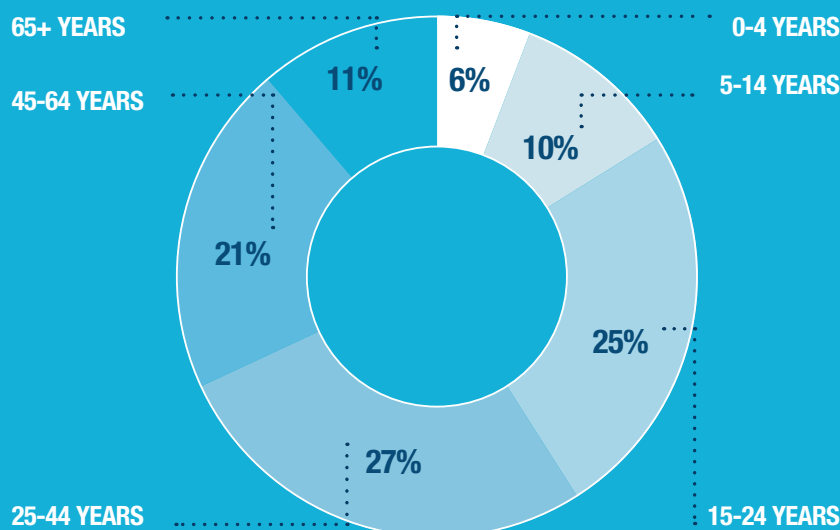
Employment



Water Sports

UVA PROVINCE

AGE GROUPS



DROWNING RATE

44 DEATHS PER YEAR

3.6 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

On average, 44 people drowned each year in Uva province, which had the second lowest drowning rate in Sri Lanka, at 3.6 deaths per 100,000 people. Males had the highest drowning risk and people aged 25-44 years represented the highest proportion of drowning incidents.

Common aquatic activities include fishing, bathing and washing, tourism activities and collecting water from wells. Drowning reportedly occurs mainly in open wells, waterfalls and lakes. It is reported that alcohol, and lack of access to poor and remote communities contribute to drowning in the province.

PROVINCE SNAPSHOT

Districts Badulla (Capital)
Monaragalla

Province area **8,500 km²**
(13% of Sri Lankan total)

Estimated population **1.23 million**
(6.3% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

2.5

LOCATION



TOP DROWNING LOCATIONS



Lakes



Waterfalls



Wells/open cisterns

COMMON AQUATIC ACTIVITIES



Fishing



Bathing and washing



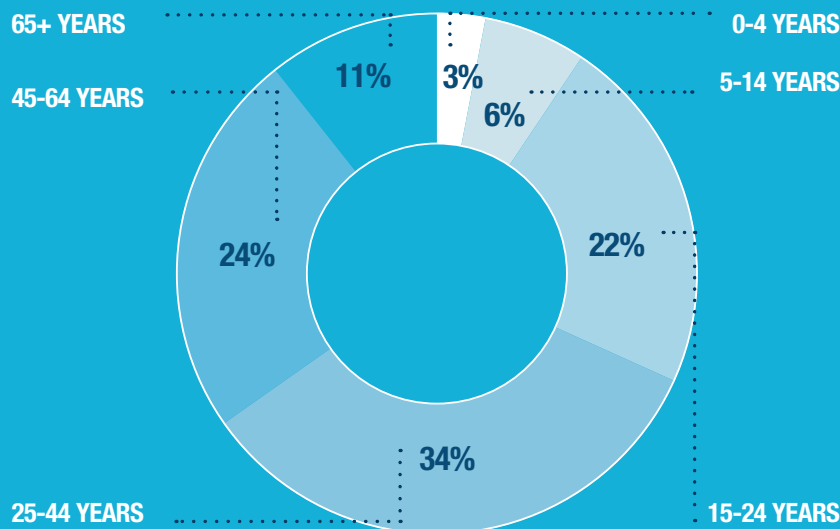
Tourism



Recreation

WESTERN PROVINCE

AGE GROUPS



DROWNING RATE

236 DEATHS PER YEAR

4.2 DEATHS PER 100,000 POPULATION

NATIONAL DROWNING RATE 4.4

An average of 236 people drowned each year in Western province, which had a drowning rate of 4.2 deaths per 100,000 people. Males were 6.5 times more likely to drown than females (the highest drowning rate ratio in Sri Lanka) and people aged 25-44 years were the most commonly represented age group in drowning statistics.

Common aquatic activities include fishing from boats and beaches (for employment and recreation), swimming, bathing and washing in rivers, tourism activities and collecting water from wells. Drowning reportedly occurs mainly in oceans/beaches, rivers and open wells. It is reported that alcohol, a lack of lifeguards, and poor swimming ability and water safety knowledge contribute to drowning in the province.

PROVINCE SNAPSHOT

Districts Galle (Capital)
Hambantota
Matara

Province area **3,684 km²**
(5.6% of Sri Lankan total)

Estimated population **5.56 million**
(28.6% of Sri Lankan total)

MALE : FEMALE DROWNING RATIO

6.5

LOCATION



TOP DROWNING LOCATIONS



Oceans/
beaches



Wells/open
cisterns



Rivers

COMMON AQUATIC ACTIVITIES



Fishing (boat,
beach)



Bathing and
washing



Employment



Collecting water
from wells



Swimming



Water Sports

DROWNING PREVENTION & WATER SAFETY ACTIVITIES



DROWNING PREVENTION & WATER SAFETY ACTIVITIES CONT.



Organisations that were involved in drowning prevention and water safety activities in Sri Lanka in the past 10 years (2004-2014) were approached to complete a survey describing these activities. Table 2 provides an overview of these organisations and their work in drowning prevention. The majority of water safety and drowning prevention activities focused on education, followed by training and rescue and response services.

The most common programs delivered were water safety education programs, First Aid training, and swimming lessons. The target groups were children/teenagers, followed by schools and research groups. Most programs were delivered in a combination of swimming pools and the classroom, followed by coastal waterways and seminar rooms/class rooms alone. These programs were mainly located in Colombo district, followed by Galle and Gampaha districts.

Organisation name	Type	Organisation vision	Category	Activities	Program details
Life Saving Association of Sri Lanka	Non-profit	To create a safer and drowning free aquatic environment in Sri Lanka	Community-based action Effective policies and legislation	Education Training Campaign and Awareness Rescue and Response Services	• Water safety education • Introduction to water • Lifesaving training • First Aid • Water safety planning • Lifesaving services
Sri Lanka Coast Guard	Government	To foster a peaceful maritime environment whilst protecting national interests	Community-based action Effective policies and legislation	Education Training Rescue and Response Services	• Water safety education • Parent/carer supervision • Introduction to water • Water safety planning • First Aid • Lifesaving services
Sri Lanka Police	Government	Sri Lanka Police is committed and confident to uphold and enforce the law of the land, to preserve the public order, prevent crime and Terrorism with prejudice to none – equity to all.	Community-based action Effective policies and legislation	Education Rescue and Response Services	• Water safety education • Lifesaving services
Sri Lanka Navy	Government	To conduct prompt and sustainable combat operations at sea in accordance with the national policies.	Community-based action Effective policies and legislation	Education Rescue and Response Services	• Water safety education • Lifesaving services • Search and Rescue
Sri Lanka Red Cross Society	Non-profit	To shape safer, resilient and socially inclusive communities through improving lifestyles and changing mind-sets.	Community-based action Effective policies and legislation	Education Training Rescue and Response Services	• Water safety education • First Aid • Lifesaving services
Jetwing Hotels Ltd	Hotel	To be world class in everything we do.	Community-based action	Education Training Campaign and Awareness	• Swimming lessons • Water safety education • Parent/carer supervision • Introduction to water • First Aid • Water safety planning
CandleAid Lanka	Non-profit	To alleviate poverty in Sri Lanka. It is modelled on the belief that every person can do something to help another, irrespective of class, wealth and status.	Community-based action	Education	• Swimming lessons
Sri Lanka Women's Swimming Project		To reduce death by drowning through teaching women and teenage girls to swim so that they may teach their own children	Community-based action	Education Training	• Swimming lessons • Water safety education • Parent/carer supervision • Introduction to water • Water safety planning • Research meetings • Swim teacher training • First Aid
Foundation of Goodness	Non-profit	To empower the less privileged rural communities, whilst inculcating the spirit of goodness, so that they may have equal opportunities to excel in life.	Community-based action	Education Training	• Swimming lessons • Water safety education • Parent/carer supervision • Introduction to water • Water safety planning • Research meetings • First Aid
University of Peradeniya (Kandy)		Education for Wisdom	Community-based action	Education Training Campaign and Awareness	• Swimming lessons • Water safety education • First Aid • Water safety planning
University of Sri Jayawardenepura (Colombo)	Non-profit	Vijja Uppatatham Settha (Among all that rise, knowledge is the greatest)	Community-based action	Education Training	• Swimming lessons • Water safety education • First Aid

LIFESAVING IN SRI LANKA



DEVELOPMENT OF LIFESAVING SERVICES

Open water environments such as beaches, lakes, rivers and reservoirs/tanks can be hazardous, especially for untrained and inexperienced local and foreign visitors to these environments. At beaches, currents in the ocean can result in unskilled swimmers being taken away from the shore and in many cases, lead to a drowning death. A key solution to addressing drowning deaths in open water environments is the provision of lifesaving services.

A lifesaving service is comprised of trained lifeguards on duty with rescue and First Aid equipment. Lifeguards are individuals who are qualified in lifesaving skills that are employed or volunteer to be on duty at beaches, inland waterways and swimming pools. At lifesaving service locations, lifeguards are prepared to respond when people get into difficulty in the water. Lifeguards also conduct preventative actions in advising people how to avoid danger, for example – advising people of currents at a beach and directing people to safer bathing locations at the beach.



The Life Saving Association of Sri Lanka has been providing lifesaving services in Sri Lanka since 1947, with active representation by the Sri Lanka Police. More recently, the Sri Lanka Coast Guard has deployed lifesaving services at frequently visited open water locations across Sri Lanka. These lifesaving services are in addition to the service provided by the Sri Lanka Police and volunteer driven lifesaving clubs associated with the Life Saving Association of Sri Lanka.

Since the end of the civil war in Sri Lanka in 2009, many personnel from the armed forces have been deployed to lifesaving services in Sri Lanka. There are number of lifesaving clubs and services represented by Sri Lanka Air Force, Sri Lanka Civil Security Department, Sri Lanka Navy and Sri Lanka Army. This has led to a significant expansion in the provision of lifesaving services in Sri Lanka and hundreds of rescues each year.

Tables 3 and 4 as well as Figure 8 (overleaf) highlight the location of lifesaving services in Sri Lanka and their details.

400+ RESCUES REPORTEDLY PERFORMED EACH YEAR BY LIFEGUARDS - THAT IS OVER 400 LIVES SAVED FROM DROWNING.

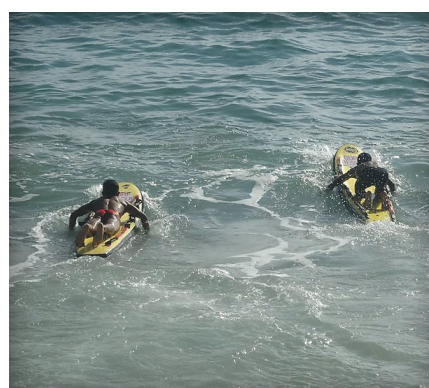
51 OPEN WATER LOCATIONS WITH LIFESAVING SERVICES

- 33 BEACHES
- 16 LAKES AND RESERVOIRS/TANKS
- 2 RIVERS

SERVICES RANGING FROM DAILY, WEEKENDS AND PUBLIC HOLIDAYS TO FESTIVAL SEASON.

39 LIFESAVING CLUBS

1,319 QUALIFIED LIFEGUARDS



LIFESAVING IN SRI LANKA CONT.

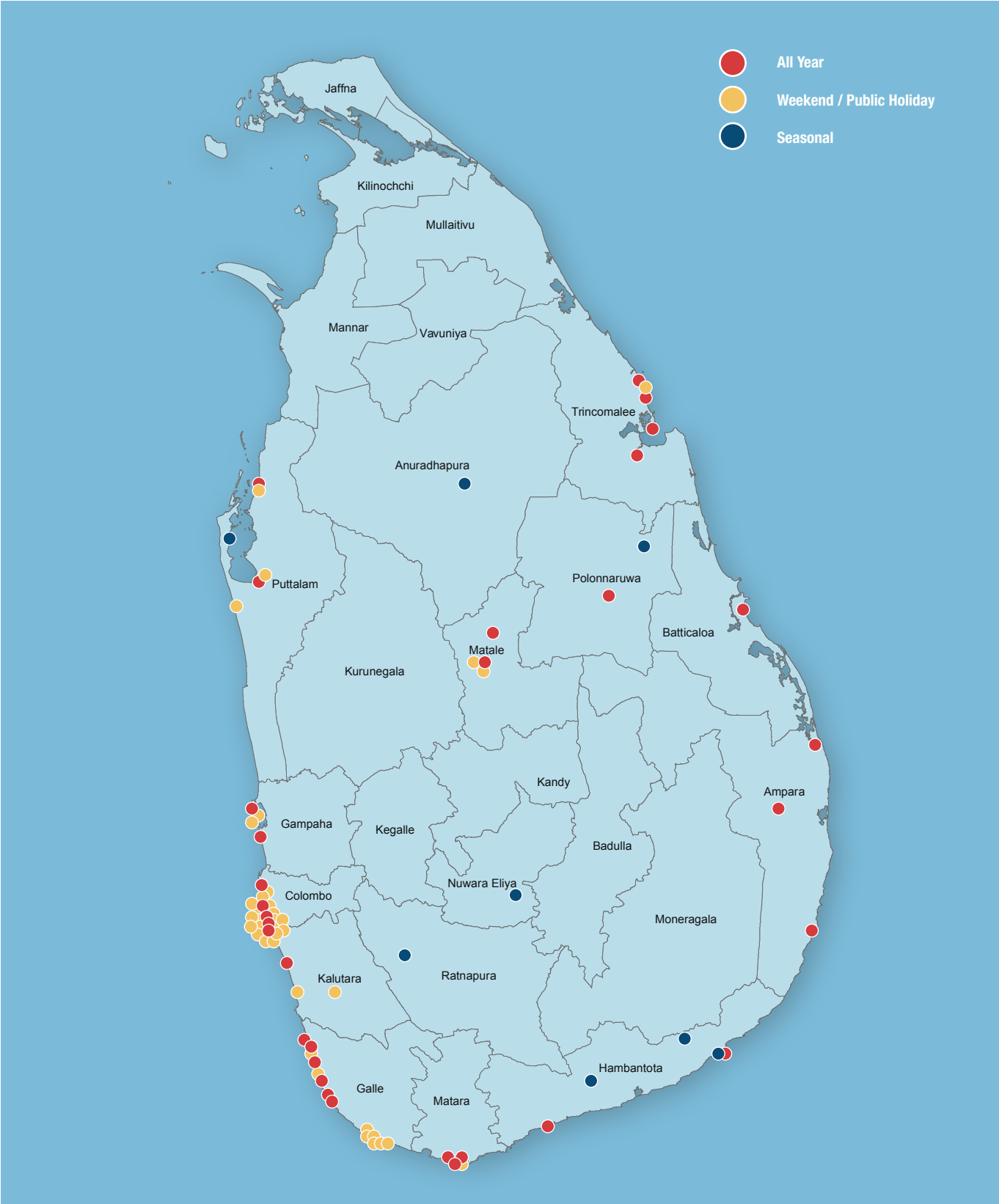


Figure 8 Map of lifesaving services in Sri Lanka.

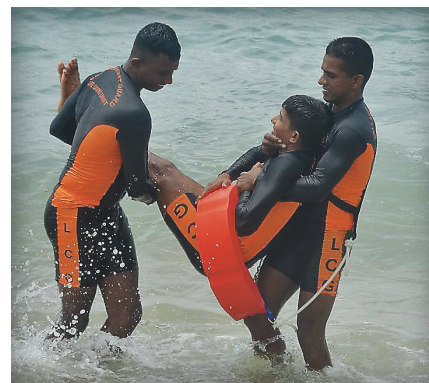
Table 3 Lifesaving clubs and number of qualified lifeguards

Lifesaving Club Name	Number of active patrol lifeguards
Aguruwathotta Life Saving Club	25
Ampara District Life Saving Club	30
Ananda College	25
Anuradhapura District Life Saving Club	35
Bandaranayake College Gampaha	20
Biyagama Aquatic Club	8
Dambulla Life Saving Club	50
Dharmapala College Panipitiya	15
Dolphin Aquatic Club Ambalangoda	20
Galle Aquatic Club	15
Jayawardenapura University Club	25
Kelan Aquatic Club	22
Kinross Swimming Club	35
Mahinda College	20
Matara Aquatic Club	15
Nalanda College Life Saving Club	25
Old Nalanda Aquatic Club	20
Old Richmond Aquatic Club	30
Old Thomas Aquatic Club	10
Otter Aquatic Club	10
Piliyandala Central College	25
Polhena Aquatic Club	15
Puttalam District Life Saving Club	30
Rangiri Aquatic Club Dambulla	10
Red Cross Life Saving Club	10
Richmond College	25
Sea Horse Aquatic Club Bentota	25
Sea Lion Aquatic Club	25
Singhe Aquatic Club Sri Lanka Army	10
Sri Lanka Air force Life Saving Club	10
Sri Lanka Civil Security Department	67
Sri Lanka Coast Guard	177
Sri Lanka Navy (Rapid Action Board Squadron)	50 275
Sri Lanka Police Life Saving Club	20
St. Aloysius College	5
St. Thomas College Mt. Lavinia	10
Surf Society	55
Trinco District Life Saving Club	20
Wattala Life Saving Club	
Total	1,319

Table 4 Lifesaving service locations and patrol hours by province and district

Province	District	Location name	Number of hours/days
All Island	All Island	Based in Puttalam	24 Hours - Search and Rescue
Central Province	Matale	Ebangkatuwa Lake	Saturday - 0800 to 1200
	Mathale	Dambulla	Daily - 0600 to 1800
		Ibbankatuwa Lake	Saturday - 0800 to 1200
	Nuwara Eliya	Nuwara Eliya	Daily - 0600 to 1800
Eastern Province	Ambara	Kondawatuwana Lake	Daily - 0600 to 1800
	Ampara	Ampara and Konduwatana Lake	Saturday and Sunday - 0800 to 1800
		Kalmune Karakadapalli Beach (festival season)	Daily - 0600 to 1800
	Baticallo	Arugambe Beach	Daily - 0600 to 1800
		Pasikuda Beach	Daily - 0600 to 1800
	Kanthale	Kanthale Lake	Daily - 0600 to 1800
	Trincomalee	Gopalpuram Beach	Daily - 0600 to 1800
		Nilaveli Beach	Daily - 0600 to 1800
		Trincomalee Beach	Saturday, Sunday and Poya day - 1000 to 1800 Daily - 0600 to 1800
North Central Province	Anuradhapura	Hurulu Lake (festival season)	Daily in June - 0600 to 1800
		Kaludiya Pokuna	Daily - 0600 to 1800
		Tissa Lake and Basawakulam	Saturday and Sunday - 0800 to 1800
	Polanaruwa	Parakrama Tank	Daily - 0600 to 1800
		Somawathi Lakes (festival season)	Daily - 0600 to 1800
North Western Province	Puttalam	Puttalam Beach	Saturday and Sunday - 0800 to 1800
		Thalawila Beach (festival season)	5 days in March and August
		Welanthanhi Beach	Saturday and Sunday - 0800 to 1800
Sabragamuwa Province	Ratnapura	Ratnapura River	10 days in September
Southern Province	Galle	Aluthgama Beach	Daily - 0600 to 1800
		Ambalangoda Beach	Daily - 0600 to 1800 Saturday and Sunday - 0900 to 1400
		Balapetiya Beach	Daily - 0600 to 1800
		Benthota Beach	Sunday - 0800 to 1300
		Bentota Beach	Daily - 0600 to 1800
		Hikkaduwa Beach	Daily - 0600 to 1800
		Lighthouse Galle	Saturday and Sunday - 0900 to 1700
		Old Jatty Galle	Saturday and Sunday - 0900 to 1700
		Unawatuna Beach	Saturday and Sunday - 0900 to 1500
	Hikkaduwa	Hikkaduwa Beach	Daily - 0600 to 1800
	Matara	Mirissa Beach	Daily - 0600 to 1800
		Polhena Beach Matara	Daily - 0600 to 1800
			Saturday and Sunday - 0900 to 1800
	Tangalle	Katharagama (festival season)	Daily in July - 0600 to 1800
		Kirinda Beach	Daily - 0600 to 1800
		Kirinda Beach (festival season)	Daily in July - 0600 to 1800
		Tangalle Beach	Daily - 0600 to 1800
Uva Province	Anuradhapura	Anuradhapura Tissa Lake	Daily - 0600 to 1800
Western Province	Colombo	Browns Beach Negambo	Saturday and Sunday - 0800 to 1800
		Dehiwela Beach	Daily - 0600 to 1800
		Galle Face Beach2	Daily - 0600 to 1800
		Kaka Island Beach (festival season)	Saturday and Sunday - 0800 to 1800
		Mt. Lavinia Beach	Daily - 0600 to 1800
			Saturday and Sunday - 0800 to 1800
		Negambo Beach	Daily - 0600 to 1800
		Negambo Beach Park	Saturday and Sunday - 0900 to 1400
		Preethipura Beach	Saturday and Sunday - 0800 to 1800
		Welawatte Beach	Daily - 0600 to 1800
			Saturday, Sunday and Poya day - 1000 to 1800
	Gampaha	Preethipura Beach	Saturday and Sunday - 0900 to 1400
	Kalutara	Black river	Sunday - 0900 to 1300
		Kalutara Beach	Saturday and Sunday - 0800 to 1800
		Panadura Beach	Daily - 0600 to 1800

LIFESAVING IN SRI LANKA CONT.



DEVELOPMENT OF LIFESAVING SKILLS

The need for lifesaving services has significantly increased in recent years in Sri Lanka. This is due in most part to the end of the civil war in 2009, which has encouraged local communities and tourists alike to travel more extensively and visit more aquatic environments, including swimming pools, beaches, lakes, rivers and reservoirs/tanks.

This increased participation in aquatic recreation has led to a need to equip more Sri Lankans with lifesaving skills. Teaching lifesaving skills is a proven drowning prevention action, and persons trained can help prevent a drowning death. This person may be a bystander at the scene of a drowning incident who is trained in basic lifesaving skills or a qualified lifeguard on duty. The more people that are trained in lifesaving skills, the greater the chance of lives being saved from drowning.

Led by the Lifesaving Association of Sri Lanka, over 11,000 people have been trained in lifesaving skills between 2012 and 2014 (Figure 9).

INTERNATIONAL TRAINING

Since 2012, Life Saving Victoria, in partnership with the Life Saving Association of Sri Lanka, has delivered a range of internationally recognised training programs to Sri Lankan personnel across a range of industries including tourism, swimming and lifesaving and the armed forces. This has helped increase the profile and the importance of developing lifesaving in Sri Lanka.

Each year since 2012, a team of lifesaving professionals from Life Saving Victoria has provided training in CPR, First Aid, pool lifeguard training and surf lifeguard training (including Bronze and Silver Medallion training). Since this partnership began, over 600 personnel have been trained and now provide vital lifesaving services across Sri Lanka. The Life Saving Association of Sri Lanka has the mandate and training capabilities to offer internationally recognised lifesaving training in Sri Lanka and the partnership is expected to continue.

YEAR 1

- Training in internationally recognised First Aid, CPR, Pool Lifeguard and Train the Trainer in Pool Lifeguarding
- 180 people trained
- Jetwing Hotels, Life Saving Association of Sri Lanka, Sri Lanka Police and Sri Lanka Coast Guard

YEAR 2

- Training in internationally recognised First Aid, CPR, Pool Lifeguarding, Surf Lifeguarding, Train the Trainer in Surf Lifeguarding
- 270 people trained
- Jetwing Hotels, Life Saving Association of Sri Lanka, Sri Lanka Police and Sri Lanka Coast Guard

YEAR 3

- Training in internationally recognised Silver Medallion Aquatic Rescue and update in Surf Lifeguarding
- 200 people trained
- Jetwing Hotels, Life Saving Association of Sri Lanka, Sri Lanka Police, Sri Lanka Navy and Sri Lanka Coast Guard

CASE STUDY: LIFEGUARDING AS EMPLOYMENT FOR SRI LANKANS

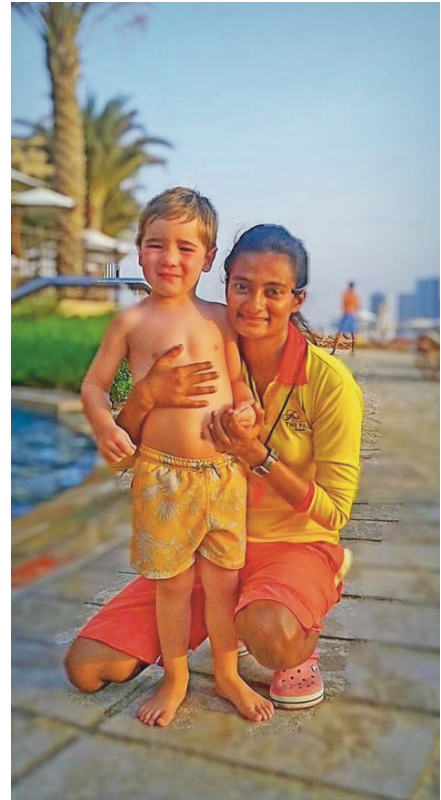
Lifeguards play an honourable role in saving lives from drowning, and preventing injuries in water. For the most part, lifeguards are volunteers who are committed to their duty. Unfortunately, the role of a lifeguard is often undervalued in society and Sri Lanka is no different. Led by the Life Saving Association of Sri Lanka, significant progress has been made in elevating both the skill level of lifeguards in Sri Lanka and recognition of their importance.

From a training perspective, pool and surf lifeguards trained by the Life Saving Association of Sri Lanka are recognised by the International Life Saving Federation. With the support of Life Saving Victoria, the Life Saving Association of Sri Lanka continues to develop capabilities for lifeguard training.

From a recognition perspective, the average salary of a lifeguard in Sri Lanka has risen to Rs. 30,000 (USD 230) per month in 2014, compared to an average salary of Rs. 10,000 (USD 75) per month in 2010. The current average salary for a lifeguard is on par with an entry level sales or banking job and a service employee at McDonalds in Sri Lanka. There are now more young men and women choosing lifeguarding as a profession. In some cases, lifeguards are from impoverished backgrounds and often illiterate. Lifeguarding offers these individuals a pathway to a job and a salary which would otherwise be unattainable.

In gaining an internationally recognised lifeguard qualification from the Life Saving Association of Sri Lanka, lifeguards from Sri Lanka have a pathway to gaining employment in the Middle East, particularly the United Arab Emirates. This pathway creates an incentive for youths to enter lifeguarding, creating a larger resource pool for local employment which can be more than replenished to compensate for any labour loss to the Middle East. The average salary for a Sri Lankan lifeguard in the Middle East is Rs. 75,000 (USD 570) per month.

For a Sri Lankan, gaining employment as a lifeguard in the Middle East is financially better than gaining employment as a domestic helper in the Middle East with an average salary of Rs. 25,000 (USD 190) per month. Lifeguarding is more attractive financially and offers a better quality of life for both the person employed and their family circumstances in Sri Lanka. Life Saving Association of Sri Lanka has successfully secured more than 260 jobs since 2013 for Sri Lankan lifeguards in the Middle East.

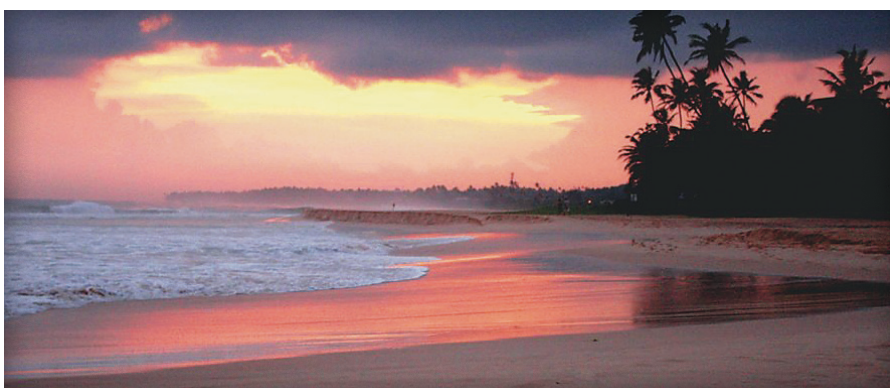


First Silver Medallion Aquatic Rescue training, Mirissa, October 2014

LIFESAVING IN SRI LANKA CONT.



Figure 9 Progress in lifesaving skills development in Sri Lanka



LIFESAVING AND TOURISM

The primary benefits from lifesaving services are preventing drowning deaths and encouraging aquatic recreation. The latter helps create a culture of swimming in Sri Lanka, which is an asset for an island nation. With lifesaving services, recreational swimming can be made available in many places in Sri Lanka including beaches, lakes, reservoirs/tanks and rivers.

In addition to preventing drowning deaths and encouraging water-based recreation, there are economic and tourism benefits that flow from lifesaving services (Figure 10). These include increased water safety for tourists, increased use of natural assets, increased country differentiation, increased local employment, increased opportunities for small and medium-sized enterprises (SME) and increased foreign employment.

Lifesaving service, Australia

Sri Lanka is abundantly endowed with beautiful and accessible open water environments that are ideal for water-based recreation. Complementing these natural environments with lifesaving services makes for a promotion and utilisation of Sri Lanka that is vastly untapped. It is important for government, businesses and communities to understand the benefits that can be drawn from lifesaving services in Sri Lanka and action strategies for realising these benefits.

CASE STUDY: JETWING HOTELS ADOPTING LIFESAVING

Since 2012, Jetwing Hotels has been dedicated to developing lifesaving skills within its hotels. This was initiated in 2012 when Jetwing Hotels hosted a team of lifesaving professionals from Life Saving Victoria (Australia) to train hotel personnel in CPR, First Aid and pool lifeguarding. Over 200 Jetwing Hotels personnel were trained in this year. The training was also opened to other hoteliers in Sri Lanka, with Dolphin Hotel, Sinbad Hotel and Heritance Hotels joining the training in Negombo and Galle.

In 2013, Jetwing Hotels hosted a second team from Life Saving Victoria to continue training with the addition of surf lifeguard training. Over 300 personnel were trained. Jetwing Hotels has since engaged the Life Saving Association of Sri Lanka to continue to train its personnel in CPR, First Aid, pool lifeguarding and surf lifeguarding. The Life Saving Association of Sri Lanka has the mandate and training capabilities to offer internationally recognised lifesaving training in Sri Lanka.

In October 2014, Jetwing Hotels elevated its lifesaving focus to a new level. A team from Life Saving Victoria and the Life Saving Association of Sri Lanka were invited to Jetwing Yala Hotel to assist in developing a world-class lifesaving service for the beach bordering the hotel. Jetwing has since commissioned a project that deployed year-round lifesaving service with qualified lifeguards, rescue water craft including a Jet-ski and an inflatable rescue boat, and other equipment including rescue boards, rescue tubes, a defibrillator and oxygen therapy equipment. Jetwing Hotels expects the lifesaving service to improve the services for guests and be an active element in marketing the Jetwing Yala Hotel.

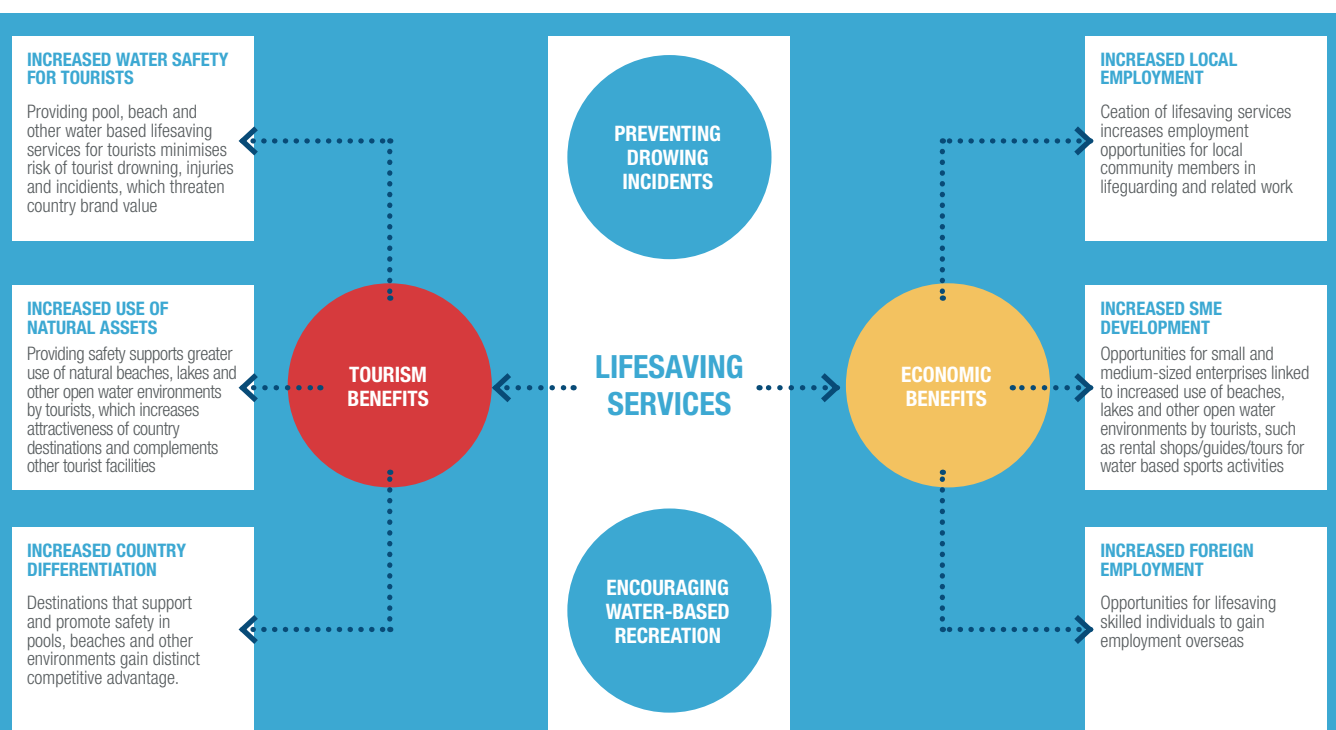


Figure 10 Economic and tourism benefits from lifesaving services



FROM FIGHTING WARS TO LIFESAVING

Following the end of the 25-year long civil war in Sri Lanka in 2009, lifesaving was a welcome deployment option for armed forces personnel. Across Sri Lanka, personnel have been trained in lifesaving skills and deployed to provide lifesaving services at open water locations.

There are over 589 lifeguards in the armed forces (Table 5) and this number is increasing every month. In addition to daily duties there are special duties allocated to various Buddhist, Muslim, Hindu, Catholic and Christian festivals (Table 6).

Table 5 Number of active patrol lifeguards by club

Club Name	Total
Sri Lanka Police	275
Sri Lanka Army	10
Sri Lanka Civil Security Department	67
Sri Lanka Coast Guard	177
Sri Lanka Navy	50
Sri Lanka Air Force	10
Total active patrol lifeguards	589

Table 6: Examples of lifesaving services provided for religious festivals

Place	Festival	Duty Period	Religion	Lifesaving Organisation
Puttalam	Thalawila Church Festival	March / August	Catholic	Sri Lanka Police
Sri Padaya	Sri Pada Festival	January / May	Hindu/ Buddhist	Sri Lanka Police
Katharagama	Katharagama Perahara Festival and Temple Festival	July	Hindu/ Buddhist	Sri Lanka Police
Anuradhapura	Anuradhapura Festival	June	Buddhist	Sri Lanka Police
Kandy	Esala Perahara	May	Buddhist	Sri Lanka Police
Ampara	Okanda Temple Festival Season	August / September	Hindu	Sri Lanka Police
Rathnapura	Rathnapura Saman Dewalaya Festival Season	August	Hindu/ Buddhist	Sri Lanka Police
Kalmunai	Karakada Church	August	Catholic	Sri Lanka Police
Colombo	Kalani Temple Festival Season	January	Buddhist	Sri Lanka Police
Jaffna	Nallur Hindu Temple Festival	July	Hindu	Sri Lanka Police
Jaffna	Madu Wava Hindu Temple	May/ June	Hindu	Sri Lanka Police
Anuradhapura	Anuradhapura Posen Festival	June	Buddhist	Sri Lanka Civil Security Department
Anuradhapura	Mihinthale Festival	Every Month (Poya/ full moon)	Buddhist	Sri Lanka Civil Security Department
Trincomalee	Kanthale Tank	Every Month (Poya / Full moon)	Buddhist	Sri Lanka Civil Security Department
Polonnaruwa	Dimbulagala Temple	Every Month (Poya / Full moon)	Buddhist	Sri Lanka Civil Security Department
Kachchatheevu	St. Anthony's Church	May / June	Catholic	Sri Lanka Navy
Puttalam (Kalpitiya)	St. Anthony's Church	March and August	Catholic	Sri Lanka Navy
Puttalam (Kalpitiya)	Kala Church Eluwankulama	July	Catholic	Sri Lanka Navy
Jaffna	Madhu Church	May / June	Catholic / Hindu	Sri Lanka Navy Sri Lanka Coast Guard
Anuradhapura	Anuradhapura Posen Festival	June	Buddhist	Sri Lanka Navy
Galle	Seenigama Temple	July	Buddhist	Sri Lanka Navy
Matara	Dewundara	July	Buddhist	Sri Lanka Navy
Katharagama	Katharagama Perahara Festival and Temple Festival	July	Hind/ Buddhist	Sri Lanka Navy
Jaffna	Nagadeepa Temple	June	Buddhist	Sri Lanka Navy
Colombo	Gangaramaya Temple Perahera Festival	February	Buddhist	Sri Lanka Coast Guard
Anuradhapura	Anuradhapura Posen Festival	June	Buddhist	Sri Lanka Coast Guard
Jaffna	Madhu Church (Delft)	May / June	Catholic / Hindu	
Matara	St Mary's Church	September	Catholic	Sri Lanka Coast Guard

RECOMMENDATIONS

People can drown in varying locations, from beaches to wells, and in varying circumstances, from fishing to playing at home. Therefore, drowning prevention requires multifaceted and multi-stakeholder strategies that are coordinated and evidence-based. It requires the dedication, skills and resources of government (ministries, armed forces and agencies) and the community (business sector, non-profit organisations and individuals).

As a case example, Life Saving Victoria has used a Community Government Partnership Model to achieve success in preventing drowning. Over a 16 year period, the drowning rate has fallen by 41% in spite of over 150 million visitations to the water environment each year (Life Saving Victoria, 2014).

The following recommendations are provided noting an overarching multi-factorial and evidence-based approach to drowning prevention. Where possible recommendations have been directly aligned to the actions to prevent

drowning in the World Health Organization Global Report on Drowning (WHO, 2014a), others are comparable or in addition to those in the report as they apply directly to the Sri Lankan situation. Recommendations are highlighted as those to be actioned or commenced in the short term (Year 1), medium term (Year 2), and long term (Year 3 onwards), dependent upon resources available.

Recommendation	When to action
1. Teach basic swimming, water safety and safe rescue skills to at-risk groups Key actions: • Target school-age children and adults aged 25 to 44. • Develop nationally recognised learn to swim program guidelines for swim schools and swim teachers. • Incorporate minimum water safety and rescue skills into learn to swim programs. • Incorporate student-instructor ratios, appropriate for the skill level and water conditions. • Increase access to learn to swim programs for children in low socioeconomic families.	Short Term
2. Train bystanders in safe rescue and resuscitation Key actions: • Incorporate safe rescue techniques into community-based education programs and learn to swim programs (ensuring the principle that rescuers must not put themselves at risk). • Incorporate CPR, involving both chest compression and mouth-to-mouth resuscitation, into community-based education programs.	Short Term
3. Implement drowning prevention public awareness campaigns to at-risk groups Key actions: • Create key water safety messages focusing on: – supervision – lifejacket wear, and the – dangers of alcohol consumption around water. • Promote and communicate water safety messages to the public. • Engage mobile phone operators for the distribution of water safety messaging. • Engage television and radio operators for the distribution of water safety messaging.	Short Term
4. Continue to develop lifesaving services Key actions: • Expand the capability and capacity of the Life Saving Association of Sri Lanka. • Encourage lifeguards to further assist and engage patrons through preventative actions. • Improve access to lifesaving equipment. • Promote and communicate lifesaving service locations to the public. • Encourage business to support Life Saving clubs, through in-kind and financial means as corporate social responsibility actions.	Short Term
5. Develop a national water safety plan Key actions: • Conduct a review of existing water safety plans internationally and identify relevant content. • Develop a local water safety plan. • Establish a method for coordinating drowning prevention efforts between stakeholders.	Short Term

Recommendation (Continued)	When to action
6. Improve research capability Key actions: • Improve drowning data collection and reporting including: – Location and activity specific information to enable the development of targeted awareness programs/campaigns – Reporting on cause of death following hospitalisation to ensure correct classification of deaths from drowning. • Engage mobile phone operators for incident reporting. • Engage television and radio operators for incident reporting. • Utilisation of Geographical Information Systems (GIS) to explore geographical risk factors associated with drowning and aquatic injury events. • Monitoring and evaluation of drowning prevention programmes.	Short Term
7. Harness value of tourism from lifesaving Key actions: • Ensure all lifeguards are qualified to internationally recognized standard and have ongoing skills improvement. • Ensure adequate rescue equipment and operational procedures are available to lifeguards • Establish guidelines for tourism operators on how to implement water safety and maximize tourism value and promotion. • Establish a national approach to identifying open water locations for lifesaving services and create country-level promotional materials • Use lifesaving services and safe water recreation location as part of a national tourism strategy – i.e. providing content on inflight videos to brochures upon arrival.	Medium Term
8. Control access to water and/or provide safety warnings Key actions: • Explore innovative means of limiting access to water by: – covering wells and cisterns – ensuring public and private swimming pools have appropriate barriers. • Placing information, warning or prohibition signage or phone messaging in potentially hazardous areas such as: – beaches – reservoirs/tanks. • Explore innovative means of encouraging use of floatation devices on commercial fishing and recreational vessels. • Legislating for the implementation and enforcement of policies, standards and building codes to support these measures.	Medium Term
9. Develop guidelines for safe swimming pool operation Key actions: • Conduct a review of existing guidelines internationally and identify relevant content. • Establish and formalise a risk management process. • Monitor and evaluate adherence to guidelines by pool operators.	Medium Term
10. Build resilience and manage flood risks Key actions: • Develop and promote disaster preparedness plans along with community awareness and education. • Disseminate flood warnings to vulnerable people. • Protect against flooding through land use planning. • Promote flood safety awareness and swimming and water safety skills.	Long Term

METHODS

DATA COLLECTION AND STATISTICAL ANALYSIS

This report includes unintentional drowning deaths reported in Sri Lanka from 1 January 2001–31 December 2006 and 1 January to 31 December 2009.

Information on unintentional drowning deaths was collected from the Registrar General's Department. Deaths are classified by a trained coder at the central Registrar General's Department using scanned death declaration forms from the District Secretariat offices.

The Registrar General's Department extracted the data based on the World Health Organization's International Classification of Diseases (ICD) reporting system. Specifically the supplementary classification of external causes of injury, Accidental drowning and submersion, Accident to watercraft causing submersion, and Other accidental submersion or drowning in water transport accident. Deaths due to natural causes, assaults, suicide, or homicide were not included.

Denominator populations by sex, five-year age group and race were obtained from the Department of Census and Statistics Sri Lanka for 2001–2006 and 2009.

Results of analysis are presented by age, sex, race and period. Periods have been selected based on availability of data. Drowning data were not available for 2007 and 2008 due to some data being missing after the civil war. These periods are not included in the analysis. Microsoft Excel 2010 was used for analysis.

Note that actual drowning figures may be higher due to only 81.9% of registered deaths with cause-of-death information and 28% of registered deaths having ill-defined causes (2006) for all mortality data for Sri Lanka (WHO, 2014b).

Countries were classified into high income countries (HIC) and low and middle income countries (LMIC) based on World Bank income levels.

QUALITATIVE DATA

Data was unavailable for the specific location or type of waterbody where people drowned as well as the activity just prior to drowning. Therefore qualitative evidence was sought from Sri Lanka Police, Sri Lanka Coast Guard and Sri Lanka Navy personnel who attend to reported drowning incidents as well as swimming teachers and community groups working in lifesaving and water safety with local expertise in the area.

Focus groups

Focus group sessions were conducted in September 2014 with representatives from each of the aforementioned groups within each of the provinces in Sri Lanka. Local information was sought on who, where, how and why drowning occurs in each province. Questions related to:

- Common activities that people do in or around water, for work and for recreation.
- Primary locations where drowning occurs.
- Particular individuals or groups most at-risk.
- Particular activities or types of behaviour that places people at greater risk of drowning.
- Issues in tackling drowning prevention and/or water safety issues.
- Drowning prevention and/or water safety activities or interventions in place to reduce the drowning risk.

Surveys

Organisations that were involved in drowning prevention and water safety activities in Sri Lanka in the past 10 years (2004–2014) were approached to complete a survey describing these activities. The survey was provided to 108 organisations.

Fieldwork

Site visits were conducted in at those locations identified as high risk from focus group sessions. Meetings were also held with key stakeholders, including: WHO, Ministry of Health, Foundation of Goodness and Jetwing Hotels.



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COMPILED BY

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Dr Bernadette Matthews PhD, MAgSc, BSc
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Dr Matthews manages the Risk and Research Department of Life Saving Victoria. She specialises in aquatic injury prevention research, from epidemiology of fatal and non-fatal drowning, injuries at public swimming pools and patrolled beaches, aquatic safety signage recognition and recall, through to evaluation of education programs and major public awareness campaigns. Bernadette has compiled 10 annual drowning reports as well as numerous national and international peer reviewed journal articles. She has also provided submissions to coronial enquiries and has served as an expert witness on drowning cases.

Rhiannon Birch BEnvSc (Hons), GradDipEd (Sec)
Senior Research Assistant, Life Saving Victoria

Rhiannon assists in the planning and coordination of Life Saving Victoria's research on injury prevention and water safety issues. She conducts and delivers research, evaluation and reporting services on numerous issues, including the water competency of children and older adults in Victoria, rock fishing safety, public pool safety, multicultural campaigns and international drowning research. These research activities are in line with the Victorian Water Safety Master Plan and the Australian Water Safety Strategy. Rhiannon has presented her work at national and international conferences. She has been working in the research field for over 10 years.

Mevan Jayawardena MBA, BBus, BCom
General Manager Commercial Services, Life Saving Victoria

In addition to managing a number of portfolios, Mevan has led Life Saving Victoria's work in developing drowning prevention and lifesaving activities in Sri Lanka since 2011. Mevan is a dual citizen of Australia and Sri Lanka and a volunteer Director of CandleAid, a Sri Lankan charity with a focus on poverty alleviation. In the aftermath of the 2004 Tsunami, Mevan led disaster operations for CandleAid and amongst other relief projects, implemented an ongoing drowning prevention initiative that has taught swimming free of charge to over 8,000 underprivileged children in Sri Lanka. Having held positions in technology and banking, Mevan completed a MBA at INSEAD in 2010 and joined Life Saving Victoria in 2011 to continue his pursuit to make an impact in the prevention of drowning.

Dushani Mathew BSc (Hons)
Research assistant, Life Saving Association of Sri Lanka

Dushani assisted in the data collection and coordination for this report. Based in Colombo, she liaised closely with relevant organisations and government departments to collect data including drowning deaths, rescues, population media monitoring and to conduct surveys on water safety activities. Dushani has completed a Bachelor of Science at the University of Hertfordshire, United Kingdom, majoring in Astrophysics and graduating with First Class Honours. Her strengths in mathematics, English and interests in community voluntary projects and swimming, equipped her with an ideal skill set to assist in data collection and management most effectively.

Asanka Nanayakkara MBA, Certified Instructor (International Life Saving Federation)
Secretary General, Life Saving Association of Sri Lanka

Asanka has over 10 years of management level experience with the Life Saving Association of Sri Lanka. As Secretary General, he is responsible for the planning and execution of lifesaving programs and activities throughout Sri Lanka and abroad. He possesses comprehensive knowledge and experience of lifesaving services, having been a beach lifeguard in the Mount Lavinia region since 1994 (where he saved 21 lives), a volunteer lifeguard in Anuradhapura, a Senior Royal Life Saving Instructor since 1998, as well as the Superintendent of Competition and the Royal Life Saving Controller for the Life Saving Association of Sri Lanka. Asanka represented the Commonwealth Life Saving Society UK at the Commonwealth People's Forum in Sri Lanka in 2013 and also the Life Saving Association of Sri Lanka at the Asia Pacific Forum and AGM of the International Life Saving Federation in 2012. Asanka also captained the Sri Lankan Life Saving Team in the World Life Saving Championships in New Zealand in 1998 and was appointed team coach in 2000. He also managed the Sri Lankan Life Saving Team in the first South Asian Beach Games in 2011.

Sanath Wijayarathne MBA
President, Life Saving Association of Sri Lanka

Sanath has provided his service as President on a volunteer basis, leading the Life Saving Association of Sri Lanka team at a strategic level whilst ensuring a strong position in operations. Notable achievements since his appointment in 2013, include i) ensuring a medal for Sri Lanka in the World Lifesaving Championships, ii) facilitating the first Silver Medallion lifeguard training in Sri Lanka, and iii) supporting the development of the inaugural Drowning Prevention Report. Sanath coordinates lifesaving matters with both local and international organizations such as International Life Saving Federation, Royal Life Saving Society-UK, World Health Organization, Commonwealth Secretariat UK, Ministry of Sports, Ministry of Health, Ministry of Education and Disaster Management Center in Sri Lanka. He continues to work with multiple stakeholders in establishing and implementing a National Water Safety Plan to significantly reduce drowning deaths in Sri Lanka. Sanath is a Risk Manager in the finance industry and was previously engaged in marketing for a leading airline in Sri Lanka.

THERE ARE 51 LIFESAVING SERVICE LOCATIONS IN SRI LANKA WITH A TOTAL OF 1,319 QUALIFIED LIFEGUARDS PERFORMING DUTIES. OVER 400 RESCUES ARE REPORTED TO BE PERFORMED EACH YEAR BY LIFEGUARDS - **THAT IS OVER 400 LIVES SAVED FROM DROWNING.**





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