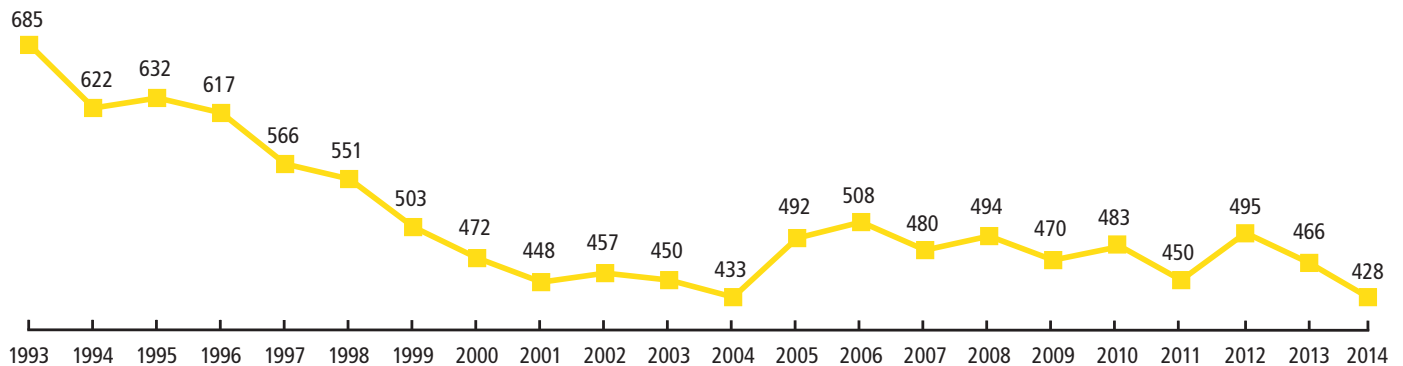


# DROWNING REPORT

Prepared for the Lifesaving Society Canada by the Drowning Prevention Research Centre

## Canadian Totals 1993 - 2014



The overall water-related fatality rate continues to decrease in the Maritime provinces according to the most recent data available from the Chief Coroner's and Medical Examiner's offices. Between 2010 and 2014, the average drowning rate in New Brunswick, Nova Scotia, and Prince Edward Island was 1.4 per 100,000, down 22% from 1.8 per 100,000 in the previous five-year period (2005-2009).

By province, the water-related fatality rate decreased by more than half in Prince Edward Island from 1.6 per 100,000 in 2005-2009 when 11 people drowned to 0.7 per 100,000 in 2010-2014 when 5 people drowned. Nova Scotia and New Brunswick saw more moderate decreases (25% and 17% respectively). In Nova Scotia the water-related fatality rate was 1.5 per 100,000 in the most current data and in New Brunswick it was 1.4 per 100,000 down from 2.0 and 1.7 respectively.

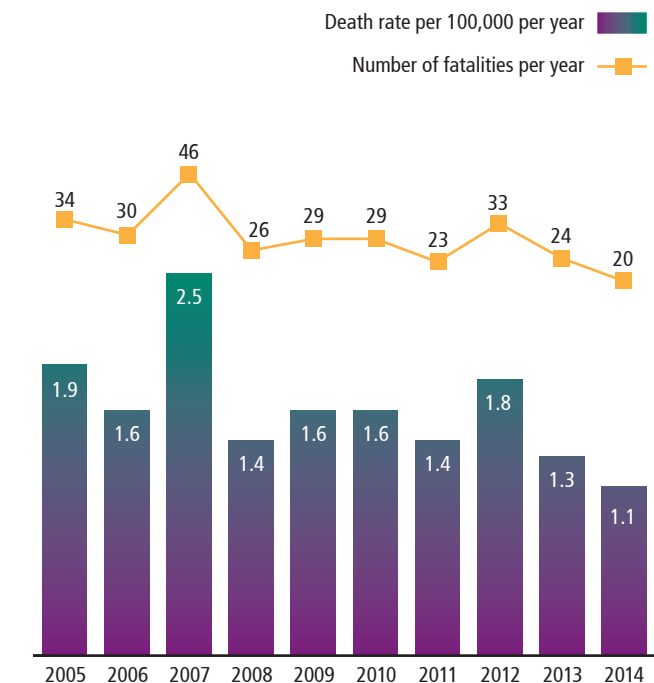
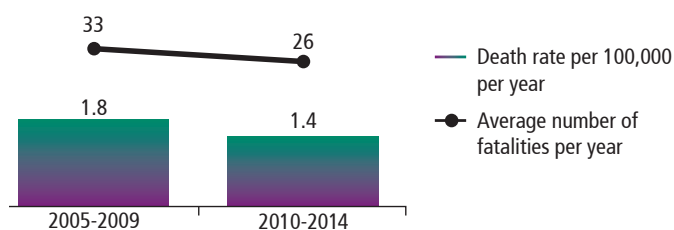
In 2014, the number of drowning deaths and the drowning rate were the lowest they have been in ten years; 20 water-related fatalities occurred, contributing to a drowning death rate of 1.1 per 100,000. Despite this encouraging decrease, between 2010 and 2014, there were 129 preventable drowning fatalities in Maritime waters; 70 in Nova Scotia, 54 in New Brunswick, and 5 in Prince Edward Island.

## Preliminary interim data

For drowning deaths since 2014, only preliminary, interim data from media and internet reports are available. In the Maritimes, these numbers indicate that at least 25 drowning deaths occurred in 2015 and at least 18 occurred in 2016.

## Maritimes Water-Related Fatalities and Death Rates 2005-2014

### Maritimes Water-Related Fatalities and Death Rates, Five-Year Averages



# WHO is drowning?



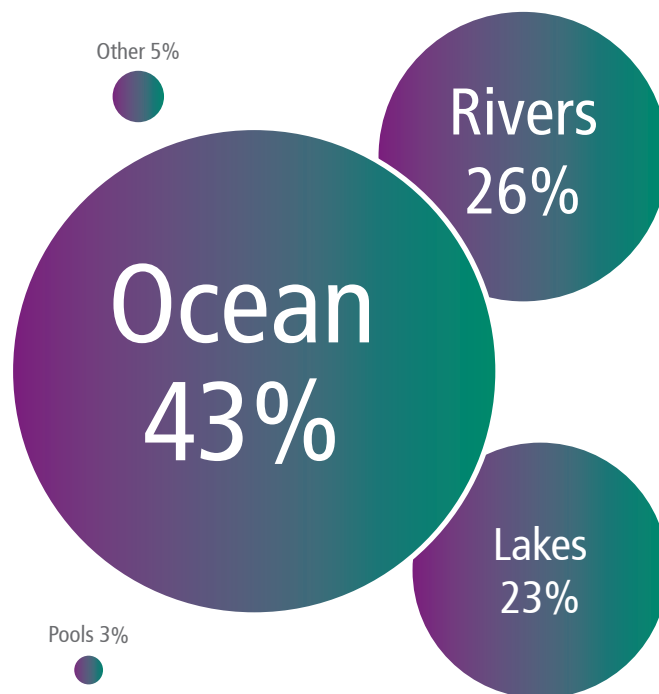
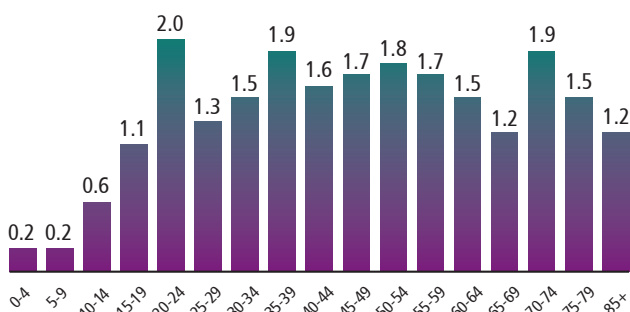
Drowning fatalities in the Maritimes continue to occur primarily among males. In 2010-2014, the average water-related fatality rate was 2.6 per 100,000 for males, and 0.3 per 100,000 for females. While this trend is characteristic of all provinces, the proportion of male drowning deaths in the Maritimes is even higher than national averages. Typically, 8 out of 10 drowning victims are male. In the Maritimes, 9 out of 10 drowning deaths occur among males. By province, the highest proportion of male drowning fatalities occurred in Nova Scotia, where 94% of drowning victims were male.

In 2010-2014, the highest drowning rates by age in the Maritimes were found among young adults 20-24 years old (2.0 per 100,000 population). Middle-aged and older adults 35-39 years of age, 50-54 years of age, and 70-74 years of age also all had high death rates in the current five-year period (1.9, 1.8, and 1.9 per 100,000 population respectively). By province the highest drowning death rates in Nova Scotia were found among seniors 70-74 years of age (3.4 per 100,000); in New Brunswick among young adults 20-24 years of age (3.1 per 100,000); and in Prince Edward Island all drowning deaths occurred among adults between the ages of 40 and 70.

Water-related fatality rates among children and youth in the Maritimes continue to be lower than the national average. In Nova Scotia, New Brunswick, and Prince Edward Island, the drowning death rate for children under the age of 5 and 5-9 years of age were each 0.2 per 100,000. Comparatively, the national death rate for children under the age of 5 was 1.1 per 100,000 and for 5-9 year olds it was 0.5 per 100,000.

## Water-Related Death Rate By Age, 2010-2014

— Average death rate per 100,000 per year



## WHERE are they drowning?

Consistent with previous reports, the vast majority of drowning deaths in the Maritime provinces occurred in natural bodies of water (92%). In 2010-2014, the highest proportion of water-related fatalities occurred in the ocean (43%), followed by flowing water such as rivers and streams (26%) and lakes (23%). By province, the ocean was once again the number one setting for water-related fatalities in Prince Edward Island (80%) and Nova Scotia (56%). In New Brunswick, more drowning deaths occurred in a river or stream (46%) than in the ocean (24%).

Drowning deaths in man-made settings such as bathtubs (<1%) and pools (3%) continue to be fewer in the Maritimes than in most other provinces. Nationally, 10% of drowning fatalities occurred in bathtubs and 8% occurred in pools. Once again, very few water-related fatalities occurred in lifeguard supervised settings. In 2010-2014, fewer than 1% of drowning fatalities in the Maritimes occurred in a lifeguard-supervised setting.

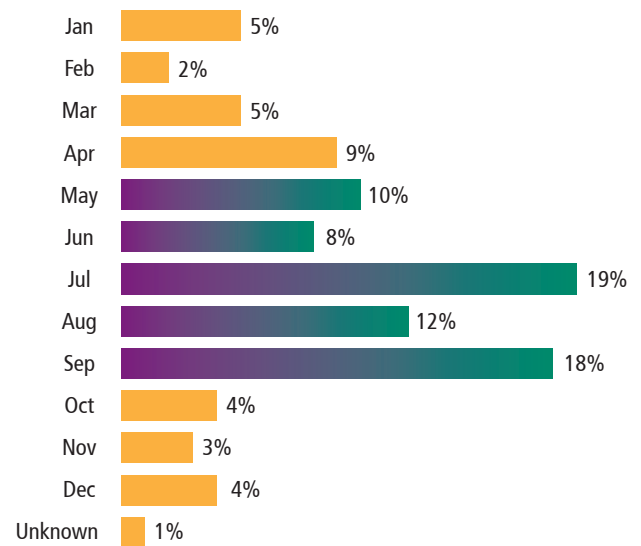
Water-related fatalities more commonly occurred in urban (58%) than rural (40%) settings. In Nova Scotia and New Brunswick, just over half the population (approximately 57% and 53% respectively) live in urban areas. In Prince Edward Island, just over half the population (approximately 53%) live in a rural area.

# WHEN are they drowning?

Consistent with previous reports, two-thirds (67%) of drowning deaths in the Maritimes occurred during the warmer months (May through September). In 2010-2014, July had the greatest number and proportion of drownings; 25 people drowned in July in the Maritimes. By province, drowning fatalities in Nova Scotia most frequently occurred in September (20%), in New Brunswick drowning deaths most commonly occurred in July (22%), and in Prince Edward Island all drownings occurred in June, August or September.

Over two thirds (69%) of water-related fatalities in the Maritimes occurred on the weekend (Friday, Saturday, or Sunday).

## Water-Related Fatalities by Time of Year



# WHAT were they doing?

Recreational activities (59%) continued to account for the greatest proportion of water-related fatalities in 2010-2014. The most common primary recreational activities were swimming (26%), fishing (17%), and powerboating (12%). Swimming accounted for the greatest proportion of recreational drowning fatalities in each of the Maritime provinces: Nova Scotia (28%), New Brunswick (21%), and Prince Edward Island (40%).

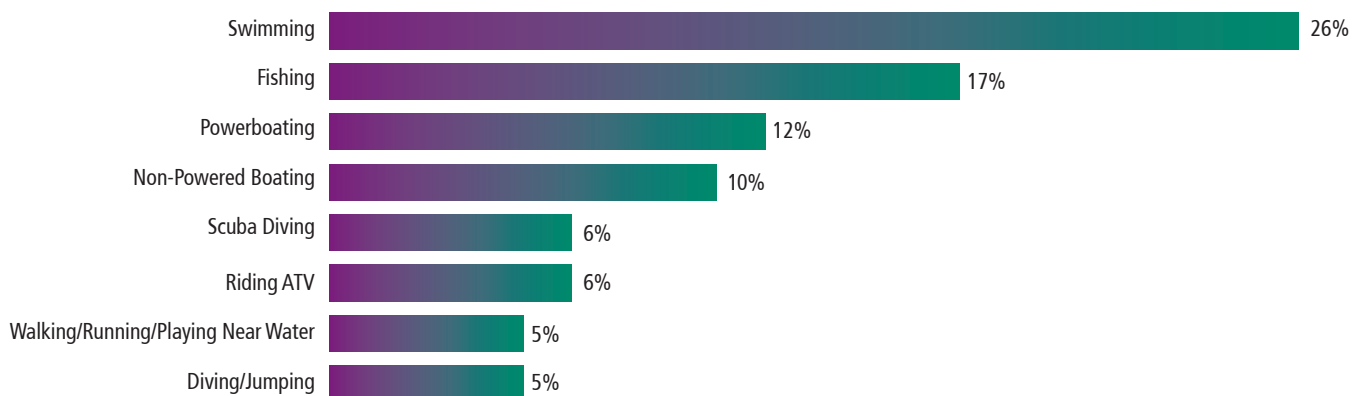
Once again, daily living incidents accounted for the next highest proportion of water-related fatalities in the Maritimes (19%). The most common daily living activity was motor vehicle travel (36%). In New Brunswick, 62% of all daily-living-related drowning deaths occurred as the result of motor vehicle submersion in water. In Nova Scotia,

drowning more frequently occurred during travel on foot (33%) and boat travel (33%) than during motor vehicle travel (8%).

Occupational incidents (18%) continued to account for a higher proportion of drowning deaths in the Maritimes than in most other provinces. Comparatively, the national average for occupational drowning was about 5%. The majority (87%) of these occupational drowning deaths occurred during fishing. In Nova Scotia and New Brunswick occupational fishing accounted for 19% and 13% of all fatal drownings respectively. There were no occupational drowning deaths in Prince Edward Island between 2010 and 2014.

By type of activity, the greatest proportion of incidents occurred while the victim was boating (42%). Over two-thirds (70%) of these incidents involved a powerboat, the next most common type of watercraft was a canoe (13%). Fewer than 8% of victims involved in boating incidents were wearing a lifejacket properly at the time. After boating, the next most common type of activity was an aquatic activity (27%), where the victim intended to be in the water and something went wrong.

## Water-Related Fatalities by Most Common Recreational Activity



# Risk factors

The major risk factors contributing to drowning incidents in the Maritimes are consistent with those the Lifesaving Society has identified for the national population in the past.

## Boating

Not wearing a PFD (83%) of cases where known

Boating in twilight or darkness (48%)

Capsized (43%)

Alcohol consumption (39%)

Boating alone (28%)

Fell/thrown overboard (26%)

## Swimming

Alcohol consumption (55%)

Victim unable to swim (33%) of cases where known

Swimming alone (30%)

## Age

### 15-34

Not wearing a PFD when relevant (100%) of cases where known

After dark (33%)

Alcohol consumption (30%)

### 35-64

Not wearing a PFD when relevant (85%) of cases where known

Alcohol consumption (46%)

Alone (41%)

### 65+

Alone (64%)

Not wearing a PFD when relevant (57%) of cases where known

Alcohol consumption (36%)

Twilight or after dark (32%)

# In summary

Water-related fatality rates in the Maritimes were highest among men and people 20-24 years of age.

Drowning fatalities were most likely to occur during the warmer months in natural bodies of water such as the ocean, rivers, and lakes.

The highest proportion of incidents occurred during a recreational activity, most commonly swimming, fishing, or powerboating. There were substantially more occupational drowning deaths in the Maritimes than in other provinces; these were most commonly fishing related.

The Maritimes drowning death rate decreased in the most current five-year period, and a ten-year low in the number of water-related fatalities occurred in 2014. Despite this, an average of 26 preventable drowning deaths still occur in the Maritime provinces each year. This reinforces the need for continued strong drowning prevention efforts.

## Research methodology

### Complete data from 2005-2014

The drowning research process involves data collection; research tabulation and analysis. Water-related death data is extracted from the offices of Canada's Chief Coroners and Medical Examiners. The scope of this research:

- collects the data needed to profile victims of aquatic incidents, including the circumstances and contributing factors under which these incidents occurred.
- includes all deaths in each province and territory resulting from incidents "in, on or near" water; "near-water" incidents were included if the incident was closely related to water-based recreational, vocational or daily living activity, or if the presence of water appeared to be an attraction contributing to the incident.
- includes only unintentional deaths, not deaths due to natural causes, suicide, or homicide.

### Interim data

Complete final data on more recent drownings and other water-related deaths are not yet available from the offices of the provincial/territorial Chief Coroners and Medical Examiners. The interim, preliminary data are derived from media releases, media clippings, news reports and internet searches.

## Acknowledgments

We gratefully acknowledge the support, co-operation and efforts of:

- The Offices of the Chief Coroner of New Brunswick and the Chief Coroner of Prince Edward Island, and the Office of the Chief Medical Examiner of Nova Scotia which permitted and facilitated confidential access to reports on preventable water-related deaths.
- The volunteers who contributed their time and energy including data extraction on preventable water-related deaths from coroners' files.
- Tessa Clemens who was primary author and data analyst for this report and Lucie Simoes who provided data input and verification.

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## Drowning Prevention Research Centre Canada

The Drowning Prevention Research Centre is the lead agency for drowning and water-incident research in Canada. The Centre conducts research into fatal and non-fatal drowning, significant aquatic injury and rescue interventions.

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## The Lifesaving Society

The Lifesaving Society – Canada's lifeguarding experts – works to prevent drowning and water-related injury through its training programs, Water Smart® public education, aquatic safety management, drowning research and lifesaving sport. Annually, over 1,000,000 Canadians participate in the Society's swimming, lifesaving, lifeguard and leadership training programs. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards.



**LIFESAVING SOCIETY**  
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