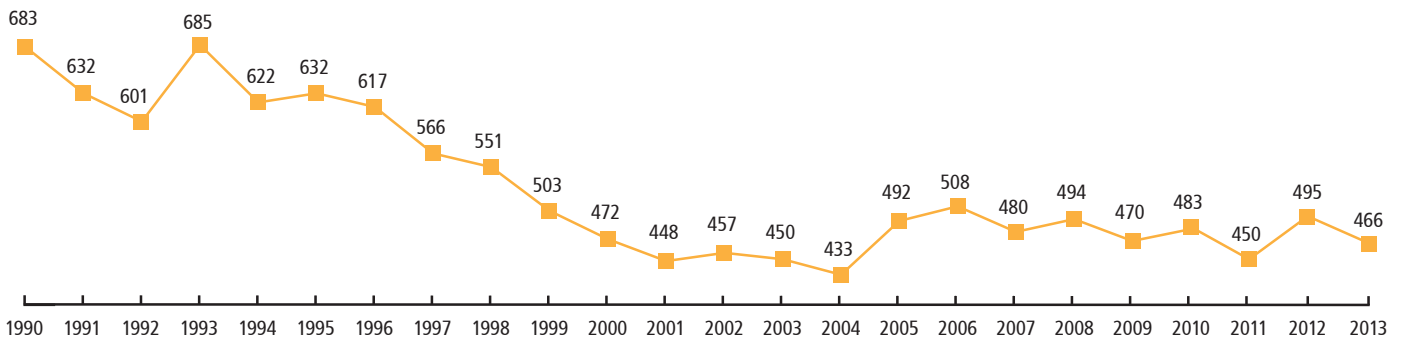


DROWNING REPORT

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

Canadian Totals 1990 - 2013



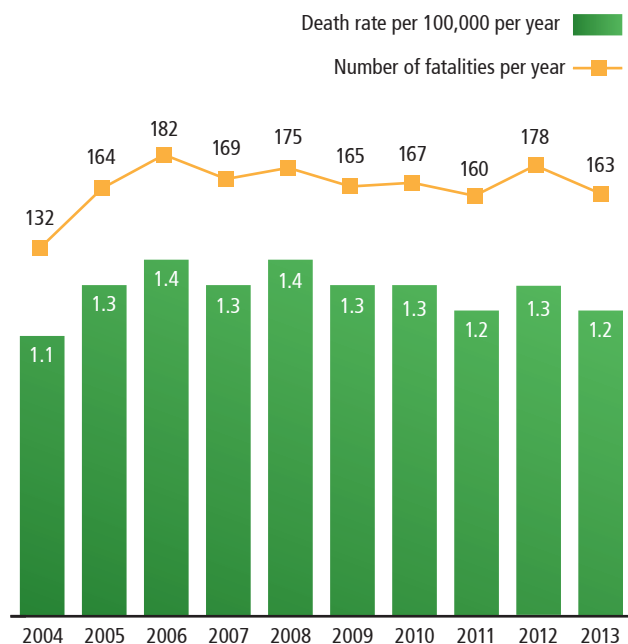
The most recent data available from the provincial coroner’s office reveals that 163 water-related fatalities occurred in Ontario in 2013 – a decrease from the previous year. In 2012, there was an upswing in the death rate to 1.3 per 100,000 population when 178 drowning fatalities occurred in Ontario waters. The 2013 data demonstrate a return to a lower death rate of 1.2 per 100,000 population – a rate that remains slightly lower than the average national drowning rate of 1.4 per 100,000.

Preliminary interim data

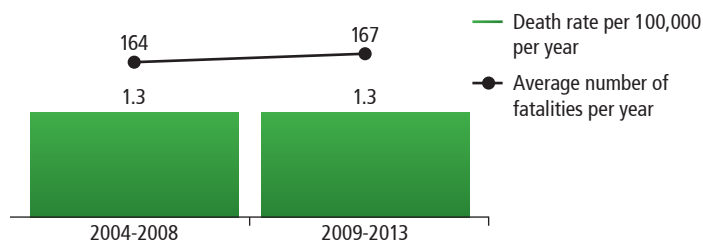
For drownings since 2013, only preliminary, interim data from media and internet reports are available. In Ontario, these numbers indicate that at least 86 drownings occurred in 2014 and at least 92 in 2015.

Looking at the most current five years (2009-2013) of data as a whole, there has not been a substantial change in the water-related fatality rate in Ontario over the previous five-year period (1.25 per 100,000 versus 1.30 per 100,000 in 2004-2008). In total, 833 people lost their lives in an unintentional incident in Ontario waters between 2009 and 2013.

Ontario Water-Related Fatalities and Death Rates 2004-2013



Ontario Water-Related Fatalities and Death Rates, Five Year Averages



WHO is drowning?

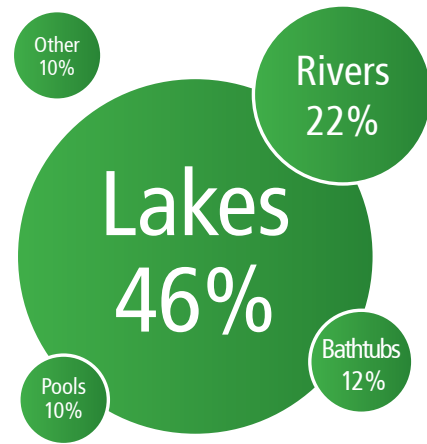
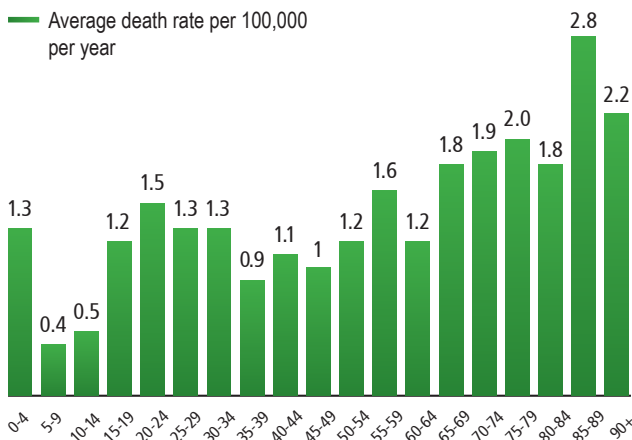


The vast majority of Ontario drowning victims continue to be men (8 out of 10). Between 2009 and 2013, the average water-related fatality rate for men was 1.9 per 100,000 population compared to 0.6 for women. In the most current two years of data (2012 and 2013), there has been a slight increase in the number of female drowning victims – 25% were female in each of these two years, the greatest proportion in the last 10 years. The highest drowning rates among females occurred in seniors over 65 years of age.

By age, the highest drowning rates in Ontario were once again found among adults over 65 years of age, ranging from 1.8 per 100,000 (among 65-69 year olds) to 2.8 per 100,000 (among 85-89-year-olds). The next highest water-related fatality rate was found in 55-60-year-olds (1.6 per 100,000). This differs from national trends. In many other provinces, the highest rates were found among young adults. Young adults are also at risk in Ontario: 20-24-year-olds had the highest drowning death rate of any age group under 55 (1.5 per 100,000 population).

Despite a long term trend towards decreased drowning death rates among children under 5 years in Canada, rates remain relatively high in this age group in Ontario. Between 2009 and 2013, the average water-related fatality rate for children under 5 was 1.3 per 100,000, compared to a national rate of 1.1. In the most current five year period alone, 46 children under the age of 5 drowned.

Water-Related Death Rate By Age, 2009-2013



WHERE are they drowning?

Natural bodies of water continue to account for the largest proportion of drowning deaths in Ontario in the 2009-2013 period (68%). Lakes claimed the greatest number of lives (46%) followed by rivers and streams (22%). Although lakes were still the most common site for drowning in 2013, fewer people drowned in this setting than in previous years (56 deaths compared to a typical yearly average of 83), and more people drowned in a river or stream than in previous years (50 deaths compared to a typical yearly average of 36).

Once again bathtubs (12%) were the most common man-made setting where drowning deaths occurred in Ontario. There were 102 bathtub drownings during the five year period (2009-2013), 20 more than had occurred in the previous five-year period (82 in 2004-2008). Seniors are disproportionately at risk for drowning in a bathtub. In 2013, 60% of bathtub drowning victims were seniors over the age of 65.

Private pools once again accounted for 10% of all drownings in Ontario. Children under the age of 5 are particularly vulnerable to drowning in this setting. There were 19 children 0-4 years old who drowned in a private backyard pool, making it the most common setting for drowning in this age group (41%).

Drowning deaths in lifeguard supervised settings continue to be rare: in 2009-2013 only 1% of drownings in Ontario occurred under lifeguard supervision.

In 2009-2013, drownings more commonly occurred in urban (67%) than rural (33%) settings. By district, the three most common locations for drowning deaths in 2013 remain the same as those for 2012. Toronto had the greatest number (12%) followed by Kenora (9%), and Simcoe (6%).

WHEN are they drowning?

By time of year, the warmer months continue to account for the majority of drownings in Ontario. Two thirds (65%) of water-related fatalities in the 2009-2013 period occurred in May through September. The greatest proportion of drownings occurred in July (20%) followed by August (17%). In 2013, however, more drownings occurred in June (19%) and August (18%) than July (17%).

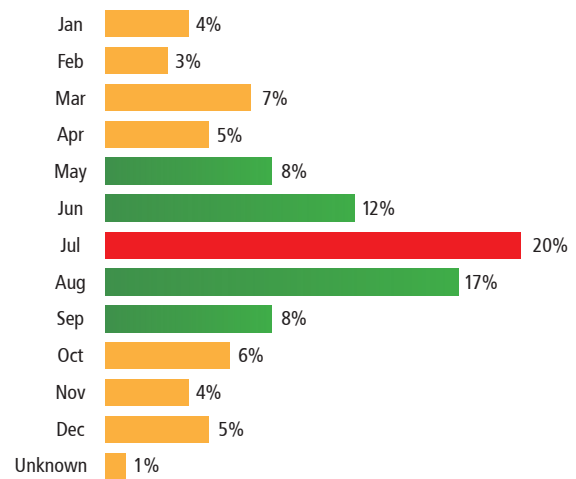
Over half (53%) of the 2009-2013 drowning deaths happened on the weekend (Friday, Saturday or Sunday). Incidents were as likely to occur on a Monday (13%) as on a Friday (12%).

WHAT were they doing?

By purpose of activity, recreational activities continue to account for the majority of water-related fatalities in Ontario. Two thirds (64%) of individuals who drowned between 2009 and 2013 were engaged in a recreational activity at the time. Swimming (32%) and walking, running, or playing near water or ice (21%) were the most common recreational activities that individuals participated in prior to drowning.

Daily living incidents accounted for a quarter of all drowning deaths in Ontario (25%). Almost half of these (47%) were bathing fatalities, and another quarter (24%) occurred as the result of a motor vehicle

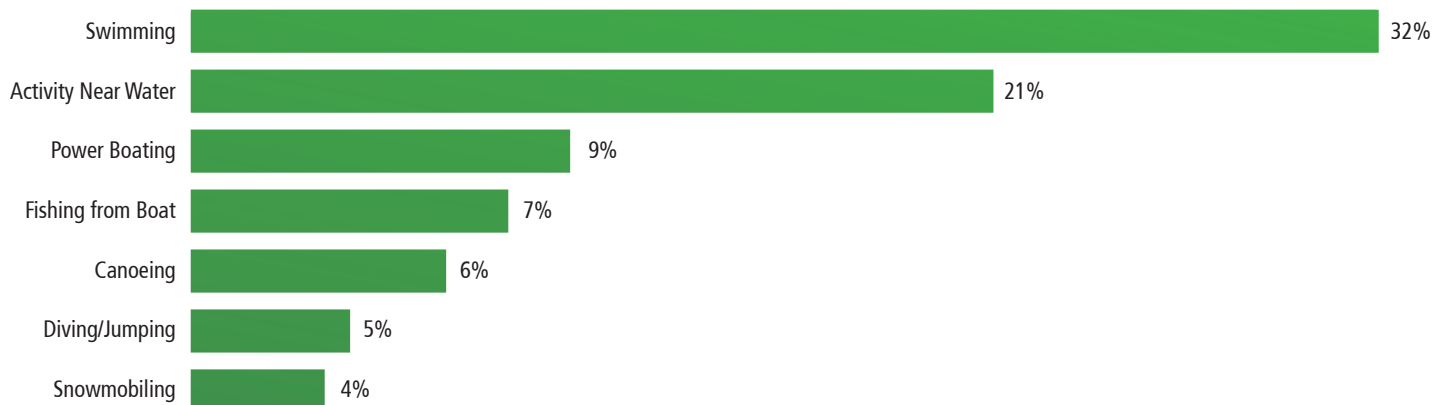
Water-Related Fatalities by Time of Year



collision where the vehicle ended up in the water. In 2013, 15 people drowned as the result of a motor vehicle collision, the greatest number of deaths by this mechanism in the five year period.

By type of activity, the greatest proportion of incidents in 2009-2013 occurred during an aquatic activity (30%) where the person intended to be in the water and something went wrong. This was followed by non-aquatic incidents (24%) and boating incidents (20%). Boating incidents were down substantially in 2012 (22 deaths, 12% of the total). This trend continued to a lesser degree in 2013 with 28 boating deaths (17% of the total), compared with 35 or more boating deaths per year in each of the five years prior to the initial drop in 2012. This decrease may in part be due to effective boating safety initiatives. The majority of boating related fatalities in 2009-2013 occurred during powerboat use (60%) or canoeing (23%), and 88% of boaters were known to not be wearing a lifejacket at the time of the incident.

Water-Related Fatalities by Most Common Recreational Activity



Risk factors

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

Boating

Not wearing a PFD (88%)
Alcohol consumption (40%)
Capsizing (35%)
Boating alone (33%)
Falling overboard (30%)

Swimming

Victim unable to swim (42%)
Swimming alone (32%)
Alcohol consumption (30%)
Heart disease/heart attack (22%)

Age

<5

Supervision absent or distracted (93%)

Alone near water (67%)

5-14

With other minors only (35%)

15-19

Not wearing a PFD when relevant (87%)

Alone (38%)

Alcohol consumption (32%)

After dark (28%)

20-34

Not wearing a PFD when relevant (86%)

Alcohol consumption (54%)

Alone (34%)

After dark (28%)

35-64

Not wearing a PFD when relevant (90%)

Alone (60%)

Alcohol consumption (44%)

65+

Not wearing a PFD when relevant (89%)

Alone (77%)

In summary

The water-related fatality rate in Ontario decreased in 2013. The highest rates were among men and older adults.

Drowning deaths were most likely to occur during the summer, on weekends, and in natural bodies of water such as lakes and rivers.

The highest proportion of incidents occurred during a recreational activity, most commonly swimming. Fewer boating fatalities occurred in 2012 and 2013.

Boating-related fatalities and drowning deaths among young adults have decreased over time. However the relatively high water-related fatality rate among young children and older adults in Ontario reinforces the need for continued strong drowning prevention efforts.

Research methodology

Complete data from 2004-2013

The drowning research process involves data collection; research tabulation and analysis. Water-related death data is extracted from the office of the Chief Coroner of Ontario. 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 Ontario 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 Office of the Chief Coroner. 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 Office of the Chief Coroner in Ontario which permitted and facilitated confidential access to coroners' reports on preventable water-related deaths.
- The volunteers who contributed their time and energy including data extraction on preventable water-related deaths from the coroner's 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.



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