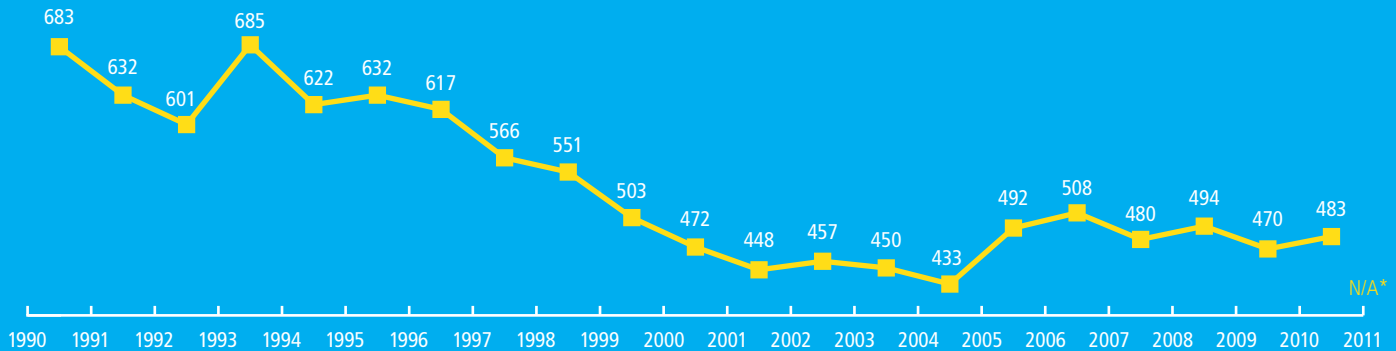


DROWNING REPORT

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

Canadian Totals 1990 - 2011



*National total unknown due to unavailability of 2011 Alberta data.

Northern Canadians face unique challenges and experience higher rates of death by certain causes. Mortality rates reported by Statistics Canada for unintentional injuries in the territories are substantially higher than those in the provinces. Additionally, large proportions of the population in Nunavut (86%), the Northwest Territories (52%), and the Yukon (23%) consist of Aboriginal peoples, and injury is a leading cause of death among this population. Health Canada has identified drowning as the second leading cause of unintentional injury death in many Aboriginal communities.

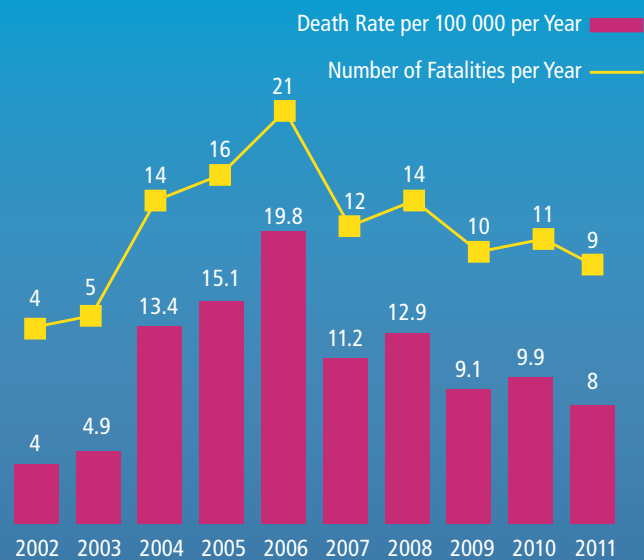
Between 2007 and 2011, 56 drownings occurred in Canada's territories. When population is taken into consideration, this translates to an average yearly death rate of 10.2 per 100,000, for these most recent Coroner's data collection years. This rate is 6.8 times higher than the historic water-related fatality rate for all of Canada.

Drowning rates are down in the Northwest Territories and up in the Yukon and Nunavut. The average yearly water-related fatality rate for 2007-2011 in the Northwest Territories was 6.9 per 100,000 population, down 43% from 12.1 in the previous five-year period. The average rate increased slightly in the Yukon by 4% from 10.2 to 10.6 and increased considerably in Nunavut by 17% from 12.1 to 14.1. Overall, the water-related fatality rate in Northern Canada has decreased by 11% in the most recent five year period down from 11.5 in 2002-2006.

Preliminary interim data

For drownings since 2011, only preliminary, interim data from media and internet reports are available. In Northern Canada, these numbers indicate that at least 9 drownings occurred in 2012 and at least 9 in 2013.

Northern Canada Water-Related Fatalities and Death Rates 2002-2011



Death rates should be interpreted with caution due to small sample size

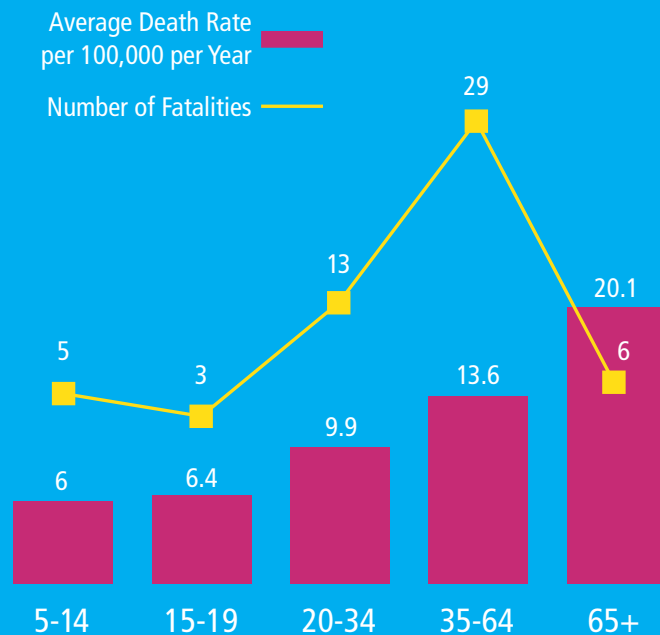
WHO is drowning?

The vast majority of drowning victims in Northern Canada are men, mirroring the trends in national statistics. In the 2007-2011 period their average yearly death rate was 16.3 per 100,000 population compared to a rate of 3.8 for women. Typically, 8 out of 10 drowning victims are male. In the Yukon this proportion jumps to 9 out of 10.

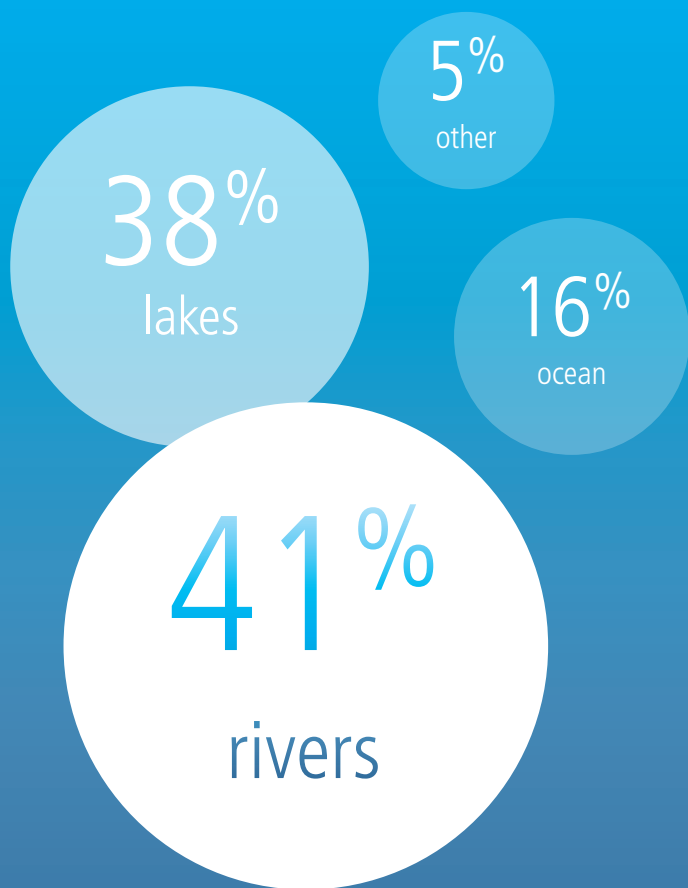
Drowning rates in Northern Canada were lowest among youth and increased with age. Older adults over 65 had the highest average death rate, and the greatest number of drownings occurred among 35-64-year-olds.

The age profile of drowning victims in Northern Canada is quite different from that of the provinces. Historically, national statistics show that the highest drowning rates are found among young adults in their early twenties. Many provinces also demonstrate high death rates among children under the age of 5. In contrast, older people appear to be at a higher risk for drowning in Northern Canada, and no children under the age of 5 drowned between 2007 and 2011.

Death Rate by Age, 2007-2011



Death rates should be interpreted with caution due to small sample size



WHERE are they drowning?

In Northern Canada between 2007 and 2011, 95% of drownings occurred in natural bodies of water. The highest proportion occurred in flowing water such as rivers and streams (41%), followed closely by lakes (38%) and a smaller proportion in the ocean (16%). Few drownings took place in man-made settings such as bathtubs (4%). By territory, rivers and streams are the number one setting for water-related fatalities in the Northwest Territories (60%) and the Yukon (61%). In Nunavut, more drownings occurred in lakes (39%) and in the ocean (39%).

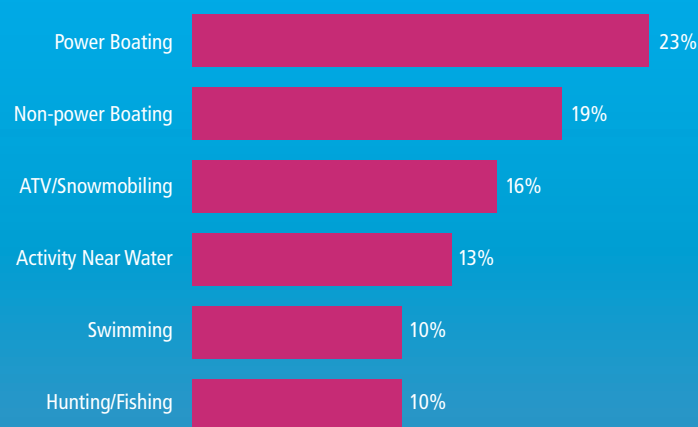
None of the 56 drownings in Northern Canada between 2007 and 2011 occurred in a lifeguard supervised setting.

WHEN are they drowning?

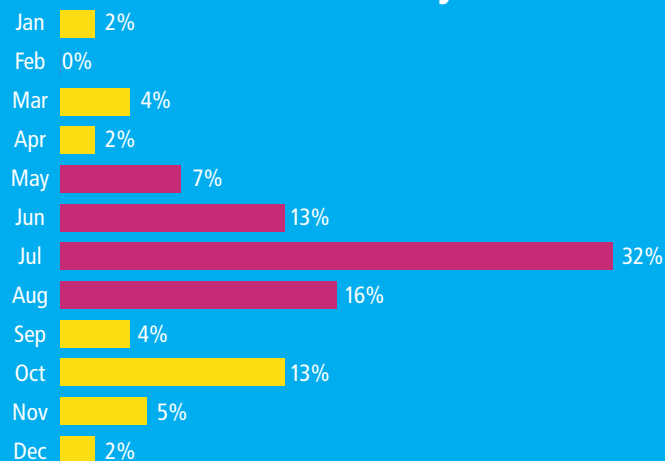
Over two thirds (68%) of water-related fatalities between 2007 and 2011 in Northern Canada occurred during the warmer months May through August, with at least double the drownings occurring in July than in any other month.

Drownings in Northern Canada were more likely to occur throughout the week with over half (55%), between Monday and Thursday. This is in contrast to the provinces where the majority of drowning incidents happen on weekends.

Victims by Most Common Recreational Activity



Victims by Time of Year



WHAT were they doing?

Over half (55%) of drowning victims in Northern Canada between 2007 and 2011 were engaged in a recreational activity at the time of the incident. The most common primary recreational activities were powerboating (23%) and non-power boating (19%). Historic figures indicate that swimming is typically the most common recreational activity in Canadian drownings. In Northern Canada however, swimming accounted for less than 10% of all recreational drowning incidents.

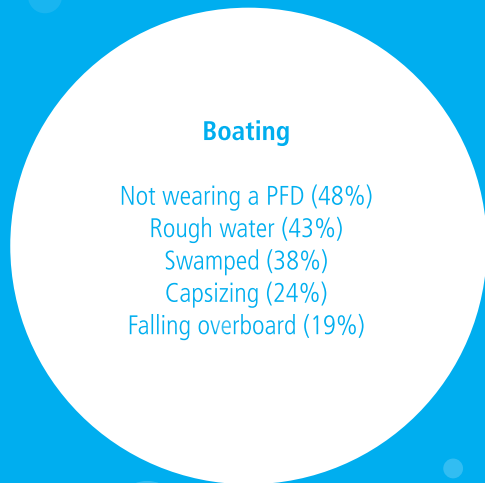
Daily living incidents accounted for the next highest proportion of water-related fatalities in Northern Canada (20%), the majority of which are attributed to travel (boat, motor vehicle, snowmobile, or on foot).

Given the high proportion of recreational powerboating and non-powerboating deaths in Northern Canada, it is not surprising that by type of activity, the greatest percentage of incidents occurred while boating (38%). The majority (57%) of boating incidents occurred while powerboating. Half (50%) of all boating incidents were the result of swamping in rough water.

38% of victims were wearing a lifejacket when the boating incident occurred. While this proportion is higher than historic national figures, in half of these incidents the lifejacket was worn improperly.

Risk Factors

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



Age

5-14

Alone or with other minors only (40%)

15-34

Alcohol consumption (38%)
Alone (38%)
After dark (36%)
Not wearing PFD/PFD worn improperly when relevant (50%)

35-64

Alcohol consumption (24%)
Alone (38%)
Not wearing PFD when relevant (64%)

65+

Not wearing PFD when relevant (75%)

In Summary

Water-related fatality rates in Northern Canada are highest among men and increase with age.

Drownings are most likely to occur during the summer months, especially July, in natural bodies of water such as rivers and lakes.

The highest proportion of incidents occurs during a recreational activity, most commonly boating.

Despite the dip in the Northern Canada drowning death rate in the most recent five-year period, the death rates in the Northwest Territories, Yukon and Nunavut remain substantially higher than the national average. This reinforces the need for continued strong drowning prevention efforts.

Research methodology

Complete data from 2007-2011

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 provincial/territorial jurisdiction 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 preventable (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 Coroners of the Northwest Territories, Yukon and Nunavut 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 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.



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