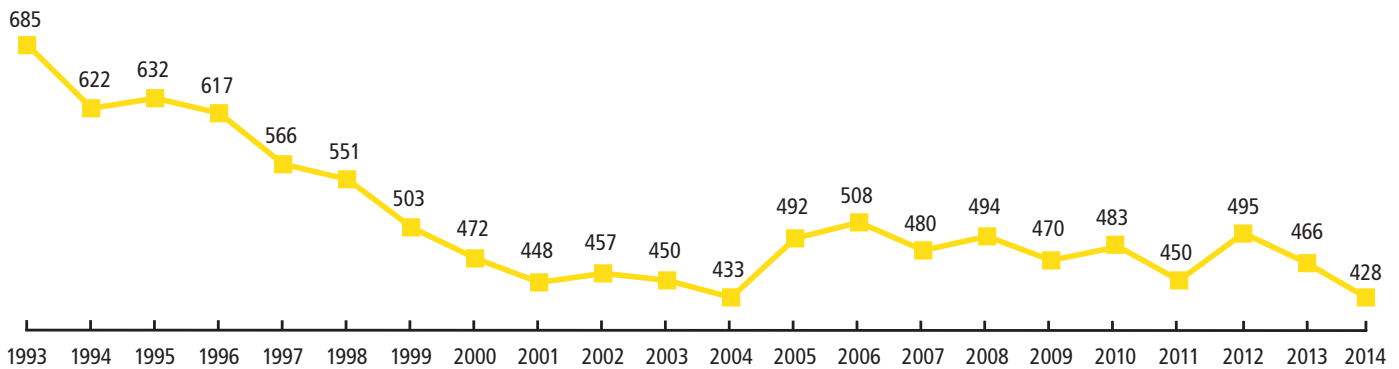


DROWNING REPORT

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

Canadian Totals 1993-2014



The most recent data available from the Office of the Chief Coroner for Quebec reveals that 77 water-related fatalities occurred in 2014. After a steady increase in the number of drowning deaths each year between 2009 and 2012, the number of unintentional water-related fatalities decreased to 72 in 2013 and 77 in 2014. For both years, the drowning death rate was 0.9 per 100,000 population, the lowest reported in the ten-year period.

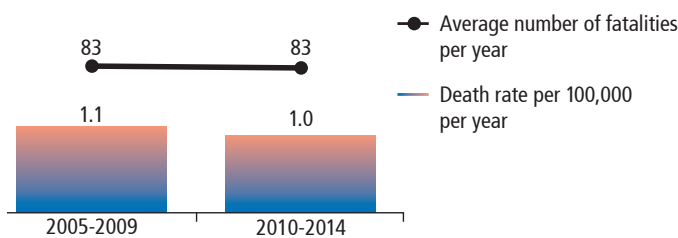
Looking at the most current five years (2010-2014) of data as a whole, the average water-related fatality rate in Quebec decreased 9% from the previous five-year period (1.0 per 100,000 in 2010-2014 compared to 1.1 per 100,000 in 2005-2009). In total, 414 people lost their lives in an unintentional water-related incident in Quebec waters between 2010 and 2014.

Preliminary interim data

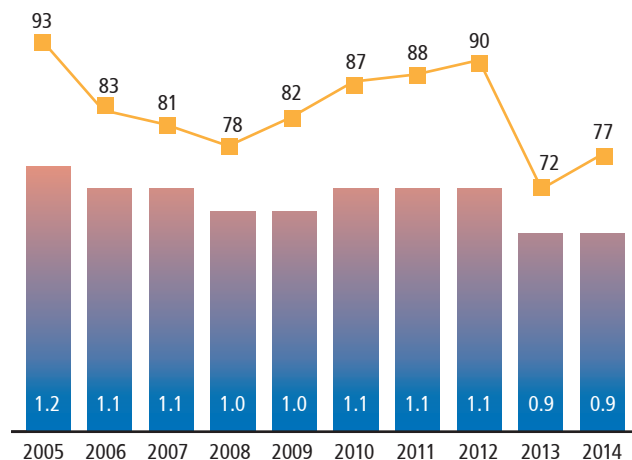
For drowning deaths since 2014, only preliminary, interim data from media and internet reports are available. In Quebec, these numbers indicate that at least 63 drowning deaths occurred in 2015 and at least 57 in 2016.

Quebec Water-Related Fatalities and Death Rates 2005-2014

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



Number of deaths per year — ■
Death rate per 100,000 per year — ■



WHO is drowning?

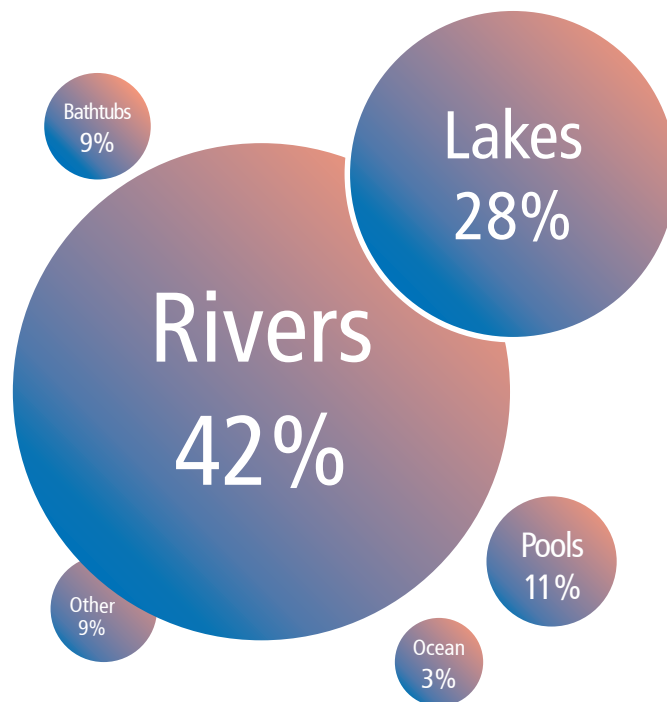
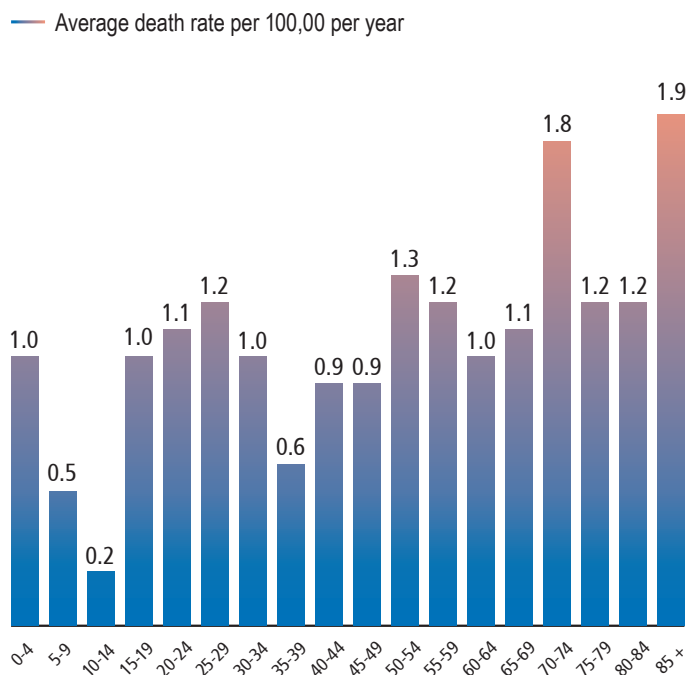


Consistent with previous years, the vast majority of Quebec drowning victims were male (8 out of 10). Between 2010 and 2014, the average water-related fatality rate for males was 1.7 per 100,000 population, compared to 0.3 for females.

By age, the highest drowning rates in Quebec were found among adults over 65 years of age. Within this age group, the highest rates occurred among individuals 85 years of age and older (1.9 per 100,000) and 70-74 year-olds (1.8 per 100,000). The next highest water-related fatality rates were found in baby boomers (1.3 per 100,000 among 50-54 year-olds and 1.2 per 100,000 for 55-59 year-olds). The highest number and proportion of drowning deaths occurred in these two age groups; in the 2010-2014 period, forty-two 50-54 year-olds and thirty-six 55-59 year-olds drowned. Young adults 25-29 years of age also had a relatively high death rate (1.2 per 100,000).

There has been a long-term trend towards decreased drowning death rates among children under 5 years in Canada. In the 2010-2014 period, the drowning death rate among children under 5 years of age in Quebec (1.0 per 100,000) was just below the national average of 1.1 per 100,000.

Water-Related Death Rate By Age, 2010-2014



WHERE are they drowning?

Natural bodies of water (73%) accounted for the largest proportion of drowning deaths in Quebec in the 2010-2014 period. Rivers and streams were the most common site for water-related fatalities (42%), followed by lakes and ponds (28%). On average, almost 60 people fatally drowned in one of these two settings each year.

Pools (11%) were the most common man-made setting where drowning deaths occurred in Quebec. There were 45 pool drowning deaths during the five-year period (2010-2014), the majority of which occurred in a private pool (87%). Over one third of all private pool drowning deaths in Quebec occurred among small children 1-4 years of age. In 31% of all private pool drowning fatalities there was no fence around the pool, and in 41% of cases there was no gate. After pools, bathtubs (9%) were the next most common man-made setting for drowning deaths in Quebec.

Drowning deaths in lifeguard-supervised settings continue to be rare: in 2010-2014, approximately 1% of water-related fatalities in Quebec occurred under lifeguard supervision.

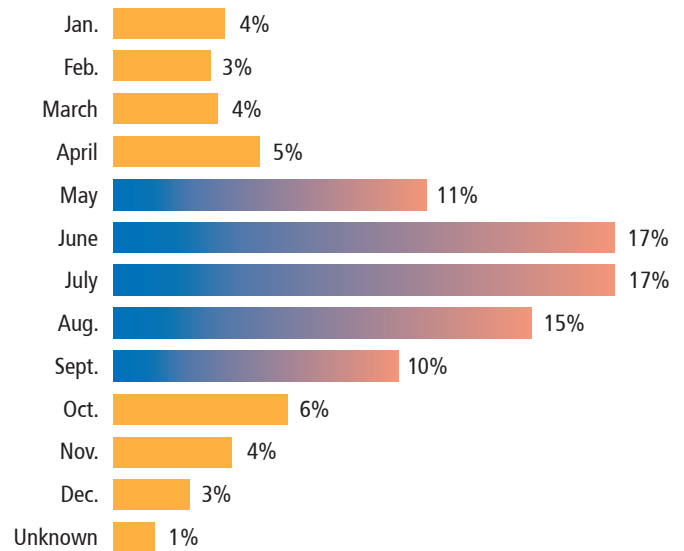
Drowning fatalities more commonly occurred in urban (87%) than rural (13%) settings. By district, the most common location for drowning deaths in 2014 was Montreal (10%).

WHEN are they drowning?

By time of year, the warmer months accounted for the majority of drowning deaths in Quebec. Over two-thirds (70%) of water-related fatalities in 2010-2014 occurred in the May through September period. The greatest proportion of drowning fatalities occurred in June and July (both 17%).

Over half (55%) of the 2010-2014 drowning deaths happened on the weekend (Friday, Saturday or Sunday). The most frequent day for drowning fatalities was Saturday (22%), followed by Sunday (19%).

Water-Related Fatalities by Time of Year



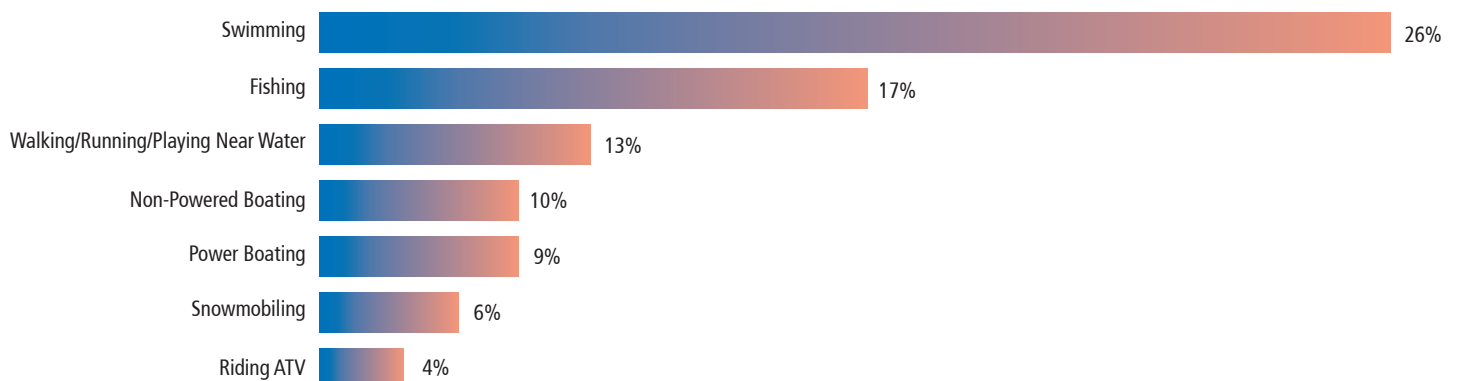
WHAT were they doing?

By purpose of activity, recreational activities accounted for the majority of water-related fatalities in Quebec. Over two-thirds (68%) of individuals who drowned between 2010 and 2014 were engaged in a recreational activity at the time. Swimming (26%), fishing (17%), and walking, running, or playing near water or ice (13%) were the most common recreational activities that individuals participated in prior to drowning.

The next most common type of activity was daily living (21%). The greatest proportion of daily-living-related drowning deaths were bathing fatalities (41%), and almost a quarter (24%) occurred as the result of a motor vehicle collision where the vehicle ended up in the water.

By type of activity, boating incidents (28%) accounted for the greatest proportion of water-related fatalities in 2010-2014, followed by aquatic activities (25%) where the person intended to be in the water and something went wrong. Almost half (49%) of all boating-related fatalities in 2010-2014 occurred during powerboat use. The next most common type of watercraft involved in fatal drowning incidents was a canoe (23%). The majority (79%) of the boaters who fatally drowned were not wearing a lifejacket at the time of the incident, and 29% had consumed alcohol.

Water-Related Fatalities by Most Common Recreational Activity



Risk factors

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

Boating

Not wearing a PFD (79%)
of cases where known

Capsizing (40%)

Boating alone (33%)

Alcohol consumption (29%)

Fell/thrown overboard (22%)

Swimming

Victim unable to swim (40%)

Alcohol consumption (36%)

Age

<5

No supervision present or
supervision present but
distracted (96%)

Alone or with minors only (87%)

5-14

Alone or with other minors only
(44%)

15-34

Not wearing a PFD when
relevant (87%)

Alcohol consumption (42%)

Alone (32%)

Twilight or after dark (24%)

34-64

Not wearing a PFD when relevant
(75%) of cases where known

Alone (45%)

Alcohol consumption (38%)

Twilight or after dark (24%)

65+

Not wearing a PFD when relevant
(76%) of cases where known

Alone (74%)

In summary

The water-related fatality rate in Quebec decreased slightly in 2010-2014. The highest rates occurred 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 rivers and lakes.

The highest proportion of incidents occurred during a recreational activity, most commonly swimming.

Despite the encouraging decrease in drowning deaths in 2014, there are still an average of 83 preventable water-related deaths occurring each year in Quebec waters. 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 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 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 Office of the Coroner of Quebec 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-related 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.

