LIFESAVING SOCIETY®
The Lifeguarding Experts



2016 Edition

Canadian Drowning Report

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



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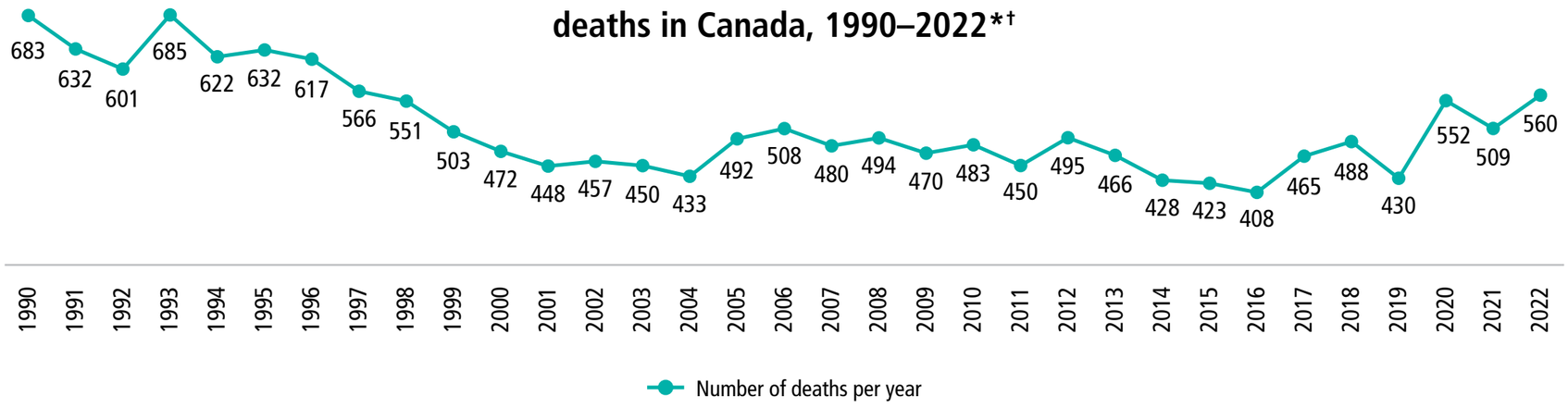
FATAL DROWNING IN CANADA BY THE NUMBERS

FATAL DROWNING IN CANADA BY THE NUMBERS

A total of 2,539 people lost their lives to unintentional water-related deaths during 2018–2022, according to the most recent data from the Chief Coroners' and Medical Examiners' offices. After decades of decline, the number of drowning deaths increased sharply to over 500 deaths each year in 2020 (552 deaths), 2021 (509 deaths) and 2022 (560 deaths) for the first time since 2006. Drowning may have been impacted by infrastructure disruptions caused by the COVID-19 pandemic during 2020–2022. Drowning rates increased in many countries around the world during this same time period.

An average of 508 drowning deaths occurred each year in the most current five-year period (2018–2022), up from an average of 438 drowning deaths per year in the previous five years (2013–2017). The average annual water-related death rate has decreased over the past 30 years, from 2.1 per 100,000 during 1993–1997 to 1.3 per 100,000 in the most recent data. Despite this long-term progress, the recent increases in drowning deaths in 2020–2022 reinforce the need for continued focus on drowning prevention efforts.

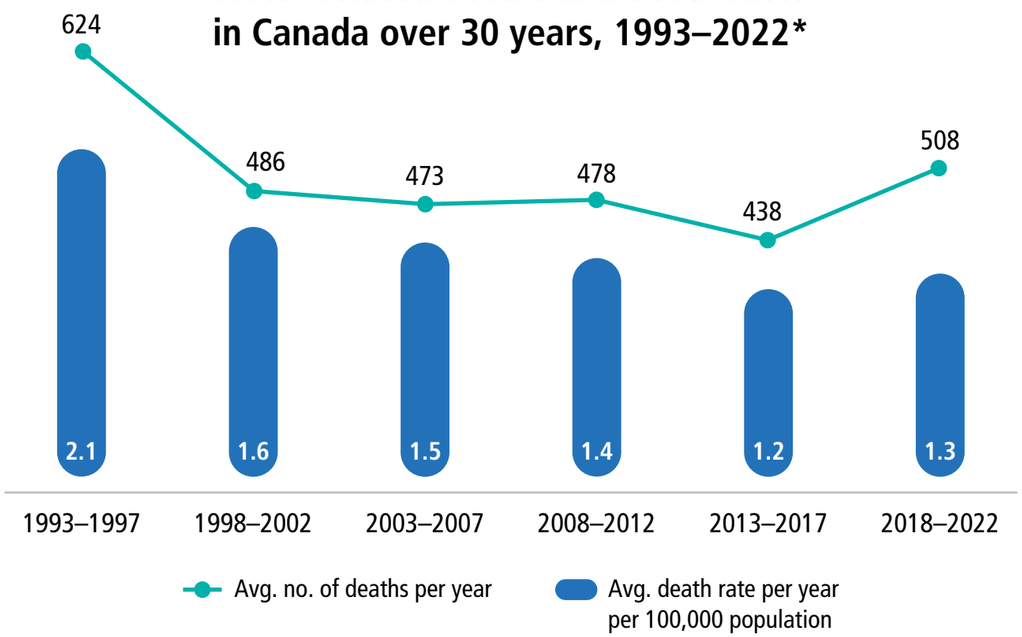
Number of unintentional water-related deaths in Canada, 1990–2022*†



*Totals for 2016–2021 are based on partial data, as not all data for British Columbia were available at the time of data collection.

†Following further data analysis by the Office of the Chief Medical Examiner of Alberta, additional drowning cases from 2018–2021 were identified in 2026. As a result, this graph reflects updated totals that differ from those reported in previous editions.

Change in number of unintentional water-related deaths and death rates in Canada over 30 years, 1993–2022*



*Avg. number of deaths and death rates for 2016–2021 are based on partial data as not all data for British Columbia were available at the time of data collection.



WHO DROWNS?

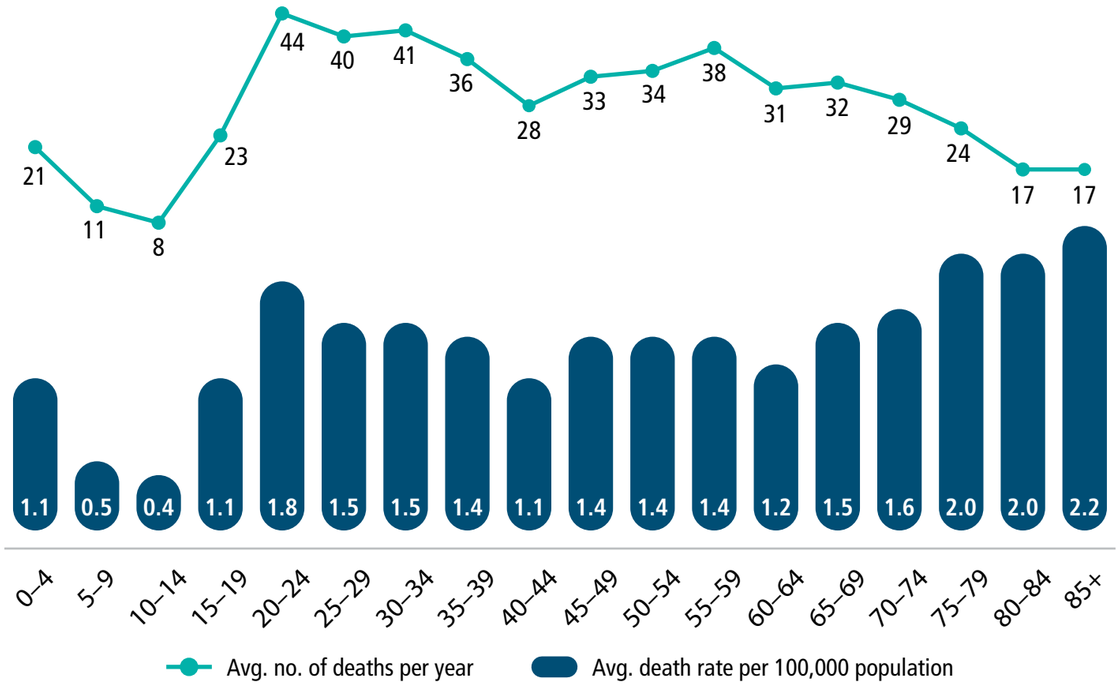
WHO DROWNS?

Older adults aged 75+ had the highest drowning death rates of all age groups: 75–79 years (2.0 per 100,000), 80–84 years (2.0 per 100,000), and 85+ (2.2 per 100,000).

Young adults 20–24 years also had high drowning rates (1.8 per 100,000) and the highest average number of drowning deaths each year occurred among 20–24-year-olds (44 deaths). The next highest number of drowning deaths each year was among 30–34-year-olds (41 deaths, 1.5 per 100,000).

Consistent with the overall increase in the number of drowning deaths in Canada, drowning rates increased in most age groups during 2018–2022 when compared to the previous five-year period (2013–2017).

Number of unintentional water-related deaths and death rates by age in Canada, 2018–2022



An average of 392 males and 116 females died from drowning each year during 2018–2022. Males drowned at rates 3.5 times as high as females (2.1 per 100,000 vs. 0.6 per 100,000).



Age: 0–4
4%
(1.1*)

- Drowning rates among children less than 5 years increased by 10% from 1.0 per 100,000 during 2013–2017 to 1.1 per 100,000 in 2018–2022.
- Drowning among children less than 5 years most frequently occurred in pools (36%), followed by bathtubs (27%).

Age: 5–14
4%
(0.5*)

- The lowest rates of drowning were among children 5–14 years of age.
- Drowning rates increased by 25% among 5–14-year-olds, from 0.4 per 100,000 in 2013–2017 to 0.5 per 100,000 during 2018–2022.
- Children 5–14 years of age were most frequently swimming (36%) or walking, running or playing near water (26%) at the time of drowning.

Age: 15–19
5%
(1.1*)

- Drowning rates among teenagers aged 15–19 years decreased by 8% from 1.2 per 100,000 during 2013–2017 to 1.1 per 100,000 during 2018–2022.
- Drowning among teenagers aged 15–19 years most frequently occurred in lakes (37%) and rivers (31%).

Age: 20–34
25%
(1.6*)

- Drowning rates were the second highest among young adults aged 20–34 years, increasing by 23% from 1.3 per 100,000 in 2013–2017 to 1.6 per 100,000 during 2018–2022. The greatest increase was among 30–34-year-olds (+50%).
- A high proportion of drowning deaths among 20–34-year-olds occurred during an aquatic activity (34%), where the person intended to be in the water (e.g., swimming or wading).

Age: 35–49
19%
(1.3*)

- Drowning rates increased by 18% among 35–49-year-olds from 1.1 per 100,000 in 2013–2017 to 1.3 per 100,000 during 2018–2022.

Age: 50–64
20%
(1.3*)

- Despite overall increases in drowning rates in 2018–2022, rates decreased slightly (-3%) among 50–64-year-olds from 1.4 per 100,000 during 2013–2017 to 1.3 per 100,000 during 2018–2022.
- A high proportion of drowning deaths among 50–64-year-olds occurred during recreational boating.

Age: 65+
23%
(1.7*)

- The highest rates of drowning were among older adults 65 years of age and older.
- The number of drowning deaths among older adults increased by almost 100, from 492 during 2013–2017 to 591 in 2018–2022. However, due to increases in the population in this age group, drowning rates did not change.

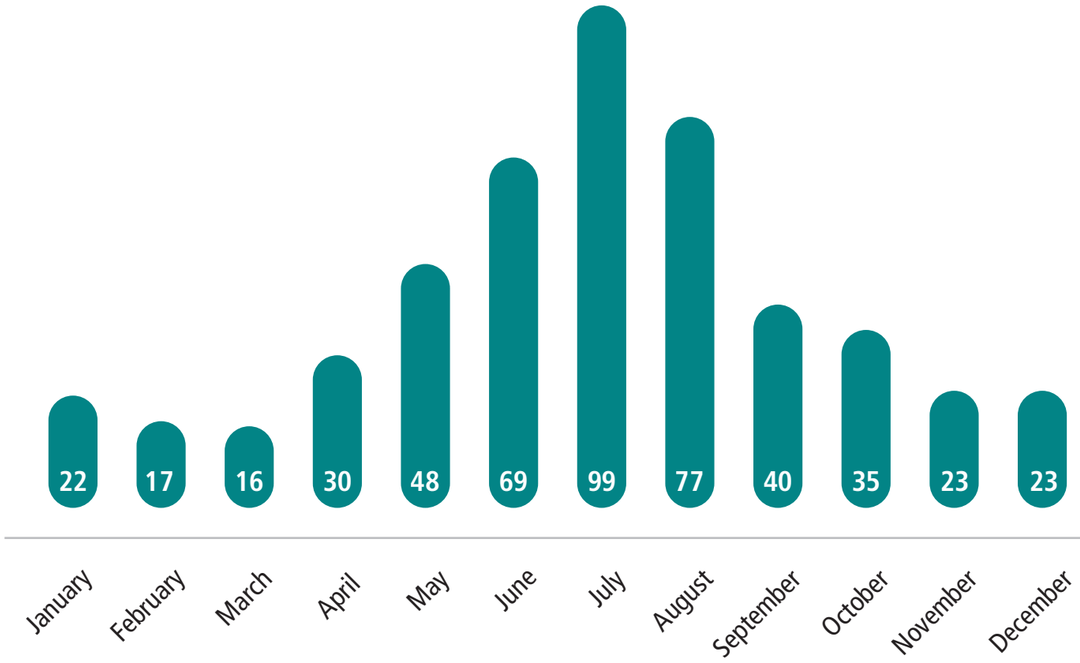
*Death rate per 100,000.

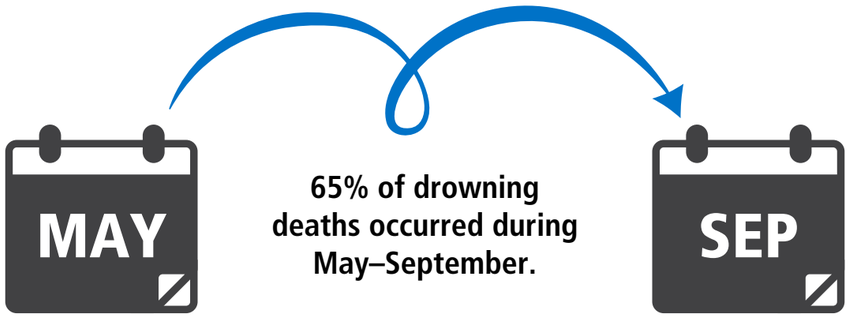
WHEN ARE THEY DROWNING?



WHEN ARE THEY DROWNING?

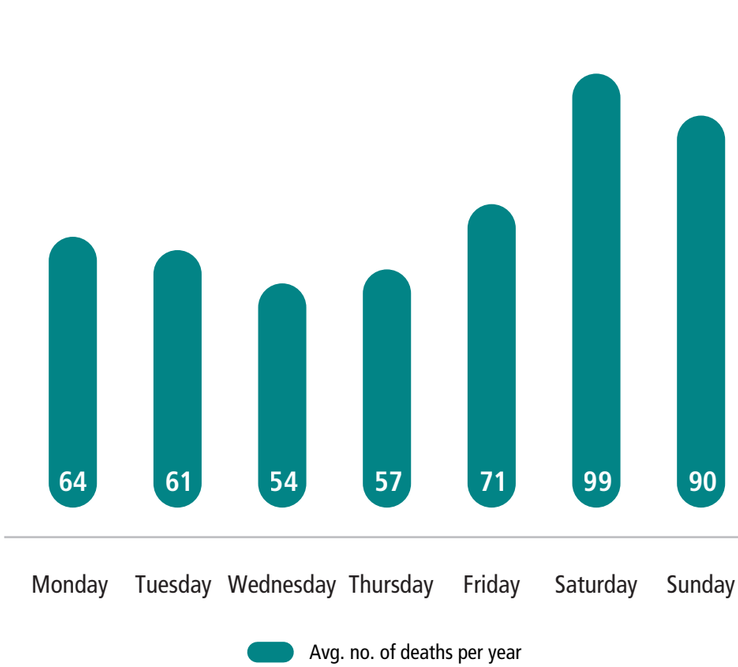
Unintentional water-related deaths by month, 2018–2022



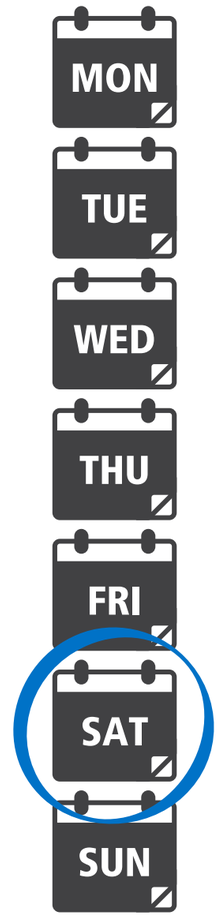


Although water-related deaths occur in every month of the year, the majority occur during the warmest months. Drowning most frequently occurred in July, with an average of 99 deaths occurring in July each year during 2018–2022 (19%).

Unintentional water-related deaths by day of the week, 2018–2022



Drowning most frequently occurred on Saturday, with an average of 99 deaths occurring on Saturday each year during 2018–2022 (19%).

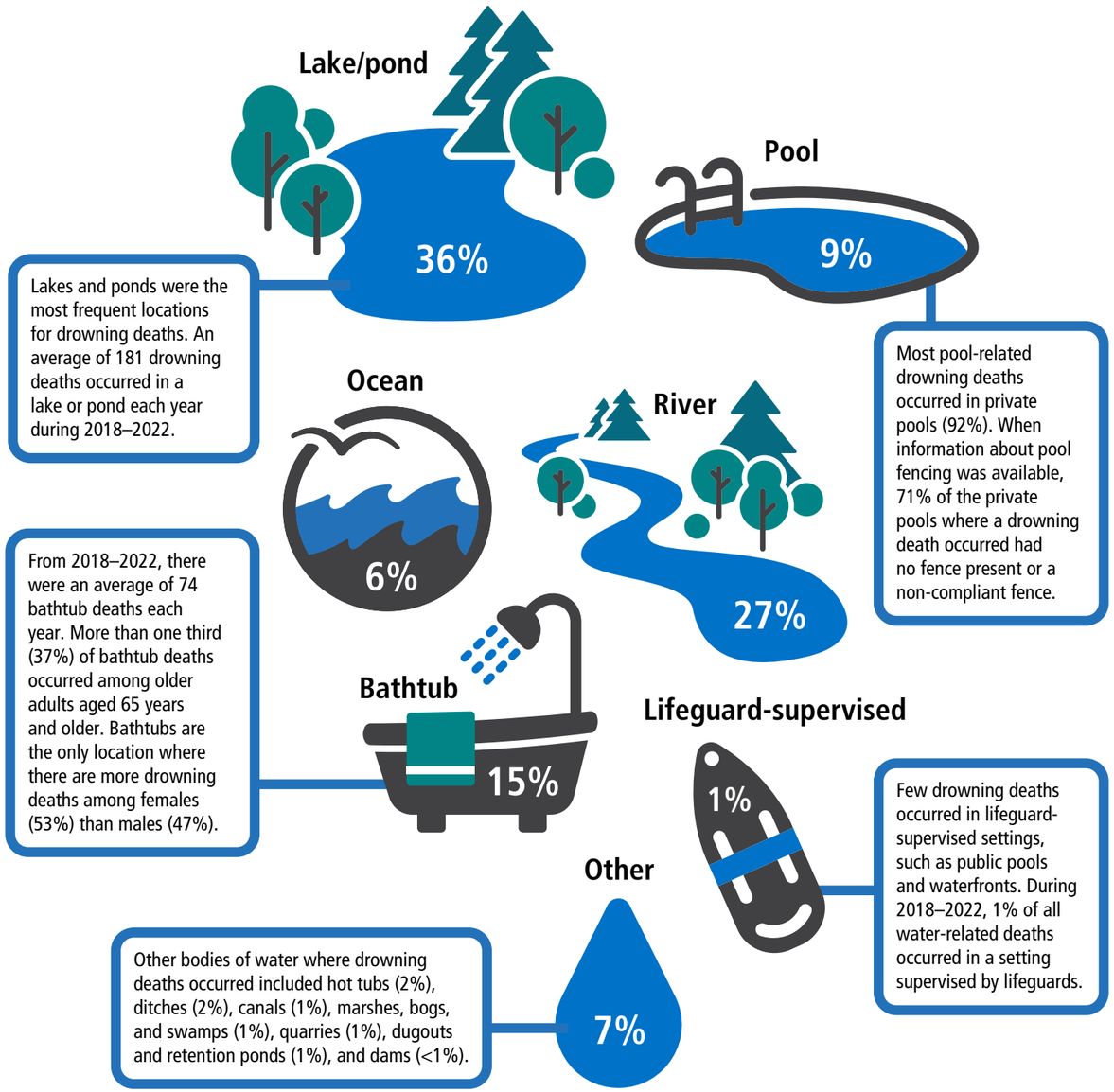




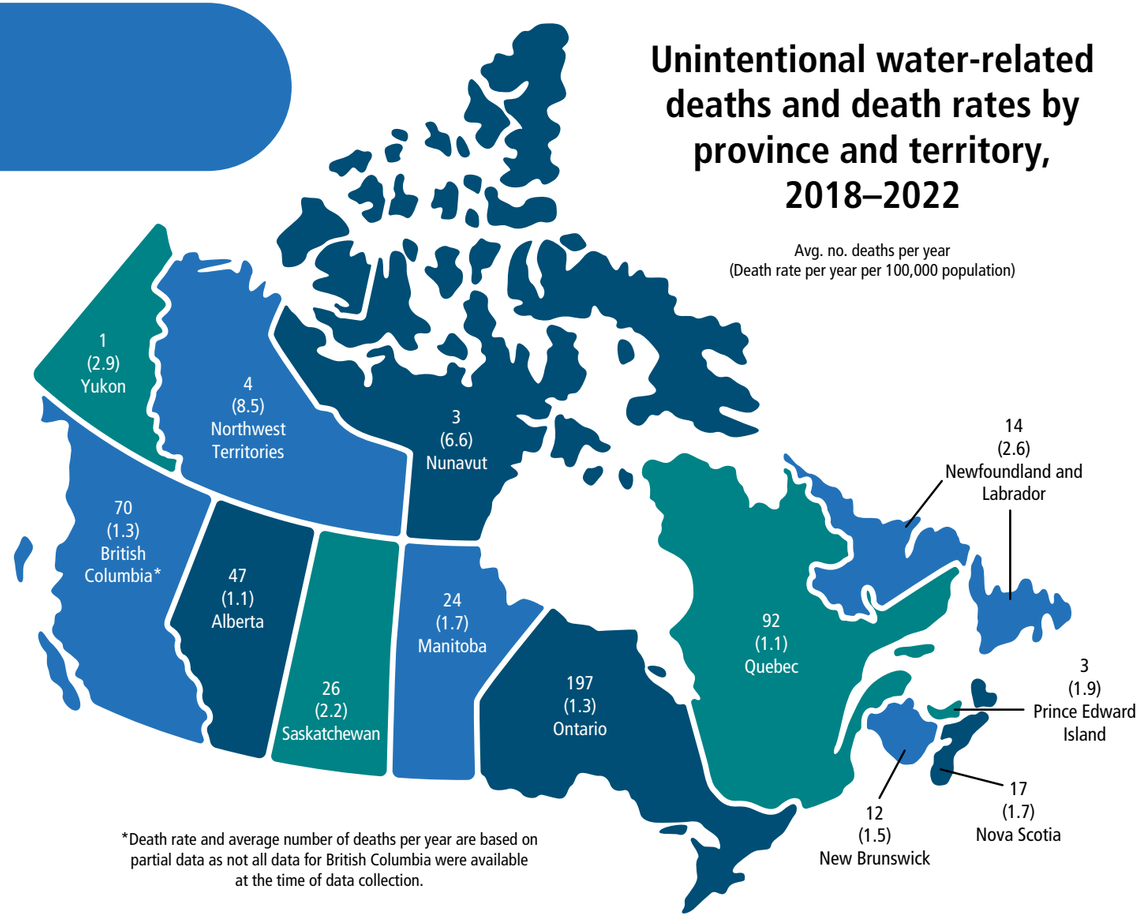
WHERE ARE THEY DROWNING?

WHERE ARE THEY DROWNING?

Unintentional water-related deaths by type of body of water, 2018–2022

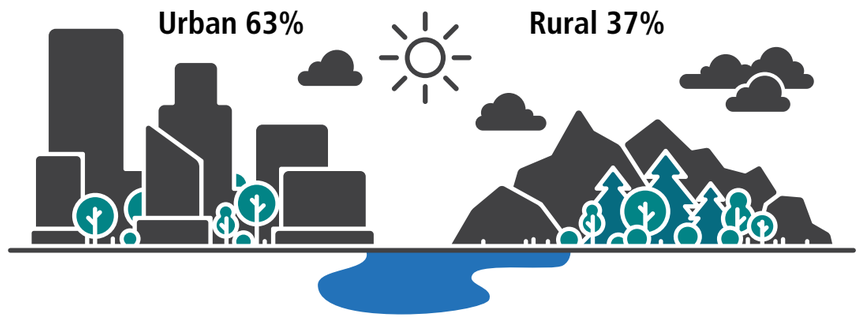


Unintentional water-related deaths and death rates by province and territory, 2018–2022



*Death rate and average number of deaths per year are based on partial data as not all data for British Columbia were available at the time of data collection.

- Water-related death rates were highest in the Northwest Territories (8.5 per 100,000), followed by Nunavut (6.6 per 100,000).
- The next highest rates occurred in Yukon (2.9 per 100,000), Newfoundland and Labrador (2.6 per 100,000), and Saskatchewan (2.2 per 100,000).
- The highest number of annual water-related deaths occurred in Ontario, the most populous province (an average of 197 deaths per year).
- Consistent with the overall increase in drowning death rates in Canada, rates increased in most provinces and territories during 2018–2022. However, rates decreased by 55% in the Yukon, 37% in Nunavut, and 7% in Newfoundland and Labrador.

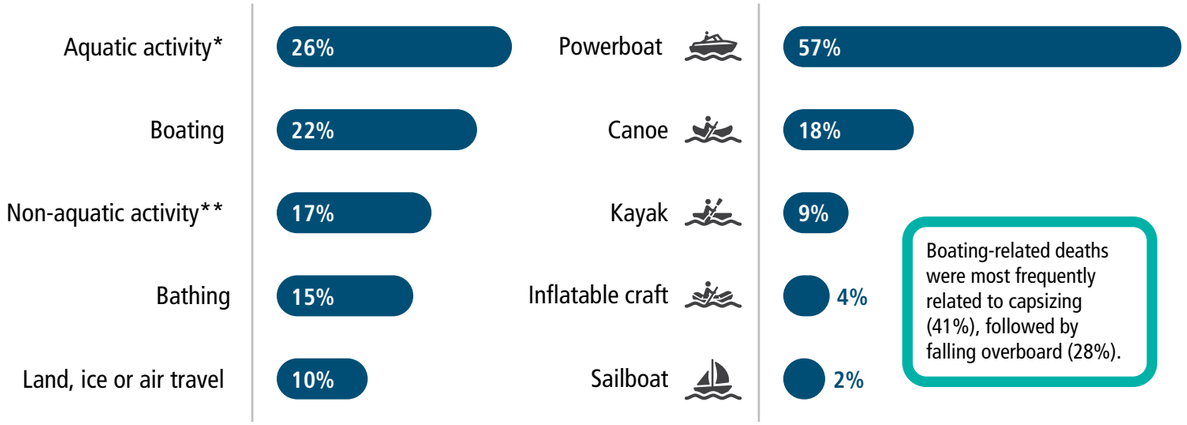


Less than 20% of the Canadian population lives in a rural area, yet during 2018–2022, 37% of all drowning deaths occurred there, indicating that drowning risk may be higher in rural areas.

WHAT WERE THEY DOING?

WHAT WERE THEY DOING?

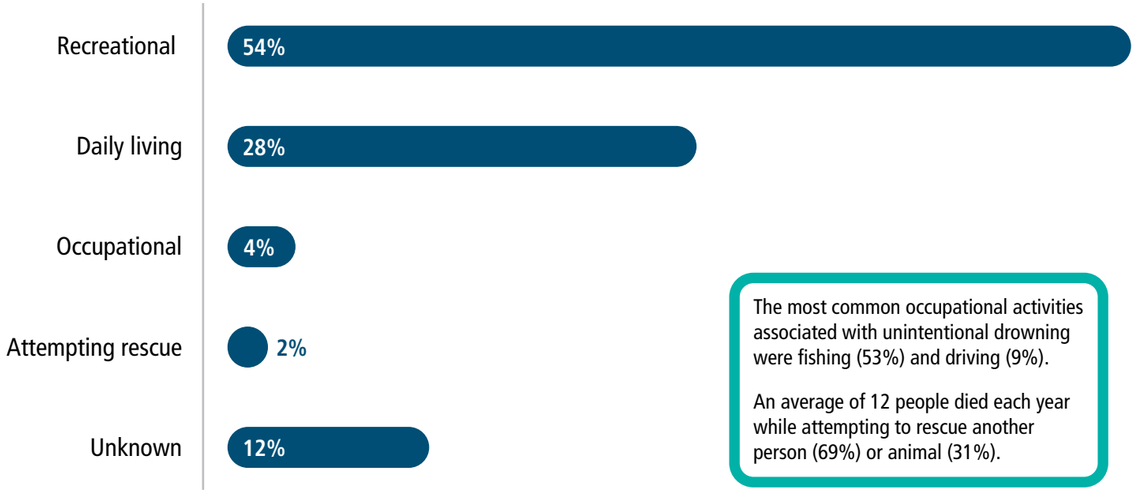
Unintentional water-related deaths by type of activity, 2018–2022



Boating-related deaths were most frequently related to capsizing (41%), followed by falling overboard (28%).

* The person intended to be in the water (e.g., swimming or wading)
** Unintentional fall into water (e.g., walking, biking or working near water and falling in)

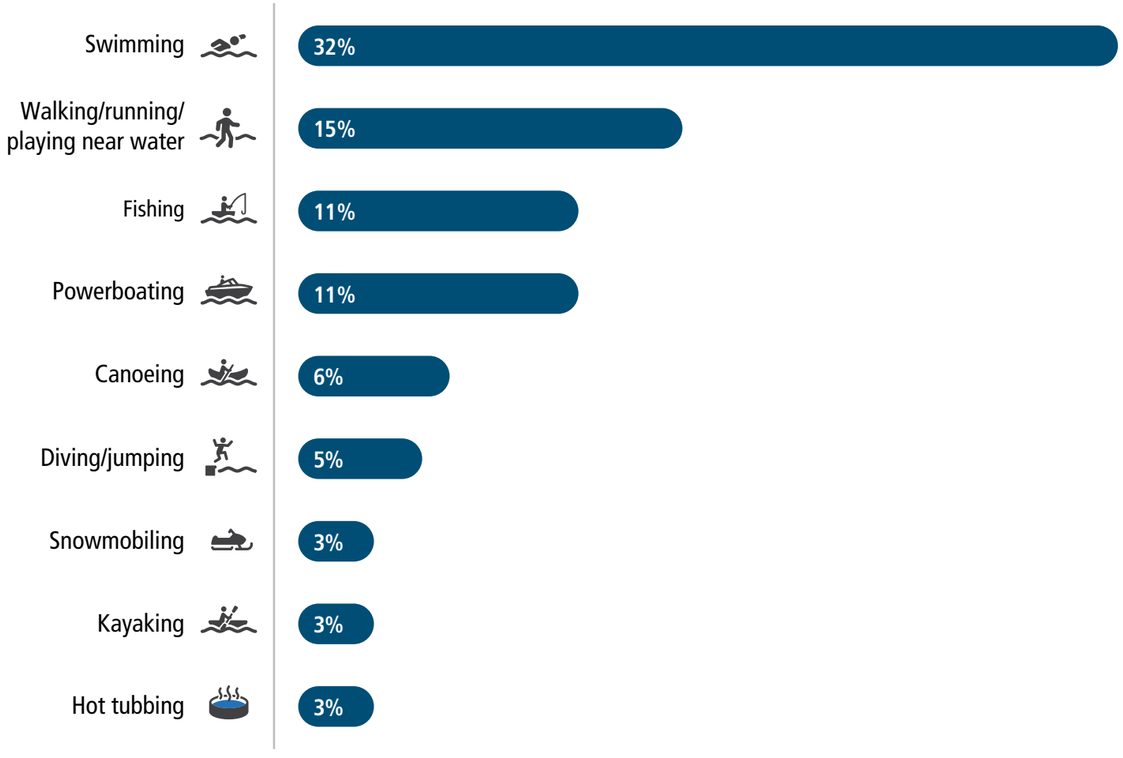
Unintentional water-related deaths by purpose of activity, 2018–2022



The most common occupational activities associated with unintentional drowning were fishing (53%) and driving (9%).

An average of 12 people died each year while attempting to rescue another person (69%) or animal (31%).

Unintentional water-related deaths by most common recreational activity, 2018–2022



Unintentional water-related deaths by most common daily living activity, 2018–2022



RISK FACTORS



RISK FACTORS

Boating



Swimming



* Of cases where known

Supervision present but distracted

Heart disease/sudden cardiac event

Not wearing a lifejacket

Weak or non-swimmer

Supervision absent

Cold water

Consuming alcohol

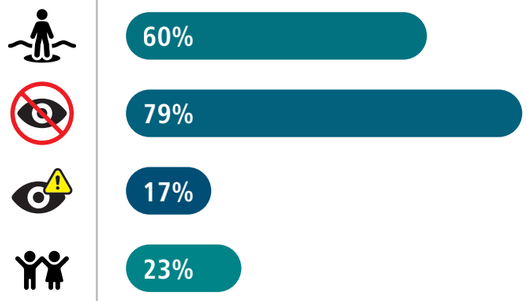
After dark

Alone

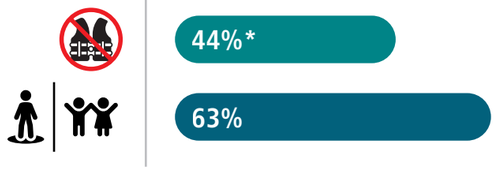
Alone near water

With other minors only

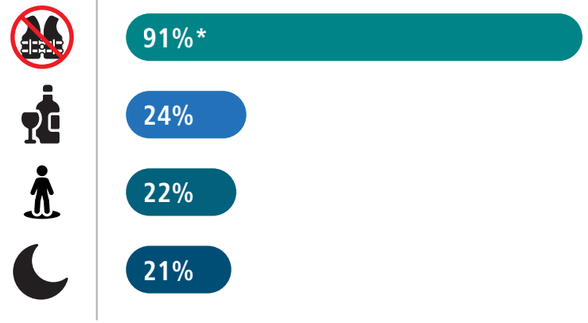
Age 0–4



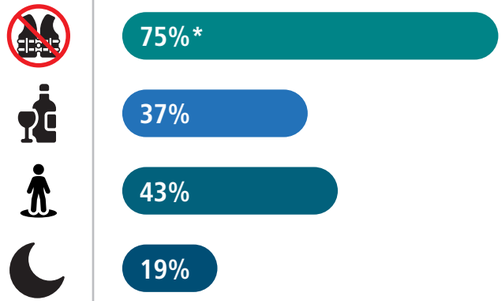
Age 5–14



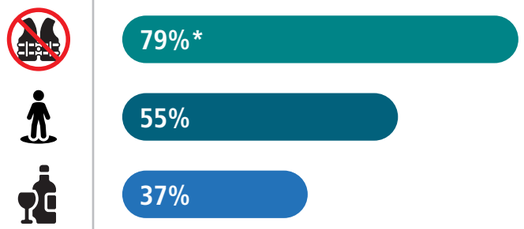
Age 15–19



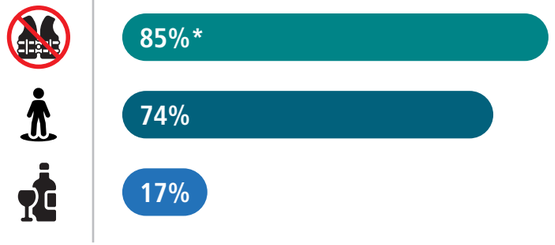
Age 20–34



Age 35–64



Age 65+



RESEARCH METHODOLOGY

The drowning research process involves data collection, tabulation and analysis. Water-related death data is extracted from the offices of the Chief Coroners and Medical Examiners in each province and territory. This research:

- Collects the data needed to profile victims of aquatic incidents, including circumstances and contributing factors.
- 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 contribute to the activity.
- Includes only unintentional deaths. It does not include deaths due to natural causes, suicide or homicide.

ACKNOWLEDGEMENTS

We gratefully acknowledge the support, cooperation, and efforts of:

- The Chief Coroners' and the Chief Medical Examiners' offices in each province and territory, who permitted and facilitated confidential access to the Coroners' reports on unintentional water-related deaths that provided the base data for this report.
- The volunteers who contributed their time and energy to extract data on preventable water-related deaths from Coroners' files.

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. More than a million Canadians participate in the Society's swimming, lifesaving, lifeguard, and leadership training programs every year. The Society sets the standard for aquatic safety in Canada and certifies Canada's National Lifeguards.



LIFESAVING SOCIETY®
The Lifeguarding Experts

CONTACT US

National Office
613-746-5694
experts@lifesaving.ca
www.lifesaving.ca

Alberta and Northwest Territories
780-415-1755
experts@lifesaving.org
www.lifesaving.org

British Columbia and Yukon
604-299-5450
info@lifesaving.bc.ca
www.lifesaving.bc.ca

Manitoba
204-956-2124
info@lifesaving.mb.ca
www.lifesaving.mb.ca

New Brunswick
506-455-5762
info@lifesavingnb.ca
www.lifesavingnb.ca

Newfoundland and Labrador
709-576-1953
info@lifesavingnl.ca
www.lifesavingnl.ca

Nova Scotia
902-477-6168
experts@lifesavingns.ca
www.lifesavingsociety.ns.ca

Ontario and Nunavut
416-490-8844
experts@lifeguarding.com
www.lifesavingsociety.com

Prince Edward Island
902-967-4888
info@lifesavingsocietypei.ca
www.lifesavingsocietypei.ca

Quebec
514-252-3100
alerte@sauvetage.qc.ca
www.societedesauvetage.org

Saskatchewan
306-780-9255
lifesaving@sasktel.net
www.lifesavingsociety.sk.ca

DROWNING PREVENTION RESEARCH CENTRE CANADA

The Drowning Prevention Research Centre Canada (DPRC) is the lead agency for drowning and water-incident research in Canada. The DPRC conducts research into fatal and non-fatal drowning, significant aquatic injury and rescue interventions. Contact the DPRC by phone 416-490-8844 or email info@dprc-crpn.ca or visit www.dprc-crpn.ca.

DPRC