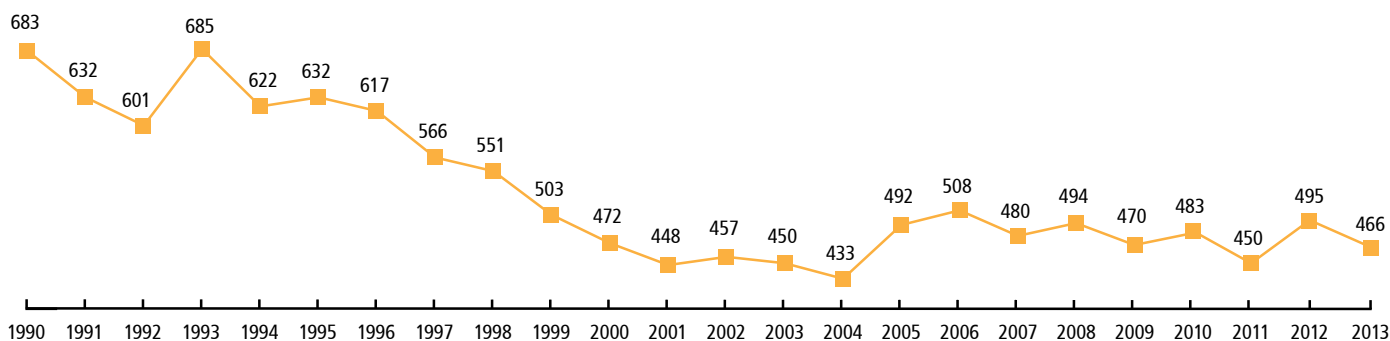


DROWNING REPORT

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

Canadian Totals 1990 - 2013



The most recent data available from the Coroner’s office of British Columbia revealed that the number of drowning deaths, and the drowning death rate, remained consistent with the previous year. In 2013, 83 people suffered a water-related fatality in British Columbia, a rate of 1.8 per 100,000 population.

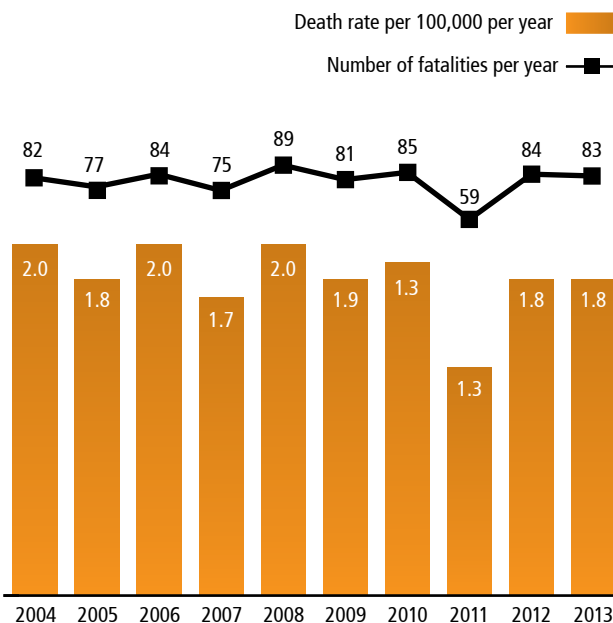
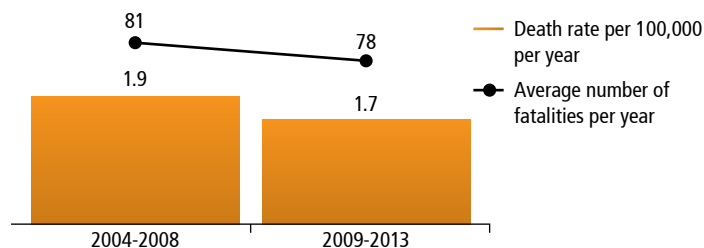
Preliminary interim data

For drowning deaths since 2013, only preliminary, interim data from media and internet reports are available. In British Columbia, these numbers indicate that at least 62 drownings occurred in 2014 and at least 67 occurred in 2015.

Looking at the most current five year period (2009-2013) as a whole, the drowning death rate has decreased by 10% over the previous five year period. The average yearly drowning rate was 1.7 per 100,000 in 2009-2013, down from 1.9 per 100,000 in 2004-2008. This decrease is largely due to an unusually low number of drowning fatalities in 2011 (59). At least 81 drowning deaths occurred in each of the other four years in the most recent period. A total of 392 water-related fatalities occurred in British Columbia waters between 2009 and 2013.

British Columbia Water-Related Fatalities and Death Rates 2004-2013

British Columbia Water-Related Fatalities and Death Rates, Five Year Averages



WHO is drowning?

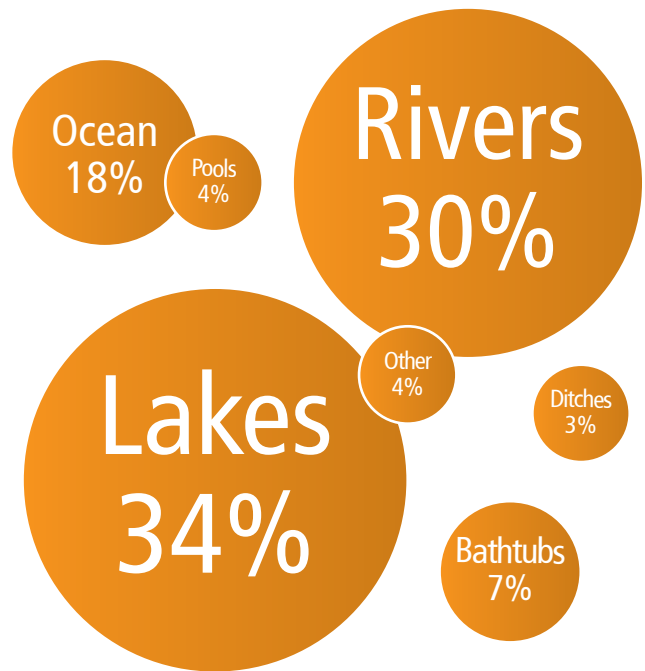
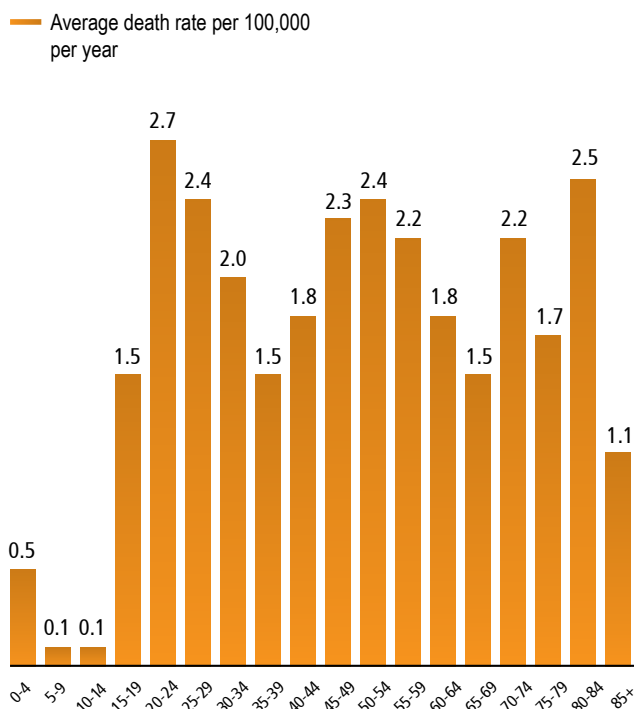


Consistent with national trends, the vast majority of British Columbia drowning victims were male (8 out of 10). Between 2009 and 2013, the average water-related fatality rate for men was 2.8 per 100,000 population compared to 0.7 for women. In 2013, 63 males (76%) and 20 females (24%) fatally drowned.

By age, the highest drowning rates in British Columbia in 2009-2013 were once again found among young adults aged 20 to 34, with 20-24 year-olds having the highest death rate of all age groups (2.7 per 100,000). High drowning rates were also found among middle-aged adults in their late forties and fifties, 50-54 year-olds had the highest death rate in this group at 2.4 per 100,000 population. In 2013, the greatest number of drowning deaths (12) occurred among 20-24 year-olds.

Water-related fatality rates continue to be relatively low for children in British Columbia. Few drowning deaths occur among individuals under the age of 15. In 2009-2013 fewer than 10 children under the age of 15 fatally drowned. The drowning rates of 0.5 per 100,000 for 0-4 year-olds and 0.1 per 100,000 for 5-14 year-olds are both lower than the national averages of 1.1 and 0.5 for those age groups.

Water-Related Death Rate By Age, 2009-2013



WHERE are they drowning?

Consistent with previous years, natural bodies of water (82%) accounted for the largest proportion of drownings in British Columbia in the 2009-2013 period. Lakes were the most common location for drowning deaths (34%) followed by rivers and streams (30%), and the ocean (18%). Fewer water-related fatalities occurred in manmade settings such as bathtubs (7%), pools (4%), and ditches (3%). In 2013, lakes accounted for an even higher proportion of drowning deaths than usual, 37 people (45%) drowned in a lake. And manmade settings accounted for slightly fewer drowning deaths than usual, 10 people (12%) drowned in a bathtub, pool or ditch.

Drowning fatalities in lifeguard supervised settings continued to be rare: in 2009-2013 less than 2% of drowning deaths in British Columbia occurred under lifeguard supervision.

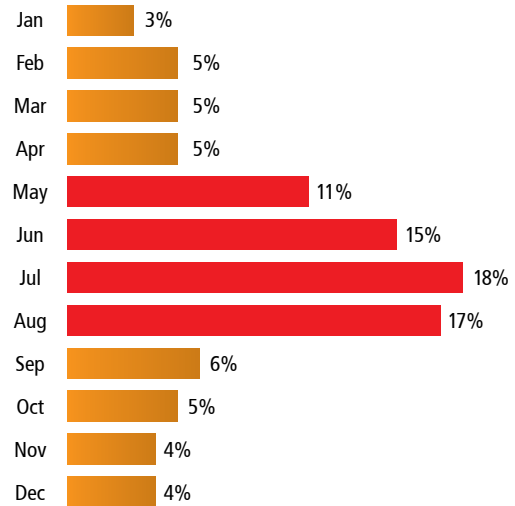
Despite the fact that approximately 86% of the population in British Columbia lives in an urban area, in 2009-2013, drownings were almost as likely to occur in a rural (45%) area as an urban (55%) area. By district, the greatest number of drowning fatalities in 2013 occurred in Metro Vancouver (19%) followed by Central Okanagan (8%).

WHEN are they drowning?

Consistent with previous years, the warmer months once again accounted for the majority of drowning fatalities in British Columbia. Almost two thirds (61%) of water-related fatalities in the 2009-2013 period occurred in May through August. July (18%) was the most common month in which drowning deaths occurred followed by August (17%). However, in 2013 more drowning deaths occurred in May than any other month (18%).

Once again, over half (58%) of all drowning deaths that occurred in 2009-2013 happened on the weekend (Friday, Saturday or Sunday). In 2013, weekend drownings were particularly common, 63% of all water-related fatalities occurred on a Friday, Saturday or Sunday that year.

Water-Related Fatalities by Time of Year, 2009-2013



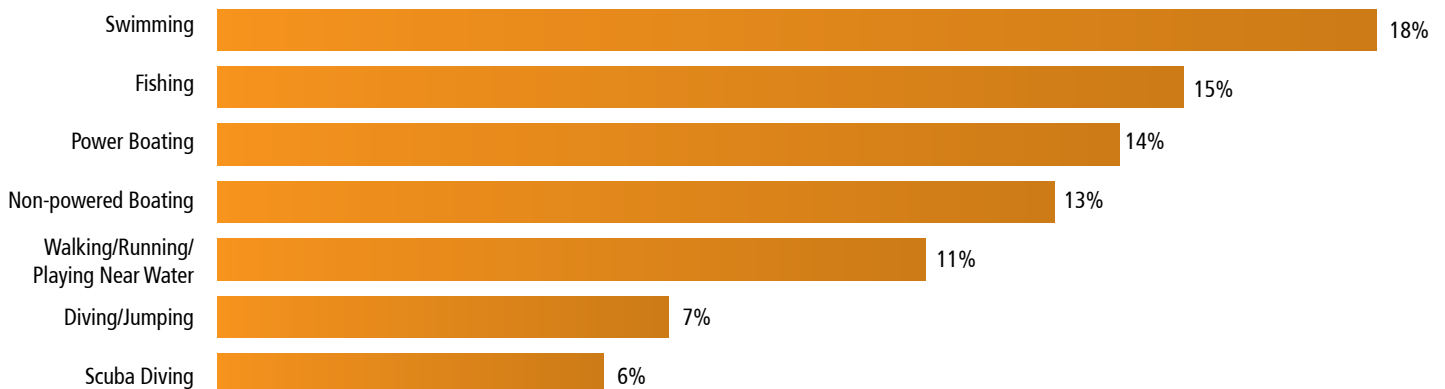
high proportion of drowning deaths in British Columbia (28%). The most common daily living activities were once again motor vehicle travel (39%), bathing (24%) and travel on foot (16%). In 2013 alone, 12 people drowned during one of these three activities, 4 during motor vehicle travel, 4 while bathing, and 4 while traveling on foot.

WHAT were they doing?

The majority of drowning fatalities in British Columbia continued to occur during recreational activities (64%) in 2009-2013. The most common primary recreational activity was once again swimming (18%). Other common activities were fishing (15%), and power boating (14%). In 2013, 60 people (72%) drowned while engaged in a recreational activity, and recreational drowning deaths more commonly occurred during fishing (25%) or powerboating (22%) than swimming (17%); 38 people drowned while engaged in one of these three activities. Consistent with previous years, daily living incidents accounted for a

By type of activity, boating (32%) continued to account for the greatest proportion of water-related fatalities in British Columbia in 2009-2013. This is slightly higher than the national average of 26%. The largest proportion of boating incidents occurred during powerboat use (48%), followed by inflatable crafts (12%) and canoes (12%). The most common type of boating incident was falling or being thrown overboard (40%). Once again lifejacket use and alcohol consumption were factors in many of the boating fatalities. Only 16% of victims were wearing a lifejacket at the time of the incident and 40% had consumed alcohol. After boating, the next most common type of activity was aquatic, where the person intended to be in the water and something went wrong (26%). In 2013, 31 people (37%) drowned while boating and 25 people (30%) drowned during an aquatic activity.

Water-Related Fatalities by Most Common Recreational Activity, 2009-2013



Risk factors

The major risk factors contributing to drowning incidents in British Columbia continue to be consistent with those the Lifesaving Society has identified for the national population in the past.

Boating

Not wearing a PFD
(72% of cases where known)
Falling overboard (40%)
Alcohol consumption (40%)
Boating alone (33%)
Capsizing (30%)

Swimming

Poor swimming ability (26%)
Swimming alone (26%)
Alcohol consumption (20%)

Age

<15

Alone or with other minors only
(75%)

15-19

Alcohol consumption (52%)
Twilight or after dark (29%)

Not wearing a PFD when relevant
(88% of cases where known)

20-34

Alcohol consumption (44%)
Alone (29%)

After dark (26%)

Not wearing a PFD when relevant
(60% of cases where known)

35-64

Twilight or after dark (27%)
Alcohol consumption (37%)
Alone (44%)

Not wearing a PFD when relevant
(67% of cases where known)

65+

Not wearing a PFD when relevant
(63%)
Alone (71%)
Alcohol consumption (21%)

In summary

The water-related fatality rate in British Columbia remained consistent with the previous year. The highest drowning rates were found among men, young adults, and middle-aged adults.

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

The highest proportion of incidents occurred during a recreational activity; the most common of these were swimming and fishing.

Despite the overall decrease in the drowning rate seen in the 2009-2013 period, at least 81 people drowned in British Columbia in four of the five years. This 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 British Columbia. 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 British Columbia 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 of British Columbia 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.



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