

This report summarizes all accidental drowning deaths reported to the BC Coroners Service (BCCS) between January 1, 2008 and December 31, 2018. The data include all deaths where the final cause of death was determined to be drowning and where preliminary circumstances indicate unintentional drowning.

Caveats: The BCCS operates in a live database environment. The data are considered preliminary until all investigations are complete. As such, data are subject to change and are not directly comparable to previously published counts. These data were compiled by date of death, which may differ from the date of injury. In some cases, the death may occur months or years subsequent to injury. These statistics may vary from those reported by other agencies due to differences in data definitions or reporting standards.

General Summary:

- In 2018, there were 64 drowning deaths. From 2008-2018, the average annual number of drowning deaths was 75 and the average annual rate was 1.6 per 100,000 population.
- More than one in three accidental drowning deaths (34%) occurred in the Interior Health Authority region.
- Fatal drownings were most common in the summer months, peaking at an average of 13.2 deaths per year in July.
- The majority of decedents were male (79%) and were known to reside in B.C. (87%).
- Individuals aged 19-29 accounted for 23% of the deaths, followed by 50-59-year-olds (17%).
- Alcohol and/or drugs contributed to 38% of drowning deaths between 2008 and 2017.
- Boating (20%) falls into water (18%), and swimming (17%) were the three activities/contexts in which drownings were most likely to occur.
- Most deaths occurred in rivers/creeks (32%), lakes/ponds (29%), or the ocean (20%).
 - The Fraser River had the most deaths of any river/creek (47), followed by the Thompson River (14) and Columbia River (10).
 - The lakes/ponds with the highest number of deaths were Okanagan Lake (28), Shuswap Lake (13), and Kalamalka Lake (10).
- Eighty-one (81%) of drowning deaths in swimming pool occurred in a private/residential pool.

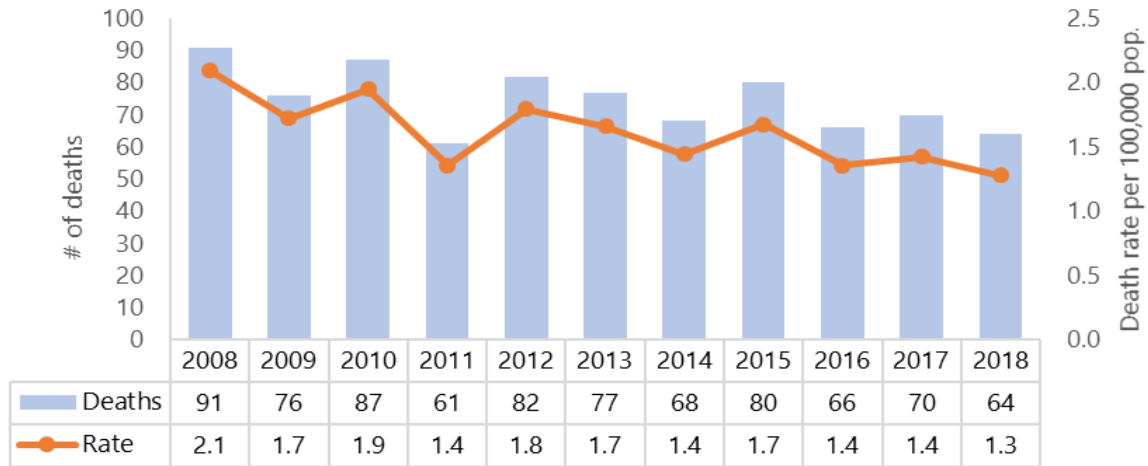


Fig. 1. Drowning Deaths and Crude Death Rate per 100,000 Population, 2008-2018^[1]

Table 1. Drowning Deaths by Health Authority of Injury, 2008-2018^[2,3]

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Interior	33	26	34	24	28	27	25	20	14	30	15
Island	22	25	18	14	19	9	10	18	15	12	15
Fraser	13	10	13	9	12	17	20	20	20	16	20
Van. Coastal	13	11	16	10	10	11	8	15	8	10	12
Northern	10	4	6	4	13	13	5	7	9	2	2
Total	91	76	87	61	82	77	68	80	66	70	64

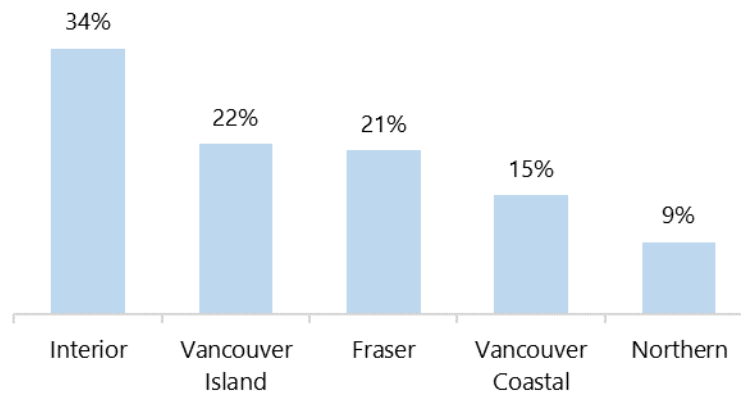


Fig. 2. Drowning Deaths by Health Authority of Injury, 2008-2018^[2,3]

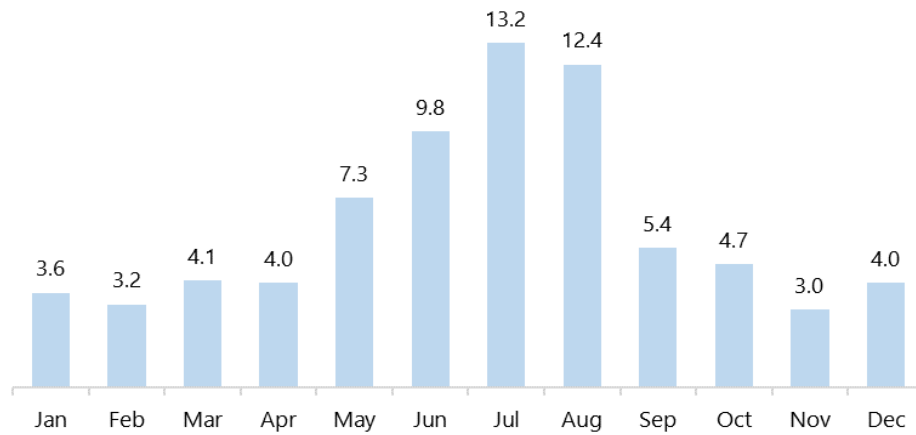


Fig. 3. Average Annual MVI Deaths by Month of Injury, 2008-2018
Note: Excludes one death in which month of injury is unknown.

Table 2. Drowning Deaths by Sex, 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Female	14	15	14	13	24	19	14	11	18	14	14
Male	77	61	73	48	58	58	54	69	48	56	50
Total	91	76	87	61	82	77	68	80	66	70	64

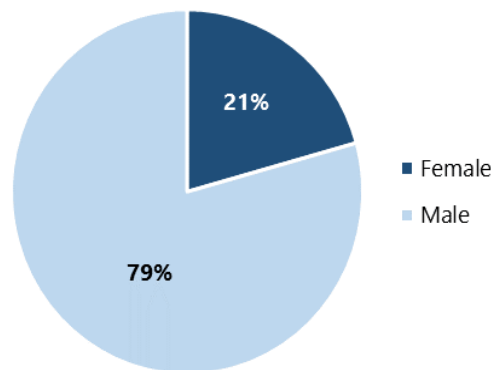


Fig. 4. Drowning Deaths by Sex as % of Total, 2008-2018

Table 3. Drowning Deaths by Age Group, 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
0-9	2	2	2	0	2	1	3	2	5	2	2
10-18	5	2	2	1	2	6	4	7	6	4	2
19-29	23	18	22	16	11	21	15	21	13	15	16
30-39	14	6	17	12	12	11	9	5	8	13	5
40-49	12	15	12	9	10	14	7	12	8	12	8
50-59	13	22	13	10	21	5	8	17	7	9	12
60-69	10	7	9	5	13	7	10	10	9	10	12
70-79	7	4	7	4	7	6	7	4	6	2	5
80+	5	0	3	4	4	6	5	2	4	3	2
Total	91	76	87	61	82	77	68	80	66	70	64

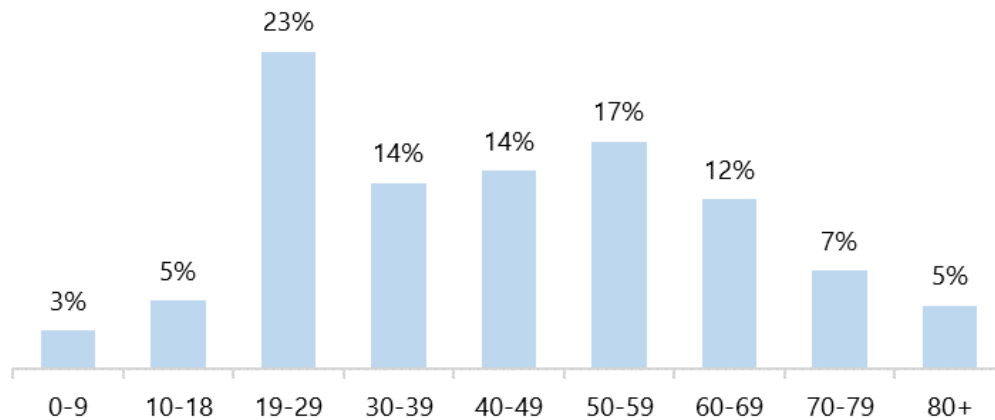


Fig. 5. Drowning Deaths by Age Group as % of Total, 2008-2018

Table 4. Drowning Deaths by Decedent Residence, 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
B.C. Resident	80	59	73	59	76	71	65	64	58	57	56
Out of Province	7	6	8	1	2	6	2	10	4	7	5
Out of Country	4	11	6	1	4	0	1	6	4	6	3
Total	91	76	87	61	82	77	68	80	66	70	64

Table 5. Drowning Deaths Involving Alcohol and/or Drugs, 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Alcohol	19	23	25	16	23	20	22	20	15	14	19
Drugs	5	3	4	5	4	8	3	4	7	3	5
Alcohol & Drugs	14	5	8	4	4	4	2	9	4	2	14
Total Alcohol and/or Drugs	38	31	37	25	31	32	27	33	26	19	38

Note: Data only available for closed investigations. Alcohol/drug data for 2018 are not currently available.

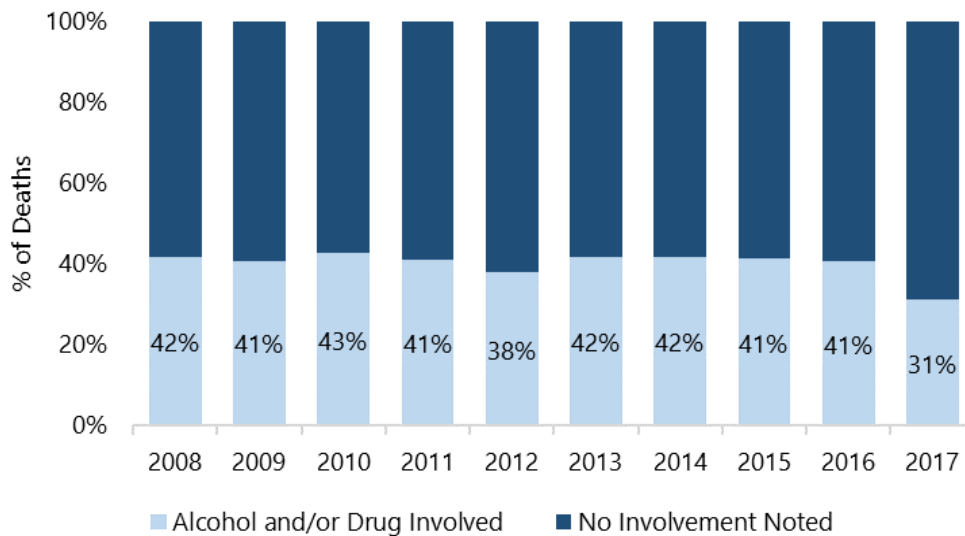


Fig. 6. Drowning Deaths with Drugs and/or Alcohol Involvement as % of Total, 2008-2018

Note: Data only available for closed investigations. Alcohol/drug data for 2018 are not currently available.

Table 6. Drowning Deaths by Activity/Context, 2008-2018

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Boating	12	18	18	7	18	24	13	25	9	9	9
Fall into Water	20	12	13	11	15	8	18	11	9	11	21
Swimming	15	13	13	7	12	19	10	15	10	12	10
Motor Vehicle Incident	12	9	12	8	9	7	8	9	8	14	5
Bathtub	5	4	4	8	7	6	4	4	9	5	6
Occupational Incident	7	3	6	3	4	2	4	5	2	3	2
Rafting/Tubing	4	2	1	2	4	2	0	4	2	2	2
Fishing	2	3	6	3	1	0	1	0	4	3	1
Hot Tub	1	1	2	2	1	2	4	1	2	4	3
Jump from Height	2	2	2	1	4	1	3	2	1	2	1
Scuba Diving	0	3	5	2	1	2	0	2	2	0	0
ATV/Dirt Bike/Snowmobile	3	0	1	1	3	1	1	0	1	0	2
Aircraft Incident	1	6	2	1	1	1	0	0	0	0	0
Other	7	0	2	5	2	2	2	2	7	5	2
Total	91	76	87	61	82	77	68	80	66	70	64

Note: Refer to activity definitions (page 9).

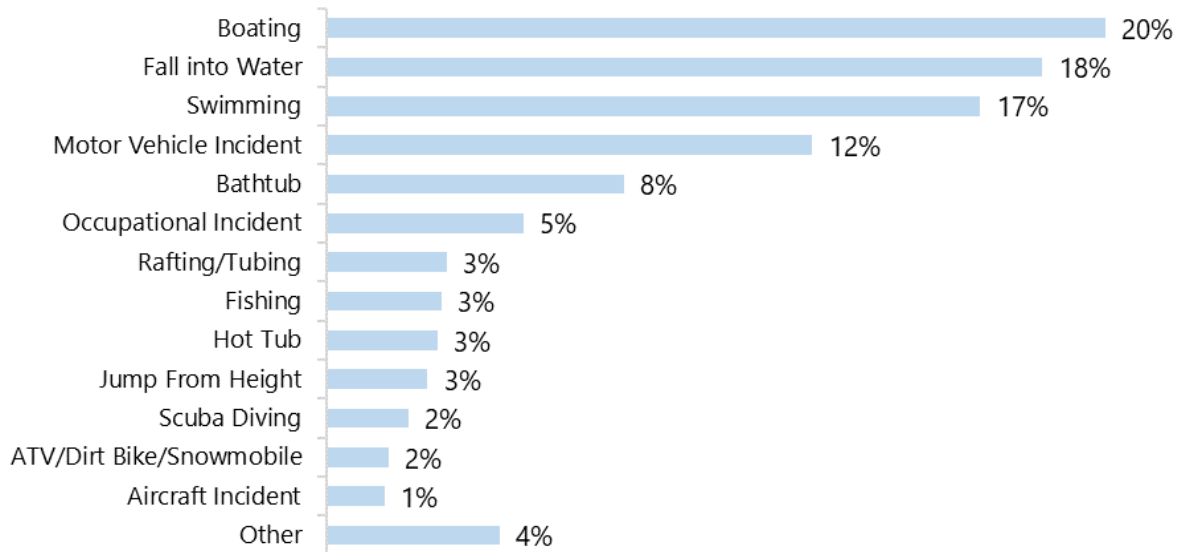


Fig. 7. Drowning Deaths by Activity/Context as % of Total, 2008-2018

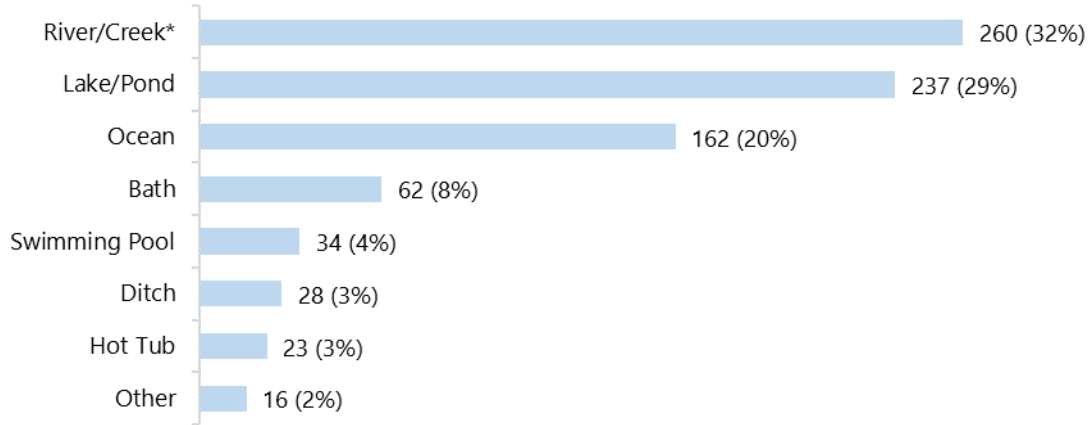


Fig. 8. Number and Percentage of Drowning Deaths by Type of Body of Water, 2008-2018

Note: 'River/Creek' includes waterfall incidents.

Table 7. Drowning Deaths by Top 10 River/Creek, 2008-2018

	Deaths
Fraser River	47
Thompson River	14
Columbia River	10
Kettle River/Cascade Falls	9
Cowichan River	8
Skeena River	7
Similkameen River	6
Vedder River	6
Shuswap River	6
Gold Creek Falls	5

Table 8. Drowning Deaths by Top 10 Lake/Pond, 2008-2018

	Deaths
Okanagan Lake	28
Shuswap Lake	13
Kalamalka Lake	10
Harrison Lake	9
Skaha Lake	6
Kootenay Lake	6
Wood Lake	6
Slocan Lake	5
Mara Lake	5
Alouette Lake	4

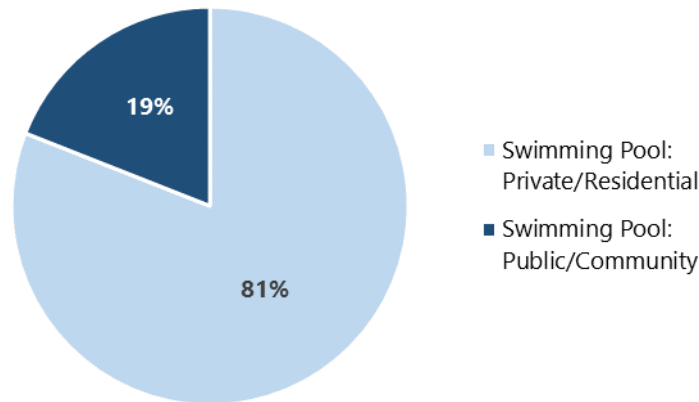


Fig. 9. Drowning Deaths by Type of Swimming Pool as % of Total, 2008-2018

Note: Private/Residential includes complex such as townhouse/apartment complexes, assisted living complexes, and hotel facilities.

Activity/Context Definitions

Note: All occupational incidents, regardless of circumstances, are coded as 'Occupational Incident'.

Aircraft Incident

The incident involved powered or unpowered aircraft.

ATV/Dirt Bike/Snowmobile

The incident occurred while riding an ATV, dirt bike, or snowmobile.

Bathtub

The incident occurred in a bathtub.

Boating

The incident involved powered or unpowered watercraft, including personal watercraft (e.g. Jet Skis, Sea-Doos). Includes incidents in which the decedent was fishing from a boat. Excludes incidents involving docked/moored watercraft used for habitation. See also 'Rafting/Tubing'.

Fall into Water

The decedent unintentionally entered the water while walking near water, playing near water, or climbing above water. This category includes people falling through ice and people falling from docked/moored watercraft used for habitation.

Fishing

The incident occurred when the decedent was fishing from shore, on ice, or in water. Excludes fishing from a boat (see 'Boating').

Hot Tub

The incident occurred in a hot tub.

Jump from Height

The incident involved a deliberate jump into water from a cliff, bridge, or other height.

Motor Vehicle Incident

The drowning resulted from a motor vehicle incident. Includes traffic and non-traffic (i.e. not on public roads) incidents. Excludes ATV, dirt bike, and snowmobile incidents.

Occupational Incident

The decedent was an employee or employer on a worksite.

Rafting/Tubing

The incident occurred while travelling on an inflatable tube, inflatable raft, or paddleboard. Includes white-water rafting.

Scuba Diving

The incident occurred while scuba diving.

Swimming

The incident occurred while swimming, wading, or playing in water; or the incident occurred while attempting to retrieve an object or rescue another individual from the water. Includes jumps into water from boats, shore, and other structures for which height is not a factor in the activity. Excludes deaths where entry to water occurred in the context of another activity; e.g. jumping from a capsizing boat to swim to shore.

Other

The circumstances of the incident are unknown, or the activity/context does not fit any of the categories above.

Notes

1. Population estimates were taken from <https://www2.gov.bc.ca/gov/content/data/statistics/people-population-community/population/population-estimates>
2. Health Region breakdowns can be found at: <https://www2.gov.bc.ca/gov/content/data/geographic-data-services/land-use/administrative-boundaries/health-boundaries>
3. Health authority is derived from injury township. Death township is used in cases of unknown or out-of-province injury township. Administrative region is used in rare cases where both injury and death township are out of province.