

Accidental Drowning Deaths 2012-2022

This report summarizes all accidental drowning deaths reported to the BC Coroners Service (BCCS) between January 1, 2012 and December 31, 2022. The data include all deaths where the cause of death was determined to be accidental drowning or where preliminary circumstances indicate accidental drowning. An accidental death is defined as a death due to unintentional or unexpected injury, including death resulting from complications reasonably attributed to the drowning accident.

Caveats: As the BCCS operates in a live database environment, the data are considered preliminary and subject to change. 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 after injury. These statistics may vary from those reported by other agencies because of differences in data definitions or reporting standards.

While alcohol and/or drugs are identified as contributory factors in this report, other factors may also contribute (i.e., swimming experience, weather conditions, etc.). These potential additional contributors are not accounted for in this report and will be included in a future release.

Summary:

- In 2022, there were 86 accidental drowning deaths (*Fig. 1*). From 2012-2022, the average annual number of drowning deaths was 76 and the average annual rate was 1.5 per 100,000 population.
- Fatal drownings were most common in the summer months, peaking at an average of 13.5 deaths per year in July (Fig. 2).
- Most decedents were male (78%) (Fig. 3).
- Individuals aged 19-29 accounted for 21% of the deaths, followed by 50–59-year-olds (17%) (Fig. 4).
- Nearly one-third of all accidental drowning deaths (32%) occurred in the Interior Health Authority region (Fig. 5).
- Most deaths occurred in rivers/creeks (29%), followed by lakes/ponds (28%) (Fig. 6).
 - The Fraser River had the most deaths of any river/creek (53), followed by the Thompson River (9) and Columbia River (8) (*Table 5*).
 - The lakes/ponds with the highest number of deaths were Okanagan Lake (30), Harrison Lake (12), and Shuswap Lake (9) (Table 6).
- The most common activities/contexts associated with drowning deaths were boating (19%), swimming (18%), and fall into water (17%) (Fig. 7).
- Between 2012 and 2020, alcohol and/or drugs were found to be a contributing factor in 38% of drowning deaths (*Table 8*). Note: There may be more than one contributing factor to an incident. Alcohol/drug contribution is determined by the coroner as relevant to the death when investigations conclude and is therefore only provided for closed investigations. Alcohol/drug data for 2021 and 2022 are not currently available.
- Between 2012–2020, alcohol and/or drugs involvement were reported in more than half of the drowning deaths of individuals aged 30-39 (52%) (Fig. 8).
- Most individuals were known to have resided in B.C. (85%) (Fig. 9).

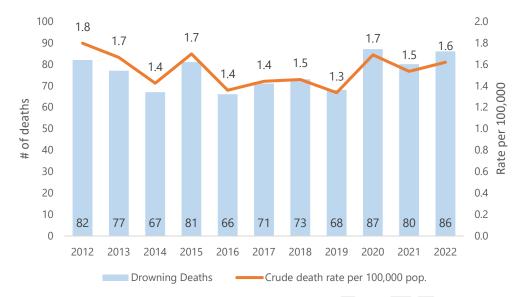


Fig. 1. Drowning Deaths and Crude Death Rate per 100,000 Population, 2012-2022^[1]

Table 1. Dro	owning	Death	s by Mo	onth, 20	012-20	22					
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022
January	1	4	5	1	6	5	4	5	5	4	3
February	5	3	3	3	3	1	3	2	6	7	1
March	2	10	1	4	3	2	6	6	5	4	5
April	4	6	3	4	2	11	3	2	7	4	5
May	7	12	6	4	2	6	10	6	6	7	5
June	12	4	12	7	8	10	14	6	12	11	11
July	21	13	8	14	16	16	10	9	12	13	16
August	13	8	9	15	11	5	8	15	13	9	16
September	7	5	7	14	3	5	6	7	4	8	7
October	3	4	7	9	3	3	3	3	7	6	5
November	1	6	4	2	4	4	0	3	4	3	5
December	6	2	2	4	5	3	6	4	6	4	7
Total	82	77	67	81	66	71	73	68	87	80	86

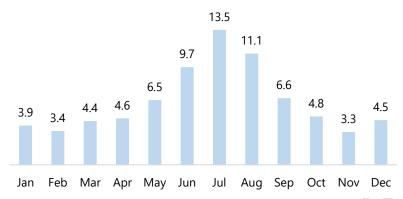


Fig. 2. Average Annual Drowning Deaths by Month, 2012-2022

Table 2.	Table 2. Drowning Deaths by Sex, 2012-2022											
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	
Female	24	19	13	11	19	14	17	16	16	15	17	
Male	58	58	54	70	47	57	56	52	71	65	69	
Total	82	77	67	81	66	71	73	68	87	80	86	

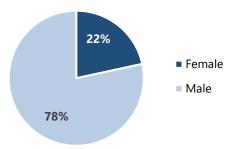


Fig. 3. Drowning Deaths by Sex, 2012-2022

Table 3	Table 3. Drowning Deaths by Age Group, 2012-2022												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
<19	4	7	7	9	11	6	5	8	2	2	1		
19-29	11	21	15	22	13	15	14	17	22	13	9		
30-39	12	11	9	5	8	13	6	8	19	12	9		
40-49	10	14	6	12	9	12	9	8	6	13	13		
50-59	21	5	8	17	7	9	17	9	15	13	18		
60-69	13	7	10	10	8	11	13	6	12	13	14		
70+	11	12	12	6	10	5	9	12	11	14	22		
Total	82	77	67	81	66	71	73	68	87	80	86		

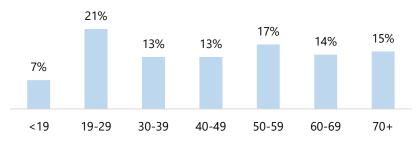


Fig. 4. Drowning Deaths by Age Group, 2012-2022

Table 4. Dro	Table 4. Drowning Deaths by Health Authority of Injury, 2012-2022 ^[2,3]												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
Interior	28	27	25	20	14	30	17	24	23	25	31		
Fraser	12	17	19	20	20	15	21	11	15	18	15		
Van. Coastal	10	11	8	15	9	10	12	11	20	16	14		
Island	19	9	10	19	14	14	21	13	18	15	18		
Northern	13	13	5	7	9	2	2	9	11	6	8		
Total	82	77	67	81	66	71	73	68	87	80	86		



Fig. 5. Drowning Deaths by Health Authority of Injury, 2012-2022^[2,3]

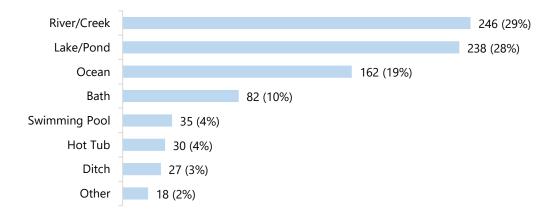


Fig. 6. Number and Percent of Drowning Deaths by Type of Body of Water, 2012-2022 <u>Note:</u> 'River/Creek' includes waterfall incidents.

Table 5. Drowning Deaths River/Creek, 2012-2022	s by Top 10
	Deaths
Fraser River	53
Thompson River	9
Columbia River	8
Similkameen River	7
Cowichan River	6
Skeena River	6
Gold Creek Falls	5
Kettle River/Cascade Falls	5
Kootenay River	5
Slocan River	4

Table 6. Drowning Death Lake/Pond, 2012-2022	s by Top 10
	Deaths
Okanagan Lake	30
Harrison Lake	12
Shuswap Lake	9
Kalamalka Lake	7
Mara Lake	6
Wood Lake	6
Alouette Lake	5
Kootenay Lake	5
Skaha Lake	5
Slocan Lake	5

Table 7. Drowning Death	Table 7. Drowning Deaths by Activity/Context, 2012-2022													
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022			
Boating	18	24	13	25	8	10	11	9	14	13	15			
Swimming	12	19	10	15	10	12	11	11	20	14	17			
Fall into Water	15	8	17	11	9	10	21	6	15	16	14			
Other Aquatic Activity	11	7	8	9	11	11	10	15	8	14	8			
Land, Ice or Air Transport	13	9	9	9	9	14	9	9	11	3	5			
Bathing	7	6	4	4	9	5	6	9	10	13	9			
Occupational Incident	4	2	4	5	2	4	2	2	3	2	2			
Other/Unknown	2	2	2	3	8	5	3	7	6	5	16			
Total	82	77	67	81	66	71	73	68	87	80	86			

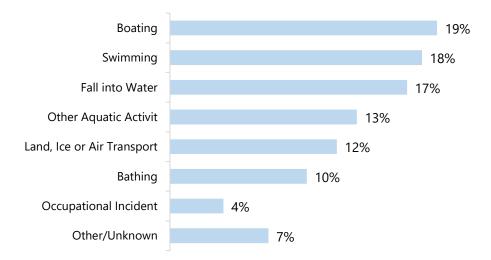


Fig. 7. Drowning Deaths by Type of Body of Water, 2012-2022 * *Refer to Appendix for definitions.*

Table 8. Drowning Deaths I	Table 8. Drowning Deaths Involving Alcohol and/or Drugs, 2012-2020												
	2012	2013	2014	2015	2016	2017	2018	2019	2020				
Alcohol	23	20	22	20	15	16	20	9	12				
Alcohol & Drugs	4	4	2	9	4	2	3	3	2				
Drugs	4	8	3	5	7	3	1	5	8				
Total Alcohol and/or Drugs	31	32	27	34	26	21	24	17	22				
% of Total Drowning Deaths	38%	42%	40%	42%	39%	32%	41%	31%	37%				

Note: There may be more than one contributing factor to an incident. Alcohol/drug contribution is determined by the coroner as relevant to the death when investigations conclude, thus data is only available for closed investigations. Alcohol/drug data for 2021 and 2022 are not currently available.

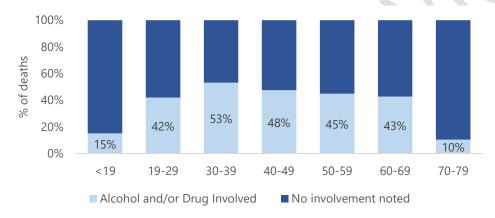


Fig. 8. Drowning Deaths with Drugs and/or Alcohol Involvement by Age Group, 2012-2020

Table 9. Drowning Deatl	Table 9. Drowning Deaths by Decedent Residence, 2012-2022												
	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022		
British Columbia	74	67	62	61	57	57	62	53	71	72	79		
Out of Province/Country	5	6	3	12	4	9	8	8	9	5	7		
Data not available	3	4	2	8	5	5	3	7	7	3	0		
Total	82	77	67	81	66	71	73	68	87	80	86		

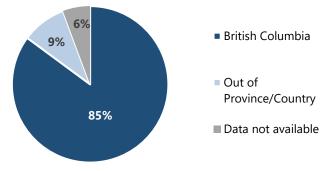


Fig. 9. Drowning Deaths by Decedent Residence, 2012-2022

Activity/Context Definitions

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

Bathing

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 'Fall into Water').

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.

Land, Ice or Air Transportation

The drowning resulted from a motor vehicle incident, ATV, dirt bike, or snowmobile incidents.

Occupational Incident

The decedent was an employee or employer on a worksite.

Other Aquatic Activity

The incident occurred while the decedent was participating in a water-related activity such using the hot tub, rafting/tubing, scuba diving, or jumping from height into water. Includes fishing from shore, on ice, or in water. Excludes boating (see 'Boating') and swimming (see 'Swimming').

Other/Unknown

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

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).

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.