

Alberta Non-fatal Drownings: 2022 Report

INJURY PREVENTION CENTRE

September 2022

ALBERTA NON-FATAL DROWNINGS: 2022 REPORT

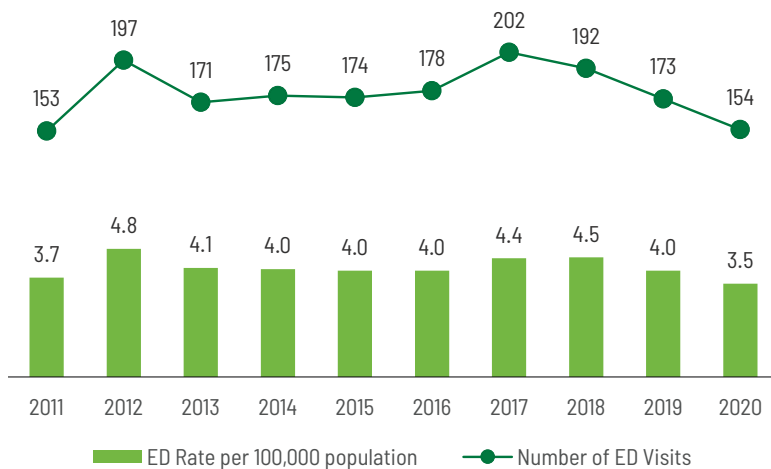
Drowning is defined as a process of experiencing respiratory impairment from submersion or immersion in a liquid.¹

Drowning can be either **fatal** or **non-fatal** in nature. In non-fatal drowning, the impairment to breathing is resolved before death can occur. Non-fatal drowning can result in a range of outcomes, from no injuries to serious injuries or even permanent disability.

Drowning is often thought of as fatal, when in fact there are many more non-fatal drownings than drowning deaths each year. People who experience a non-fatal drowning may face serious health issues as a result, often for the rest of their lives. For every fatal drowning in Alberta, there are about five non-fatal drownings that are serious enough to require an emergency department visit.

30 Deaths (2000 - 2019)	24 Hospital Admissions (2001 - 2020)	160 Emergency Dept. Visits (2001 - 2020)
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Number and Rate of Emergency Department (ED) Visits Due to Non-Fatal Drowning, Alberta, 2011-2020



In the 9-year period from 2011 to 2020, there was an average of 160 emergency department visits due to non-fatal drowning per year.

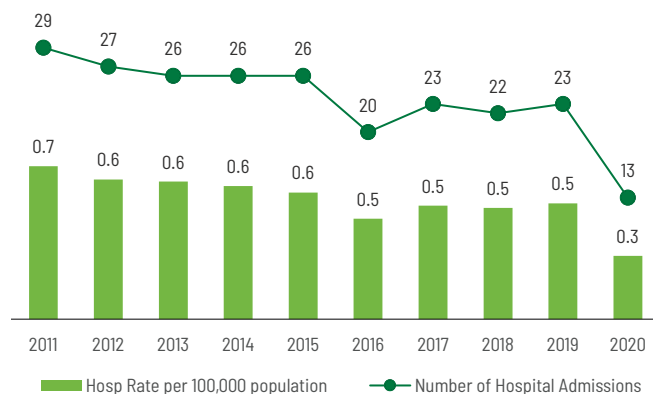
The rate of visits decreased from 4.0 per 100,000 population in 2019 (173 visits), compared to 3.5 per 100,000 in 2020 (154 visits). This could reflect impacts of the COVID-19 pandemic that resulted in decreased Emergency Department visits for non-COVID-19 related emergencies in 2020, or unrelated variability in annual non-fatal drowning rates.

The vast majority (86%) of the non-fatal drowning Emergency Department visits were non-transportation (i.e.: non-boat) related.

¹ McCall JD, Sternard BT. Drowning. [Updated 2022 May 15]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430833/>

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Number and Rate of Hospital Admissions Due to Non-Fatal Drowning, Alberta, 2011-2020



In the 9-year period from 2011 to 2020, there was an average of 40 hospital admissions due to non-fatal drowning per year.

The rate of admissions decreased to 0.3 per 100,000 population in 2020 (13 admissions), compared to 0.5 per 100,000 in 2019 (23 admissions). This could reflect impacts of the COVID-19 pandemic that resulted in decreased Emergency Department visits for non-COVID-19 related emergencies in 2020, or unrelated variability in annual non-fatal drowning rates.

Almost 2 out of 3 (64%) of the non-fatal drowning hospital admissions were non-transportation (i.e.: non-boat) related.

LET'S TALK PREVENTION: SWIM TO SURVIVE®

The Lifesaving Society's Swim to Survive® program teaches the necessary skills to survive an unexpected fall into deep water. Swim to Survive® is different from swimming lessons - and not a replacement for them. Meeting the Canadian Swim to Survive® Standard is an important first step to being safe around water.

Because most drownings occur close to safety and most victims had no intention of going into the water, Swim to Survive® focuses on basic survival skills performed as a sequence of three skills:

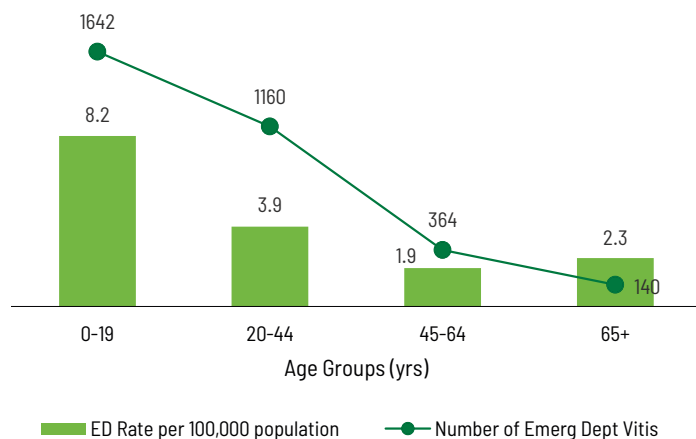
Swim to Survive Standard	Essential Water Survival Skills	Task
	Orient oneself at the surface after an unexpected entry	Roll into deep water
	Support oneself at the surface	Tread water for 1 minute
	Swim to safety	Swim 50 metres



Learn about the Swim to Survive® program at <https://lifesaving.org/public-education/swim-to-survive>

ALBERTA NON-FATAL DROWNINGS: 2022 REPORT

Number and Rate of Emergency Department Visits Due to Non-Fatal Drowning by Age Groups, Alberta, 2011-2020



In the 9-year period from 2011 to 2020, children and youth (aged less than 20 years) had the highest number and rate of Emergency Department visits for non-fatal drowning, with 1,642 visits over the 9 years and a rate of 8.2 visits per 100,000 population).

During this same time period, number of non-fatal drowning Emergency Department visits declined with age.

Alberta residents between 20 and 44 years of age had 1,160 non-fatal drowning Emergency Department visits over the 9 years, with a rate of 3.9 visits per 100,000 population. Those between 45 and 64 years of age had 364 visits over the 9 years, and a rate of 1.9 visits per 100,000 populations. Those 65 years of age and older had 140 non-fatal drowning visits over 9 years, and had a rate of 2.3 visits per 100,000 population.

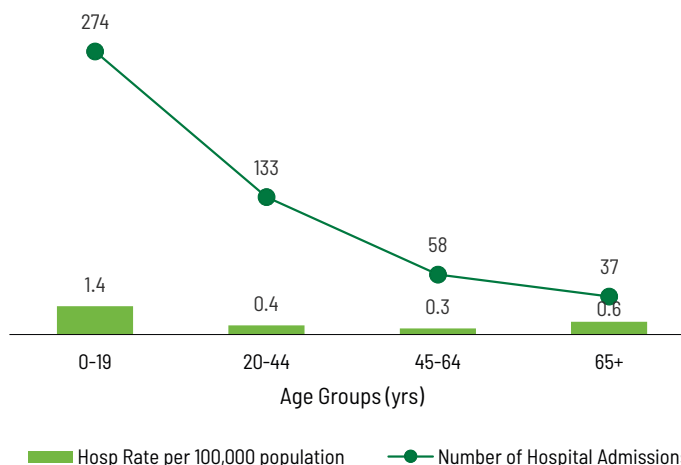
In the 9-year period from 2011 to 2020, children and youth (aged less than 20 years) had the highest number and rate of hospital admissions for non-fatal drowning, with 274 admissions over the 9 years and a rate of 1.4 admissions per 100,000 population.

During this same time period, the number of non-fatal drowning Hospital Admissions declined with age.

Alberta residents between 20 and 44 years of age had 133 non-fatal drowning hospital admissions over the 9 years with a rate of 0.4 visits per 100,000 population.

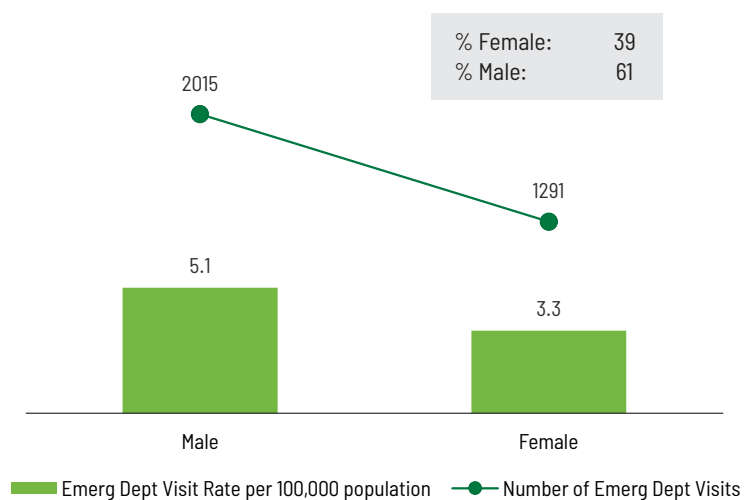
Those between 45 and 64 years of age had 58 visits over the 9 years and a rate of 0.3 admissions per 100,000 population. Those 65 years of age and older had 37 non-fatal drowning visits over 9 years and had a rate of 0.6 admissions per 100,000 population.

Number and Rate of Hospital Admissions Due to Non-Fatal Drowning by Age Groups, Alberta, 2011-2020



ALBERTA NON-FATAL DROWNINGS: 2022 REPORT

Percent of Emergency Department Visits Due to Non-Fatal Drowning by Sex, Alberta, 2011-2020



Six out of 10 Emergency Department visits for non-fatal drownings occurred among males.

Less than two thirds (61%) of Emergency Department visits due to non-fatal drowning during the 9-year period from 2011 to 2020 occurred among males, with 2,015 visits over the 9 years, and a rate of 5.1 visits per 100,000 population.

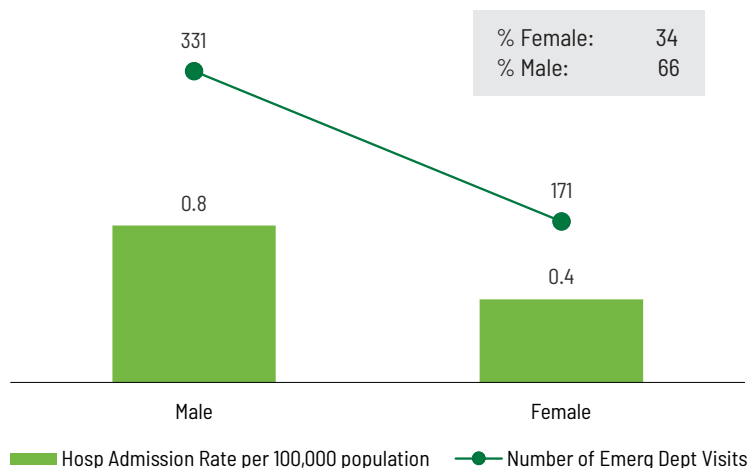
The number of non-fatal drowning Emergency Department visits for females was 1,291 over the 9 year period, with a rate of 3.3 visits per 100,000 population.

Almost 7 out of 10 of the non-fatal drowning hospital admissions occurred among males.

Two thirds (66%) of hospital admissions due to non-fatal drowning during the 9-year period from 2011 to 2020 occurred among males, with 331 admissions over the 9-year period, and a rate of 0.8 admissions per 100,000 population.

The number of non-fatal drowning hospital admissions for females was 171 over the 9-year period, with a rate of 0.4 admissions per 100,000 population.

Percent of Hospital Admissions Due to Non-Fatal Drowning by Sex, Alberta, 2011-2020



% Female: 34
 % Male: 66

LET'S TALK PREVENTION: THE BASICS



Watch young children, without distraction



Learn to swim



Wear a lifejacket

LET'S TALK PREVENTION: CHILDREN & YOUTH

Children are at special risk for drowning²

Children under five years of age

All children are at risk for drowning but young children under five years old are at special risk because:

- » They are attracted to water but can't understand the danger.
- » They can walk but they can't swim.
- » They lack balance and co-ordination and are at increased risk of falling into water.
- » Their lungs are smaller than adults and fill quickly with water.
- » They can drown in as little as 2.5 centimetres (one inch) of water.

Children five to 14 years of age

- » Older children may overestimate their own skills, underestimate the depth of the water or strength of the current, or respond to a dare from a friend.
- » Physical strength develops throughout childhood. Even a good swimmer can get into trouble, especially in unfamiliar water or environments.

SUMMARY

- » Children and youth aged 19 years and younger account for the most non-fatal drownings in Alberta.
- » Males account for more than 60% of Emergency Department visits for non-fatal drownings in Alberta.
- » The vast majority (86%) of non-fatal drownings are non-transportation (i.e.: non-boat) related.

¹ McCall JD, Sternard BT. Drowning. [Updated 2022 May 15]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2022 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK430833/>

² Drowning [Internet]. Toronto, ON: Parachute; 2022. [Cited 16 Aug, 2022]. Available from: <https://parachute.ca/en/injury-topic/drowning/>



For more information on drowning prevention and water safety, contact:

Lifesaving Society Alberta and Northwest Territories Branch

Tel: **780.415.1755**

Email: **info@lifesaving.org**

Web: **www.lifesaving.org**



LIFESAVING SOCIETY®
Alberta and Northwest Territories Branch



KNOWLEDGE. LEADERSHIP. ACTION.

If you would like additional information about this topic or other types of injuries, please visit <http://injurypreventioncentre.ca> or contact us via phone at **780.492.6019** or email **ipc@ualberta.ca**

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