# Injuries

#### **KEY MESSAGES:**

- The top three unintentional injuries that result in emergency department (ED) visits, hospitalizations, and deaths are falls, land transport collisions, and unintentional poisonings<sup>(1)</sup>.
- Among the 0-19 age group, hospitalizations due to intentional injuries peaked in 2021, with Algoma having
  one of the highest rates in Ontario<sup>(2)</sup>.
- There was a significant increase in the rate of death due to assault during the pandemic (3.0 per 100,000) compared to pre-pandemic (0.9 per 100,000) in Algoma<sup>(1)</sup>.
- Algoma has significantly higher rates of ED visits due to assault compared to Ontario (370.8 vs. 202.0 per 100,000)<sup>(3)</sup>.

Injuries can be from unintentional causes (e.g., falls, motor vehicle collisions, being struck by an object, contact with hot substances, poisoning, and others) or intentional causes (e.g., self-harm, and assault).

Public health focuses on taking action as early as possible to reduce risk and prevent injuries. For example, creating age-friendly communities where the social and physical environments allow people of all ages and abilities to live safe, active, and meaningful lives can reduce the risk of falls in older adults. Additionally, working together with community partners to promote mental health, eliminate stigma, and reduce substance use-related harms can help prevent drug poisonings, self-harm, suicide and violence.

#### Injury-related emergency department (ED) visits and hospitalizations

The rate of emergency department (ED) visits for injuries was stable from 2017 (17.3 per 100) to 2019 (16.3 per 100), followed by a notable drop in 2020 (12.9 per 100)<sup>(3)</sup>.

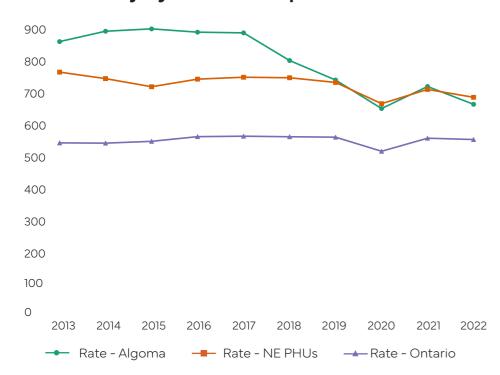
#### In 2022, rate of ED visits per 100 people due to any injury was<sup>(3)</sup>:

Algoma	NE PHUs	Ontario
13.2	13.2	8.5
(10.2% of ED visits)	(10.2% of ED visits)	(12.0% of ED visits)

The majority (95.4%) of injury-related ED visits in Algoma are due to unintentional injuries<sup>(3)</sup>. Of those coming to the ED, 6.0% (annual average 2018 – 2022) needed to be hospitalized due to various factors<sup>(2,3)</sup>. Hospitalization rates in Algoma have been gradually decreasing from 2017 (887.6 per 100,000) to 2020 (647.2 per 100,000)<sup>(2)</sup>.

# Age-standardized rate (per 100,000) of injury-related hospitalizations<sup>(2)</sup>

## Leading causes of injury-related ED visits and hospitalizations by age groups in Algoma (2022)<sup>(2,3)</sup>



	ED visits	Hospitalizations  (C)
0 - 19 year olds	Falls Struck by or against an object Cut or pierced by an object Land transport collisions Overexertion	Land transport collisions Unintentional poisoning Falls Struck by or against an object Suffocating/choking
20 - 44 year olds	Falls Cut or pierced by an object Struck by or against an object Land transport collisions Overexertion	Unintentional poisoning Land transport collisions Falls Assault Suffocating/choking

# Age-standardized rate (per 100,000) of injury-related hospitalizations, in 2022 was<sup>(2)</sup>:

Algoma	
661.0	
(9.2% of	
hospitalizations)	

NE PHUs 683.2 (8.3% of hospitalizations) Ontario **549.3** (8.9% of hospitalizations)

Of the nearly 1000 hospitalizations in Algoma due to injuries, 87.4% were unintentional injuries and 13.0% were intentional injuries in 2022<sup>(2)</sup>.

The decrease in rate of ED visits and hospitalizations during 2020 was likely because of the COVID-19 pandemic, when people avoided going to the hospital as much as possible.

Based on the rate of ED visits and hospitalizations, the leading causes of unintentional injuries in Algoma for all age groups are, falls, land transport collisions<sup>i</sup>, and unintentional poisonings<sup>ii</sup>.

20 - 44 year olds	Struck by or against an object Land transport collisions Overexertion	Falls Assault Suffocating/choking
40 - 64 year olds	Falls Struck by or against an object Cut or pierced by an object Overexertion Land transport collisions	Falls Land transport collision Intentional self-harm Unintentional poisoning Suffocating/choking
65 - 74 year olds	Falls Struck by or against an object Cut or pierced by an object Overexertion Land transport collisions	Falls Land transport collision Intentional self-harm Suffocating/choking Unintentional poisoning
75+ year olds	Falls Struck by or against an object Cut or pierced by an object Land transport collisions Foreign body in an eye or orifice	Falls Suffocating/choking Land transport collisions Unintentional poisoning Struck by or against an object

<sup>&</sup>lt;sup>1</sup> Land transport collisions is a broad category that includes motor vehicle collisions (MVC), including those involving pedestrians, cyclists, and passengers, as well as all-terrain vehicles or snowmobiles. <sup>II</sup> Unintentional poisoning includes ICD-10 code X40-X49. That includes accidental poisoning by and exposure to nonopioid analgesics, antiepileptic/antiparkinsonism, and psychotropic drugs, as well as narcotics and alcohol.



**Vision Zero** strives towards a goal of zero fatalities or serious injuries on roadways by designing road systems that account for human error. This approach recognizes that road deaths and injuries can be prevented through education, enforcement, engineering, evaluation and engagement. The City of Sault Ste. Marie acknowledges Vision Zero as a best practice in the <u>Soo Moves Active Transportation Plan</u>.

#### Injury-related deaths

Between 2013 and 2021, 914 Algoma residents died because of an injury<sup>(1)</sup>. This accounted for 7.1% of all deaths in Algoma between 2013 and 2021. This is comparable to 7.8% of all deaths in the NE PHUs and 7.3% of all deaths in Ontario<sup>(4)</sup>.

### Annual average age-standardized death rates (per 100,000) for all injuries<sup>(1)</sup>

Pre-pandemic (2013 - 2019)	Pandemic (2020 - 2021)
Algoma	Algoma <b>109.2</b>
67.4	109.2
NE PHUs	NE PHUs
69.8	107.9
Ontario	Ontario
48.7	59.3

During 2013 to 2021, there were approximately 900 injury-related deaths in Algoma. Of these deaths, 77.8% were due to unintentional injuries and 17.0% were due to intentional injuries<sup>(1)</sup>.

## Age-standardized death rates (per 100,000) for all injuries and leading causes of injury in Algoma<sup>(1)</sup>



#### Leading causes of injury-related deaths (per 100,000) in Algoma (2013 – 2021) (1,5)

Falls Unintentional poisoning Land transport collisions

27.7 21.1 8.1

<sup>&</sup>quot;Crude rates calculated using population estimates.

#### **Falls**

Overall, falls are the number one type of injury that result in ED visits or hospitalizations. **Falls are preventable**. Below are a few ways that individuals, communities and health professionals can help prevent falls:



Enjoy a variety of physical activities to help maintain strength and balance.



Stay socially connected with friends, family and your community.



Design and modify structural environments to reduce the risk of falls.



Screen all adults to identify those at risk of falls.

### Age-standardized rate (per 100) for fall-related ED visits in 2022<sup>(3)</sup>

Algoma

NE PHUs

Ontario

4.0

3.8

2.9

Algoma's rate of ED visits for falls has increased slightly since 2015 and was significantly higher than Ontario in 2022<sup>(3)</sup>. Falls led to 5,280 ED visits by Algoma residents in 2022<sup>(3)</sup>.

### Age-standardized rate (per 100,000) for fall-related hospitalizations in 2022<sup>(2)</sup>

Algoma

NE PHUs

Ontario

295.7

305.5

289.3

Algoma's hospitalization rate for falls has gradually decreased since 2017 and is almost similar to that of Ontario and less than NE PHUs in 2022. Falls led to 546 hospitalizations of Algoma residents in 2022<sup>(2)</sup>.

The rate of fall-related hospitalizations for the 45 to 64 age group in Algoma (245.1 per 100,000), increased in 2022 and is now significantly higher than the rate in Ontario (174.9 per 100,000) and NE PHUs (215.1 per 100,000)<sup>(2)</sup>.

For people aged 65 to 74 years, the rate (per 100,000) of fall-related hospitalizations increased in Algoma from 512.2 in 2019, to 647.1 in 2022<sup>(2)</sup>. Algoma residents aged 75 years and older continue to be the group most likely to be hospitalized for falls with similar rates to Ontario and NE PHUs<sup>(2)</sup>.

#### Leading causes of fall-related hospitalizations in Algoma, during 2022 are (in order)(6)

- · Fall on same level from slipping, tripping or stumbling
- Fall on and from stairs and steps
- Fall involving bed
- Fall on same level involving ice and snow
- · Fall involving adult walker

In Algoma, 56.0% of the falls requiring hospitalization occur at home. This is higher compared to 51.9% and 49.7% falls in NE PHUs and Ontario, respectively. Algoma (9.1%) has lower proportion of falls in residential institutions as compared to NE PHUs (10.8%) and Ontario (12.7%)<sup>(6)</sup>.

<u>Stay on Your Feet (SOYF)</u> is a regional strategy that supports healthy, active aging for older adults. Algoma Public Health works together with local partners and public health agencies across the north to help older adults stay active, stay independent, and stay on their feet.

#### **Intentional injury**

Algoma continues to report higher ED visits and hospitalizations due to intentional injuries (self-harm, assault, etc.) compared to the NE PHUs and Ontario.

#### Age-standardized rate (per 100,000) for intentional injuries in 2022<sup>(2,3)</sup>

	Algoma	NE PHUs	Ontario
ED visits	723.1	622.0	340.9
Hospitalizations	122.5	132.0	73.9

Women are more likely to visit the ED or be hospitalized for intentional injuries than men. This is true for Algoma, the NE PHUs, and Ontario.

The rate of ED visits for intentional injuries among women increased between 2016 and 2022 from 755.2 to 783.8 (per 100,000)<sup>(3)</sup>. However, the rate of hospitalization decreased from 236.6 to 159.6 (per 100,000) in the same period<sup>(2)</sup>.

For the 20-44 age group in Algoma, the rate of hospitalizations due to intentional injuries noticeably reduced between 2016 to 2022 (from 306.9 to 179.0 per 100,000), however, it is still significantly higher than in Ontario (94.0 per 100,000)<sup>(2)</sup>.

In contrast, for the 0-19 age group, the rate of hospitalizations due to intentional injuries peaked in 2021 (274.9 per 100,000 people), and Algoma had one of the highest rates of all health units in Ontario<sup>(2)</sup>. This rate went down in 2022, (104.4 per 100,000 people) to remain lower than the pre-pandemic average<sup>(2)</sup>. Intentional injuries can be caused by self-harm or assault. Information on injuries due to self-harm is presented in the **Mental Health** chapter.

In Algoma during 2022, 61.9% of the ED visits and 19.8% of hospitalizations for intentional injuries were due to assault<sup>(2,3)</sup>.

### Age-standardized rate (per 100,000) for assault-related ED visits in 2022<sup>(3)</sup>

Algoma

370.8
(Significantly higher than Ontario)

NE PHUs

352.7

Ontario

202.0

In Algoma, the annual average rate of deaths due to assault has increased from 0.9 (per 100,000) pre-pandemic (2013 – 2019) to 3.0 (per 100,000) during the pandemic (2020 – 2021) $^{(1)}$ .

This high rate and increasing trend of assault highlights the need for multi-sector collaboration and strategies to address violence in Algoma.

#### **Preventing injuries**

Alcohol is a leading preventable cause of death, disability and social problems, including unintentional injuries and violence<sup>(7)</sup>. In an average year, an estimated 14.3% of land transport collision-related deaths in Algoma are attributable to alcohol consumption.

In other words, 14.3% of land transport collision-related deaths can be avoided in our population if alcohol consumption was reduced<sup>(8)</sup>.

# Estimated percentage of deaths and hospitalizations due to injuries attributable to alcohol consumption $\ensuremath{^{(8)}}$

	Deaths	Hospitalizations
Intentional injuries	18.6%	19.4%
Unintentional injuries	11.5%	9.6%
Land transport collision	14.3%	13.2%

#### References

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