



Injury Data Overview: Grande Prairie County

September 2024

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Introduction:

The development of this report is based on the fundamental principle that injury prevention requires knowledge of the frequency and nature of injury incidents. By disseminating injury data, the Injury Prevention Centre's objective is to support local communities, organizations and groups in the development of coordinated, evidence-based programs and strategies to reduce and prevent injuries to residents of Alberta communities.

This report examines the **leading mechanisms of injuries** of residents in local geographic area of Grande Prairie County (LGA Z5.3.B.04) with comparison to the North Zone and the province (Alberta).

This report examines the five leading causes of injury that have identified evidence-based strategies that can be implemented to prevent or reduce the risk of those injuries. Some mechanisms of injury which may be significant in number, do not provide enough information or include such a wide variety of scenarios that it would be difficult to identify preventative actions. For example, the mechanism of "struck by / against an object / person" would include injuries such as the result of walking into a door, being struck by an object falling off a shelf, or colliding with a person on a crowded street. Other injury mechanisms that describe a wide variety of scenarios include:

- Other / Unspecified
- Cutting / Piercing
- Overexertion / Strenuous movements
- Natural / Environmental factors
- Other Classifiable Injuries

To assist in the overall understanding of the injury issue in Grande Prairie County, the remaining causes of injury are reported but are not discussed in detail.

For the top five leading causes of injury examined, this report provides detail on:

- The overall number and percent of emergency department visits and hospital admissions by age group.
- Mechanism of injury rate comparison of local area, health zone and provincial age-standardized emergency department and hospital admissions rates.
- Changes in the trend line are expressed by the average annual per cent change (APC). The sum of the average percentage change between time periods will give the overall change.
- Mechanism of injury deaths for North Zone.

Injury data reporting is one service provided by the Injury Prevention Centre. After reviewing this report, you may have questions or want to explore what actions could be taken to reduce the rates of injury in Alberta. The Injury Prevention Centre can help you to identify strategies, activities and programs that address the injury issues of concern in your community. The IPC can provide:

- Evidence-based resources on a variety of injury topics.
- Injury prevention networking and information sharing.
- Programs that address seniors' falls, poisoning, child and youth concussions and head injuries.
- Education opportunities on injury prevention and associated topics.
- Expertise in community engagement, resource development, program planning, implementation and evaluation.

If there is something we can do to assist your injury prevention efforts please contact us - ipc@ualberta.ca or 780-492-6019.

Injury Data Overview: Grande Prairie County

Top 5 Mechanisms of Injury Emergency Department Visits, Grande Prairie County, 2013-2022

Mechanism of Injury/Age Group (years)	All Injuries	% of All Injuries	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
All injuries excluding adverse events	94,650		971	7,020	5,828	7,523	8,164	10,397	10,849	9,469	7,590	5,495	4,747	4,440	3,789	2,641	1,625	1,085	860	796	686	675
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies																						
Falls	24,479	27	455	2,945	2,255	1,954	1,252	1,604	1,847	1,732	1,574	1,284	1,238	1,346	1,347	1,079	762	588	542	574	550	548
Sports-related	5,782	6	< 5	89	492	1,688	1,156	642	608	401	290	179	83	64	43	16	15	10	<5	<5	< 5	<5
Motor Vehicle	5,362	6	< 5	66	115	150	569	739	738	749	518	432	386	289	243	176	72	41	30	23	17	5
Violence / Injury Purposely Inflicted	3,270	3	8	14	28	103	404	608	561	468	322	231	197	167	86	45	14	<5	5	<5	<5	<5
Poisoning (unintentional / undetermined)	2,957	3	42	275	48	75	266	418	442	361	296	200	146	134	99	63	35	18	19	7	8	< 5

Other Mechanisms of Injury, Grande Prairie County, 2013-2022

Falls were the leading mechanism of injury, accounted for 27% of injury emergency department visits for residents of Grande Prairie County.

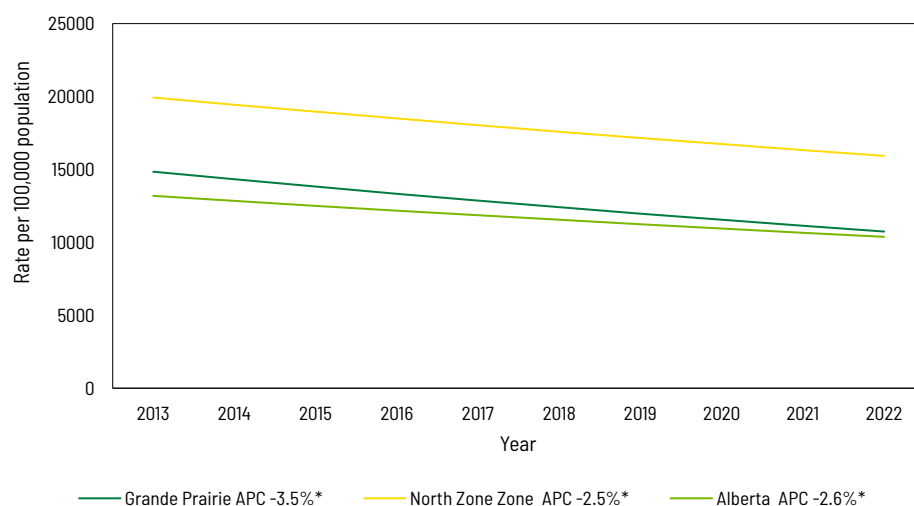
- » Sports-related accounted for 6% of injury emergency department visits.
- » Motor vehicle injuries accounted for 6% of injury emergency department visits .
- » Violence / injury purposely inflicted accounted for 3% of injury emergency department visits.
- » Poisoning (unintentional / undetermined) injuries accounted for 3% of injury visits.

Mechanism of Injury	# ED Visits All Ages	% of All Injuries
Other / Unspecified	11,264	12
Struck by / Against an Object / Person	11,035	12
Cutting / Piercing	8,090	9
Overexertion / Strenuous Movements	6,108	6
Natural / Environmental Factors	4,073	4
Suffocation / Choking / Foreign Body	3,544	4
Suicide / Self-Harm	1,771	2
All-Terrain / Off-Road Vehicles	1,759	2
Fire / Flames	1,154	1
Machinery	673	1
Other Classifiable Injuries	288	0
Water Transport	109	0
Operations of War / Legal	69	0
Firearms	63	0
Vehicle (not elsewhere classified)	58	0
Drowning	29	0
Air / Space Transport	8	0
Railway	<5	0

Comparison of Overall Injury Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

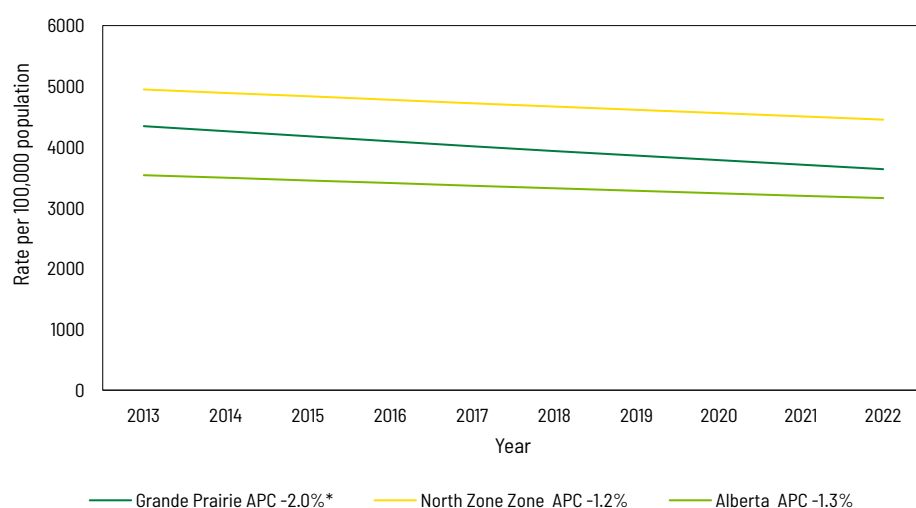
Over the 10-year period from 2013 to 2022, each year there was an average of 9,465 emergency department visits of Grande Prairie County residents due to an injury. This equates to 26 injury visits each day.

When we compare the overall injury age-standardized rates of Grande Prairie County with the North Zone and Alberta, the Grande Prairie County overall injury rate was lower than the North Zone but higher than the Alberta rates.



Over the 10 year period, Grande Prairie County experienced a statistically significant decrease in the overall injury rate of 3.5% each year. The North Zone experienced a statistically significant 2.5% decrease each year and Alberta experienced a statistically significant 2.6% decrease each year.

Comparison of Fall-related Injury Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 2,548 visits of Grande Prairie County residents due to a fall. This equates to 7 fall injury visits each day.

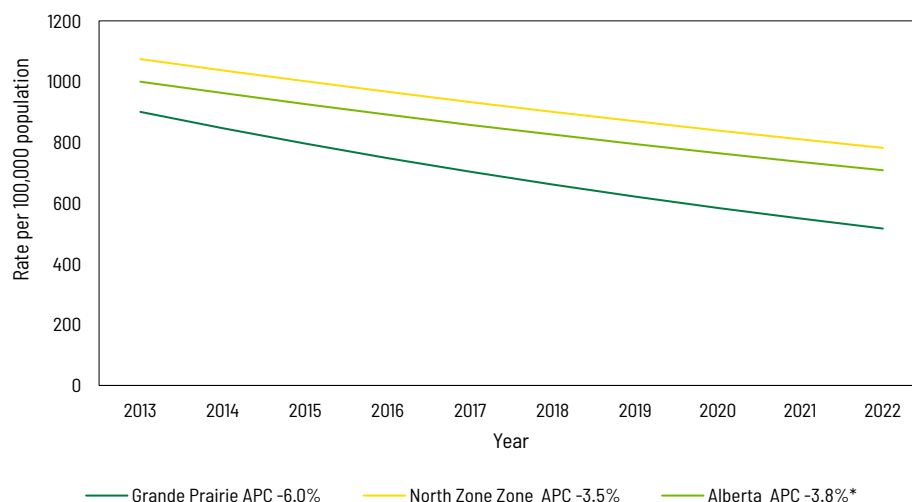
When we compare the fall age-standardized rates of Grande Prairie County with North Zone and Alberta, the Grande Prairie County rate was lower than the North Zone rate but higher than the Alberta rate.

Over the 10 year period, Grande Prairie County experienced a statistically significant decrease in the fall emergency department visit rate of 2.0% each year. The North Zone experienced a 1.2% decrease each year, and Alberta experienced a 1.3% decrease each year.

Comparison of Sports-related Injury Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

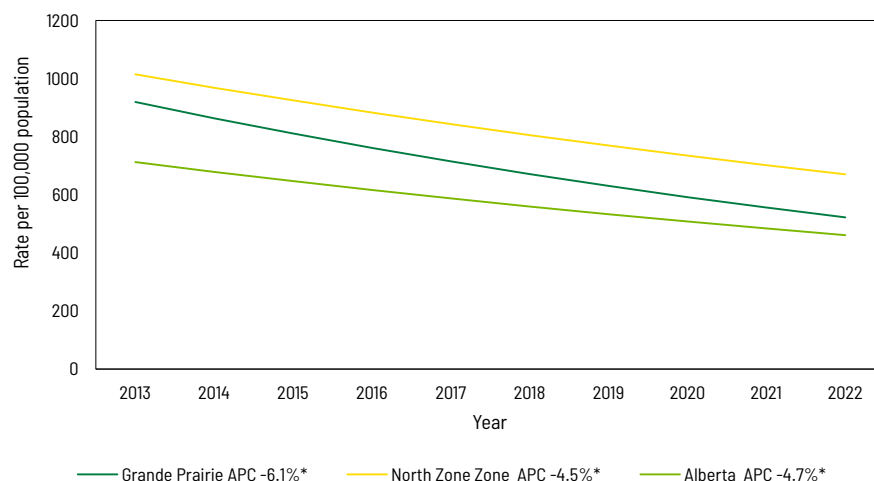
Over the 10-year period from 2013 to 2022, there was an average of 598 emergency department visits of Grande Prairie County residents due to a sports-related injury each year. This equates 2 sports-related injury emergency department visits each day.

When we compare the sports-related injury age-standardized rates of Grande Prairie County with the North Zone and Alberta, Grande Prairie County rate was lower than both the Central Zone, and Alberta rates.



Over the 10-year period, Grande Prairie County experienced a decrease in the sports-related injury rate of 6.0% each year. The North Zone experienced a decrease each year of 3.5%, and Alberta experienced a statistically significant decrease each year of 3.8%.

Comparison of Motor Vehicle Injury Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 536 emergency department visits of Grande Prairie County residents due to a motor vehicle injury. This equates to more than 1 motor vehicle injury visit each day.

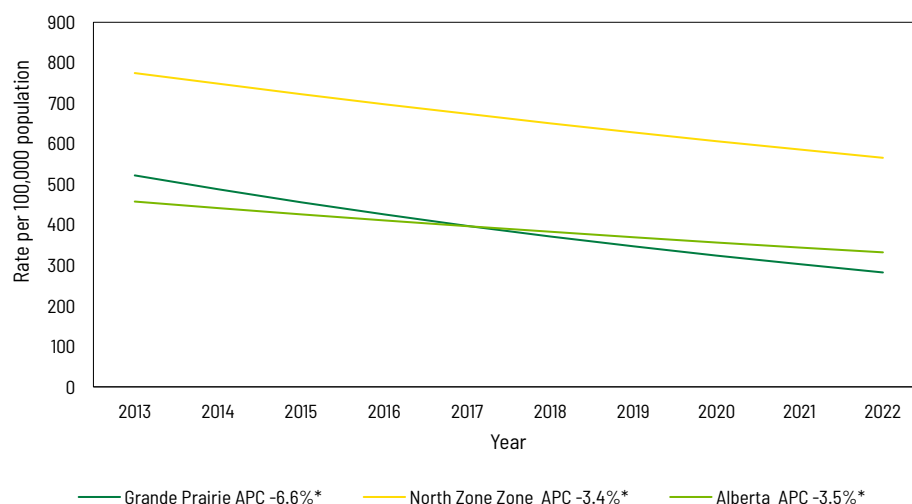
When we compare the motor vehicle injury age-standardized rates of Grande Prairie County with the North Zone, and Alberta, Grande Prairie County rate was lower than the North Zone rate but higher than the Alberta rates.

Over the 10-year period, Grande Prairie County experienced a statistically significant decrease in the motor vehicle injury rate of 6.1% each year. The North Zone experienced a statistically significant decrease of 4.5% each year, and Alberta also experienced a statistically significant decrease of 4.7% each year.

Comparison of Violence / Injury Purposely Inflicted Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

Over the 10-year period from 2013 to 2022, there was an average of 327 emergency department visits of Grande Prairie County residents due to violence / injury purposely inflicted injuries each year. This equates to almost 1 violence injury visit each day.

When we compare the violence / injury purposely inflicted injury age-standardized rate of Grande Prairie County with the North Zone, and Alberta, the Grande Prairie rate was initially higher than the Alberta rate but lower than the North Zone rate. In 2022, the Grande Prairie rate was lower than both the North Zone and the Alberta rates.

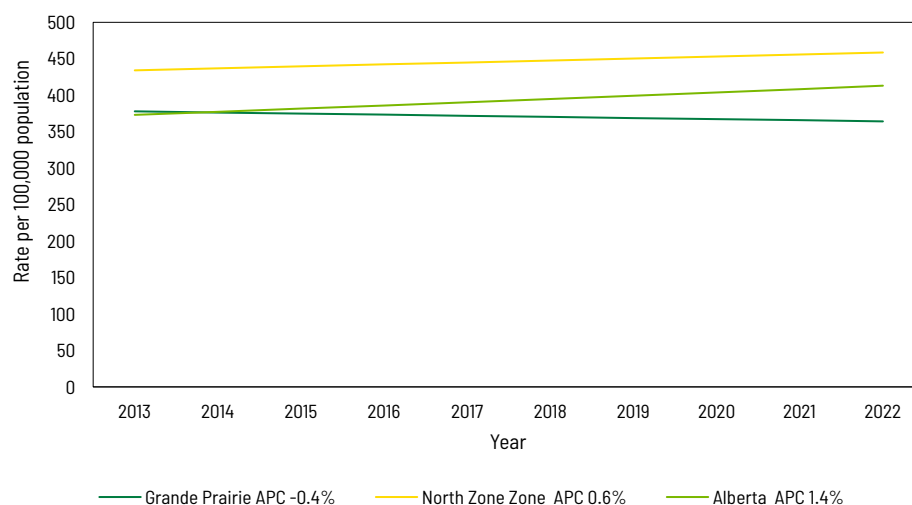


Grande Prairie County had a statistically significant decrease in the violence / injury purposely inflicted injury rate of 6.6% each year. The North Zone experienced a statistically significant decrease each year of 3.4%, and Alberta experienced a statistically significant 3.5% decrease each year.

Comparison of Poisonings (unintentional / undetermined) Emergency Department Visit Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

Over the 10-year period from 2013 to 2022, there was an average of 296 emergency department visits of Grande Prairie County area residents due to poisoning each year.

When we compare the poisoning injury age-standardized rates of Grande Prairie County with the North Zone and Alberta, the Grande Prairie County rate was lower than both the North Zone and Alberta rates.



Over the 10-year period, Grande Prairie County experienced a slight decrease of 0.4% each year. The North Zone experienced a slight decrease of 0.6% each year, and Alberta experienced a decrease of 1.4% each year.

Injury Data Overview: Grande Prairie County

Top 5 Mechanisms of Injury Hospital Admissions, Grande Prairie County, 2013-2022

Mechanism of Injury/Age Group (years)	All Injuries	% of All Injuries	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
All injuries excluding adverse events	4,522		47	98	100	161	260	288	361	332	294	261	233	276	270	250	199	194	184	244	220	250
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies																						
Falls	1,763	39	10	37	54	26	19	20	52	60	68	63	64	110	124	121	110	126	125	191	172	211
Suicide / Self-harm	463	10	< 5	< 5	< 5	42	93	56	45	35	36	42	30	33	21	20	<5	<5	<5	<5	<5	< 5
Motor Vehicle	387	9	< 5	6	7	9	26	39	55	50	34	18	34	22	26	17	17	5	10	< 5	6	< 5
Poisoning (unintentional / undetermined)	274	6	5	10	< 5	6	21	29	37	27	20	19	17	17	18	16	9	9	< 5	< 5	< 5	< 5
Violence / Injury Purposely Inflicted	184	4	< 5	< 5	< 5	5	9	23	21	27	26	20	14	20	5	< 5	< 5	< 5	< 5	< 5	< 5	< 5

Falls were the leading cause of injury hospital admissions of Grande Prairie County residents accounting for 39% of all injury admissions.

The next mechanism was:

- » Suicide / self-harm injuries accounted for 10% of injury hospital admissions.
- » Motor vehicle injuries accounted for 9% of injury hospital admissions.
- » Poisonings (unintentional / undetermined) accounted for 6% of injury hospital admissions.
- » Violence / injury purposely inflicted injuries accounted for 4% of injury admissions.

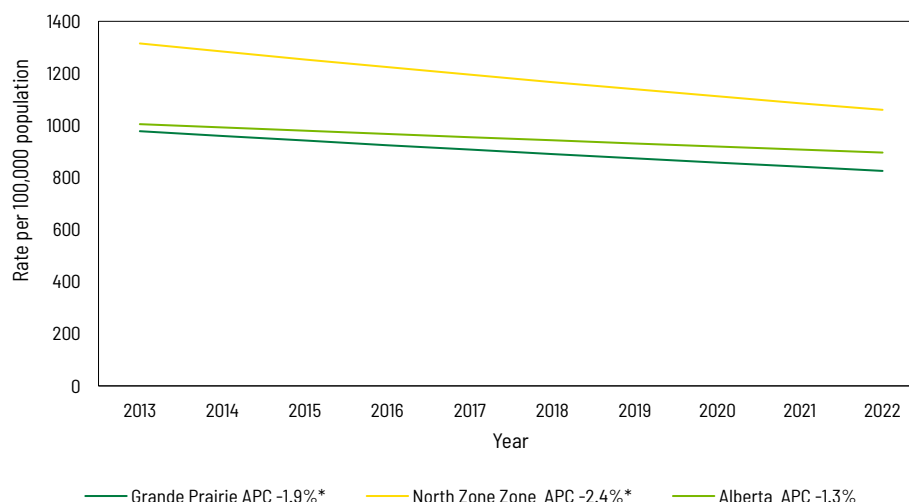
Other Mechanisms of Injury, Grande Prairie County, 2013-2022

Mechanism of Injury	# Admission All Ages	% of All Injuries
Other / Unspecified	282	6
Suffocation / Choking / Foreign Body	274	6
All-Terrain / Off-Road Vehicles	166	4
Struck by / against an Object / Person	133	3
Sports-related	123	3
Overexertion / Strenuous Movements	95	2
Cutting / Piercing	87	2
Natural / Environmental Factors	76	2
Late Effects	67	1
Fire / Flames	41	1
Machinery	33	1
Other Classifiable	17	0
Firearms	13	0
Water Transport	12	0
Operations of War / Legal	6	0
Vehicle (not elsewhere classified)	<5	0
Drowning	<5	0
Railway	<5	0
Air / Space Transport	<5	0

Comparison of Overall Injury Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

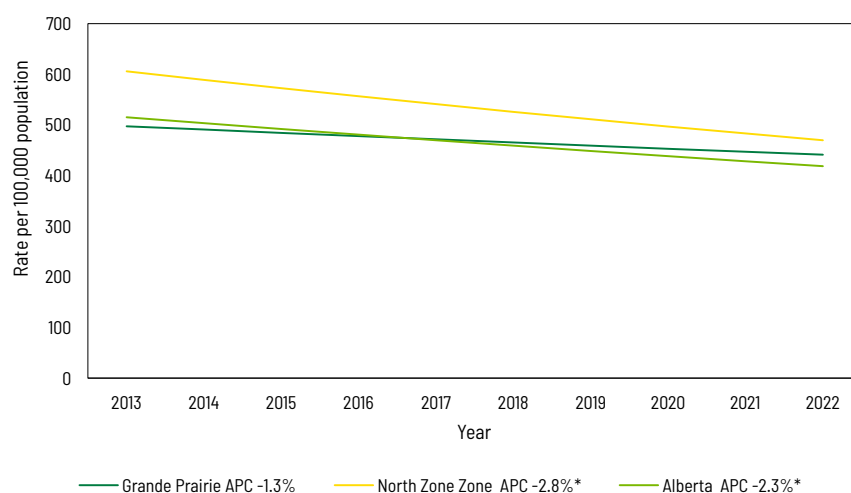
Over the 10-year period from 2013 to 2022, each year there was an average of 452 admissions of Grande Prairie County residents due an injury. This equates to more than 1 injury admission each day.

When we compare the overall injury age-standardized hospital admission rate of Grande Prairie County with the North Zone and Alberta, the Grande Prairie County rate was lower than both the North Zone and Alberta rates.



Grande Prairie County experienced a statistically significant decrease in the injury rate of 1.9% each year. The North Zone experienced a statistically significant decrease of 2.4% each year, and Alberta experienced a 1.3% decrease each year.

Comparison of Fall Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 176 hospital admissions of Grande Prairie County residents due to a fall.

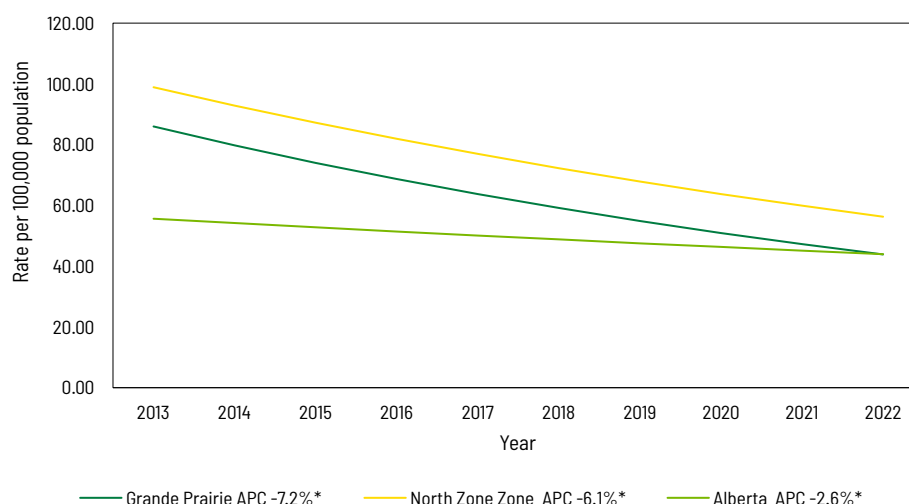
When we compare the fall injury age-standardized hospital admission rates of Grande Prairie County with the North Zone and Alberta, the Grande Prairie County rate was initially lower than the North Zone rate and Alberta rate. However, over the 10 period, the Grande Prairie County rate was higher than the Alberta rates, and lower than the North Zone rate.

Over the 10-year period, Grande Prairie County experienced a decrease in fall admission rates of 1.3% each year. The North Zone experienced a statistically significant decrease of 2.8% each year, and Alberta experienced a statistically significant decrease of 2.3% each year.

Comparison of Suicide / Self-harm Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

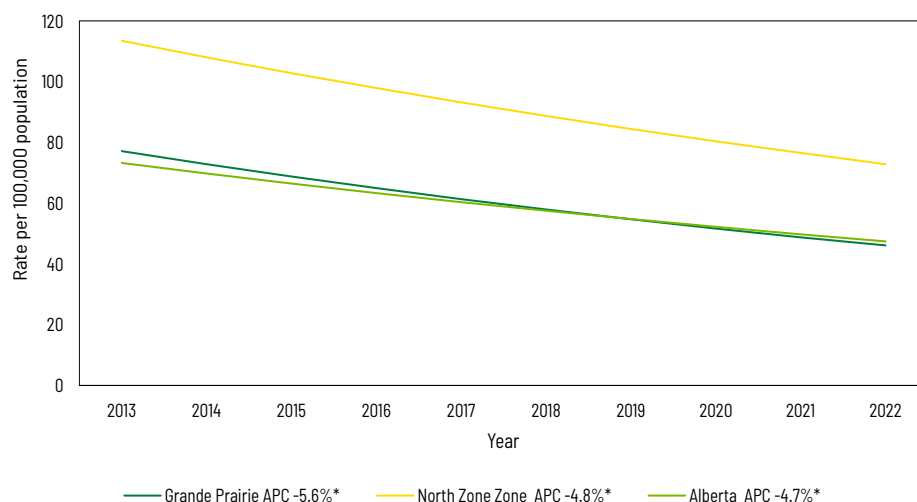
Over the 10-year period from 2013 to 2022, there was an average of 46 hospital admissions of Grande Prairie County residents due to suicide / self-harm injuries each year.

When we compare the suicide / self-harm injuries admission age-standardized rates of Grande Prairie County, North Zone, and Alberta, the Grande Prairie County rate was lower than the North Zone rates but higher than the Alberta rates.



Grande Prairie County experienced a statistically significant decrease in the suicide / self-harm admission rates of 7.2% each year. The North Zone experienced a statistically significant decrease of 6.1% each year, and Alberta experienced a statistically significant decrease of 2.6% each year.

Comparison of Motor Vehicle Injury Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, there was an average of 39 hospital admissions of Grande Prairie County area residents due to a motor vehicle injury each year.

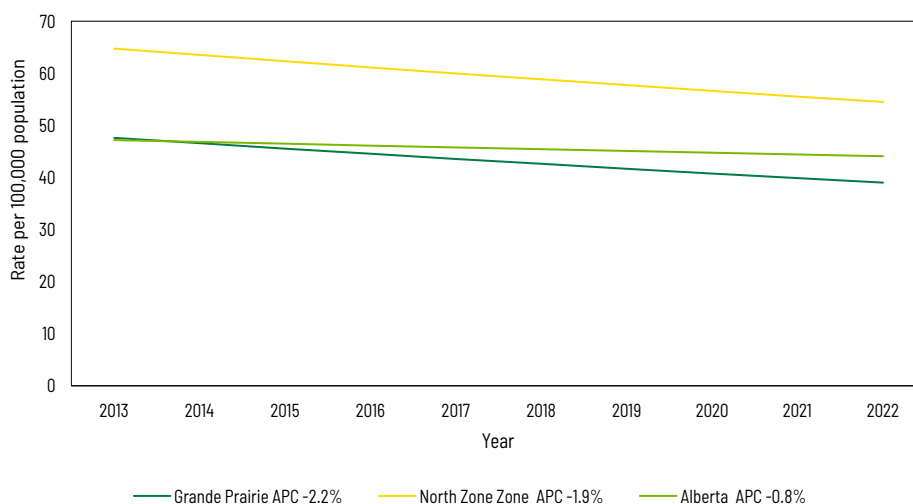
When we compare the motor vehicle injury age-standardized rates of Grande Prairie County, North Zone, and Alberta, the Grande Prairie County rate was very similar to the Alberta rate which is lower than the North Zone rate.

Grande Prairie County experienced a statistically significant decrease in the motor vehicle injury admission rate of 5.6% each year. The North Zone experienced a statistically significant decrease of 4.8% each year, and Alberta also experienced a statistically significant decrease of 4.7% each year.

Comparison of Poisoning (unintentional / undetermined) Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone and Alberta, 2013-2022

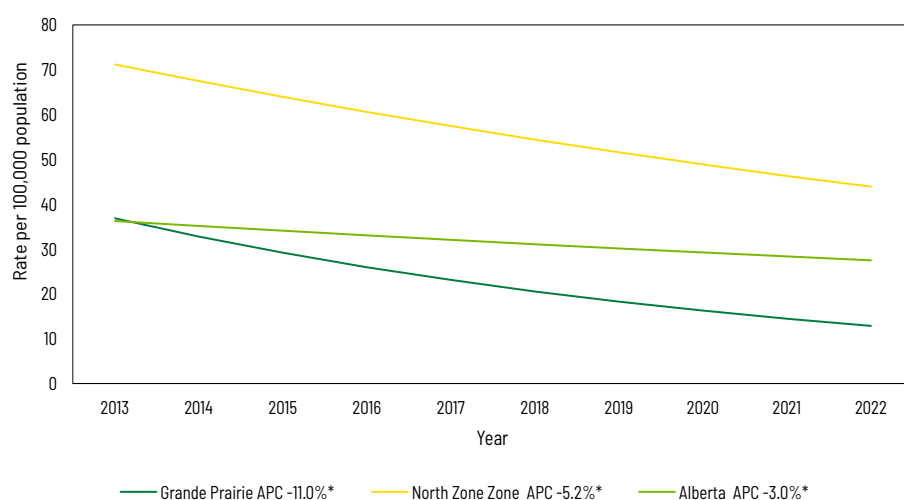
Over the 10-year period from 2013 to 2022, an average 27 Grande Prairie County residents were admitted to hospital due to poisoning (unintentional / undetermined) each year.

When we compare the poisoning injury age-standardized rates of Grande Prairie County, North Zone, and Alberta, the Grande Prairie County rate was lower than both the North Zone and Alberta rates.



Grande Prairie County experienced a poisoning injury hospital admission rate decrease of 2.2% each year. The North Zone experienced a decrease of 1.9% each year, and Alberta experienced a decrease of 0.8% each year.

Comparison of Violence / Injury Purposely Inflicted Injury Hospital Admission Rates (age-standardized) for Grande Prairie County, North Zone, Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, an average of 18 Grande Prairie County residents were admitted to hospital due to violence / injury purposely inflicted injuries each year.

When we compare the violence / injury purposely inflicted injury age-standardized rates of Grande Prairie County, North Zone, and Alberta, the Grande Prairie County rate was lower than both the North Zone and Alberta rates.

Grande Prairie County experienced a statistically significant decrease in violence / injury purposely inflicted injury admission rate of 11.0% each year. The North Zone experienced a statistically significant decrease of 5.2% each year, and Alberta experienced a statistically significant decrease 3.0% each year.

Injury Data Overview: Grande Prairie County

Top 5 Mechanisms of Deaths, North Zone*, 2013-2022

*Due to the small number of injury deaths of Grande Prairie residents, only **North Zone** death numbers will be presented.

Mechanism of Injury/Age Group (years)	All Injuries	% of All Injuries	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
All injuries excluding adverse events	3,519		276	334	342	369	337	378	325	347	377	434
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies												
Poisoning (unintentional / undetermined)	929	26	61	73	73	94	75	88	86	88	121	170
Suicide / Self-Harm	895	25	66	80	96	92	83	96	104	88	95	95
Motor vehicle	596	17	59	71	69	73	66	63	45	46	55	49
Falls	282	8	20	27	24	28	29	32	20	31	30	41
Violence / Injury Purposely Inflicted	153	4	13	14	17	27	18	23	9	15	11	6

The leading cause of injury death for residents of the North Zone was poisonings (unintentional / undetermined) accounting for 26% of injury deaths.

The next mechanisms of injury were:

- » Suicide / self-harm deaths accounted for 25% of injury deaths.
- » Motor vehicle injury deaths accounted for 17% of injury deaths.
- » Falls accounted for 8% of injury deaths.
- » Violence / injury purposely inflicted accounted for 4% of injury deaths.

Other Mechanisms of Injury, North Zone, 2013-2022

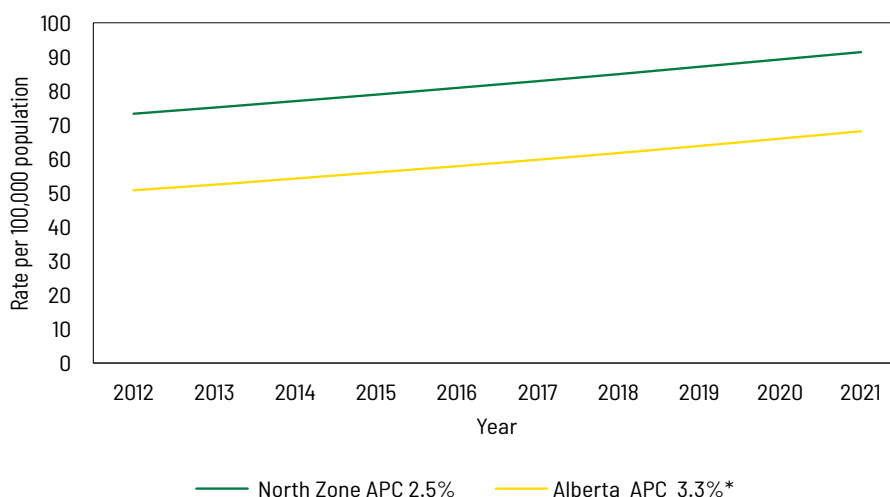
Mechanism of Injury	# Deaths All Ages	% of All Injuries
Other / Unspecified	141	4
All-Terrain / Off-Road Vehicles	77	2
Drowning	73	2
Suffocation / Choking / Foreign Body	68	2
Natural / Environmental Factors	67	2
Fire / Flames	44	1
Late Effects	39	1
Struck by / Against an Object / Person	35	1
Machinery	21	1
Air / Space Transport	13	0
Other Classifiable	12	0
Sports-Related	7	0
Vehicle (not elsewhere classified)	6	0
Operations of War / Legal	5	0
Railway	<5	0
Firearms	<5	0
Water Transport	<5	0
Overexertion / Strenuous Movements	<5	0
Cutting / Piercing	0	0

Comparison of Overall Injury Death Rates (age-standardized) for North Zone and Alberta, 2012-2021

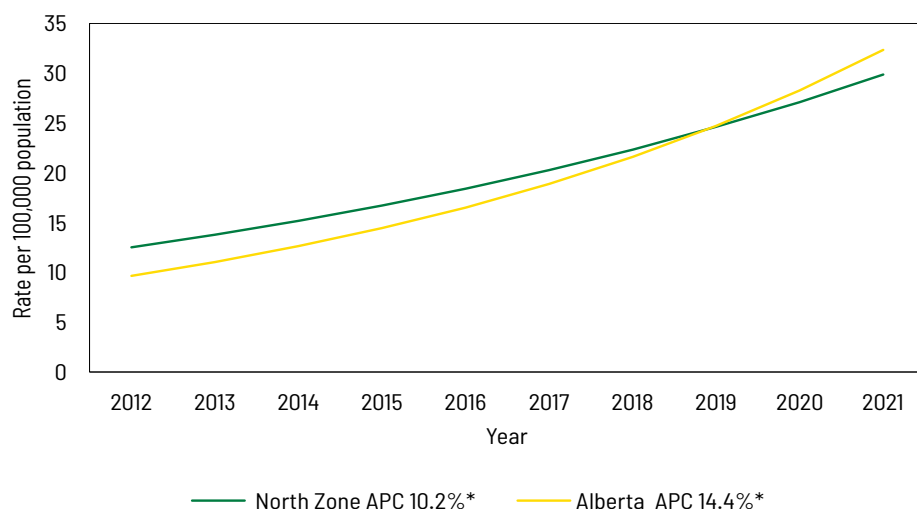
Over the 10-year period from 2012 to 2021, an average of 352 **North Zone** area residents died due to an injury each year.

When we compare the overall injury age-standardized death rates of North Zone and Alberta, the North Zone had overall injury death rate higher than the Alberta rates.

North Zone experienced an increase in the overall injury death rate of 2.5% each year. Alberta experienced a statistically significant increase in the overall injury death rate of 3.3% each year.



Comparison of Poisoning (unintentional and undetermined) Death Rates (age-standardized) for North Zone and Alberta, 2012-2021

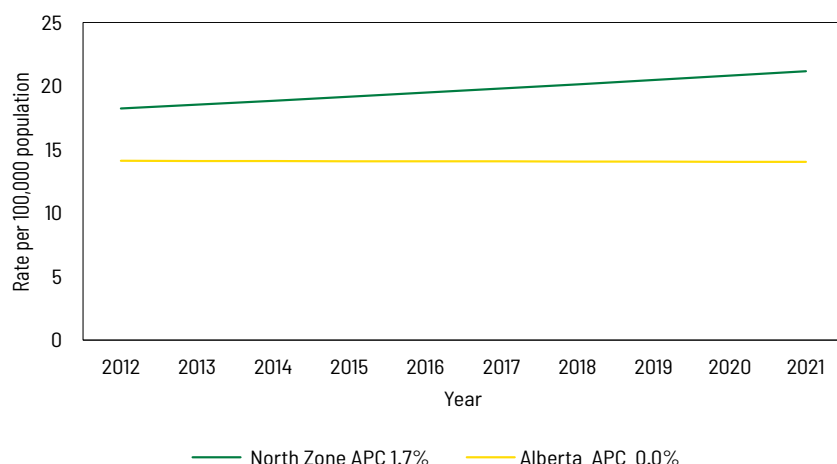


Over the 10-year period from 2012 to 2021, an average of 93 North Zone area residents died due to unintentional / undetermined poisonings each year. This accounted for 26% of injury deaths.

When we compare the poisoning injury age-standardized death rates of North Zone and Alberta, initially the North Zone had a higher poisoning rate however, as of 2019, the North Zone rate was lower than the Alberta rate.

The North Zone experienced a statistically significant increase in the poisoning death rate of 10.2% each year. Alberta also experienced a statistically significant increase in poisoning death rate of 14.4% each year.

Comparison of Suicide / Self-Harm Death Rates (age-standardized) for North Zone and Alberta, 2012-2021



Over the 10-year period from 2012 to 2021, there was an average of 90 North Zone residents who died due to suicide / self-harm injuries each year.

When we compare the suicide age-standardized death rate of North Zone and Alberta, the North Zone had a suicide / self-harm injury death rate that was higher than the Alberta rates.

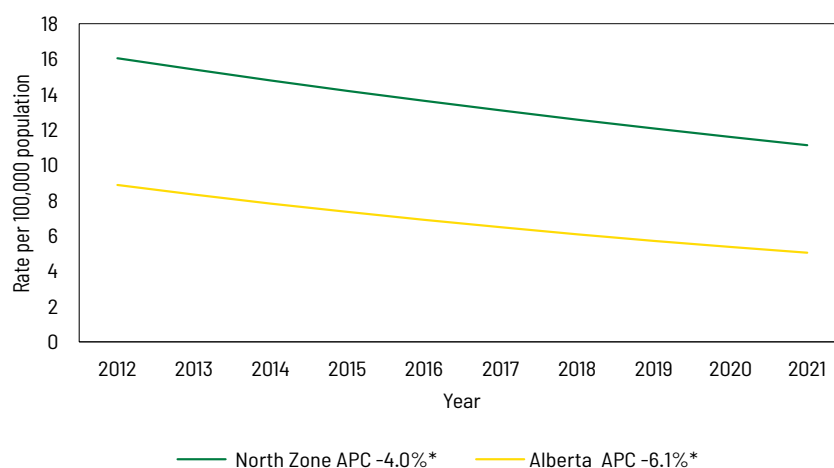
Over the 10-year period, the North Zone experienced a slight increase in the suicide / self-harm death rate of 1.7% each year. There was no change in the Alberta suicide / self-harm death rate.

Comparison of Motor Vehicle Death Rates (age-standardized) for North Zone and Alberta, 2012-2021

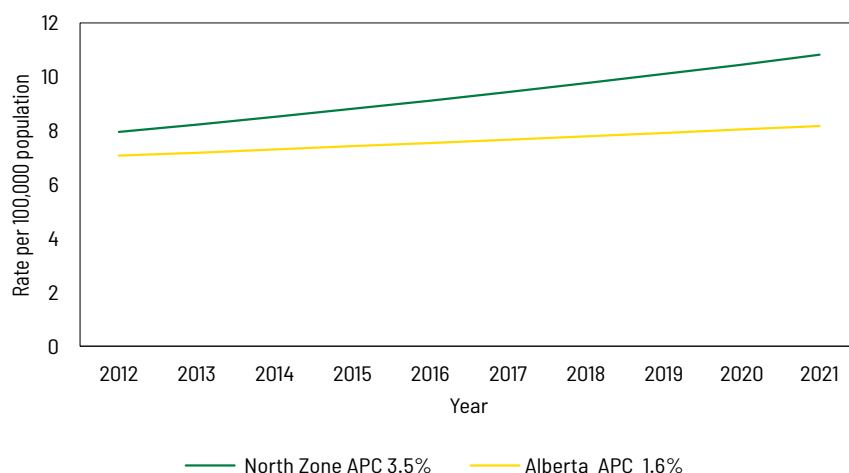
Over the 10-year period from 2012 to 2021, an average of 60 North Zone residents died as a result of a motor vehicle incident each year. This accounts for 17% of all injury deaths.

When we compare the motor vehicle injury age-standardized death rates of North Zone and Alberta, the North Zone rate was higher than the Alberta rates.

The North Zone experienced a statistically significant decrease in the motor vehicle death rate of 4.0% each year. Alberta experienced a statistically significant death rate decrease of 6.1% each year.



Comparison of Fall Death Rates (age-standardized) for North Zone and Alberta, 2012-2021



Over the 10-year period from 2012 to 2021, an average of 28 North Zone residents died as a result of a fall each. Falls accounted for 8% of injury deaths.

When we compare the fall age-standardized death rates of North Zone and Alberta, the North Zone had a fall death rate higher than the Alberta rates.

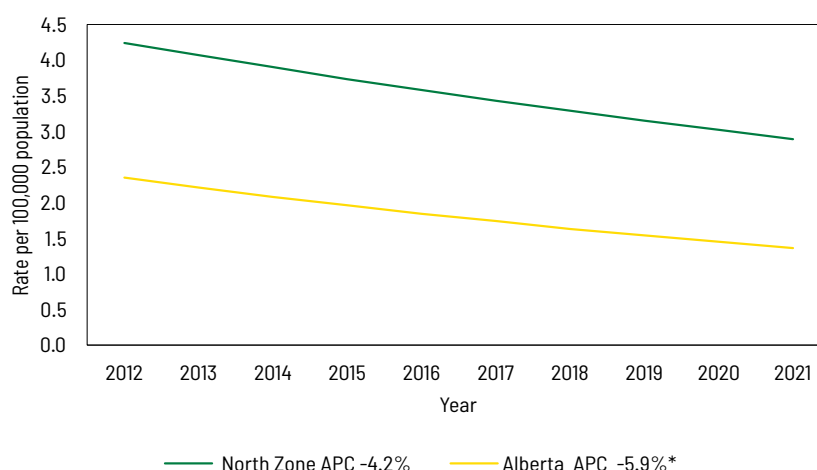
Both the North Zone and Alberta experienced a rate increase over the 10 year period. The North Zone had a 3.5% increase and Alberta had a 1.6% increase.

Comparison of Violence / Injury Purposely Inflicted Death Rates (age-standardized) for North Zone and Alberta, 2012-2021

Over the 10-year period from 2012 to 2021, an average of 15 North Zone residents died due to injuries from violence / injury purposely inflicted each year.

When we compare the violence / injury purposely inflicted age-standardized death rates of North Zone and Alberta, the North Zone had a violence / injury purposely inflicted a death rate higher than the Alberta rates.

The North Zone experienced a 4.2% average annual decrease in the violence / injury purposely inflicted death rate and Alberta experienced a statistically significant rate decrease of 5.9% each year.



Supplemental Data

Numerator: Geographic Assignment: The Alberta Hospital Morbidity file was linked with the Alberta Health Care Insurance Plan (AHCIP) Population Registration Data file to identify visits belonging to Alberta residents (at the time of visit or following fiscal year end). Only those of Alberta residents are included. The local geographic area was assigned based on postal code of the patient at the time of the health care encounter. For this report, those residents with the local geographic area of Z3.6.A.03 were included.

Denominator:

Inclusion: The population data is sourced from the mid-year adjusted AHCIP Population Registry Files (See the methodological notes for the adjusted population estimates in the Alberta Health, Interactive Health Database Application for more detail). These population counts serve as estimates of person-years for a given calendar year.

Geographic Assignment:

The postal code on the adjusted mid-year population registry file is used to determine the geographic location of the individual as of June 30 each year. The geography of residence is obtained by linking with the postal code using the postal code translation file.

Age and Sex Assignment: The date of birth and sex on the mid-year population registry file is used to calculate the age and sex of the individual as of June 30 each year.

The population exclude; members of the Armed Forces, RCMP, inmates in Federal Penitentiaries, or those who have opted out of the Alberta Health Care Insurance Plan. Observations with a missing value for sex or age are excluded; transfers between facilities are included as multiple visits. Adjusted population estimates (See the methodological notes for the adjusted population estimates in the IHDA for more detail) are used for the denominators of the rates. The newly recalculated incidence rates will differ slightly from all previously reported figures released on the IHDA prior to July, 2014. Emergency department visits by Alberta residents in the Lloydminster hospital (Saskatchewan side of border) are not included.

Age-Standardized Rates:

Overall Description The Age-Standardized Rates of Hospital Separations due to Injury is a measure of the frequency (rate) at which injury related hospital separations occur if that population (Alberta) had the same age distribution as the standard population (Canada 2011). This measure captures multiple separations per person.

Regression analysis of injury data was performed using the Joinpoint Regression Program which was developed by the Statistical Research and Applications Branch of the National Cancer Institute of the U.S. National Institutes of Health. Joinpoint uses statistical analysis to fit the most appropriate trend line model based on the time series data (i.e. age-standardized injury rates), For more information please go to the link at: <http://surveillance.cancer.gov/joinpoint>

Changes in the trend line are expressed by the average annual per cent change (APC). The sum of the average percentage change between time period will give the overall change.

Confidence Intervals:

Confidence intervals are provided for most rates to aid interpretation. Using confident intervals acknowledges that the observed rate is an estimate of an underlying true rate that cannot be directly observed. The width of the confidence interval illustrates the degree of variability associated with the rate. The true rate will fall between the upper and lower confidence intervals 19 out of 20 times (95 per cent confidence).

Not Corrected:

Rates were not corrected / adjusted for participation, weather conditions, or COVID-19 effects.

Injury Data Overview: Grande Prairie County

Supplemental Data

Mechanism / Cause of Injury	Inclusion / Exclusion
Cutting / Piercing	Includes: powered lawn mower, power tools, household appliances, knives, swords, hand tools and implements, hypodermic needle, broken glass, dart / arrow, edge of stiff paper, nail, splinter, tin can lid.
Drowning / Submersion	Includes: water transport accidents, drowning / submersion while: waterskiing, diving, fishing (except with boat), ice-skating, playing in water, surfboarding, swimming, wading in water.
Fall	Excludes: falls related to sports Includes: fall on or from stairs / steps, ladders / scaffolding, from or out of building / structure, into hole or other opening in surface, fall from one level to another, fall on same level from slipping / tripping / stumbling, fall on same level from collision / pushing / shoving by or with person (not sports).
Fire / Scald / Burn	Includes: fire, flames, hot objects / substances. Explosion caused by fire, smoke, smoke, and fumes from fire in private dwelling, building or structure, ignition of clothing, ignition of highly flammable materials. Burns caused by: hot substance or object, caustic or corrosive material and steam.
Firearm	Includes: handgun, pistol, revolver, shotgun (automatic), hunting rifle, military firearm / machine gun, air gun, flare pistol.
Machinery	Includes: agriculture machinery, mining / earth-drilling machines, chain hoists, crane, derrick, elevator, forklift, winch, metal working machine, woodworking / forming machines, gas turbine / steam / internal combustion engine, transmission machinery, bulldozer, roadscraper, manufacturing machines.
Motor Vehicle - Traffic	Definition: includes any motor vehicle occurring on a public highway. A motor vehicle 'accident' is assumed to have occurred on the highway unless another place is specified, except in the case of off-road motor vehicles which are classified as nontraffic 'accidents' unless the contrary is stated. Includes: driver, passenger, motor cyclist, bicyclist, pedestrian, or other unspecified.
Bicyclist - Non-Traffic	Excludes: bicyclist unspecified person. Includes bicycle 'accidents' with railway, snowmobile, other off-road vehicle, animal, pedestrian, stationary object while boarding and alighting.
Pedestrian - Non-Traffic	Includes: pedestrian 'accidents' with railway, snowmobile, other off-road vehicle, animal pedestrian, stationary object

Data Sources and Methods

Data for this report was obtained from Alberta Health. Emergency Department Visits are from the National Ambulatory Care Reporting System (NACRS) with a visit date between January 1, 2013 to December 31, 2022. Hospital admissions are from the Discharge Abstract Database (DAD) with a discharge date from January 1, 2013 to December 31, 2022. The deaths are from Vital Statistics, Alberta with a death date from January 1, 2012 to December 31, 2021.

The mechanism of injury was determined by the first external cause of injury (V01-Y09) classified according to International Classification of Disease (ICD-10 CA) excluding adverse events and medical / surgical complications.

The data are based on emergency department visits rather than individual patients, therefore multiple visits of the same patient for the same injury would be counted as separate cases.

Non-residents of Alberta, those identified as not having an Alberta postal code at the time of the visit were removed.

Direct age-standardization method was used as it accounts for differences in the age structures of the populations being compared (study populations), by weighting their respective age-specific rates to the age distribution of a standard population. The Canadian population of 2022 was used as the standard population. Regression analysis of injury data was performed using the Joinpoint Regression Program which was developed by the Statistical Research and Applications Branch of the National Cancer Institute of the U.S. National Institutes of Health. Joinpoint uses statistical analysis to fit the most appropriate trend line model based on the time series data (i.e. age-standardized injury rates). For more information please go to the link at:
<http://surveillance.cancer.gov/joinpoint/>.

Changes in the trend line are expressed by the average annual per cent change (APC). The sum of the average percentage change between time period will give the overall change.

Percentages and rates were not adjusted for the number of registered participants, frequency of play, duration of play, seasonal weather conditions or influences of COVID-19.

Supplemental Data

Mechanism / Cause of Injury	Inclusion / Exclusion
Natural / Environmental	Includes: excessive cold / heat, thirst, exposure, neglect, bites/ / stings, dog bites, forces of nature, air pressure change, travel and motion, other and unspecified environmental and accidental causes.
Overexertion	Includes: overexertion from lifting, pulling, pushing, strenuous movements in recreational activities and other activities.
Unintentional Poisoning	Includes: accidental overdose of drug, wrong drug given or taken in error, and drug taken inadvertently. Excludes: administration with suicidal or homicidal intent or intent to harm, correct drug properly administered in the therapeutic or prophylactic dosage as the cause of an adverse effect.
Struck by Object / Persons	Includes: struck by falling object, person / object (excluding sports), caught in or between objects. Excludes: sports-related.
Suffocation / Foreign Body in Natural Opening	Includes: inhalation and ingestion of food / object causing obstruction of respiratory tract / suffocation, accidental mechanical suffocation, and foreign body in natural opening.
Other Specified Classifiable	Includes: fracture unspecified, cause unspecified, explosion of pressure vessel, 'accident' caused by explosive material, 'accident' caused by electric current, exposure to radiation.
Late Effects of Injury	Definition: a residual condition (sequelae) of a disease that is no longer present. Includes: late effects of motor vehicle 'accident' other transportation 'accident', 'accidental' poisoning, 'accidental' fall, 'accident' caused by fire, 'accident' due to natural and environmental factors, other 'accident' unspecified 'accident'.
Sports Related	Includes: fall on same level from collision, pushing or shoving by or with other person in sports (tackle), and striking against or struck accidentally by object or person in sports.
Other Injuries, Undetermined Intent	Includes: injuries undetermined whether accidental (unintentional), suicide (attempted), or assault of substances including: poisoning by solid or liquid, gas, hanging, strangulation, or suffocation, submersion / drowning, injury by firearm, cutting / piercing, fire / burn / scald, electrocution.
Attempted Suicide / Self-Inflicted	Includes: attempted suicide / self-inflicted poisonings by solids or liquids, hanging, firearms, cutting / piercing instruments, carbon monoxide, other.

Injury Data Overview: Grande Prairie County

Number of Injury Emergency Visits by Age Group, Grande Prairie County, 2013 - 2022

Mechanism of Injury/Age Group (years)	All Ages	% of All Injuries	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
All Injuries excluding adverse events	94,650		971	7,020	5,828	7,523	8,164	10,397	10,849	9,469	7,590	5,495	4,747	4,440	3,789	2,641	1,625	1,085	860	796	686	675
Top 5 Mechanism of Injury with Actionable Injury Prevention Strategies																						
Falls	25,476	27	455	2,945	2,255	1,954	1,252	1,604	1,847	1,732	1,574	1,284	1,238	1,346	1,347	1,079	762	588	542	574	550	548
Sports-related	5,782	6	<5	89	492	1,688	1,156	642	608	401	290	179	83	64	43	16	15	10	<5	<5	<5	<5
Motor Vehicle	5,362	6	<5	66	115	150	569	739	738	749	518	432	386	289	243	176	72	41	30	23	17	5
Violence/Purposely Inflicted	3,270	3	8	14	28	103	404	608	561	468	322	231	197	167	86	45	14	<5	5	<5	<5	<5
Poisonings (unintentional / undetermined)	2,957	3	42	275	48	75	266	418	442	361	296	200	146	134	99	63	35	18	19	7	8	<5
Mechanism of Injury with Little or No Evidence-based Prevention Strategies																						
Other / Unspecified	11,264	12	142	745	671	984	920	1,239	1,279	1,149	917	704	616	531	481	299	182	121	95	83	55	51
Struck by / Against an Object / Person	11,035	12	106	1,057	839	774	1,022	1,437	1,326	1,078	955	567	509	511	344	237	129	56	33	17	18	20
Cutting / Piercing	8,090	9	28	251	309	367	673	1,181	1,235	1,051	811	557	437	391	355	206	113	63	34	21	<5	<5
Overexertion / Strenuous Movements	6,108	6	12	159	123	482	540	713	784	786	668	483	395	348	264	160	86	51	26	12	10	6
Natural / Environmental Factors	4,073	4	40	579	293	234	224	390	450	381	341	220	244	190	169	122	89	61	22	15	<5	5
Suffocation / Choking / Foreign Body	3,544	4	98	552	265	91	158	367	434	398	241	185	161	157	139	95	57	40	40	26	15	25
Suicide / Self-Harm	1,771	2	<5	<5	<5	144	380	269	291	254	124	87	63	63	40	38	<5	6	<5	<5	<5	<5
All-Terrain / Off-Road Vehicles	1,759	2	<5	16	77	119	208	287	344	226	177	100	67	64	39	17	7	7	<5	<5	<5	<5
Fire / Flames	1,154	1	28	171	36	29	104	139	141	118	100	79	55	63	35	22	16	6	<5	6	<5	<5
Machinery	673	1	<5	16	13	6	35	98	99	103	74	54	45	41	29	30	19	5	<5	<5	<5	<5
Other Classifiable	288	0	<5	9	<5	5	19	65	49	41	28	20	11	13	13	5	<5	<5	<5	<5	<5	<5
Water Transport	109	0	<5	<5	<5	5	6	16	23	20	18	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of War / Legal	69	0	<5	<5	<5	<5	<5	<5	16	14	11	8	<5	<5	5	<5	<5	<5	<5	<5	<5	<5
Firearms	63	0	<5	<5	<5	<5	7	11	19	7	7	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-Not Elsewhere Classified	58	0	<5	<5	7	<5	5	5	9	9	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Drowning	29	0	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Air / Space Transport	8	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	3	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Cells with values less than 5 were reported <5. Actual cell value included in the totals.

Injury Data Overview: Grande Prairie County

Number of Injury Hospital Admissions by Age Group, Grande Prairie County, 2013 - 2022

Mechanism of Injury/Age Group (years)	All Ages	% of All Injuries	<1	1-4	5-9	10-14	15-19	20-24	25-29	30-34	35-39	40-44	45-49	50-54	55-59	60-64	65-69	70-74	75-79	80-84	85-89	90+
All injuries excluding adverse	4522		47	98	100	161	260	288	361	332	294	261	233	276	270	250	199	194	184	244	220	250
Top 5 Mechanism of Injury with Actionable Injury Prevention Strategies																						
Falls	1763	39	10	37	54	26	19	20	52	60	68	63	64	110	124	121	110	126	125	191	172	211
Suicide / Self-Harm	463	10	0	0	0	42	93	56	45	35	36	42	30	33	21	20	<5	<5	<5	<5	<5	<5
Motor Vehicle	387	9	0	6	7	9	26	39	55	50	34	18	34	22	26	17	17	5	10	<5	6	<5
Poisoning (unintentional / undetermined)	274	6	5	10	<5	6	21	29	37	27	20	19	17	17	18	16	9	9	<5	<5	<5	<5
Violence / Purposely Inflicted	184	4	<5	<5	<5	5	9	23	21	27	26	20	14	20	5	<5	<5	<5	<5	<5	<5	<5
Mechanism of Injury with Little or No Evidence-based Prevention Strategies																						
Other / Unspecified	282	6	13	6	7	8	8	17	19	26	14	21	8	14	17	16	14	16	14	14	18	12
Suffocation / Choking / Foreign Body	274	6	6	16	<5	<5	<5	9	17	14	5	7	15	15	21	23	24	18	23	18	19	17
All-Terrain / Off-Road Vehicles	166	<5	<5	<5	<5	10	19	23	37	20	15	14	11	<5	<5	<5	<5	<5	<5	<5	<5	<5
Struck By / Against an Object / Person	133	<5	<5	<5	<5	5	6	18	20	12	13	12	8	9	<5	<5	<5	<5	<5	<5	<5	<5
Sports-related	123	<5	<5	<5	5	28	23	18	14	12	6	6	<5	0	5	<5	<5	<5	<5	<5	<5	<5
Overexertion / Strenuous Movements	95	<5	<5	<5	<5	<5	9	<5	10	14	18	13	6	6	<5	<5	<5	<5	<5	<5	<5	<5
Cutting / Piercing	87	<5	<5	<5	5	5	7	5	8	11	11	5	<5	<5	7	6	<5	<5	<5	<5	<5	<5
Natural / Environmental factors	76	<5	<5	6	<5	<5	<5	<5	<5	9	8	<5	5	6	6	6	5	<5	<5	<5	<5	<5
Late Effects	67	<5	<5	<5	<5	<5	<5	9	<5	<5	7	7	6	5	11	7	5	<5	<5	<5	<5	<5
Fire / Flames	41	<5	<5	8	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	0	<5	<5	<5	<5	<5
Machinery	33	<5	<5	<5	<5	<5	<5	7	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Other Classifiable	17	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Firearms	13	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Water Transport	12	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of War / Legal	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-Not Elsewhere Classified	3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Drowning	3	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Air / Space Transport	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Cells with values less than 5 were reported <5. Actual cell value included in the totals.

Injury Data Overview: Grande Prairie County

Number of Injury Deaths by Year, North Zone, 2012 - 2021

Mechanism of Injury/ Death Year	All Ages	% of All Injuries	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
All Injuries excluding adverse events	3519		276	334	342	369	337	378	325	347	377	434
Top 5 Mechanism of Injury with Actionable Injury Prevention Strategies												
Poisoning (Unintentional / Undetermined)	929	26	61	73	73	94	75	88	86	88	121	170
Suicide / Self-Harm	895	25	66	80	96	92	83	96	104	88	95	95
Motor Vehicle	596	17	59	71	69	73	66	63	45	46	55	49
Falls	282	8	20	27	24	28	29	32	20	31	30	41
Violence/Injury Purposely Inflicted	153	4	13	14	17	27	18	23	9	15	11	6
Mechanism of Injury with Little or No Evidence-based Prevention Strategies												
Other / Unspecified	141	4	16	13	14	11	11	14	12	20	18	12
All-Terrain / Off-Road Vehicles	77	2	8	9	8	9	9	5	6	<5	8	11
Drowning	73	2	6	10	11	<5	5	12	9	7	<5	6
Suffocation / Choking / Foreign Body	68	2	<5	<5	6	5	11	8	7	10	6	7
Natural / Environmental Factors	67	2	<5	<5	6	5	5	<5	11	12	12	8
Fire / Flames	44	1	<5	<5	5	<5	<5	6	<5	11	<5	7
Late Effects	39	1	<5	<5	<5	<5	<5	7	<5	<5	5	<5
Struck By / Against an Object / Person	35	1	<5	7	<5	<5	<5	5	<5	<5	<5	<5
Machinery	21	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Air / Space Transport	13	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Other Classifiable	12	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Sports-related	7	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-Not Elsewhere Classified	6	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of War / Legal	5	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	3	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Firearms	2	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Water Transport	1	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Overexertion / Strenuous Movements	1	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cutting / Piercing	0	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5

Cells with values less than 5 were reported <5. Actual cell value included in the totals.

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



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