INJURY PREVENTION CENTRE

Injury Data Overview: Rimbey

September 2024

injurypreventioncentre.ca

UNIVERSITY OF ALBERTA

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 Two Hills County.

This report examines the **leading mechanisms of injuries** of residents in local geographic area of Rimbey (LGA Z3.4.B.03) with comparison to the Central 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 Rimbey, 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 with local area, health zone and provincial of 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 period will give the overall change.
- Mechanism of injury deaths for Central 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.

Top 5 Mechanisms of Injury Emergency Department Visits, Rimbey, 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	17,514		93	995	1,003	1,427	1,831	1,270	1,136	1,059	964	796	820	991	1,102	1,012	788	653	484	449	357	284
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies																						
Falls	4,543	26	43	365	289	308	240	151	153	146	145	161	148	242	287	340	263	266	254	276	243	223
Sports-related	1,145	7	< 5	21	119	334	325	86	76	58	43	30	18	8	7	<5	7	< 5	< 5	< 5	< 5	< 5
Motor vehicle	827	5	< 5	17	23	19	117	98	74	53	67	51	49	44	51	53	37	19	20	22	7	6
Off-road Vehicles	389	2	5	6	20	51	76	63	38	24	22	14	18	13	12	13	11	<5	<5	<5	<5	<5
Poisoning (unintentional / undetermined)	284	2	< 5	49	5	<5	17	30	22	20	21	15	9	26	16	13	9	11	6	<5	<5	< 5

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

Falls was the leading mechanism of injury emergency department visits for residents of Rimbey area accounting for 26% of all injury visits.

- Sports-related injuries accounted for 7% of injury emergency department visits.
- Motor vehicle injuries accounted for 5% of injury emergency department visits.
- Of-road vehicle injuries accounted for 2% of injury visits.
- Unintentional / undetermined poisonings accounted for 2% of injury visits.

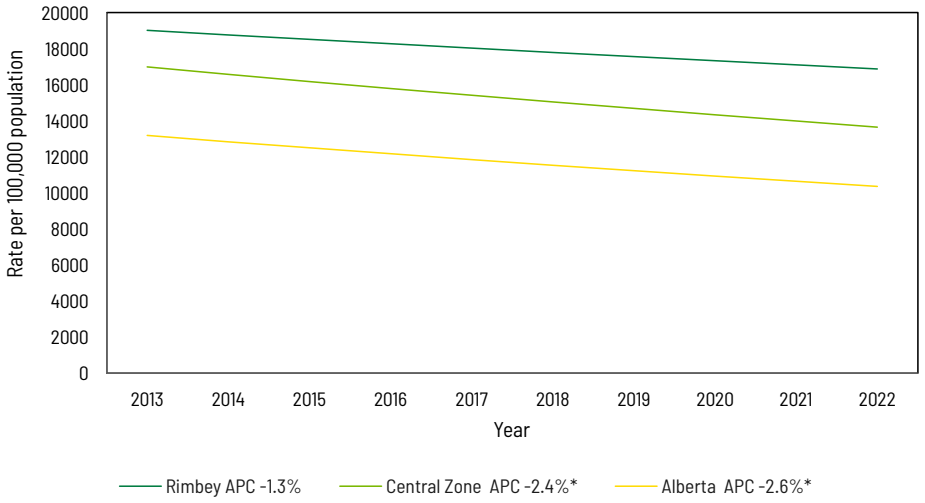
Other Mechanisms of Injury, Rimbey, 2013-2022

Mechanism of Injury	# ED Visits All Ages	% of All Injuries
Struck by / Against an Object / Person	1,943	11
Cutting / Piercing	1,819	10
Other / Unspecified	1,485	8
Natural / Environmental Factors	1,380	8
Overexertion / Strenuous Movements	1,275	7
Suffocation / Choking / Foreign Body	938	5
Violence / Injury Purposely Inflicted	284	2
Fire / Flames	272	2
Machinery	216	2
Suicide / Self-Harm	121	1
Other Classifiable	55	1
Water Transport	28	0
Late Effects	12	0
Vehicle (not elsewhere classified)	11	0
Firearms	10	0
Operations of War / Legal	9	0
Drowning	<5	0
Air / Space Transport	<5	0
Railway	< 5	0

Comparison of Overall Injury Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

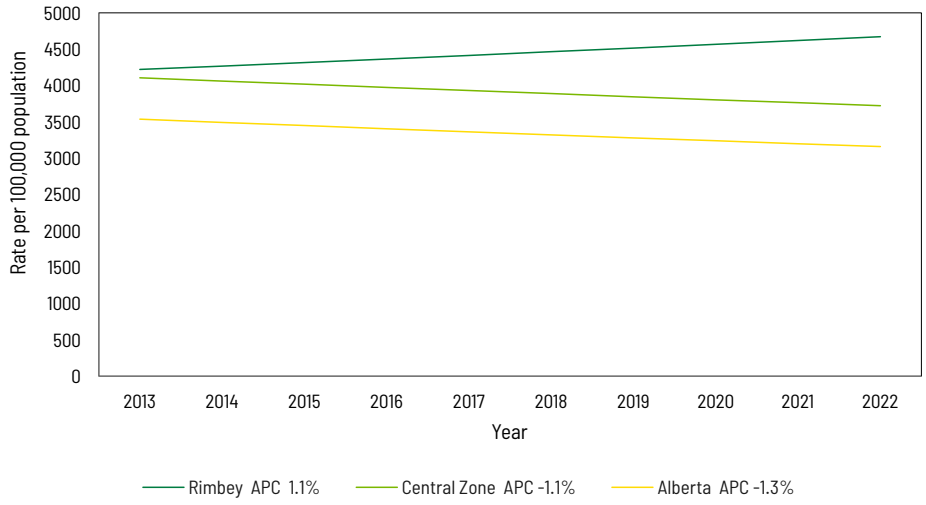
Over the 10-year period from 2013 to 2022, each year there was an average of 1,751 injury emergency department visits of Rimbey area residents. This equates to 5 injury visits each day.

When we compare the overall injury age-standarized rates of Rimbey with the Central Zone and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Over the 10-year period, Rimbey experienced a decrease in the overall injury rate of 1.3% each year. The Central Zone experienced a statistically significant 2.4% 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 Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 454 fall injury visits of Rimbey residents. This equates to 1 fall-related injury visit each day.

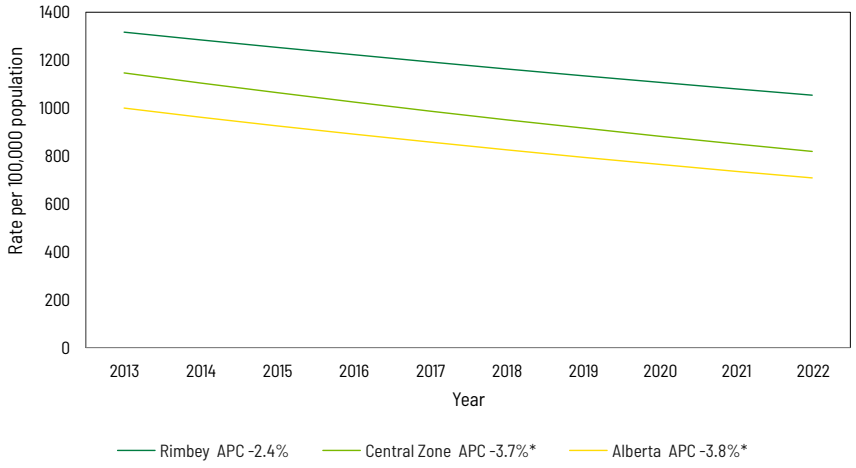
When we compare the fall age-standarized rates of Rimbey with the Central Zone and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.

Over the 10-year period, Rimbey experienced an increase in the fall rate of 1.1% each year. The Central Zone experienced a 1.1% decrease each year, and Alberta experienced a 1.3% decrease each year.

Comparison of Sports-related Injury Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

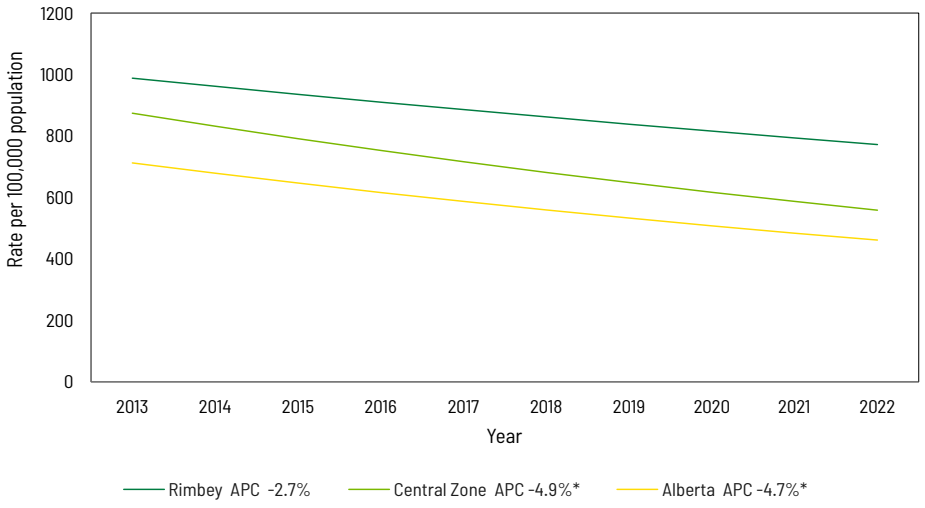
Over the 10-year period from 2013 to 2022, there was an average of 115 sports-related injuries of Rimbey area residents each year.

When we compare the sports injury age-standarized rates of Rimbey with the Central Zone and Alberta, the Rimbey rate was higher than both the Central Zone, and Alberta rates.



Over the 10-year period, Rimbey experienced a decrease in the sports injury rate of 2.4% each year. The Central Zone experienced a statistically significant decrease in the rate of 3.7% each year. Alberta experienced a statistically significant decrease each year of 3.8% each year.

Comparison of Motor Vehicle-related Injury Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 83 emergency department visits of Rimbey area residents due to motor vehicle injury.

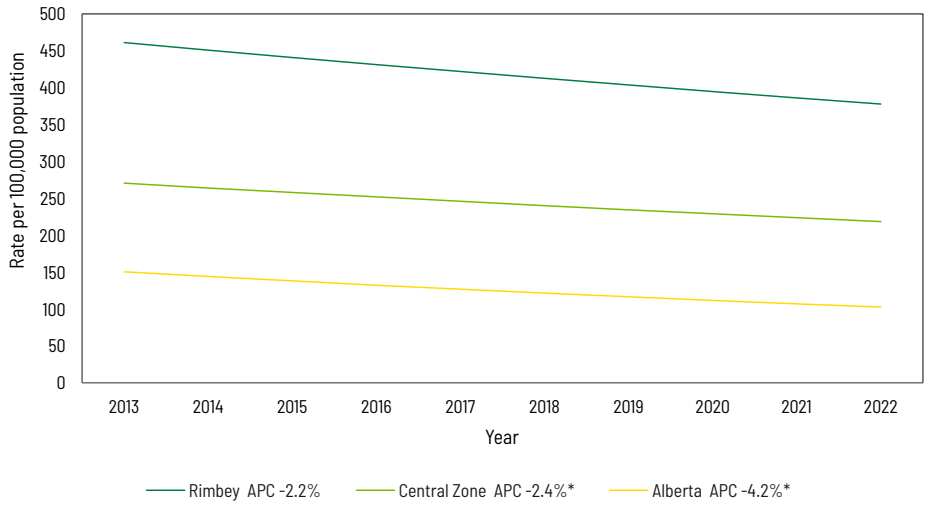
When we compare the motor vehicle injury age-standarized rates of Rimbey with the Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.

Over the 10-year period, Rimbey experienced a decrease in the motor vehicle injury rate of 2.7% each year. The Central Zone experienced a statistically significant decrease of 4.9% each year, and Alberta also experienced a statistically significant decrease of 4.7% each year.

Comparison of Off-road Vehicle Injury Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

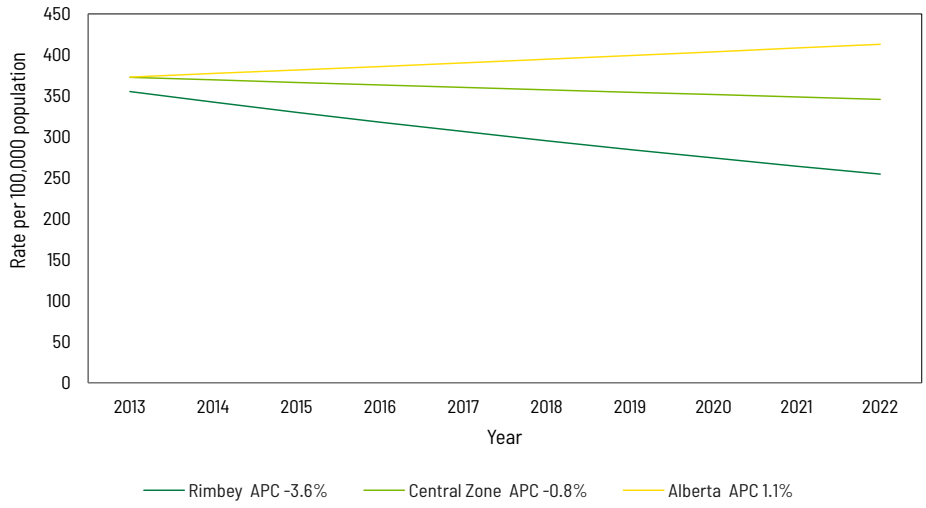
Over the 10-year period from 2013 to 2022, each year there was an average of 39 emergency department visits of Rimbey area residents due to an off-road vehicle injury.

When we compare the off-road vehicle injury age-standarized rates of Rimbey with the Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Over the 10-year period, Rimbey experienced a decrease in the injury rate of 2.2% each year. The Central Zone experienced a statistically significant decrease of 2.4% each year, and Alberta experienced a statistically significant 4.2% decrease each year.

Comparison of Poisoning (unintentional and undetermined) Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 29 emergency department visits of Rimbey area residents due to unintentional / undetermined poisoning.

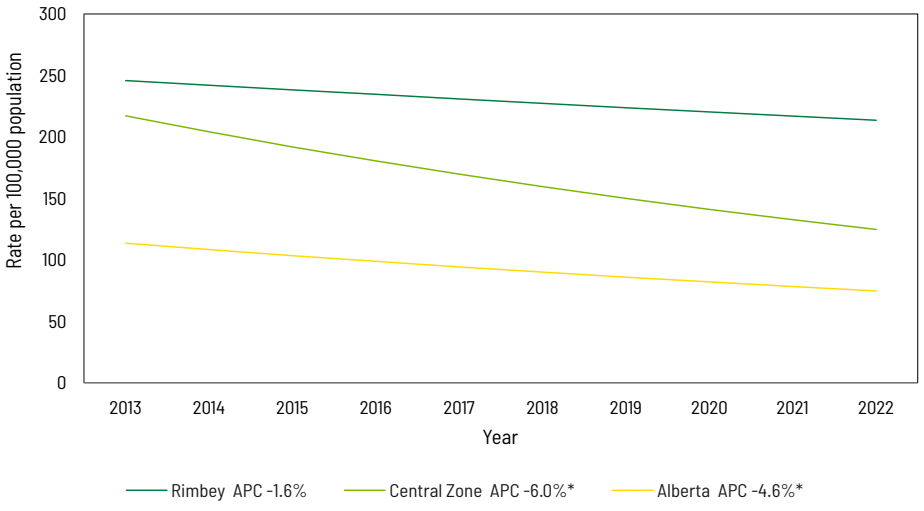
When we compare the poisoning injury age-standarized rates of Rimbey with the Central Zone, and Alberta, the Rimbey rate was lower than both the Central Zone and Alberta rates.

Over the 10-year period, Rimbey experienced a decrease of 3.6% each year for unintentional / undetermined poisonings. The Central Zone experienced a 0.8% decrease each year, and Alberta experienced a 1.1% increase each year.

Comparison of Machinery Injury Emergency Department Visit Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

Over the 10-year period from 2013 to 2022, each year there was an average of 22 emergency department visits of Rimbey area residents due to a machinery injury.

When we compare the machinery injury age-standarized rates of Rimbey with the Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Over the 10-year period, Rimbey experienced a decrease in the injury rate of 1.6% each year. The Central Zone experienced a statistically significant decrease of 6.0% each year, and Alberta experienced a statistically significant 4.6% decrease each year.

Top 5 Mechanisms of Injury Hospital Admissions, Rimbey, 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	50-84	85-89	90+
All injuries excluding adverse events	1,225		4	22	18	43	43	36	42	47	31	25	46	64	69	78	92	102	109	123	107	124
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies																						
Falls	606	49	< 5	9	<5	15	6	<5	<5	5	5	<5	11	22	25	33	47	66	78	86	83	99
Motor vehicle	127	10	5	< 5	< 5	< 5	7	7	5	6	<5	7	15	12	8	13	14	5	5	9	<5	< 5
Suicide / Self-Harm	45	4	< 5	5	< 5	< 5	9	< 5	< 5	<5	< 5	<5	<5	<5	<5	<5	<5	< 5	<5	< 5	< 5	< 5
Off-road Vehicle	44	4	< 5	< 5	< 5	< 5	6	< 5	5	< 5	< 5	< 5	< 5	< 5	6	< 5	< 5	< 5	< 5	< 5	< 5	< 5
Sports-related	29	2	< 5	< 5	< 5	6	< 5	< 5	< 5	6	< 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.

Falls were the leading cause hospital admissions of Rimbey residents accounting for 49% of all injury admissions.

The next mechanism was:

- Motor vehicle injuries accounted for 10% of injury hospital admissions.
- Suicide / self-harm injury admissions accounted for 4% of all injury admissions.
- Off-road vehicle injuries accounted for 4% of injury admissions.
- Sports-related injuries accounted for 2% of injury hospital admissions.

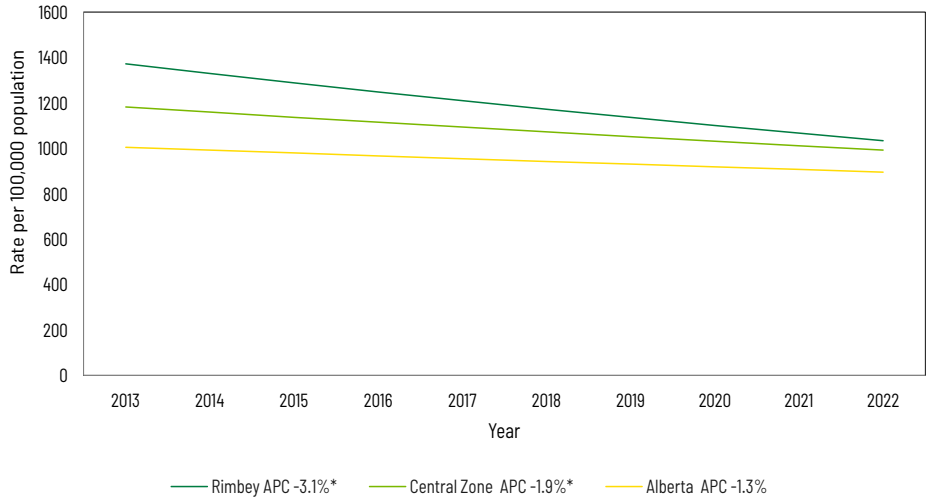
Other Mechanisms of Injury, Rimbey, 2013-2022

Mechanism of Injury	# Admissions All Ages	% of All Injuries
Other / Unspecified	113	9
Suffocation / Choking / Foreign Body	80	7
Natural / Environmental Factors	32	3
Struck by / Against an Object / Person	30	2
Poisoning (Unintentional / Undetermined)	21	2
Overexertion / Strenuous Movements	16	1
Late Effects	16	1
Cutting / Piercing	15	1
Violence / Injury Purposely Inflicted	12	1
Machinery	11	1
Fire / Flames	5	0
Other Classifiable	<5	0
Firearms	<5	0
Drowning	<5	0
Vehicle (not elsewhere classified)	<5	0
Operations of War / Legal	<5	0
Water Transport	<5	0
Railway	<5	0
Air / Space Transport	<5	0

Comparison of Overall Injury Hospital Admission Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

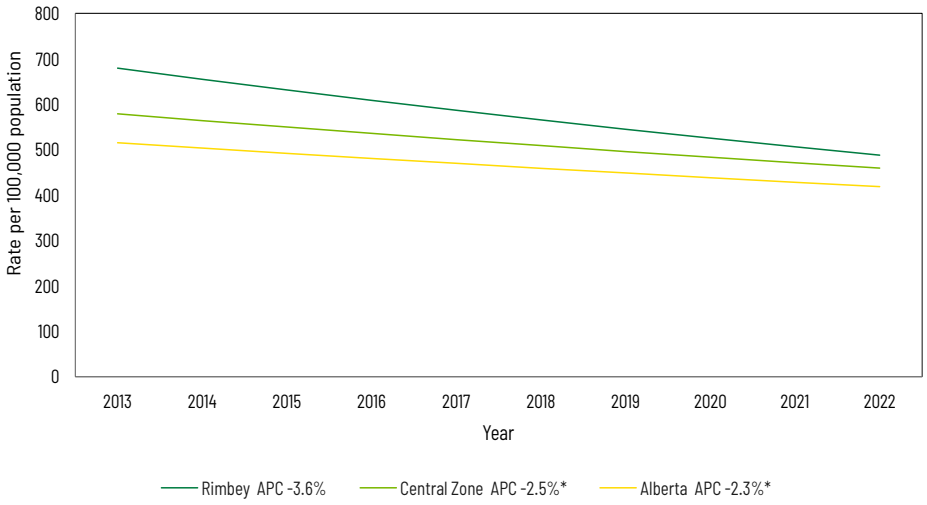
Over the 10-year period from 2013 to 2022, each year there was an average of 123 injury hospital admissions of Rimbey area residents.

When we compare the overall injury age-standarized hospital admission rates of Rimbey with the Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Over the 10-year period, the Rimbey overall injury rate experienced a statistically significant decrease in the injury rate of 3.1% each year. The Central Zone experienced a statistically significant decrease of 1.9% each year, and Alberta experienced a 1.3% decrease each year.

Comparison of Fall-related Hospital Admission Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 61 fall injury admissions of Rimbey area residents.

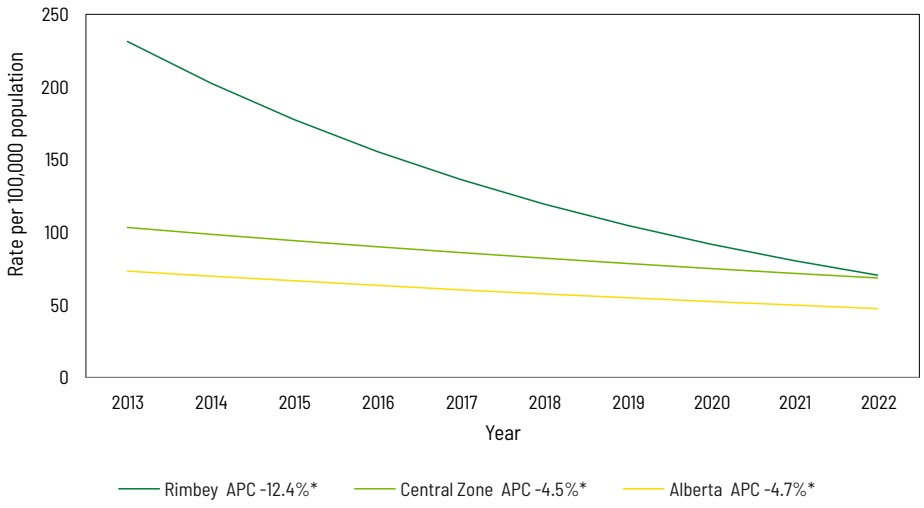
When we compare the fall injury age-standarized hospital admission rates of Rimbey with the Central Zone, and Alberta, the rate was higher than both the Central Zone and Alberta rates.

Over the 10-year period, Rimbey experienced a 3.6% decrease in the fall admission rate each year. The Central Zone experienced a statistically significant decrease of 2.5% each year, and Alberta experienced a statistically significant decrease of 2.3%.

Comparison of Motor Vehicle-related Injury Hospital Admission Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022

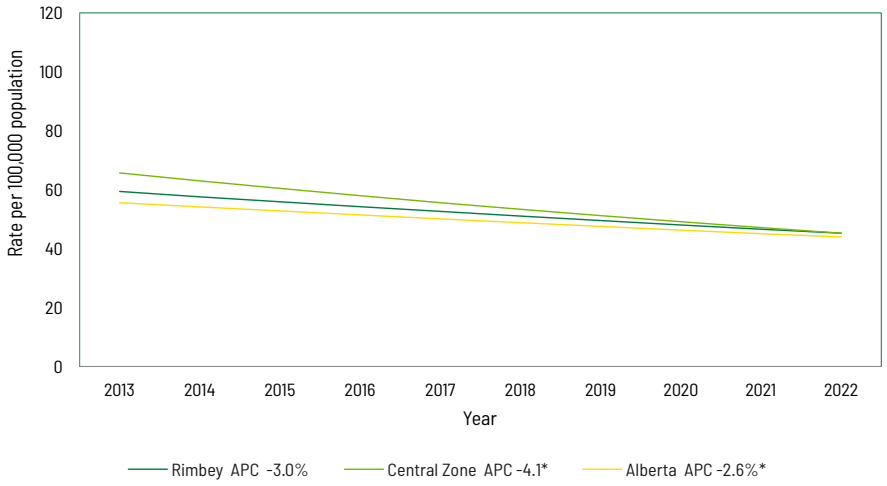
Over the 10-year period from 2013 to 2022, each year there was an average of 13 Rimbey area residents admitted to hospital due to a motor vehicle injury.

When we compare the motor vehicle-related injury age-standarized rates of Rimbey, Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Rimbey experienced a statistically significant decrease in the motor vehicle injury rate of 12.4% each year. The Central 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 Suicide / Self-Harm Hospital Admission Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year there was an average of 5 hospital admissions of Rimbey area residents due to a suicide / self-harm injuries.

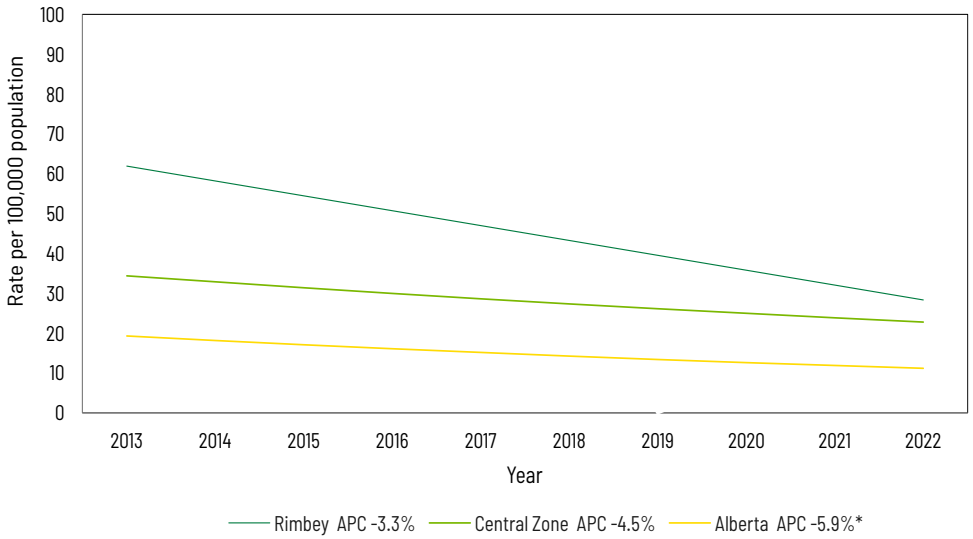
When we compare the suicide / self-harm injury admission age-standarized rates of Rimbey, Central Zone, and Alberta, Rimbey's rate was initially higher than the Alberta rate but over the 10 years the Rimbey rate declined and was slightly higher than the Alberta rate but similar to the Central Zone rate in 2022.

Rimbey experienced a decrease in the suicide / self-harm rate of 3.4% each year. The Central Zone experienced a statistically significant decrease of 4.1% each year, and Alberta also experienced a statistically significant decrease of 2.6% each year.

Comparison of Off-road Vehicle Injury Hospital Admission Rates (age-standardized) for Rimbey, Central Zone, Alberta, 2013-2022

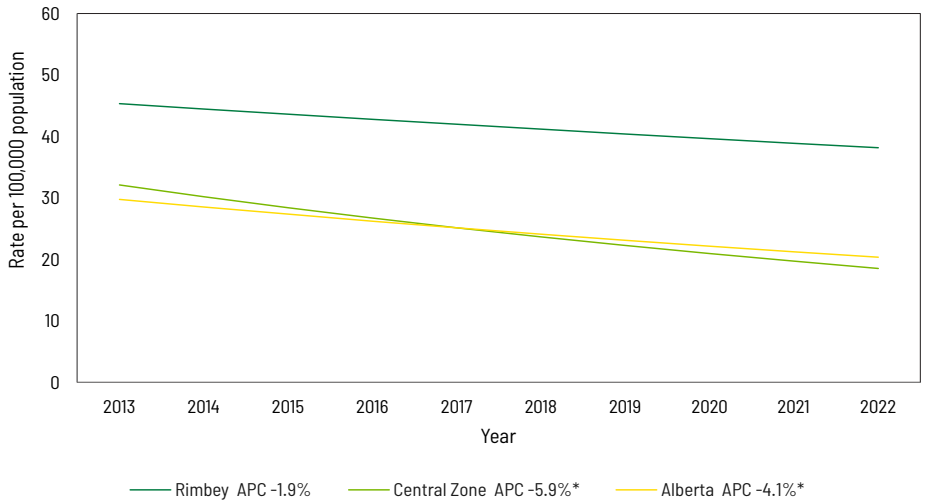
Over the 10-year period from 2013 to 2022, each year an average of 4 Rimbey area residents were admitted to hospital due to an off-road vehicle injury.

When we compare the off-road vehicle injury age-standarized rates of Rimbey, Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta rates.



Rimbey experienced a decrease in off-road vehicle injury admission rate of 3.3% each year. The Central Zone experienced a decrease of 4.5% each year, and Alberta experienced a statistically significant decrease 5.9% each year.

Comparison of Sports-related Injury Hospital Admission Rates (age-standardized) for Rimbey, Central Zone and Alberta, 2013-2022



Over the 10-year period from 2013 to 2022, each year an average of 3 hospital admissions of Rimbey area residents due to a sports-related injury.

When we compare the sports-related injury age-standarized rates of Rimbey, Central Zone, and Alberta, the Rimbey rate was higher than both the Central Zone and Alberta.

Rimbey experienced a decrease in the sports-related admission rate of 1.9% each year. The Central Zone experienced a statistically significant decrease of 5.9% each year, and Alberta also experienced a statistically significant decrease of 6.1% each year.

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

*Due to the small number of injury deaths of Rimbey residents, only **Central 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	3,346		305	312	344	346	305	361	325	284	376	388
Top 5 Mechanisms of Injury with Evidence-based Prevention Strategies												
Poisoning (unintentional / undetermined)	917	27	49	58	77	89	82	103	112	73	143	131
Suicide / Self-Harm	826	25	83	80	72	98	87	92	66	66	89	93
Motor vehicle	573	17	64	67	89	61	46	51	58	43	33	61
Falls	329	10	29	30	31	33	26	58	34	32	50	39
Violence / Injury Purposely Inflicted	98	3	6	13	13	12	9	9	5	11	17	6

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

The leading cause of injury death for residents of the Central Zone was unintentional / undetermined poisonings accounting for 27%.

The next leading mechanism of injury deaths were:

- Suicide / self-harm deaths accounted for 25% of injury deaths.
- Motor vehicle deaths accounted for 17% of injury deaths.
- Falls accounted for 10% of injury deaths.
- Violence / injury purposely-inflicted accounted for 3% of injury deaths.

Other Mechanisms of Injury, Central Zone, 2013-2022

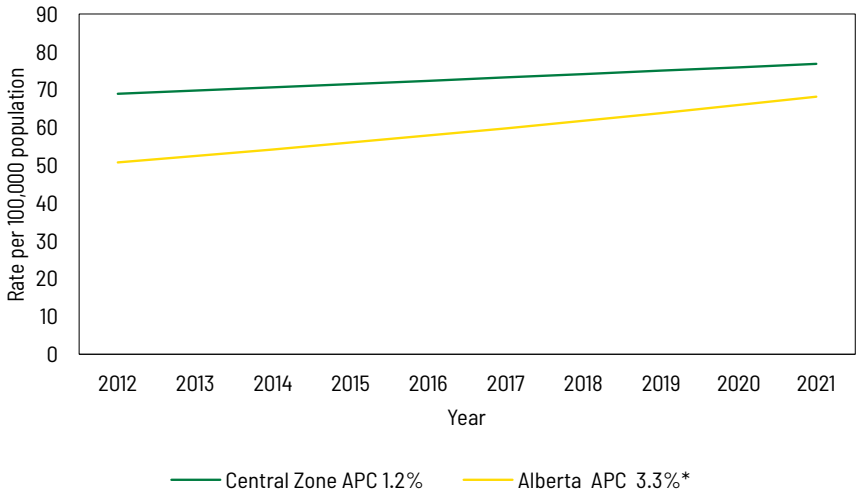
Mechanism of Injury	# Deaths All Ages	% of All Injuries
Other / Unspecified	194	6
Suffocation / Choking / Foreign Body	91	3
Drowning	49	1
Natural / Environmental Factors	48	1
All-Terrain / Off-Road Vehicles	39	1
Fire / Flames	38	1
Late Effects	36	1
Struck by / against an Object / Person	29	1
Adverse Events	23	1
Machinery	22	1
Air / Space Transport	7	0
Railway	6	0
Vehicle (not elsewhere classified)	<5	0
Sports-Related	<5	0
Operations of War / Legal	<5	0
Cutting / Piercing	<5	0
Other Classifiable	<5	0
Firearms	<5	0
Water Transport	<5	0
Overexertion / Strenuous Movements	<5	0

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

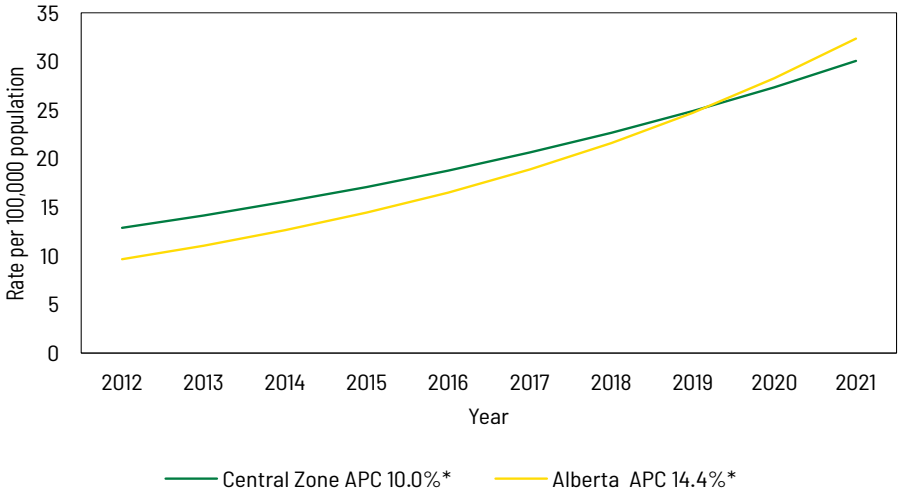
Over the 10-year period from 2012 to 2021, an average of 345 **Central Zone** area residents died due to an injury each year.

When we compare the overall injury age-standarized death rates of Central Zone and Alberta, the Central Zone had overall injury death rates higher than the Alberta rates.

Central Zone experienced an increase in the overall injury death rate of 1.2% 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 Central Zone and Alberta, 2012-2021

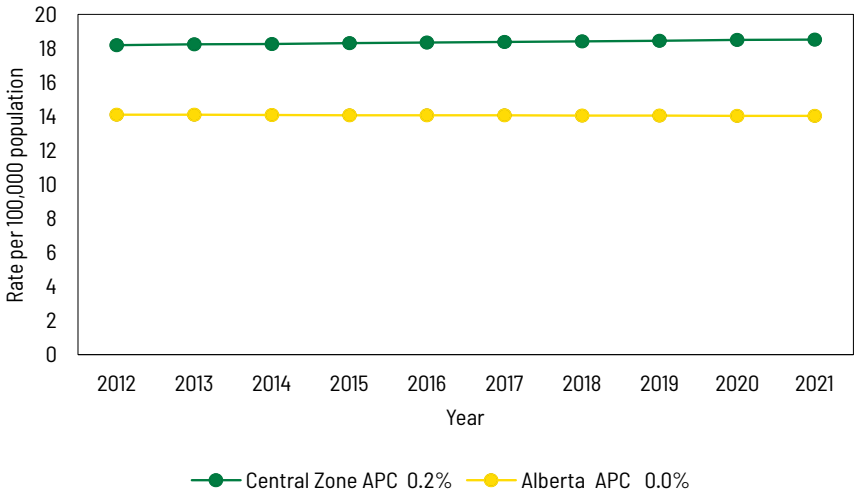


Over the 10-year period from 2012 to 2021, an average of 92 Central Zone area residents died due to unintentional / undetermined poisonings each year. This accounted for 27% of injury deaths.

When we compare the poisoning injury age-standarized death rates of Central Zone and Alberta, initially the Central Zone had higher poisoning rates however, as of 2020, the Central Zone rate was lower than the Alberta rate.

The Central Zone experienced a statistically significant increase in the poisoning death rate of 10% each year, and Alberta also experienced a statistically significant increase of 14.4% each year.

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



Over the 10-year period from 2012 to 2021, there was an average of 83 Central Zone residents who died due suicide / self-harm injuries each year.

When we compare the suicide / self-harm age-standarized death rates of Central Zone and Alberta, the Central Zone had suicide / self-harm injury death rates higher than the Alberta rates.

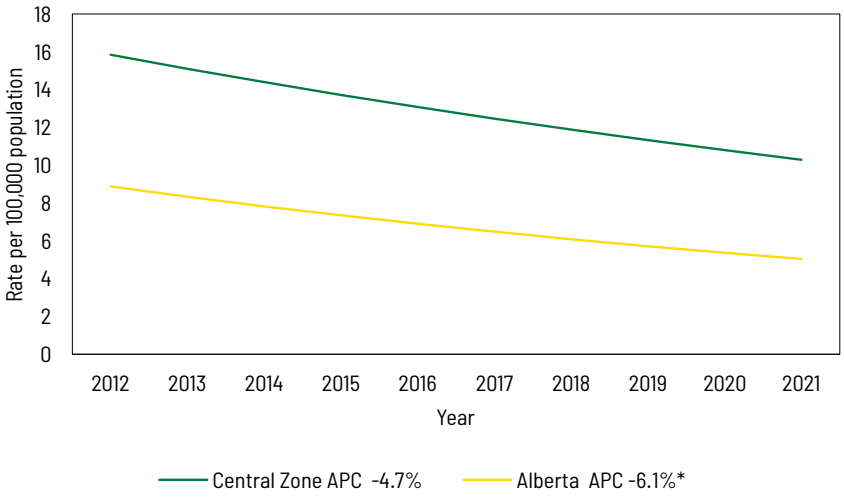
Over the 10 years, both the Central Zone and Alberta experience little change in the suicide /self-harm death rates. The Central Zone experienced a slight increase of 0.2% each year. There was no change in the Alberta suicide self-harm death rate.

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

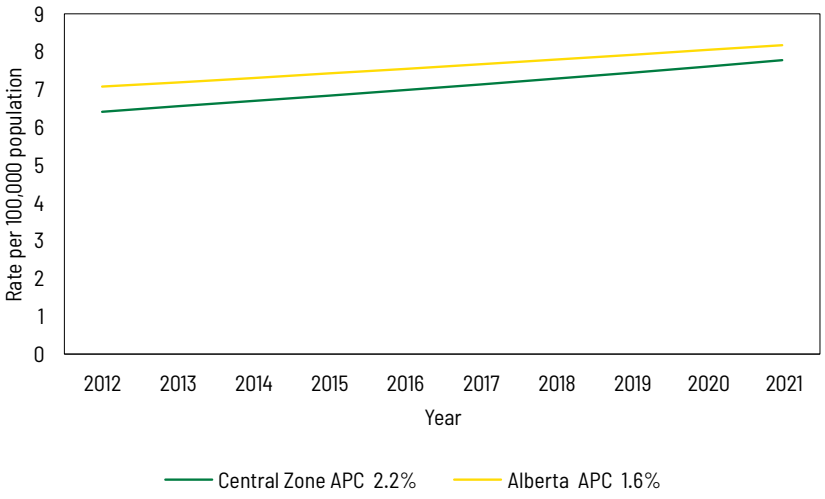
Over the 10-year period from 2012 to 2021, an average of 57 Central Zone residents died as a result of a motor vehicle incident each year. This accounts for 17% of all injury deaths.

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

The Central Zone experienced a statistically significant decrease in the motor vehicle death rate of 4.7% each year. Alberta experienced a statistically significant death rate decrease of 6.1% each year.



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



Over the 10-year period from 2012 to 2021, an average of 33 Central Zone residents died as a result of a fall each.

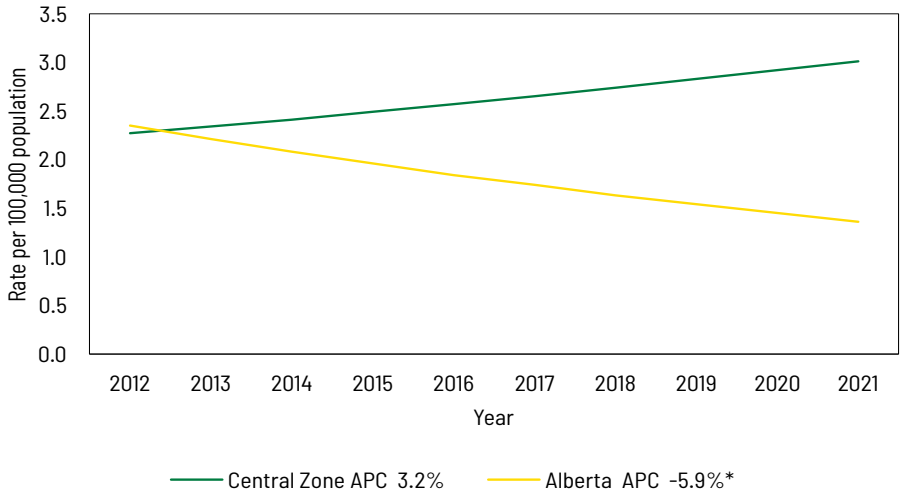
When we compare the fall age-standarized death rates of Central Zone and Alberta, the Central Zone had fall death rates higher than the Alberta rates.

Both the Central Zone and Alberta experienced a rate increase over the 10 year period. The Central Zone had a 2.2% increase and Alberta had a 1.6% increase.

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

Over the 10-year period from 2012 to 2021, an average of 9 Central Zone residents died due to injuries from violence / injury purposely inflicted each year.

The Central Zone experienced a 3.2% average annual increase in the violence / injury purposely inflicted death rate, whereas 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.

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

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.
Machinery	Includes: contact with lifting and transmission devices (chain hoist, drive belt, pulley, rope, transmission belt or cable, winch, contact with agriculture machinery (animal-powered-farm machine, combine harvester, derrick, hay, farm machinery not otherwise specified, reaper, thresher, contact with other and unspecified machinery. Contact with hot engines, machinery and tools

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.

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. No adjustments were made on the number or rates of falls based on weather or other conditions. 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-stnadardized 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.

Number of Injury Emergency Visits by Age Group, Rimbey, 2013 - 2022

Mechanism of Injury	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	21682		122	984	1,138	1,690	2,000	1,497	1,368	1,271	1,239	1,088	1,237	1,309	1,365	1,204	901	814	696	662	540	557
Top 5 Mechanism of Injury with Actionable Injury Prevention Strategies																						
Falls	6,098	28	48	386	375	387	289	212	192	234	248	189	261	368	384	380	321	335	365	374	323	427
Sports-related	1,113	5	<5	18	145	358	314	89	54	47	27	16	10	5	9	11	5	<5	<5	<5	<5	<5
Motor vehicle	928	4	<5	14	18	36	159	78	63	72	60	65	51	63	63	55	26	39	18	17	17	11
Unintentional/undetermined poisonings	574	3	5	51	10	10	46	46	67	43	46	33	30	34	37	28	19	20	15	12	14	8
Fire/Flames	408	2	<5	39	7	11	27	34	25	20	27	29	29	31	46	18	12	11	19	7	12	<5
Mechanism of Injury with Little or No Evidence-based Prevention Strategies																						
Other/unspecified	3,094	14	21	93	167	258	269	188	195	178	196	178	202	196	197	189	130	123	86	85	81	62
Struck by/against an object/person	2,215	10	12	121	164	211	225	230	143	150	125	121	132	117	122	111	66	47	41	33	28	16
Cutting/piercing	2,035	9	<5	48	69	97	176	207	197	156	142	130	158	147	152	125	93	59	34	29	14	<5
Natural/environmental factors	1,443	7	9	91	71	56	100	68	93	84	83	83	99	100	127	92	97	89	43	47	6	5
Overexertion/strenuous movements	1,434	7	<5	15	24	142	159	114	109	100	127	100	109	98	92	77	48	43	30	26	10	8
Suffocation/choking/foreign body	840	4	15	84	41	18	38	77	58	41	54	42	53	54	53	55	47	25	19	20	29	17
Violence/Purposely Inflicted	353	2	<5	<5	<5	7	51	45	51	39	37	28	22	17	21	14	<5	<5	7	<5	<5	<5
Machinery	293	1	<5	<5	<5	5	23	16	22	31	16	21	27	26	25	29	16	14	11	<5	<5	<5
All-Terrain/off road vehicles	259	1	<5	5	11	17	29	43	32	23	7	24	28	16	7	7	6	<5	<5	<5	<5	<5
Suicide/self-harm	171	1	<5	<5	<5	11	39	20	30	18	10	12	9	6	6	<5	<5	<5	<5	<5	<5	<5
Other classifiable	37	0	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of war/legal	14	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Water transport	12	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Late effects	12	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-not elsewhere classified	10	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Drowning	6	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Firearms	<5	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	<5	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Air/space transport	0	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.

Number of Injury Hospital Admissions by Age Group, Rimbey, 2013 - 2022

	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	1,545		4	14	16	23	50	38	48	47	40	62	42	81	80	115	73	121	139	178	172	202
Top 5 Mechanisms of Injury with Actionable Injury Prevention Strategies																						
Falls	863	56	<5	<5	5	<5	<5	7	8	10	11	11	9	30	35	67	43	83	101	137	118	175
Motor vehicle	113	7	<5	<5	<5	<5	12	<5	11	5	9	6	<5	12	7	<5	<5	13	5	9	7	<5
Suffocation/choking/foreign body	84	5	<5	<5	<5	<5	<5	<5	0	<5	<5	<5	<5	7	<5	14	5	<5	7	11	15	9
Unintentional/undetermined poisonings	73	5	<5	<5	<5	<5	<5	<5	<5	5	<5	7	7	8	6	5	5	<5	6	<5	<5	<5
Suicide/self-harm	60	4	<5	<5	<5	<5	13	7	5	<5	<5	9	6	<5	6	<5	<5	<5	<5	<5	<5	<5
Mechanism of Injury with Little or No Evidence-based Prevention Strategies																						
Other/unspecified	134	9	<5	<5	<5	<5	<5	5	<5	<5	<5	9	7	5	6	10	7	10	14	13	24	14
Natural/environmental factors	36	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5
Struck by/against an object/person	30	2	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Violence/purposely inflicted	22	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
All-Terrain/off road vehicles	22	1	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5	6	<5	<5	<5	<5	<5	<5	<5	<5
Overexertion/strenuous movements	20	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Sports-related	17	1	<5	<5	<5	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Fire/Flames	14	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Late effects	14	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cutting/piercing	11	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Machinery	8	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of war/legal	2	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Drowning	1	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Firearms	1	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Other classifiable	1	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	0	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Water transport	0	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Air/space transport	0	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-not elsewhere classified	0	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.

Number of Injury Deaths by Year, Central Zone, 2013 - 2022

	All Ages	% of All Injuries	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
All Injuries excluding adverse events	3346		305	312	344	346	305	361	325	284	376	388
Top 5 Mechanism of Injury with Actionable Injury Prevention Strategies												
Unintentional/undetermined poisonings	917	27	49	58	77	89	82	103	112	73	143	131
Suicide/self-harm	826	25	83	80	72	98	87	92	66	66	89	93
Motor vehicle	573	17	64	67	89	61	46	51	58	43	33	61
Falls	329	10	29	30	31	33	23	28	34	32	50	39
Violence/purposely inflicted	98	3	6	13	13	12	6	9	5	11	17	6
Mechanism of Injury with Little or No Evidence-based Prevention Strategies												
Mechanism of Injury	**# Deaths All Ages**	**%**										
Other/unspecified	194	6	22	16	26	10	21	28	15	21	21	14
Suffocation/choking/foreign body	91	3	14	14	7	8	10	10	9	8	5	6
Drowning	49	1	5	6	<5	9	<5	8	<5	6	<5	<5
Natural/environmental factors	48	1	5	<5	<5	<5	<5	<5	7	7	<5	13
All-Terrain/off road vehicles	39	1	7	5	<5	7	<5	<5	<5	<5	<5	6
Fire/Flames	38	1	7	<5	<5	<5	5	<5	<5	<5	<5	<5
Late effects	36	1	5	<5	<5	<5	5	8	<5	<5	<5	<5
Struck by/against an object/person	29	1	<5	6	<5	<5	<5	<5	6	<5	<5	<5
Adverse events	23	1	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Machinery	22	1	<5	<5	6	5	<5	<5	<5	<5	<5	<5
Air/space transport	7	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Railway	6	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Vehicle-not elsewhere classified	4	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Sports-related	3	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Operations of war/legal	3	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cutting/piercing	3	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Other classifiable	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	0	0	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Overexertion/strenuous movements	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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REV: 09-2024