

Aroostook Health District Burden of Injury 2004-2008

Highlights

Injury Deaths^a (2004-2008)

- Injury was the underlying cause of death for 229 Aroostook residents during this five year time period. There was an average of 46 injury deaths per year.
- The average annual injury death rate was 63.5 per 100,000 Aroostook residents.
- Injury was the underlying cause for 5.5% of all deaths among Aroostook residents.
- 74.2% of injury deaths were due to unintentional causes; 24% were due to intentional causes; 1.7% were coded as either undetermined intent or other.
- The three leading causes of injury deaths were motor vehicle injuries, suicide, and unintentional poisoning.

Injury Hospital Discharges^b

- There were 2,665 hospital discharges of Aroostook residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 533 such discharges per year. 5.2% of hospital discharges were for an injury related cause.
- The average annual injury hospital discharge rate was 739.4 per 100,000 Aroostook residents. Aroostook residents aged 65+ years were significantly more likely to have a hospital discharge than were residents in other age groups.
- The injury hospital discharge rate for females (768.2 per 100K) was higher than the rate for males (709.3 per 100K).
- 71.3% of injury hospital discharges were known to be due to unintentional causes; 7.3% were known to be due to intentional causes; 17.5% of injury cases were not coded for intent.
- The three leading causes of injury hospital discharges were unintentional fall, motor vehicle traffic crash, and self inflicted poisoning.

Injury Outpatient Emergency Department Visits^c

- There were 55,560 outpatient emergency department visits by Aroostook residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 11,112 visits per year. 23.2% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 15,415.9 per 100,000 Aroostook residents. Teens and young adults ages 15-24 were significantly more likely to have an injury outpatient visit than were people in other age groups.
- The injury outpatient emergency department visit rate for males (17,083.9 per 100K) was significantly higher than the rate for females (13,813.7 per 100K).
- 67.6% of injury outpatient emergency department visits were known to be due to unintentional causes; 1.8% were known to be due to intentional causes; 30.3% of injury cases were not coded for intent.
- The three leading causes of injury outpatient emergency department visits were unintentional fall, overexertion, and stuck by/against.

a Injury deaths defined as underlying cause of death coded as ICD-10 V01-Y36, Y85-Y87, Y89, U01-U03, Y40-Y59, Y60-Y84, or Y88

b Hospital discharge with injury principal diagnosis defined as principal diagnosis coded as ICD-9-CM 800-909.2, 909.4, 909.9-994.9, 995.5-995.59 or 995.80-995.85

c Outpatient emergency department visit with injury principal diagnosis defined as principal diagnosis coded as ICD-9-CM 800-909.2, 909.4, 909.9-994.9, 995.5-995.59 or 995.80-995.85, and discharge status coded as "Discharged to home or self care (routine discharge) or "Discharged/transferred to home under care of organized home health service organization".

Five Leading Causes of Injury Deaths Aroostook Health District, 2004-2008

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Motor Vehicle Traffic 52		Motor Vehicle Traffic 4	Motor Vehicle Traffic 12	Motor Vehicle Traffic 13	Suicide 20	Unintentional Fall 21		Suicide 48	Motor Vehicle Traffic 22
2	Suicide 51		Unintentional Fire/Hot Object 1 Land Transport, Other 1 Homicide 1	Suicide 7	Suicide 11	Motor Vehicle Traffic 11	Unintentional Unspecified 16		Motor Vehicle Traffic 30	Unintentional Unspecified 11
3	Unintentional Poisoning 27			Unintentional Poisoning 4	Unintentional Poisoning 10		Suicide 13		Unintentional Fall 20	Unintentional Poisoning 10
4	Unintentional Fall 26			Unintentional Drowning 1	Land Transport, Other 3	Unintentional Fall 5	Motor Vehicle Traffic 12		Unintentional Poisoning 17	Unintentional Fall 6
5	Unintentional Unspecified 21			Unintentional Firearm 1	Unintentional Fire/Hot Object 2	Land Transport Other 3	Unintentional Suffocation 6		Unintentional Unspecified 10	Suicide 3

Five Leading Causes of Injury Hospitalizations Aroostook Health District, 2004-2008

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 1,180		Unintentional Fall 26	Motor Vehicle Traffic 55	Unintentional Fall 83	Unintentional Fall 265	Unintentional Fall 783		Unintentional Fall 441	Unintentional Fall 739
2	Motor Vehicle Traffic 179		Pedal Cyclist 9 Unintentional Poisoning 9	Self Injury 48	Self Injury 78	Motor Vehicle Traffic 46	Other, Adverse Effects 42		Motor Vehicle Traffic 113	Self Injury 102
3	Self Injury 172			Transport, Other 28	Motor Vehicle Traffic 41	Self Injury 41	Motor Vehicle Traffic 29		Transport, Other 95	Motor Vehicle Traffic 66
4	Unintentional Transport, Other 125			Unintentional Fall 23	Transport, Other 37	Transport Other 34	Unintentional Unspecified 29		Self Injury 74	Unintentional Overexertion 38
5	Unintentional Poisoning 71		Motor Vehicle Traffic 8	Struck By/Against 10	Unintentional Poisoning 15	Unintentional Poisoning 24	Unintentional Overexertion 23		Unintentional Struck By/Against 44	Unintentional Poisoning 37

**Five Leading Causes of Injury Emergency Department Visits
Aroostook Health District, 2004-2008**

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 11,192		Unintentional Fall 2,620	Unintentional Struck By/Against 1,492	Unintentional Fall 2,132	Unintentional Fall 2,274	Unintentional Fall 2,708		Unintentional Fall 5,091	Unintentional Fall 6,096
2	Unintentional Overexertion 5,560		Unintentional Struck By/Against 1,556	Unintentional Fall 1,458	Unintentional Overexertion 1,861	Unintentional Overexertion 1,213	Unintentional Overexertion 511		Unintentional Struck By/Against 3,382	Unintentional Overexertion 2,831
3	Unintentional Struck By/Against 5,511		Unintentional Overexertion 708	Unintentional Overexertion 1,267	Unintentional Stuck By/Against 1,263	Unintentional Cut/Pierce 852	Unintentional Struck By/Against 378		Unintentional Overexertion 2,725	Unintentional Struck By/Against 2,127
4	Unintentional Cut/Pierce 3,730		Unintentional Cut/Pierce 551	Motor Vehicle Traffic 812	Unintentional Cut/Pierce 1,225	Unintentional Struck By/Against 822	Unintentional Cut/Pierce 303		Unintentional Cut/Pierce 2,464	Unintentional Cut/Pierce 1,264
5	Unintentional, Other 2,335		Unintentional, Other 525	Unintentional Cut/Pierce 799	Unintentional Other 664	Unintentional Other 518	Unintentional Unspecified 272		Unintentional Other 1,567	Motor Vehicle Traffic 1,147

Maine Injury Prevention Program – Four Priority Injury Indicators
Injury Deaths
Aroostook Health District, 2004-2008

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Motor Vehicle Traffic 52		Motor Vehicle Traffic 4	Motor Vehicle Traffic 12	Motor Vehicle Traffic 13	Suicide 20	Unintentional Fall 21		Suicide 48	Motor Vehicle Traffic 22
Suicide 51			Suicide 7	Suicide 11	Motor Vehicle Traffic 11	Suicide 13		Motor Vehicle Traffic 30	Unintentional Poisoning 10
Unintentional Poisoning 27				Unintentional Poisoning 10		Motor Vehicle Traffic 12		Unintentional Fall 20	Unintentional Fall 6
Unintentional Fall 26					Unintentional Fall 5	Unintentional Poisoning 2		Unintentional Poisoning 17	Suicide 3

Maine Injury Prevention Program – Four Priority Injury Indicators
Injury Hospitalizations
Aroostook Health District, 2004-2008

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Unintentional Fall 1,180		Unintentional Fall 26	Motor Vehicle Traffic 55	Unintentional Fall 83	Unintentional Fall 265	Unintentional Fall 783		Unintentional Fall 441	Unintentional Fall 739
Motor Vehicle Traffic 179		Unintentional Poisoning 9	Self Injury 48	Self Injury 78	Motor Vehicle Traffic 46	Motor Vehicle Traffic 29		Motor Vehicle Traffic 113	Self Injury 102
Self Injury 172		Motor Vehicle Traffic 8	Unintentional Fall 23	Motor Vehicle Traffic 41	Self Injury 41	Unintentional Poisoning 21		Self Injury 74	Motor Vehicle Traffic 66
Unintentional Poisoning 71		Self Injury 5	Unintentional Poisoning 2	Unintentional Poisoning 15	Unintentional Poisoning 24	Self Injury 4		Unintentional Poisoning 34	Unintentional Poisoning 37

Maine Injury Prevention Program – Four Priority Injury Indicators
Injury Emergency Department Visits
Aroostook Health District, 2004-2008

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Unintentional Fall 11,192		Unintentional Fall 2,620	Unintentional Fall 1,458	Unintentional Fall 2,132	Unintentional Fall 2,274	Unintentional Fall 2,708		Unintentional Fall 5,091	Unintentional Fall 6,096
Motor Vehicle Traffic 2,188		Motor Vehicle Traffic 162	Motor Vehicle Traffic 812	Motor Vehicle Traffic 594	Motor Vehicle Traffic 447	Motor Vehicle Traffic 173		Motor Vehicle Traffic 1,039	Motor Vehicle Traffic 1,147
Unintentional Poisoning 281		Unintentional Poisoning 97	Self Injury 86	Self Injury 96	Unintentional Poisoning 65	Unintentional Poisoning 46		Unintentional Poisoning 145	Unintentional Poisoning 136
Self Injury 227		Self Injury 8	Unintentional Poisoning 34	Unintentional Poisoning 39	Self Injury 34	Self Injury 3		Self Injury 95	Self Injury 132

Data Sources

Deaths: 2004-2008 death certificate statistical datasets obtained from the Office of Data, Research and Vital Statistics, Maine analysis includes all deaths to Maine residents, regardless of the state where the death occurred.

Hospital Discharges: 2004-2008 hospital discharge (inpatient) datasets obtained from the Maine Health Data Organization. Analysis limited to discharge of Maine residents from Maine acute care hospitals (excludes psychiatric, rehabilitation and federal hospitals)

Outpatient ED Visits: 2004-2008 hospital outpatient datasets obtained from the Maine Health Data Organizations. Analysis limited to ED visits by Maine residents at Maine acute care hospitals (excludes psychiatric, rehabilitation and federal hospitals) where the person was discharged to home or self care.

Population Estimates: Annual estimates of the resident population by age, sex, race and Hispanic origin for counties: April 1, 2000 to July 1, 2008.

Injury Definitions

Unintentional Injury	Definition
Fall	When an individual sustains an injury after an unintentional descent from any height
Motor Vehicle	An incident involving a motorized vehicle and at least one injured individual, where that individual is a vehicle occupant, passenger or driver; a motorcyclist
Pedestrian	Injuries caused in transport and non-transport related crashes
Transport, Other	All transportation injuries not included in motor vehicle, pedestrian or bicycle injuries
Fire/Hot Substance	Severe exposure to flames, heat, chemicals or hot substance that leads to tissue damage of the skin or places deeper in the body; injury from smoke inhalation to the upper airway, lower airway or lungs
Firearm	Penetrating force injury resulting from a bullet or other projectile shot from a powder charged gun (handgun, shotgun, unspecified firearm)
Poisoning	Ingestion, inhalation, absorption through the skin, or injection of so much of a drug, toxin, or other chemical that a harmful effect results. This category does not include harmful effects from normal therapeutic drugs or bacterial illnesses
Suffocation	Inhalation, aspiration or ingestion of food or other object that blocks the airway or causes suffocation; intentional or accidental mechanical suffocation caused by hanging, strangulation, lack of air in a closed place, plastic bag, or falling earth. This category does not include injury resulting from a foreign body that does not block the airway.
Natural/Environmental Causes	Injury resulting from exposure to adverse natural and environmental conditions, i.e. severe heat, severe cold, lightning, sunstroke, tornadoes and natural disasters as well as lack of food or water.
Struck By/Against	Injury resulting from being struck by (i.e. hit) or crushed by a human, animal, or inanimate object or force other than a vehicle or machinery; injury caused by striking (i.e. hitting) against a human, animal or inanimate object or force other than a vehicle or machinery
Cutting/Piercing	Injury resulting from an incision, slash, perforation or puncture by a pointed or sharp instrument, weapon or object
Overexertion	Injury resulting from excessive physical exercise (i.e. lifting, pulling, pushing). Strenuous movements in recreational and other activities
Drowning	Suffocation resulting from submersion in water or other liquid
Late effects	Late effect or sequela resulting from a previous injury or poisoning

Unspecified	Information missing on mechanism (i.e. motor vehicle, firearm, hanging) of the injury
Other	Injury associated with any other specified cause that does not fit another category
Intentional Injury	Definition
Abuse and Neglect	Injury resulting from abuse or criminal neglect
Physical Force	Injury resulting from fight, brawl, rape, includes beating with hands, fists, feet
Cutting/Piercing	Injury resulting from an incision, a slash, a perforation, or a puncture by a pointed or sharp instrument, weapon or object
Firearm	Penetrating force injury resulting from a bullet or other projectile shot from a powder charged gun (handgun, shotgun, military firearm, unspecified firearm)
Homicide	All fatal injuries purposely inflicted by other persons, excluding legal intervention by law enforcement agents
Struck	Injury resulting from striking by blunt or thrown object
Other	Injury associated with any other specified cause that does not fit another category
Self Injury	Definition
Drug and Medicinal Substances	Injury resulting from poisoning by drug and medicinal substances (i.e. analgesics, barbiturates, tranquilizers, etc)
Cutting/Piercing	Injury resulting from cutting, piercing instrument
Firearm	Penetrating force injury resulting from bullet or other projectile shot from a powder charged gun
Jump	Injury resulting from jumping from high places
Hang	Mechanical suffocation caused by hanging or strangulation or physical constriction of the neck, resulting in air loss
Suicide	All fatal injuries which are self inflicted
Other	Injury associated with any other specified cause that does not fit another category
Undetermined Intent	Definition
Poisoning	Injury resulting from poisoning by solid or liquid substance, including drugs and medicinal substances but undetermined whether unintentionally or intentionally inflicted
Unspecified	Information missing on mechanism (i.e., motor vehicle, firearm, hanging) of the injury

