

Penquis Health District Burden of Injury 2004-2008

Highlights

Injury Deaths^a

- Injury was the underlying cause of death for 510 Penquis district residents during this five year time period. There was an average of 102 injury deaths per year.
- The average annual injury death rate was 61.9 per 100,000 Penquis district residents.
- Injury was the underlying cause for 6.3% of all deaths among Penquis residents.
- 72.2% of injury deaths were due to unintentional causes; 25.1% were due to intentional causes.
- The three leading causes of injury deaths were suicide, unintentional poisoning and motor vehicle traffic injuries.

Injury Hospital Discharges^b

- There were 5,452 hospital discharges of Penquis district residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 1,090 such discharges per year. 5.4% of hospital discharges were for an injury related cause.
- The average annual injury hospital discharge rate was 661.4 per 100,000 Penquis district residents. Penquis 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 (714.0 per 100K) was higher than the rate for males (606.5 per 100K).
- 75.2% of injury hospital discharges were known to be due to unintentional causes; 9.4% were known to be due to intentional causes; 13.4% of cases were not coded for injury 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 96,236 outpatient emergency department visits by Penquis district residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 19,247 visits per year. 25.6% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 11,674.7 per 100,000 Penquis 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 (12,962.5 per 100K) was significantly higher than the rate for females (10,441.1 per 100K).
- 68.2% of injury outpatient emergency department visits were known to be due to unintentional causes; 2.7% were known to be due to intentional causes; 28.7% of cases were not coded for injury intent.
- The three leading causes of injury outpatient emergency department visits were unintentional fall, struck by/against, and overexertion.

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 Penquis Health District, 2004-2008

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Suicide 117		Unintentional Drowning 2	Motor Vehicle Traffic 22	Unintentional Poisoning 54	Suicide 40	Unintentional Unspecified 41		Suicide 98	Unintentional Unspecified 32
2	Unintentional Poisoning 99		Unintentional Suffocation 2	Unintentional Poisoning 12	Suicide 44	Unintentional Poisoning 27	Unintentional Fall 32		Unintentional Poisoning 70	Motor Vehicle Traffic 29
3	Motor Vehicle Traffic 90		Unintentional Fall 1	Suicide 9	Motor Vehicle Traffic 24	Motor Vehicle Traffic 22	Suicide 24		Motor Vehicle Traffic 61	Unintentional Poisoning 29
4	Unintentional Fall 43		Unintentional Fire/Hot Object 1	Homicide 2	Unintentional Drowning 5	Unintentional Fall 9	Unintentional Suffocation 24		Unintentional Fall 21	Unintentional Fall 22
5	Unintentional Unspecified 43		Motor Vehicle Traffic 1 Unintentional Poisoning 1	Unintentional Drowning 2 Land Transport, Other 2	Unintentional Suffocation 4	Transport, Other 5	Motor Vehicle Traffic 21		Unintentional Suffocation 19	Suicide 19

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

Rank	Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
1	Unintentional Fall 2,414	Unintentional Fall 94	Motor Vehicle Traffic 129	Self Injury 211	Unintentional Fall 472	Unintentional Fall 1,557	Unintentional Fall 859	Unintentional Fall 1,555
2	Motor Vehicle Traffic 555	Unintentional Poisoning 32	Self Injury 106	Unintentional Fall 209	Motor Vehicle Traffic 140	Motor Vehicle Traffic 73	Motor Vehicle Traffic 323	Self Injury 285
3	Self Injury 450	Unintentional Struck By/Against 27	Unintentional Fall 82	Motor Vehicle Traffic 205	Self Injury 114	Unintentional Poisoning 54	Unintentional Poisoning 151	MV Traffic 232
4	Unintentional Poisoning 306	Transport, Other 26	Unintentional Poisoning 53	Unintentional Poisoning 71	Unintentional Poisoning 96	Other, Adverse Effects 41	Self Injury 165	Unintentional Poisoning 155
5	Transport, Other 157	Unintentional Fire/Burn 11	Transport, Other 35	Transport, Other 44	Transport, Other 35		Unintentional Unspecified 41	Transport, Other 114

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

Rank	Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
1	Unintentional Fall 17,713	Unintentional Fall 3,390	Unintentional Struck By/Against 3,267	Unintentional Fall 4,014	Unintentional Fall 3,915	Unintentional Fall 3,701	Unintentional Fall 8,013	Unintentional Fall 9,700
2	Unintentional Struck By/Against 10,804	Unintentional Struck By/Against 2,778	Unintentional Fall 2,693	Unintentional Overexertion 3,619	Unintentional Overexertion 1,841	Unintentional Struck By/Against 549	Unintentional Struck By/Against 6,787	Unintentional Overexertion 4,647
3	Unintentional Overexertion 9,115	Unintentional Cut/Pierce 954	Unintentional Overexertion 2,256	Unintentional Struck By/Against 2,804	Unintentional Cut/Pierce 1,611	Unintentional Overexertion 546	Unintentional Cut/Pierce 4,903	Unintentional Struck By/Against 4,017
4	Unintentional Cut/Pierce 7,048	Unintentional Overexertion 853	Motor Vehicle Traffic 1,736	Unintentional Cut/Pierce 2,403	Unintentional Struck By/Against 1,406	Unintentional Cut/Pierce 477	Unintentional Overexertion 4,468	Motor Vehicle Traffic 2,812
5	Motor Vehicle Traffic 5,103	Unintentional, Other 797	Unintentional Cut/Pierce 1,603	Motor Vehicle Traffic 1,736	Motor Vehicle Traffic 1,008	Unintentional Unspecified 442	Unintentional, Other 2,472	Unintentional Cut/Pierce 2,145

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

Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
Suicide 117	Unintentional Fall 1	Motor Vehicle Traffic 22	Unintentional Poisoning 54	Suicide 40	Unintentional Fall 32	Suicide 98	Motor Vehicle Traffic 29
Unintentional Poisoning 99	Motor Vehicle Traffic 1	Unintentional Poisoning 12	Suicide 44	Unintentional Poisoning 27	Suicide 24	Unintentional Poisoning 70	Unintentional Poisoning 29
Motor Vehicle Traffic 90	Unintentional Poisoning 1	Suicide 9	Motor Vehicle Traffic 24	Motor Vehicle Traffic 22	Motor Vehicle Traffic 21	Motor Vehicle Traffic 61	Unintentional Fall 22
Unintentional Fall 43		Unintentional Fall 1		Unintentional Fall 9	Unintentional Poisoning 5	Unintentional Fall 21	Suicide 19

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

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Motor Vehicle Traffic 555	Unintentional Poisoning 32	Self Injury 106	Unintentional Fall 209	Motor Vehicle Traffic 140	Motor Vehicle Traffic 73	Motor Vehicle Traffic 323	Self Injury 285
Self Injury 450	Motor Vehicle Traffic 8	Unintentional Fall 82	Motor Vehicle Traffic 205	Self Injury 114	Unintentional Poisoning 54	Self Injury 165	Motor Vehicle Traffic 232
Unintentional Poisoning 306	Self Injury 8	Unintentional Poisoning 53	Unintentional Poison 71	Unintentional Poisoning 96	Self Injury 11	Unintentional Poisoning 151	Unintentional Poisoning 155

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

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2	Motor Vehicle Traffic 5,103		Motor Vehicle Traffic 284	Motor Vehicle Traffic 1,736	Motor Vehicle Traffic 1,736	Motor Vehicle Traffic 1,008	Motor Vehicle Traffic 339		Motor Vehicle Traffic 2,291	Motor Vehicle Traffic 2,812
3	Self Injury 685		Unintentional Poisoning 153	Self Injury 333	Self Injury 227	Unintentional Poisoning 114	Unintentional Poisoning 49		Self Injury 322	Self Injury 363
4	Unintentional Poisoning 577		Self Injury 42	Unintentional Poisoning 128	Unintentional Poisoning 133	Self Injury 81	Self Injury 5		Unintentional Poisoning 266	Unintentional Poisoning 311

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	Self-inflicted death with evidence (implicit or explicit) of the intent to die
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

