

Cumberland Health District Burden of Injury 2004-2008

Highlights

Injury Deaths^a

- Injury was the underlying cause of death for 11,742 Cumberland residents during this five year time period. There was an average of 2,348 injury deaths per year.
- The average annual injury death rate was 53.3 per 100,000 Cumberland residents.
- Injury was the underlying cause for 6.2% of all deaths among Cumberland residents.
- 70.7% of injury deaths were due to unintentional causes; 25.5% were due to intentional causes; 3.7% were coded as either undetermined intent or other.
- The three leading causes of injury deaths were unintentional poisoning, motor vehicle traffic injuries and unintentional falls.

Injury Hospital Discharges^b

- There were 7,847 hospital discharges of Cumberland residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 1,567 such discharges per year. 5.5% of hospital discharges were for an injury related cause.
- The average annual injury hospital discharge rate was 571.9 per 100,000 Cumberland residents. Cumberland 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 (600.5 per 100K) was higher than the rate for males (541.7 per 100K).
- 80.5% of injury hospital discharges were known to be due to unintentional causes; 11.8% were known to be due to intentional causes; less than 5% were not injury 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 142,081 outpatient emergency department visits by Cumberland residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 28,416 visits per year. 29.4% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 10,355 per 100,000 Cumberland 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 (11,507 per 100K) was significantly higher than the rate for females (9,262.5 per 100K).
- 89.2% of injury outpatient emergency department visits were known to be due to unintentional causes; 4% were known to be due to intentional causes; 6.3% were not injury coded for intent.
- The three leading causes of injury outpatient emergency department visits were unintentional fall, stuck 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 Cumberland Health District, 2004-2008

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Suicide 164		Unintentional Drowning 4	Motor Vehicle Traffic 35	Unintentional Poisoning 76	Suicide 72	Unintentional Fall 64		Suicide 130	Unintentional Poisoning 56
2	Unintentional Poisoning 148		Motor Vehicle Traffic 4	Suicide 22	Suicide 49	Unintentional Poisoning 41	Unintentional Unspecified 51		Unintentional Poisoning 92	Motor Vehicle Traffic 43
3	Motor Vehicle Traffic 130		Unintentional Poisoning 2		Unintentional Poisoning 22	Motor Vehicle Traffic 36	Motor Vehicle Traffic 26	Motor Vehicle Traffic 29		Motor Vehicle Traffic 87
4	Unintentional Fall 83		Unintentional Suffocation 2	Unintentional Fall 3	Homicide 9	Unintentional Drowning 11	Suicide 21		Unintentional Fall 42	Unintentional Unspecified 36
5	Unintentional Unspecified 57		Unintentional Fall 1	Unintentional Drowning 2	Unintentional Fall 6	Unintentional Fall 9	Unintentional Suffocation 18		Unintentional Unspecified 21	Suicide 34

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

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 3,950		Unintentional Fall 161	Motor Vehicle Traffic 208	Self Injury 330	Unintentional Fall 647	Unintentional Fall 2,790		Unintentional Fall 1,455	Unintentional Fall 2,495
2	Motor Vehicle Traffic 801		Unintentional Poisoning 47	Self Injury 164	Unintentional Fall 266	Motor Vehicle Traffic 198	Motor Vehicle Traffic 141		Motor Vehicle Traffic 493	Self Injury 400
3	Self Injury 709		Motor Vehicle Traffic 43	Unintentional Fall 86	Motor Vehicle fall 211	Self Injury 172	Unintentional Unspecified 98		Self Injury 309	Motor Vehicle Traffic 308
4	Unintentional Poisoning 371		Unintentional Struck By/Against 29	Unintentional Poisoning 50	Unintentional Poisoning 101	Unintentional Poisoning 100	Unintentional Poisoning 73		Unintentional Poisoning 202	Unintentional Poisoning 169
5	Transport Other 204		Unintentional Pedal Cyclist 23	Transport, Other 46	Transport, Other 65	Undetermined Poisoning 44	Other, Adverse Effects 50		Transport, Other 139	Unintentional Unspecified 102

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

Rank	Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
1	Unintentional Fall 38,438	Unintentional Fall 9,295	Unintentional Struck By/Against 5,527	Unintentional Fall 8,393	Unintentional Fall 7,959	Unintentional Fall 7,692	Unintentional Fall 17,893	Unintentional Fall 20,543
2	Unintentional Stuck By/Against 20,420	Unintentional Stuck By/Against 6,111	Unintentional Fall 5,099	Unintentional Overexertion 6,347	Unintentional Overexertion 3,372	Unintentional Struck By/Against 1,004	Unintentional Struck By/Against 12,649	Unintentional Overexertion 7,982
3	Unintentional Overexertion 16,395	Unintentional Overexertion 1,991	Unintentional Overexertion 3,764	Unintentional Struck By/Against 5,071	Unintentional Cut/Pierce 3,091	Unintentional Cut/Pierce 956	Unintentional Cut/Pierce 9,040	Unintentional Struck By/Against 7,769
4	Unintentional Cut/Pierce 13,947	Unintentional Cut/Pierce 1,838	Unintentional Cut/Pierce 3,048	Unintentional Cut/Pierce 5,014	Unintentional Struck By/Against 2,707	Unintentional Overexertion 921	Unintentional Overexertion 8,410	Motor Vehicle Traffic 5,047
5	Motor Vehicle Traffic 9,363	Unintentional Other 1,623	Motor Vehicle Traffic 2,949	Motor Vehicle Traffic 3,557	Motor Vehicle Traffic 1,871	Unintentional Unspecified 635	Motor Vehicle Traffic 4,316	Unintentional Cut/Pierce 4,907

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

Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
Suicide 164	Motor Vehicle Traffic 4	Motor Vehicle Traffic 35	Unintentional Poisoning 76	Suicide 72	Unintentional Fall 64	Suicide 130	Unintentional Poisoning 56
Unintentional Poisoning 148	Unintentional Poisoning 2	Suicide 22	Suicide 49	Unintentional Poisoning 41	Motor Vehicle Traffic 29	Unintentional Poisoning 92	Motor Vehicle Traffic 43
Motor Vehicle Traffic 130	Unintentional Fall 1	Unintentional Poisoning 22	Motor Vehicle Traffic 36	Motor Vehicle Traffic 26	Suicide 21	Motor Vehicle Traffic 87	Unintentional Fall 41
Unintentional Fall 83		Unintentional Fall 3	Unintentional Fall 6	Unintentional Fall 9	Unintentional Poisoning 7	Unintentional Fall 42	Suicide 34

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Self Injury 709	Motor Vehicle Traffic 43	Unintentional Fall 86	Motor Vehicle Traffic 211	Self Injury 172	Unintentional Poisoning 73	Self Injury 309	Motor Vehicle Traffic 308
Unintentional Poisoning 371	Self Injury 15	Unintentional Poisoning 50	Unintentional Poisoning 101	Unintentional Poisoning 100	Self Injury 28	Unintentional Poisoning 202	Unintentional Poisoning 169

**Maine Injury Prevention Program – Four Priority Injury Indicators
Injury Emergency Department Visits
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Motor Vehicle Traffic 9,363	Motor Vehicle Traffic 486	Motor Vehicle Traffic 2,949	Motor Vehicle Traffic 3,557	Motor Vehicle Traffic 1,871	Motor Vehicle Traffic 500	Motor Vehicle Traffic 4,316	Motor Vehicle Traffic 5,047
Self Injury 1,443	Unintentional Poisoning 325	Self Injury 652	Self Injury 540	Self Injury 179	Unintentional Poisoning 98	Self Injury 643	Self Injury 795
Unintentional Poisoning 1,046	Self Injury 66	Unintentional Poisoning 183	Unintentional Poisoning 264	Unintentional Poisoning 176	Self Injury 6	Unintentional Poisoning 513	Unintentional Poisoning 533

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