

Cumberland Health District  
Burden of Injury  
2005-2009

Highlights

**Injury Deaths<sup>a</sup>**

- Injury was the underlying cause of death for 769 residents during this five year time period. There was an average of 154 injury deaths per year.
- The average annual injury death rate was 55.7 per 100,000 Cumberland residents.
- Injury was the underlying cause for 6.5% of all deaths among Cumberland residents.
- 75.6% of injury deaths were due to unintentional causes; 22.6% were due to intentional causes; 1.8% were coded as either undetermined intent or other.
- The three leading causes of injury deaths were suicide, unintentional poisoning, and unintentional motor vehicle traffic.

**Injury Hospital Discharges<sup>b</sup>**

- There were 7,844 hospital discharges of Cumberland residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 1,569 such discharges per year. 5.5% of hospital discharges were for an injury related cause.
- The average annual injury hospital discharge rate was 568.6 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 (603.3 per 100K) was higher than the rate for males (532.1 per 100K).
- 81.1% of injury hospital discharges were known to be due to unintentional causes; 11.8% were known to be due to intentional causes; 7.1% of injury cases were coded as undetermined, other or missing intent.
- The three leading causes of injury hospital discharges were unintentional fall, unintentional motor vehicle traffic and self inflicted injury.

**Injury Outpatient Emergency Department Visits<sup>c</sup>**

- There were 139,057 outpatient emergency department visits Cumberland residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 27,811 visits per year. 28.4% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 10,080.0 per 100,000 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 (11,107.7 per 100K) was significantly higher than the rate for females (9,103.5 per 100K).
- 89.4% of injury outpatient emergency department visits were known to be due to unintentional causes; 4.2% were known to be due to intentional causes; 6.4% of injury cases were coded as undetermined, other or missing.
- The three leading causes of injury outpatient emergency department visits were unintentional fall, unintentional struck by/against and unintentional overexertion intent.

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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, 2005-2009

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Suicide 177		Unintentional Drowning 4	Unintentional Motor Vehicle Traffic 31	Unintentional Poison 68	Suicide 77	Unintentional Fall 74		Suicide 138	Unintentional Poison 61
2	Unintentional Poison 159		Homicide 2	Suicide 22	Suicide 59	Unintentional Poison 62	Unintentional Unspecified 57		Unintentional Poison 98	Unintentional Fall 45
3	Unintentional Motor Vehicle Traffic 125		Unintentional Suffocation 2	Unintentional Poison 21	Unintentional Motor Vehicle Traffic 36	Unintentional Motor Vehicle Traffic 30	Unintentional Motor Vehicle Traffic 27		Unintentional Motor Vehicle Traffic 90	Unintentional Unspecified 40
4	Unintentional Fall 91		Unintentional Fall 1	Unintentional Drowning 3	Homicide 13	Homicide 11	Suicide 19		Unintentional Fall 46	Suicide 39
5	Unintentional Unspecified 63		Unintentional Motor Vehicle Traffic 1		Unintentional Fall 3	Unintentional Drowning 7	Unintentional Fall 10	Unintentional Suffocation 17		Unintentional Unspecified 23

**Five Leading Causes of Injury Hospitalizations  
Cumberland Health District, 2005-2009**

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 4,133		Unintentional Fall 136	Unintentional Motor Vehicle Traffic 179	Intentional Self Injury 321	Unintentional Fall 680	Unintentional Fall 2,949		Unintentional Fall 1,526	Unintentional Fall 2,607
2	Unintentional Motor Vehicle Traffic 739		Unintentional Poison 40	Intentional Self Injury 165	Unintentional Fall 267	Unintentional Motor Vehicle Traffic 202	Unintentional Motor Vehicle Traffic 142		Unintentional Motor Vehicle Traffic 451	Intentional Self Injury 400
3	Intentional Self Injury 713		Unintentional Motor Vehicle Traffic 32	Unintentional Fall 90	Unintentional Motor Vehicle Traffic 184	Intentional Self Injury 183	Unintentional Unspecified 88		Intentional Self Injury 313	Unintentional Motor Vehicle Traffic 288
4	Unintentional Poison 364		Unintentional Struck by/against 30	Unintentional Poison 39	Unintentional Poison 103	Unintentional Poison 109	Unintentional Poison 73		Unintentional Poison 200	Unintentional Poison 164
5	Unintentional Transport, Other 198		Unintentional Transport, Other 36	Unintentional Transport, Other 36	Undetermined Poison 64	Undetermined Poison 48	Other, Adverse Effects 50		Unintentional Transport, Other 128	Unintentional Unspecified 90

**Five Leading Causes of Injury Emergency Department Visits  
Cumberland Health District, 2005-2009**

Rank	Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
1	Unintentional Fall 38,613		Unintentional Fall 9,034	Unintentional Struck by/against 5,427	Unintentional Fall 8,263	Unintentional Fall 8,179	Unintentional Fall 8,097		Unintentional Fall 17,703	Unintentional Fall 20,908
2	Unintentional Struck by/against 20,167		Unintentional Struck by/against 6,011	Unintentional Fall 5,040	Unintentional Overexertion 6,078	Unintentional Overexertion 3,285	Unintentional Struck by/against 1,070		Unintentional Struck by/against 12,412	Unintentional Struck by/against 7,753
3	Unintentional Overexertion 15,806		Unintentional Overexertion 1,928	Unintentional Overexertion 3,588	Unintentional Struck by/against 4,924	Unintentional Cut/pierce 2,973	Unintentional Cut/pierce 932		Unintentional Cut/pierce 8,361	Unintentional Overexertion 7,730
4	Unintentional Cut/pierce 12,993		Unintentional Cut/pierce 1,623	Unintentional Cut/pierce 2,805	Unintentional Cut/pierce 4,660	Unintentional Struck by/against 2,735	Unintentional Overexertion 927		Unintentional Overexertion 8,075	Unintentional Motor Vehicle Traffic 4,680
5	Unintentional Motor Vehicle Traffic 8,736		Unintentional Other specified 1,561	Unintentional Motor Vehicle Traffic 2,632	Unintentional Motor Vehicle Traffic 3,337	Unintentional Motor Vehicle Traffic 1,848	Unintentional Unspecified 666		Unintentional Motor Vehicle Traffic 4,056	Unintentional Cut/pierce 4,632

**Maine Injury Prevention Program – Four Priority Injury Indicators  
Injury Deaths  
Cumberland Health District, 2005-2009**

Overall		Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+		Male	Female
Suicide 177		Unintentional Motor Vehicle Traffic 1	Unintentional Motor Vehicle Traffic 31	Unintentional Poison 68	Suicide 77	Unintentional Fall 74		Suicide 138	Unintentional Poison 61
Unintentional Poison 159		Unintentional Fall 1	Suicide 22	Suicide 59	Unintentional Poison 62	Unintentional Motor Vehicle Traffic 27		Unintentional Poison 98	Unintentional Fall 45
Unintentional Motor Vehicle Traffic 125			Unintentional Poison 21	Unintentional Motor Vehicle Traffic 36	Unintentional Motor Vehicle Traffic 30	Suicide 19		Unintentional Motor Vehicle Traffic 90	Suicide 39
Unintentional Fall 91			Unintentional Fall 3	Unintentional Fall 3	Unintentional Fall 10	Unintentional Poison 8		Unintentional Fall 46	Unintentional Motor Vehicle Traffic 35

**Maine Injury Prevention Program – Four Priority Injury Indicators  
Injury Hospitalizations  
Cumberland Health District, 2005-2009**

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Unintentional Fall 4,133	Unintentional Fall 136	Unintentional Motor Vehicle Traffic 179	Intentional Self Injury 321	Unintentional Fall 680	Unintentional Fall 2,949	Unintentional Fall 1,526	Unintentional Fall 2,607
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Intentional Self Injury 713	Unintentional Motor Vehicle Traffic 32	Unintentional Fall 90	Unintentional Motor Vehicle Traffic 184	Intentional Self Injury 183	Unintentional Poison 73	Intentional Self Injury 313	Unintentional Motor Vehicle Traffic 288
Unintentional Poison 364	Intentional Self Injury 11	Unintentional Poison 39	Unintentional Poison 103	Unintentional Poison 109	Intentional Self Injury 33	Unintentional Poison 200	Unintentional Poison 164

**Maine Injury Prevention Program – Four Priority Injury Indicators  
Injury Emergency Department Visits  
Cumberland Health District, 2005-2009**

Overall	Age <15	Age 15-24	Age 25-44	Age 45-64	Age 65+	Male	Female
Unintentional Fall 38,611	Unintentional Fall 9,034	Unintentional Fall 5,040	Unintentional Fall 8,263	Unintentional Fall 8,178	Unintentional Fall 8,096	Unintentional Fall 17,701	Unintentional Fall 20,908
Unintentional Motor Vehicle Traffic 8,736	Unintentional Motor Vehicle Traffic 429	Unintentional Motor Vehicle Traffic 2,632	Unintentional Motor Vehicle Traffic 3,337	Unintentional Motor Vehicle Traffic 1,848	Unintentional Motor Vehicle Traffic 490	Unintentional Motor Vehicle Traffic 4,056	Unintentional Motor Vehicle Traffic 4,680
Intentional Self Injury 1,093	Unintentional Poison 314	Intentional Self Injury 658	Intentional Self Injury 614	Unintentional Poison 195	Unintentional Poison 108	Intentional Self Injury 663	Intentional Self Injury 871
Unintentional Poison 1,534	Intentional Self Injury 58	Unintentional Poison 205	Unintentional Poison 217	Intentional Self Injury 194	Intentional Self Injury 10	Unintentional Poison 526	Unintentional Poison 567

## Data Sources

Deaths: 2005-2009 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: 2005-2009 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: 2005-2009 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, 2009.

## Injury Definitions

<b>Unintentional Injury</b>	<b>Definition</b>
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
<b>Intentional Injury</b>	<b>Definition</b>
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
<b>Self Injury</b>	<b>Definition</b>
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
<b>Undetermined Intent</b>	<b>Definition</b>
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

