

Midcoast Health District Burden of Injury 2004-2008

Highlights

Injury Deaths^a

- Injury was the underlying cause of death for 511 Midcoast 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 68 per 100,000 Midcoast residents.
- Injury was the underlying cause for 6.9% of all deaths among Midcoast residents.
- 69.9% of injury deaths were due to unintentional causes; 26% were due to intentional causes.
- The three leading causes of injury deaths were suicide, motor vehicle traffic injuries, and unintentional poisoning.

Injury Hospital Discharges^b

- There were 4,941 hospital discharges of Midcoast district residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 988 such discharges per year. 5.6% of hospital discharges were for an injury related diagnosis.
- The average annual injury hospital discharge rate was 657.6 per 100,000 Midcoast residents. Midcoast 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 (722.2 per 100K) was significantly higher than the rate for males (590.6 per 100K).
- 78.2% of injury hospital discharges were known to be due to unintentional causes; 8.7% were known to be due to intentional causes; 10.9% 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 92,225 outpatient emergency department visits by Midcoast residents for which an injury was the principal diagnosis during this 5 year period. There was an average of 18,445 visits per year. 28.3% of outpatient emergency department visits were for an injury related cause.
- The average annual injury outpatient emergency department visit rate was 12,274.1 per 100,000 Midcoast 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 (13,618.6 per 100K) was significantly higher than the rate for females (10,976.6 per 100K).
- 82.7% of injury outpatient emergency department visits were known to be due to unintentional causes; 2.2% were known to be due to intentional causes; 14.8% of cases were not coded for injury 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
Midcoast Health District, 2004-2008**

| Rank | Overall | | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | | Male | Female | |
|------|------------------------------------|--|---|-----------------------------------|----------------------------------|---|------------------------------------|------------------------------------|------------------------------------|------------------------------------|-----------------------------|
| 1 | Suicide 120 | | Motor Vehicle Traffic 3 | Motor Vehicle Traffic 27 | Unintentional Poisoning 35 | Suicide 45 | Unintentional Fall 40 | | Suicide 97 | Motor Vehicle Traffic 36 | |
| 2 | Motor Vehicle Traffic 113 | | | Unintentional Pedestrian 3 | Suicide 18 | Suicide 33 | Motor Vehicle Traffic 27 | Unintentional Unspecified 38 | | Motor Vehicle Traffic 77 | Unintentional Fall 26 |
| 3 | Unintentional Poisoning 74 | | | Unintentional Suffocation 3 | Unintentional Poisoning 15 | Motor Vehicle Traffic 29 | Unintentional Poisoning 22 | Motor Vehicle Traffic 27 | | Unintentional Poisoning 51 | Suicide 23 |
| 4 | Unintentional Fall 51 | | Unintentional Drowning 2 | Homicide 3 | Homicide 5 | Unintentional Fall 10 | Suicide 24 | | Unintentional Fall 25 | Unintentional Poisoning 23 | |
| 5 | Unintentional Unspecified 39 | | Homicide 1 Undetermined Unspecified 1 | Unintentional Drowning 3 | Unintentional Drowning 4 | Unintentional Drowning 4 Transport, Other 4 Pedestrian 4 | Unintentional Suffocation 11 | | Unintentional Unspecified 18 | Unintentional Unspecified 21 | |

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

| Rank | Overall | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | Male | Female |
|------|--------------------------------|---------------------------------------|-------------------------------|-------------------------------|-------------------------------|----------------------------------|--------------------------------|--------------------------------|
| 1 | Unintentional Fall 2,304 | Unintentional Fall 57 | Motor Vehicle Traffic 149 | Self Injury 156 | Unintentional Fall 390 | Unintentional Fall 1,676 | Unintentional Fall 781 | Unintentional Fall 1,523 |
| 2 | Motor Vehicle Traffic 590 | Motor Vehicle Traffic 18 | Self Injury 141 | Motor Vehicle Traffic 152 | Motor Vehicle Traffic 146 | Motor Vehicle Traffic 125 | Motor Vehicle Traffic 334 | Motor Vehicle Traffic 256 |
| 3 | Self Injury 379 | Transport, Other 17 | Unintentional Fall 46 | Unintentional Fall 135 | Self Injury 103 | Unintentional Poisoning 57 | Self Injury 171 | Self Injury 208 |
| 4 | Unintentional Poisoning 205 | Unintentional Struck By/Against 11 | Transport, Other 38 | Unintentional Poisoning 48 | Unintentional Poisoning 57 | Other Adverse Effects 50 | Transport, Other 108 | Unintentional Poisoning 103 |
| 5 | Transport, Other 169 | Unintentional Poisoning 10 | Unintentional Poisoning 33 | Transport, Other 44 | Transport, Other 36 | Unintentional Overexertion 48 | Unintentional Poisoning 102 | Transport, Other 61 |

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

| Rank | Overall | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | Male | Female |
|------|---|--|--|--|--|--|--|--|
| 1 | Unintentional Fall 21,694 | Unintentional Fall 5,138 | Unintentional Struck By/Against 2,841 | Unintentional Fall 4,302 | Unintentional Fall 4,390 | Unintentional Fall 5,025 | Unintentional Fall 9,874 | Unintentional Fall 11,819 |
| 2 | Unintentional Struck By/Against 10,872 | Unintentional Struck By/Against 3,071 | Unintentional Fall 2,839 | Unintentional Overexertion 3,701 | Unintentional Cut/Pierce 2,232 | Unintentional Natural/Envir 937 | Unintentional Struck By/Against 6,786 | Unintentional Overexertion 4,838 |
| 3 | Unintentional Overexertion 9,876 | Unintentional Cut/Pierce 1,254 | Unintentional Overexertion 2,358 | Unintentional Cut/Pierce 2,993 | Unintentional Overexertion 1,946 | Unintentional Cut/Pierce 774 | Unintentional Cut/Pierce 6,106 | Unintentional Struck By/Against 4,085 |
| 4 | Unintentional Cut/Pierce 9,055 | Unintentional Overexertion 1,199 | Unintentional Cut/Pierce 1,802 | Unintentional Struck By/Against 2,674 | Unintentional Struck By/Against 1,568 | Unintentional Struck By/Against 718 | Unintentional Overexertion 5,037 | Unintentional Cut/Pierce 2,949 |
| 5 | Unintentional Natural/Envir 5,324 | Unintentional Natural/Envir 1,193 | Motor Vehicle Traffic 1,584 | Motor Vehicle Traffic 1,650 | Unintentional Natural/Envir 1,369 | Unintentional Exertion 672 | Unintentional Other 2,998 | Unintentional Natural/Envir 2,708 |

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

| Overall | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | Male | Female |
|-------------------------------|----------------------------|-------------------------------|-------------------------------|-------------------------------|------------------------------|-------------------------------|-------------------------------|
| Suicide 120 | Motor Vehicle Traffic 3 | Motor Vehicle Traffic 27 | Unintentional Poisoning 35 | Suicide 45 | Unintentional Fall 40 | Suicide 97 | Motor Vehicle Traffic 36 |
| Motor Vehicle Traffic 113 | | Suicide 18 | Suicide 33 | Motor Vehicle Traffic 27 | Motor Vehicle Traffic 27 | Motor Vehicle Traffic 77 | Unintentional Fall 26 |
| Unintentional Poisoning 74 | | Unintentional Poisoning 15 | Motor Vehicle Traffic 29 | Unintentional Poisoning 22 | Suicide 24 | Unintentional Poisoning 51 | Suicide 23 |
| Unintentional Fall 51 | | | Unintentional Fall 1 | Unintentional Fall 10 | Unintentional Poisoning 2 | Unintentional Fall 25 | Unintentional Poisoning 23 |

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

| Overall | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | Male | Female |
|--------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Unintentional Fall 2,034 | Unintentional Fall 57 | Motor Vehicle Traffic 149 | Self Injury 156 | Unintentional Fall 390 | Unintentional Fall 1,676 | Unintentional Fall 781 | Unintentional Fall 1,523 |
| Motor Vehicle Traffic 590 | Motor Vehicle Traffic 18 | Self Injury 141 | Motor Vehicle Traffic 152 | Motor Vehicle Traffic 146 | Motor Vehicle Traffic 125 | Motor Vehicle Traffic 334 | Motor Vehicle Traffic 256 |
| Self Injury 379 | Unintentional Poisoning 10 | Unintentional Fall 46 | Unintentional Fall 135 | Self Injury 103 | Unintentional Poisoning 57 | Self Injury 171 | Self Injury 208 |
| Unintentional Poisoning 205 | Self Injury 8 | Unintentional Poisoning 33 | Unintentional Poisoning 48 | Unintentional Poisoning 57 | Self Injury 21 | Unintentional Poisoning 102 | Unintentional Poisoning 103 |

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

| Overall | Age <15 | Age 15-24 | Age 25-44 | Age 45-64 | Age 65+ | Male | Female |
|--------------------------------|--------------------------------|--------------------------------|--------------------------------|--------------------------------|-------------------------------|--------------------------------|--------------------------------|
| Unintentional Fall 21,694 | Unintentional Fall 5,138 | Unintentional Fall 2,839 | Unintentional Fall 4,302 | Unintentional Fall 4,390 | Unintentional Fall 5,025 | Unintentional Fall 9,874 | Unintentional Fall 11,819 |
| Motor Vehicle Traffic 4,869 | Motor Vehicle Traffic 348 | Motor Vehicle Traffic 1,584 | Motor Vehicle Traffic 1,650 | Motor Vehicle Traffic 936 | Motor Vehicle Traffic 351 | Motor Vehicle Traffic 2,253 | Motor Vehicle Traffic 2,615 |
| Unintentional Poisoning 645 | Unintentional Poisoning 223 | Self Injury 232 | Self Injury 155 | Unintentional Poisoning 112 | Unintentional Poisoning 75 | Unintentional Poisoning 350 | Unintentional Poisoning 295 |
| Self Injury 469 | Self Injury 18 | Unintentional Poisoning 98 | Unintentional Poisoning 137 | Self Injury 60 | Self Injury 4 | Self Injury 214 | Self Injury 255 |

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 |