



Maine Center for Disease Control and Prevention

An Office of the
Department of Health and Human Services

John E. Baldacci, Governor

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Public Health Injury Surveillance and Prevention Program
Centers for Disease Control and Prevention
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2005 Annual Maine Injury Report

Introduction

In 2005, the Maine Injury Prevention Program (MIPP) received a CDC Integrated Core Injury Prevention Grant. This grant provided the financial resources to review surveillance data for unintentional and intentional injury. This annual injury report reviews unintentional and intentional deaths and hospitalizations by age and sex. This report reviews 2005 injury data.

This year some of the indicator definitions have changed thus the counts/rates may not be directly comparable. One new indicator is added to report; hip fracture hospitalizations in persons aged 65 and older. Readers should review the “Comparison with other reports” section of the technical notes for details.

All Injury Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	788	59.6	56.0	8,206	621.0	571.0
By sex:						
Male	531	82.2	81.9	3,827	592.8	595.7
Female	257	38.0	32.4	4,379	647.9	526.6
By age:						
<1 year	2	*	---	43	312.5	---
1-4 years	5	*	---	97	180.0	---
5-14 years	8	*	---	263	171.3	---
15-24 years	101	55.5	---	864	474.7	---
25-34 years	100	69.5	---	655	455.1	---
35-44 years	121	60.3	---	894	445.8	---
45-54 years	129	59.0	---	902	412.5	---
55-64 years	83	51.1	---	807	496.8	---
65-74 years	62	64.6	---	861	897.1	---
75-84 years	90	127.7	---	1,508	2139.3	---
85+ years	87	332.1	---	1,312	5008.4	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Unintentional Drowning and Near-Drowning Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	25	1.9	1.8	4	*	*
By sex:						
Male	23	3.6	3.4	3	*	*
Female	2	*	*	1	*	*
By age:						
<1 year	0	*	---	0	*	---
1-4 years	1	*	---	0	*	---
5-14 years	0	*	---	0	*	---
15-24 years	3	*	---	2	*	---
25-34 years	3	*	---	0	*	---
35-44 years	4	*	---	0	*	---
45-54 years	4	*	---	1	*	---
55-64 years	7	*	---	0	*	---
65-74 years	1	*	---	1	*	---
75-84 years	2	*	---	0	*	---
85+ years	0	*	---	0	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Accomplishments / Activities

- Although the Maine Injury Prevention Program and the ICIPG does not take a lead role on this issue, it does provide educational materials upon request that address water safety in and around the home. Additionally, the MIPP directs inquiries for resources to organizations such as Consumer Product Safety Commission, Maine Inland Fisheries and Wildlife and others.
- Data continues to be provided upon request.

**Unintentional Fall-Related Injury Deaths and Hospitalizations, 2005
Maine ICIPG Priority**

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	90	6.8	5.7	3,798	287.4	247.9
By sex:						
Male	53	8.2	8.2	1,432	221.8	222.2
Female	37	5.5	3.8	2,366	350.0	256.9
By age:						
<1 year	1	*	---	12	*	---
1-4 years	0	*	---	34	63.1	---
5-14 years	0	*	---	91	59.3	---
15-24 years	2	*	---	84	46.2	---
25-34 years	0	*	---	111	77.1	---
35-44 years	3	*	---	193	96.2	---
45-54 years	10	*	---	287	131.2	---
55-64 years	6	*	---	384	236.4	---
65-74 years	10	*	---	526	548.0	---
75-84 years	35	49.7	---	1,064	1509.5	---
85+ years	23	87.8	---	1,012	3863.2	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Unintentional Fall-Related Injury Deaths and Hospitalizations, 2005

Maine ICIPG Priority

Accomplishments / Activities:

- The Maine Falls Prevention Coalition report on falls prevention among older adults was formally presented to Maine's Legislature in March 2007.
- Members of the Maine Falls Prevention Coalition (now known as the Healthy Choices Advisory Committee) and ICIPG reviewed and provided comment on the Maine Injury Prevention Program's Strategic Plan – with a particular focus on the Falls Among Older Adults portion.
- The MIPP Health Educator continues to serve on the Healthy Choices Advisory Committee.
- Two collaborations were created as result of the July 2006 Falls Prevention and July 2007 Prescription Medication Symposia. Members of the ICIPG Poison and Falls Prevention workgroups are scheduled to convene to address over-medication, prescription medication misuse, and the associated increased risk of falls among older adults. (Members include the Office of Substance Abuse, the Northern New England Poison Center, Office of Elder Services, and Maine's Healthy Aging).
- Two additional agencies, expressing a strong interest to participate in this effort, are the University of New England (geriatric division) and the University of Maine Orono's Center on Aging.
- Ground work with the Project Coordinator of the Prescription Monitoring Program (PMP), housed within the Office of Substance Abuse, is underway. The Project Coordinator was a featured speaker at the Prescription Medication Misuse Symposium – providing an overview of the PMP. He will participate in the collaborative meeting of the ICIPG Falls and Poison members (and is a ICIPG poison group participant).
- The epidemiologist attached to the CDC grant continues to provide falls data upon request. This year hip fracture data has been added to her data collection efforts.

Hip Fracture Injury Hospitalizations in Persons Aged 65 and Older, 2005

	<u>Hospitalizations</u>	
	#	Crude Rate
Overall	1,399	726.1
By sex:		
Male	392	477.7
Female	1,007	910.5
By age:		
65-74 years	207	215.7
75-84 years	571	810.1
85+ years	621	2370.6

Rates are per 100,000.

Added new this year, with data being provided to the ICIPG members, the MIPP and the Healthy Choices Committee.

Unintentional Fire-Related Injury Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	14	*	*	65	4.9	4.9
By sex:						
Male	9	*	*	45	7.0	7.0
Female	5	*	*	20	3.0	2.9
By age:						
<1 year	0	*	---	0	*	---
1-4 years	1	*	---	2	*	---
5-14 years	0	*	---	1	*	---
15-24 years	2	*	---	14	*	---
25-34 years	1	*	---	12	*	---
35-44 years	3	*	---	12	*	---
45-54 years	2	*	---	3	*	---
55-64 years	1	*	---	9	*	---
65-74 years	2	*	---	8	*	---
75-84 years	1	*	---	3	*	---
85+ years	1	*	---	1	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Accomplishments / Activities

- The MIPP, partnering with the Maine State Fire Marshal's office, the Maine Fire Training school, and childcare agencies, planned and hosted a one day "Play Safe, Be Safe" fire prevention conference for fire service staff, school staff, and child care providers. The conference was broadcasted at three sites and included speakers providing an overview of the Play Safe, Be Safe lessons and activities geared to pre-school and kindergarten age children. Each participant was presented the complete Play Safe kit. Follow-up on its use is being conducted by the Fire Marshal's office.
- The planning and research assistant from the Maine State Fire Marshal's office continues to attend the ICIPG meetings. He routinely contributes and obtains data on fire injury and death to Maine residents of all ages.
- Data is provided routinely as needed to the Director of Maine CDC during the legislative session.

Firearm-Related Injury Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	109	8.2	7.7	16	*	*
By sex:						
Male	98	15.2	14.9	12	*	*
Female	11	*	*	4	*	*
By age:						
<1 year	0	*	---	0	*	---
1-4 years	0	*	---	0	*	---
5-14 years	0	*	---	0	*	---
15-24 years	6	*	---	7	*	---
25-34 years	16	*	---	2	*	---
35-44 years	18	*	---	1	*	---
45-54 years	20	9.1	---	2	*	---
55-64 years	13	*	---	3	*	---
65-74 years	17	*	---	0	*	---
75-84 years	11	*	---	1	*	---
85+ years	8	*	---	0	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

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Firearm-Related Injury Deaths and Hospitalizations, 2005

Accomplishments / Activities

- Members of the ICIPG suicide prevention workgroup and the Maine Youth Suicide Prevention Program (housed within the Maine Injury Prevention Program) were asked by the US Attorney's Office Project Safe Neighborhood committee, to review a draft brochure and poster being created to raise awareness about the criticalness of restricting access to firearms. The process is ongoing.
- The Maine Youth Suicide Prevention Program routinely updates its website and maintains its lethal means site. http://www.maine.gov/suicide/about/lethal_means.htm
- "There Ought to Be a Law" documentary film was premiered. This film is the result of the work of a mother whose teenage son killed himself in May, 2004, with a shotgun purchased at Wal-Mart. The mother, who had no previous political experience, campaigned for a bill that would require a waiting period before young people could buy shotguns or rifles as a way of trying to prevent other families from suffering a similar loss. The film follows the bill through the 2005 Maine legislative session as it goes through a hearing, committee work sessions and floor action. Members of the Maine Youth Suicide Prevention Program were interviewed for this, as well as portions of Lethal Means Committee working to develop recommendations to be included in the MYSPP plan.
- Legislative activities in which the MIPP was involved included either through the provision of testimony and/or data upon request from legislators, media or advocates:
 - "An Act To Create a Waiting Period for Firearms" - Not passed.
 - "Act to Protect Children by Requiring Trigger Locks on Handguns" – Not passed.
 - "An Act to Provide Firearms Safety Instruction for Adolescents" – Not Passed.
- Data continues to be provide upon request through the epidemiologist.

Homicide and Assault-Related Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	21	1.6	1.6	126	9.5	10.3
By sex:						
Male	11	*	*	108	16.7	17.7
Female	10	*	*	18	*	*
By age:						
<1 year	0	*	---	7	*	---
1-4 years	0	*	---	3	*	---
5-14 years	1	*	---	1	*	---
15-24 years	4	*	---	40	22.0	---
25-34 years	5	*	---	32	22.2	---
35-44 years	3	*	---	26	13.0	---
45-54 years	4	*	---	12	*	---
55-64 years	2	*	---	3	*	---
65-74 years	0	*	---	2	*	---
75-84 years	1	*	---	0	*	---
85+ years	1	*	---	0	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Accomplishments / Activities

- A representative of Maine Coalition to End Domestic Violence (MCEDV) attends the ICIPG meetings and participates on the Maine Youth Suicide Prevention Program's Steering Committee. MCEDV, which provides outreach and community and school-based education continues to be invited to conduct educational sessions (ex. Coaching Boys into Men) at conferences and health and safety events.
- The ICIPG continues to provide the MCEDV data and technical assistance as requested, as well as access to speaking opportunities at health and safety events.
- Domestic violence sites in Maine participated in a statewide needs assessment conducted through the Brain Injury Association of Maine. A member of the staff at Dartmouth is compiling the data and creating a report which will be shared with the Acquired Brain Injury Advisory Council – on which the MIPP Health Educator serves.
- Data continues to be provided upon request.

**Unintentional Motor Vehicle Traffic Deaths and Hospitalizations, 2005
Maine ICPG Priority**

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	179	13.5	13.1	945	71.5	70.0
By sex:						
Male	127	19.7	19.6	566	87.7	87.7
Female	52	7.7	7.2	379	56.1	53.1
By age:						
<1 year	0	*	---	3	*	---
1-4 years	1	*	---	5	*	---
5-14 years	5	*	---	28	18.2	---
15-24 years	51	28.0	---	244	134.1	---
25-34 years	24	16.7	---	135	93.8	---
35-44 years	20	10.0	---	143	71.3	---
45-54 years	22	10.1	---	121	55.3	---
55-64 years	16	*	---	98	60.3	---
65-74 years	15	*	---	69	71.9	---
75-84 years	16	*	---	74	105.0	---
85+ years	9	*	---	25	95.4	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Unintentional Motor Vehicle Traffic Deaths and Hospitalizations, 2006

Maine ICIPG Priority

Accomplishments and Activities

- The ICIPG motor vehicle work group and MIPP staff actively participated on a transportation committee created during the legislative session to address the following legislative documents. Data was provided upon request with testimony provided by the Director of Maine CDC:
 - LD 24 An Act to Make Failure to Wear a Seat Belt a Primary Offense passed during this legislative session. Law enforcement officials are now allowed to detain and cite a vehicle operator or passenger 18 years of age or older solely for failing to wear a seat belt.
 - LD 161 An Act to Prohibit the Use of Cellular Telephone by Minors while Driving passed during this legislative session. This law prohibits a person who has not attained 18 years of age from using a cellular telephone while operating a motor vehicle.
- The Bureau of Highway Safety continues to fund the child passenger safety (CPS) educator within the Maine Injury Prevention Program to conduct CPS training, manage voucher sites statewide, fitting stations, check-up events and bus training, in partnership with the Department of Education and numerous agencies statewide.
- Preliminary discussion is underway with the Children's Safety Network, the Maine Injury Prevention Program and the Bureau of Highway Safety to conduct an evaluation of the CPS Program. Discussions will continue within the motor vehicle ICIPG and the MIPP to determine the feasibility of utilizing resources through the CDC grant to support the evaluation training portions and other technical assistance.
- The motor vehicle ICIPG members also tentatively identified teen driving as its focus for this year. Members identified the AAA housed - *Get Out Alive Teen Driving Program* as a possible tool to use. This program is being taught to school resource officers through the Maine Criminal Justice Academy, and subsequently conducted in schools throughout Maine. Two police departments have agreed to participate in the *Get Out Alive* program and the evaluation that will be conducted.
- The MIPP Health Educator participates on the Maine Transportation Safety Coalition. This group, representing all modes of transportation, determined teen driving to be the focus of activities for this year as well. Members of ICPG are also members of the MTSC thus coordination of efforts will be streamlined. The MTSC submitted a proposal to the NHTSA / Public Health request for proposals to conduct teen driving education however, the proposal was not accepted.
- Members of the ICIPG reviewed and provided comment on the MIPP Strategic Plan with a particular focus on the motor vehicle portion.
- The ICIPG includes a representative of the Maine Health Information Center which is completing a report on Maine CODES Unsafe Driving Behavior Study. The MIPP CPS coordinator participates on the CODES Advisory Committee. Findings from this report will be used as results indicate the significant impact of speeding and other unsafe driving behavior in Maine on injuries and cost, particular on very young and very old drivers.
- Data continues to be provided upon request through the epidemiologist attached to the grant.

**Poisoning Deaths and Hospitalizations, 2005
Maine ICIPG Priority**

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	173	13.1	13.0	1,145	86.6	86.8
By sex:						
Male	106	16.4	16.6	514	79.6	79.8
Female	67	9.9	9.4	631	93.4	93.0
By age:						
<1 year	0	*	---	1	*	---
1-4 years	0	*	---	21	39.0	---
5-14 years	1	*	---	22	14.3	---
15-24 years	20	11.0	---	233	128.0	---
25-34 years	37	25.7	---	194	134.8	---
35-44 years	47	23.4	---	270	134.6	---
45-54 years	41	18.7	---	205	93.7	---
55-64 years	21	12.9	---	97	59.7	---
65-74 years	3	*	---	49	51.1	---
75-84 years	2	*	---	37	52.5	---
85+ years	1	*	---	16	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Poisoning Deaths and Hospitalizations, 2005

Maine ICIPG Priority

Accomplishments:

- The ICIPG poison group, in partnership with the Office of Substance Abuse and the Northern New England Poison Center hosted: *Prescription Drug Misuse: A Community Challenge* Symposium in July, 2007. Approximately 90 people representing physicians, public safety, nurses, community leaders, counselors and public health. Speakers included representatives of Office of Substance Abuse, ME DEA, UMaine Center on Aging, Medical Examiner's office and the Northern New England Poison Center. The symposium's purpose was to: 1) increase participant knowledge of the health risks involving the misuse of prescription drugs; 2) increase participant awareness of Maine's prevention and enforcement efforts; and 3) identify barriers, solutions and partnering opportunities to address the issues. A draft report was prepared by the facilitator and will be completed within the next two weeks.
- Presentations, during two ICIPG meetings, were conducted by the Director of the Northern New England Poison Center and the Office of Substance Abuse outlining the work being done within their agencies to address medication misuse at the community levels.
- Two collaborations were created as result of the July 2006 Falls Prevention and July 2007 Prescription Medication Symposia. Members of the ICIPG Poison and Falls Prevention workgroups are scheduled to convene to address over-medication, prescription medication misuse, and the associated increased risk of falls among older adults. (Members include the Office of Substance Abuse, the Northern New England Poison Center, Office of Elder Services, and Maine's Healthy Aging).
- Two additional agencies, expressing a strong interest to participate in this effort, are the University of New England (geriatric division) and the University of Maine Orono's Center on Aging.
- Funding continues to be provided through the Maine Injury Prevention Program to the Northern New England Poison Center to support outreach education.

Suicide and Suicide Attempt Deaths and Hospitalizations, 2005
Maine ICIPG Priority

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	174	13.2	12.2	708	53.6	54.2
By sex:						
Male	145	22.5	21.6	278	43.1	43.1
Female	29	4.3	3.9	430	63.6	65.3
By age:						
<1 year	0	*	---	0	*	---
1-4 years	0	*	---	1	*	---
5-14 years	0	*	---	11	*	---
15-24 years	14	*	---	159	87.4	---
25-34 years	25	17.4	---	130	90.3	---
35-44 years	30	15.0	---	204	101.7	---
45-54 years	37	16.9	---	130	59.4	---
55-64 years	31	19.1	---	50	30.8	---
65-74 years	19	*	---	11	*	---
75-84 years	10	*	---	7	*	---
85+ years	8	*	---	5	*	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Suicide and Suicide Attempt Deaths and Hospitalizations, 2005

Maine ICIPG Priority

Accomplishments

- The ICIPG suicide prevention workgroup met routinely – and further narrowed its list of 12 possible areas of focus to working specifically with Department of Corrections to address the issue of increased suicide within Maine jails. Connections are being made with those who collect the data, conduct the training of officials within the correctional facilities. Prison chaplains are also identified as playing a key role in this effort.
- Members of the ICIPG suicide prevention workgroup and the Maine Youth Suicide Prevention Program (housed within the Maine Injury Prevention Program) were asked by the US Attorney’s Office Project Safe Neighborhood committee, to review a draft brochure and poster being created to raise awareness about the criticalness of restricting access to firearms. The process is ongoing.
- Members of the ICIPG suicide work group reviewed and commented on the MIPP Strategic Plan – with a particular focus on the suicide prevention section.

NOTE: The Maine Youth Suicide Prevention Program, seen as one of the leaders in suicide prevention, continues to conduct grant funded activities within several schools in Maine – utilizing the Lifelines curriculum. In addition, the MYSPP steering committee provides strong coordination and oversight of identified goals of the Program. Data is provided upon request to the Steering Committee and the ICIPG work group.

Traumatic Brain Injury (TBI) Deaths and Hospitalizations, 2005

	Deaths			Hospitalizations		
	#	Crude Rate	Age-Adjusted Rate	#	Crude Rate	Age-Adjusted Rate
Overall	267	20.2	19.0	1,038	78.5	75.9
By sex:						
Male	206	31.9	31.6	680	105.3	106.4
Female	61	9.0	7.6	358	53.0	46.8
By age:						
<1 year	1	*	---	18	*	---
1-4 years	1	*	---	16	*	---
5-14 years	6	*	---	58	37.8	---
15-24 years	34	18.7	---	191	104.9	---
25-34 years	32	22.2	---	106	73.7	---
35-44 years	37	18.4	---	113	56.3	---
45-54 years	31	14.2	---	114	52.1	---
55-64 years	31	19.1	---	81	49.9	---
65-74 years	29	30.2	---	100	104.2	---
75-84 years	41	58.2	---	154	218.5	---
85+ years	24	91.6	---	87	332.1	---

Rates are per 100,000. Age-adjusted rates are adjusted to the 2000 U.S. standard population.

*Rates are not calculated when the number of events is <20.

Traumatic Brain Injury (TBI) Deaths and Hospitalizations, 2005

Accomplishments and Activities:

- Enacted into law May 2007: the Acquired Brain Injury Advisory Council is established to provide independent oversight and advice and to make recommendations to the Maine's Commissioner of Health and Human Services, Director of the Office of Adults with Cognitive and Physical Disability Services, the Director of the Maine Center for Disease Control and Prevention, the Director of the Office of MaineCare Services, all within DHHS.
- One of the requirements of the newly codified Council is to plan and conduct two public hearings in November to address unmet needs of persons with brain injuries in Maine. In addition, a report is due to the Commissioner and Health and Human Services Committee in early January, 2008. The epidemiologist will provide data as requested.
- The MIPP Health Educator serves on the Executive Committee, the secretary and the prevention chair to the ABIAC. Members of the ABIAC serve on the ICIPG. The former executive director provided an overview of the work of the Brain Injury Association of Maine during an ICIPG meeting.
- *"The Silent Epidemic Traumatic Brain Injury Services, Experiences, and Expectations in Maine – Survey Findings 2005"* was completed and printed. This work done to create this document was funded through a TBI Planning Grant to the Children with Special Health Needs Program in partnership with the ABIAC and the Brain Injury Association of Maine. This report presents findings from a statewide resource and needs assessment on the current needs, supports, and services available for individuals of all ages with TBI, their family members, significant others, private/public/state agencies and others. The purpose of the project was to explore the opinions, attitudes, and perceptions of these groups regarding the current state of TBI in Maine.
- Members of the ABIAC were asked to read and comment on the MIPP Strategic Plan.

More on Traumatic Brain Injury...

TBI deaths:

Intent:

- 62% were unintentional
- 33% were self-inflicted (suicide)
- 4% were assault (homicide)
- 2% were undetermined/unknown intent

Top 3 leading causes:

- Unintentional motor vehicle traffic incident (34%)
- Self-inflicted firearm injury (32%)
- Unintentional fall (21%)

(Note: Cause was unknown for 1% of TBI deaths.)

TBI hospital discharges:

Intent:

- 89% were unintentional
- <1% were self-inflicted (intentional)
- 4% were assault (intentional)
- 6% were other/undetermined/unknown intent

Top 3 leading causes:

- Unintentional fall (40%)
- Unintentional motor vehicle traffic incident (36%)
- Unintentional transport, other (7%)

(Note: Cause was unknown for 5% of TBI hospital discharges.)

Technical Notes

1. Data sources

Deaths. The 2005 death certificate statistical dataset was used to describe injury deaths. The dataset includes deaths of all Maine residents, regardless of where the death occurred. It is a multiple cause of death file that includes not only the underlying cause of death, but also any contributing causes. All injury fatality indicators in this report, except traumatic brain injury, were calculated by searching the underlying cause of death field. The traumatic brain injury fatality indicator was calculated by searching both underlying and contributing cause fields. We used the Centers for Disease Control and Prevention's (CDC) guidelines and definitions of injury indicators.¹ Appendix A lists the specific ICD-10 codes used in calculating the injury fatality indicators.

Hospitalizations. The 2005 inpatient (hospital discharge) dataset from the Maine Health Data Organization was used to describe injury hospitalizations. The dataset includes discharges from all nonfederal hospitals in Maine. Following CDC guidelines, we limited our analysis to hospital discharges on which the principal diagnosis was an injury (i.e., ICD-9-CM code 800-909.2, 909.4, 909.9, 910-994.9, 995.5-995.59, or 995.80-995.85) and excluded discharges from psychiatric and rehabilitation hospitals. (Discharges from psychiatric and rehabilitation units in general hospitals are included in the analysis.) All injury hospitalization indicators in this report, except traumatic brain injury and near-drowning, were calculated using the first-listed external cause of injury code (E-code) that was not E849, E967, E869.4, E870-E879, or E930-E949. The E-code selection process followed CDC guidelines.¹ The traumatic brain injury hospitalization indicator was coded using nature of disease codes (N-code). The near-drowning indicator was coded using a combination of E-codes and N-codes. We used CDC's guidelines and definitions of injury indicators.¹ Appendix B lists the specific ICD-9 codes used in calculating the hospitalization injury indicators.

2. Rates

Population data. 2005 population estimates used in calculating rates were obtained from the U.S. Census Bureau.²

Crude rates. Crude rates were calculated by dividing the number of events for a particular indicator by the 2005 population. Rates are expressed per 100,000 population. Crude rates were calculated for the population as a whole, by sex, and by age.

Age-adjusted rates. The direct method (applying age-specific Maine rates to the 2000 U.S. standard population) was used to calculate age-adjusted rates. Rates are expressed per 100,000 population. Age-adjusted rates were calculated for the population as a whole, and by sex.

Suppression of rates. Rates based on small numbers tend not to be reliable or precise, so following CDC practice,³ we did not calculate rates if the number of events was less than 20.

Using rates.⁴ The choice of a crude rate versus an age-adjusted rate depends on the purpose for which a rate is being used. Crude rates (or the number of events) should be used to measure or compare the absolute magnitude of injury indicators. The actual numeric value of an age-adjusted rate depends on the standard population used and therefore has no intrinsic meaning. Age-adjusted rates should only be used for comparison purposes, when you want to control for differences due only to differences in age composition (e.g., to compare Maine with another state that has a much younger population or to look at Maine at two different points in time and control for the aging of the population over time). The age-adjusted rates presented in this report can only be compared with other age-adjusted rates that were adjusted to the 2000 U.S. standard population.

3. Limitations

This report is subject to several limitations:

- Maine residents who were hospitalized for injuries in another state or at federal hospitals in Maine are not included.
- External cause of injury was not available for 10% of injury hospital discharges. As such, the counts and rates reported here for particular causes of injury (e.g., fall, poisoning) should be treated as minimum estimates.
- The deaths and hospitalizations reported here for a given injury indicator are not mutually exclusive; individuals who died in the hospital are included in both figures.
- A given person might appear more than once in the hospitalization counts and rates for a given indicator. This can occur if a person was hospitalized more than once at the same hospital for the same injury or was transferred from one hospital to another. Hence, the number of unique individuals who were hospitalized for a particular indicator will be less than the number of hospital discharges reported here for that indicator.
- The use of death and hospital discharge data means that this report reflects the more severe end of the injury spectrum and, as such, underestimates the overall burden of injury in Maine. A more complete picture of injury in the state would require information on individuals with injuries who (1) are treated and released from hospital emergency departments; (2) are treated only at their primary care providers' office, or (3) do not seek any treatment.

4. Comparisons with other reports

Care should be taken when comparing the data presented here with data in other reports. Comparisons should only be made if the methodologies are similar. For example, the CDC methodology used in this report limits hospitalization analyses to discharges for which the principal diagnosis was an injury. The results obtained using this method will differ from analyses that include all discharges, regardless of what the principal diagnosis was.

Based on CDC guidelines,¹ some of the indicator definitions used in this report differ from those used in the 2004 injury report. Specifically:

- Non-traffic codes have been removed from the unintentional motor vehicle hospitalization indicator.

- Additional diagnosis codes have been added to both the traumatic brain injury fatality indicator (i.e., S04.0) and hospitalization indicator (i.e., ICD-9-CM 950.1-950.3 and 995.55).
- Terrorism codes (i.e., ICD-9-CM E979 and E999, ICD-10 *U01-*U03) have been added to indicator definitions where appropriate.

See Appendices A and B for complete indicator definitions.

References

- ¹ Johnson RL, Thomas KE, Sarmiento K. *State Injury Indicators: Instructions for Preparing 2005 Data*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2007. Available from http://www.cdc.gov/ncipc/dir/State_Injury_Indicators_05.pdf. [accessed 2007 May 15].
- ² U.S. Census Bureau. *State Single Year of Age and Sex Population Estimates: April 1, 2000 to July 1, 2004 – RESIDENT*. Available from http://www.census.gov/popest/states/asrh/files/SC_EST2005_AGESEX_RES.csv. [accessed 2007 March 16].
- ³ Johnson RL, Thomas RG, Thomas KE, Patel N, Sarmiento K. *State Injury Indicators Report, Third Edition — 2004 Data*. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2007. Available from http://www.cdc.gov/ncipc/profiles/core_state/State_Injury_Indicators_Report.pdf. [accessed 2007 August 6].
- ⁴ U.S. Department of Health and Human Services. *Tracking Healthy People 2010*. Washington, DC: U.S. Government Printing Office; November 2000. Available from http://www.healthypeople.gov/Document/html/tracking/THP_PartA.htm#Age%20Adjustment. [accessed 2006 July 14].

Appendix A. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Deaths

Mechanism of Injury (Intent)	ICD-10 Codes	
All injury (all intents)	V01-X59	Accidents
	X60-X84	Intentional self-harm
	X85-Y09	Assault
	Y10-Y34	Event of undetermined intent
	Y35-Y36	Legal intervention and operations of war
	Y85-Y86	Sequelae of accidents
	Y87	Sequelae of intentional self-harm, assault and events of undetermined intent
	Y89	Sequelae of other external causes (legal intervention, war operations, unspecified)
	U01	Terrorism-assault
	U02	Sequelae of terrorism-assault
U03	Terrorism-intentional self-harm	
Drowning (unintentional)	W65-W74	Accidental drowning and submersion
	V90	Accident to watercraft causing drowning and submersion
	V92	Water-transport-related drowning and submersion without accident to watercraft
Fall-related (unintentional)	W00-W19	Falls (accident)
Fire-related (unintentional)	X00-X09	Exposure to smoke, fire, and flames
Firearm-related (all intents)	W32-W34	Handgun, rifle, shotgun, larger firearm, and other and unspecified firearms discharge (accident)
	X72-X74	Handgun, rifle, shotgun, larger firearm, and other and unspecified firearms discharge (intentional self-harm)
	X93-X95	Handgun, rifle, shotgun, larger firearm, and other and unspecified firearms discharge (assault)
	Y22-Y24	Handgun, rifle, shotgun, larger firearm, and other and unspecified firearms discharge (undetermined intent)
	Y35.0	Legal intervention involving firearm discharge
	U01.4	Terrorism involving firearms

Appendix A. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Deaths

Mechanism of Injury (Intent)	ICD-10 Codes	
Homicide	X85-Y09	Assault
	Y87.1	Sequelae of assault
	U01	Terrorism-assault
	U02	Sequelae of terrorism-assault
Motor vehicle traffic (unintentional)	V02-V04 (.1, .9), V09.2	Pedestrian injured in transport accident (traffic)
	V12-V14 (.3-.9), V19 (.4-.6)	Pedal cyclist injured in transport accident (traffic)
	V20-V28 (.3-.9), V29 (.4-.9)	Motorcycle rider injured in transport accident (traffic)
	V30-V39 (.4-.9)	Occupant of three-wheeled motor vehicle injured in transport accident (traffic)
	V40-V49 (.4-.9)	Car occupant injured in transport accident (traffic)
	V50-V59 (.4-.9)	Occupant of pick-up truck or van injured in transport accident (traffic)
	V60-V69 (.4-.9)	Occupant of heavy transport vehicle injured in transport accident (traffic)
	V70-V79 (.4-.9)	Bus occupant injured in transport accident (traffic)
	V80 (.3-.5), V81.1, V82.1, V83-V86 (.0-.3), V87 (.0-.8), V89.2	Other land transport accidents (traffic)
	Poisoning (all intents)	X40-X49
X60-X69		Intentional self-poisoning
X85-X90		Assault by poisoning
Y10-Y19		Poisoning, undetermined intent
Y35.2		Legal intervention involving gas
U01 (.6-.7)		Terrorism involving biological or chemical weapons
Suicide (self-inflicted)	X60-X84	Intentional self-harm
	Y87.0	Sequelae of intentional self-harm
	U03	Terrorism-intentional self-harm

Appendix A. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Deaths

Mechanism of Injury (Intent)	ICD-10 Codes	
Traumatic brain injury (all intents)	S01.0-S01.9	Open wound of head
	S02.0, S02.1, S02.3, S02.7-S02.9	Fracture of skull and certain facial bones
	S04.0	Injury of optic nerve and pathways
	S06.0-S06.9	Intracranial injury
	S07.0, S07.1, S07.8, S07.9	Crushing injury of head
	S09.7-S09.9	Other and unspecified injuries of head
	T01.0	Open wounds involving head with neck
	T02.0	Fractures involving head with neck
	T04.0	Crushing injuries involving head with neck
	T06.0	Injuries of brain and cranial nerves with injuries of nerves and spinal cord at neck level
	T90.1, T90.2, T90.4, T90.5, T90.8, T90.9	Sequelae of injuries of head

Appendix B. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Hospitalizations

Mechanism of Injury (Intent)	ICD-9 Codes	
All injury (all intents)	N-codes: 800-909.2, 909.4, 909.9-994.9, 995.5-995.59, 995.80-995.85	Injury and poisoning
Drowning and near-drowning (unintentional)	N-codes: 994.1 and/or E-codes: E830 E832 E910 E954 E964 E984	Drowning and nonfatal submersion Accident to watercraft causing submersion Other accidental submersion or drowning in water transport accident Accidental drowning and submersion Suicide and self-inflicted injury by submersion [drowning] Assault by submersion [drowning] Submersion [drowning], undetermined whether accidentally or purposely inflicted
Fall (unintentional)	E-codes: E880-E886, E888	Accidental falls
Fire-related (unintentional)	E-codes: E890-E899	Accident caused by fire and flames
Firearm-related (all intents)	E-codes: E922.0-E922.3, E922.8, E922.9 E955.0-E955.4 E965.0-E965.4 E985.0-E985.4 E970 E979.4	Accident caused by firearm Suicide and self-inflicted injury by firearms Assault by firearms Injury by firearms, undetermined whether accidentally or purposely inflicted Injury due to legal intervention by firearms Terrorism involving firearms

Appendix B. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Hospitalizations

Mechanism of Injury (Intent)	ICD-9 Codes	
Homicide / assault	E960-E969 E979 E999.1	Injury purposely inflicted by other persons Terrorism Late effect of injury due to terrorism
Motor vehicle traffic (unintentional)	E-codes: E810-E819	Motor vehicle traffic accidents
Poisoning (all intents)	E-codes: E850-E858 E860-E869 E950-E952 E962 E972 E980-E982 E979 (.6-.7)	Accidental poisoning by drugs, medicinal substances, and biologicals Accidental poisonings by other solid and liquid substances, gases, and vapors Suicide and self-inflicted injury by solid or liquid substances, gases in domestic use, or other gases and vapors Assault by poisoning Injury due to legal intervention by gas Poisoning by solid or liquid substances, gases in domestic use, or other gases, undetermined whether accidentally or purposely inflicted Terrorism involving biological or chemical weapons
Suicide-attempt (self-inflicted)	E-codes: E950-E959	Suicide and self-inflicted injury

Appendix B. International Classification of Disease Codes Used to Categorize Select Mechanisms of Injury Hospitalizations

Mechanism of Injury (Intent)	ICD-9 Codes
Traumatic brain injury (all intents)	N-codes:
	800.0-800.9
	801.0-801.9
	803.0-803.9
	804.0-804.9
	850.0-850.9
	851.0-851.9
	852.0-852.5
	853.0-853.1
	854.0-854.1
	950.1-950.3
	959.01
	995.55