

# **Oregon's Injury Prevention Plan 2005-2010**

**September 2007 Revision**

Oregon Department of Human Services

Public Health Division, Injury Prevention and Epidemiology Program

Oregon Injury Community Planning Group



Oregon Department of Human Services

Division of Public Health

Injury Prevention and Epidemiology

<http://www.oregon.gov/DHS/ph/ipe/index.shtml>

## **Introduction**

Review and assessment of Oregon's unpublished 2005 Injury Prevention Plan established by the Department of Human Services (DHS) Injury Prevention and Epidemiology Program (IPE) has identified plan aspects requiring revision based on recent analysis and current understanding of the injury problems that most affect Oregonians.

One factor which warranted assessment and revision the current Prevention Plan is the production of IPE's Annual Report for 2007—and analysis of injury outcomes in Oregon for the 2001-2005 period. Through analysis of state data in 2007, three injury outcomes have been identified for priority prevention/intervention:

- Suicide
- Motor vehicle traffic injuries
- Falls

These three priority areas have been identified based on the overall impact of these injuries by their relative rank of mortality, hospitalization, years of potential life lost (YPLL), and potential for reducing the impact through the application of evidence-based prevention efforts.

## **I. General overview of the burden of injury**

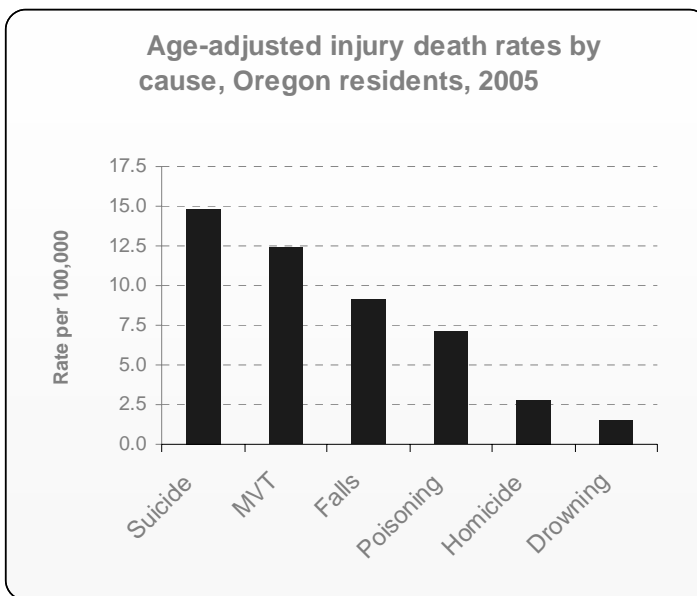
Injury is the fourth leading cause of death in Oregon, and is among the leading causes of hospitalization. Although injuries are commonly and inaccurately considered “accidents” or random events, injuries are preventable, and making injury a top public health priority assures reduction in the injury burden in Oregon. Each year, more than 2,000 Oregonians die as a result of injury, and nearly 20,000 are hospitalized as a direct result of injuries.

Oregon Department of Human Services (DHS), Public Health Division, in cooperation with the Centers for Disease Control (CDC), has implemented statewide injury surveillance and prevention programs in the effort to reduce the burden of injury among Oregonians. This means that injury deaths and hospitalizations are tracked over time in an effort to understand the impact and causes of injury in Oregon, leading to efforts to prevent future injuries in the community. Oregon has higher injury rates than those seen nationally—such as suicide and falls—and many of Oregon's injury outcomes have not significantly declined between 2001 and 2005. An effective means of reducing injury in the population is in the application of the public health approach to reducing adverse outcomes in the community. The public health approach to injury prevention is a process that involves identifying and defining the problem, identifying risk and protective factors, developing and testing prevention strategies, and assuring widespread adoption of effective strategies.

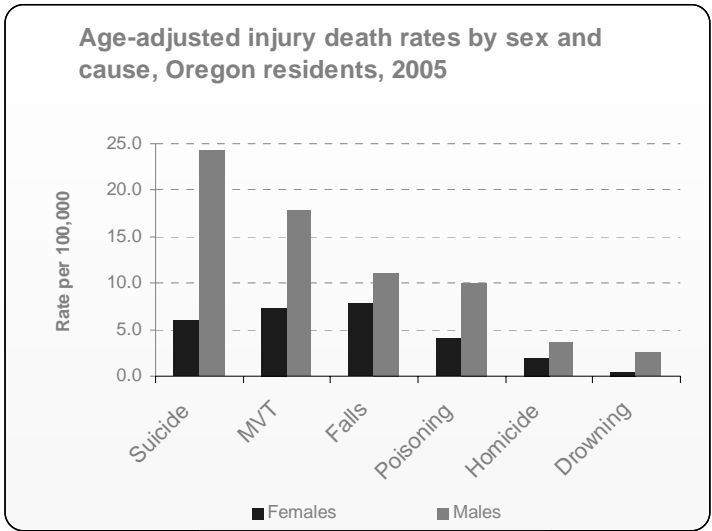
Although injuries can be categorized in multiple ways—where they occur, how they occur, etc.—it is typical to categorize injuries in terms of cause and intent. Cause typifies the how the injury occurred—for instance, by motor vehicle, firearm, struck by an object, by falling, etc. Intent is typified by either unintentional or intentional injury. While unintentional injuries often result as a form of rapid transfer of energy from object to person (e.g. being struck by a motor vehicle), intentional injuries are the result of intentional harm imposed upon one person by another, or upon oneself (e.g. suicide).

Analysis of Oregon data indicates that:

- In 2005, the leading cause of injury mortality in Oregon was suicide, at 14.8 deaths per 100,000 (age adjusted). This was over 500 deaths in 2005. Suicide alone contributed over 10,000 years of potential life lost (YPLL) in 2005—almost one third of all potential years of life lost due to injuries, and approximately as much as all motor vehicle traffic fatalities.
- Injury is responsible for more years of potential life lost in Oregon than cancer, heart disease, or stroke. For persons under 44 years of age, injury is the leading cause of death in Oregon.
- Motor vehicle traffic-related deaths were the second leading cause of injury mortality in 2005, with a rate of 12.4 per 100,000 (age adjusted).
- Unintentional falls were the third leading cause of injury mortality in 2005 with a rate of 9.1 deaths per 100,000 (age adjusted). Unintentional falls are the leading cause of hospitalization due to injury.
- Unintentional poisonings were the 4<sup>th</sup> leading cause of injury mortality in 2005, with a rate of 7.1 per 100,000 (age adjusted). Unintentional poisonings have increased significantly in the past few years and more so in males than in females. Over 900 hospitalizations and 250 deaths resulted from unintentional poisoning in 2005.
- There was a slight yet significant decline in the age-adjusted rate of hospitalization for total external injuries between 2001 and 2005, from 481 to 455 hospitalizations per 100,000



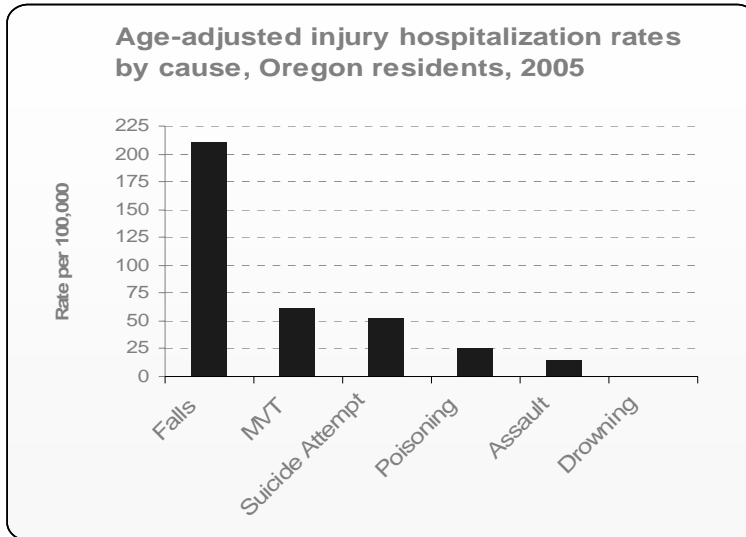
**Figure 1.** Rank of the leading causes of injury in Oregon in 2005



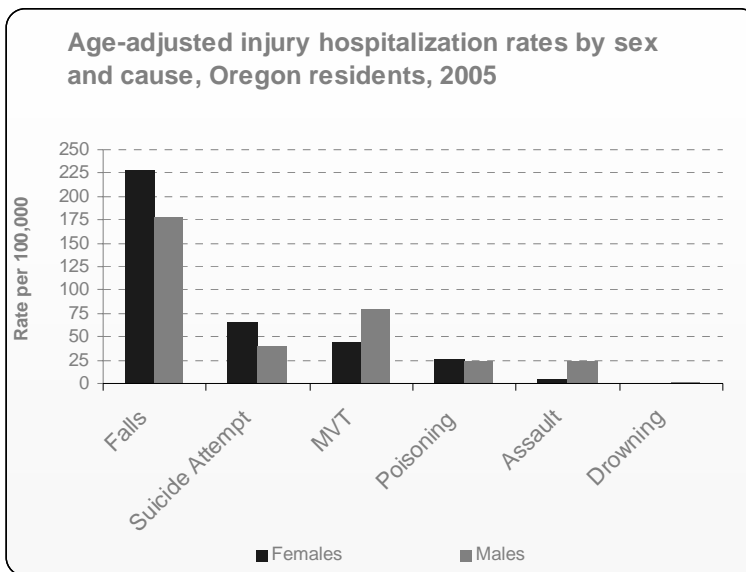
**Figure 2.** Rank of the leading causes of injury in Oregon in 2005, stratified by sex.

**Table 1.** Years of Potential Life Lost (YPLL) due to injury, Oregon residents, 2005 (sorted by highest YPLL for unintentional injury).

Cause	Intent			
	Unintentional	Suicide	Homicide	Undetermined
<b>Total</b>	<b>22,698.0</b>	<b>10,229.0</b>	<b>3,146.5</b>	<b>2,582.0</b>
Motor Vehicle traffic	10,858.0	-	-	-
Poisoning	5,958.5	1,922.0	-	909.0
Drowning	1,600.5	117.5	-	237.5
Fall	900.5	270.5	-	35.5
Suffocation	774.5	2,178.0	116.5	477.0
Transport, other	461.0	-	-	-
Pedestrian, other	326.0	-	-	-
Natural/environmental	320.5	-	-	-
Transport (land), other	289.5	35.5	-	71.0
Machinery	224.0	-	-	-
Other specified, NEC	224.0	102.0	51.0	125.5
Fire/flame	176.0	126.5	35.5	-
Other specified, classifiable	155.0	51.0	398.5	-
Firearm	126.5	5,318.5	1,550.5	147.5
Not specified	104.0	-	113.5	528.0
Struck by/against	83.0	-	317.5	51.0
Pedal cyclist, other	71.0	-	-	-
Cut/pierce	45.5	107.5	563.5	-



**Figure 3.** Rank of leading causes of hospitalization in Oregon, 2005.



**Figure 4.** Rank of leading causes of hospitalization in Oregon, 2005, stratified by sex.

## **II. Strategy for Injury Prevention**

Oregon developed a strategic plan for injury prevention through development and involvement of a statewide Injury Prevention Planning Workgroup (IPPWG). The workgroup provided input into identifying priority prevention goals to incorporate into an overall state prevention plan that includes both process and outcome goals aimed at directing objectives and resources toward decreasing the burden of injury in Oregon. Subsequent to this effort, a vision and mission, with associated goals and objectives were developed in order to progress in the process of solidifying Oregon's injury prevention infrastructure and implementing effective interventions.

**Vision:** Oregon is a safe and injury-free place to live and work

**Mission:** Lead with community partners committed to decreasing the burden of injury in Oregon.

### **Goal Area 1: Program/Process Goals**

1. Strengthen the infrastructure of the Injury Prevention and Epidemiology program.
2. Provide leadership in injury prevention efforts through working with partners in the design and evaluation of interventions aimed at reducing the burden of injury in Oregon.
3. Improve access to data sources, enhance data collection and analysis, and increase the dissemination of data analysis and interpretation for injury prevention efforts.
4. Build and maintain partnerships and collaborations that work toward prevention efforts.

## Program/Process Goal Matrix

Goal	Time Frame	Lead	Partners	Funding	
<b>Strengthen the infrastructure of the Injury Prevention and Epidemiology program</b>					
Strategy	Improve staffing by identifying sources of funding to hire additional staff that can contribute to data collection and analysis; program design, implementation, and analysis; and education	2007-2010	IPE	N/A	Current funding sufficient
	Provide leadership in coordinating and assessing implementation of the state prevention plan	2007-2010	IPE	N/A	Current funding sufficient
<b>Provide leadership in injury prevention efforts through working with partners in the design and evaluation of interventions aimed at reducing the burden of injury in Oregon</b>					
Strategy	Identify injury prevention priorities and evidence-based interventions	2007	ICPG	ICPG	Current funding sufficient
	Work with partners to establish, promote, and monitor interventions in injury prevention areas where no evidence-based practices have been identified	2007-2010	IPE	ICPG	Current funding not sufficient
	Work with partners to implement identified and acceptable interventions	2007-2010	IPE	ICPG	Current funding sufficient
	Work with partners to evaluate/monitor ongoing interventions	2008-2010	IPE	ICPG	Current funding sufficient
	Impact public policy that prevents injury through partnering with agencies and organizations involved in prevention efforts	2007-2010	IPE	ICPG	Current funding sufficient
<b>Improve access to data sources, enhance data collection and analysis, and increase the dissemination of data analysis and interpretation for injury prevention efforts</b>					
Strategy	Update the IPE website with data summaries and tables designed for public and partner access to pertinent analysis on priority injury issues	2008-2010	IPE	N/A	Current funding sufficient
	Apply data analysis to affect policy that pertains to injury prevention	2007-2010	IPE	N/A	Funding sufficiency TBD
	Provide technical support to partners and individuals working in injury prevention	2007-2010	IPE	N/A	Funding sufficiency TBD
	Utilize data to identify injury areas that have not been fully investigated and analyzed, such as disparities in injury outcomes or prevention efforts in minority communities or specific high risk groups	2008-2010	IPE	N/A	Current funding sufficient
<b>Build and maintain partnerships and collaborations that work toward prevention efforts</b>					
Strategy	Maintain existing partnerships, and establish new partnerships	2007-2010	IPE	ICPG	Current funding sufficient
	Work with the state ICPG to identify the top injury priorities in the state, and integrate these priorities in the state prevention plan	2007	IPE	ICPG	Current funding sufficient
	Hold regular (e.g. biennial) meeting of the Injury Community Planning Group(ICPG) and assess progress on the prevention plan	2007-2010	ICPG	ICPG	Current funding sufficient
	Identify new potential partners that share common prevention goals pertaining to priority areas of injury prevention identified in the state prevention plan	2007-2010	ICPG	ICPG	Current funding sufficient
	Provide technical support and training to partners working in injury prevention	2007-2010	IPE	N/A	Funding sufficiency TBD



## Goal Area 2: Priority Prevention Goals (Intervention/Outcome Goals)

### A. Suicide

**Goal:** Reduce suicide deaths in Oregon.

**Problem in Oregon:** In 2005, suicide was among the leading causes of death in Oregon-- the seventh for men and the 12<sup>th</sup> leading cause for women. The rates of suicide in Oregon are very high in older age groups (in 2005-- 25.7 per 100,000 for persons 65 and older). However 62% of all suicides occur among persons 15-64 years of age. With some of the highest suicide rates in the country, the Department of Human Services (DHS) is actively involved in suicide prevention. Based on suicide rates among adolescents and young adults, the youth suicide prevention program was established (ORS 418.756). Efforts of the program coordinator led to the development and publication of the *Oregon Plan for Youth Suicide Prevention, 2000 (16)* that targets ages 10-24. In addition, the Oregon legislature enacted a statute (ORS 441.750) in 1987 that requires any emergency department (ED) treating a patient under the age of 18 for a suicide attempt to report the statistical information to the DHS. This resulted in the development of the Adolescent Suicide Attempt Data System (ASADS).

**Healthy People 2010 Goal (National):** 18-1: Reduce the suicide rate; Target: 6.0 suicide deaths per 100,000 population.

**National versus State Outcomes:** The national age-adjusted rate of suicide was 10.9 in 2004, compared to Oregon's age-adjusted rate of 15.0 for the same year.

**Key Groups:** Key groups for prevention interventions are:

- Youth
- Older adults

In consideration of an early intervention approach to suicide prevention, focus on youth in Oregon is important. The highest rates of suicide attempt hospitalizations occur among females 15-24 years of age. Suicide is the 4<sup>th</sup> overall leading cause of death among 5-14 year olds, and is the second leading cause of death among 15-34 year olds.

Older adults have the highest rates of suicide, and this is especially evident for older males. The average annual rate of suicide for males increases from 35 per 100,000 for males 65-74 years of age to over 80 per 100,000 for males 85 years of age and older. In contrast, the highest average annual rate for females occurs in the 45-54 year old age group. As the population of Oregon ages, it is important to address the increased risk among older adults to prevent greater increases of elder suicide in the future.

**Risk Factors<sup>1</sup>:**

- Depression and other mental disorders, substance-abuse disorder

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<sup>1</sup> National Institute of Mental Health: <http://www.nimh.nih.gov/health/publications/suicide-in-the-us-statistics-and-prevention.shtml>

- Stressful life events in combination with other risk factors, such as depression
- Prior suicide attempt
- Family history of mental disorder or substance abuse, suicide, violence (including sexual abuse)
- Firearms in the home
- Incarceration
- Exposure to the suicidal behavior of others (e.g. family members, peers, or media)

**Evidence-based Prevention Strategies (under review with ICPG 10/2007):**

The American Foundation for Suicide Prevention (AFSP) in conjunction with the Substance Abuse and Mental Health Services Administration’s (SAMHSA) Suicide Prevention Resource Center identified several effective evidence-based interventions to reduce suicide, suicide ideation, or risk behavior, including community-based programs, emergency room programs, primary care programs, school-based programs, and service delivery. Evidence-based programs include:

**Emergency Room Programs**

- Emergency Department Means Restriction Education: a program that educates parents of (youth ages 6-19) suicide attempt patients on restricting access to lethal means of suicide.<sup>2</sup>

**Community-based Programs**

- Limits on Analgesic Packaging: legislation focused on limiting the packaging size of analgesics, which was found to decrease the incidence of self-poisoning.<sup>3</sup>

**Primary Care-Based Programs**

- PROSPECT Program: a treatment and depression-management program for community dwelling elderly adults which was effective in reducing suicide ideation.<sup>4</sup>

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<sup>2</sup> Kruesi, M. J. P., Grossman, J., Pennington, J. M., Woodward, P. J., Duda, D., and Hirsch, J. G. (1999). Suicide and violence prevention: Parent education in emergency department. *Journal of the American Academy of Child and Adolescent Psychiatry*, 38(3), 250-255.

Kruesi, M. J. P., Grossman, J., and Hirsch, J. G. (1995). *Five Minutes of Your Time May Mean a Lifetime to a Suicidal Adolescent*. Chicago, IL: Ronald McDonald House Charities, University of Illinois—Chicago.

<sup>3</sup> Hawton, K. (2002). United Kingdom legislation on pack sizes of analgesics: Background, rationale, and effects on suicide and deliberate self-harm. *Suicide and Life-Threatening Behavior*, 32(3), 223-229.

<sup>4</sup> Schulberg, H. C., Bryce, C., Chism, K., Mulsant, B. H., Rollman, B., Bruce, M., Coyne, J., Reynolds, C. F. III, and the PROSPECT Group. (2001). Managing late-life depression in primary care practice: A case study of the Health Specialist’s role. *International Journal of Geriatric Psychiatry*, 16, 577-584.

Mulsant, B. H., Alexopoulos, G. S., Reynolds, C. F. III, Katz, I. R., Abrams, R., Oslin, D., Schulberg, H. C., and PROSPECT Study Group. (2001). Pharmacological treatment of depression in older primary care patients: The PROSPECT algorithm. *International Journal of Geriatric Psychiatry*, 16, 585-592.

### School-based Programs

- C-Care/Cast Program: counseling and small group skills training programs implemented in schools to reduce suicidal ideation and risk behaviors.<sup>5</sup>

Other programs are classified as ‘promising’, and in need of further evaluation.

### Objectives:

Objectives	Actions	Implementing Organization(s)	Timeline
Reduce suicide deaths in Oregon 5% from 15.4 per 100,000 (559) in 2005 to under 14.6 per 100,000 by 2010*	Maintain active involvement in inter-agency efforts to decrease adolescent suicide.	IPE	2005-2010
	Conduct a literature search for evidence-based suicide interventions	IPE	2007
	Gather and review program materials from known suicide prevention campaign and activities based on the best practices.	IPE	2005-2010
	Coordinate state level partnerships	IPE	2005-2010
	Provide technical assistance and training to local communities	IPE	2005-2010
	Assemble a multi-disciplinary team to plan the launch of the older adult suicide prevention plan	IPE	Complete
	Meet regularly with ICPG to assess implementation of interventions	IPE	2005-2010
	Youth suicide: Increase the number of intervention skills trainers and trainings in Oregon through both QPR (Question, Persuade, Refer) and ASIST (Applied Suicide Intervention Skills Training).	IPE and community partners throughout Oregon.	2005-2010
	Youth suicide: Implement RESPONSE, a comprehensive school-based program (named a Best Practice by SPRC/AFSP) throughout Oregon.	Local health department partners with school districts.	2005-2010
	Youth suicide: Improve Adolescent Suicide Attempt Data System and facilitate follow-up of youth seen in EDs for attempting suicide.	IPE, local health departments and community mental health partners.	2005-2010
	Monitor & evaluate the incidence and rate of suicide in Oregon. Make data available and usable to other agencies & organizations and community partners	IPE	2005-2010
	Youth suicide: Facilitate collaboration, resource sharing, and communication among stakeholders through a youth suicide website ( <a href="http://oregon.gov/DHS/ph/ipe/ysp/">http://oregon.gov/DHS/ph/ipe/ysp/</a> ) and Youth Suicide Prevention Network listserv,	IPE	2005-2010

<sup>5</sup> Eggert, L. L., Thompson, E. A., Herting, J. R. (1994). A measure of adolescent potential for suicide (MAPS): Development and preliminary findings. *Suicide and Life-Threatening Behavior*, 24, 359-381.  
Thompson, E. A., Eggert, L. L., Randell, B. P., and Pike, K. C. (2001). Evaluation of indicated suicide risk prevention approaches for potential high school dropouts. *American Journal of Public Health*, 91(5), 742-752.

\* Crude rate is used in these objectives since this [rate] reflects the actual quantitative burden of injury in Oregon (i.e. without adjusting to the distribution of an external population).

	YSPNetwork.		
	Youth suicide: Increase support for attempt survivors and their families through collaboration with family support networks	Local partners	2005-2010
	Youth suicide: Provide technical assistance and training to local communities.	IPE	2005-2010
	Youth suicide: Assess screening tools and protocols among youth programs in juvenile justice, alcohol and drug treatment programs, and community mental health programs.	IPE	2005-2010

## B. Motor vehicle traffic

**Goal:** Decrease motor vehicle traffic deaths.

**Problem in Oregon:** Between 2001 and 2005, there were over 2,800 fatalities of Oregon residents due to motor vehicle traffic crashes. The rate of MVT deaths has not significantly declined between 2001 and 2005, and was 12.4 deaths per 100,000 population in 2005. The rate of mortality for males is more than 2 times the female rate-- 17.8 deaths per 100,000 in 2005 for males compared to 7.3 deaths among females. The highest age-specific rates occur among those 75 years of age and older, and those 15-24 years of age. The most frequent type of involvement in MVT fatality is vehicle occupant (64%), followed by pedestrian (12%), and motorcyclist (8%).

**Healthy People 2010 Goal (National):** 15-15: Reduce deaths caused by motor vehicle crashes; Target: 9.2 deaths per 100,000 population.

**National versus State Outcomes:** The national age-adjusted rate of MVT mortality was 14.7 in 2004, compared to Oregon's age-adjusted rate of 12.8 for the same year.

**Key Groups:** Key groups for interventions are:

- Children under 14
- Teen drivers
- Older drivers
- Males

Between 2001 and 2005, 6% (139) of MVT fatalities involved children under 15 years of age. MVT is the leading cause of injury death among those 1- 14 years of age (2001-2005 aggregate rate).

Teen drivers are at increased risk mortality due to MVT. The rate of mortality among those 15-19 years old was 20.9 per 100,000 in 2005. MVT is also the leading cause of injury death for those in this age group (2001-2005 aggregate rate).

Approximately 20% of MVT fatalities between 2001 and 2005 involved persons 65 years of age and older. The rate among those 65 and older in 2005 was 20 per 100,000—a rate comparable to teens.

Males have higher rates of MVT fatalities in every age group. For teens and older drivers, the average annual male rate of mortality is typically twice the female rate.

**Risk Factors<sup>6</sup>:**

- Speed (contributes to 30% of crashes and deaths worldwide)
- Not utilizing safety equipment (seat belts reduce fatal or serious injury by 40-65%; helmets also reduce serious or fatal injury in motorcycle and bicycle crashes)
- Alcohol
- Visibility (pedestrian and MV)

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<sup>6</sup> World Health Organization, *Safer roads: five key areas for effective interventions*, [http://www.who.int/features/2004/road\\_safety/en/#poplink](http://www.who.int/features/2004/road_safety/en/#poplink)

**Evidence-based Prevention Strategies (under review with ICPG 10/2007):**

CDC's Community Guide to Preventive Services—evidence-based recommendations for programs and policies to promote population health<sup>7</sup>, focuses on three intervention areas for reducing MVT mortality. These areas are interventions to reduce alcohol-impaired driving, interventions to increase the use of child safety seats, interventions to increase the use of safety belts.

**Interventions to reduce alcohol-impaired driving**

- Sobriety checkpoints
- “Zero Tolerance” laws for young drivers
- Reducing legal blood alcohol concentration to 0.08%
- Minimum legal drinking age laws
- Server Intervention Training Programs (face-to-face instruction with management support)
- Mass media campaigns to reduce alcohol-impaired driving (under certain conditions)
- School-based health promotion programs
- Multifaceted community-based programs

**Interventions to increase the use of child safety seats**

- Child safety seat use laws
- Community-wide information plus enhanced enforcement campaigns
- Distribution plus education programs
- Incentive plus education programs

**Interventions to increase the use of safety belts**

- Safety belt use laws
- Primary enforcement laws
- Enhanced enforcement programs

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<sup>7</sup> <http://www.thecommunityguide.org/>

**Objectives:**

Objectives	Actions	Implementing Organization(s)	Timeline
Reduce MVT deaths in Oregon 5% from 12.7 per 100,000 (464) in 2005 to under 12.0 per 100,000 by 2010	Partner to provide instruction on the proper uses of car seats, booster seats, and/or seat belts	IPE	2005-2010
	Support car and booster seat loaner or give-away programs	ICPG	2005-2010
	Provide technical assistance to develop safety restraint programs in communities in which these services are minimal or non-existent	IPE	2005-2010
	Train health department nurses and local SAFE KIDS coalition members to become certified safety seat technicians	IPE	2005-2010
	Support and help inform communities about the graduated driver's licensing program	IPE	2005-2010
	Encourage higher degrees of enforcement of laws relevant to teen drivers	ICPG	2005-2010
	Support educational programs promoting the use of safety restraints	IPE	2005-2010
	Advocate for higher level enforcement of "zero tolerance" programs targeting teens	ICPG	2005-2010
	Promote educational programs to discourage teenage drinking and driving	ICPG	2005-2010
	Work with law enforcement officials to increase enforcement of all alcohol related driving laws	ICPG	2005-2010
	Work with school systems to implement educational programs designed to discourage teenage drinking and driving	ICPG	2005-2010
	Maintain up-to-date fact sheets on impaired driving and motor vehicle mortality	IPE	2005-2010
	Provide direct technical/analysis support to Oregon Safe Kids in the (3-year) assessment of MVT injuries at the state and local level	IPE	2005-2010

## C. Falls

**Statement of Goal:** Reduce the burden of fall injuries.

**Problem in Oregon:** Over 1,700 deaths due to falls occurred among Oregon residents between 2001 and 2005, and over 41,000 hospitalizations were the result of falls in the same period. Falls disproportionately affect older persons, and the rate of fall death and hospitalization increases greatly with age. The rate of fall death in children under 1 year of age is less than 1 in 100,000; for 65-74 year olds the average annual rate is 11.5 per 100,000, for 75-84 year olds the rate increases to 65.4 per 100,00. After age 85, the rate increases to 246.3 per 100,000. Hospitalization rates demonstrate a similar trend. For children under 1 year of age the average annual rate of hospitalization for falls is 74.3 per 100,000. For persons 65 and older, there were 1,175 hospitalizations per 100,000 in 2005.

**Healthy People 2010 Goal:** 15-27: Reduce deaths from falls to 3.0 per 100,000 population.

**National versus State Outcomes:** The age-adjusted national rate of unintentional fall mortality in 2004 was 6.2 per 100,000 compared to 9.4 in Oregon.

### Key Groups:

- Persons 65 years of age and older

### Risk Factors:

- Age/demographics
- Medical conditions
- Medications
- Environmental factors

### Evidence-based Prevention Strategies (under review with ICPG 10/2007):

The American Geriatrics Society, in conjunction with the British geriatrics Society and the American Academy of Orthopedic Surgeons Panel on Falls Prevention published fall prevention guidelines<sup>8</sup> on based on an extensive and systematic review of research evidence of best practices. These guidelines recommend several interventions classified by strength of the evidence for preventing falls, and that may be applied or integrated into programs designed to decrease the incidence of falls in the elderly.

#### Single Interventions

- Older adults that have recurrent falls should be offered long-term balance training and exercise programs.
- Exercise is recognized to have proven benefits, although the duration, type, and intensity required to facilitate prevention of falls in not clear.
- Facilitated environmental home assessments upon hospital discharge for older adults effectively reduce falls.
- Medication reviews in patients that have fallen may alter medication regimens that facilitate falls.

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<sup>8</sup> <http://www.americangeriatrics.org/products/positionpapers/Falls.pdf>. These guidelines are in the process of being revised.



The use of assistive devices may reduce falls when integrated into multi-factorial intervention programs. Also, behavioral and educational programs may reduce falls when part of multi-factorial programs. Neither behavioral and educational, nor assistive devices when used or promoted solely as single interventions are recommended.

**Objectives:**

Objectives	Actions	Implementing Organization(s)	Timeline
Decrease fall mortality in Oregon 5% from 10.5 per 100,000 (381) in 2005 to under 9.9 per 100,000 by 2010	Increase awareness of emergency measures to take once a fall has occurred	ICPG	2005-2010
	Promote home safety audits to identify important environmental modifications, such as slip resistant surfaces, good lighting, and proper bed height	ICPG	2005-2010
	Seek funds to implement a media campaign about the dangers of fall injuries and how to prevent them	IPE	2005-2010
	Identify resources to support physical activity and balance exercise programs to reduce fall risk	IPE	2005-2010