



Oregon

Special Emphasis Report: Fall Injuries among Older Adults 2005-2014

A GROWING CONCERN

Unintentional falls among older adults are a leading cause of fatal and nonfatal injury in the U.S. and Oregon. Hospital costs associated with injuries sustained by falls account for a substantial share of health care dollars spent on injury-related care.

In 2014, 547 Oregon residents ages 65 and older died and over 6,000 fall injuries were treated at hospitals (Figure 1).

This report provides recent data on unintentional fall injuries and deaths among Oregon residents ages 65 and older. It includes information about groups with the highest rates, associated costs and current prevention strategies and activities in Oregon.

QUICK FACTS



Residents ages 65 and older account for **91% of all fall deaths** and 70% of nonfatal fall hospitalizations in Oregon.



Falls are a **leading cause of traumatic brain injury (TBI)** among Oregon residents ages 65 and older, accounting for 34% of TBI deaths and 16% of TBI hospitalizations. **188 fall deaths** and 827 hospitalizations among older adults were associated with a TBI.



Projected lifetime costs associated with fall injuries in 2014 among Oregon residents ages 65 and older are estimated to be **\$498 million**.

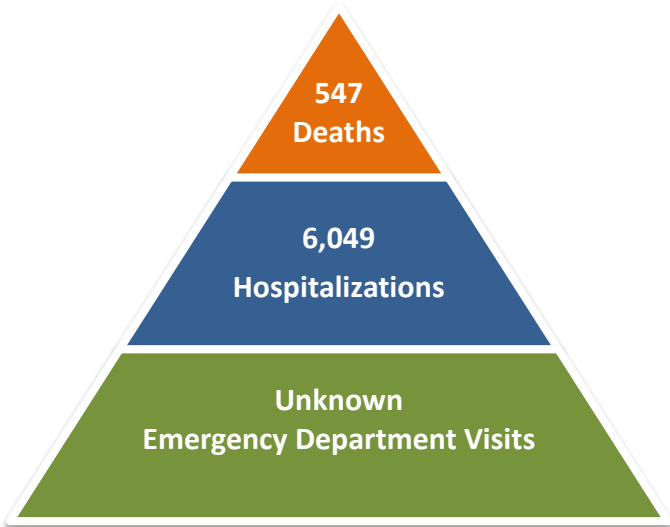


Each week, there are 116 hospitalizations, and about 11 deaths due to fall injuries in Oregon.



In 2014, 70% fall deaths among this age group **occurred in the home**, while 8% occurred in a residential institution such as a nursing home.

FIGURE 1. Burden of Fall Injuries among Residents Ages 65 and older—Oregon, 2014

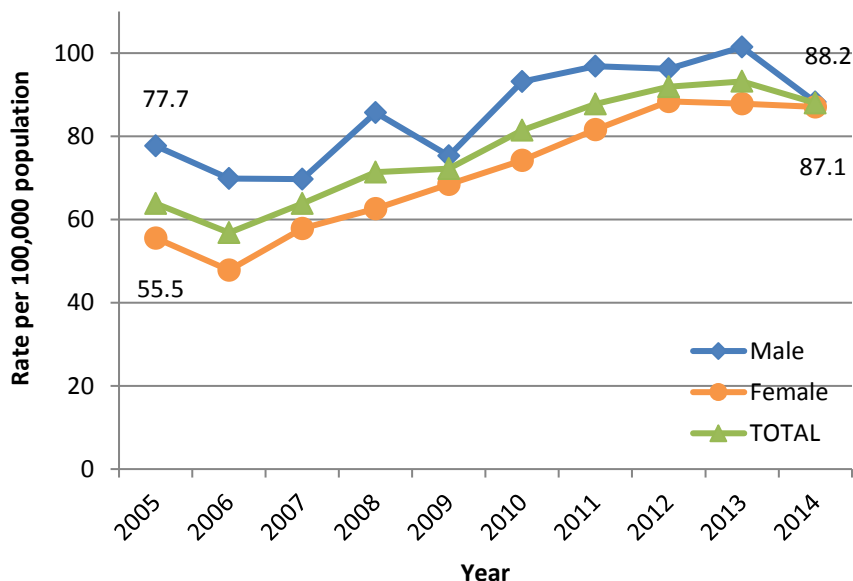


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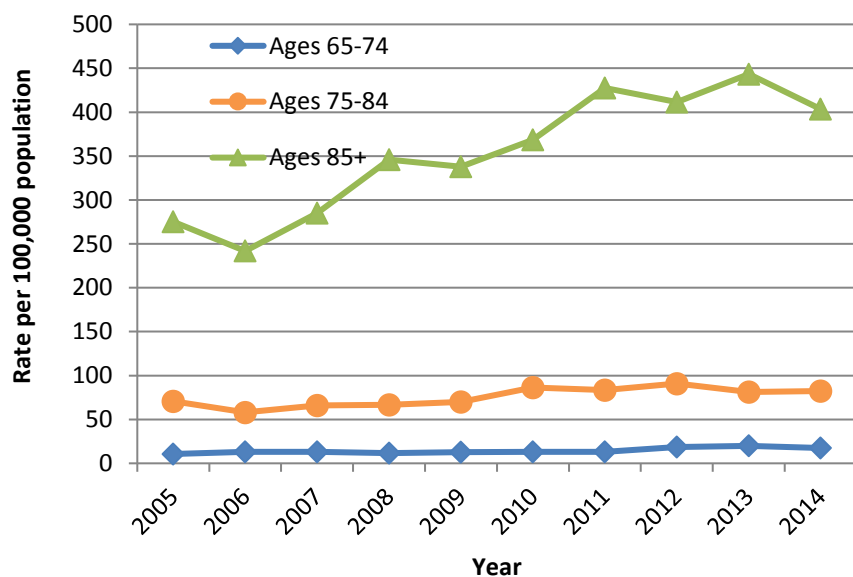
FALL DEATHS

FIGURE 2. Age-adjusted Rate of Fall Deaths by Sex, Ages 65 and older—Oregon, 2005-2014



- From 2005 to 2014, the age-adjusted rate of fall deaths increased from 55.5 per 100,000 in 2005 to 88.0 per 100,000 in 2014.
- Fall death rates increased among both males and females during this time period.
- In 2014 the fall death rate in males was approximately 1% higher than in females.

FIGURE 3. Age-specific Rate of Fall Deaths by Age Group, Ages 65 and older—Oregon, 2005-2014



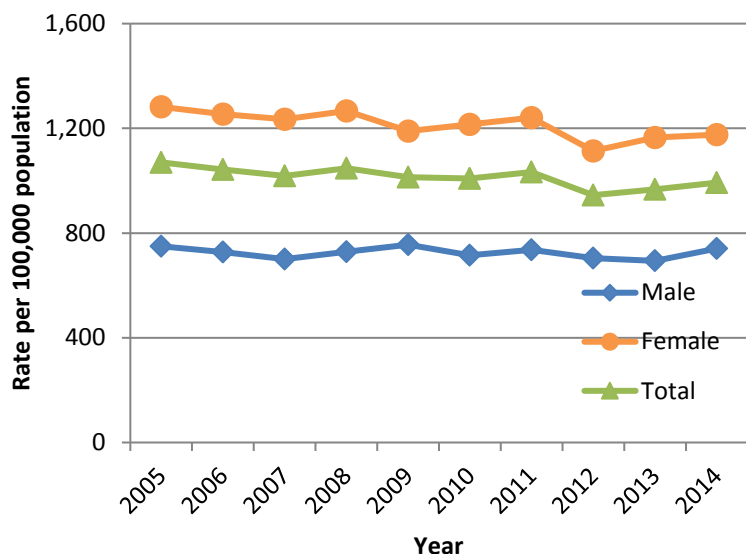
- Fall death rates increased among all three age groups.
- The highest increase was among persons ages 85 and older.
- Rates for persons ages 85 and older increased, from 275.2 per 100,000 in 2005 to 403.6 per 100,000 in 2014.

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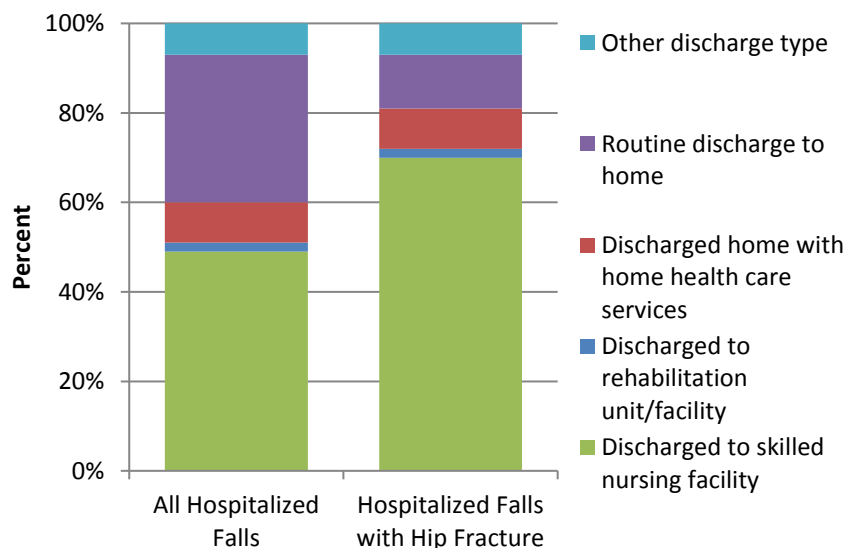
NONFATAL FALL HOSPITALIZATIONS

FIGURE 4. Age-adjusted Rate of Nonfatal Fall Hospitalizations by Sex, Ages 65 and older—Oregon, 2005-2014



- Nonfatal fall hospitalizations have remained relatively stable. From 2005 through 2014 rates decreased slightly.
- In 2014 rates among females are approximately 1.6 times that of males.

FIGURE 5. Percent of Nonfatal Fall Hospitalizations by Discharge Disposition, Ages 65 and older—Oregon, 2014



- 49% of all fall hospitalizations were discharged to a skilled nursing facility.
- Among falls resulting in a hip fracture, 70% were discharged to a skilled nursing facility and 9% discharged to a rehabilitation facility.¹
- Among those with a hip fracture, only 12% had a routine discharge to home and 9% were discharged home with home health services.

¹Rehabilitation includes inpatient hospital rehab units as well as other outside facilities.

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DEMOGRAPHIC DATA

TABLE 1. Number and Rate of Fall Deaths and Nonfatal Fall Hospitalizations and Emergency Department (ED) Visits, Ages 65 and older—Oregon, 2014

	Fall Deaths		Nonfatal Fall Hospitalizations and Emergency Department (ED) Visits			
	Number of Deaths	Death Rate per 100,000 ²	Number of Hospitalizations	Nonfatal Hospitalization Rate per 100,000 ²	Number of ED Visits	Nonfatal ED Visit Rate per 100,000 ²
TOTAL	547	88.0	6,049	992.4	-	-
Sex						
Male	218	88.2	1,895	741.0	-	-
Female	329	87.1	4,154	1,176.4	-	-
Age Group						
Ages 65-74	65	17.4	1,515	405.4	-	-
Ages 75-84	145	82.4	2,021	1,148.3	-	-
Ages 85+	337	403.6	2,513	3,009.9	-	-
Race/Ethnicity						
White, NH ³	515	88.0	5,343	939.1	-	-
Black, NH	1	18.9	28	461.5	-	-
Hispanic	14	97.4	284	1,929.0	-	-
Asian/PI ⁴ , NH	9	61.9	92	595.9	-	-
AI/AN ⁵ , NH	5	130.0	23	513.5	-	-

- Males had a higher rate of fall deaths than females (88.2 per 100,000 and 87.1 per 100,000, respectively).
- Females had higher rates for nonfatal hospitalizations.
- Persons ages 85 and older had the highest rates of fatal and nonfatal fall injuries. This age group had 4.9 times the rate of deaths than those aged 65-74.
- White, non-Hispanic residents had the highest rates of fall deaths and Black, non-Hispanic residents had the lowest, although due to small numbers no rates other than White non-Hispanics are reliable.
- Hispanic residents had the highest rates of fall hospitalizations and Black non-Hispanic residents had the lowest.

²Rates are age-adjusted except for rates by age group.

³Non-Hispanic

⁴Pacific Islander

⁵American Indian/Alaskan Native

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PROJECTED LIFETIME COSTS

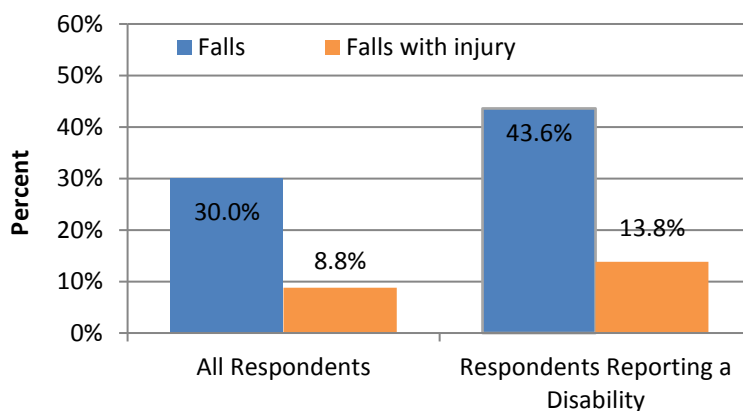
Lifetime costs⁴ associated with unintentional fall injuries in 2014 among Oregon residents ages 65 and older are estimated to be over \$498 million. Most of these costs were associated with injuries requiring hospitalizations.

	Number of Injuries	Medical Cost	Work Loss Cost	Combined Cost
Deaths	547	\$16,797,000	\$50,676,000	\$67,474,000
Hospitalizations	6,049	\$248,561,000	\$182,488,000	\$431,048,000
ED Visits	-	-	-	-
TOTAL	6,596	\$265,358,000	\$233,164,000	\$498,522,000

SURVEY DATA

- The Behavioral Risk Factor Surveillance Survey (BRFSS) is a statewide phone survey of community dwelling (i.e. non-institutionalized) Oregon adults. It provides self-reported data on a variety of topics, including falls, fall-related injuries, and medical conditions.
- In 2015, an estimated 30% of Oregon adults ages 65 and older reported having fallen in the past 12 months, and 8.8% reported a fall injury.
- Older Oregon adults who reported disability were significantly *more likely*⁵ to report falls and fall-related injuries in the past 12 months.

FIGURE 6. Self-Reported Falls and Fall Injuries in the Past 12 Months, Ages 65 and older—Oregon, 2015



- Older adults who reported a physical, cognitive and/or emotional disability⁶ had particularly high fall rates, with an estimated 43.6% reporting having fallen and 13.8% reporting fall-related injuries in the past 12 months.

⁴Costs were calculated using the CDC's WISQARS Cost Module application which provides cost estimates for medical and work loss for injury-related deaths, hospitalizations, and emergency department visits. <http://www.cdc.gov/injury/wisqars/>.

⁵Statistically significant at the (P<.05 level). However, causality shouldn't be assumed.

⁶Disability is defined as having one or more of the following conditions for at least one year; (1) impairment or health problem that limited activities or caused cognitive difficulties, (2) used special equipment or required help from others to get around.

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FALL PREVENTION RESOURCES

STEADI (Stopping Elderly Accidents Deaths & Injuries): The Centers for Disease Control and Prevention (CDC) is working to make fall prevention a routine part of clinical care. STEADI uses established clinical guidelines and effective strategies to help primary care providers address their older patients' fall risk and identify modifiable risk factors:

www.cdc.gov/steadi.

PREVENTION STRATEGIES IN OREGON

- Leverage health transformation efforts to embed community falls prevention into health systems' existing lines of business.
- Partner with health plans and Medicare-beneficiary fitness programs to cover evidence-based falls prevention programs as a member benefit.
- Establish community programs in sustainable venues for older adults with varying levels of mobility and risk.
- Train partners on falls prevention strategies such as implementing evidence-based programs, home safety assessments, and resource referrals.
- Increase public awareness of falls as a preventable public health issue.

ACCOMPLISHMENTS/SUCSESSES

- Oregon Health & Science University built the STEADI toolkit into the national Epic electronic health record.
- The Oregon Geriatric Education Center trained 40 interdisciplinary clinic teams in STEADI in 12 counties.
- 600 Tai Chi: Moving for Better Balance (TCMBB) instructors were trained.
- Elders from the Native American Youth and Family Association promoted TCMBB to Native Elders with demonstrations and testimonials on reservations.
- Silver & Fit and Silver Sneakers FLEX cover Tai Chi: Moving for Better Balance classes for Medicare beneficiaries.
- Otago Exercise Program for homebound older adults in 5 rural counties through Area Agency on Aging

DATA SOURCES and DEFINITIONS

2014 Oregon Death Certificate Data

2014 Oregon Hospital Discharge Database

2015 Oregon Behavioral Risk factor Survey (BRFSS)

OREGON PUBLIC HEALTH DIVISION

Healthoregon.org/fallprevention

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