

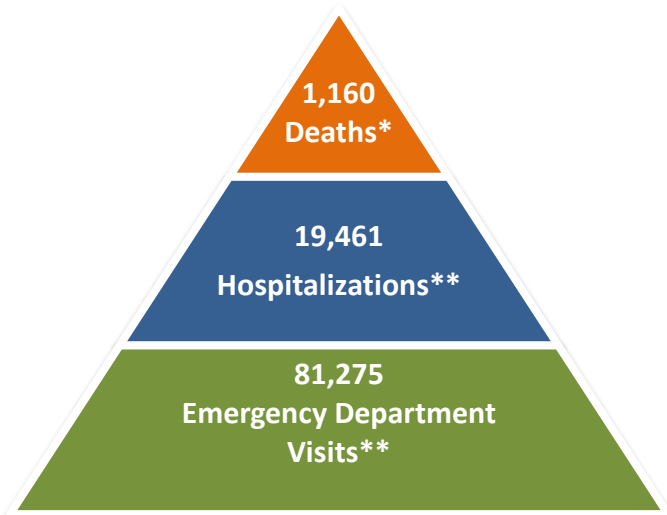
A GROWING CONCERN

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

In 2014, 1,160 Ohio residents ages 65 and older died and more than 100,000 fall injuries were treated at hospitals and emergency departments (Figure 1).

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

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



*Source: ODH Vital Statistics **Source: Ohio Hospital Association

QUICK FACTS



Residents ages 65 and older account for **84 percent of all fall deaths** and 75 percent of nonfatal fall hospitalizations in Ohio.



Falls are the **leading cause of traumatic brain injury (TBI)** in Ohio residents ages 65 and older, accounting for 63 percent of TBI deaths and 67 percent of TBI hospitalizations.



Projected lifetime costs associated with fall injuries in 2014 among Ohio residents ages 65 and older are estimated to be **\$1.9 billion**.



Each week, there are 1,563 emergency department visits among residents ages 65 and older, 374 hospitalizations, **and 22 deaths due to fall injuries in** Ohio.

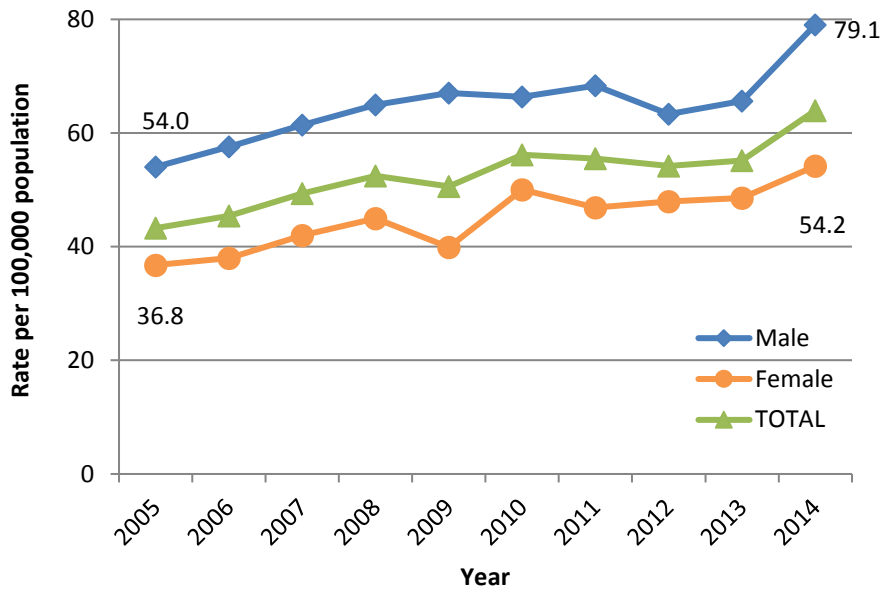


In 2014, 64 percent of fall deaths among this age group **occurred in the home**, while 20 percent occurred in a residential facility such as a nursing home. The location wasn't known for 7 percent of fall deaths.



FALL DEATHS

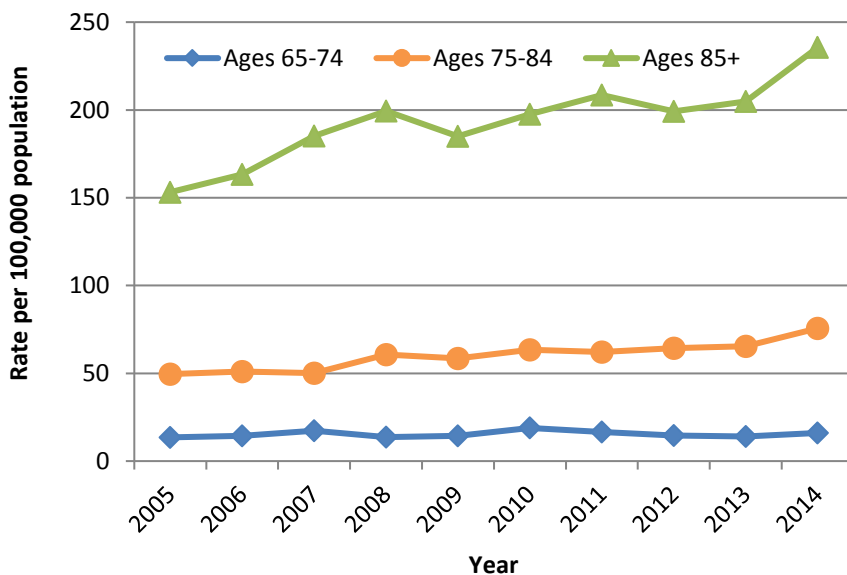
FIGURE 2. Age-adjusted Rate of Fall Deaths by Sex, Ages 65 and older—Ohio, 2005-2014



Source: Ohio Department of Health Vital Statistics

- From 2005 to 2014, the age-adjusted rate of fall deaths increased from 43.3 per 100,000 in 2005 to 64.0 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 46 percent higher than in females.

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

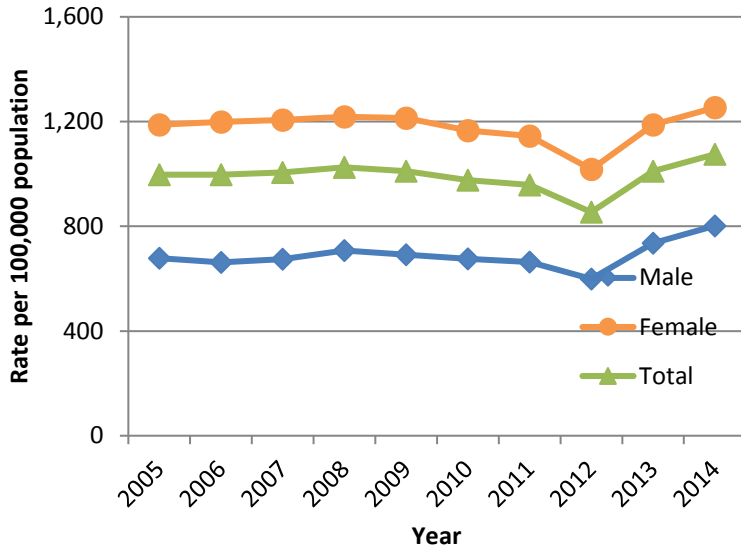


Source: Ohio Department of Health Vital Statistics

- From 2005 to 2014, fall death rates have increased among older adults aged 75-84 and those 85 years and older, while remaining somewhat stable among older adults aged 65-74.
- The highest increase was among persons ages 85 and older.
- Rates for persons ages 85 and older increased from 153.2 per 100,000 in 2005 to 235.6 per 100,000 in 2014.

NONFATAL FALL HOSPITALIZATIONS

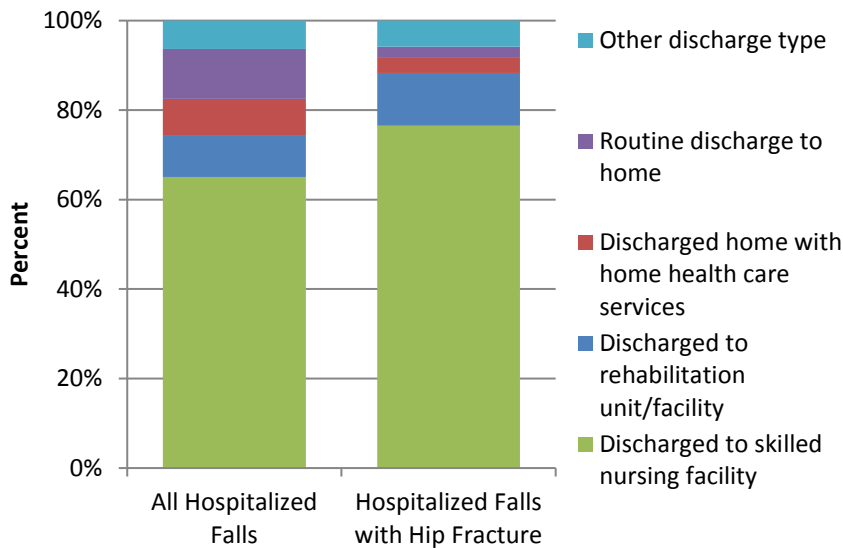
FIGURE 4. Age-adjusted Rate of Nonfatal Fall Hospitalizations by Sex, Ages 65 and older—Ohio, 2005-2014



- Nonfatal fall hospitalization rates were relatively stable from 2005 through 2009, then decreased from 2010 through 2012 and increased in 2013 and 2014.
- In 2014, rates among females are approximately 1.6 times that of males.

Source: Ohio Hospital Association

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



- 65 percent of all fall hospitalizations were discharged to a skilled nursing facility.
- Among falls resulting in a hip fracture, 77 percent were discharged to a skilled nursing facility and 12 percent discharged to a rehabilitation facility.¹
- Among those with a hip fracture, only 2 percent had a routine discharge to home and 3 percent were discharged home with home health services.

¹Rehabilitation includes inpatient hospital rehab units as well as other outside facilities.
Source: Ohio Hospital Association

DEMOGRAPHIC DATA

TABLE 1. Number and Rate of Fall Deaths and Nonfatal Fall Hospitalizations and Emergency Department (ED) Visits, Ages 65 and older—Ohio, 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	1,160	64.0	19,461	1,074.9	81,275	4,524.1
Sex						
Male	542	79.1	5,661	801.7	26,780	3,682.0
Female	618	54.2	13,800	1,253.3	54,495	5,148.9
Age Group						
Ages 65-69	69	11.8	1,961	335.2	14,987	2,561.8
Ages 70-74	93	22.1	2,258	536.5	13,328	3,166.9
Ages 75-80	163	52.2	2,815	901.7	13,507	4,326.3
Ages 80-84	247	107.4	3,740	1,626.0	13,902	6,044.0
Ages 85+	588	235.6	8,687	3,480.3	25,551	10,236.5
Race/Ethnicity						
White, NH ³	1,103	67.7	17,932	1,106.3	72,653	4,531.3
Black, NH	51	34.4	855	561.2	5,655	3,645.7
Hispanic	1	--	171	906.1	965	5,002.9
Asian/PI ⁴ , NH	4	--	74	457.1	266	1,574.6
AI/AN ⁵ , NH	0	--	13	419.5	31	984.7

* Source: ODH Vital Statistics ** Source: Ohio Hospital Association

- Males had a higher rate of fall deaths than females (79.1 per 100,000 and 54.2 per 100,000, respectively).
- Females had higher rates for nonfatal hospitalizations and ED visits than females.
- Persons ages 85 and older had the highest rates of fatal and nonfatal fall injuries. This age group had 20 times the rate of deaths than those aged 65-69.
- White/non-Hispanic older adults had a higher rate of fall deaths compared to Black, non-Hispanic older adults. Rates for other racial/ethnic groups could be calculated due to small numbers of deaths.
- White non-Hispanic older adults had the highest rate of fall hospitalizations and Hispanic older adults had the highest rate of fall ED visits. American Indian/Alaskan Native had the lowest rates for both fall related hospitalizations and ED visits.

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

³Non-Hispanic ⁴Pacific Islander ⁵American Indian/Alaskan Native

PROJECTED LIFETIME COSTS

Lifetime costs⁴ associated with unintentional fall injuries in 2014 among Ohio residents ages 65 and older are estimated to be nearly 2 billion dollars. Most of these costs were associated with injuries requiring hospitalizations.

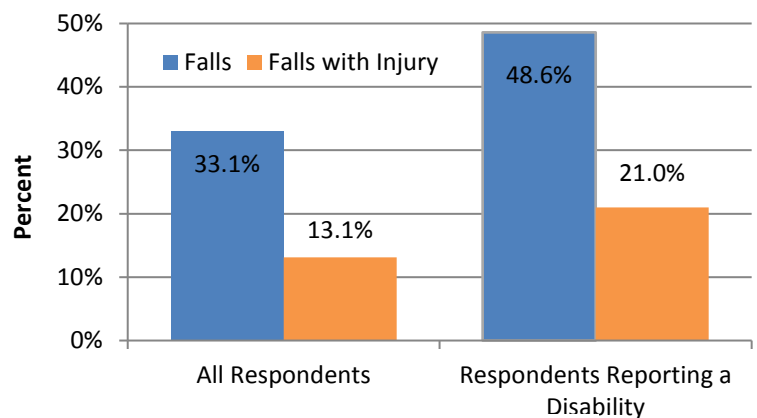
	Number of Injuries	Medical Cost	Work Loss Cost	Combined Cost
Deaths*	1,160	\$29,861,000	\$132,340,000	\$162,201,000
Hospitalizations**	19,461	\$799,676,000	\$587,105,000	\$1,386,780,000
ED Visits**	81,275	\$26,411,000	\$114,898,000	\$379,010,000
TOTAL	101,896	\$1,093,648,000	\$834,343,000	\$1,927,991,000

*Source: ODH Vital Statistics **Source: Ohio Hospital Association

SURVEY DATA

- The Behavioral Risk Factor Surveillance Survey (BRFSS) is a statewide phone survey of community dwelling (i.e. non-institutionalized) Ohio adults. It provides self-reported data on a variety of topics, including falls, fall-related injuries, and medical conditions.
- In 2015 an estimated 537,222 of Ohio adults ages 65 and older reported having fallen and an estimated 213,302 older adults reported a fall-related injury in the past 12 months.
- Older Ohio adults who reported the following conditions were significantly **more likely**⁷ to report falls
 - depression
 - no exercise
 - diabetes
 - chronic obstructive pulmonary disease (COPD)
 - disability
 - obesity

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



Source: Ohio Behavioral Risk Factor Surveillance System

- Older adults who reported a physical, cognitive and/or emotional disability⁶ had particularly high fall rates, with an estimated 48.6 percent reporting having fallen and 21 percent reporting fall-related injuries in the past 12 months.

⁶Costs 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/>.

⁷These conditions are statistically significant at the (P<.05 level). However, causality shouldn't be assumed. Selected chronic health conditions: respondents reported "Yes" to **EVER** having been diagnosed with: Diabetes; Depression; Chronic obstructive pulmonary disease (COPD); Exercise is defined as respondents reporting "No" to **ANY** leisure-time physical activity. Respondents are asked their height and weight to calculate BMI. Obesity is defined as a BMI greater than or equal to 30.0.

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.

Respondents who reported "yes" Selected health conditions including Coronary artery disease (CAD), current asthma, stroke and cancer were not statistically more likely to fall.

Ohio

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



FALL PREVENTION RESOURCES

Stopping Elderly Accidents Deaths & Injuries (STEADI): 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/steady.

PREVENTION ACTIVITIES IN OHIO

Prevention

- The Violence and Injury Prevention Program (VIPP) funds **local projects** focused on prevention of Falls among Older Adults.
- The VIPP also leveraged resources to conduct a **STEADI pilot project** with a major Ohio health system. The project included a review of implementation practices from other states; development of a STEADI module for the electronic health record, and an evaluation of the pilot project sites and overall project.

Surveillance

The VIPP conducts statewide falls surveillance through death certificate, inpatient hospitalization and emergency department data.

Partnerships

The VIPP coordinates the Ohio Injury Prevention Partnership's (OIPP) Ohio Older Adult Falls Prevention Coalition (OOAFPC). The OIPP/OOAFPC is a multi-disciplinary statewide coalition of organizations concerned with the prevention of falls among older adults in Ohio.

DATA SOURCES AND DEFINITIONS

Data are provided by the Ohio Department of Health, Office of Vital Statistics (death data) and the Ohio Hospital Association (hospital and ED data).