



Indiana

Special Emphasis Report: Fall Injuries among Older Adults 2018

A GROWING CONCERN

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

In 2018, 455 Indiana residents aged 65 and older died due to an unintentional fall and over 56,000 fall injuries were treated at hospitals and emergency departments (Figure 1).

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

QUICK FACTS



Unintentional falls are the leading cause of death for older adults in Indiana. Indiana residents 65 and older account for **81.7% of all fall deaths** and 73.4% of nonfatal fall hospitalizations in Indiana.



Falls are the **leading cause of traumatic brain injury (TBI)** in Indiana residents aged 65 and older, accounting for 54.6% of TBI deaths and 53.3% of TBI hospitalizations.



Projected lifetime costs associated with fall injuries in 2018 among Indiana residents aged 65 and older are estimated to be **over \$1.1 billion**.

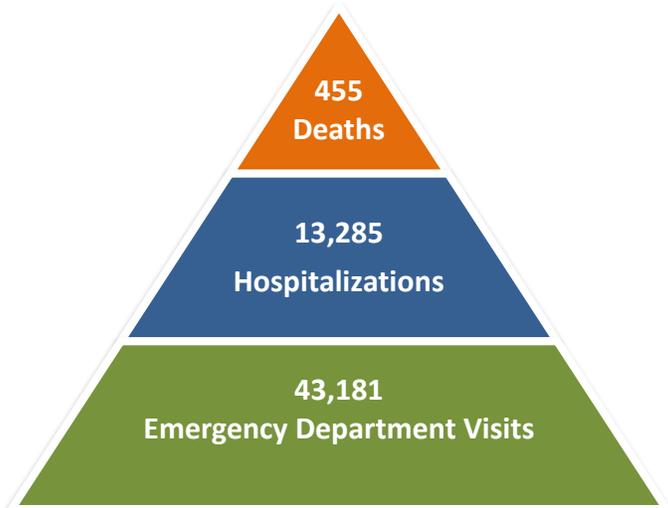


Each week, there are 830.4 emergency department visits among residents aged 65 and older, **255.5 hospitalizations** and **8.8 deaths due to fall injuries** in Indiana.



In 2018, 31.9% of fall deaths among this age group **occurred due to slipping, tripping or stumbling**, while 8.6% occurred due to falling off stairs or steps. This information was unspecified or not known for 51.4% of fall deaths.

FIGURE 1. Burden of Fall Injuries among Residents Ages 65 and Older—Indiana, 2018



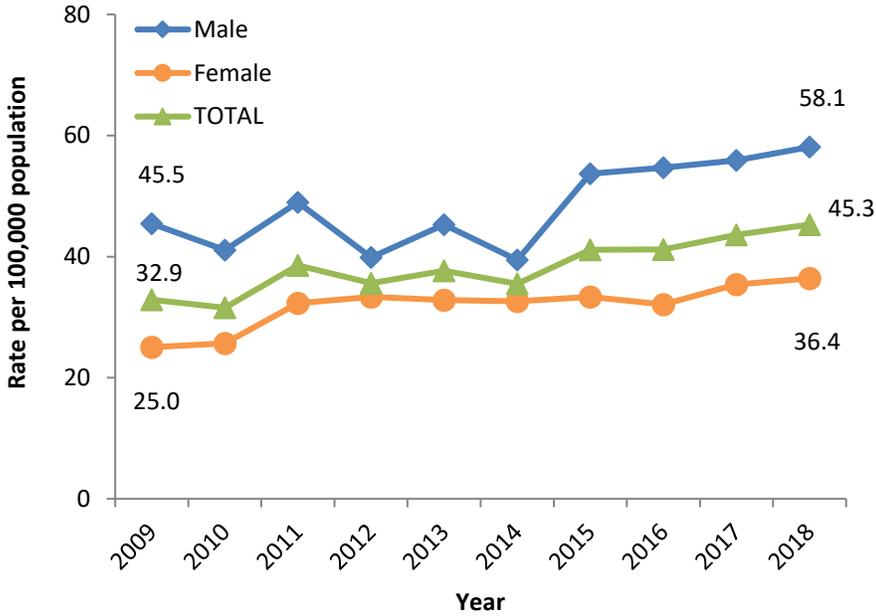


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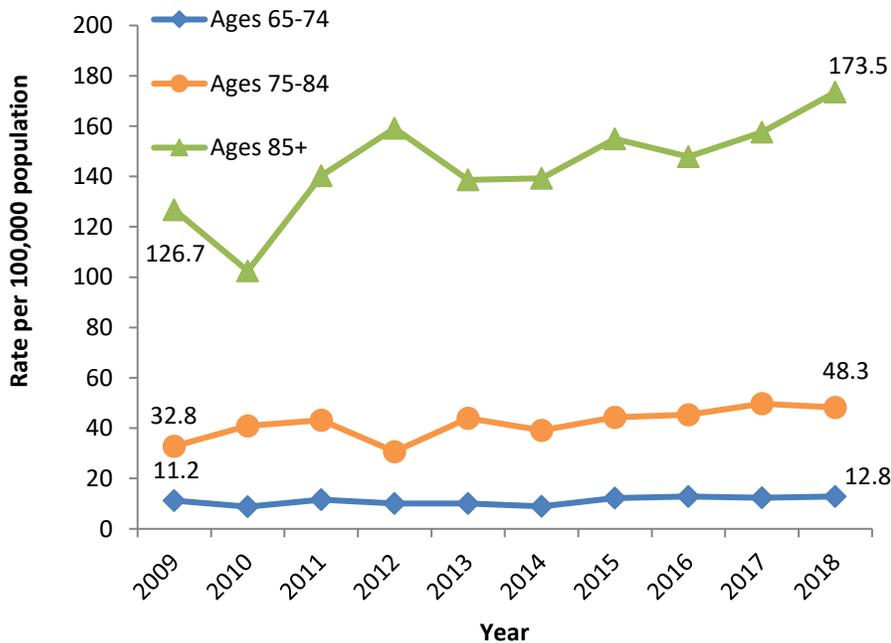
FALL DEATHS

FIGURE 2. Age-adjusted Rate of Fall Deaths by Sex, Aged 65 and Older—Indiana, 2009-2018



- From 2009 to 2018, the age-adjusted rate of fall deaths increased from 32.9 per 100,000 in 2009 to 45.3 per 100,000 in 2018.
- Fall death rates increased among both males and females during this time period.
- In 2018, the fall death rate in males was approximately 60% higher than in females.

FIGURE 3. Age-specific Rate of Fall Deaths by Age Group, Aged 65 and Older—Indiana, 2009-2018



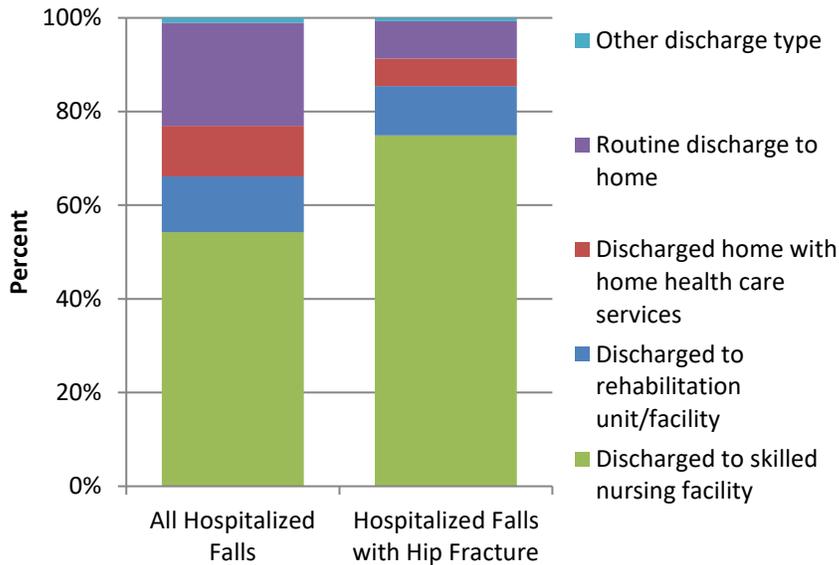
- From 2009 to 2018, death rates increased among those aged 65-74 and 85+.
- The highest increase in rate was among persons aged 85 and older.
- The death rate for persons aged 75-84 decreased by 3% from 2017 to 2018.
- Rates for persons aged 85 and older increased from 126.7 per 100,000 in 2009 to 173.5 per 100,000 in 2018.



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FIGURE 5. Percent of Nonfatal Fall Hospitalizations by Discharge Status, Aged 65 and Older—Indiana, 2018



- 54.3% of all fall hospitalizations were discharged to a skilled nursing facility, 22% were routinely discharged home and 11.9% were discharged to rehabilitation units or facilities.¹
- Among those with hip fractures, 74.9% were discharged to a skilled nursing facility, 10.6% were discharged to rehabilitation units or facilities¹ and 8% were routinely discharged home.

¹Rehabilitation unit/facility discharge includes inpatient hospital rehab units as well as other facilities and institutions.

²Other discharge type category includes other types of nursing facilities and patients who left against medical advice.



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DEMOGRAPHIC DATA

TABLE 1. Number and Rate of Fall Deaths and Nonfatal Fall Hospitalizations and Emergency Department (ED) Visits, Aged 65 and Older—Indiana, 2018

	Fall Deaths		Nonfatal Fall Hospitalizations and Emergency Department 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	455	45.3	13,285	1,319.3	43,181	4,241.0
Sex						
Male	227	58.1	4,960	1,212.6	14,802	3,520.3
Female	228	36.4	8,325	1,396.0	28,379	4,795.0
Age Group						
Ages 65-74	79	12.8	3,852	625.8	16,095	2,614.6
Ages 75-84	149	48.3	4,717	1,528.4	14,946	4,842.7
Ages 85+	227	173.5	4,716	3,605.2	12,140	9,280.6

- Males had a higher rate of fall deaths than females (58.1 per 100,000 and 36.4 per 100,000, respectively).
- Females had higher rates of nonfatal hospitalizations and ED visits.
- Persons aged 85 and older had the highest rates of fatal and nonfatal fall injuries. This age group had 13.6 times the rate of deaths than those aged 65-74.

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



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PROJECTED LIFETIME COSTS

Lifetime costs⁴ associated with unintentional fall injuries in 2018 among Indiana residents aged 65 and older are estimated to be over \$1.1 billion. Most of these costs were associated with injuries requiring hospitalizations.

	Number of Injuries	Medical Cost	Work Loss Cost	Combined Cost
Deaths	455	\$11,137,000	\$49,095,000	\$60,232,000
Hospitalizations	13,285	\$510,303,400	\$369,748,100	\$880,051,500
ED Visits	43,181	\$131,183,900	\$56,308,000	\$187,491,900
TOTAL	56,921	\$652,624,300	\$475,151,100	\$1,127,775,400

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 ED visits: <http://www.cdc.gov/injury/wisqars/>



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FALL PREVENTION RESOURCES

- **Stopping Elderly Accidents, Deaths and 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 risks and identify modifiable risk factors: www.cdc.gov/steady.
- **Stepping On** is a high-level, evidence-based program proven to reduce falls and build confidence in older adults. Stepping On is a seven-week (once-a-week) intervention proven to decrease the incidence of falls in older adults. Older adults practice balance and strength exercises and learn the role that vision, medication and footwear can play in falls. They also learn strategies for avoiding or eliminating fall hazards to better navigate inside and outside the home.
- **Indiana Fall Prevention Coalition (INFPC)**'s mission is to promote evidence-based fall prevention programs throughout Indiana, increase statewide collaboration around fall prevention in Indiana, promote fall prevention as a public health priority in Indiana and build infrastructure and sustainability for fall prevention.

PREVENTION ACTIVITIES IN INDIANA

The ISDH Division of Trauma and Injury Prevention has identified older adult fall prevention as a priority area for intervention and prevention strategies. The STEADI toolkit is a CDC educational material that helps identify patients' risks of falling and intervention strategies for primary care physicians at a wellness visit. The goal is to find the best environment for fall prevention strategies highlighted in the toolkit so that more individuals can be screened and directed to the appropriate channels. Stepping On is an evidence-based program implemented in 2018 to help older adults learn how they can prevent future falls. INFPC promotes programs like these for fall prevention throughout Indiana. With innovative strategies like these, ISDH hopes to decrease the incidence of falls in older adults.

Pravy Nijjar, MPH, CPST

Email: pnijjar@isdh.in.gov

Phone: 317-234-1304

DATA SOURCES and DEFINITIONS

Data notes: All data in this report are based on the CDC injury definition, whereby injury cases are based on ICD-10 underlying cause codes (deaths) or ICD-10-CM external cause codes (hospitalizations and ED visits). All data in this report are based on the calendar years, and deaths and transfers were removed for hospital discharge cases. All injuries are considered unintentional unless otherwise specified. Reference to any commercial entity, product or service on this page should not be construed as an endorsement.

Report prepared according to:

Hume BC, Johnson RL, Thomas KE. State Special Emphasis Report: Instructions for Data on Fall Injuries among Older Adults. Atlanta (GA): Centers for Disease Control and Prevention, National Center for Injury Prevention and Control; 2015.

Data sources: Indiana State Department of Health, CDC WISQARS. Document prepared by ISDH Division of Trauma and Injury Prevention.