

## A GROWING CONCERN

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

In 2014, 1,202 New York residents ages 65 and older died and over 149,282 fall injuries were treated at hospitals and emergency departments (Figure 1).

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

## QUICK FACTS



Residents ages 65 and older account for **82.6% of all fall deaths** and 69.2% of fall hospitalizations in New York.



Falls are the **leading cause of traumatic brain injury (TBI)** in New York residents ages 65 and older, accounting for **70.4%** of TBI deaths and **84.3%** of TBI hospitalizations. **55.7% of fall deaths** and 17.6% hospitalizations among older adults were associated with a TBI.



**Projected lifetime costs** associated with fall injuries in 2014 among New York residents ages 65 and older are estimated to be **\$3.3 billion**.

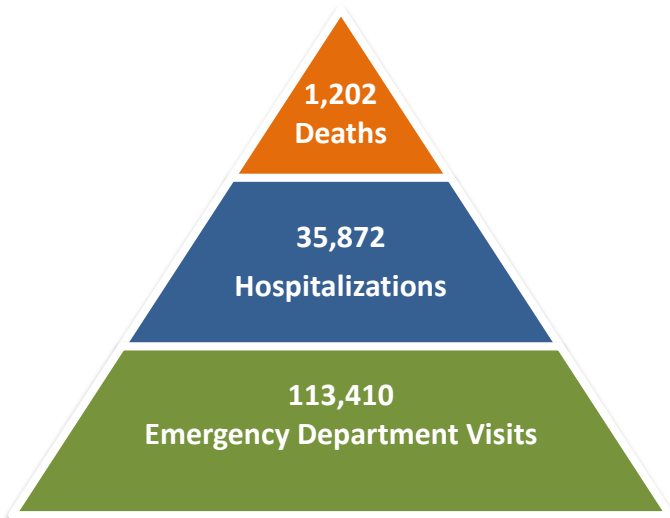


**Each week, there are 2,181** emergency department visits among residents ages 65 and older, 690 hospitalizations, **and 23 deaths due to fall injuries in New York State**.



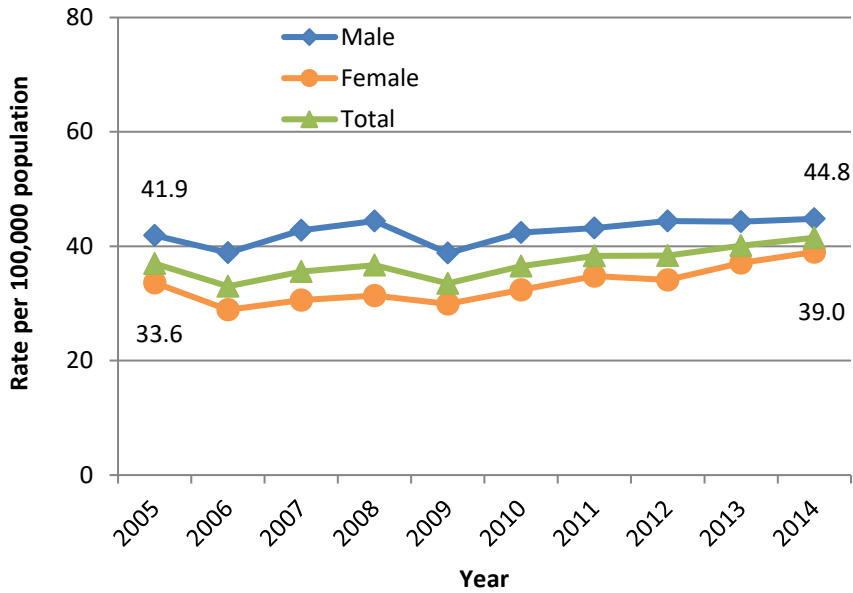
In 2014, 8.0% of fall deaths among this age group **occurred in the home**, while 16.0% occurred in a residential facility such as a nursing home. The location wasn't known for 15.8%.

**FIGURE 1.** Burden of Fall Injuries among Residents Ages 65 and older—New York State, 2014



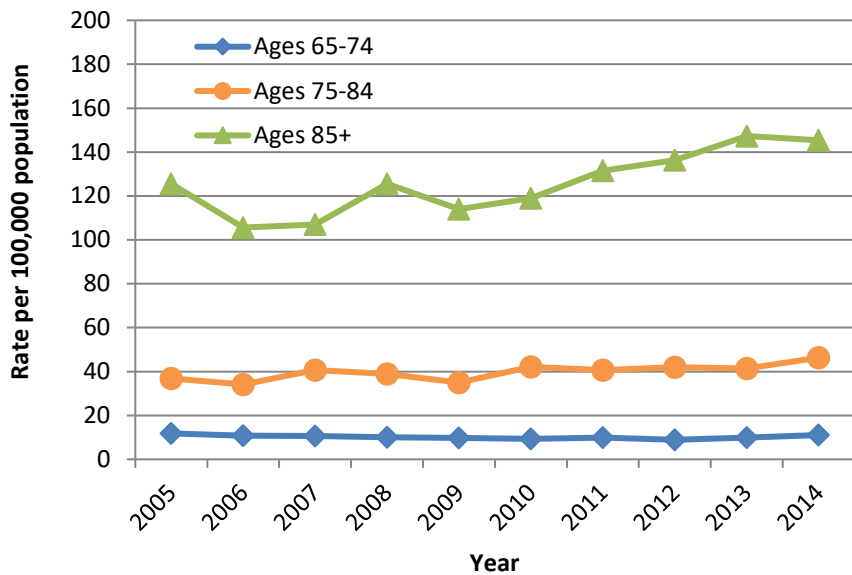
### FALL DEATHS

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



- From 2005 to 2014, the rate of fall deaths increased from 37.0 per 100,000 to 41.5 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 13.8% higher than in females.

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



- Fall death rates increased among adults aged 74 to 84 and 85+.
- The highest increase was among persons ages 85 and older.
- Rates for persons ages 85 and older increased, from 125.5 per 100,000 in 2005 to 145.4 per 100,000 in 2014.



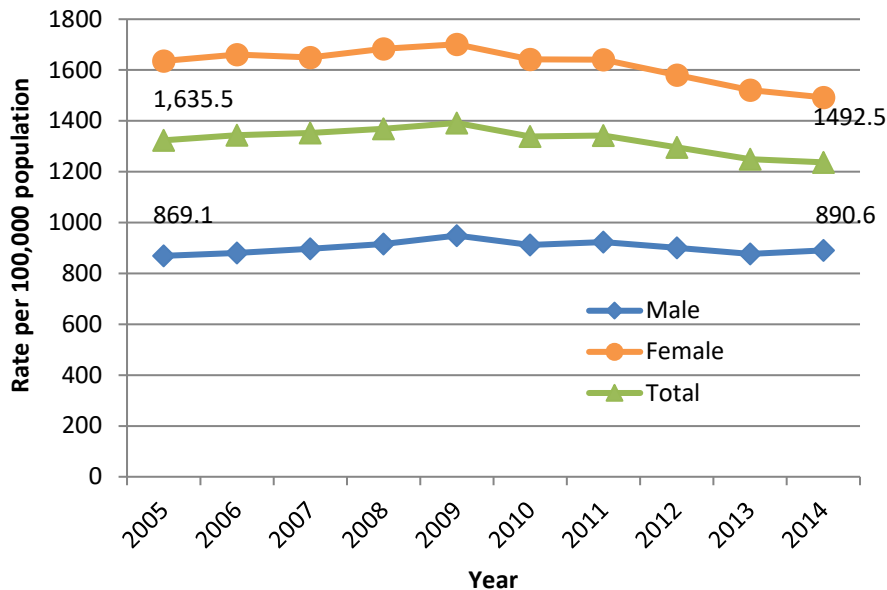
# New York State

## Special Emphasis Report: Fall Injuries among Older Adults

### 2005 - 2014

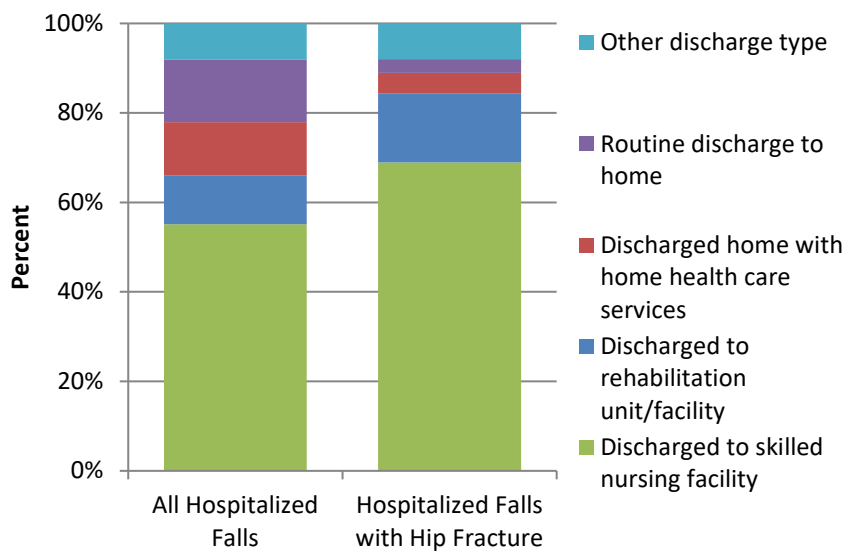
#### NONFATAL FALL HOSPITALIZATIONS

**FIGURE 4.** Age-adjusted Rate of Fall Hospitalizations by Sex, Ages 65 and older—New York State. 2005-2014



- From 2005 through 2009, hospitalization rates increased slightly, but have been steadily declining since the peak in 2009.
- In 2014, hospitalization rates among females are approximately 1.7 times that of males.

**FIGURE 5.** Percent of Fall Hospitalizations by Discharge Disposition, Ages 65 and older—New York State, 2014



- 54.9% of all fall hospitalizations were discharged to a skilled nursing facility, whereas only 10.6% of the falls occurred at a residential institution.
- Among falls resulting in a hip fracture, 68.9% were discharged to a skilled nursing facility and 15.3% discharged to a rehabilitation facility<sup>1</sup> whereas only 13.7% of the falls occurred at a residential institution.
- Among those with a hip fracture, only 3.1% had a routine discharge to home and 4.6% were discharged home with home health services.

<sup>1</sup>Rehabilitation includes inpatient hospital rehab units as well as other outside facilities.



# New York State

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### DEMOGRAPHIC DATA

**TABLE 1.** Number and Rate of Fall Deaths, Hospitalizations and Emergency Department (ED) Visits, Ages 65 and older—New York State, 2014

	Fall Deaths		Fall Hospitalizations and Emergency Department (ED) Visits			
	Number of Deaths	Death Rate per 100,000 <sup>2</sup>	Number of Hospitalizations	Hospitalization Rate per 100,000 <sup>2</sup>	Number of ED Visits	ED Visit Rate per 100,000 <sup>2</sup>
<b>TOTAL</b>	<b>1,202</b>	<b>5.1</b>	<b>35,872</b>	<b>152.6</b>	<b>113,410</b>	<b>489.0</b>
<b>Sex</b>						
Male	550	6.1	10,936	120.0	37,702	405.7
Female	652	4.3	24,936	172.9	75,705	547.6
<b>Age Group</b>						
Ages 65-74	156	9.7	7,700	480.7	36,311	2,436.5
Ages 75-84	62	7.2	12,216	1,409.0	38,069	4,390.8
Ages 85+	47	11.0	15,956	3,717.8	39,030	8,460.5
<b>Race/Ethnicity</b>						
White, NH <sup>3</sup>	1,005	44.5	27,421	1,245.2	81,941	3,832.2
Black, NH	73	22.1	1,865	572.1	8,960	2,653.8
Hispanic	64	23.6	2,226	799.3	9,384	3,220.1
Asian/PI <sup>4</sup> , NH	47	31.8	875	576.7	2,299	1,426.3
AI/AN <sup>5</sup> , NH	14	20.2	47	815.0	228	3,726.7
Other/Unknown	9	n/a	3,438	n/a	10,598	n/a

- Males had a higher rate of fall deaths than females (6.1 per 100,000 and 4.3 per 100,000, respectively).
- Females had higher rates for nonfatal hospitalizations and ED visits.
- Persons ages 85 and older had the highest rates of fatal and nonfatal fall injuries
- White non-Hispanic residents had the highest rates of fall deaths and American Indian/Alaskan Native non-Hispanic residents had the lowest.
- Non-Hispanic White residents had the highest rates of fall hospitalizations and Black non-Hispanic residents had the lowest.
- Non-Hispanic American Indian/Alaskan Native non-Hispanic residents had the highest rates of fall ED Visits and Asian/Pacific Island non-Hispanic residents had the lowest.

<sup>2</sup>Rates are age-adjusted except for rates by age group.

<sup>3</sup>Non-Hispanic

<sup>4</sup>Pacific Islander

<sup>5</sup>American Indian/Alaskan Native



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### PROJECTED LIFETIME COSTS

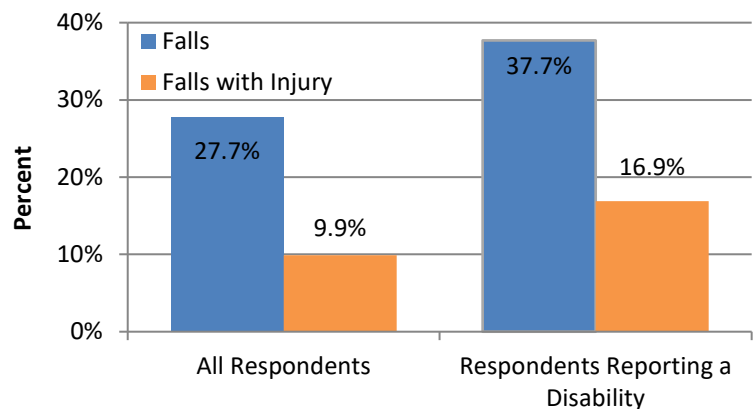
Lifetime costs<sup>4</sup> associated with unintentional fall injuries in 2014 among New York State residents ages 65 and older are estimated to be over \$3.3 billion. Most of these costs were associated with injuries requiring hospitalizations.

	Number of Injuries	Medical Cost	Work Loss Cost	Combined Cost
Deaths	1,202	\$34,589,000	\$172,414,000	<b>\$207,003,000</b>
Hospitalizations	35,872	\$1,474,023,000	\$1,082,196,000	<b>\$2,556,219,000</b>
ED Visits	113,410	\$368,537,000	\$160,328,000	<b>\$528,865,000</b>
Total	150,484	1,877,149,000	1,414,938,000	<b>\$3,292,087,000</b>

### SURVEY DATA

- The Behavioral Risk Factor Surveillance Survey (BRFSS) is a statewide phone survey of community dwelling (i.e., non-institutionalized) New York State adults. It provides self-reported data on a variety of topics, including falls, fall-related injuries, and medical conditions.
- In 2014, an estimated 756,917 of New York State adults ages 65 and older reported having fallen with 38.9% reporting a fall-related injury in the past 12 months.
- Older New York State adults who reported the following conditions were significantly *more likely*<sup>5</sup> to report falls and fall-related injuries in the past 12 months:
  - poor mental health/depression
  - no exercise
  - disability<sup>6</sup>

**FIGURE 6.** Self-Reported Falls and Fall Injuries in the Past 12 Months, Ages 65 and older--New York State, 2014



- Older adults who reported a physical, cognitive and/or emotional disability<sup>6</sup> had particularly high fall rates, with an estimated 37.7% reporting having fallen and 16.9% reporting fall-related injuries in the past 12 months.
- Older adults who reported not having exercised in the past month had 1.4 times the risk of falling, and 1.5 times the risk of having a fall injury, compared to those who indicated any amount of exercise.
- Older adults who reported poor mental health/depression had 1.6 times the risk of falling, and 1.9 times the risk of having a fall injury, compared to those who indicated having good mental health/not having depression.

<sup>4</sup>Costs 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/>.

<sup>5</sup>These conditions are statistically significant at the (P<.05 level). However, causality shouldn't be assumed. Examined selected chronic health conditions: respondents reported "Yes" to **EVER** having been diagnosed with: Diabetes; Asthma; Stroke; Cancer; Depression; Chronic obstructive pulmonary disease (COPD); Coronary artery disease (CAD)/Angina or with Myocardial infarction. Poor mental health includes persons who reported experiencing 14+ days of poor mental health in the past month. Respondents are asked their height and weight to calculate BMI. Obesity is defined as a BMI greater than or equal to 30.0. Exercise is defined as respondents reporting "No" to **ANY** leisure-time physical activity.

<sup>6</sup>Disability 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/steady](http://www.cdc.gov/steady).

### PREVENTION ACTIVITIES IN NEW YORK STATE

**New York State Department of Health (NYSDOH)** supports the statewide implementation of evidence-based fall prevention programs proven effective for older adults to reduce their risks for falling and fall injuries. The NYSDOH partners with the NYS Office for the Aging and the University at Albany's Quality & Technical Assistance Center to increase the number of NYS older adults at risk of falls who participate in evidence-based community programs to reduce falls and fall risk and embed these programs, Tai Chi for Arthritis and Stepping On, into an integrated, sustainable evidence-based prevention program network. Local networks are led by organizations such as Local Health Departments, Local Offices for the Aging, and Trauma Centers.

In September 2012, United Health Services (UHS) in collaboration with the NYSDOH and the Broome County Department of Health, became the first alpha test site in the nation to implement CDC's STEADI (*Stopping Elderly Accidents, Deaths and Injuries*) Program. Since the initial implementation, STEADI has been expanded to 19 UHS sites across three counties.

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### DATA SOURCES and DEFINITIONS

*New York State Department of Health  
Bureau of Occupational Health and Injury Prevention*

*Statewide Planning and Research Cooperative System (SPARCS),  
Emergency Department and Hospital Discharge Data, June 2016*

*Vital Statistics Death File, June 2016*

**New York State Department of Health**

[https://www.health.ny.gov/prevention/injury\\_prevention/](https://www.health.ny.gov/prevention/injury_prevention/)