Surveillance Report August 2019

Quick Facts

Falls are the leading cause of **both fatal and nonfatal injuries** for adults aged 65+[1]

1 out of 4 people aged 65+ fall each year[2]

Falling once **doubles** your chances of falling again[2]

Over 95% of hip fractures are caused from falling[2]

The Burden of Falls Among Adults in Montana

Background

Injuries consistently rank among the top causes of death in the United States and are among the top ten causes of death across all age groups in Montana. Overall, unintentional falls are the 3rd most common cause of injury-related deaths in the state, after deaths due to unintentional motor vehicle crashes and intentional firearm injuries.[1]

Falls may cause significant injury regardless of the height from which the fall occurred; 60% of emergency department visits and hospitalizations related to falls were ground-level falls.[3]

Many people who fall, even if they're not injured, become afraid of falling. This fear may cause a person to cut down on their everyday activities. When a person is less active, they become weaker, which increases their chances of falling.[4]

Methods

This report utilized data from 2017 Montana emergency department visits, 2017 Montana hospital admissions, 2017 Montana Trauma Registry, and 2016 Behavioral Risk Factor Surveillance System (BRFSS). BRFSS is a random digit dialed telephone survey of non-institutionalized adults. The survey asks respondents older than 18 whether they fell at least once in the past 12 months, and if at least one fall resulted in an injury. The survey also collects demographic information along with a variety of other health related information.

Montana Injury Prevention Program

1400 E Broadway

Helena, Montana 59260-2951

(406) 444-4126

https://dphhs.mt.gov/publichealth/EMSTS/prevention/falls

Findings

Falls are common among Montanans, with 34% of adults 45 years and older reporting a fall within the last year. Among those who did experience a fall, one in three reported suffering an injury due to the fall. Though victims of a fall in the last year were equally likely to be a man or a woman, women were significantly more likely to report sustaining an injury from a fall than men (58% vs. 42%, respectively).[5]

Falls are especially dangerous among older populations, and the rate of fall-related deaths among Montanans aged 65+ is significantly higher than that for the US (Figure 1). Falls are reported as the top cause of death in this age group in the Montana Trauma Registry.

The prevalence of falls is significantly higher among American Indian populations, people with a disability, and those who live in a rural area (Table 1).

Figure 1.

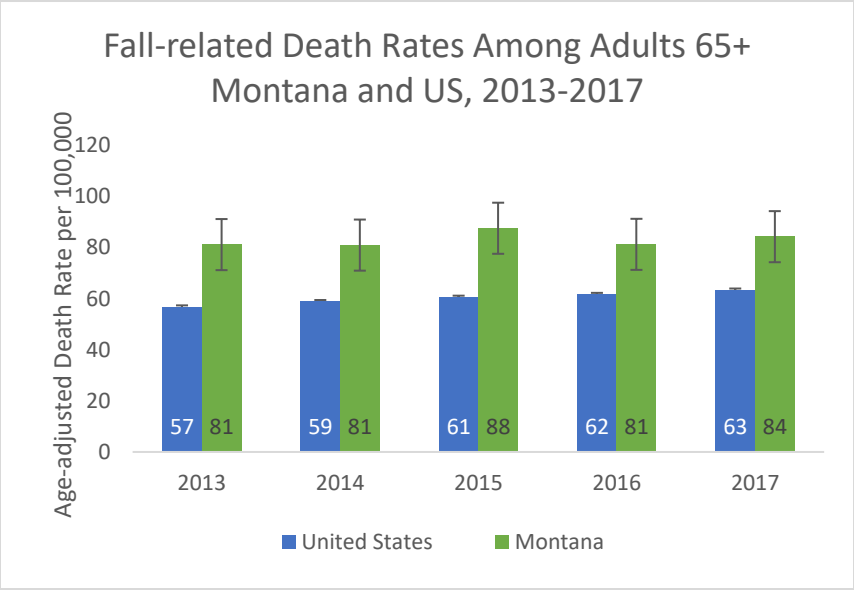


Table 1. Prevalence of Falls by Selected Demographic Groups, Montana, BRFSS 2016

Group	% (95% CI)
All Adults	34.4 (32.3-36.3)
Sex	
Male	35.4 (32.4-38.4)
Female	33.2 (30.5-35.9)
Age	
45-54	34.9 (30.3-39.5)
55-64	33.0 (29.5-36.4)
65+	35.0 (32.2-37.8)
Race/Ethnicity	
White, non-Hispanic	33.6 (31.5-35.7)
AI/AN	**49.5 (41.1-57.9)**
Disability Status	
Not Disabled	27.4 (25.1-29.7)
Disabled	**46.6 (43.1-50.1)**
Urban/Rural	
Small Metro	30.1 (27.0-33.1)
Micropolitan	27.3 (24.2-30.3)
Rural[6]	**42.7 (39.7-45.6)**

Bold indicates groups with significantly higher fall prevalence compared to all Montana adults.

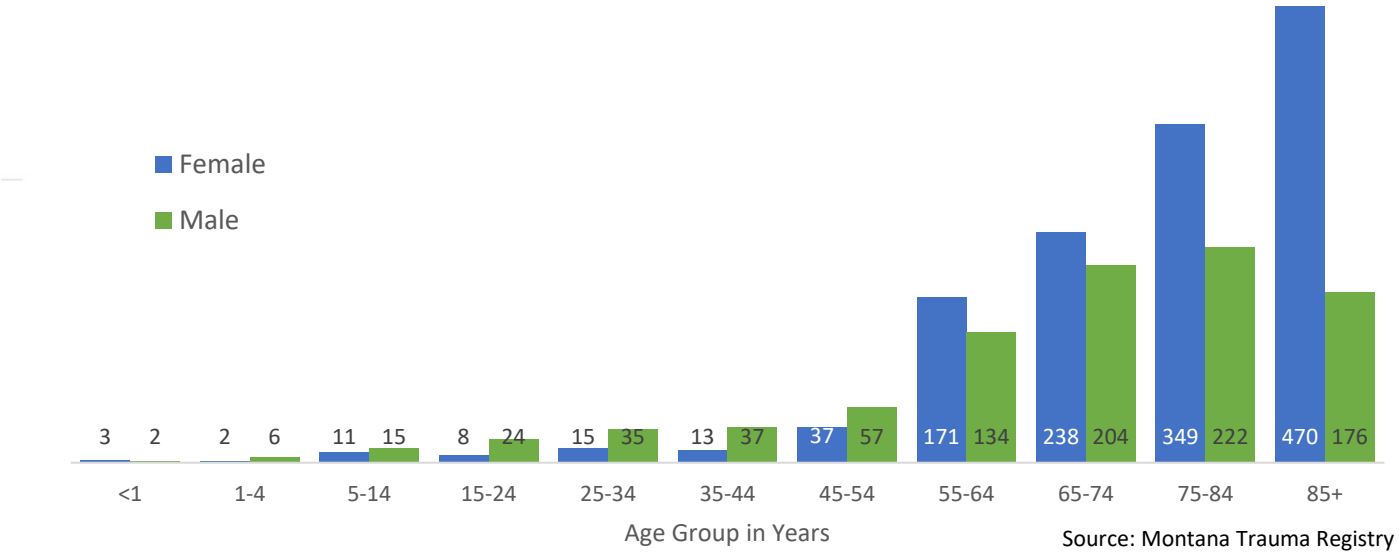
Table 2. Chronic conditions among individuals reporting at least one fall in the last 12 months, Montana, BRFSS 2016

Condition	% (95% CI)
Arthritis	52.4 (48.8-55.9)
Depression	27.4 (24.2-30.6)
Cardiovascular Disease	18.1 (15.4-20.8)
Diabetes	15.9 (13.4-18.4)
Cancer (not including skin cancer)	15.0 (12.5-17.5)
Chronic Obstructive Pulmonary Disease (COPD)	14.7 (12.0-17.4)
Current Asthma	13.9 (11.3-16.5)
Heart Attack	9.6 (7.5-11.7)
Coronary Heart Disease	8.3 (6.4-10.3)
Stroke	7.2 (5.3-9.1)
Kidney Disease	4.7 (3.3-6.0)

Nearly 3 in 4 Montanans who experienced a fall in the last 12 months report having at least one chronic condition. The most commonly reported condition was arthritis, which affects over half of all people who fell in the last year (Table 2).

Fall injuries may occur across all age groups, but injuries severe enough to require hospitalization occur more frequently among older age groups, and especially among women (Figure 2).

Figure 2. Number of Nonfatal Unintentional Fall-related Hospitalizations, 2017



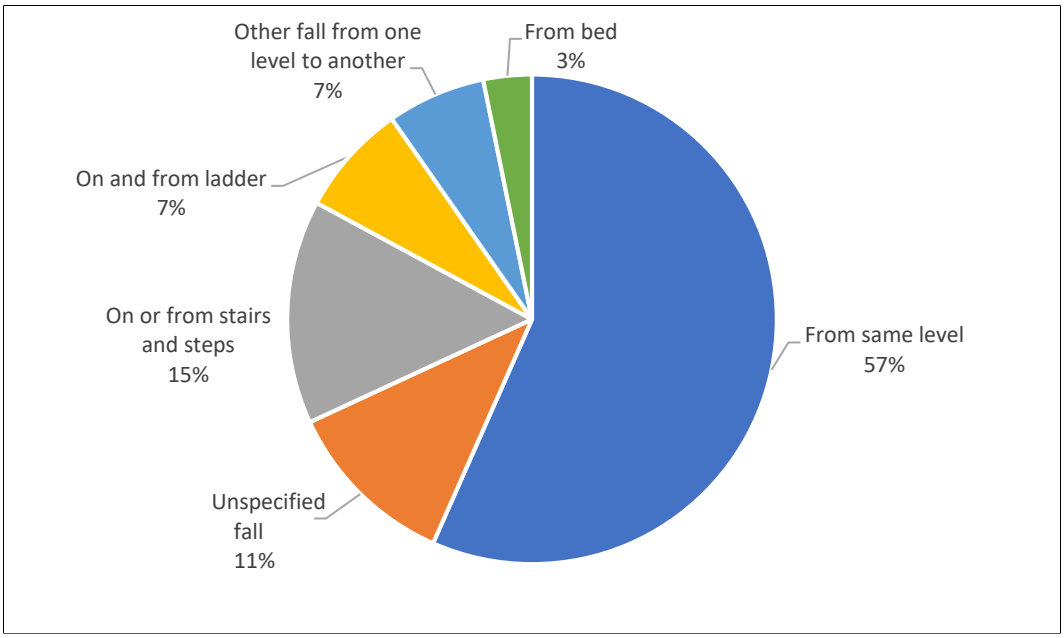
Source: Montana Trauma Registry

The Trauma Registry

Another method of tracking serious injury in Montana is through the Trauma Registry. Trauma registries are used to collect, store, and analyze data describing the demographic characteristics, diagnoses, medical treatments, and clinical outcomes of individuals who meet specified inclusion criteria. However, fall-related data in the registry is not representative of the incidence of all falls in the population, since it is limited to only the moderately to severely injured individuals, and does not include patients with an isolated hip fracture.

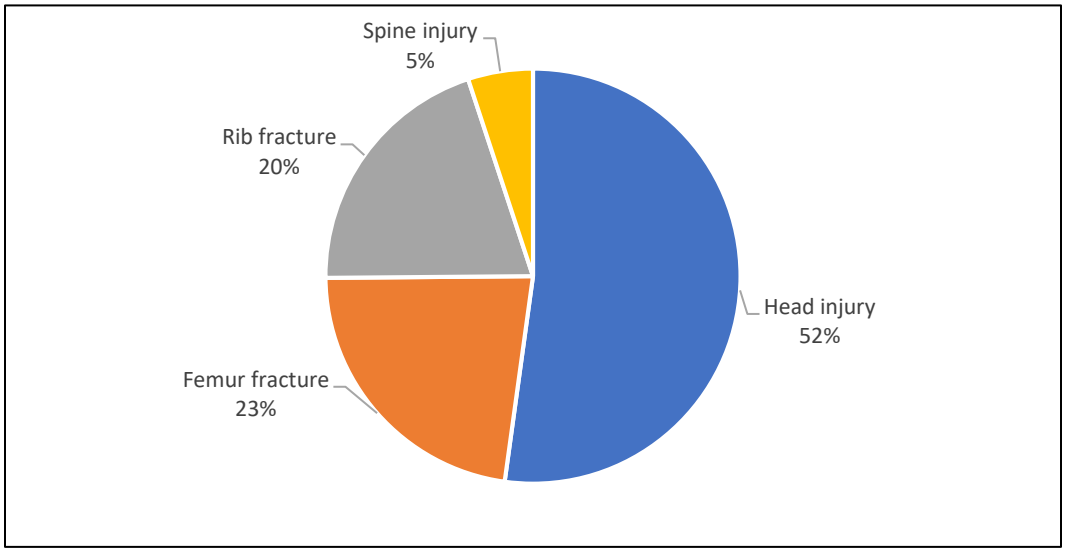
With 70% of all fall cases in the trauma registry occurring to people aged 55 and older, the most common type of fall are falls from the same level by stumbling, tripping, or slipping (Figure 3).

Figure 3. Type of Fall, MT Trauma Registry, 2017



The ten most common traumatic injuries sustained after a fall among older adults (aged 55+) occur to the head, ribs, femurs, and spine (Figure 4). The most common traumatic injury for this age group are head injuries which may include severe bleeding in the brain following a fall. Being on a blood thinner increases the risk of severe bleeding, which can be dangerous or fatal.

Figure 4. Trauma Diagnoses After a Fall, MT Trauma Registry,



Falls Prevention

Falls can often be prevented. Some things that can be done to keep yourself from falling include:

- **Talk to your doctor** to evaluate your risk for falling and review your medicines to see if any might make you dizzy or sleepy. Some medications, such as anticoagulants, may put you at a higher risk for injury.
- **Do strength and balance exercises** that make your legs stronger and improve your balance.
- **Have your eyes checked** by an eye doctor at least once a year and be sure to update your eyeglasses if needed.
- **Make your home safer**. Get rid of things you could trip over. Make sure your home has adequate light by adding more or brighter light bulbs. Consider adding grab bars inside and outside your tub or shower and next to the toilet.

More information on fall risk factors and prevention can be found at:
https://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html

Programs

The Montana Department of Public Health and Human Services (DPHHS) Injury Prevention Program is working to help Montanans of all ages, but especially those who are older, make a few simple changes to every day life to prevent falls and fall-related injury and death. The Falls Prevention Program currently supports the Stepping On and Tai Ji Quan: Moving for Better Balance programs.

- **Stepping On** is a 7-week evidence-based fall prevention program designed to help older adults or adults who have a fear of falling reduce their risk for falls.

  For more information for the Stepping On visit the Montana Falls Prevention website at https://dphhs.mt.gov/publichealth/EMTS/prevention/falls.

- **Tai Ji Quan: Moving for Better Balance** is a 24-week class for older adults and adults with a balance disorder at risk of fallings. The Montana State University (MSU) Extension to offers this falls prevention program.

  For more information on the Tai Ji Quan: Moving for Better Balance program, contact your local MSU Extension agent or visit the MSU Extension website at https://www.msuextension.org/family.

Conclusion

Falls are a major public health problem, but with proper prevention and education they can be reduced. Participating in a program such as Stepping On or Tai Ji Quan: Moving for Better Balance gives people the tools they need to improve their strength and balance as well as a better understanding of the multifactorial causes of falls.

References

1. CDC Wonder: Centers for Disease Control and Prevention, National Center for Health Statistics. Multiple Cause of Death 1999-2017 on CDC WONDER Online Database, released December, 2018. Data are from the Multiple Cause of Death Files, 1999-2017, as compiled from data provided by the 57 vital statistics jurisdictions through the Vital Statistics Cooperative Program. Accessed at http://wonder.cdc.gov/mcd-icd10.html on Mar 27, 2019 2:10:20 PM
2. Center for Disease Control and Prevention, (2017). Home and Recreational Injury. Older adult falls. https://www.cdc.gov/HomeandRecreationalSafety/Falls/adultfalls.html
3. Montana Hospital Discharge Data System
4. Vellas BJ, Wayne SJ, Romero LJ, Baumgartner RN, Garry PJ. Fear of falling and restriction of mobility in elderly fallers. Age and Ageing 1997;26:189–193
5. Montana Behavioral Risk Factor Surveillance System, 2016
6. National Center for Health Statistics (NCHS) urban-rural classification scheme for counties. Noncore counties include: Beaverhead, Big Horn, Blaine, Broadwater, Carter, Chouteau, Custer, Daniels, Dawson, Deer Lodge, Fallon, Fergus, Garfield, Glacier, Granite, Hill, Judith Basin, Lake, Liberty, Lincoln, Madison, McCone, Rosebud, Sanders, Sheridan, Stillwater, Sweet Grass, Teton, Toole, Treasure, Valley, Wheatland, and Wibaux