

FALLS IN THE ELDERLY

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THE PROBLEM:

- Falls account for 87% of hip fractures.
- Two-thirds of those who experience a fall will fall again within six months.

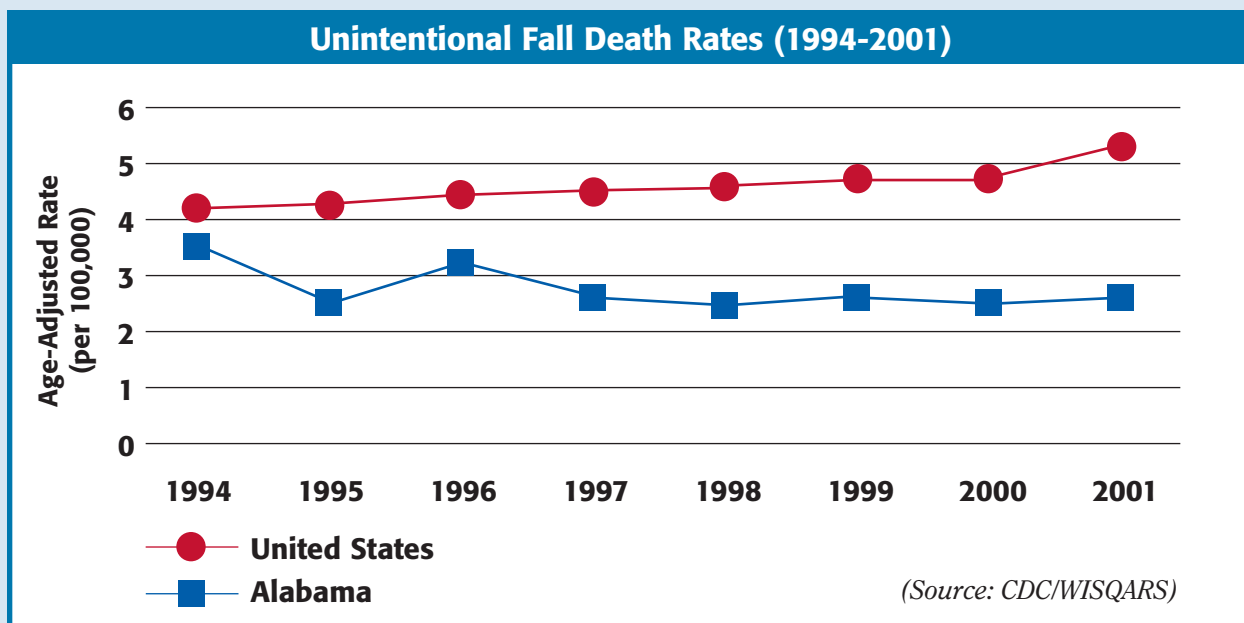
Each year in the United States one in every three adults over 65 years of age sustains a fall. This is the most common cause of injury and hospital admission for trauma among older Americans. In fact, older adults are hospitalized for fall-related injuries five times more often than for injuries due to all other causes.

Not every fall results in a broken bone for those over 65 years of age; however, of all fractures sustained by this population, falls account for 87 percent of them. Hip fractures are the most serious fall-related fractures, resulting in the highest rates of morbidity and mortality. In 1999, about 10,000 people over age 65 died from

fall-related injuries in the United States. Each year about 60% of these fatal falls happen at home, while another 30% occur in public places, and the remaining 10% occur in health care institutions.

As the United States population ages, falls are becoming a greater concern for the public. For example, between 1988 and 1996 the number of Americans over age 65 admitted to hospitals for hip fractures increased almost 50%, from 230,000 to 340,000 admissions over the eight-year period. Year 2000 data reports that 1.6 million seniors were treated in emergency departments for fall-related injuries, while 353,000 were hospitalized. It is projected that the number of hip fractures will exceed 500,000 by 2040. Combining this prediction with an assumed 5% rate of inflation, the total annual cost of hip fractures alone could reach \$240 billion.

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- **Falls are a leading cause of traumatic brain injuries.**

Falls are the second leading cause of spinal cord and brain injury among older adults. According to the Alabama Trauma Registry, 3,627 traumatic spinal cord injury (TSCI) and traumatic brain injury (TBI) cases related to falls have been reported among Alabama residents from 1998-2001. Forty-nine percent (1,795 cases) of the 3,627 spinal cord and brain injuries were among Alabamians 60 years of age and older.

- **Every hour an older adult dies as the result of a fall.**

Death as a result of a fall consistently is the second or third leading cause of unintentional injury death among Alabama residents. Between 1994 and 2001, falls accounted for 988 deaths in Alabama (Table 1).

Table 1. Injury Deaths as a Result of Falls by Year of Death, Alabama 1994-2001

Year of Death	Number of Deaths	Age-Adjusted Rate
1994	149	3.64
1995	107	2.53
1996	141	3.31
1997	115	2.67
1998	108	2.46
1999	120	2.73
2000	117	2.66
2001	131	2.89

(Source: AL Center for Health Statistics)

From 1990-1998, 74 percent (541 cases) of the 732 deaths were reported among Alabamians 60 years of age or older (Table 2). Falls are the leading cause of death among Alabamians greater than 79 years of age.

Table 2. Injury Deaths as a Result of Falls by Age Group, Alabama 1990-1998

Age Group	Number of Deaths	Percent of Deaths
Age <15	7	0.96
Age 15-19	11	1.50
Age 20-29	27	3.69
Age 30-39	37	5.05
Age 40-49	66	9.02
Age 50-59	43	5.87
Age 60-69	91	12.43
Age 70-79	159	21.72
Age >79	291	39.75
Total	732	100.00

* Percentages may not add up to 100 due to rounding.

(Source: AL Center for Health Statistics)

THE CAUSES:

Some risk factors that contribute to falls in the elderly include cluttered floors, pets underfoot, a recent change in medication, an adverse reaction to multiple medications, impaired vision or balance, poor lighting, especially in stairways, loose carpeting and lack of supportive equipment in bathrooms.

PREVENTION:

Falls in the elderly can be prevented. By modifying the home environment and working closely with health care providers, these risk factors can be substantially reduced. Regular exercise, handrails and improved lighting in stairways, non-slip mats, grab bars, vision checks and periodic reviews of medications are examples of steps to reduce the risk of falling. By taking precautions, many falls that occur among older Americans can be prevented, reducing the incidence of injury and death. Falls need not, nor should not, be a normal part of aging.

ALABAMA'S STRATEGY FOR FALL PREVENTION:

GOAL:

Reduce the number of deaths and injuries due to falls.

1. Decrease the number of deaths due to falls by 20% to 2.31 deaths per 100,000 people.

AL Baseline: 2.89 deaths per 100,000 people (CDC, 2001 data)

2. Promote awareness on preventive measures in the home environment.

- a. Provide preventive information to reduce the risk of falls in bathrooms.
 1. Installation of slip-resistant bathtub and surfaces.
 2. Installation of grab bars in the bathtub.
 3. Installation of a seat in the bathtub.

4. Installation of grab bars on the sides of toilet seats.
5. Installation of raised toilet seats.
- b. Provide preventive information to reduce the risk of falls in the home.
 1. Installation of hand rails on stairs.
 2. Ensuring floors are even.
 3. Ensuring carpet is laid properly and not loose.
 4. Importance of well-lighted hallways and rooms.
 5. Importance of lower bed height.
- c. Develop and provide training to educate older Alabamians and family members on preventive measures to reduce the risk of falls.

3. Develop and implement an educational plan to encourage people at high risk of falls to visit their health care provider every six months.

- a. Check quality of vision.
- b. Evaluation of physical and mental condition.
- c. Discuss exercise program to improve strength and endurance.
- d. Review of medications to avoid adverse interactions.

4. Develop and implement a plan to educate health care providers about the importance of reviewing adverse interactions of prescriptions for people at high risk for falls.

5. Promote the need for a fall-related injury surveillance system.

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