CD Summary

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OREGON PUBLIC HEALTH DIVISION • DEPARTMENT OF HUMAN SERVICES

DEFYING GRAVITY: PREVENTING FALLS AMONG OLDER ADULTS

Of all the self-fulfilling prophecies in our culture, the assumption that aging means decline and poor health is probably the deadliest.

~Marilyn Ferguson, The Aquarian Conspiracy, 1980

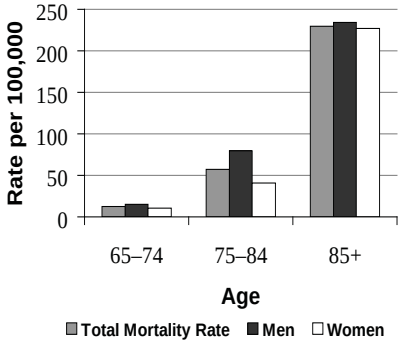
Falls are a serious threat to the lives, health and independence of seniors. A fall can be as devastating as a stroke or heart attack. The societal costs are also high—in 2006, >5,500 Oregon seniors were hospitalized as the result of a fall at a cost of more than $120 million. An expected increase in falls corresponding to an aging population threatens to burden an already strained healthcare system. Yet falls are not an unavoidable aspect of aging—as many as two-thirds are preventable.[1] This *CD Summary* presents current data on falls among Oregon seniors, and provides evidence-based strategies to reduce the risk of falls.

DEATHS AND HOSPITALIZATIONS: THE TIP OF THE ICEBERG

Most of what is known about fall outcomes in Oregon relates to the most severe events: deaths and hospitalizations. Falls are the tenth leading cause of death among Oregonians aged ≥65 years. During 2005, Oregon ranked 11th among US states in fatal senior falls; the fall death rate among Oregon seniors ≥65 years is 66 per 100,000 population—70% higher than the national rate.

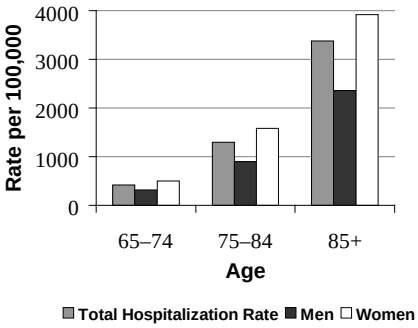
The risk of dying or being hospitalized from a fall varies by age, sex, and fall type. The fall mortality rate among Oregon seniors ≥85 years is 230 per 100,000—a rate nearly 20 times greater than that for those aged 65 to 74 years (figure 1). Men have a higher fall mortality rate than women, and are more likely to experience severe falls such as from ladders and stairs.

Figure 1. Fall mortality rate among Oregon seniors, 2006



For every 100,000 seniors in Oregon, there were 1,193 fall hospitalizations in 2006. Hospitalization rates increase dramatically with age (figure 2). Oregon women aged ≥85 years are hospitalized for fall injuries more frequently than all other causes combined. Compared to men, women have a higher rate of hospitalization and hip fracture, and are more likely to fall as a result of tripping or stumbling.

Figure 2. Fall hospitalization rate among Oregon seniors, 2006



Common injuries from falls that lead to hospitalization are hip fractures and traumatic brain injuries. From 2002 through 2006, approximately 50% of all seniors hospitalized for falls in Oregon were diagnosed with a hip fracture, and 8% were diagnosed with a traumatic brain injury. Those that sustain head injuries are more likely to be hospitalized and are at an increased risk of death.

Fall hospitalization is expensive: the 5-year average hospitalization charges for senior falls are over $100 million annually, *behind only heart disease and cancer hospitalization costs*. In addition, approximately 60% of Oregon seniors hospitalized for falls are discharged into long-term care—as many as 3,265 seniors each year.

THE REST OF THE ICEBERG

In a recent survey, about 15% of seniors in Oregon reported falling in the previous 3 months. As much as 4% of the senior population—or an estimated 20,400 persons—had a fall in the previous months that required medical care. Nationally, about a third of all older adults fall, with about one in ten falls resulting in serious injury.[2] Recurring falls increase the risk of more serious falls and often lead to a fear of falling, which limits senior mobility.

By 2020, Oregon's population ≥65 years is estimated to increase by more than 50%. In addition, because life expectancy has increased in the US, a larger proportion of older adults will be living with chronic conditions—which will increase their risk of falls.

RISKS

Symptoms and conditions that increase risk for falls include: a history of falls; delirium; use of multiple medications or improper dosages; recently changed medication, or use of medications that cause drowsiness; a history of hypotension; impaired mobility; impaired vision; a history of low or unstable blood sugar, other conditions such as arthritis or stroke; excessive use of alcohol or withdrawal from alcohol or other drugs.

Clinical intervention should address symptoms and conditions noted above. Both community-level and clinic-level interventions play a vital role.

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ASSESSMENT: CLEARING A PATH TO PREVENTION

A crucial aspect of clinical intervention is assessment—clinical and environmental.

Screening is the first step and can be conducted at every primary care visit. Every older adult should be asked three questions:

- Have you fallen in the past year?
- How many times have you fallen in the past year?
- Are you afraid of falling?

An answer of 'yes' to any of these questions indicates that assessment should be conducted for gait and balance (see "timed get up and go test" resource below). Problems with gait and balance, or history of multiple falls indicate further assessment including medication review, vision acuity testing, as well as functional, neurological, and basic cardiovascular assessment.

Education about falls can be included in clinic visits. New research suggests that educational messages for older adults should emphasize promotion of health and independence, and not simply relay the importance of preventing falls.[3] The stigma of falling, or being labeled as frail may inhibit an older person's willingness to engage in actions to reduce adverse outcomes.

Environmental assessments can mitigate home hazards such as inadequate lighting and clutter. Over 60% of all fatal falls in Oregon occur within the home. Home assessment should lead to modification of the home environment where indicated. Assessments can be conducted by seniors, their caretakers, or professional home health services with the assistance of checklists such as those found at *www.cdc.gov/ncipc/duip/fallsmaterial.htm#BRochures.*

Clinical assessment for falls and interventions are reimbursable. Although Medicare does not cover risk prevention, services delivered for symptom treatment are covered. Many symptom-specific diagnostic codes are synonymous with fall risk and can be linked with an assessment and risk management visit where necessary and medically reasonable. The ICD code V15.88 (history of fall) can be used to identify seniors that would benefit from assessment and risk management. The code can provide justification for additional evaluation and management such as referral to rehabilitation.

CMS has recognized the need to identify and treat fall risk. Medicare's Physician Quality Reporting Initiative (PQRI) provides physicians up to a 1.5% bonus for reporting quality specific measures. One specific measure is the number of seniors screened for future fall risk at least once in a 12 month period.

GETTING WITH THE GROUP: COMMUNITY-LEVEL PREVENTION

Evidence increasingly supports the effectiveness of group-based prevention for falls, and some exercise programs may reduce risk of multiple falls by as much as 55%.[4,5] Evidence-based group exercise programs such as tai chi improve strength, balance and mobility – which may also facilitate a faster recovery in the event of a serious fall.[6]

Over 95% of older adults in Oregon live independently in their communities. Aging independently in place is critical for baby boomers as they rock and roll their way into their golden years. Most falls are preventable; given the individual, social, and economic impact of fall injuries, it is imperative that senior falls be addressed in both the community and healthcare practices if adverse outcomes are to be reduced.

RESOURCES

- Timed get up and go test for gait and balance testing: *www.va.gov/ncps/SafetyTopics/fallstoolkit/media/timed_up_and_go_test-07-15-04.pdf.*
- Falls prevention tools*: www.cdc.gov/ncipc/duip/preventadultfalls.htm*; *www.healthyagingprograms.org/content.asp?sectionid=69*.
- Centers for Medicare and Medicaid Services: *www.cms.hhs.gov/*

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