

**Maryland Department of Health and Mental Hygiene  
FHA/Center for Health Promotion and Education  
Division of Injury Prevention and Health Promotion**

**FY 2012 Mini-grant: Part-C**

***Safe Steps for Seniors: A Fall Prevention Program for Older Adults***

*“Many falls in adults age 65 and older are caused by gradual health changes due to aging, such as chronic health conditions, daily medication use, and changes in muscle strength, balance, vision, and walking ability. By learning to manage these health factors, you can learn to stay active and independent for life.”*

*Stay Active & Independent for Life (SAIL): An information Guide for Adults 65+  
Washington State Department of Health*

**OVERVIEW:** Falls are among the most serious and common problems threatening the independence and quality of life facing older adults. Between 30 and 40 percent of community-dwelling adults over 65 years of age fall each year and of those, between 20 and 30 percent suffer serious injuries such as hip fractures and head trauma (Tinetti). In the United States, falls are surpassed only by motor vehicle crashes as a cause of injury death across all ages and are the leading of injury deaths among adults 65 years and older. Males have a higher death rate from falls than females; whites have a higher rate than blacks (Christoffel et al 2006). In 2000, falls resulted in the highest number (854,600, or 46%) and the rate of injury–related hospitalization (309 per 100,000 persons) and the rate of fall-related hospitalizations was three times greater than any other specified mechanism category (Finkelstein et al). Falls were also the leading cause of less severe non-hospitalizations (Finkelstein et al).

The economic burden of falls is staggering. In 2000, motor vehicle and fall injuries accounted for (\$89 billion) 22% and (\$81 billion) 20% respectively of the total lifetime cost (the sum of medical spending and lost productivity due to morbidity and mortality) of injuries (Finkelstein et al).

More than half of the fatal and non-fatal falling events occur at home(Home Safety Council). The risk of falling increases with age; more than one third of adults 85 and over fall each year, and three fifths of all fall-related deaths involve people 65 years and older (Christoffel et al 2006).

Maryland follows the national trends. The Maryland 2007 data (DHMH, *Injuries in Maryland 2007*) show falls were the leading cause of injury-related Emergency Department (ED) visits accounting for over one quarter of the 490,590 visits (*Injuries in Maryland, 2007*). Falls account for 40% (21,578) of the 54,366 injury–related hospitalizations and account for 70% of injury-related hospitalizations for ages 65 and older. Of the 546 fall-related deaths, 432 (79%) were adults 65 and over. Fall-related injuries deaths are almost exclusively unintentional (96%). In 2007, the age-adjusted fall-related death rate of 9.8 reflected a 14.3% increase from 2002.

**RISK FACTORS:** A risk factor is a characteristic, condition, or behavior that has been statistically demonstrated to increase the possibility of disease or injury, but is not necessarily the direct cause of a particular injury. The most important fall risk factors include muscle weakness, a prior history of falls, difficulty with gait and balance, visual impairment, arthritis, functional limitations, depression, syncope, postural hypotension, the use of four or more medications, and age >80 years (American Geriatric Society 2001 and Rubenstein, et al).

**PROVEN OR PROMISING RISK REDUCTION INTERVENTIONS:** Most falls result from a complex interaction of risk factors and the risk of falling increases with the number of risk factors (Tenetti). Interventions that address multiple factors have been shown to be most effective (Report on Seniors' Falls in Canada). Multifactorial, primary prevention-focused interventions include: exercise programs incorporating gait, balance, strength and endurance training; advice on appropriate fitting and use of assistive devices by an occupational therapist; medication review and modification; clinical management of chronic and acute illness; environmental assessment and modifications; and education (Report on Seniors' falls in Canada).

Researchers have found that, while seniors accept traditional fall prevention awareness-raising messages (i.e. falls are a significant health problem and falls are preventable), they fail to recognize or minimize their personal risk of falling, and they preferred messages that emphasized health and independence rather than falls (Hughes, et al).

**PROJECT DESCRIPTION:** Recognizing the magnitude, incomparable costs and consequences of falls to the health and well-being of older adults, their families and the community-at-large, the Office of Injury Prevention and Epidemiology seeks to raise awareness of this important public health problem in Maryland.

Falls are not an inevitable part of aging. Many falls can be prevented by identifying and modifying conditions/factors to reduce fall-related death and disability. This program will focus on promoting healthy behaviors and fostering safe environments by emphasizing that older adults can reduce their risk of falling by beginning a regular exercise program, making the home safer; having a health care provider review medications; and having their vision checked and corrected.

References:

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Frederick County Department of Aging and the Frederick County Health Department, Injury Prevention Program, **Slips, Trips and Falls Train-the-Trainer Program Manual**, 2007.

Hughes, K L, et al, *Older Persons' Perception of Risk of Falling: Implications for Fall-Prevention Campaigns*, **American Journal of Public Health**, February 2008, Vol. 98, No.2, 351-357.

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Maryland Department of Health and Mental Hygiene, Family Health Administration, Center for Health Promotion and Education, *Injuries in Maryland: 2008 Statistics on Injury-related Emergency Department Visits, Hospitalizations and Deaths*. [http://fha.maryland.gov/pdf/ohpetup/2008\\_Injuries\\_in\\_Maryland.pdf](http://fha.maryland.gov/pdf/ohpetup/2008_Injuries_in_Maryland.pdf)

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Rubenstein, LZ & Josephson, KR, *The Epidemiology of Falls and Syncope*, **Clinical Geriatric Medicine**, 18 (2), 141-158.

Tinetti ME, Speechley M, and Ginter SF, *Risk Factors for Falls Among Persons Living in the Community*, **New England Journal of Medicine**, 1988, December 29; 319(26):1702-7.

**MEMORANDUM OF INTENT/SCOPE OF WORK**

**FY 2011 Mini-grant: *Safe Steps for Seniors: A Fall Prevention Program for Older Adults***

**Goal:** Community dwelling adults age 65 and older will remain active, independent and falls-free for life.

**Objectives:** Through presentation, discussion, and educational material, program participants will:

1. Identify risk factors for falling in adults age 65 and older
2. Select prevention strategies to reduce the risk of falling.
3. Make a plan to stay active, independent, and falls-free.
4. Describe the impact of fear of falling on activity performance.
5. Take active steps to reduce the risk of falling by signing a pledge to begin a regular exercise program, modifying the home environment to make it safer, reviewing all medicines with a doctor or pharmacist and having an eye examination by an eye specialist.
6. Access home modification resources in the community.
7. Talk with family, friends, and/or health care providers about changing needs.

**Intended Audience:** Adults age 65 and older living in the community

**Risk Factors addressed by this project include:** fear of falling, muscle weakness, poor balance, vision changes, postural hypotension, lack of exercise, low lighting, obstacles and tripping hazards, lack of handrails and grab bars, slippery or uneven surfaces, improper footwear, multiple medications, and social isolation.

**Work Scope:**

With funds awarded by the Center for Health Promotion/FHA in the amount of up to \$4,000 \_\_\_\_\_ (jurisdiction) will:

**A. CORE ACTIVITIES(REQUIRED)**

1. Characterize the fall-related injury problem in the state/local jurisdiction named above.
2. Utilize community partnerships to conduct at least four multifactorial risk reduction programs for seniors and their families/caregivers that emphasize health and independence. Chose one program to implement in your community:
  - Remembering When™**, National Fire Protection Association
  - Stay Active and Independent for Life (SAIL)**. Washington State Health Department
  - A Matter of Balance©**, Boston University Roybal Center Consortium
3. Utilize standardized pre- and post- program survey based on risk reduction Program Outcomes provided by the Center for Health Promotion, Injury Prevention Program.
4. Utilize a standardized **Home Safety Check List** provided by CHP, Injury Prevention Program.
5. Complete and submit an **Event Encounter** form for all program activities.

6. Distribute **Pledge Cards** listing four actions to reduce the changes of falling: begin a regular exercise program, make your home safer, have your health care provider review your medication, and have your visions checked and corrected (provided by CHP, Injury Prevention Program).
7. Prepare fall prevention **learning station/display** to describe the problem of falls in the elderly, identify risk factors, and recommend strategies that promote an active, independent, and falls-free life. **Bring the display to the fall IPC meeting.**
8. Submit a written **final activity report** and an **oral/poster presentation** at the conclusion of the project at the fall IPC Meeting (date, time and location to be determined).

**B. SELECTED ACTIVITIES (OPTIONAL)**

1. Develop a media campaign (e.g. Public Service Announcement for radio and/or television, poster for mass transits, article for the local newspaper, etc) to promote an active, independent and falls-free life for seniors.
2. Conduct a follow-up session(s) to monitor long-term program impact.

**C. REQUIRED RESOURCES (include in budget)**

[ ] **1. Fear of falling: A Matter of Balance:** video (CD or VHS format) and facilitator's Manual (\$139 + 10 shipping = \$140)  
<http://www.terranoval.org/SearchResult.aspx?ListType=Keyword&IDValue=a%20matter%20of%20balance>

-OR-

[ ] **2. Remembering When™ Older Adults Program**  
 NFPA catalog item # REMWH \$65 +8.95 shipping=\$73.95  
<http://www.nfpa.org/catalog/product.asp?title=&category%5Fname=&pid=REMWH&target%5Fpid=REMWH&src%5Fpid=&link%5Ftype=search>

-AND-

***Fear of Falling: A Matter of Balance***, video (CD or VHS format) and facilitator's Manual (\$139 + 10 shipping=\$140)  
<http://www.terranoval.org/SearchResult.aspx?ListType=Keyword&IDValue=a%20matter%20of%20balance>

-OR-

[ ] **3. Stay Active & Independent for Life: An Information Guide for Adults 65+**  
 Off-set pdf document is free. Include printing costs in the budget)

-AND-

***Fear of Falling: A Matter of Balance***, video (CD or VHS format) and facilitator's Manual (\$139 + 10 shipping=\$140)  
<http://www.terranoval.org/SearchResult.aspx?ListType=Keyword&IDValue=a%20matter%20of%20balance>

**D. LIST YOUR PARTNERS AND THEIR ROLE IN THIS PROJECT.**

## Selected Resources:

- 1). **Home Safety Council:** [http://www.homesafetycouncil.org/SafeSeniors/sen\\_safeseniors\\_w001.asp](http://www.homesafetycouncil.org/SafeSeniors/sen_safeseniors_w001.asp)
- 2). **National Center for Injury Prevention and Control:**
  - Falls Among Older Adults:* <http://www.cdc.gov/ncipc/factsheets/adultfalls.htm>
  - Preventing Falls: How to Develop Community-based Fall Prevention Programs for Older Adults*, 2008: [http://www.cdc.gov/ncipc/preventingfalls/CDC%20Guide\\_030508.pdf](http://www.cdc.gov/ncipc/preventingfalls/CDC%20Guide_030508.pdf)
  - Preventing Falls: What Works. A CDC Compendium of Effective Community-based Interventions from Around the World*, 2008:  
[http://www.cdc.gov/ncipc/preventingfalls/CDCCompendium\\_030508.pdf](http://www.cdc.gov/ncipc/preventingfalls/CDCCompendium_030508.pdf)
  - Help Seniors Live Better, Longer: Prevent Brain Injury:* <http://www.cdc.gov/BrainInjuryinSeniors/>
- 3). **National Fire Protection Association (NFPA),** *Remembering When™: a fire and fall prevention program for older adults.* [http://www.nfpa.org/catalog/product.asp?pid=REMWH&order\\_src+A292](http://www.nfpa.org/catalog/product.asp?pid=REMWH&order_src+A292)
- 4). **Office of the Provincial Health Officer, British Columbia Minister of Health Planning,** *Prevention of Falls and Injuries Among the Elderly: A special report from the office of the Provincial Health Officer*, January 2004. <http://www.health.gov.bc.ca/library/publications/year/2004/falls.pdf>
- 5). **Public Health Agency of Canada.** *The Safe Living Guide: A guide to home safety for seniors.* 2005. [http://www.phac-aspc.gc.ca/seniors-aines/pubs/safelive/pdf/safelive\\_e.pdf](http://www.phac-aspc.gc.ca/seniors-aines/pubs/safelive/pdf/safelive_e.pdf)
- 6). **Terra Nova Films, Inc.,** *Fear of Falling: A Matter of Balance.* A seventeen-minute film and facilitator's manual, describes how restricting activities can lead to reduced physical function and independence.
  - VHS: <http://www.terranova.org/Title.aspx?ProductCode=FOFVHS>
  - DVD: <http://www.terranova.org/Title.aspx?ProductCode=FOFDVD>
- 7). **Washington State Department of Health,** *Stay Active & Independent for Life: An Information Guide for Adults 65+.* <http://www.doh.wa.gov/hsqa/emstrauma/injury/pubs/SAILguide.pdf>
- 8) **National Council on Aging,** *Falls Free: Promoting a National Falls Prevention Action Plan©:* [http://www.healthyagingprograms.org/resources/FallsFree\\_NationalActionPlan\\_Final.pdf](http://www.healthyagingprograms.org/resources/FallsFree_NationalActionPlan_Final.pdf)