

2016-2020 Strategic Plan for Falls Prevention in New Mexico

New Mexico Adult Falls Prevention Coalition

Facilitated by: Karen Dugas, MPH, Adult Falls Prevention Coordinator

NMDOH, Office of Injury Prevention

March 20, 2016

Executive Summary

Falls among adults ages 65 and older are a complex public health problem which requires a multi-factorial approach to preventing fall-related injury and death. Older adult falls contribute to the state and national burden of traumatic brain injury (TBI), hip, and other lower extremity fractures; reduced ability for older adults to live independently; increased risk of future falls; an increased fear of falling among older adults; skyrocketing health care costs; and early death. While falls are a public health problem nationally, they are of particular concern in New Mexico. In 2014, New Mexico ranked 9th in the country for fall-related deaths, and over 3,500 of its older adults were hospitalized as a result of a fall.

The New Mexico Adult Falls Prevention Coalition (NMAFPC) is composed of individuals who volunteer their services and expertise to represent the public and private sectors. This coalition attempts to implement the strategy of the National Council on Aging's Falls Free Initiative and National Action Plan. Since 2006, the group has been active in advocating for trainings and speakers on falls prevention topics, implementing an annual falls prevention education and screening booth at the NM State Fair, supporting evidence-based fall prevention programs, and providing fall prevention information and tools to various stakeholders.

The Goals of the NMAFPC for 2016-2020 include:

Goal #1: Improve older adults' physical mobility to prevent falls.

Goal #2: Improve clinical care to older adults for falls prevention.

Goal #3: Improve home and environmental safety for older adults.

Goal #4: Expand education and outreach efforts statewide among older adults, their families, and organizations serving older adults.

Goal #5: Increase statewide advocacy for policies and systems that support falls prevention initiatives.

This NMAFPC 2016-2020 Strategic Plan represents the cumulative efforts of a diverse network of organizations, professionals and individual New Mexico residents to help prevent unnecessary and preventable falls among older adults in our communities.

Introduction

The New Mexico Adult Falls Prevention Coalition (NMAFPC) is composed of individuals who volunteer their services and expertise to represent the public and private sectors. This coalition attempts to implement the strategy of the National Council on Aging's (NCOA) Falls Free Initiative and National Action Plan. The group has advocated for trainings and speakers on falls prevention topics, and for the past seven years, a falls prevention awareness, education and screening booth at the NM State Fair. The group has also supported evidenced based fall prevention programs and provided fall prevention information and tools to various stakeholders.

The driving force behind the NMAFPC was the NCOA's original launch of the Falls Free Initiative and subsequent 2005 National Action Plan. In 2006, NMDOH/OIP established its Coalition to complement NCOA's overarching strategies and goals. The Coalition patterned its agenda and activities on the National Action Plan's guidelines and strategies. For example in 2008, the NMAFPC observed its first Falls Prevention Awareness Day to promote and increase public awareness about how to prevent and reduce falls among older adults. In 2012, NMDOH/OIP directed a strategic plan for its Coalition be developed to accommodate three significant factors: the rapidly rising numbers of older adults, the increasing number of fall injuries, and the rising costs of treating them. The NCOA updated its National Action Plan in 2015, and as a result, the NMAFPC has also updated its strategic plan.

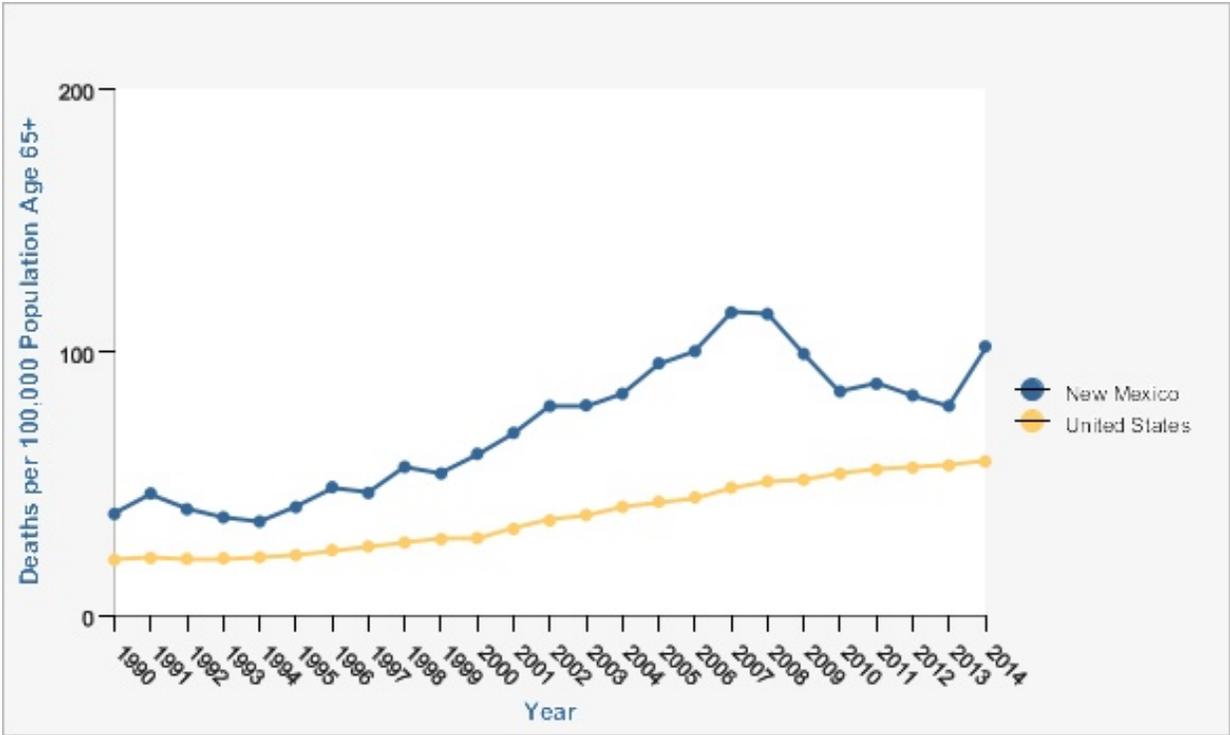
The Coalition has engaged in successful advocacy efforts statewide. In 2013, a member met with state Senator Bill O'Neil to discuss the issue of older adult falls in New Mexico. From that meeting, House Joint Memorial 32 was initiated and advocated by the Coalition and passed during the 2013 Legislative session. This Memorial directed the NM Department of Health to convene an adult falls task force to examine the problem and make recommendations. The final task force report was the foundation for drafting additional falls-related legislation. During the 2014 legislative session, the Falls Coalition in partnership with the NM American Physical Therapy Association and others successfully advocated for House Bill 99 which was signed into law establishing a statewide community based adult fall risk awareness and prevention program with recurring funds to employ a fall prevention coordinator/educator and implement evidence based programming. In recent years, the Coalition has been advocating to raise political awareness about the problem of older adult falls in New Mexico, securing a Governor's Proclamation and Albuquerque Mayoral Proclamation for an annual Fall Prevention Awareness Day (FPAD), and celebrating FPAD with community education and risk assessment events.

Background

Falls among adults ages 65 and older are a complex public health problem which requires a multi-factorial approach to preventing fall-related injury and death¹. Older adult falls contribute to the state and national burden of traumatic brain injury (TBI), hip, and other lower extremity fractures; early death; reduced ability for older adults to live independently; increased risk of future falls; an increased fear of falling among older adults; skyrocketing health care costs; and

early death. Many older adults are reluctant to report a fall due to fear of losing their independence.

Falls Related Death Rate for Adults 65+, 1990-2014



Source: New Mexico Department of Health Indicator-Based Information System for Public Health (IBIS)

Research indicates that one out of five falls among older adults results in a significant injury such as TBI or a broken bone^{2,3}. Over 700,000 older adults are hospitalized for a fall-related injury each year;⁴ in New Mexico in 2014, that number was close to 3,500⁵. Sadly, over 27,000 older adults died in 2014 as a result of a fall⁶, with that number over 300 in New Mexico that same year.⁵ Although New Mexico is home to only 0.065% of the U.S. population, the state ranked 9th in 2014 in the country for fall-related deaths⁴. According to the 2014 New Mexico Behavioral Risk Factor Surveillance System Survey, 27.8% of adults age 65 years or older, or over 81,000 adults, had at least one fall in the previous 12 month period. Among those who fell, 36.7%, or over 31,000 adults, were injured sufficiently in at least one fall, to require some form of medical attention. However, falls among older adults are preventable, and many evidence-based approaches may be applied to prevent falls in our communities. In 2015, CDC published a third edition of a compendium of evidence-based fall prevention programs for community and clinical settings.

Physical Activity Interventions: Extensive research has indicated that physical activity programs that improve balance and strength among older adults are the most effective at decreasing the risk of falls, the incidence of falls, and the fear of falling among older adults. The United States Preventive Services Task Force (USPSTF) recommends “exercise or physical therapy” at a Grade B. Evidence shows a specific fall prevention exercise, tai chi, requires at

least 50 hours of practice to significantly reduce incidence of falls and, a minimum effective dose would be two times per week for 25 weeks, and that the balance exercises be challenging and progressed⁷. Research-clinicians have developed a variety of fall prevention models. For example, over a dozen studies on *Tai Ji Quan: Moving for Better Balance* have demonstrated reductions in falls⁸, applicability to individuals with various chronic health conditions^{9,10}, and significant cost-effectiveness¹¹. Likewise, *A Matter of Balance: Managing Concerns About Falls* has also demonstrated increases in physical activity and mobility control and decreases in fear of falling in several studies^{12,13}. Additionally, several promising physical activity programs for older adults are developing a peer-reviewed research base and/or have been adapted from other evidence-based programs. One such program is *Steady As You Go*, which is a community-based group exercise program developed from the physical therapist-administered, one-on-one evidenced-based Otago Exercise Program (OEP). OEP is one of the most-studied falls prevention interventions and has been shown to significantly reduce falls and fall-related injuries and increase physical activity and confidence in self-efficacy regarding fall prevention^{14,15}, as well as being cost-effective¹¹.

Cost Benefit of Evidence Based Programs: The CDC reports that many fall prevention programs are shown to be effective and save money. The Return on Investment (ROI) for the Otago Exercise program is 36% for adults 65 years and older; and 127% for adult 80 years and older. The ROI for Tai Chi Moving for Better Balance is 509%.¹⁶ The NCOA reports that A Matter of Balance demonstrated a \$938 savings by averting unplanned inpatient hospitalizations, skilled nursing facilities, and home health services.¹⁷

Clinical Interventions: Annual medication reviews and vision exams show promise for fall prevention, and have been included in the CDC Fall Prevention toolkit, Stopping Elderly Accidents, Deaths and Injuries (STEADI)¹⁸. Additionally, the primary evidence-based clinical intervention for falls prevention, recognized by the USPSTF, is Vitamin D supplementation¹. Studies indicate a statistically significant reduction in fall risk and incidence of falls, unrelated to bone strength. Further research is needed to determine the exact mechanism in which Vitamin D reduces falls, but increased muscular function is a strong potential avenue¹⁹. While various studies evaluated various doses, the standard recommendation is 800-1,200 IU per day for adults 65 and older¹⁹.

Environmental Interventions: While the evidence for environmental interventions for fall prevention are sparse, the USPSTF addresses home safety modification in its summary of evidence. Fall risk was reduced to various extents in the three evaluated studies^{20,21,22}, but only one study reported a statistically significant reduction in fall risk²⁰. Additional evidence-based home safety interventions are listed in the 3rd edition of the CDC Falls Prevention Compendium.

Mission and Vision Statements

Mission – “Foster partnerships to increase awareness of fall risk factors, advance access to fall prevention interventions, increase empowerment among older adults and their families to understand and actively prevent falls, and decrease the risk and incidence of falls among older adults in New Mexico.”

Vision – “Older adults in New Mexico will experience fewer falls and fall-related injuries, and maximize their independence and quality of life.”

Strategic Goals and Objectives

Goal #1: Improve older adults’ physical mobility to prevent falls.

Objective A: Expand the options for and increase access to evidence-based physical activity programs which improve strength and balance available to older adults.

Activity 1: Review the CDC Falls Prevention Compendium, 3rd edition and select three programs new to New Mexico to consider for promotion.

Activity 2: Compile and promote a comprehensive list of evidence-based programs currently available in New Mexico, identify needs for programs not currently offered.

Activity 3: Identify key stakeholders within the state for training and implementing identified programs; charge members of the NMAFPC to assist in identifying stakeholders/collaborators in community and act as liaison.

Activity 4: Communicate with senior center representatives and other senior service providers to advocate for implementing EB fall prevention programs in their communities.

Activity 5: Identify barriers to access (if different than availability).

Objective B: Increase participation in evidence-based falls prevention programs among older adults.

Activity 1: Coalition members will conduct presentations to older adults about fall prevention topics.

Activity 2: Target at least two underserved counties to promote evidence-based fall prevention programs.

Activity 3: Identify and implement effective promotion techniques.

Activity 4: Conduct fall prevention workshops at the NM Conference on Aging to promote EB falls prevention programming.

Activity 5: During fall risk screenings at the State Fair and other events, refer participants to EB fall prevention programming.

Activity 5: Advocate through all available media outlets and social media for expanded statewide access for adult falls prevention activities to include participation in evidence-based programs.

Activity 6: Assess the gaps in statewide coverage for fall prevention programs and propose alternative measures to increase participation in underrepresented counties.

Objective C: Encourage hospital and health care systems to fund, refer and sponsor community-based programs.

Activity 1: Identify community outreach staff within health care systems and advocate for implementation of EB fall prevention programming to promote wellness and fall prevention to their clients and beneficiaries; Communicate with Silver Sneakers participating organizations to encourage more EB fall prevention programming in their class schedules.

Activity 2: Invite representatives to NMAFPC meetings.

Goal #2: Improve clinical care to older adults for falls prevention.

Objective A: Support initiatives, including implementation of the CDC STEADI Toolkit, to train health care providers to conduct fall risk screenings to address risk factors such as balance, medications, vision.

Activity 1: Develop a PowerPoint and/or “packet” to demonstrate efficacy and cost analysis data to support initiatives and to present to a variety health care professionals.

Objective B: Promote referral directories for adult fall prevention resources to health care professionals.

Activity 1: DOH will develop a statewide directory of EB fall prevention programming and partner with ADRC which will direct call center staff to provide fall prevention information and referral to consumers.

Objective C: Adapt clinical and research information about falls prevention in appropriate health literacy levels to educate older adults, their families, individuals serving older adults, and the public.

Activity 1: Review current falls-related literature from CDC, NCOA, and peer-reviewed journals to identify areas of focus for raising public awareness about specific fall risk factors.

Objective D: Advocate for improved clinical systems, such as Electronic Medical Record adaptation of STEADI or other falls risk screening.

Activity 1: Review and disseminate to the Coalition updates on EMR pilots of STEADI

and new CPT codes for falls.

Activity 2: Conduct an assessment of and report to stakeholders annual NMAFPC fall risk screenings to determine demographics/results.

Objective E: Support for clinical trials for fall prevention, evidence-based programs to determine efficacy relative to participant demographics.

Activity 1: Disseminate fall prevention funding opportunity announcements to the Coalition membership.

Goal #3: Improve home and environmental safety for older adults.

Objective A: Promote resources and referral directories for home modifications and home and environmental safety to statewide municipalities, collaborators serving older adults, health care providers, older adults and their families, and on the NM Adult Falls Prevention Coalition website.

Activity 1: Promote the CDC resource “Check for Safety” to above mentioned groups; Identify promote specific consumer handouts such as American Occupational Therapy Association (AOTA) correct installation of grab bars.

Activity 2: Identify and compile a list of local resources and directories that are reliable and consistent.

Activity 3: Update web page with a tab specific to home modification and home safety.

Activity 4: Conduct a forum on home and environmental safety for local key collaborators at senior centers, home health agencies, and other organizations.

Objective B: Work with municipal emergency services (community paramedicine, EMS and fire) to implement prevention & outreach programs that include falls prevention education, support and referral.

Activity 1: The Coalition will share resources and EMS/fall prevention trial results with EMS partners in New Mexico.

Activity 2: Compile home and environmental safety materials and partner with municipal emergency services to promote home and environmental safety outreach at events such as the annual NM Conference on Aging and Senior Day at the NM State Fair.

Goal #4: Expand education and outreach efforts statewide among older adults, their families, and organizations serving older adults.

Objective A: Increase outreach to key collaborators, such as staff of senior centers, senior living communities, faith-based organizations, health systems, and others to increase understanding of intrinsic and extrinsic fall risk factors.

Activity 1: Conduct presentations on modifiable fall risk factors; Disseminate the CDC resource “Stay Independent”.

Activity 2: Participate in events for seniors and aging network professionals such as the New Mexico Conference on Aging, AARP Health Fair, and Senior Day at the New Mexico State Expo.

Objective B: Develop training and technical assistance opportunities for statewide collaborators to provide education on fall risk factors and strategies to modify risk geared toward older adults, their adult children, neighbors and other loved ones.

Activity 1: Create (or adopt) existing programs and implement within the state.

Activity 2: Collaborate with local colleges and universities to offer quarterly courses including certification and engage students in fall prevention activities.

Activity 3: Identify resources for training and technical assistance to organizations, hospitals and health systems serving older adults on improving policies and data surveillance that support fall prevention.

Objective C: Increase the availability and accessibility of falls prevention materials in the first or primary languages of New Mexicans.

Activity 1: Translate the CDC resource “Stay Independent” into at least 2 languages, including Vietnamese and/or tribal languages.

Activity 2: Identify at least three additional key information documents to be translated.

Activity 3: Obtain approval (to avoid copyright issues) to translate available information.

Activity 4: Identify at least three individuals to provide translation and verify translation is accurate and appropriate.

Objective D: Use empowerment-focused educational approaches to increase engagement among older adults in falls prevention activities.

Activity 1: The Coalition will promote positive, independence-focused messaging for public awareness campaigns as recommended by NCOA and WHO; Initiate an email campaign to promote available electric resources.

Activity 2: Promote fall risk literature to statewide collaborators annually, including at health-related conferences and other events.

Activity 3: Provide fall risk literature in primary languages of New Mexicans when available.

Activity 4: Invite older adult healthy aging advocacy groups and their membership to participate actively in general meetings of the NMAFPC.

Goal #5: Increase statewide advocacy for policies and systems that support falls prevention initiatives.

Objective A: Identify the counties and/or health regions in most need of falls prevention initiatives and focus efforts on these areas.

Activity 1: Advocate for DOH Office of Injury Prevention to identify counties with elevated incidence of falls, fall-related injury, hospitalization, and deaths.

Activity 2: Collaborate with DOH OIP and other epidemiological centers to identify counties with higher prevalence of chronic disease, such as diabetes, that are associated with specific fall risk.

Objective B: Advocate for statewide adoption of falls prevention specialists to be trained and placed in a variety of sectors (CHWs/CHRs at senior and community centers; clinical specialists in hospitals and health systems).

Activity 1: Engage the DOH Office of Community Health Workers and NM Association for CHWs to include fall prevention curriculum and trainings.

Activity 2: Collaborate with colleges, universities and other organizations to develop and promote falls prevention specialist training courses.

Objective C: Increase quality and dissemination of older adult falls data.

Activity 1: DOH epidemiologist will release annual fact sheets on fall related data; the Coalition will disseminate these reports and post on their website.

Activity 2: Disseminate this data to regional health councils, Conference on Aging and other settings to stimulate discussions, initiatives, resources, policies, procedures and systems which exist or do not exist in the surrounding communities.

Next Steps

The NMAFPC is poised to continue its successful engagement of communities around the state to reduce risks for falls-related injury and death, and empower older adults, their families and the organizations that work with them to increase protective factors for a long and healthy life. Additionally, the NMAFPC is well-positioned to seek support and resources – from

financial to policy to grassroots volunteer time – to implement the 2016-2020 Strategic Plan, and to be responsive to collaborative opportunities that may arise. By putting the 2016-2020 Strategic Plan for Falls Prevention in New Mexico into action, the NMAFPC is supporting the NCOA National Action Plan for falls prevention while also working to improve health outcomes for older adults throughout New Mexico.

Adult Falls Prevention Coalition Membership

Executive Committee:

Beth Black, PT, GCS; Physical Therapist, Geriatric Clinical Specialist – Presbyterian Healthcare Services and consultant

Jack Bishop, PhD, MBA; Principal – Aging Matters, LLC

Khara Davis, Project Manager – HealthInsight New Mexico

Marnie Doctor, PTA, MPH; Physical Therapist Assistant Program Director – Pima Medical Institute

Karen Dugas, MPH; Health Educator, Program Coordinator – New Mexico Department of Health

Carmela Martinez, Senior Services Bureau Program Manager – New Mexico Aging and Long-Term Services Division

Janet Popp, PT, MS; Physical Therapist and Gerontologist – University of New Mexico Division of Physical Therapy, Brookdale Home Health

References

1. United States Preventive Services Task Force. [Final Evidence Summary: Other Supporting Document for Falls Prevention in Older Adults: Counseling and Preventive Medication, May 2012](#) [online]. Accessed December 17, 2015.
2. Alexander BH, Rivara FP, Wolf ME. The cost and frequency of hospitalization for fall-related injuries in older adults. *American Journal of Public Health* 1992;82(7):1020–3.
3. Sterling DA, O'Connor JA, Bonadies J. Geriatric falls: injury severity is high and disproportionate to mechanism. *Journal of Trauma–Injury, Infection and Critical Care* 2001;50(1):116–9
4. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. [Web-based Injury Statistics Query and Reporting System \(WISQARS\)](#) [online]. Accessed December 17, 2015.
5. New Mexico Department of Health, Indicator-Based Information System for Public Health (IBIS). Retrieved Fri, 19 February 2016 from: <http://ibis.health.state.nm.us>.

6. National Council on Aging. "Falls Prevention Facts." Accessed from: <https://www.ncoa.org/news/resources-for-reporters/get-the-facts/falls-prevention-facts/>
7. Sherrington, Catherine, et al. "Effective exercise for the prevention of falls: a systematic review and meta-analysis." *Journal of the American Geriatrics Society* 56.12 (2008): 2234-2243.
8. Li, Fuzhong, et al. "Tai Chi: improving functional balance and predicting subsequent falls in older persons." *Medicine & Science in Sports & Exercise* 36.12 (2004): 2046-2052.
9. Li, Fuzhong, et al. "A randomized controlled trial of patient-reported outcomes with tai chi exercise in Parkinson's disease." *Movement disorders* 29.4 (2014): 539-545.
10. Winters-Stone, Kerri M., et al. "Comparison of tai chi vs. strength training for fall prevention among female cancer survivors: study protocol for the GET FIT trial." *BMC cancer* 12.1 (2012): 577.
11. Carande-Kulis, Vilma, et al. "A cost-benefit analysis of three older adult fall prevention interventions." *Journal of safety research* 52 (2015): 65-70.
12. Tennstedt, Sharon, et al. "A randomized, controlled trial of a group intervention to reduce fear of falling and associated activity restriction in older adults." *The Journals of Gerontology Series B: Psychological Sciences and Social Sciences* 53.6 (1998): P384-P392.
13. Smith, Matthew Lee, Luohua Jiang, and Marcia G. Ory. "Falls efficacy among older adults enrolled in an evidence-based program to reduce fall-related risk: sustainability of individual benefits over time." *Family & community health* 35.3 (2012): 256-263.
14. Campbell, A. John, et al. "Falls prevention over 2 years: a randomized controlled trial in women 80 years and older." *Age and ageing* 28.6 (1999): 513-518.
15. Robertson, M. Clare, et al. "Preventing injuries in older people by preventing falls: A meta-analysis of individual-level data." *Journal of the American Geriatrics Society* 50.5 (2002): 905-911.
16. Carande-Kulis, Vilma, et al. "A cost-benefit analysis of three older adult fall prevention interventions." *Journal of safety research* 52 (2015): 65-70.
17. National Council on Aging (n.d.). Falls Prevention Programs. Accessed from <https://www.ncoa.org/healthy-aging/falls-prevention/falls-prevention-programs-for-older-adults/>
18. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control, Division of Unintentional Injury Prevention. [STEADI – Older Adult Fall Prevention](#) [online]. Accessed December 17, 2015.
19. Bischoff-Ferrari, Heike A., E. John Orav, and Bess Dawson-Hughes. "Effect of cholecalciferol plus calcium on falling in ambulatory older men and women: a 3-year randomized controlled trial." *Archives of internal medicine* 166.4 (2006): 424-430.
20. Campbell, A. John, et al. "Randomised controlled trial of prevention of falls in people aged \geq 75 with severe visual impairment: the VIP trial." *Bmj* 331.7520 (2005): 817.
21. Day, Lesley, et al. "Randomised factorial trial of falls prevention among older people living in their own homes." *Bmj* 325.7356 (2002): 128.
22. Stevens, Margaret, et al. "Preventing falls in older people: outcome evaluation of a randomized controlled trial." *Journal of the American Geriatrics Society* 49.11 (2001): 1448-1455.

Appendix

A. NMDOH Adult Falls Prevention Logic Model

- B. NMDOH Adult Falls Prevention Program FY2015-16 Workplan
- C. Executive Summary of NCOA Falls Free 2015 National Action Plan