



# FINDING OUR BALANCE

Washington State Action Plan for  
Older Adult Falls Prevention  
2018



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## Executive Summary

*Finding Our Balance* is a five-year, statewide action plan aimed at preventing older adult falls in Washington state. The report details the immense impact of falls in Washington – where from 1999 to 2016 falls were the leading cause of fatal and non-fatal injuries for adults ages 65 and older – and offers strategies, desired outcomes, and timelines for reducing falls.

The first part of the action plan explains how the plan was created, analyzes data showing the growing impact of falls, and details falls prevention activities across Washington state.

The second part highlights the following six strategy areas for reducing the risk of older adult falls:

- 1) Strong and Effective Community Partnerships
- 2) Public Awareness and Education
- 3) Prevention Across the Continuum of Care
- 4) Expanded Reach and Access to Evidence-Based Programs and Community Screenings
- 5) Effective Interventions for High-Risk and Underserved Older Adults
- 6) Improved Safety in Homes and Communities.

The action plan also contains specific goals and eight desired outcomes to advance the six strategy areas.

Ultimately, *Finding Our Balance* is a roadmap for how older adults in Washington can make life changes to lower their risk for falls – underscoring that falls are not a normal part of the aging process and that most falls are preventable.

## Introduction

When an older adult falls, their life and the lives of their family and friends can change in an instant. Falls threaten independence, cause debilitating injuries, and can start a decline that leads to premature death.<sup>1</sup> Falls cause 95 percent of hip fractures and are the leading cause of traumatic brain injury for older adults. Risk factors associated with falls include lower body weakness, advanced age, balance difficulties, cognitive changes, medication interactions and an unsafe environment. **While many factors increase the risk of falls for older adults, falls are not a normal part of the aging process, and most falls can be prevented.**



In Washington State, falls were the leading cause of fatal and non-fatal injuries for adults ages 65 and older from 1999 to 2016.<sup>2</sup> In 2015, three-quarters of all injury-related deaths in adults ages 85 and older were from falls. Compared to the United States as a whole, Washington has had a higher rate of self-reported falls as well as a higher rate of deaths from falls since 2000. Solutions for preventing falls are complex, requiring collaboration with older adults, their families, and with many types of elder care and health care providers. Improving the health of Washingtonians includes helping older adults balance independence with safety and mobility.

Washington is a national leader in addressing older adult falls. In 2000, the Washington State Department of Health (DOH) received a grant from the Centers for Disease Control and Prevention (CDC) to research risk factors leading to

falls and develop recommendations. In 2008, DOH's Falls Prevention Program was legislatively mandated.<sup>3</sup> Washington has eight evidence-based falls prevention programs, and a highly active State Falls Prevention Coalition, which is a member of the National Council on Aging's Falls Free Initiative.

*Finding Our Balance: Washington State Action Plan for Older Adult Falls Prevention* is a five-year plan, created by the Department of Health, and made possible by support from the Aging and Long-Term Support Administration. An 86-member advisory group (the Advisory Group) assisted in developing the strategy areas and goals for the plan. (See Appendix C: Advisory Group Process on page 51, for more information.) It is the culmination of more than a year of collaboration and consultation with stakeholders and experts across the state dedicated to reducing the impacts of older adult falls and advancing healthier aging for all Washingtonians. These champions included local coalitions, elder care organizations, evidence-based program managers, health care professionals and older adults. Of further significance, more than 800 older adults and community members participated in a survey and focus group to share their stories and thoughts on preventing falls.

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**“Until I fell,  
I thought I was  
invincible;  
I thought  
about balance  
but not  
about falls.”**

FOCUS GROUP  
PARTICIPANT

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State and local agency staff, health care professionals, community-based organizations, and volunteers with a passion for improving the lives of older adults have worked for over two decades on falls prevention. This plan builds on their efforts and paves the path to a future of decreased falls and improved mobility for all older adults in Washington. Thank you for joining us on this journey.

## Understanding Older Adult Falls

Falls are caused by a wide range of risk factors, and most are caused by a combination of at least two factors. Some risk factors are modifiable, meaning that older adults can make life changes to lower their risk for falls. According to the CDC, the leading modifiable risk factors for falls are:<sup>4</sup>

- Lower body weakness
- Difficulties with walking and balance
- Use of medicines such as tranquilizers, sedatives, or antidepressants
- Vision problems
- Foot pain or poor footwear
- Home hazards including throw rugs, pets, and lack of handrails



Other modifiable risk factors that significantly contribute to falls are:

- Fear of falling<sup>5</sup>
- Use of opioid pain medications<sup>6</sup>
- Vitamin D deficiency<sup>7\*</sup>
- Malnutrition<sup>8</sup>
- Alcohol and/or substance misuse<sup>9</sup>
- Frequent nighttime urination<sup>10</sup>

Non-modifiable risk factors include:

- Cognitive impairment<sup>11</sup>
- Advanced age<sup>12</sup>
- Previous falls, especially with injury<sup>13</sup>
- Chronic conditions<sup>14</sup>

*\* especially applicable in older adults who reside in skilled nursing settings*

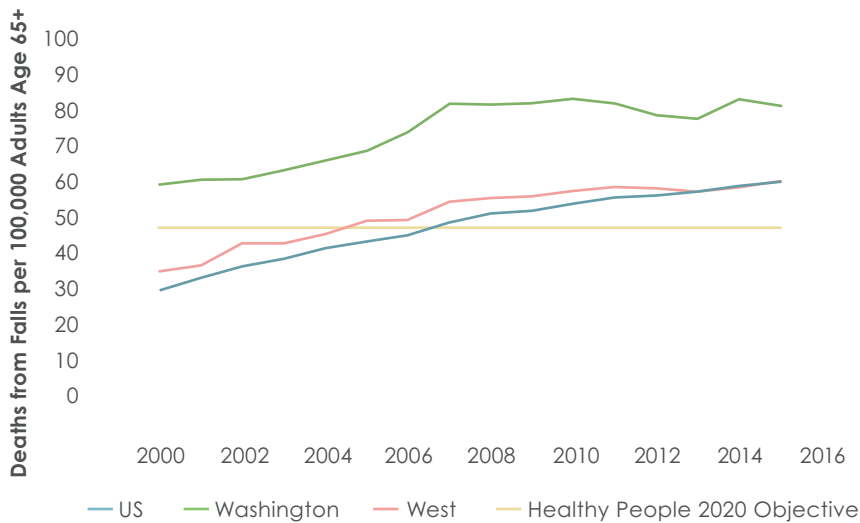
## Data: Older Adult Falls in Washington State

Washington State has the 14th highest rate of fall-related deaths of adults age 65 and older in the United States. This rate has increased 28 percent since 2000 and was 82.6 per 100,000 in 2016 (**Graph 1**). The number of fall-related deaths has risen more than fivefold since 1990. In 2016:

- 887 older adults in Washington died from fall-related injuries (**Graph 2**)
- 19,060 hospitalizations occurred due to fall-related injuries (**Graph 3**)
- 1 in 3 older adults self-reported a fall on the Behavioral Risk Factor Surveillance Survey (nationally, 1 in 4 report a fall)<sup>15</sup>
- 44 percent of all injury-related deaths for adults age 65 and older were due to falls



**GRAPH 1:** Rate of Deaths From Falls for Adults Age 65+, 2000 – 2016



Sources: Washington State Department of Health, Center for Health Statistics, Death Certificate Data; National Center for Injury Prevention and Control, Centers for Disease Control and Prevention

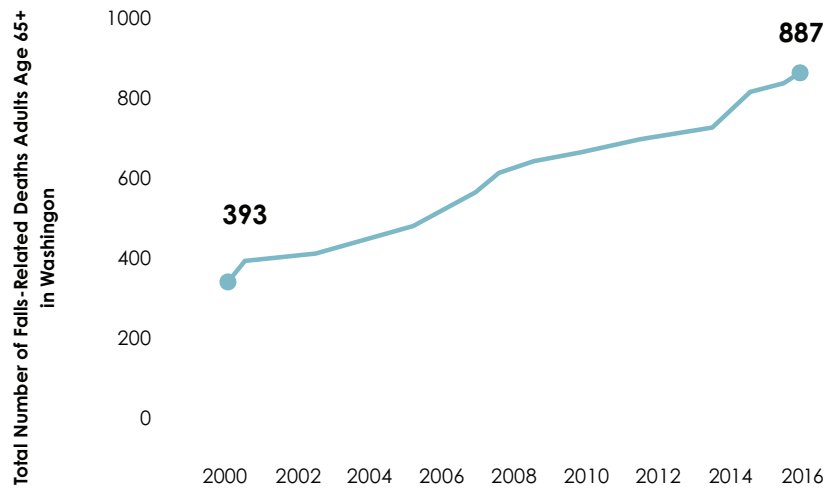
The increase in falls-related hospitalizations and deaths is partially attributable to a larger at-risk population. The older adult population in Washington has nearly doubled in the last 18 years and is now 15 percent of the state’s population.<sup>16</sup> However, rates of falls-related deaths and hospitalizations are increasing faster than population growth. This signals unaddressed risk factors and the need for public health intervention.

Falls have a significant impact on Washington’s health care system, from emergency medical services to long-term care providers. In 2014, the lifetime cost of falls in Washington state was \$451 million.<sup>17</sup> Of the 60,000 admissions to Washington’s skilled nursing facilities in 2017, approximately 22,700 were for people who had fallen within 30 days prior

**“The impact is immense...we are anticipating going on 5,000 falls-related calls this year (2018)”**

EMS PROVIDER IN SNOHOMISH COUNTY

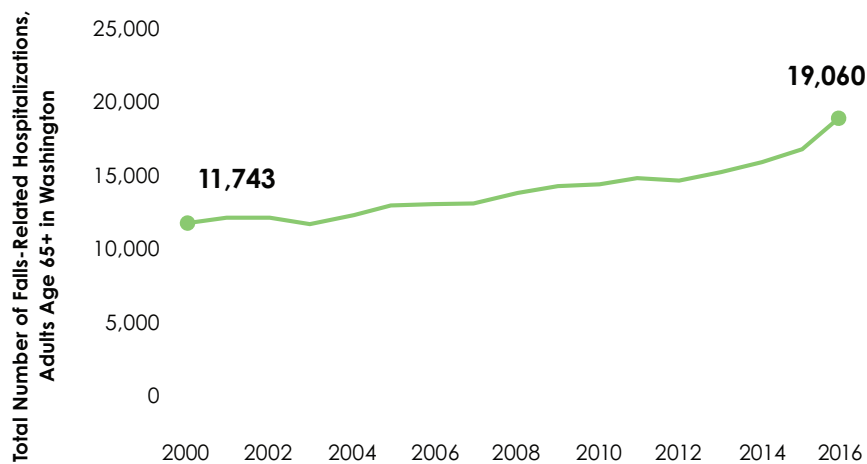
**GRAPH 2:** Total Number of Fall-Related Deaths in Washington for Adults Age 65+, 2000 – 2016



Source: Washington State Department of Health, Center for Health Statistics, Death Certificate Data

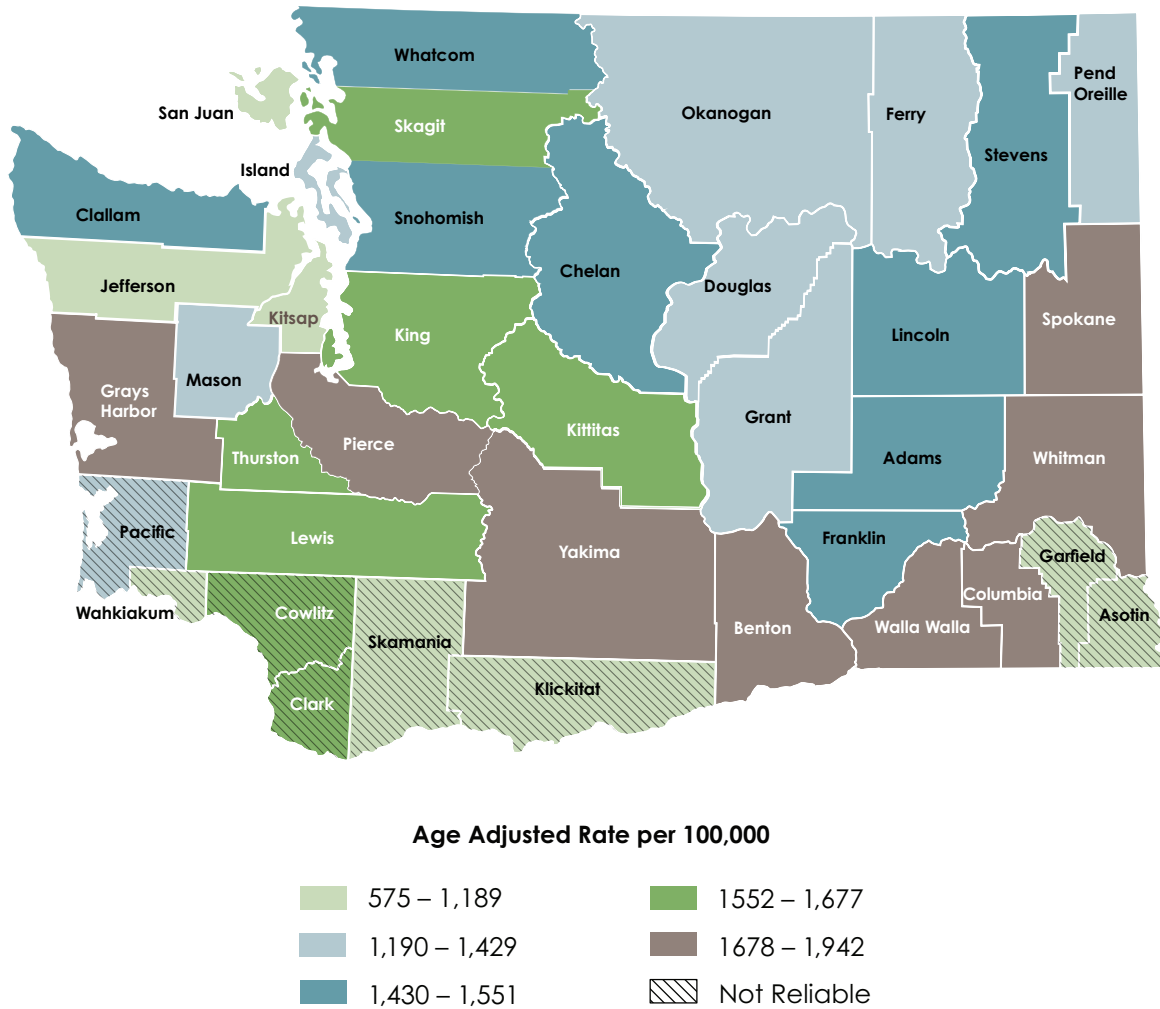
to admission.<sup>18</sup> Advisory Group members from Snohomish, Okanagan, Pacific, and King Counties reported that over 10 percent of all EMS calls, and 30 percent to 70 percent of trauma-related EMS calls in their counties are due to unintentional falls.

**GRAPH 3:** Total Number of Fall-Related Hospitalizations in Washington for Adults Age 65+, 2000 – 2016



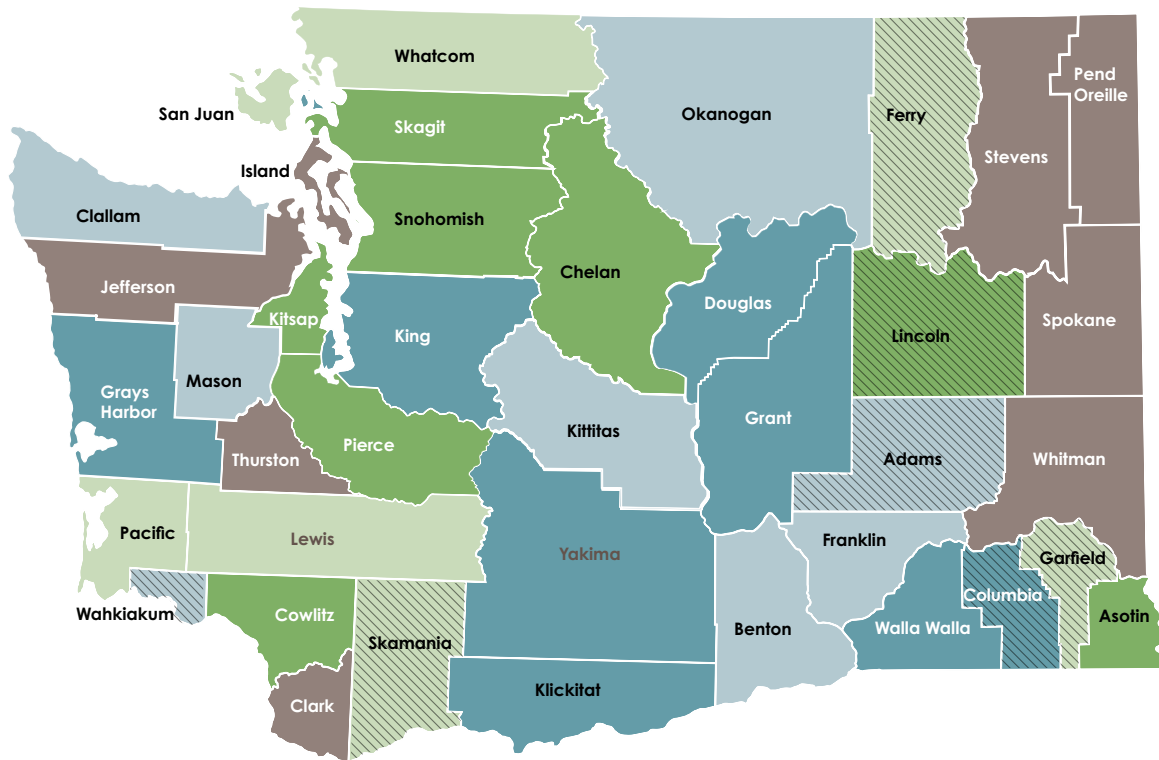
Source: WA Department of Health Comprehensive Hospitalization Abstract Reporting System (CHARS)

**Map 1: Rate of Hospitalizations for Falls – Age 65+ by County, 2010 – 2014**

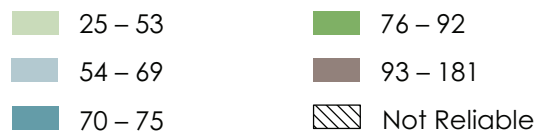


Fall-related hospitalizations and deaths vary by county in Washington State. From 2010 to 2014, in the larger counties, the highest rate of falls-related hospitalizations was in Spokane, followed by Yakima and then Benton.<sup>19</sup> Among the smaller counties, Columbia, Whitman and Walla Walla counties appear to have elevated rates of fall-related hospitalizations. (**Map 1**).

**Map 2: Rate of Deaths from Falls – Age 65+ by County, 2012 – 2016**



**Age Adjusted Rate per 100,000**



From 2012 to 2016, in the larger counties Spokane County had the highest fall death rate, followed by Clark and Thurston.<sup>20</sup> Among the smaller counties, Whitman and Stevens counties appear to have elevated rates of fall-related deaths. (Map 2).

## Falls Prevention Activities in Washington

In 2000, the Washington State Department of Health (DOH) Falls Prevention Program began work through a grant from the CDC. That same year, the program released a report, *Falls Among Older Adults: Strategies for Prevention*. This report introduced best practices to prevent older adult falls, including falls risk assessments focused on modifiable factors and multi-component, individualized interventions. The CDC lists this report as a national resource in its *Preventing Falls: A Guide to Implementing Effective Community-Based Fall Prevention Programs*.

From 2002 to 2008, DOH researched older adults' perspectives on falls prevention and collaborated with University of Washington's Health Promotion Research Center (HPRC) to develop Stay Active & Independent for Life (SAIL), a public-domain fall prevention community exercise program. HPRC also collaborated with Sound Generations, previously Senior Services of Seattle/King County, to develop the EnhanceFitness program. Both SAIL and EnhanceFitness are approved by the Administration on Community Living as the highest tier of evidence-based falls prevention programs.

In 2014, Washington state became an early adopter of Tai Ji Quan: Moving for Better Balance, an evidence-based fall prevention program developed at the Oregon Research Institute. Other evidence-based falls prevention programs now offered across the state include A Matter of Balance, FallsTalk, FallScape, YMCA Moving for Better Balance, and the Otago Exercise Program.

In 2008, DOH Falls Prevention Program became legislatively mandated under RCW 43.70.705 Fall Prevention Program:

“Within funds appropriated for this purpose, the department [of health] shall develop a statewide fall prevention program. The program shall include networking community services, identifying service gaps, making affordable senior-based, evaluated exercise programs more available, providing consumer education to older adults, their adult children, and the community at large, and conducting professional education on fall risk identification and reduction.”



Washington's State Falls Prevention Coalition, led by the Washington State Department of Health is comprised of falls prevention partners from across the state, and meets quarterly in different regions to address current issues in falls prevention and learn from subject matter experts. The Coalition is one of 41 member state coalitions in the National Council on Aging (NCOA) Falls Free Initiative.

NCOA's 2015 updated *Falls Free: National Falls Prevention Action Plan* incorporates strategies and recommendations from the April 2015 White House Falls Prevention Summit. NCOA's work served as a starting point for the Advisory Group in developing this plan.

Washington's Action Plan purposefully emphasizes health equity and provides recommendations for reaching older adults who are not served by current programs. A guiding principle of this Action Plan is to recognize and affirm that older adults who reside in long-term care, have limited English proficiency, are homebound, and/or have cognitive impairment are members of our communities, and that the state's falls prevention efforts must include them.

## Action Plan Strategy Areas

There are six strategy areas in this five-year plan:

### STRATEGY AREA 1:

#### Strong and Effective Community Partnerships

Building robust partnerships and linking organizations to improve communities' ability to connect older adults to falls prevention programs and fill service gaps.

### STRATEGY AREA 2:

#### Public Awareness and Education

Creating community awareness that falls are not a normal part of aging, and can be prevented.

### STRATEGY AREA 3:

#### Prevention Across the Continuum of Care

Educating health care providers who work closely with older adults on evidence-based tools for falls risk screening and intervention.





**STRATEGY AREA 4:****Expanded Reach and Access to Evidence-Based Programs and Community Screenings**

Expanding availability of, and access to, evidence-based programs and community screenings to reduce falls and empower older adults to know about and take responsibility for their falls risks.

**STRATEGY AREA 5:****Effective Interventions for High-Risk and Underserved Older Adults**

Improving health equity with strategies and programs directed at older adults who are at high risk of falls and who have been excluded from previous falls prevention efforts.

**STRATEGY AREA 6:****Improved Safety in Homes and Communities**

Connecting resources and developing tools to address the environmental hazards in homes and communities that increase the risk of falls for older adults.

Each Strategy Area has a **Goals Timeline**. These timelines can be found on pages 40-44.

## Action Plan Desired Outcomes

There are eight desired outcomes in this five-year plan. By 2023:

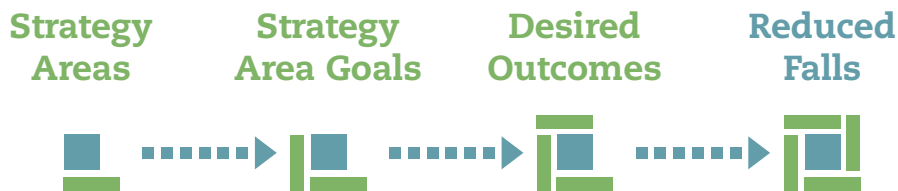
1. The rate of falls-related hospitalizations among adults age 65+ will be reduced by **5 percent**.
2. The rate of falls-related deaths among adults age 65+ will be reduced by **3 percent**.
3. The rate of falls-related hospitalizations among adults age 85+ will be reduced by **5 percent**.
4. The rate of falls-related deaths among adults age 85+ will be reduced by **5 percent**.
5. The rate of falls-related deaths among adults age 65+ in Spokane County will be reduced by **5 percent**.
6. The rate of falls-related hospitalizations among adults age 65+ in Yakima County will be reduced by **5 percent**.
7. The rate of self-reported falls on the BRFSS Survey will be reduced by **5 percent**.
8. The rate of self-reported injurious falls on the BRFSS Survey will be reduced by **3 percent**.

**Note:** The Healthy People 2020 (HP2020) falls prevention related goals were used to set these desired outcomes for Washington state. For hospitalizations, HP2020 seeks a 10 percent improvement over 10 years. Because this is a five-year plan, the desired outcome is a 3 percent to 5 percent improvement.

## Data Sources

Several core datasets will be used to measure this plan's success:

- Behavioral Risk Factor Surveillance System (BRFSS)
- Vital Records Death Certificate Data
- Comprehensive Hospital Abstract Reporting System (CHARS)
- Rapid Health Information NetwOrk (RHINO)
- Washington Emergency Medical Services Information System (WEMSIS)

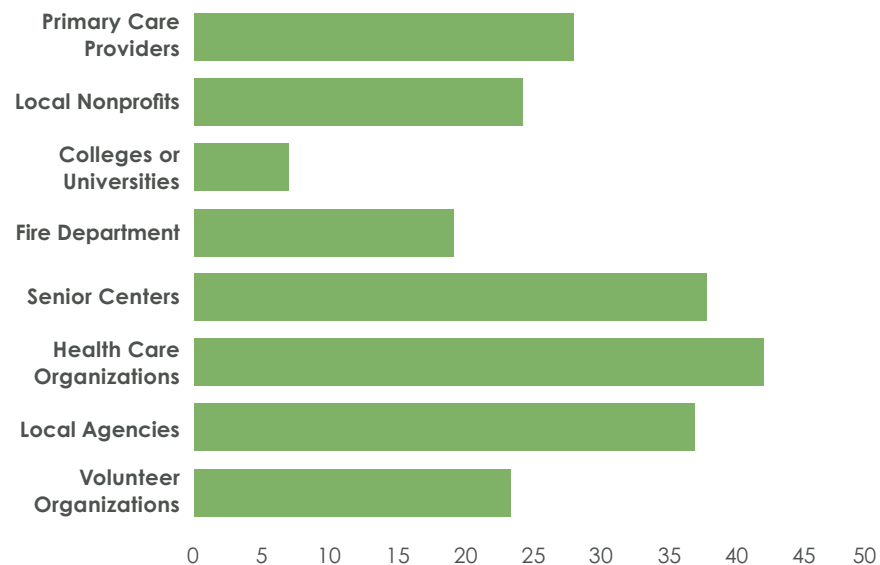


## STRATEGY AREA 1: Strong and Effective Community Partnerships

Effective and sustainable partnerships are key to connecting older adults with local falls prevention programs and services. Regional Falls Prevention Coalitions bring together health care, public health, long-term care, first responders, and other community partners to leverage local resources to decrease falls.

In DOH’s 2017 online survey, professionals working with older adults listed their top three community partners as health care organizations (42 percent), senior centers (38 percent) and local agencies (37 percent) (**Graph 4**).

**GRAPH 4:** Types of Community Partnerships Reported by Professionals Working With Older Adults in Washington (2017)



*(Respondents could select more than one community partnership type.)*

Examples of community partnerships include:

- Faith-based groups and evidence-based programs partnering to provide classes
- EMS and local hardware stores partnering to install grab bars in older adult's homes
- Area Agencies on Aging and Senior Housing partnering to bring classes to their residents

Some challenges to creating community partnerships include lack of clarity around information sharing, especially related to federal regulations on sharing personal health information, and difficulty getting referrals where they're needed. The goals, listed in the timeline on page 40, are designed to address opportunities for community partnerships as identified by the Advisory Group and online survey respondents.

**For the Strategy Area 1 Goals Timeline, see page 40.**

### An Innovative Partnership:

In 2016, Seattle-King County Aging and Disability Services joined with Kelly Ross, a local pharmacy, to provide in-home medication review and education to residents of public senior housing. Pharmacists also provide blood pressure testing and flu vaccines. From October 2015 to February 2017, the pharmacists completed 117 interventions, averaging 4 interventions per resident.

### From the 2005 National Action Plan:

"The involvement and collaboration of multiple and diverse groups including, but not limited to, consumers, health care providers, policy makers, aging services professionals, representatives of building and construction industries, and community health professionals will be required in order to successfully implement this plan."

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**"Have fall information and assistance from a multitude of contacts in people's lives. The hardware store could offer mini how-to clinics with various ways to secure throw rugs."**

OLDER ADULT SURVEY  
RESPONDENT

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## Falls Prevention Community Partnership Opportunities\*

- Emergency medical services and fire departments
- Area Agencies on Aging and Aging and Disability Resource Centers
- Tribal Elders programs
- Evidence-based programs
- Meals on Wheels
- Congregate meal sites
- Senior centers
- Primary care providers and clinics
- Library systems
- Outpatient physical and occupational therapy
- Pharmacies
- Transportation resources
- Social service agencies and community-based non-profits
- Local businesses serving older adults
- Hardware stores
- Churches and social groups
- Safe streets initiatives
- Chambers of commerce
- Community health workers
- Health homes providers
- Community pharmacists
- Accountable Communities of Health
- Rebuilding Together
- Fitness centers and YMCAs

\*Partial list

## STRATEGY AREA 2: Public Awareness and Education

There is a critical need to raise awareness that falls are not a normal part of aging, and that most falls are preventable. Providing better information and promoting personal responsibility to older adults for falls prevention reduces the stigma around falling that many older adults experience.

Broad-based educational outreach strategies to older adults and community members was prioritized by the Advisory Group, online survey, and focus group respondents. In the survey, education was the most frequent response to the question: “What is the most important thing that your community can do to help older adults prevent falls?” Outreach ideas included a public education campaign, programs for family caregivers, and use of social media.

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**“Tell them  
‘you are young  
at heart and  
you can do it!’”**

FOCUS GROUP  
PARTICIPANT

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The *Social Marketing Toolkit* created by DOH and the State Falls Prevention Coalition can be used by DOH in the creation of a media campaign. Media messaging would include:

- Messaging in multiple languages and cultures
- Focus on modifiable risk factors and motivating change
- Falls Prevention Awareness Day (the first day of fall every year)
- Consistent, evidence-based messaging on positive impacts of home safety
- Collaboration with public agencies to raise the profile of falls prevention

**For the Strategy Area 2 Goals Timeline, see page 40.**

### **From the 2015 National Action Plan:**

“Develop a research-based social marketing campaign that will reframe the outdated view that falls are an inevitable consequence of aging to an actionable view that falls are caused by known risks and can be prevented.”



## STRATEGY AREA 3: Prevention Across the Continuum of Care

Medical and health care professionals have a unique and powerful role in helping to prevent falls and fall-related injuries. Their expertise and daily interaction with older adults allows them to help their patients take action to lower their falls risk. The reach of health care is far beyond the clinic, and a broad strategy for educating providers is needed. The continuum of care describes the many care settings through which older adults travel when they are at risk for, or have recently had, a fall. The first step is prevention; primary care providers can screen older adults for falls risk at their annual Medicare Wellness Visit. The CDC's *STEADI* (STopping Elderly Accidents, Deaths and Injuries) Toolkit provides materials and instruction on how to screen patients for falls risk and intervene if risk factors are found.

Emergency medical services (EMS) that respond to older adults who have fallen in their homes are a crucial early link to services. In many counties, EMS providers install grab rails and provide referrals for older adults at high risk of future falls. Emergency departments are also uniquely situated to connect older adults who have fallen with resources in their community. Because of the fast pace of the emergency department setting, it is necessary to deploy simple and effective falls prevention intervention tools.

Acute care in hospitals for older adults who have fallen includes discharge planning, which links to both post-acute/skilled nursing facilities and home health. In post-acute or skilled nursing facility settings, older adults receive increased access to therapies and medical management,

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**89% of medical professional survey respondents said falls prevention was “extremely important” for their older adult patients.**

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with the goal of helping them transition successfully back home. Falls prevention opportunities in the post-acute setting include coordination with primary care, discharge planning, and environmental safety changes.

When older adults receive home health, their care team can include physical therapists, occupational therapists, nurses, social workers, speech therapists, and aides. The home health team has a strong link with family and professional caregivers and educates them on how to make an older adult's home safer and how to help older adults follow through with exercises that improve balance and strength.

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**The CDC's STEADI Toolkit includes the Chair Rise Exercise found on the inside back cover of this action plan.**

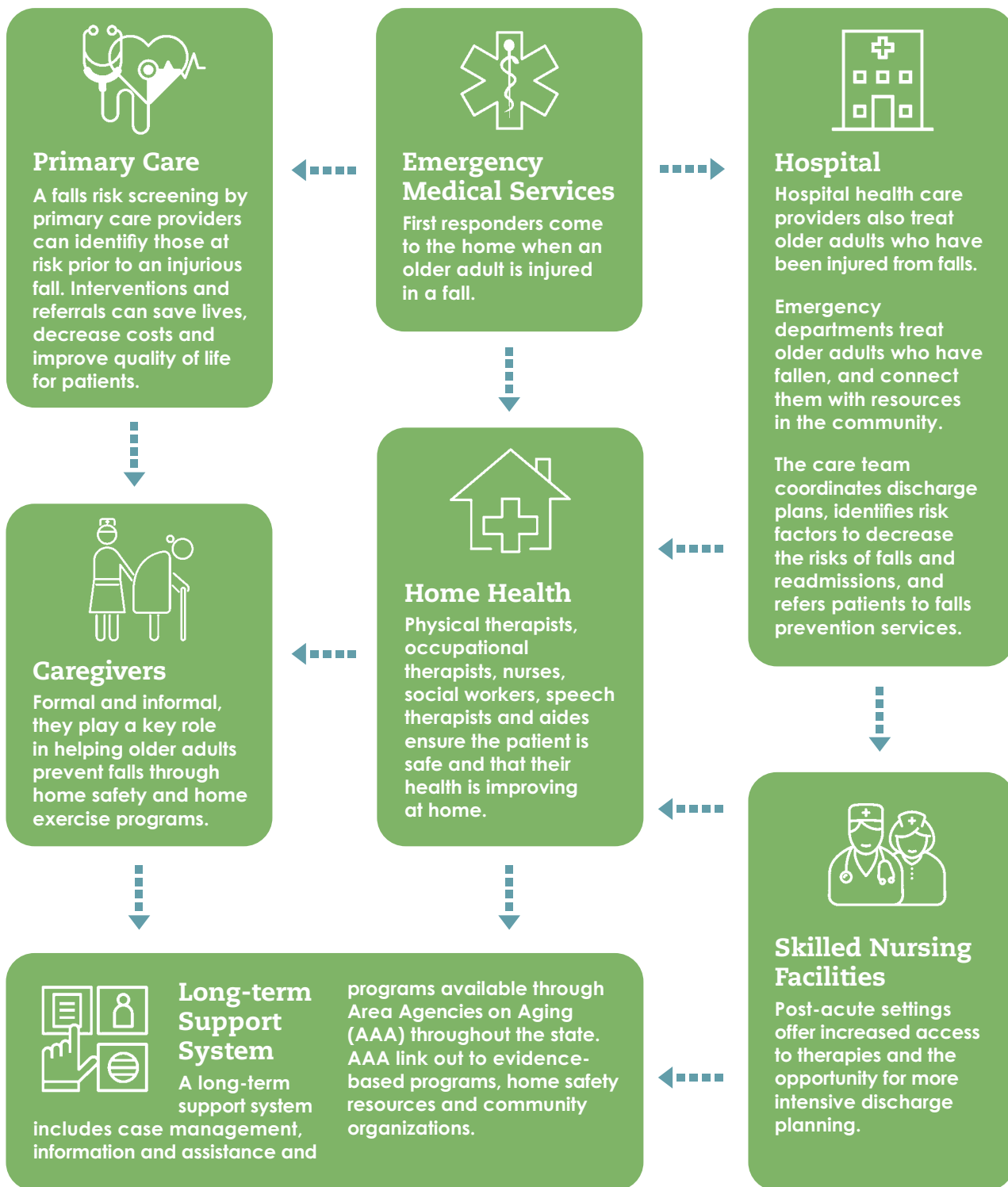
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Caregivers and social workers connect with the Area Agencies on Aging, which support older adults so that they can live as independently as possible. The 13 Area Agencies on Aging in Washington state provide assistance, support, and linkages to evidence-based programs, home safety resources, and community organizations.

**For the Strategy Area 3 Goals Timeline, see page 41.**



## Falls Prevention Continuum of Care



## STRATEGY AREA 4: Expanded Reach and Access to Evidence-Based Programs and Community Screenings

Washington State has a wide variety of high-quality, evidence-based falls prevention programs, including two developed in Washington and Master Trainers from five different programs. Each program has undergone at least one randomized controlled trial to demonstrate effectiveness in reducing falls and a translational study to demonstrate the ability to implement the program successfully within the community. The dedication of researchers and community organizations in developing and disseminating these programs has been key to Washington's status as a national leader in falls prevention.

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**“Have fall prevention exercise programs that are easily accessible within a certain mile radius of the city/town. Some places are rural and difficult for folks to travel 30 some miles or more to get to an exercise class.”**

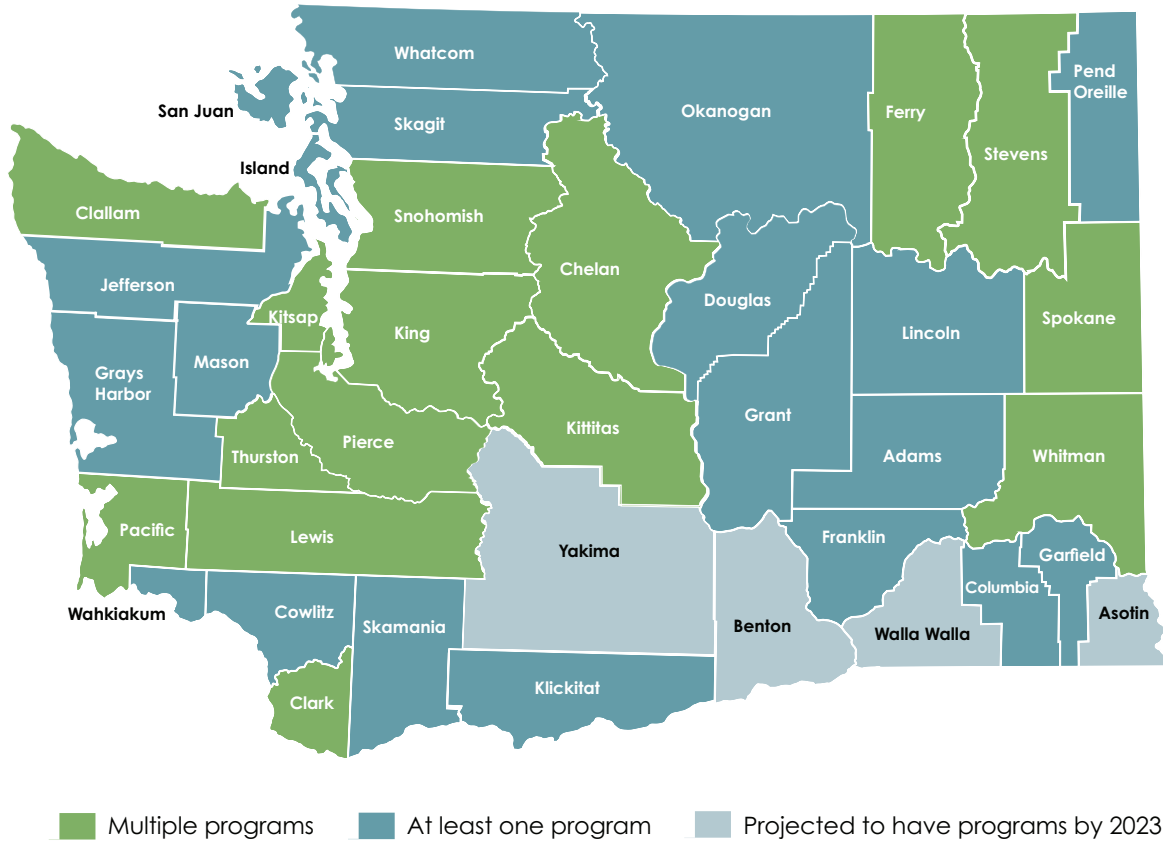
OLDER ADULT  
SURVEY RESPONDENT

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Importantly, evidence-based programs and community falls risk screenings help to reduce falls by educating and empowering older adults to know about and take responsibility for their falls risks. There are currently programs in all but four Washington counties, but expansion is needed (**Map 3**). Among older adults who responded to the online survey, 72 percent said their community needed more fall prevention programs.

Ensuring the fidelity of evidence-based programs is an important consideration. Fidelity means that the program is taught to older adults in communities in the same way it was taught in the research study, so similar falls reduction outcomes are reached. Together, fidelity and expansion ensure that older adults in Washington are receiving evidence-based, effective falls prevention in the communities where they live.

**Map 3: Counties with Evidence-Based Falls Prevention Programs, 2018**



## Evidence-Based Falls Prevention Programs in Washington State\*

### A MATTER OF BALANCE

**Description:** A Matter of Balance is an 8-week structured group intervention that emphasizes practical strategies to reduce fear of falling and increase activity levels. Participants learn to view falls and fear of falling as controllable, set realistic goals to increase activity, change their environment to reduce fall risk factors, and exercise to increase strength and balance.

\*Descriptions taken from National Council on Aging’s Falls Free Resource Center (<https://www.ncoa.org/healthy-aging/falls-prevention/falls-prevention-programs-for-older-adults>)

**In Washington State:** Aging and Long-Term Care of Eastern Washington and Sound Generations in King County employ Master Trainers for A Matter of Balance and have been implementing the program for several years in their service areas. Lewis-Mason-Thurston Area Agency on Aging intends to start the program with a Master Trainer in 2018. Wellness Place in Wenatchee will begin implementation in North Central Washington by early 2019.

#### **ENHANCEFITNESS**

**Description:** EnhanceFitness is a low-cost, evidence-based group falls prevention and physical activity program developed specifically for older adults. The exercises have been packaged into a formal regimen focusing on four key areas important to the health and fitness of mature participants: low impact cardiovascular; dynamic/static balance work, strength training and stretching. Classes meet three times a week, an hour each session, providing social stimulation as well as physical benefits.

**In Washington State:** The Health Promotion Research Center at the University of Washington, in collaboration with Senior Services of King County (now called Sound Generations), developed and researched the EnhanceFitness Program in the early 1990s; the program was first implemented in Washington communities in 1997. EnhanceFitness was approved as an evidence-based falls prevention program in 2017. The program has 71 sites and 109 classes in Clark, Franklin, Island, King, Kitsap, Snohomish, Thurston, and Whatcom counties. With funds from the Administration on Community Living, new classes are planned for Yakima, Benton, Franklin and Walla Walla counties in 2019 and 2020.

**FALLSTALK AND FALLSCAPE**

**Description:** **FallsTalk** is an individual program for anyone who has experienced a fall or regular loss of balance; regardless of walking ability, medical condition, mobility or fitness level. The program begins with a personal FallsTalk Interview in-home or community space to discuss their unique situation. The intervention consists of initial and follow-up interviews with a trained facilitator, daily personal reflection (2 -3 minutes), 3 brief weekly and then monthly check-in calls. Clinical trials and community results provide evidence that FallsTalk significantly reduces falls compared to untreated fallers. **FallScape** is a customized program for anyone who has experienced a fall or regular loss of balance; regardless of walking ability, medical condition, mobility, cognitive or fitness level. FallScape consists of one or two training sessions with a set of brief (less than 1 minute) multimedia vignettes that are selected specifically to help an individual prevent falls in their own unique situation. FallScape is offered in-home or community space in conjunction with FallsTalk. Research shows that participants achieve maximum benefit with the addition of this multimedia training.

**In Washington State:** Brookside Research and Development has disseminated FallsTalk and FallScape in Washington since 2015, beginning in Snohomish County. FallsTalk training expanded to Chelan County in 2017, and trainings were held in Mason and Thurston counties in 2018.

**THE OTAGO EXERCISE PROGRAM**

**Description:** The Otago Exercise Program (OEP) is a series of 17 strength and balance exercises delivered by a physical therapist or a physical therapy assistant in the home, outpatient, or community setting that reduces falls between

35 and 40 % for frail older adults. This evidence-based program calls for physical therapists to assess and progress older adults through an 8-week clinical phase and then the older adult is transitioned to a self-management phase for four to 10 months. During this time, the older adult is supported by monthly phone calls and check in at months six and 12 if needed. There are opportunities for physical therapists to collaborate with community providers to support dissemination and implementation of the OEP.

**In Washington State:** At least 124 physical therapists and other health care professionals in Washington have taken Otago Exercise Program training since 2017. DOH developed the Washington Otago Network in 2018 to improve continuity of care, promote awareness, and increase usage of OEP.

#### **STAY ACTIVE & INDEPENDENT FOR LIFE (SAIL)**

**Description:** Stay Active & Independent for Life (SAIL) is a strength, balance and fitness program for adults 65 and older. Performing exercises that improve strength, balance, and fitness are the single most important activity that adults can do to stay active and reduce their chance of falling. The entire curriculum of activities in the SAIL program can help improve strength and balance, if done regularly. SAIL is offered 3 times a week in a one hour class. SAIL exercises can be done standing or sitting. The primary target audience is community-dwelling older adults (65+) and people with a history of falls. The SAIL program is able to accommodate people with a mild level of mobility difficulty (e.g., people who are occasional cane users).

**In Washington State:** DOH, in collaboration with the University of Washington Health Promotion Research Center and Northwest Orthopaedic Institute, developed SAIL in the early 2000's with Centers for Disease Control (CDC) funding.



SAIL has established classes in at least 18 counties through collaborations with training providers, including SAIL Seminars and Wellness Place.

**TAI JI QUAN: MOVING FOR BETTER BALANCE**

**(Previously known as Tai Chi: Moving for Better Balance)**

**Description:** Tai Ji Quan: Moving for Better Balance™ is an evidence-based falls prevention program delivered in two one-hour sessions each week for 24 weeks. Each session consists of warm-up exercises; core practices, which include a mix of practice of forms, variations of forms, and mini-therapeutic movements; and brief cool-down exercises.

**In Washington State:** Tai Ji Quan: Moving for Better Balance started in Washington in 2014 with a focus on Western Washington. There are currently classes underway in 12 counties and the Master Trainer mentoring and training program is expected to grow in 2019.

**YMCA MOVING FOR BETTER BALANCE**

**Description:** Moving For Better Balance is a 12-week instructor-led group program designed to improve strength, mobility, flexibility, and balance for enhanced overall physical health and better functioning in daily activities. Participation in the program may also result in better mental health, reduced stress, improved memory and cognition, and increased self-esteem. The program, based on the principles of Tai Chi, teaches eight movements modified especially for falls prevention. The program is targeted toward individuals 65 years or older who are physically mobile with impaired stability and/or mobility, or individuals 45 years or older with a condition that may impact stability and/or mobility. A YMCA membership is not required to participate in the program.

**In Washington State:** YMCAs in Washington began using Moving for Better Balance in 2017, and continue to include it in their class offerings.

## Program Connections

Each of the falls prevention programs offered in Washington is unique. This helps organizations offer suitable options to older adults, based on their different interests and abilities. Cross-referrals between educational and exercise evidence-based falls prevention programs have been and continue to be a main goal for the organizations offering these programs. By working together, programs can help older adults find what approach works for them to reduce their risk of falls.

## Community Screening

Community falls screenings helps older adults understand their risk factors, provides an opportunity educate that falls are preventable, and create connections to evidence-based programs. Screenings can take several shapes.

- Senior health fairs and expos host screening stations where older adults fill out a questionnaire or complete tests like reaching forward from a standing position that quantify falls risk. These stations are often hosted by local falls prevention coalitions or physical therapy clinics. Information on how to do tests for falls risk is available from the CDC at [www.cdc.gov/steady](http://www.cdc.gov/steady).
- Verbal screening uses questions to assess whether an older adult is at an increased falls risk. An example of this is the first module of the FallsTalk software. Materials for screening participants are available from DOH, including the SAIL Information Guide, which has the “My Falls-Free Plan” screening tool and info on how to prevent falls.

**For the Strategy Area 4 Goals Timeline, see page 42.**

## STRATEGY AREA 5: Effective Interventions for High-Risk and Underserved Older Adults

Falls prevention has historically focused on “community dwelling” older adults, meaning those living in private residences who can independently access senior centers and other public places. This approach has excluded older adults at increased risk for falls-related injuries. An older adult’s ability to access the community is not a good determinant for whether they should receive falls prevention programming and services. Placing closer focus on high-risk and underserved older adults moves Washington’s falls prevention work toward health equity, and affirms that all older adults are valuable members of our communities.

Data from the Comprehensive Hospital Abstract Reporting System (CHARS) and Behavioral Risk Factor Surveillance System (BRFSS) highlights three groups of older adults at the highest risk for falls:

- Adults age 85 and older
- Older adults with cognitive impairment
- Tribal Elders

In 2016, the falls death rate for adults age 85+ was 400 percent higher than the rate for adults ages 65 to 84. This age group also has a higher incidence of chronic disease, and is more likely to be homebound.<sup>21</sup> Most the evidence-based falls prevention programs require participants to leave their home to attend a class. FallsTalk and the Otago Exercise Program could help reach this population. Both interventions can be offered in the home and are appropriate for frail older adults with chronic conditions.

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**“Health equity means that everyone has a fair and just opportunity to be as healthy as possible.”**

ROBERT WOOD  
JOHNSON  
FOUNDATION

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In 2016, people with cognitive impairment accounted for 27 percent of all falls-related hospitalizations for adults age 65+, and 39 percent of falls-related hospitalizations for adults age 85+. This is likely an undercount, as the Alzheimer's Association estimates that half of people with dementia are undiagnosed. In that same year, Washington had approximately 100,000 people living with Alzheimer's disease and had the eighth-highest rate of deaths from

Alzheimer's disease in the nation.<sup>22</sup>

The State Alzheimer's Action Plan specifically recommends including people with dementia in falls prevention actions plans.<sup>23</sup>

Data from the 2016 Washington BRFSS shows older adults reporting new or increasing memory problems had double the percentage of self-reported falls, and three times the percentage of falls with injury.<sup>24</sup>

Earlier evidence-based falls prevention program research excluded people with cognitive impairment from analysis. Two research projects are underway in Washington to demonstrate the effectiveness of evidence-based falls prevention programs in people with dementia.

National BRFSS data shows that older adults who identify as American Indian and Alaska Native have higher rates of falls and injuries from falls than other ethnic groups.<sup>25</sup> Tribal Elders are underserved by falls prevention classes and resources, and could benefit from programs that are adapted to their culture and community needs. Tribes have wisdom to share about what will help Elders prevent falls.



The Spokane Tribe has a thriving SAIL class for their Elders; it was adapted in partnership with physical therapists from St. Luke’s Rehabilitation Institute. DOH plans to work with the Northwest Regional Council’s Wisdom Warrior Program to culturally translate at least one evidence-based falls prevention program for Tribal Elders with funding from the Administration on Community Living.

Other groups identified as high-risk and underserved:

- Older adults who have limited English proficiency
- Older adults with substance use disorder
- Older adults residing in long-term care facilities
- Veterans
- Older adults living with long-term disabilities and chronic conditions

Older adults who have limited English proficiency are significantly underserved by current falls prevention programs. Some materials have been translated but are not widely used. In 2018, AARP volunteers began offering Spanish-language falls prevention seminars in the Seattle area using DOH materials.

Older adults with substance use disorder are at increased risk of falls and fall-related injuries, and current approaches do not directly address this risk factor.<sup>26</sup> The primary substances of abuse for older adults are alcohol and opiates.<sup>27</sup> With opioid pain medication in particular, falls can contribute to a cycle of pain, depression, more prescription pain medication, and further falls.<sup>28</sup> This connects with Strategy 1.4 of the 2018 Washington State Opioid Response Plan, “Educate the public about the risks of opioid use, including overdose.”<sup>29</sup>

The CDC’s 2014 National Study of Long-Term Care Providers found 16 percent of older adults in Washington used home health, adult day services or hospice, or resided in skilled nursing or residential care. In 2018, there were 544 facilities licensed as assisted living and nearly 2,800 adult family homes. King County EMS data shows that for 2015, 47 percent of fall incident-related calls were to private homes, while 41 percent were to nursing facilities, senior living facilities, including assisted living, and adult family homes. Better statewide EMS data is needed to understand the full impact of falls at these facilities.

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**“Raise awareness and provide information and services in languages other than English.”**

COMMUNITY  
MEMBER SURVEY  
RESPONDENT

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Engaging veterans in evidence-based falls prevention programs includes collaboration with the Washington Department of Veterans Affairs, and recruitment of veterans as program leaders. Veterans are disproportionately impacted by chronic conditions, which increases their risk of falls.<sup>30</sup> Similarly, older adults living with long-term disabilities and chronic conditions are at increased risk for falls, and have not yet been actively included in evidence-based falls prevention programs. Training leaders to adapt programs for all populations will take a major step toward eliminating disparities in falls prevention programming.

**For the Strategy Area 5 Goals Timeline, see page 43.**



## STRATEGY AREA 6: Improving Safety in Homes and Communities

Home safety is a major theme of falls prevention work nationally and in Washington state. The CDC developed the widely distributed *Check for Safety* brochure in 2007. Despite many excellent home safety interventions and efforts in the state, there is a lack of coordination and consistency between programs and gaps exist where there are no programs or resources available.

Survey respondents and focus group participants identified home safety resources as a major unmet need, and commented specifically on the challenge of getting grab bars and shower seats installed to make their homes safer. Community safety was also a major issue, especially in more urban areas. Cracked sidewalks, broken curbs, steep ramps, and non-automatic doors were seen as barriers to safely accessing the community.

Having a grab bar installed in the bathroom can make a huge difference in an older adult's safety. King County started the One Step Ahead home safety program in 2003, which includes a visit from a physical therapist and installation of grab bars and other safety devices. The program has served more than 1,800 seniors as of 2018 and 88 percent of those who fell prior to enrolling in the program did not have a fall after completing it.

A major point of access to home safety for many older adults is home health. Home health physical and occupational therapists regularly perform home safety evaluations and recommend modifications to the home environment to improve safety. Improved connections between home health and local home safety resources would improve the effectiveness of home health interventions and connect older adults with services they need to stay safe in their homes.

When an older adult lives in assisted or independent living, home safety modifications can be harder to make due to facility policies. Both common areas and private apartments need to be safe and accessible for older adults. Moving facility policies towards safety is good for older adults and management. By helping older adults stay in their apartments, buildings save money and add value to their community.

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**“We need Safety/Fall risk assessments in home. As a former manager of In-Home Care this was something people were looking for all the time.”**

SURVEY RESPONDENT

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In 2017, the CAPABLE (Community Aging in Place – Advancing Better Living for Elders) Program was approved as an evidence-based falls prevention program. This program includes visits from an occupational therapist, a nurse, and a handyman. CAPABLE is not yet in use in Washington but provides an opportunity to implement home safety in the context of evidence-based programs.

Other areas of opportunity include timely connection of older adults to existing resources, and working with local partners to develop affordable and accessible home safety modification options. Broadening partnerships to include local pedestrian safety initiatives can make a difference in accessibility.

**For the Strategy Area 6 Goals Timeline, see page 44.**

### **Success Story from South Beach Regional Fire Authority in Westport**

With funding from a West Region EMS grant, South Beach Regional Fire Authority provided education and installed grab rails for older adults in their communities. Their project manager:

“He shared with me his appreciation for the bars we had installed in his bathroom and stated they had already prevented a couple falls. So this one instance has totally made this grab bar project a success!”

**Timeline for Strategy Area 1: Strong and Effective Community Partnerships**

STRATEGY AREA 1 GOALS		YEARS				
		2019	2020	2021	2022	2023
1-A	Convene a workgroup of community organizations, agencies and subject matter experts to review best practices and develop the <i>Community Falls Prevention Toolkit</i> . Include emergency medical services, area agencies on aging, health homes, and pharmacy.	✓				
1-B	Implement <i>Community Falls Prevention Toolkit</i> in 10 geographically diverse communities, publicly recognize participating communities.		✓			
1-C	Develop partnerships with 10 community service social organizations.				✓	
1-D	Develop partnerships with four payer partners to advance system-based changes that prioritize falls prevention and build sustainable partnerships with community based organizations. Include health systems, Accountable Care Organizations, Accountable Communities of Health, Health Care Authority, and Medicare Advantage plans.					✓

**Timeline for Strategy Area 2: Public Awareness and Education**

STRATEGY AREA 2 GOALS		YEARS				
		2019	2020	2021	2022	2023
2-A	Expand existing statewide website to include home safety resources and updated information on evidence-based programs; provide outreach to health care providers about statewide website.	✓				
2-B	Develop a live educational seminar for older adults on how to safely stop a fall, minimize injury when falling, and get up after a fall. Provide the seminar in 5 geographically diverse communities.	✓				
2-C	Partner with Aging and Long Term Support Administration and Area Agencies on Aging to educate family caregivers on falls prevention programs and interventions.		✓			
2-D	Develop and disseminate a statewide falls prevention media and volunteer campaign, with a focus on positive messaging; include materials adaptable to local needs.					✓
2-E	Recruit public figure(s) to champion falls prevention in the media.				✓	
2-F	Explore opportunities to join with broad-based and diverse local and state-wide healthy aging partnerships.					✓

### Timeline for Strategy Area 3: Prevention Across the Continuum of Care

STRATEGY AREA 3 GOALS		YEARS				
		2019	2020	2021	2022	2023
3-A	Convene a cross-sector workgroup of skilled nursing staff, organizational leadership, and subject matter experts to review best practices and develop the <i>Skilled Nursing Facility Falls Prevention Toolkit</i> .		✓			
3-B	Provide continuing education (CEU) training and technical assistance for implementation of the <i>Skilled Nursing Facility Falls Prevention Toolkit</i> in 10 geographically diverse facilities and publicly recognize participating facilities.			✓		
3-C	Present continuing education on falls prevention at three statewide provider conferences.				✓	
3-D	Provide education on falls prevention screening and intervention to 200 care coordinators and community health workers.			✓		
3-E	Create approved continuing education training course on falls prevention for Washington emergency medical services providers; train 200 providers from geographically diverse communities.			✓		
3-F	Partner with subject matter experts and continuing education providers to develop a live and recorded online training for primary care providers in the CDC's <i>Stopping Elderly Accidents, Deaths and Injuries (STEADI) Toolkit</i> and evidence-based falls prevention programs. Include culturally and linguistically appropriate falls prevention education for multiple patient populations.			✓		
3-G	Partner with the Washington State Pharmacy Association and community pharmacies to train 100 pharmacists from geographically diverse communities in the STEADI Program.			✓		
3-H	Partner with Aging and Long Term Support Administration, continuing education providers, home care agencies, and subject matter experts to develop an online and live falls prevention module for professional caregivers and train 200 caregivers using the module. Include culturally and linguistically appropriate falls prevention education for multiple care receiver populations.			✓		
3-I	Partner with subject matter experts to develop online and live CEU-approved falls prevention modules for healthcare professionals, train 200 health care professionals using the module. Include culturally and linguistically appropriate falls prevention education for multiple care receiver populations. Priority professions will include: nursing, social work, physical therapy, occupational therapy, and medical assistants.				✓	
3-J	Develop live and web-based training on post-discharge falls prevention for acute health care facility discharge planning staff, train 50 staff from three geographically diverse communities.					✓
3-K	Establish falls prevention referral systems in 15 emergency departments, in three geographically diverse communities; publicly recognize participating EDs.					✓
3-L	Explore opportunities to obtain additional falls-related data from emergency medical services, emergency departments, and acute care.					✓

STRATEGY AREA 4 TIMELINE

**Timeline for Strategy Area 4: Expanded Reach and Access to Evidence-Based Programs and Community Screenings**

STRATEGY AREA 4 GOALS		YEARS				
		2019	2020	2021	2022	2023
4-A	Provide educational outreach to clinicians and support Washington Otago Network to add 25 clinicians actively using the Otago Exercise Program with patients.					✓
4-B	Partner with evidence-based programs, senior centers, Area Agencies on Aging, activity professionals, and senior housing to promote implementation of evidence-based falls prevention programs in these settings.			✓		
4-C	Partner with evidence-based programs to develop an insurance billing toolkit for falls prevention program reimbursement.				✓	
4-D	Develop a network of health care professionals to champion evidence-based falls prevention programs within their professions.				✓	
4-E	Train 200 community members on falls risk screening tools.					✓
4-F	Partner with evidence-based programs to create and strengthen instructor network and conduct fidelity improvement activities.					✓
4-G	Provide 500 classes or workshops annually for evidence-based programs; include classes/workshops on state-wide web resource.					✓
4-H	Provide 10 evidence-based program instructor trainings annually in rural and/or underserved areas.					✓

### Strategy Area 5 Timeline: Effective Interventions for High-Risk and Underserved Adults

STRATEGY AREA 5 GOALS		YEARS				
		2019	2020	2021	2022	2023
5-A	Partner with Aging and Long Term Support Administration, Memory Care Assisted Living Facilities (MCAL) and subject matter experts to review best practices and develop a staff education tool on falls prevention for MCAL. Include dementia and falls, environmental safety modifications, chronic conditions and falls, resident-specific interventions, and MCAL-specific interventions.	✓				
5-B	Provide technical assistance with implementation of staff education tool on falls prevention for MCAL in 10 geographically diverse facilities; publicly recognize participating facilities			✓		
5-C	Partner with Aging and Long Term Support Administration, and the Adult Family Home Council to review best practices and develop a staff education tool on falls prevention for Adult Family Homes (AFH). Include dementia and falls, environmental safety modifications, chronic conditions and falls, resident-specific interventions, and AFH-specific interventions.		✓			
5-D	Provide technical assistance with implementation of staff education tool on falls prevention for AFH in 15 geographically diverse homes; publicly recognize participating facilities.			✓		
5-E	Develop partnerships with Tribal Nations and Tribal Organizations, as requested, to develop and disseminate culturally appropriate falls prevention materials and programs for Tribal Elders.				✓	
5-F	Partner with community-based organizations that serve communities with Limited English Proficiency (LEP) to provide evidence-based falls prevention interventions and programming.					✓
5-G	Develop partnerships within the Veterans Affairs health system to bring falls prevention screening and interventions to older adults who are veterans.					✓
5-H	Explore the benefits and drawbacks of mandating falls prevention programs in assisted living facilities through legislation.					✓
5-I	Explore the benefits and drawbacks of mandating non-identifying information reporting of falls in skilled nursing facility and assisted living facility settings through legislation and/or rule making.					✓
5-J	Partner with researchers and other stakeholders to evaluate and raise awareness of an evidence-informed and evidence-based falls prevention program for individuals with cognitive decline.					✓
5-K	Partner with evidence-based programs, community organizations, researchers, and other stakeholders to educate providers and community members on the impact of substance use disorder on falls risk in older adults.					✓
5-L	Partner with clinicians, Area Agencies on Aging, and other stakeholders to develop and implement strategies that improve access to falls prevention interventions and programs, including personal alert systems, for adults age 85+ and people living with long-term disabilities and chronic health conditions.					✓

**Strategy Area 6 Timeline: Improved Safety in Homes and Communities**

STRATEGY AREA 6 GOALS		YEARS				
		2019	2020	2021	2022	2023
6-A	Convene a workgroup of senior housing, independent and assisted living staff and residents, and other subject matter experts to review best practices and develop a Falls Prevention Toolkit for Senior Living Communities. Include sustainable strategies for home safety modifications in senior housing communities.			✓		
6-B	Provide technical assistance with implementation of <i>Falls Prevention Toolkit for Senior Living Communities</i> in 10 geographically diverse senior living facilities/communities.				✓	
6-C	Explore the inclusion of home safety modifications into the building code required for approval of senior housing units.					✓
6-D	Explore collaboration with statewide community safety initiatives to decrease falls in outdoor spaces.					✓
6-E	Develop an online resource of home safety modification resources and educate older adults, elder care providers and clinicians about the resource.		✓			
6-F	Identify areas of geographic disparity for access to home safety modifications and develop a plan for increasing access across the state.			✓		

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## **APPENDIX B:** **Glossary of Abbreviations**

**AAA:** Area Agencies on Aging  
**ADRC:** Aging and Disability Resource Centers  
**AFH:** Adult Family Home  
**ALF:** Assisted Living Facility  
**AL TSA:** Aging and Long Term Support Administration  
**BRFSS:** Behavioral Risk Factor Surveillance System  
**CDC:** Centers for Disease Control and Prevention  
**CHARS:** Comprehensive Hospital Abstract Reporting System  
**DOH:** Washington State Department of Health  
**EBFPP:** Evidence-Based Falls Prevention Program  
**ED:** Emergency Department  
**HP2020:** HealthyPeople 2020  
**HPRC:** Health Promotion Research Center at the University of Washington  
**LEP:** Limited English Proficiency  
**MCAL:** Memory Care Assisted Living Facility  
**NCOA:** National Council on Aging  
**OEP:** Otago Exercise Program  
**PCP:** Primary Care Provider  
**RHINO:** Rapid Health Information NetwOrk  
**SNF:** Skilled Nursing Facility  
**SAIL:** Stay Active & Independent for Life  
**STEADI:** STopping Elderly Accidents, Deaths and Injuries  
**WEMSIS:** Washington Emergency Medical Services Information System

## **APPENDIX C:**

### **The Advisory Group Process: “Developing the Plan – How it Happened”**

An Advisory Group was formed, and collaborated on a list of key priority areas within falls prevention for Washington State between June and October 2017. This group included representatives from every region of the state and across the continuum of care. With an intentional focus on broad inclusion of stakeholders and partners, the group included researchers, community organizations, evidence-based programs, hospital systems, clinicians, professional organizations, volunteer educators, long-term care providers, the EMS and Trauma system, Area Agencies on Aging and many others. The total number of individuals participating in the Advisory Group reached 86, with more than 70 organizations represented.

With assistance from the Advisory Group, an online survey was also developed and distributed to gain increased insight from older adults, family members, caregivers, professionals working in senior services and healthcare professionals. The survey attracted more than 700 responses, from every county in the state. To better understand older adults' needs and perspectives, and validate survey results, focus groups were conducted in Seattle, Spokane, and Wenatchee with groups of older adults in varied types of senior housing. DOH also reached out to Tribal Elders Programs and community-based organizations serving older adults with Limited English Proficiency to learn how they are responding to falls in their communities and discuss future collaboration.

Building from survey responses received and issues raised during three regional meetings, the Advisory Group developed a list of priority action items that eventually were molded into the action plan's six strategy areas. The group also formed five workgroups around specific topic areas. These workgroups were:

- Outreach Strategies and Policy
- Evidence-based Programs and Community Screening
- Continuum of Care
- High-Risk Populations, Long-Term Care and Health Equity
- Home and Community Safety

Sixty-three Advisory Group members volunteered to serve on the workgroups. The workgroups were tasked with reviewing the priority action items associated with their topic area and building goal-oriented recommendations. Workgroup chairs coordinated and facilitated input from members during a two-month time period, assisted by research and data champions assigned to groups with a large amount of best practice information to process.

As the workgroups began collaboration, a group of clinicians and other professionals discussed the Otago Exercise Program specifically, to help shape realistic goals around improved implementation of this program in Washington. In February 2018, the workgroup chairs met in Tumwater, WA to finalize recommended goals for the plan. Bringing together input from their workgroups, the Otago call, national priorities and their background in falls prevention work, they identified this action plan's strategies and goals.

## APPENDIX D: References

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## RECOMMENDED EXERCISE

# Chair Rise Exercise

**What it does:** Strengthens the muscles in your thighs and buttocks.

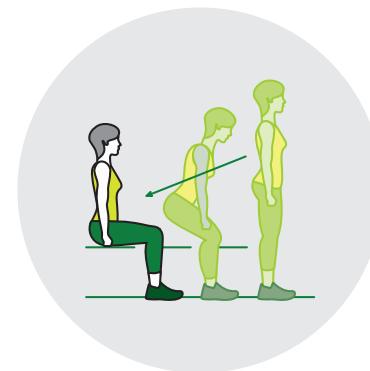
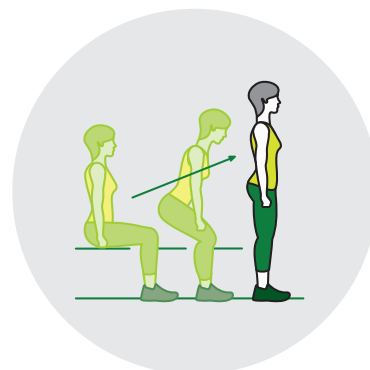
**Goal:** To do this exercise without using your hands as you become stronger.

### How to do it:

1. Sit toward the front of a sturdy chair with your knees bent and feet flat on the floor, shoulder-width apart.
2. Rest your hands lightly on the seat on either side of you, keeping your back and neck straight, and chest slightly forward.
3. Breathe in slowly. Lean forward and feel your weight on the front of your feet.
4. Breathe out, and slowly stand up, using your hands as little as possible.
5. Pause for a full breath in and out.
6. Breathe in as you slowly sit down. Do not let yourself collapse back down into the chair. Rather, control your lowering as much as possible.
7. Breathe out.

Repeat 10-15 times. If this number is too hard for you when you first start practicing this exercise, begin with fewer and work up to this number.

Rest for a minute, then do a final set of 10-15.



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For more information, or to get involved in your community,  
contact the Washington State Department of Health  
Falls Prevention Program at [findingourbalance@doh.wa.gov](mailto:findingourbalance@doh.wa.gov).

For persons with disabilities, this document is available on request in other formats.  
To submit a request, please call 1-800-525-0127 (TDD/TTY call 711).