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# Falls Prevention in Oregon: a Systems Change Update

**Lisa Shields**

Public Health Division

Injury and Violence Prevention Program

Iowa Falls Prevention Symposium

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The logo for the Oregon Health Authority. It features the word "Oregon" in a smaller, orange, serif font positioned above the word "Health", which is in a large, blue, serif font. Below "Health" is the word "Authority" in a smaller, orange, serif font. A thin blue horizontal line is positioned between "Health" and "Authority".

Oregon  
Health  
Authority

# Topics covered

Falls data

Oregon  
Program  
Overview

STEADI and  
community  
programs

Partnerships for  
Sustainability

Pilot results  
and Challenges

# Falls in Oregon

**In 2013 639 Oregonians died and nearly 8,700 were hospitalized due to a fall**

**Oregon's fatal fall rate for adults 65+ is 41% higher than the national average**

**The rate of death due to falls has increased nearly two-fold (92.3%) since 2000**

**The rate of fatal falls for those 85+ is 23x greater than those age 65-74**

**Nearly 60% of seniors in Oregon who are hospitalized for falls are discharged into long-term care**

1. Source: [Oregon Injury and Fatality Data](#)

# The cost of falls

Fall hospitalization charges for Oregon seniors are over \$222 million per year



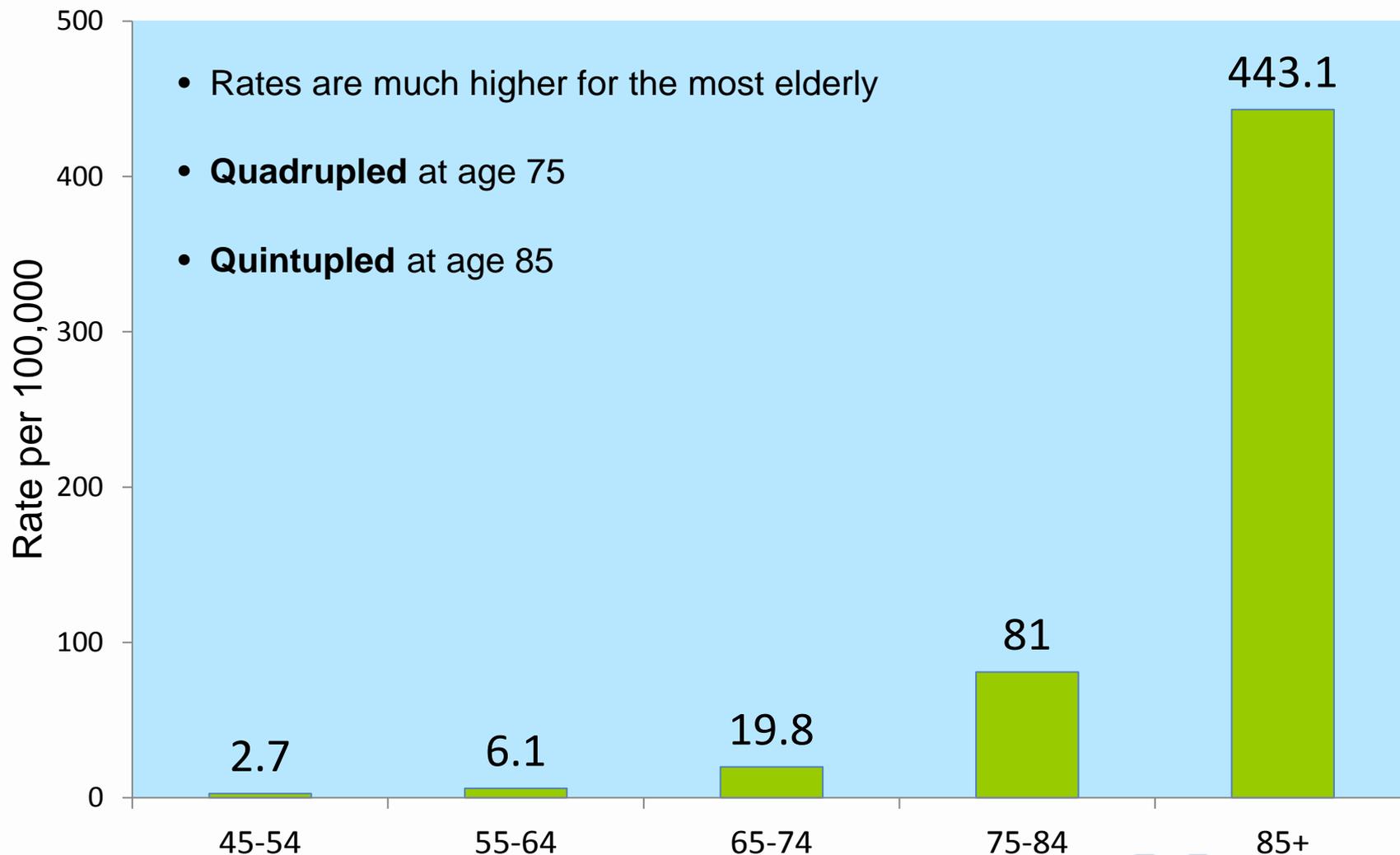
Unintentional falls are the third most costly hospitalized condition after cancer and heart disease



The median per patient hospitalization charges for fall-related injury are nearly \$33,000

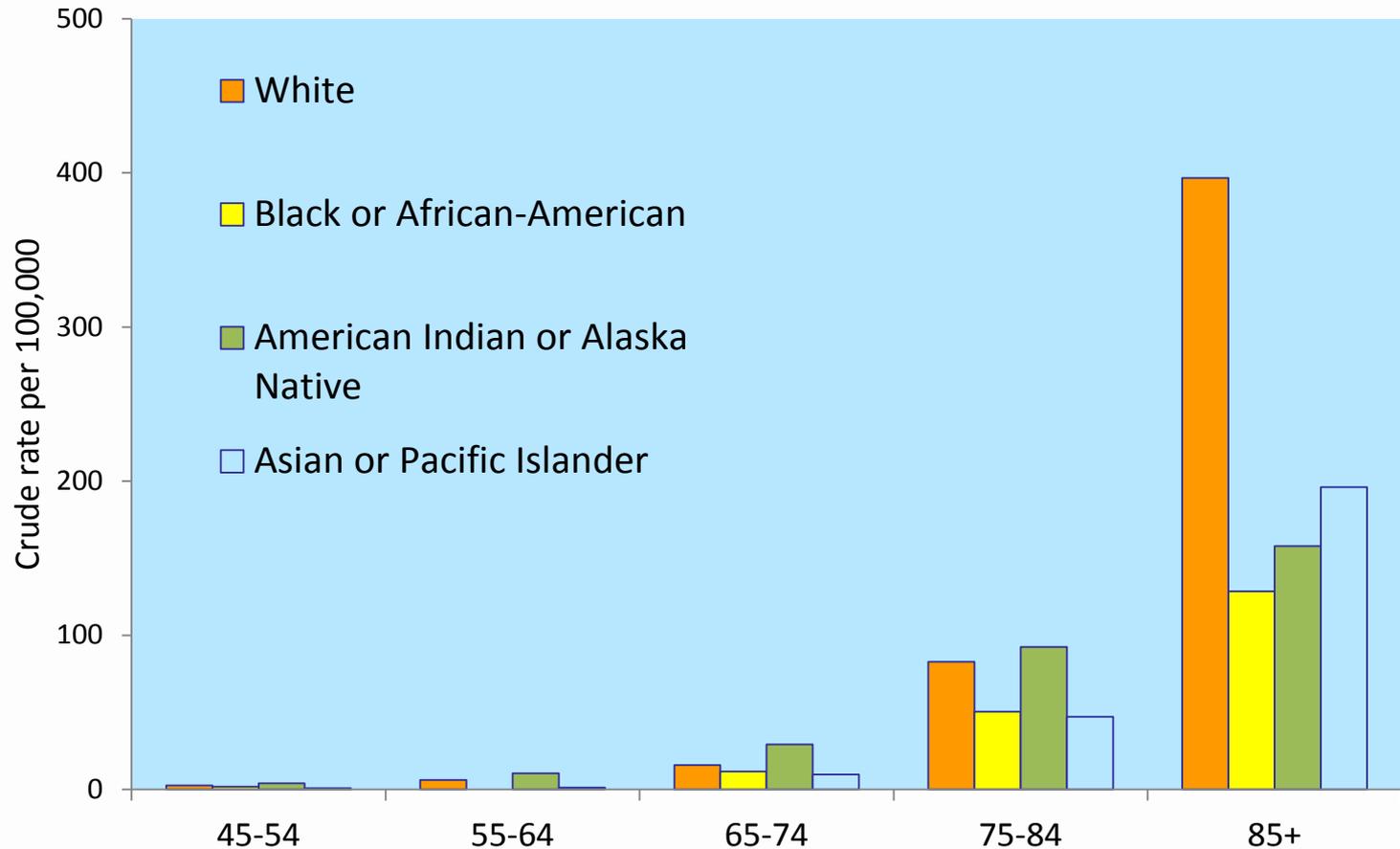
Source: [Oregon Injury and Fatality Data](#)

## 2013 Oregon fall mortality rate by age



Source: [Oregon Injury and Fatality Data](#)

# 2009 - 2013 Oregon average annual fall mortality rate by race



- Native Americans had the highest mortality rates from 25-85

- Whites had the highest fall mortality rate 85+

- Hispanic fall mortality rates were lower than Non-Hispanics for every age group except age 65 to 74

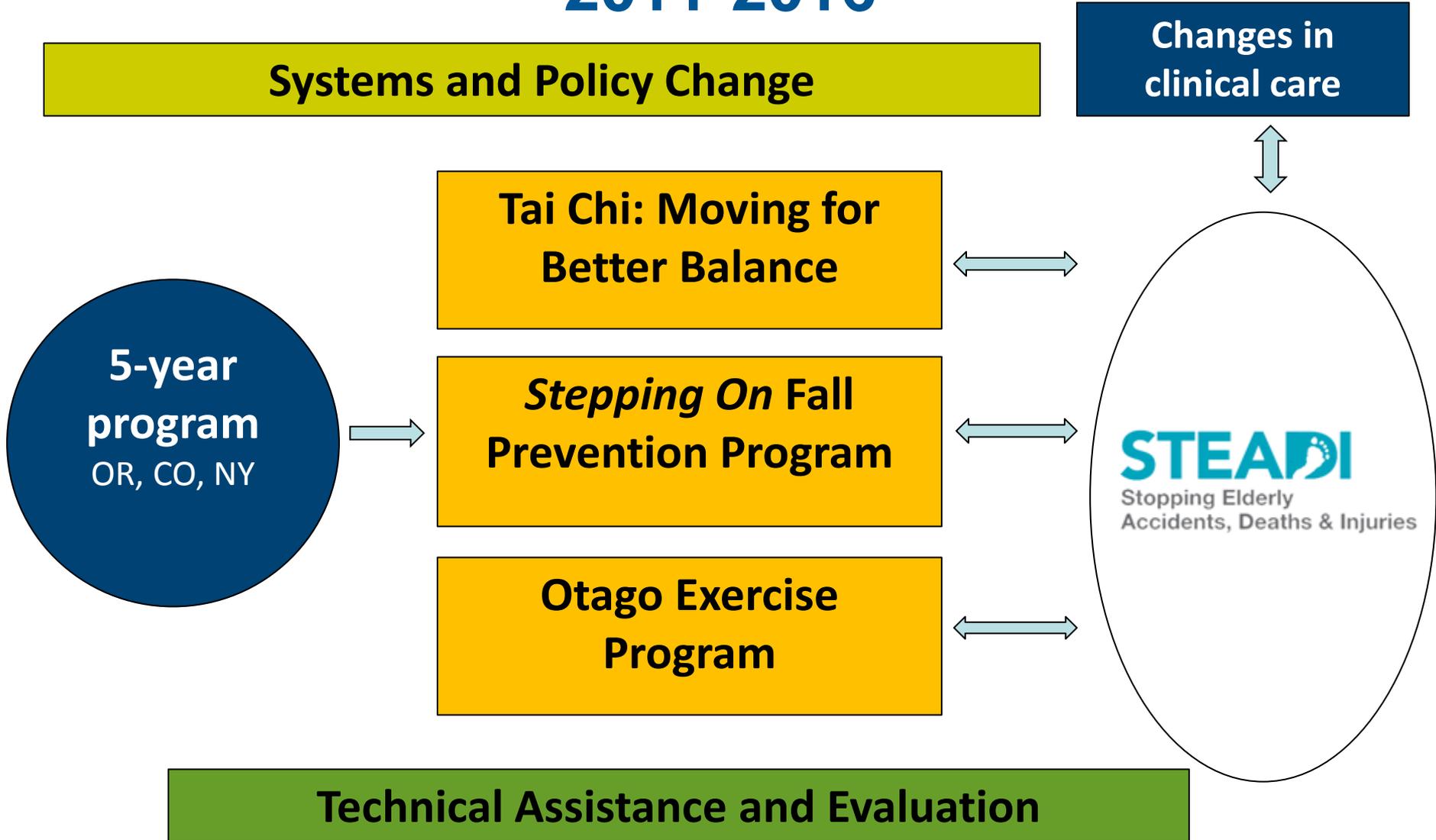
Source: [Oregon Injury and Fatality Data](#)

# Community Wide Efforts Can Reduce Falls Substantially

A multifaceted community based falls reduction program involving medical groups and the community reduced fall related injuries by **10% in a target community**

This is the model for the CDC State Fall Prevention Program

# CDC State Fall Prevention Program 2011-2016



Source: [CDC Core Violence and Injury Prevention Program](#)

# Oregon falls prevention strategies for systems change

**Health systems:** embed activities into existing business models

**Health plans and Medicare-beneficiary fitness programs:** cover activities as member benefit

Establish community fall prevention programs in sustainable settings:  
Tai Chi, Stepping On, Otago

Increase clinician assessments and referrals (STEADI)

Partner with aging services, community health workers, volunteers, professional organizations, first responders

Increase public awareness of falls as a preventable issue

# Incentives and Motivators for Health Care and Falls Prevention

## **MEDICARE**

Welcome to Medicare visit  
Annual Wellness Visit  
5-star health plan rating

**Physician Quality  
Reporting System  
(PQRS)**

**Patient-centered  
Primary Care  
Homes**

**480 recognized  
Oregon clinics**

**Coordinated Care  
Organizations  
(CCO)**

Serving 90% of Oregon  
Health Plan (Medicaid)  
members

**Comprehensive  
Primary Care  
initiative**

Oregon is one of 7  
national markets  
67 clinics

**ABIM and ABFM  
maintenance of  
certification  
credits**

# Public Health – Health System Collaboration

Falls prevention champions in health care

Geriatrics, Primary Care,  
Quality Improvement,  
Physical Therapy &  
Rehabilitation, Inpatient falls  
prevention, ED/Trauma

Key to sustainability: work together to tailor programs that align with each business model

# Activities with health system partners



- STEADI toolkit
- Leader training for community fall prevention programs



- Interns
- Participation in outreach events
- Provide opportunities for networking with local and national experts, each other



- Assist with ABIM and ABFM credit requirements



# Health plan coverage



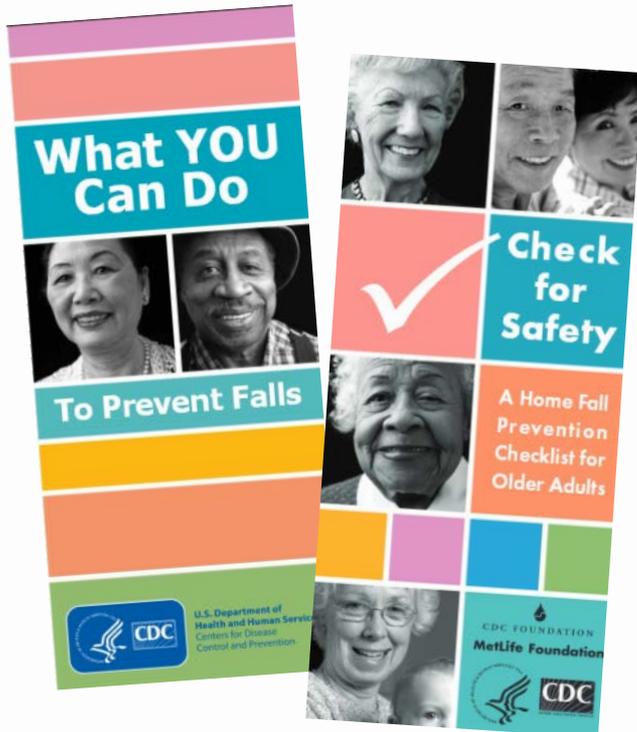
- Tai Chi: Moving for Better Balance (TCMBB) is approved program for Silver and Fit and Silver Sneakers FLEX™ Silver and Fit health plans include Providence and Kaiser
- Providence Health Plan covers Stepping On classes
- Portland VA Medical Center waived co-pay requirement for Stepping On classes, reimburses travel expenses
- Kaiser Permanente offers Otago to Complex Medical Home patients



# First responders

Trainings for statewide Fire and Life safety educators through Oregon State Fire Marshal

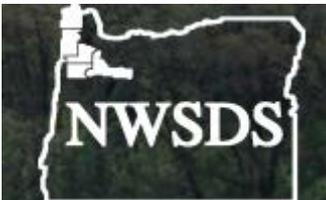
- Home safety assessments
- Safe footwear and clothing
- Home modification resources
- Medication safety
- Vision safety
- Connecting seniors to falls prevention programs
- Distributing STEADI patient education material



# Aging services and professional organizations



- Presentations and exhibit tables at events
- Promote STEADI toolkit material
- Participation in Falls Prevention Awareness Day
- Webinars for ADRC series
- TCMBB trainings for senior center staff
- Training and TA for Otago experiment with AAA in Salem



[alz.org](http://alz.org) | alzheimer's association



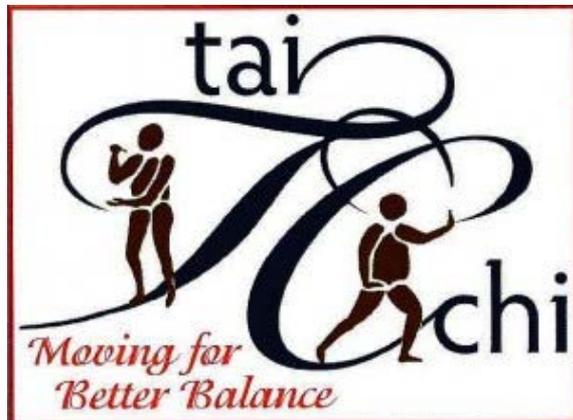
# Activities with community health workers and volunteers



- Tai Chi: Moving for Better Balance and Stepping On trainings
- Participation in public awareness events
- Falls prevention seminars for staff and clients
- STEADI patient education material
- CHW online training is free at Carolina Geriatric Education Center: [CHW Falls Curriculum](#)



# STEADI and community programs



Otago Exercise Programme

to prevent falls in older adults



## Preventing Falls in Older Patients Provider Pocket Guide

### Key Facts about Falls:

- 1/3 of older adults (age 65+) fall each year.
- Many patients who have fallen do not talk about it.

### This is What You Can Do:

#### RITUAL:

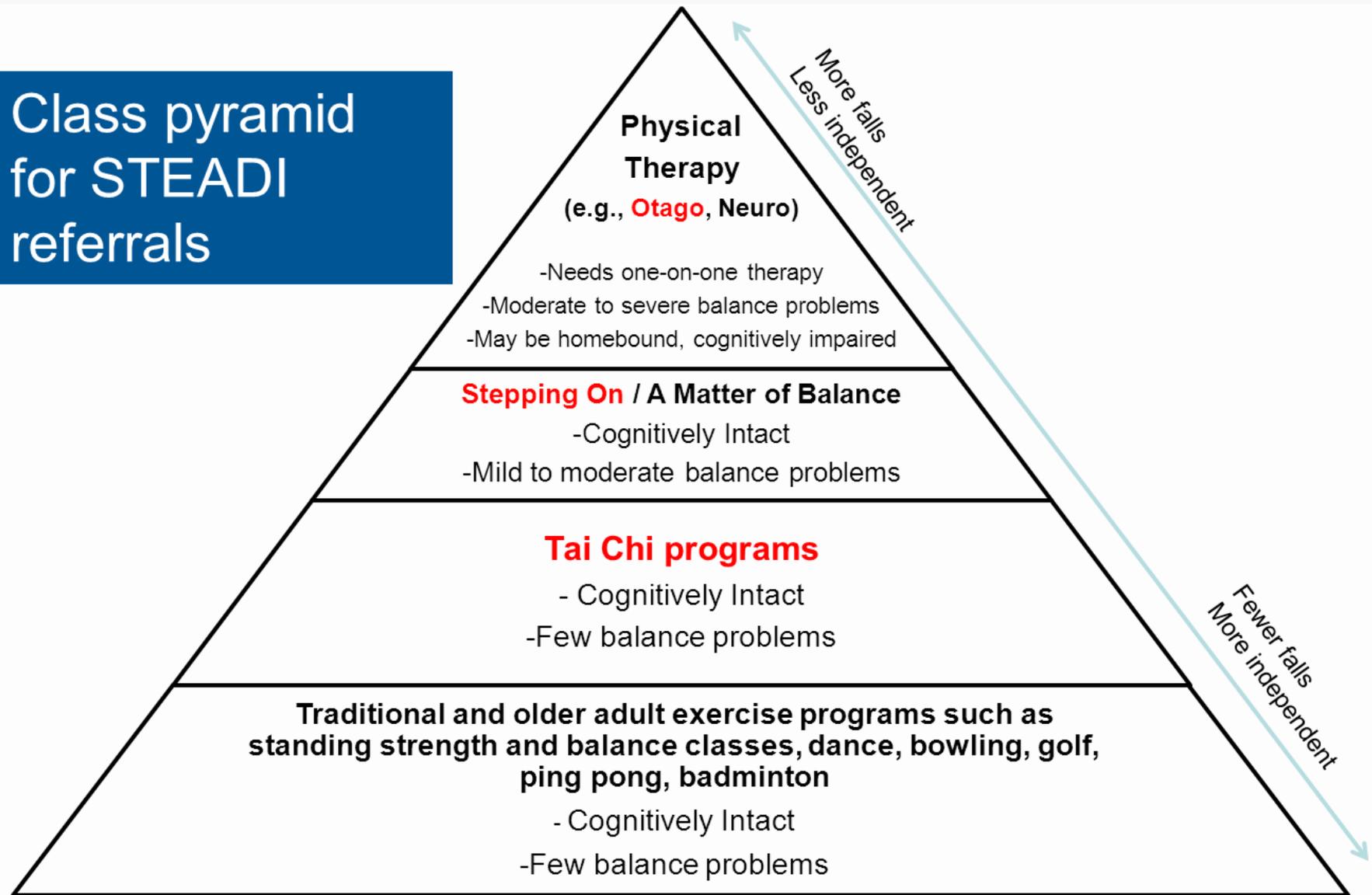
- Review self-assessment brochure
- Identify risk factors
- Test gait & balance
- Undertake multifactorial assessment



# STEADI in Oregon

- Toolkit for health care providers with decision tree, functional assessments, referrals, and patient education material
- STEADI tools developed by Oregon Health & Science University is now part of Epic's national EHR package. Online training available in August 2015 through CDC
- Oregon Geriatric Education Center trains clinic groups statewide; Oregon Health Authority trains Tai Chi instructors in those areas to accommodate clinician referrals
- Over 2,000 patients screened

# Class pyramid for STEADI referrals



Copyright 2005, Mahoney J, Shea T, with Dane County Falls Prevention Task Force

# Community classes and programs

## Tai Chi: Moving for Better Balance

- 500 instructors trained
- Fitness centers, health care, parks and rec, senior centers, living communities
- TCMBB trainings linked with OGEC clinic trainings
- Special populations: Dept. of Corrections, VA Chronic Pain/PTSD program, Oregon State Psychiatric Hospital

## *Stepping On*

- 29 leaders trained
- Classes in Portland metro in health care settings, senior centers, fitness centers, African-American Health Coalition, assisted living

## Otago Exercise Program

- For homebound seniors
- Traditional model: Beyond the Clinic Physical Therapy in Portland
- Alternative model: NW Senior and Disability Services in Salem (AAA)

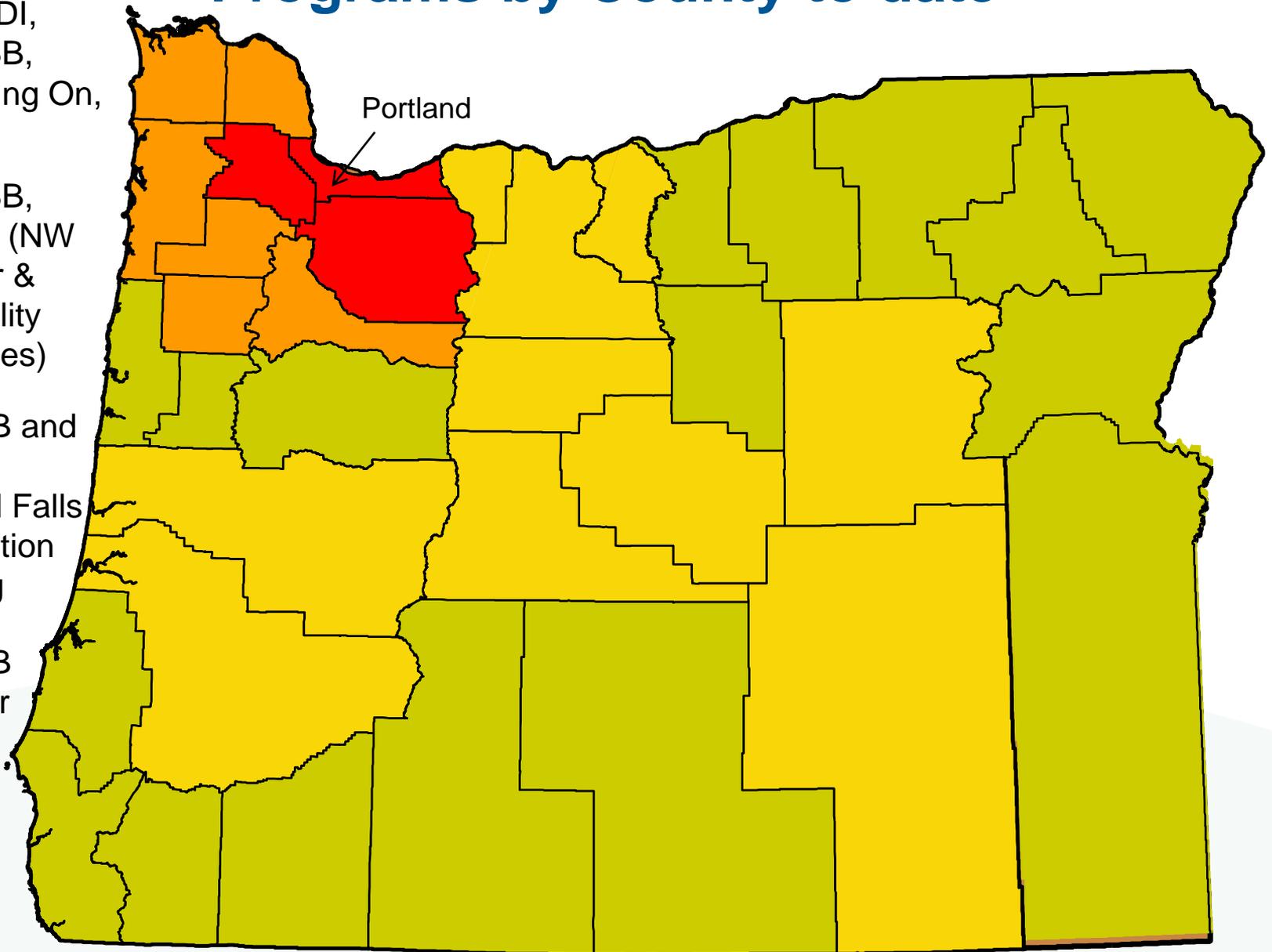
# Programs by County to date

■ STEADI,  
TCMBB,  
Stepping On,  
Otago

■ TCMBB,  
Otago (NW  
Senior &  
Disability  
Services)

■ TCMBB and  
OGEC  
Clinical Falls  
Prevention  
training

■ TCMBB  
or other  
tai chi



# Public awareness

## Healthoregon.org/fallprevention

- Program info, class listings, instructor resources, data, news

## www.adrcoforegon.org

- State Aging and Disability Resource Connection website
- Falls program listing searchable by county

## Falls Prevention Awareness Day 2014

- Webinar for ADRC partners
- Annual Falls Prevention Awareness Day
- Tai chi “flash mob” downtown Portland
- Press release
- Governor’s proclamation, county proclamation
- Presentations and screenings for seniors



Tai Chi flash mob



Kaiser STEADI Fair



Tai Chi with County Commissioners

Public  
awareness  
events

# Healthoregon.org/fallprevention

public.health.oregon.gov/PreventionWellness/SafeLiving/FallPrevention/Pages/index.aspx

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Public Health > Prevention and Wellness > Safe Living > Falls Prevention for Older Adults

SHARE

## Falls Prevention for Older Adults

STEADI toolkit for healthcare providers

Tai Chi: Moving for Better Balance

Stepping On Falls Prevention Program

Otago Exercise Program

Resources for Older Adults

Stories

Share Your Story

Request More Information

Instructor Tools

Submit Class Info

Partners

Reports

Resources for Health Care Providers

Ready to Quit Tobacco? Learn more

**Falls Prevention for Older Adults**

In Oregon, falls are the leading cause of fatal and nonfatal injuries for adults 65 and older. One in three older adults falls each year, and 20 to 30 percent of people who fall suffer moderate to severe injuries, such as bruises, hip fractures, and head traumas.

While falling is common to people of all ages, the severity of injury for older adults can result in a loss of mobility and independence. However, many falls are preventable; there are proven interventions that can help older adults reduce their risk of falling and live longer, healthier lives.

### Classes for Seniors

You can also email [lisa.m.shields@state.or.us](mailto:lisa.m.shields@state.or.us) if you need assistance finding a class near you.

- [View the map of Senior Fitness Classes in Oregon / SW Washington \(includes Tai Chi, Stepping On and Otago\).](#)
- [Tai Chi for Arthritis website.](#)
- [Go4Life Free Virtual Coaching to Encourage Physical Activity](#)  
The National Institute on Aging's Go4Life program now provides participants with their own (virtual) fitness coach. Anyone can create a free account and sign up to receive tips and encouragement to get up and active every day. Whether someone wants some gentle encouragement or a little muscle behind the message, these Go4Life coaches can help. Weekly or monthly e-mail tips on specific exercises, nutrition, safety, and more are available at [Go4Life](#).

View the [Stories from others](#) about the classes and their benefits

# Oregon class listings map

## Falls Prevention Program Map Oregon/SW Washington

Public · 3 Collaborators · 667 views  
Created on Mar 7 · By Joe · Updated 3 hours ago  
★★★★★ 1 ratings · Write a comment · KML ·  



### Senior Falls Prevention - OHA

800 NE Oregon St, Ste 730, Portland, OR 97232  
www.healthoregon.org/fallprevention 971-673-1036  
Lisa.m.shields@state.or.us M - F: 7:30 am - 4:00 pm



### Albany, OR - Albany Senior Center

489 NW Water Ave, Albany, OR www.cityofalbany.net/department/parks-and-recreation/classes 541-917-7760 Tai Chi Visit website contact for more info



### Battle Ground, WA - Battle Ground Baptist Church

1110 NW 6th Ave, Battle Ground, WA 360-909-2604  
jillross@yahoo.com Tai Chi: Moving for Better Balance M: 9:30 - 11:00 am



### Battle Ground, WA - Battle Ground Community Center

912 E. Main St, Battle Ground, WA  
wa-battleground.civicplus.com/index.aspx?NID=247 360-694-8144  
Enhanced Senior Fitness T, W & F: 8:30 - 9:30 am & 9:45 - 10:45 am



### Beaverton, OR - Beaverton Hoop YMCA

9685 SW Harvest Court, Beaverton, OR ymcacw.org/locations/beaverton-hoop-ymca 503-644-2191 Tai Chi See website or call



### Beaverton, OR - Elsie Stuhr Center

5550 SW Hall Blvd, Beaverton, OR www.thprd.org/facilities/stuhr/home.cfm 503-629-6342 Essential Balance and Mobility T & F: 3:00 - 4:00 pm FallProof Balance & Mobility Training Level 1 T & Th: 2:00 - 3:00 pm



### Beaverton, OR - Family Martial Arts Academy

8618 SW Hall Blvd, Beaverton, OR  
www.tigardmartialarts.com/beaverton 503-977-3300  
paul.keller571@gmail.com Tai Chi & Qigong Visit website or contact for more info



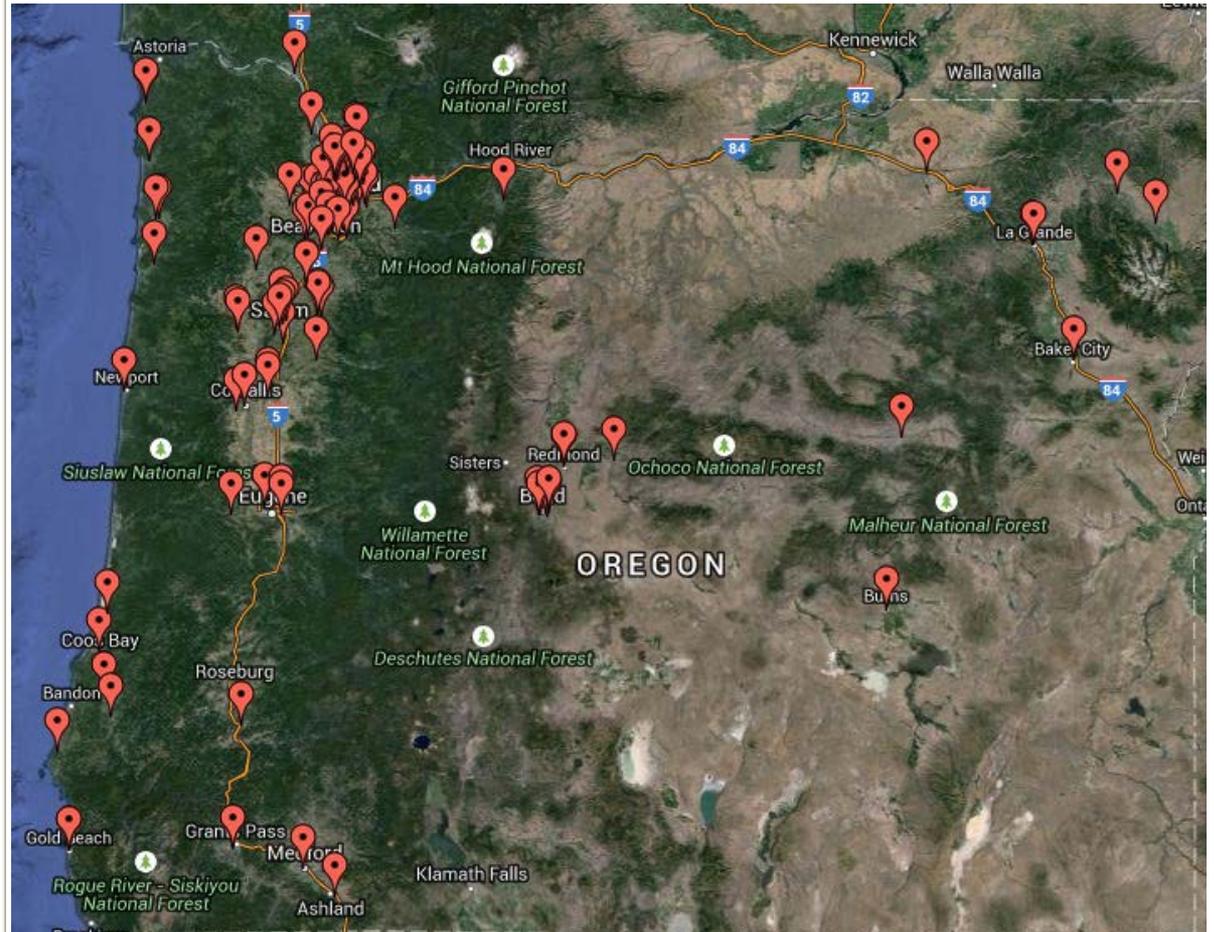
### Beaverton, OR - Nature Park Interpretive Center

15655 SW Millikan Way, Beaverton, OR www.thprd.org/activities/home.cfm 503-292-6951 jwdalto@comcast.net Seasonal Tai Chi: Moving for Better Balance W: 6:00 - 7:15 pm



### Bend, OR - Active Life Fitness

34 NW Allen Rd, Bend, OR www.taichijenny.com 541-788-7537  
activelifeitaichi@gmail.com Sun style Tai Chi Visit website or contact for more info



# YouTube Channel for instructors

What to Watch

## BEST OF YOUTUBE

- Popular on YouTube
- Music
- Sports
- Gaming
- Education
- Movies
- TV Shows
- News
- Spotlight

Browse channels

Sign in now to see your channels and recommendations!

Sign In



Falls Prevention

Videos

**Playlists**

Channels

### Created playlists



**Promotores de Salud**

2 videos 3 months ago



**New instructor videos**

4 videos 4 months ago

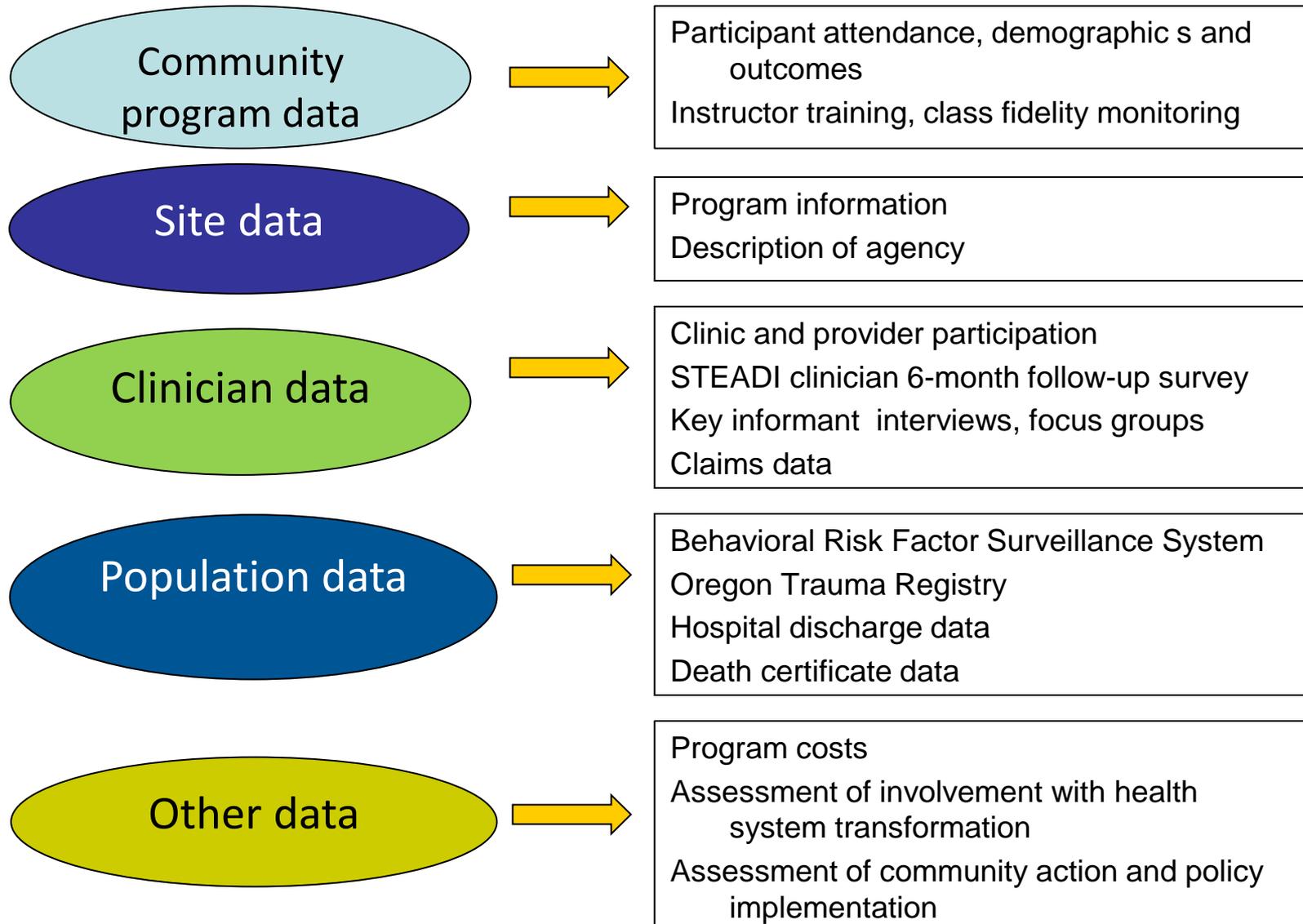


**Booster Training Videos**

2 videos 4 months ago

# Evaluation and Results

# Evaluation



# Pilot Evaluation Results (OR, CO, and NY)

Data collected pre/post from participant surveys and Timed Up and Go scores; TCMBB and Stepping On group classes

Significant improvements emerged for:

- Self-reported confidence for avoiding falls
- Self-reported satisfaction with physical activity
- Self-reported ability to do specific physical tasks
- Timed Up and Go scores (~1.8 second improvement)

Falls Evaluation & Technical Assistance Team Data Report,  
Texas A&M Health Science Center

# Otago results

Data collected at initial visit and at 8-week follow-up visit

Program	Functional Performance	Baseline Mean	8-week Mean	Mean Difference (Effect Size <sup>^</sup> )
OR Pilot (n=31)	Timed Up & Go (TUG) (Faster = better)	29.0	24.3	-4.7** (.34)
Traditional (n=36)	Timed Up & Go (TUG)	20.8	18.5	-2.3* (.12)
OR Pilot (n=29)	30 Second Chair Stand (more stands = better)	6.5	7.1	1.7* (.34)
Traditional (n=29)	30 Second Chair Stand	8.8	10.2	1.4* (.36)

\*Paired Samples t-test p<.05

\*\*Paired Samples t-test p<.01

† Data provided courtesy of University of North Carolina at Chapel Hill

<sup>^</sup>Effect Size = mean difference / mean standard deviation

Significant improvements emerged across both delivery models for:

Timed Up and Go scores

30-second chair stand

4-stage balance test



# Challenges: Program Implementation

Time for setting up  
community class  
infrastructure

Dilemma of setting up  
demand and supply  
simultaneously

Program fidelity

Referral coordination

Leader trainings to  
class ratios

Sustainability

Connecting with  
health care providers  
on STEADI

Medicare/Medicaid  
coverage

Reaching  
underserved seniors

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# Contact Information

Lisa Shields

[Lisa.m.shields@state.or.us](mailto:Lisa.m.shields@state.or.us)

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