



Welcome!

Stepping On

Leader Training

Building Confidence
and Reducing Falls in Older Adults

Feb. 22nd – 23rd , 2014
Providence Milwaukie

Oregon
Health
Authority



As You Arrive....

Please make sure you have:

- ✓ Signed in
- ✓ Received a name tag/table tent
- ✓ Received your Leader's manual and toolkit



Stepping On

Welcome & Housekeeping



➤ Meet your trainers:

Chase Katich – Master Trainer

*Lead Physical Therapist,
Providence Milwaukie*

Simone Carter – Master Trainer

*Trauma Prevention & Community Education,
Legacy Emanuel Medical Center*

Brooke Myers – Stepping On Leader



➤ Housekeeping:

Location of restrooms

Other comfort measures

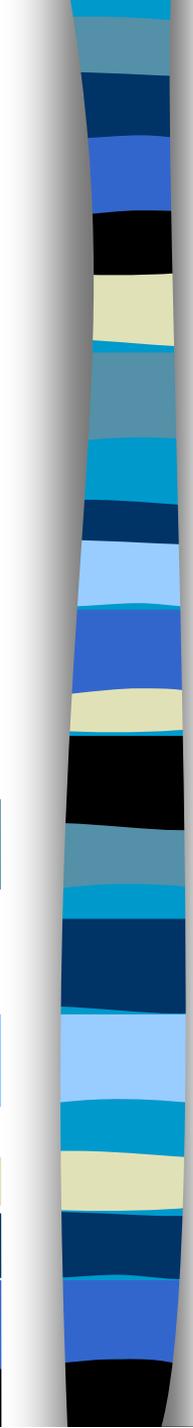
➤ Establish group rules

➤ Questions?



Introductions & Expectations

- At your table, break into pairs.
- Introduce yourself; include your name, organization and what you hope to achieve by attending this training.
- Be prepared to share a falls story with the large group.
- Write down your goal(s) for the workshop on the Post-it® note.
- You will introduce your partner to the rest of the group. Then share your own falls story with the group.
- Post your goals on the allocated wall.



Training Objectives

At the completion of the workshop, class members will:

1. Understand the issues related to planning & implementing Stepping On programs in their local area.
2. Identify the different sections of the Stepping On manual to use as a resource to prepare and run the Stepping On program.
3. Understand the key evidence-based prevention strategies to enable older people to reduce their risk of falling.
4. Understand the importance of building trust and cohesiveness amongst group participants and using the group as a learning environment.
5. Understand how to set homework in ways that participants will practice and implement targeted behaviors in everyday lives.
6. How to resource and up-skill guest experts, and incorporate other community resources.
7. Identify and understand the concepts that underpin the Stepping On program.

What the Heck Have I Gotten Myself Into?



Training Agenda



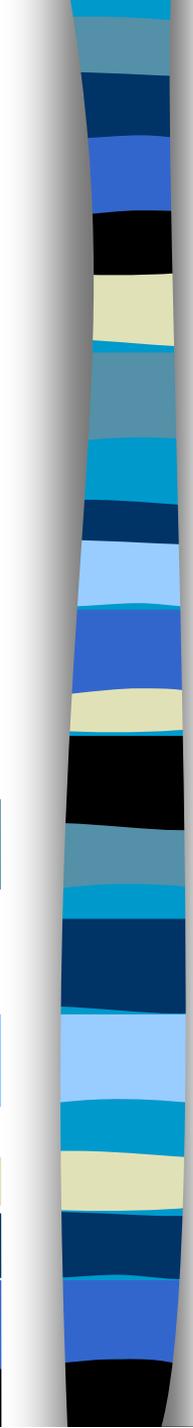
Randomized Controlled Trial (RCT) of Stepping On, a Community-based Falls Prevention Program

National Health and Medical Research Council (NHMRC)

- Provided funding to run 3-year trial
- Results published in the Journal of the American Geriatrics Society, Clemson et al. 2004

RCT – Stepping On Intervention

- 7 x 2-hour sessions + follow up home visit; then later, a three- month booster session
- Content based on current evidence and emerging evidence
- Up-skilling of local experts who introduced key content areas
- Reflection, sharing accomplishments, practice, planning action and homework



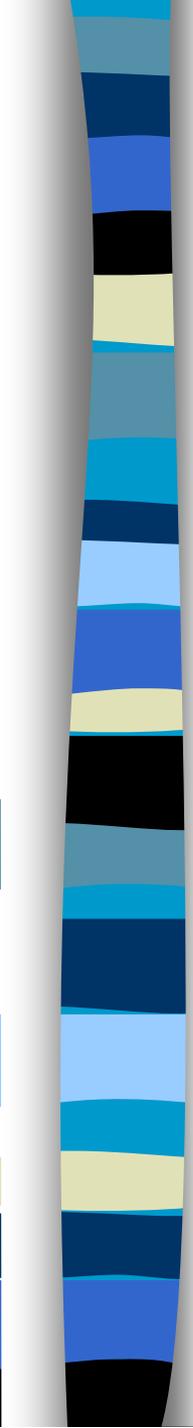
Randomized Control Trial

Outcomes

- Primary outcomes:
 - ✓ Intervention group had a 31% reduction in risk of a fall ($p=0.025$) Relative Risk (RR) = 0.69 (0.50-0.96)
- Secondary outcomes:
 - ✓ Intervention group maintained confidence in the more mobile Activities of Daily Living (ADL) tasks , e.g. walk up & down a ramp $p=0.042$
 - ✓ Intervention group used more protective behaviors $p=0.024$
 - ✓ Minimal difference in amount of physical activity undertaken, no difference in fear of falling during activity, health perceptions or worry

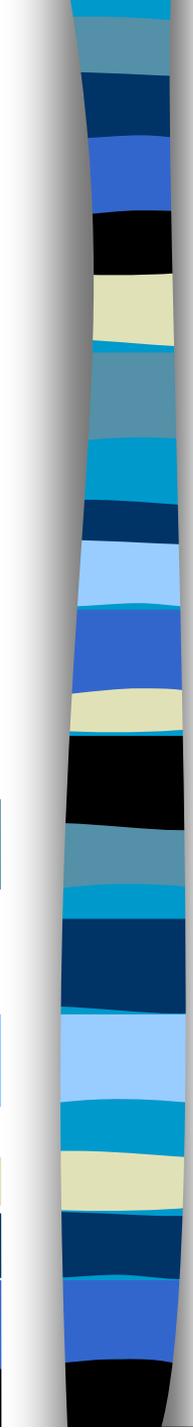
Adherence at 14 months

Program exercises	59%
Home visit recommendations	70%
More program subjects had a vision check up	p=0.002
No change in total medications taken	p=0.55
Program participants were less likely to start taking a new psychotropic drug	p=0.04



Stepping On - Summary

- Stepping On was effective in reducing falls for *community residing* older adults.
- Provides further evidence to support multifaceted programs for falls prevention.
- Places back on the agenda the viability and efficacy of educational programs using small-group cognitive-behavioral approaches.
- Stepping On falls prevention option viable for community implementation.



Stepping On: Conceptual basis

- Small group cognitive-behavioral approach
- Enhancing self-efficacy
- Decision making theory to guide participants in exploring barriers and options
- Adult learning principles to develop skills and knowledge
- Strategies to encourage behavioral change and follow through



Stepping On Research Continues

- **2006 Kenosha County Wisconsin launches Stepping On in five counties**
- **2008 – Four year CDC grant funding to study national dissemination**

Delphi technique = key elements= fidelity tool

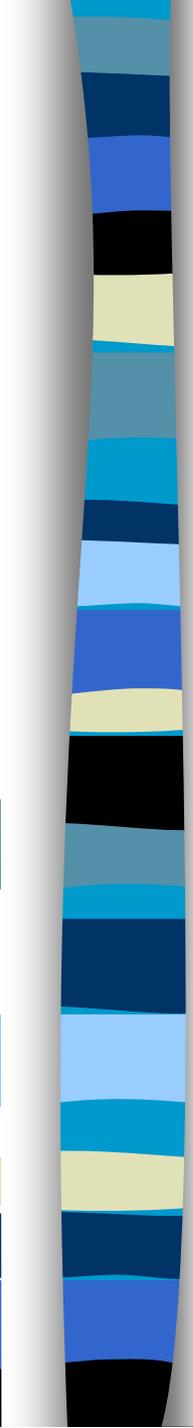
Updated and revised materials as of June, 2011

Training tweaks and revisions

Assessing the question re: leader credentials

- **2012- WIHA established**

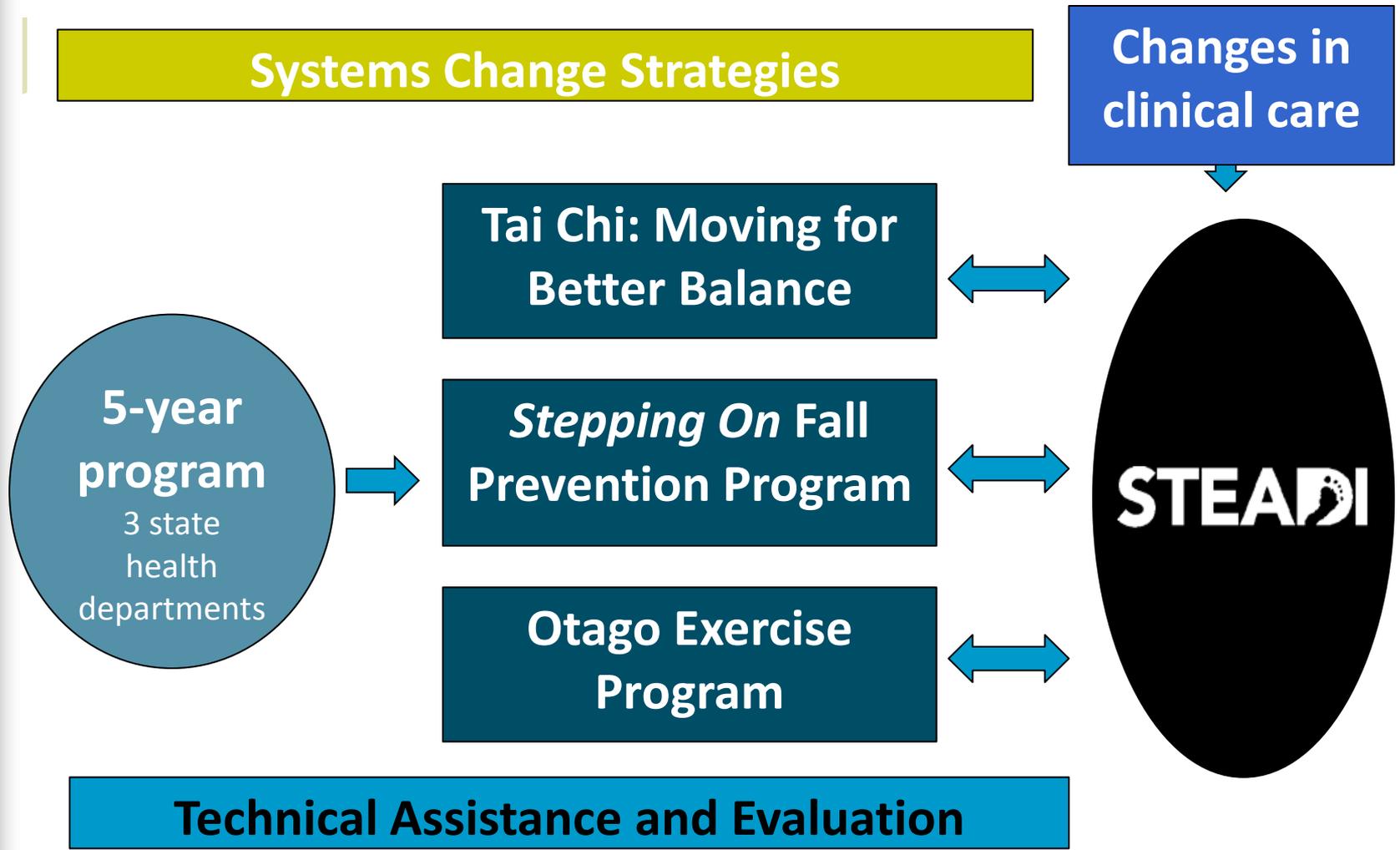
Stepping On disseminated in other states;
currently in 19 states



Stepping On in Oregon

- 2011-2016 CDC State Fall Prevention Program launched
- Oregon Health Authority 1 of 3 state public health departments funded
- Aim: to reduce falls in the elderly by linking clinical practice to evidence-based programs in the community
- 10 Oregonians certified in Wisconsin
- Stepping On classes now at Providence, Legacy, and the Portland VA
- OHA can help you publicize your class and connect you to resources
- [Healthoregon.org/fall prevention](http://Healthoregon.org/fall-prevention)

State Fall Prevention Program



How Significant is the Problem?



Source: scottrosenberglaw.com

Statistics in the United States for Falls:

- **1 out of every 3** people, 65 years & over fall each year
- In 2005, 15,802 persons aged 65 & older died as a result of injuries from a fall
- In 2008, over 19,700 older adults died from unintentional fall injuries.

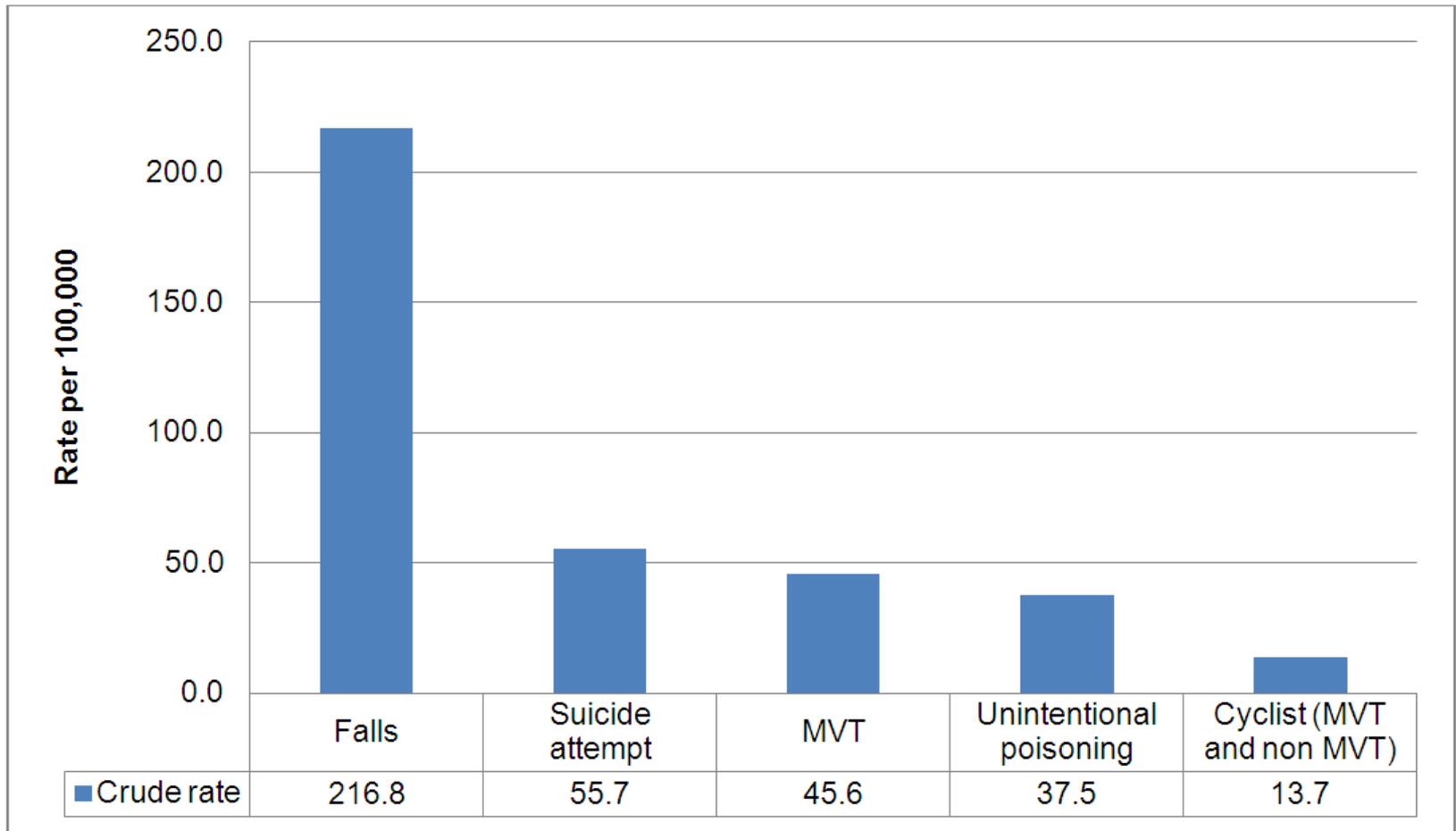
CDC. Fatalities and injuries from falls among older adults—United States, 1993-2003 and 2001-2005. MMWR 2006;55:1222-4



Falls in Oregon

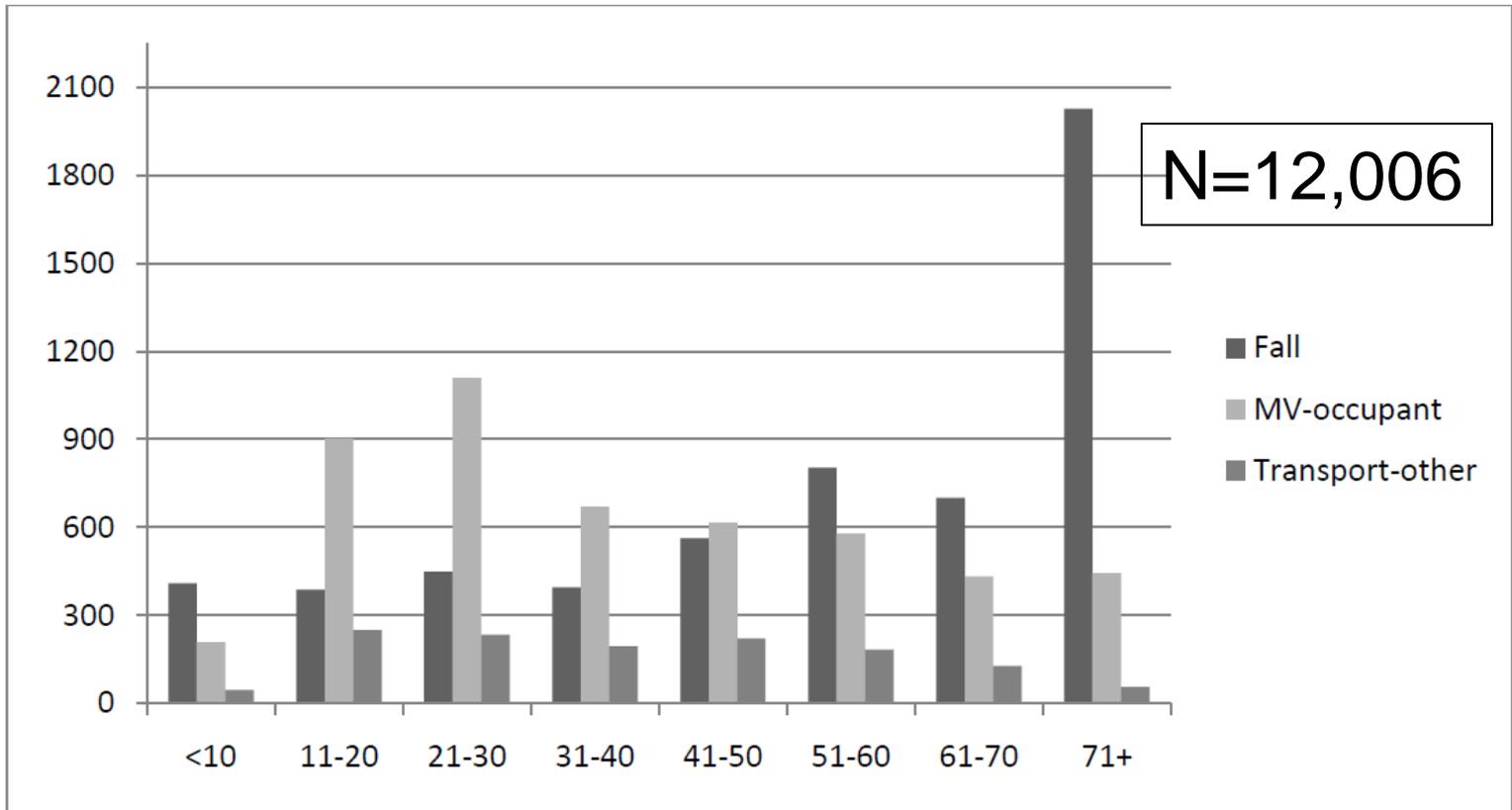
- Falls are the leading cause of hospitalization in Oregon and the leading cause of both fatal and nonfatal injuries for seniors
- More hospitalizations due to falls than for suicide attempt, traffic injuries, and unintentional poisoning combined
- The rate of death due to falls has increased nearly two-fold (92.3%) since 2000
- Hospital charges for fall hospitalization (age 65+) during 2012 were \$198,944,000 with a median charge of \$30,467
- The rate of fatal falls for those 85+ is 26x greater than those age 65-74
- [Injury in Oregon Annual Data Report 2013](#)
- [Falls Among Older Adults in Oregon 2012](#)
- [Oregon Injury Prevention Plan 2011-2015](#)

Oregon injury hospitalization rates per 100,000



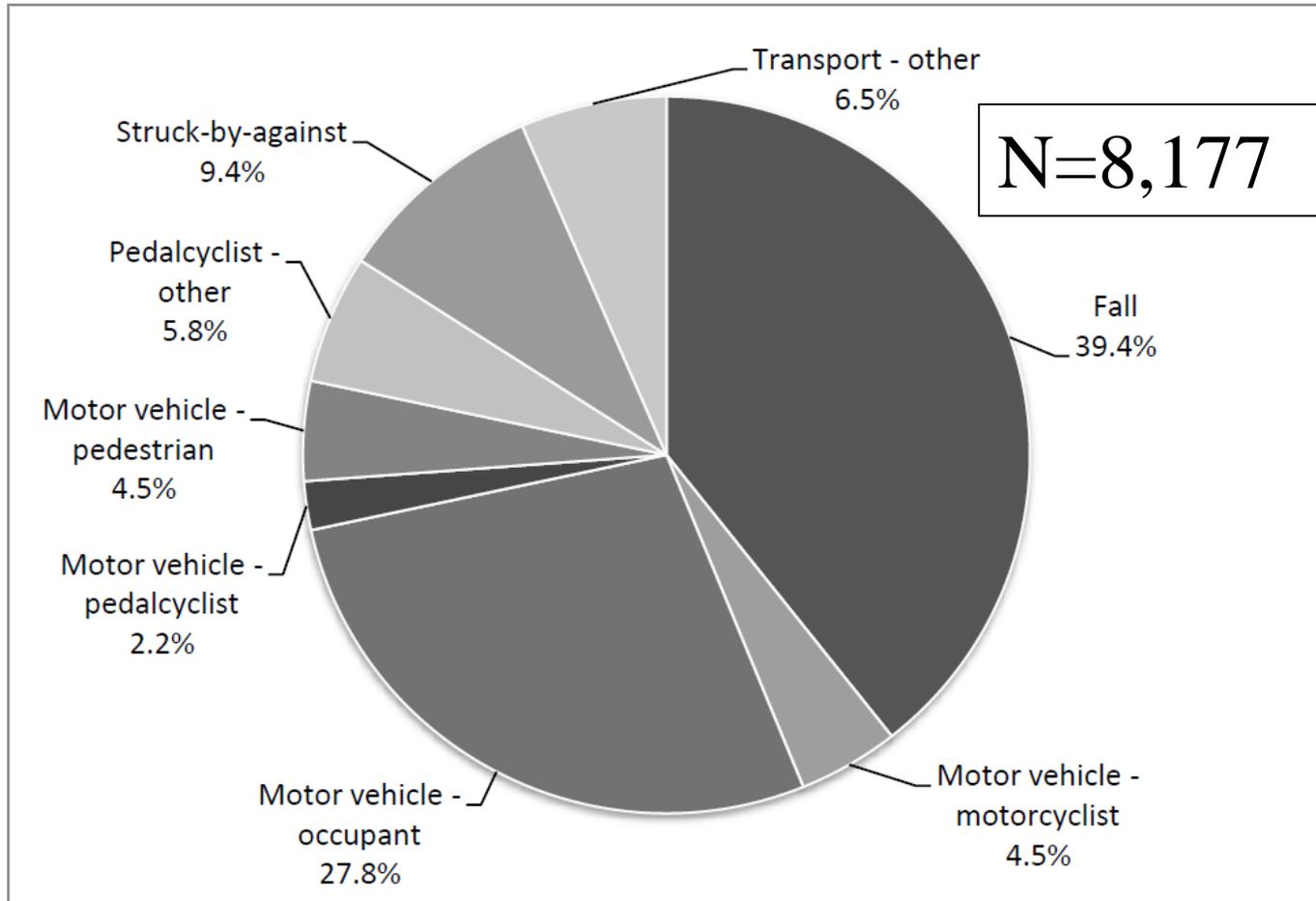
Source: Oregon Hospital Discharge Index 2013

Top 3 mechanisms of injury among patients who entered the trauma registry, by age group



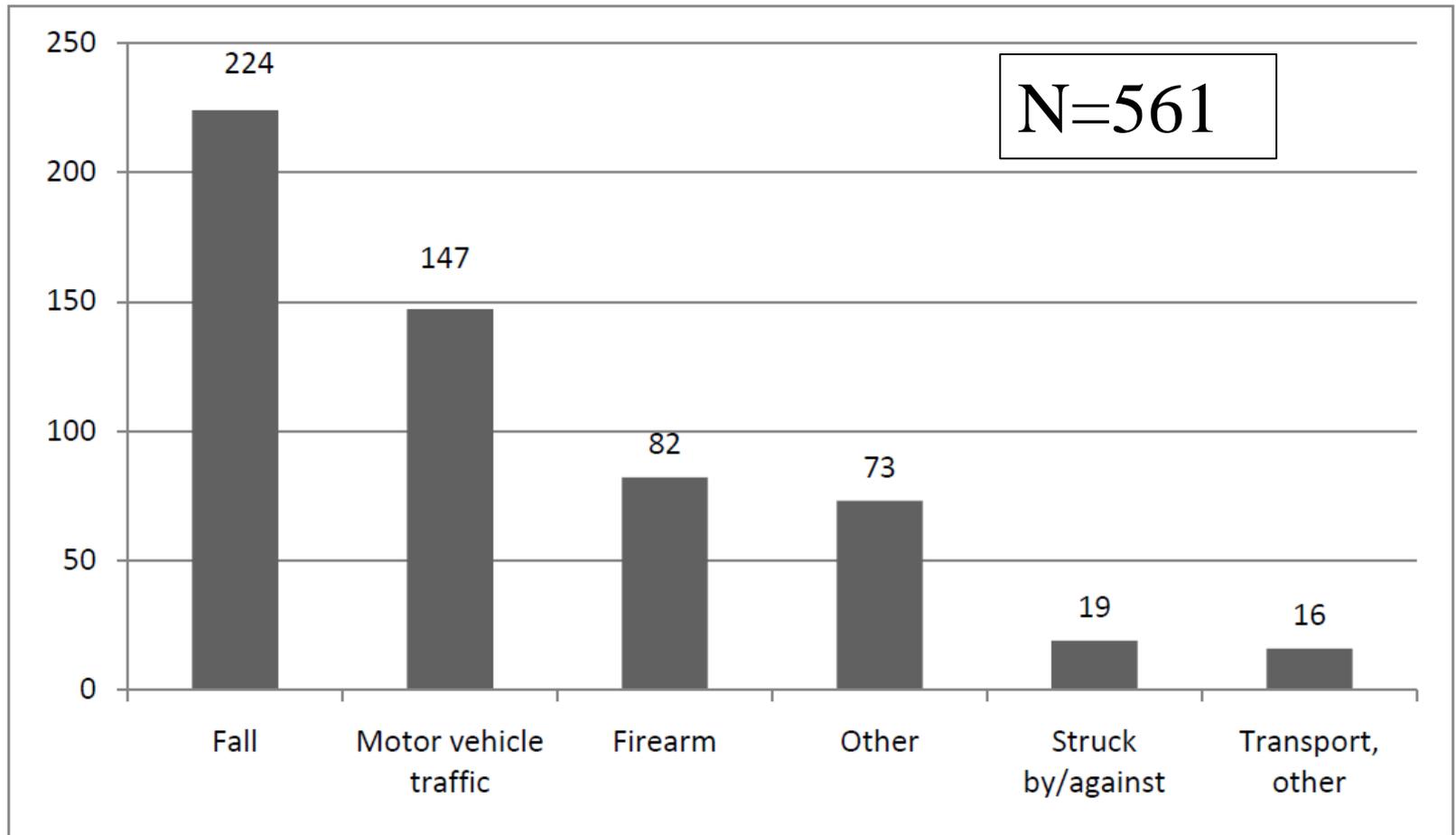
Source: Oregon Trauma Registry Report 2010-2011

Blunt force head injuries among Oregon trauma system patients



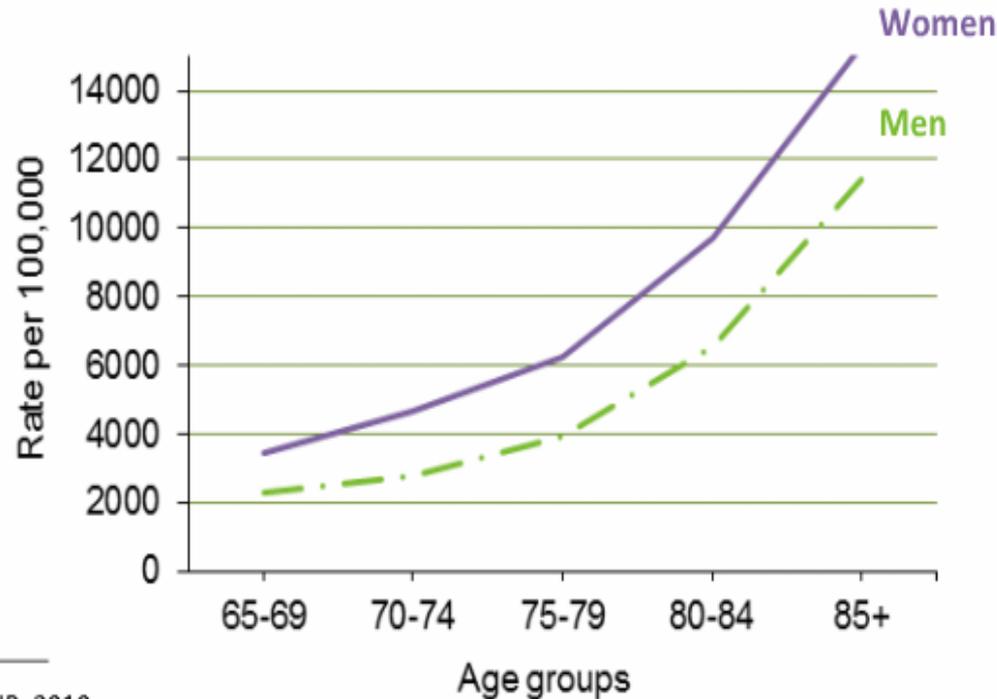
Source: Oregon Trauma Registry Report 2010-2011

Frequency of death among patients entering the Oregon trauma system, by mechanism of injury



Source: Oregon Trauma Registry Report 2010-2011

Nonfatal Fall Injury Rates by Sex & Age, 2010

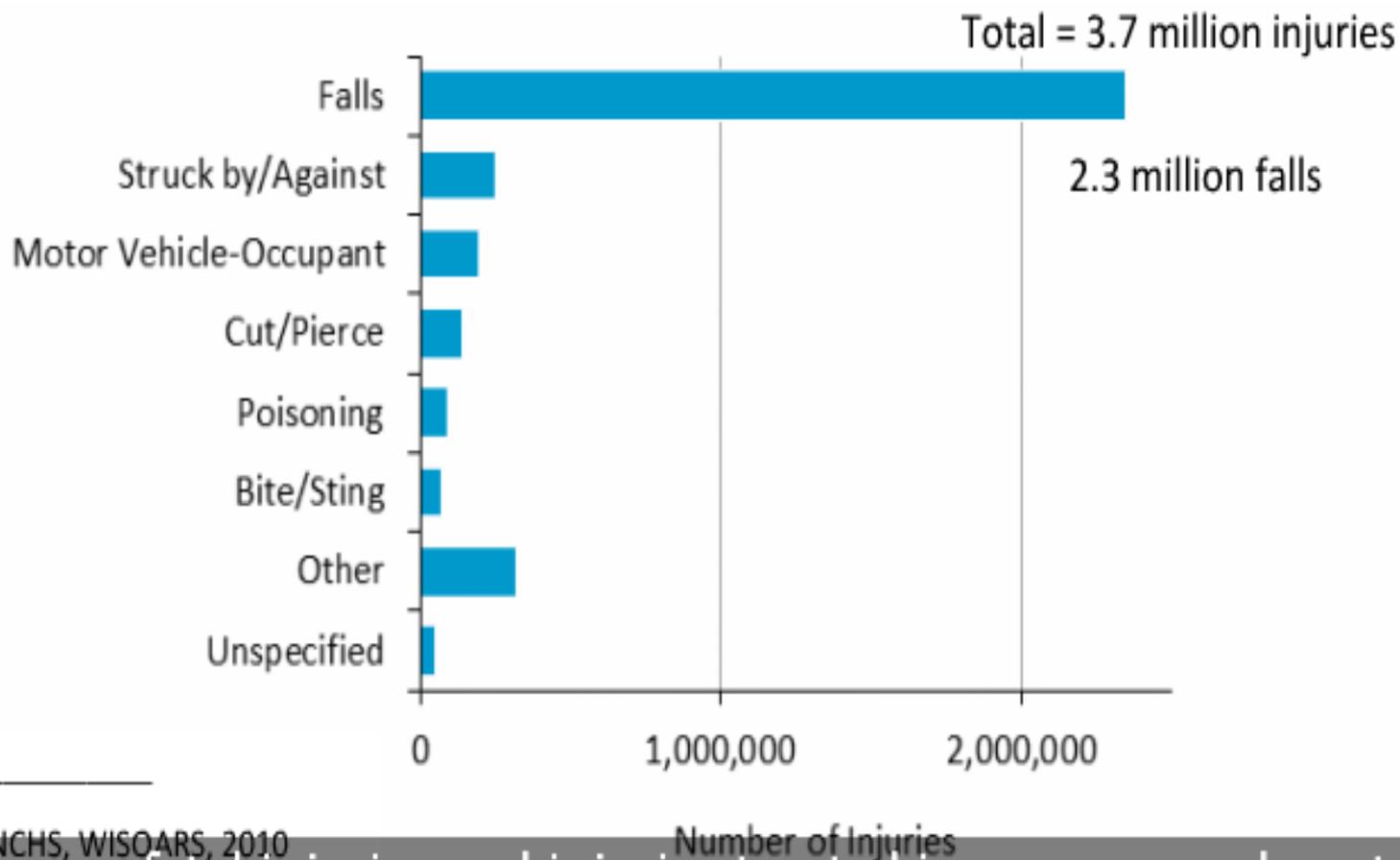


NEISS-AIP, 2010

Why the difference between men and women?

Men may have lower nonfatal fall injury rates due to better lower body strength, and women are more likely to have osteoporosis

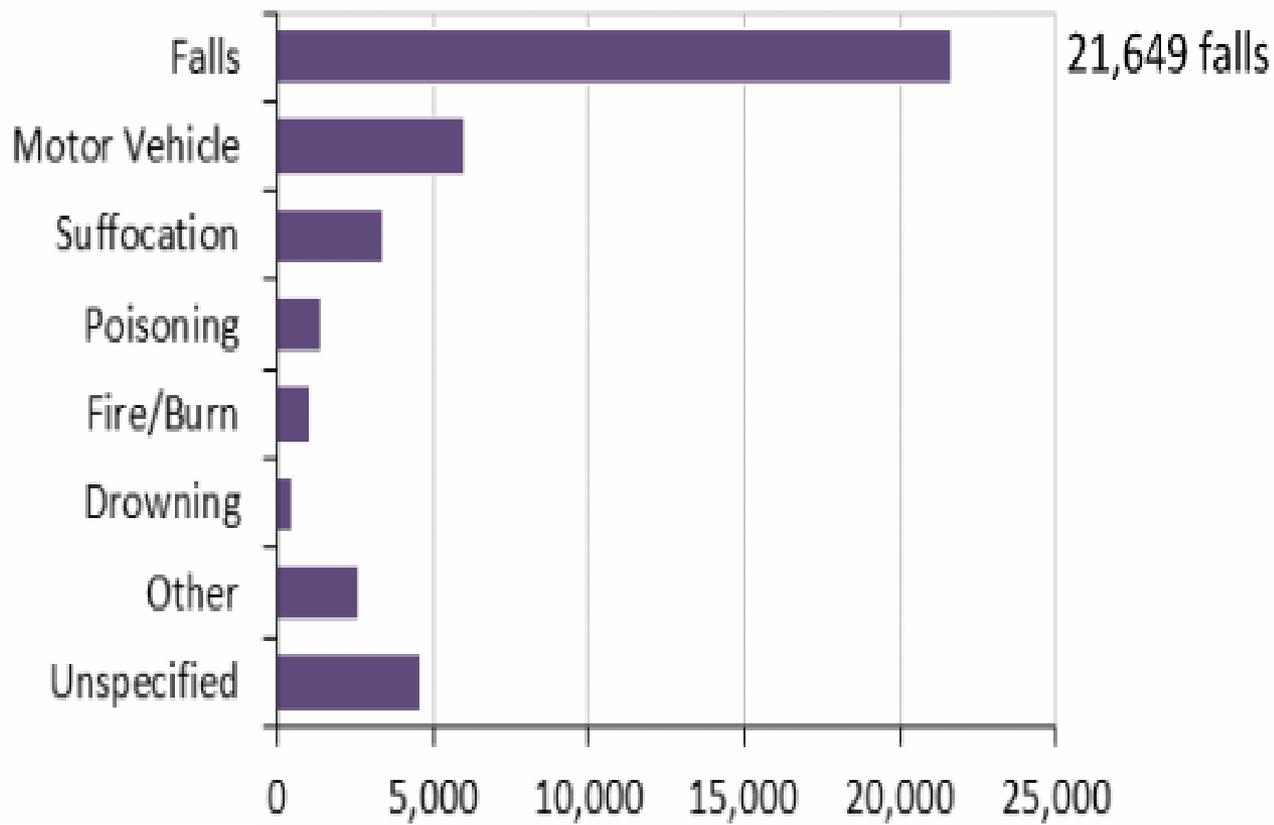
Leading Causes of Nonfatal Injuries Among People 65+, 2010



Note: About a quarter of these patients needed to be hospitalized for their injuries!

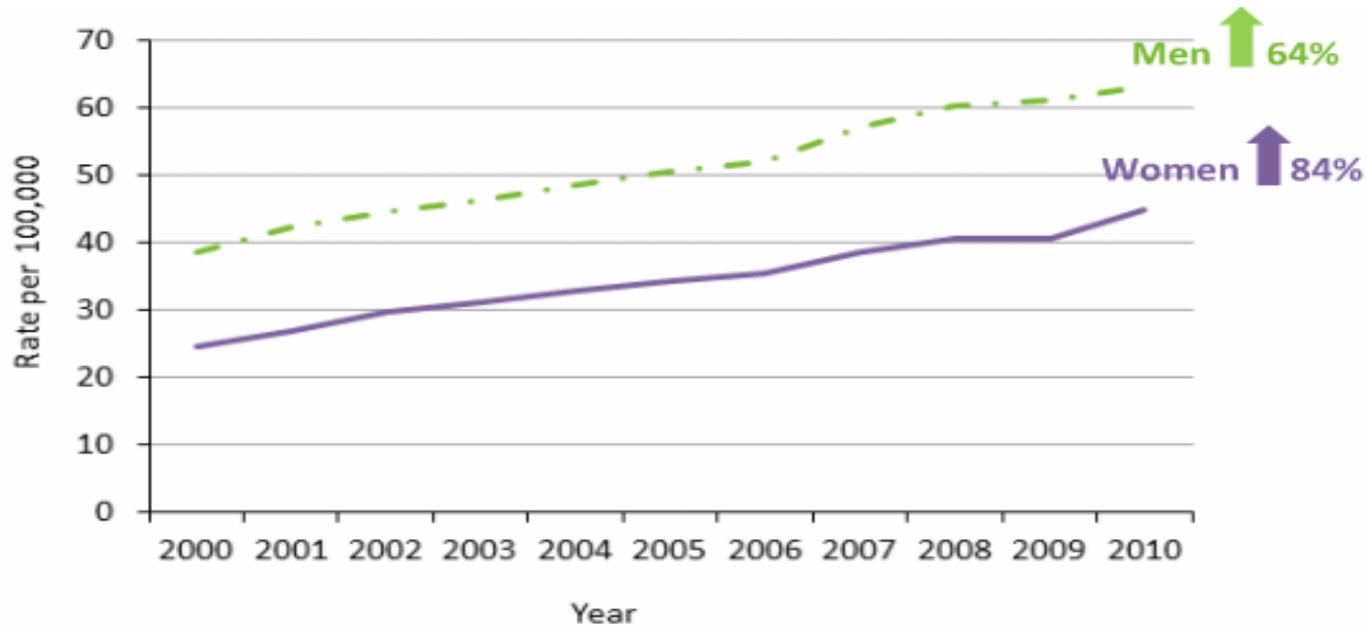
Leading Causes of Death from Injuries Among People 65+, 2010

Total = 41,300 deaths



Number of Deaths

Trends in Age-Adjusted Fall Death Rates, Men & Women 65+, 2000-2010



Possible Reasons for Increases in Fall Death Rates:

“Our population is aging and people are living longer and living with chronic diseases such as diabetes, arthritis and cardiovascular disease so they are more frail and likely to die if they do fall. Also, we know that about half of fall deaths are due to traumatic brain injury. Another factor that may be contributing to this increasing trend is the use of anti-coagulants. If somebody falls and hits their head, they are more likely to have a bleeding inside the skull which may not be detectable and can often cause death.”

How Significant is the Problem?

- Cost of fall injuries among people 65+
Adjusted for inflation = \$30 billion
 - Fatal falls: \$0.3 billion
 - Nonfatal injuries: \$29.9 billion



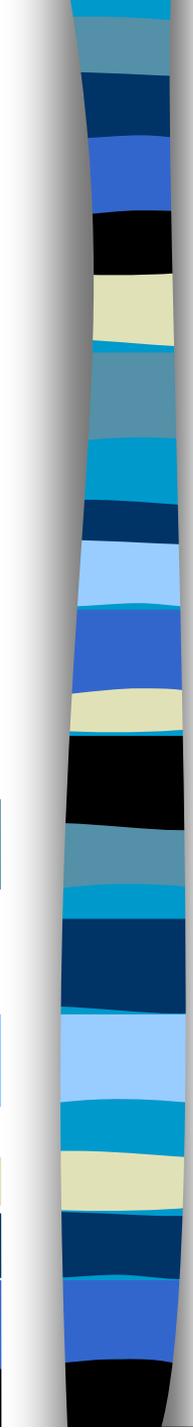
Stevens JA, *Inj Prev*, 2006

- By 2020 the cost of falls injuries are estimated to be **\$32.4 billion.**



CDC – Outcomes Linked to Falls

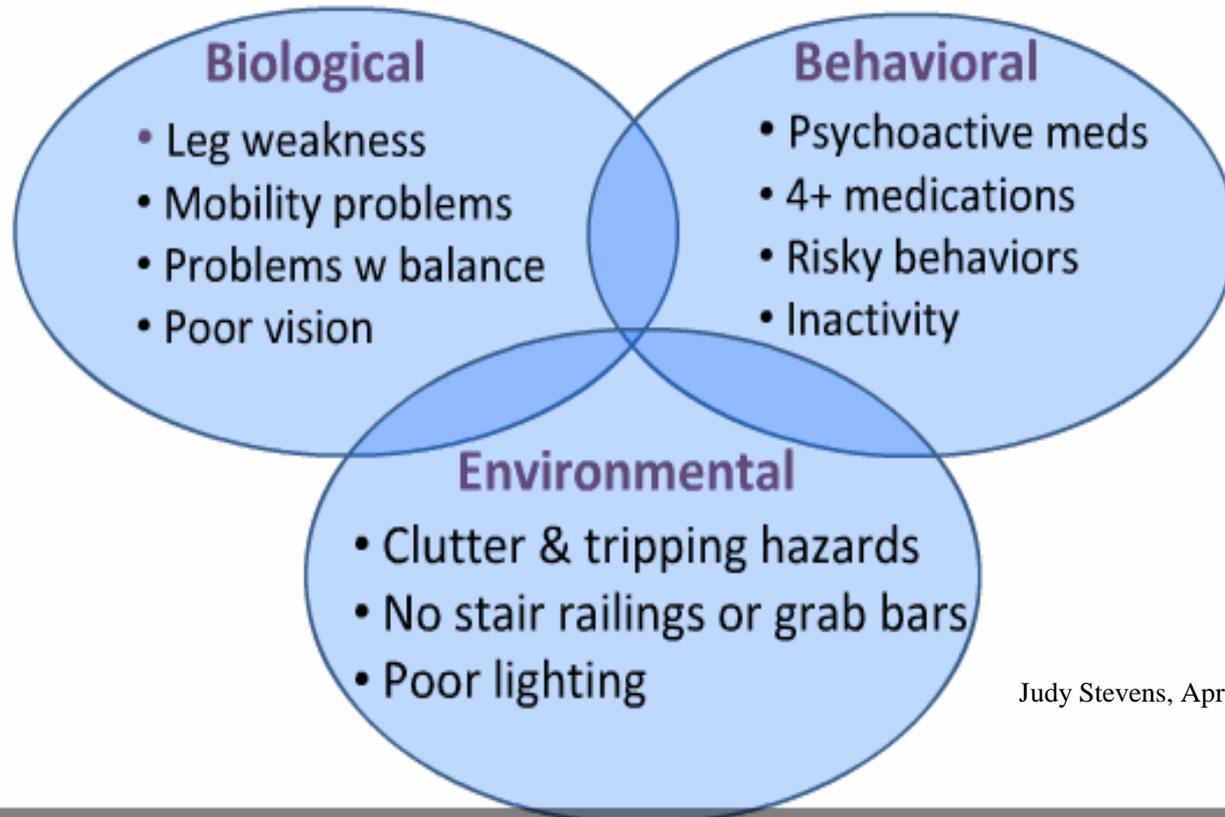
- 20% to 30% of people who fall suffer moderate to severe injuries such as lacerations, hip fractures, or head traumas. These injuries can make it hard to get around or live independently, and increase the risk of early death.
- Falls are the most common cause of traumatic brain injuries, or TBI. In 2000, TBI accounted for 46% of fatal falls among older adults.
- Most fractures among older adults are caused by falls. The most common are fractures of the spine, hip, forearm, leg, ankle, pelvis, upper arm, and hand.
- Many people who fall, even if they are not injured, develop a fear of falling. This fear may cause them to limit their activities, leading to reduced mobility and loss of physical fitness, which in turn increases their actual risk of falling.



Risk Factors for a Fall

- Intrinsic Risk Factors:
Factors originating with the individual
- Extrinsic Risk Factors:
Factors outside the person

Modifiable Risk Factors



Judy Stevens, April 2013

The more risk factors, the increased chance for a fall.
Also, the interaction between risk factors can increase falls.

Risk Factors

Intrinsic:

- Vision
- Balance and gait
- Psychological
- Change in mental status
- Medical conditions
- Multiple medications

Extrinsic:

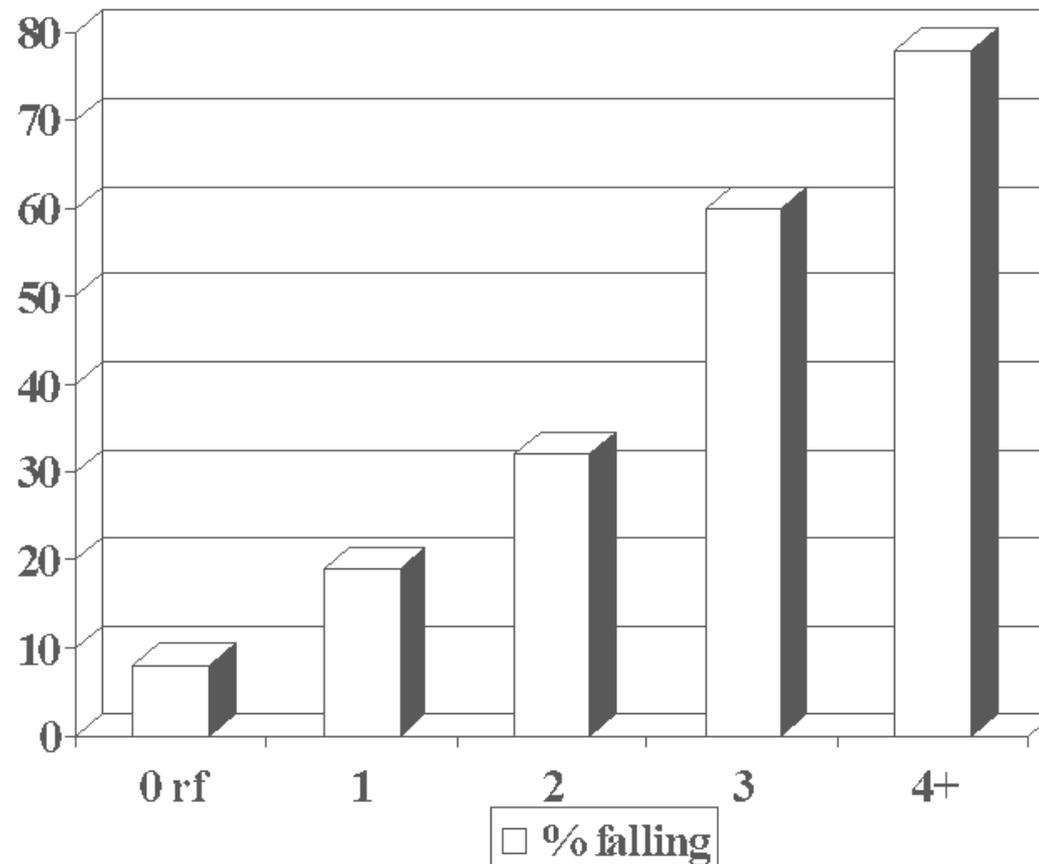
- Physical environment
- Assistive devices
- Footwear

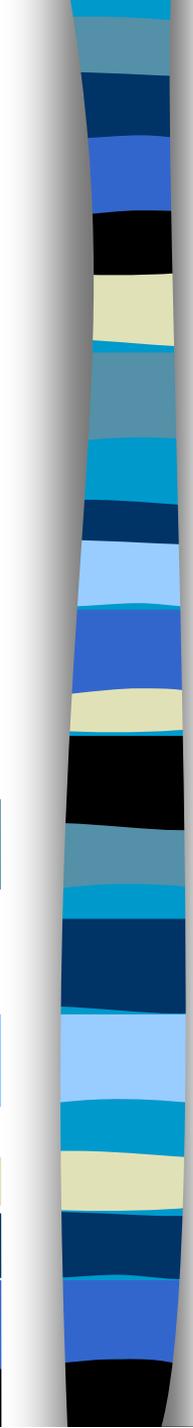


Source: sweetadditions.net

Risk Factors are Additive

Tinetti, NEJM, 1988

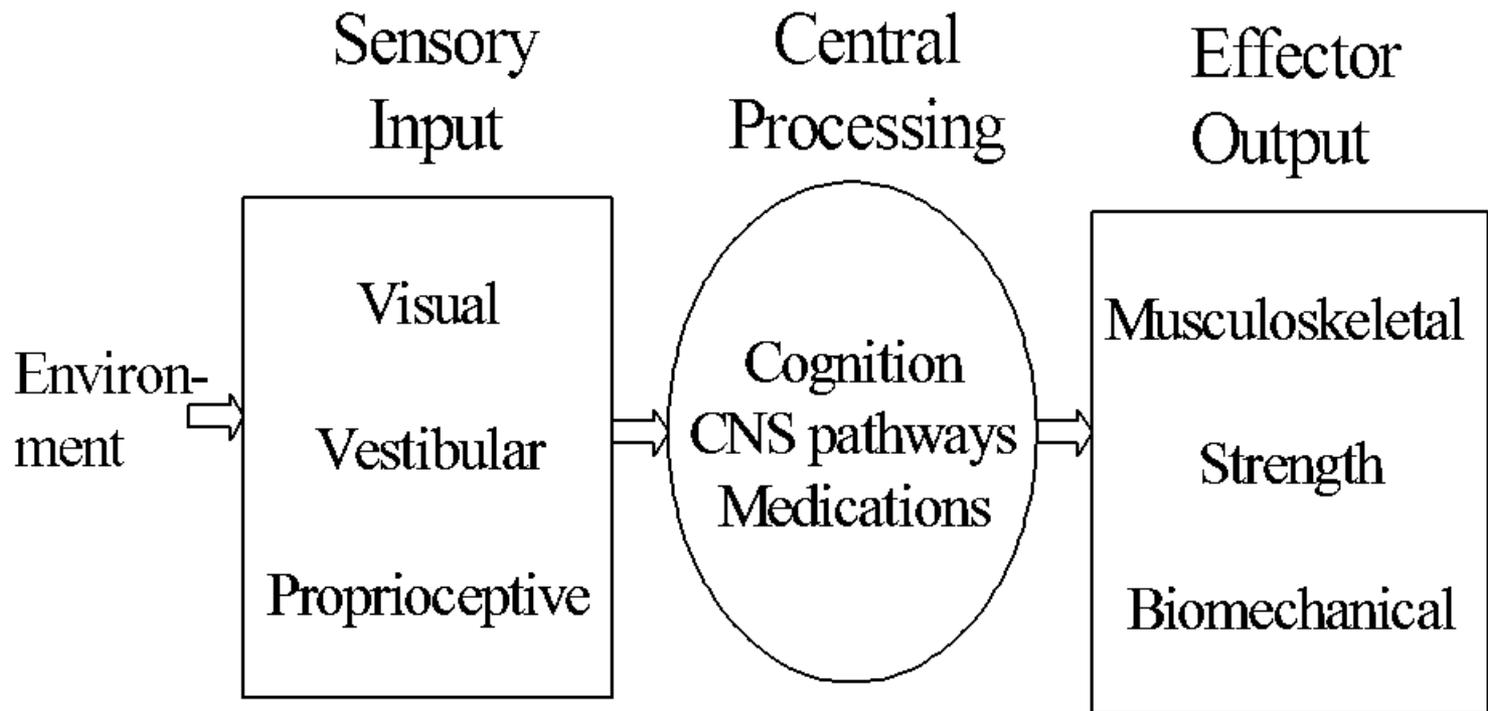




Introduction to Balance

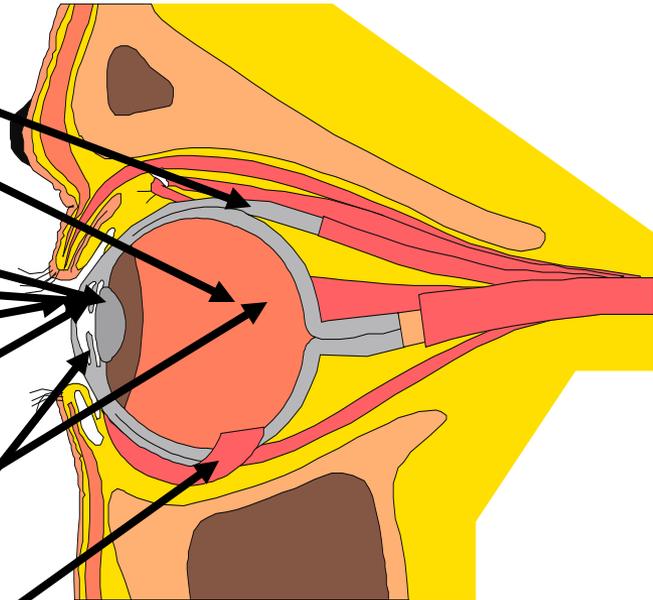
- ❖ Balance is how a body, young or old, keeps from falling down.
- ❖ Our balance is an amazing ballet of our muscles, joints, nerves, senses and brain working in split second harmony.
- ❖ Balance is composed of sensory input, central processing, and effector output.

Components of Postural Control



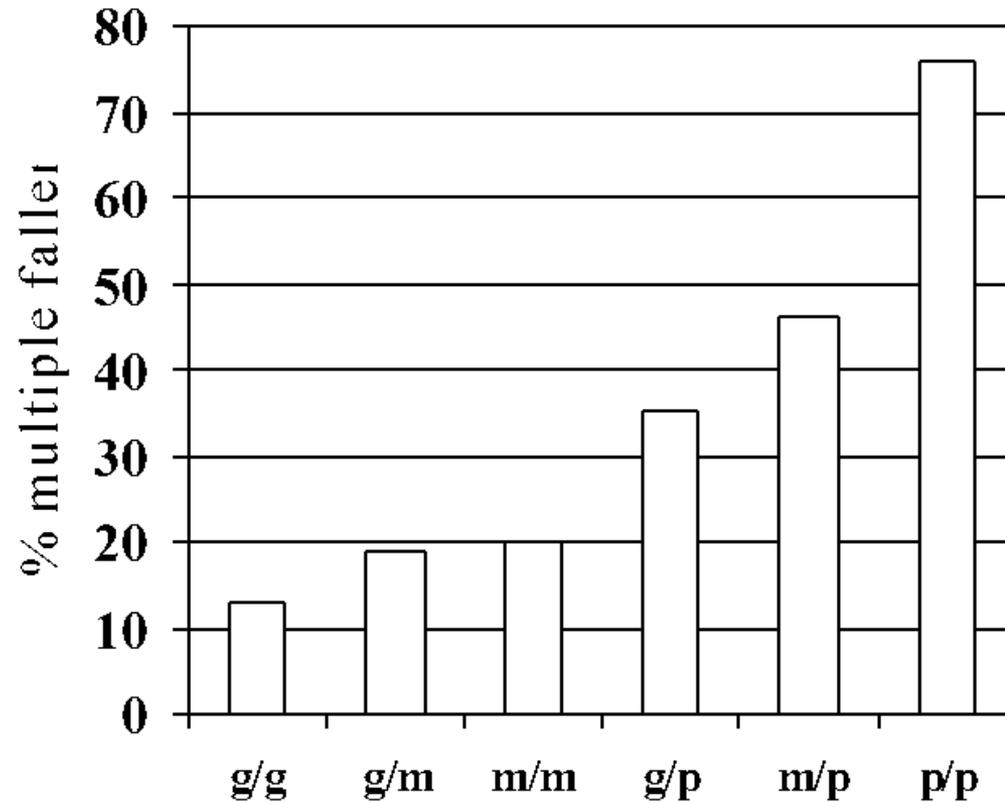
Vision Changes – Age related

- Acuity
- Accommodation
- Lighting
- Glare
- Sight recovery
- Color perception
- Depth perception
- Response to light
- Upward gaze



Visual Acuity Each Eye and Multiple Falls

Lord, JAGS, 2001



visual acuity = good, moderate, or poor

Visual Acuity



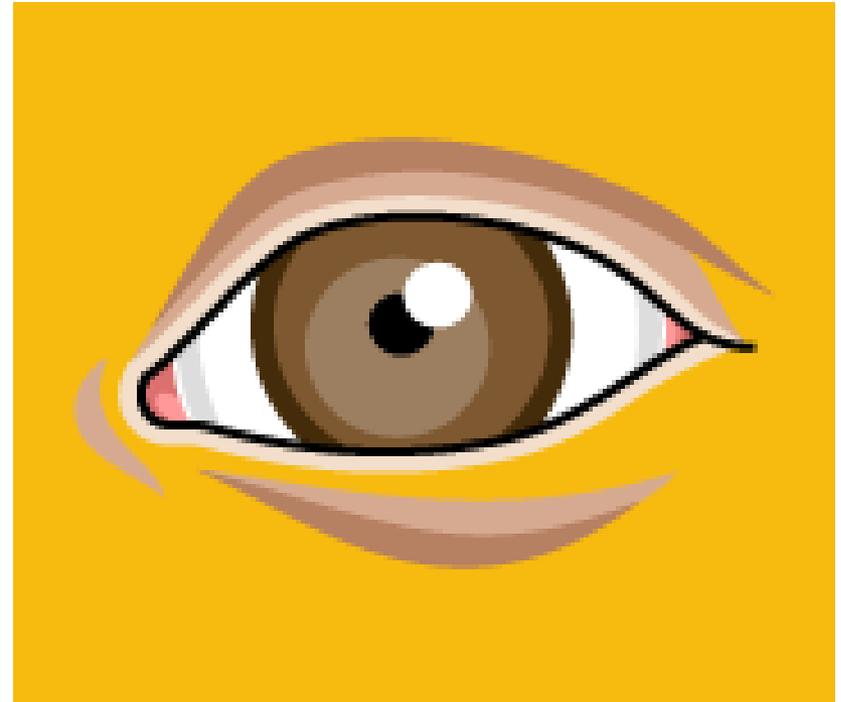
• **With** lenses



• **Without** lenses

Vision Diagnoses

- Cataracts
- Macular Degeneration
- Diabetic Retinopathy
- Glaucoma
- Hemianopsia



Vision Connection

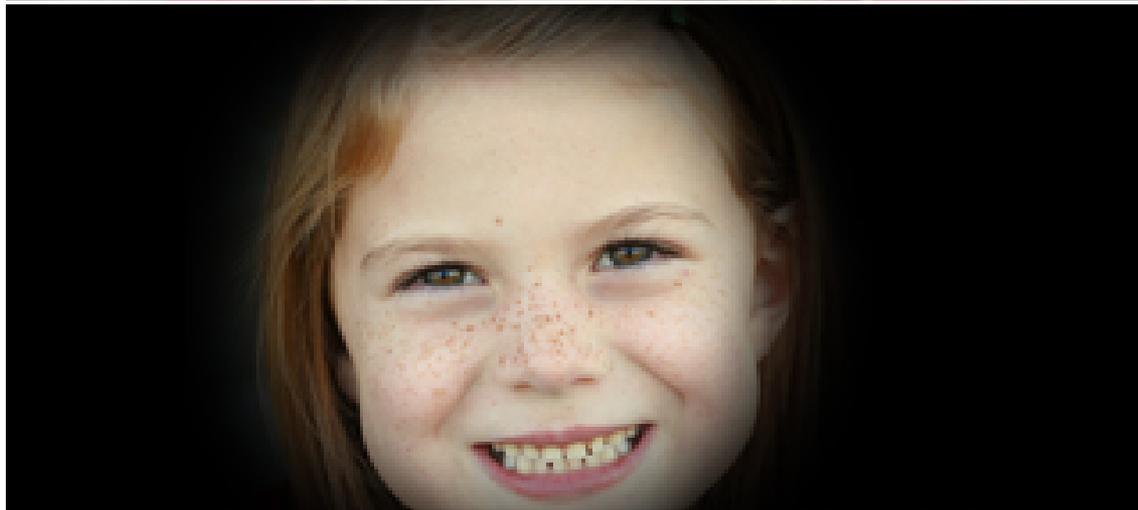
<http://www.visionconnection.org/VisionConnection/default.htm>

Vision-Cataracts



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Vision-Glaucoma



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Vision-Macular Degeneration



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Diabetic Retinopathy



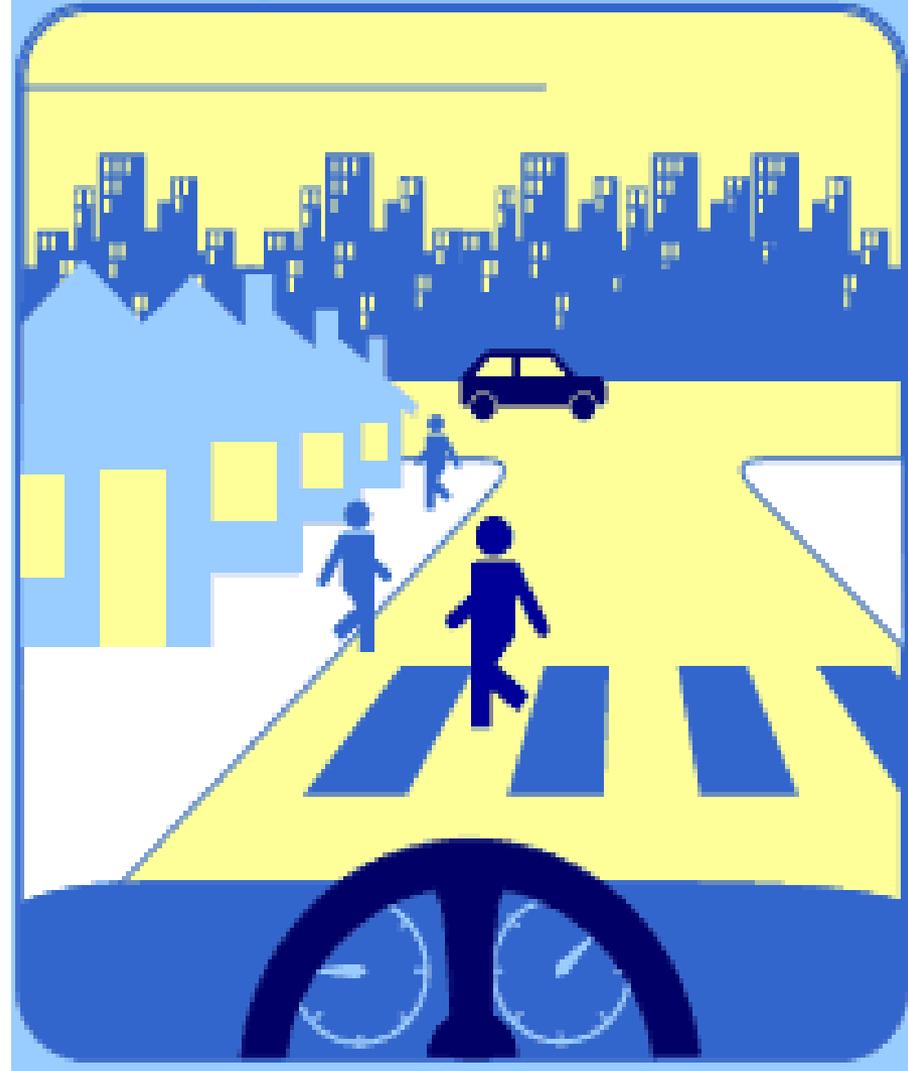
Hemianopsia



Visual Field Impairment



NORMAL



ABNORMAL

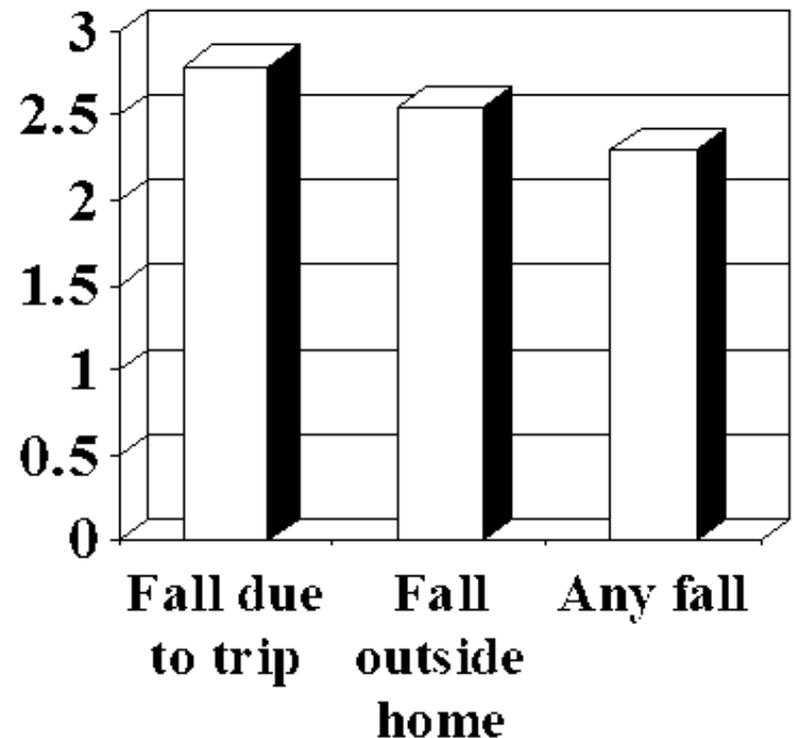
Multifocal Glasses and Falls

Lord, JAGS, 2002



- Depth perception and distant edge-contrast sensitivity are diminished when looking through lower portion of glasses
- 15% of multifocal wearers fell on stairs vs none of non-wearers ($p < .01$)

OR for wearers versus nonwearers



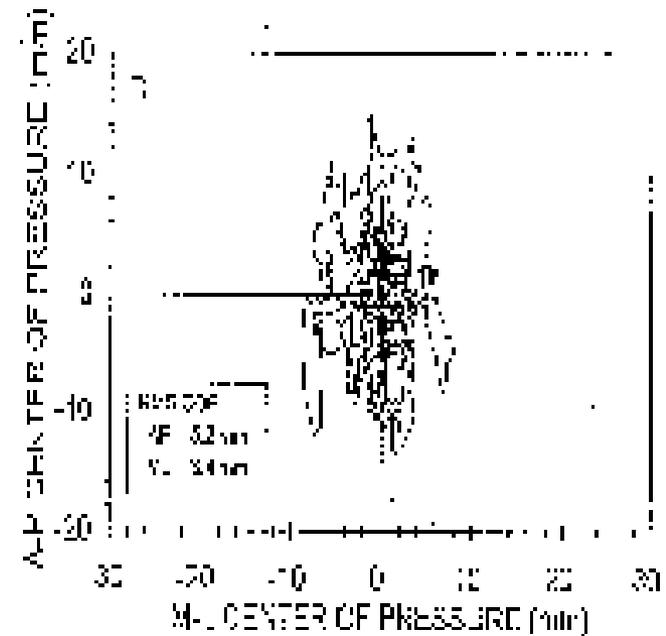
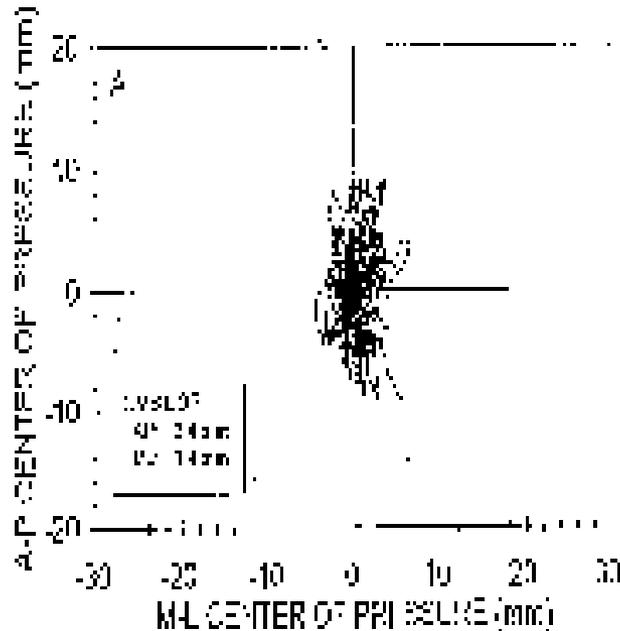
Aging and Vestibular



- Hearing loss due to aging
 - Startled by noise due to poor location of the source
- Gradual loss of 40% of vestibular hair cells occurs by age 70.
- Vestibular loss often is not associated with vertigo if loss is bilateral and/or gradual.

Body Sway

Eyes Open And Closed - Peripheral Neuropathy





Medications Associated With Falls

Strong Association:

- Tricyclic and SSRI antidepressants
- Benzodiazepines and sleepers
- Alcohol
- Antipsychotics
- Anticonvulsants

Possible Association:

- Beta-blocker eye drops
- ? some antihypertensives
- Narcotics



Risk Factors For Falls from Epidemiologic Studies

- Previous hx of falls
- Balance or gait impairment
- Dementia
- Visual deficit
- Neuropathy
- Muscle weakness
- Psychotropic medications
- Depression
- Arthritis, Parkinson's, stroke



Mrs. Jardine's Risk Factors

- Listen to the story and identify the intrinsic and extrinsic risk factors
- Break into your groups and answer the following questions:
 1. What are Mrs. Jardine's intrinsic and extrinsic risk factors?
 2. What are some useful actions to deal with the risk factors?
 3. What could Mrs. Jardine's do now to be safer at home and feel more confident?
 4. Be ready to share with the large group

Meet Your Leader's Manual & Resources

MANUAL

Introduction:

- Underpinning Concepts
- Working With Groups
- Marketing & Recruitment
- Evaluation
- Overview of the Program

Sessions/background
information/handouts

Pull Out Exercise Manual

Home Visit & Booster Session

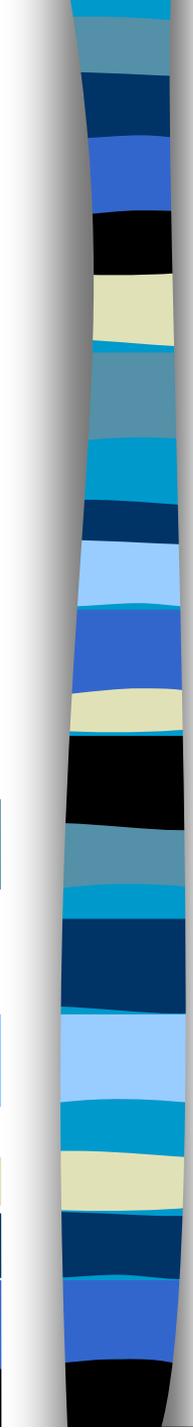
Leader Training

Bibliography and Index

RESOURCES

- Session 3 **CD**: Home Hazards
- **DVD**: Staying On: Living at Home Safely for the Older Person
- Session 6 **DVD**: Stepping On: Community Safety
- Tool Kit
- Display: Board and Table Items
- Adjustable Ankle weights
- Healthy Snacks

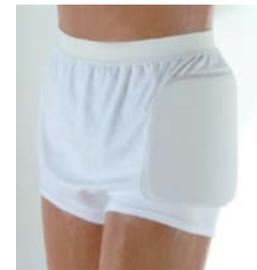
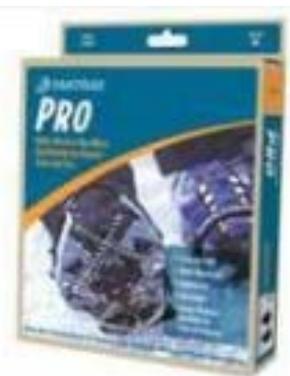
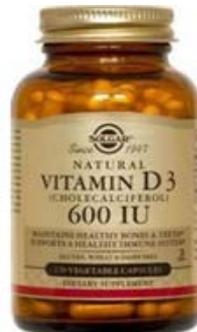




Stepping On - Quick Overview

- Building trust, risk appraisal, introduce balance and strength exercises
- Review exercises, moving about safely
- Home hazards
- Community safety and safe footwear
- Vision and falls
- Bone health
- Medication management
- Sleep alternatives
- Mobility mastery experiences
- Safe bus and train travel
- Home visit
- Booster session

The Display



Stepping On Participant: Who Benefits?



The Stepping On Falls Prevention program is ideal for older adults who:

Are at risk of falling for a number of reasons.

Have had a fall in the past year, or have a fear of falling.

Walk independently, may use a cane indoors or out, or a walker for outdoor use only

Are cognitively intact

Live in their own home or other independent living facility

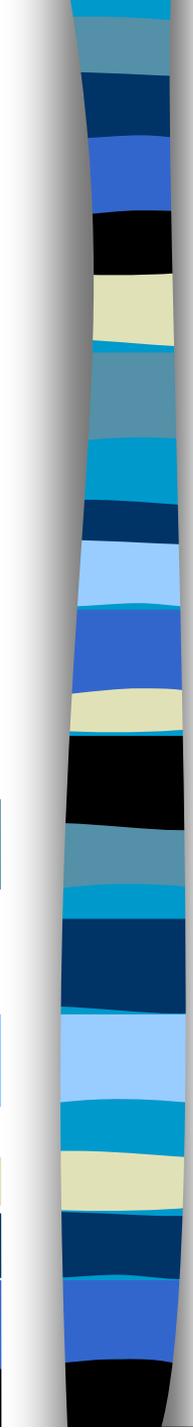
Are able to speak conversational English or the language in which the group is being facilitated.

Strength & Balance Exercises

The Importance of Exercise as an Intervention

Campbell, A.J., Robertson, M.C., Gardner, M.M., Norton, R.N., Tyler, M.W., Buchner, D.M.:
Randomized controlled trial of a general practice program of home based exercise to prevent falls in elderly women. *BMJ* (1997) 315: 1065-1069





Stepping On Exercise Sessions: What Are Our Goals?

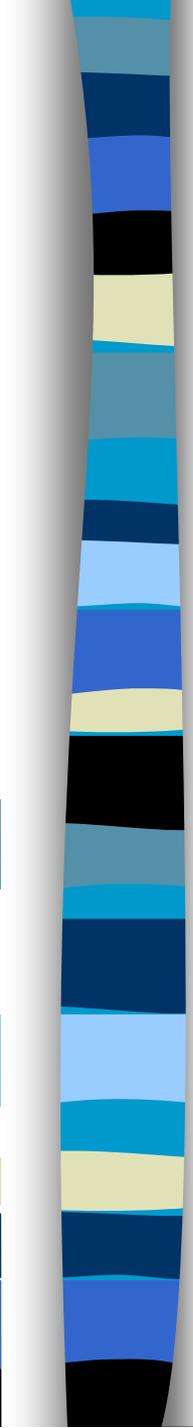
- Motivating
- Explaining - why and how
- Practicing with participants
- Challenging - everyone is different
- Changing habits - the start of regular lifelong exercise habits



Motivating

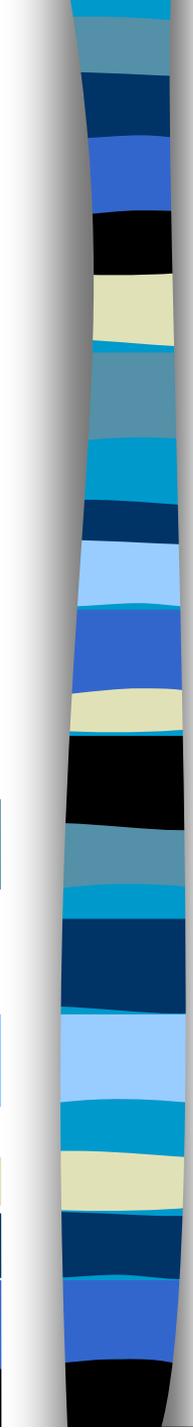
The bad news:

- Lack of use will cause muscles to weaken – a vicious cycle develops
- Strength begins to decrease after the age of 50 and decreases more rapidly after the age of 70 (Masseo et al 1998)



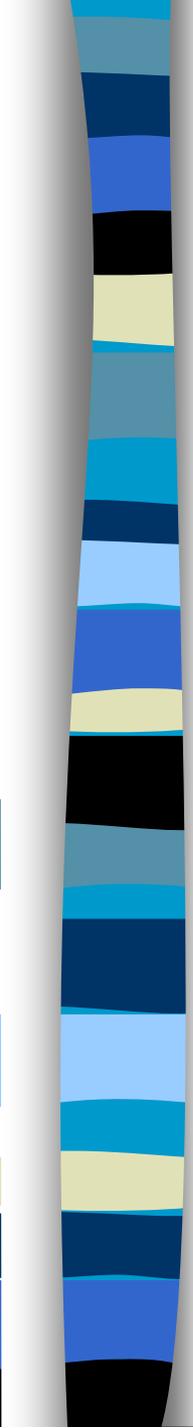
The good news:

- Older people have a great capacity to increase muscle strength
- Balance will improve with practice
- Both balance and strength training will assist in maintaining independence



Explaining

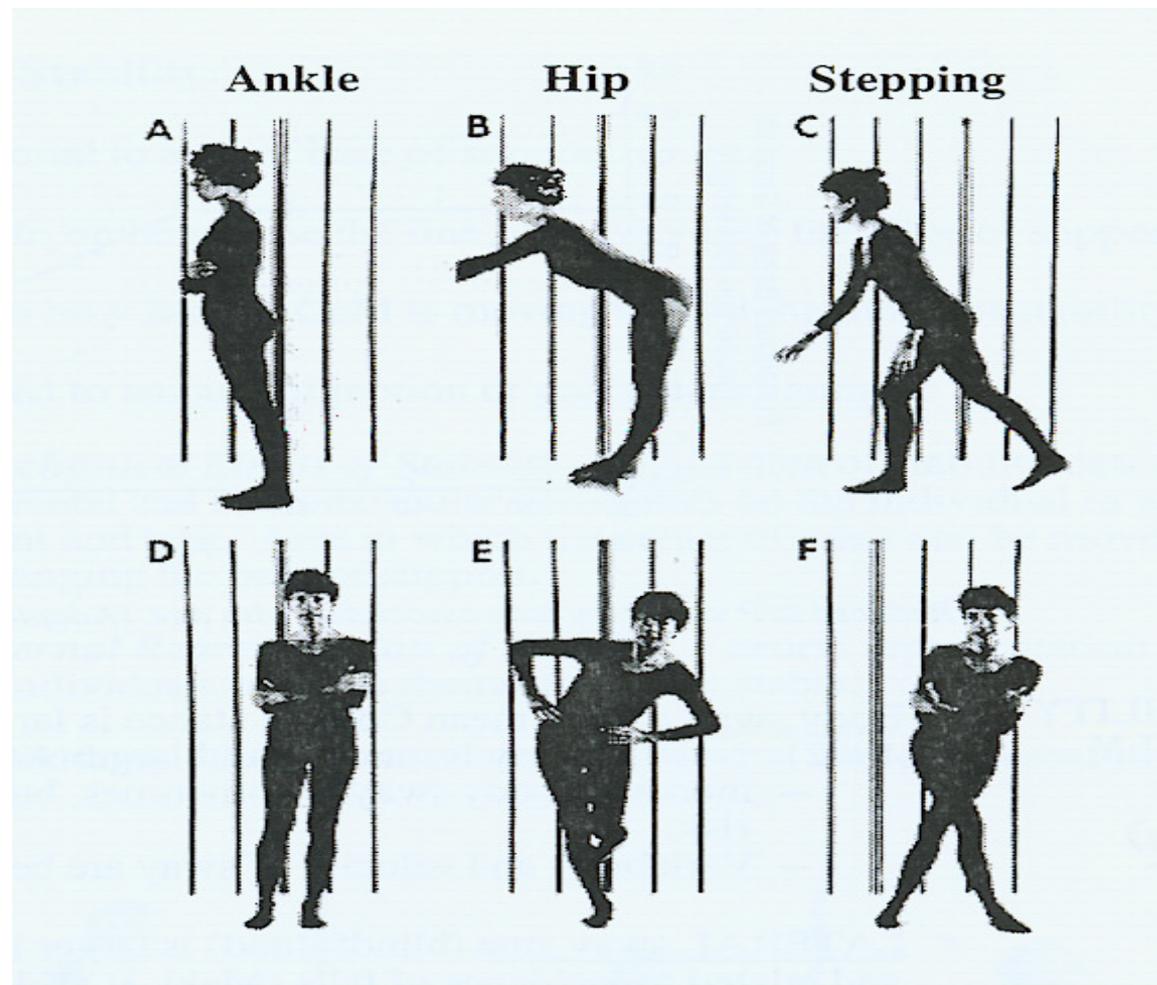
- Provide a clear explanation of exercises
- Stepping On Background sections
- Link exercises to examples of improved function and preventing falls
 - recovering when losing balance
 - walking well and looking younger
 - getting up from a chair with ease
 - reaching into a cabinet and maintaining good balance

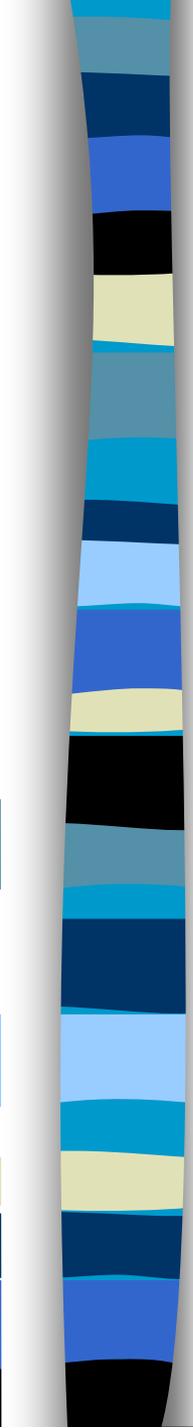


Practicing

- Every session practice the exercises with participants, asking participants for requests
- Questions may arise during the exercise sessions over the weeks
- Give positive feedback for achievements

Lower Limb Strategies for Balance





Providing a Challenge: Upgrading

To upgrade a strength exercise:

- Increase the ankle weight or
- The number of repetitions
- Muscles must be overloaded to make any strength gain – gradually increase weight size

To upgrade a balance exercise:

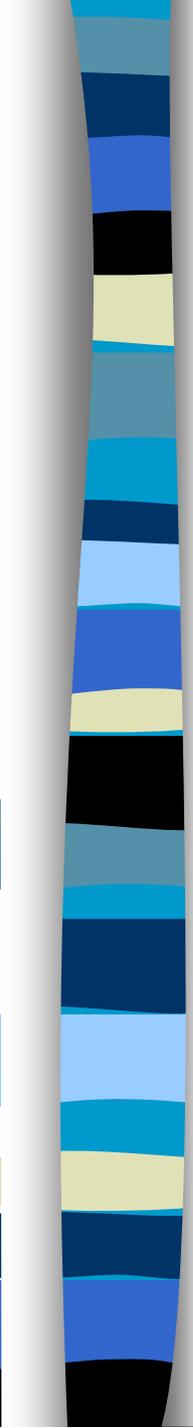
- Reduce the amount of support used
- Less hand support and/or
- Narrow the stance



Remember...

Everyone is Different

- Modifications may be required due to pain or other factors
- Participants should focus on their own ability - it is not a competition!



Changing Habits

- Use exercise charts - check these in each session
- Encourage doing exercises as part of routine, like brushing teeth
- Use prompts - exercise chart on fridge, weight on table, tea pot boiling ...
- Suggest joining a community exercise group

Weekly Exercise Log

Session 1 Handout: Homework

Exercise Log

Name _____

Week (please circle the week number – circle one)

1 2 3 4 5 6 7

Check – If I did my exercises this week

Balance Exercises (daily):

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

Strength Exercises (3 times a week – be sure you have one day of rest between strength exercises):

Monday Tuesday Wednesday Thursday

Friday Saturday Sunday

Ankle Weights

- Plan to have one adjustable ankle weight for each class member
- Purchase weights that have adjustable weight options
- Provide weights for participants to use at home, with extras for class use





Session One Objectives

Does the session meet the objectives?

At the end of Session One participants will:

- Feel a level of trust and comfort, setting the tone for the rest of the group meetings
- Understand that others have falls and that there is a range of reasons why we may fall
- Recognize the importance of exercise, strength and balance for preventing falls
- Feel that they can share their knowledge, ideas, questions and answers with each other and with the group leaders



In Summary, Program Leader to:

- Know the manual
- Prepare beforehand
- Overall considerations for program leader;
 - Group dynamics
 - Knowing the falls prevention topics and information
 - Belief that falls can be prevented
 - Modelling decision-making framework



Brainstorming

- Group technique used to produce a significant number of ideas to try to solve a problem
- Useful exercise to:
 - Increase the enjoyment of group work
 - Increases group morale
 - Useful for team building
 - Allows people to be involved in problem solving and “own” the solutions



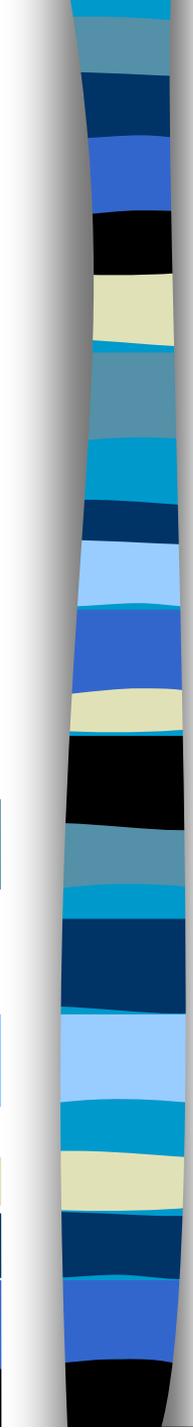
4 General Rules for Brainstorming

- Greater the number of ideas generated, the more likelihood of developing the solution to the problem
- No criticism or judgement of the idea generated
- Unusual or out of the ordinary ideas are accepted and encouraged
- Use participant's own words

Balance Sheet and Brainstorming

- Role play of session two – 2.2
- Brainstorming-group technique used to generate ideas





Group Work

- *Group work is about creating group cohesiveness as well as a learning environment.*
- *Jacques (1991a.) describes, a group-learning environment is one that allows the group members to draw on “knowledge from outside the group in order to process it within and subsequently use it outside.”*
- The facilitator has a responsibility to select appropriate knowledge, supervise its process in the group setting (ensuring that participants draw upon their own background and experiences to do so), and ensure its use beyond the program. Clemson et. Al (2003)
- **What does a Stepping On leader need to keep in mind to make their group work and have the best opportunity to help with behavior change?**

DVD:

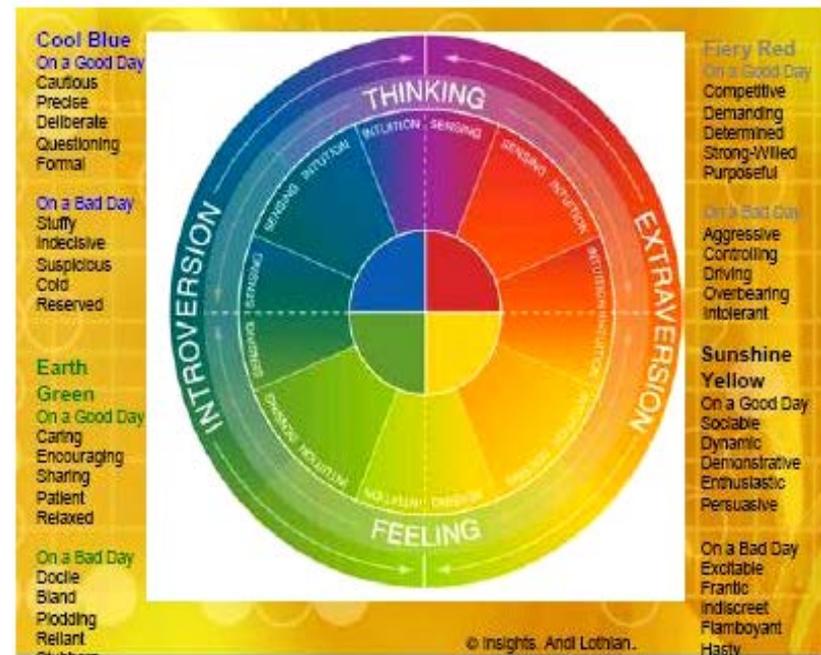
Stepping On Community Safety

- Evening Dinner
- The Winter Mail
- The Grocery Store
- Picnic with Friends
- Crossing Streets



Working With Different Participant Styles

- Learning to recognize different participant styles is important to developing and maintaining a healthy, happy group



Source: marketingideasyoucanopy.com

The Preventive Framework

Janis & Mann (1977)

5 Stages to Decision Making

- 5 Simple questions called
PREVENTIVE
FRAMEWORK
- The questions are used as
prompts in response to fall and
safety stories in order to elicit
reflection and discussion
- PULL OUT
BOOKMARKER



The Preventive Framework

Janis & Mann (1977)

5 Stages to Decision Making

Group Activity:

1. Share a fall story and apply the Prevention Framework
2. Select one story from your group and use it to answer these questions:
 - Did other possible causes to the fall come up during the discussion? If so what?
 - Did anyone decide they needed to make changes to prevent this from happening again? What?



The Preventive Framework Adapted for Reflecting on Stories About Safety Strategies:

1. Why did this work/not work and what are some other things that could work?
2. Which way works best for you?
3. How can you make this happen?
4. Are there any barriers to making it happen?
5. How can you keep this happening?



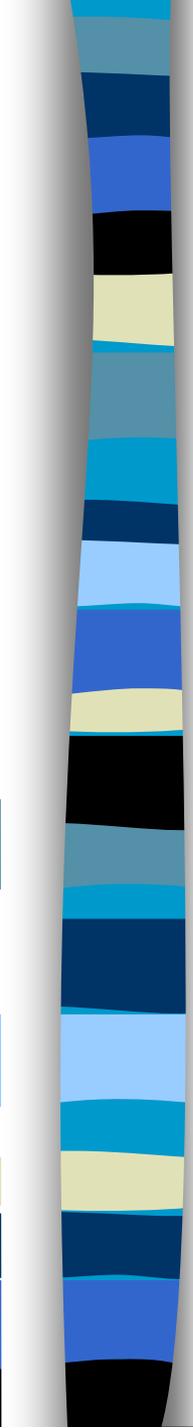
Homework



Homework is given out at each Stepping On class and discussed at the next class.

Participant Homework:

- Reinforces what was learned
- Helps process information
- Helps to evaluate
- Sharing
- Exploring enablers and barriers



Leader Training Homework

Trainee Homework, Day 1:

- Review Stepping On Manual
- Conduct a home hazard screen
- Practice facilitation assignment #1 and #2
- Practice the Exercises
- Watch DVD's

Welcome to Day Two

- Homework Follow Up
- Questions from Day One?



Learning and Older Adults as Learners



- Same goes for younger people too
- Think creatively about opportunities for learning
- Learning for an older adult is best when:
 - It is self-paced – one benefits from breaks
 - One is provided optimistic and positive feedback
 - Visual aids and practical examples are used
 - Learning builds on previous experience and knowledge
- Learning must go both ways, and leaders must recognize that participants bring their own unique perspectives, life stage experiences and knowledge to the group

Home Hazards



- Group Activity

 - What hazards were identified?

 - What solutions were identified?

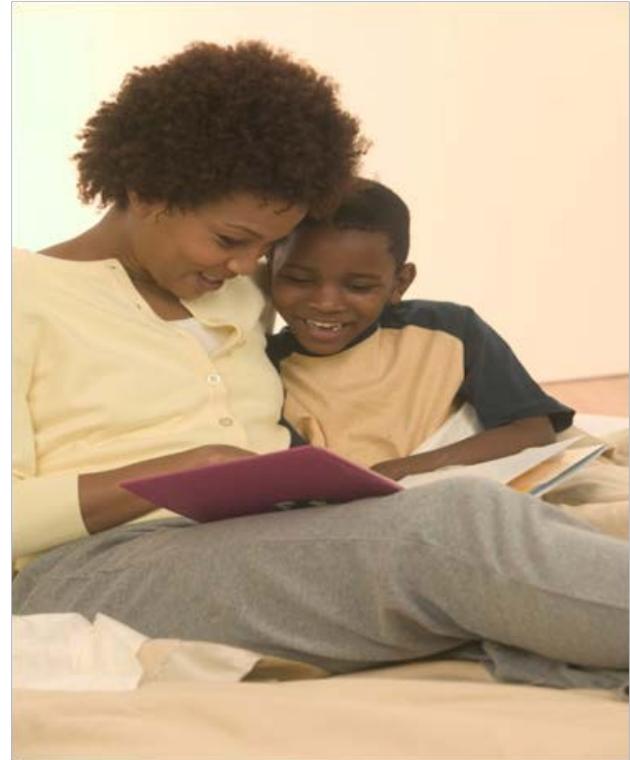
- In the Large Group:

 - Report:

 - hazard, possible barriers and solutions

Story Telling to Facilitate Learning and Confidence

What makes using stories useful for learning and building confidence?



Story Telling in Facilitating Learning and Confidence

- Understand personal experiences
- Different meanings on events
- Vulnerable factor
- Environment
- Leaders share their own stories



Use “prepared” fall stories or videos

Skill Development

Valuable way of learning

Listen to this story.....

Self-Efficacy Beliefs: A Tool for Change

What is self-efficacy?

- The belief people have in their ability to accomplish something
- Our expectations of what we can do in a situation
- Powerful influence on what/how we do things and what we do
- Can be the difference in outcomes for two people with the same capabilities



Self-efficacy “underpins” each session



Exercise Review Group Activity

- How did it go doing the exercises last night?
- List:
 - What made you successful in exercising?
 - What barriers kept you from exercising?
- How can you reframe the barrier to a positive?

Exercise Review & Advancing



- Exercise Plan
- Strength and Balance Exercise Manual
- Letter to Physical Therapist
- Ankle Weights

Group Activity

- Work together to learn the exercises:
 - Name of exercise
 - Is it strength or balance?
 - How often is it done?
 - How is it modified? advanced?
 - Link to improved function
/preventing a fall



Practice Facilitation #1 and #2

Aims:

- To become familiar with the Stepping On manual
- To practice leading a segment
- To practice facilitating learning, decision making and prompting action.

We do not expect polished performances, these are opportunities to practice and become familiar with the topics and experience a session from start to finish.

Brief practice segment instructions:

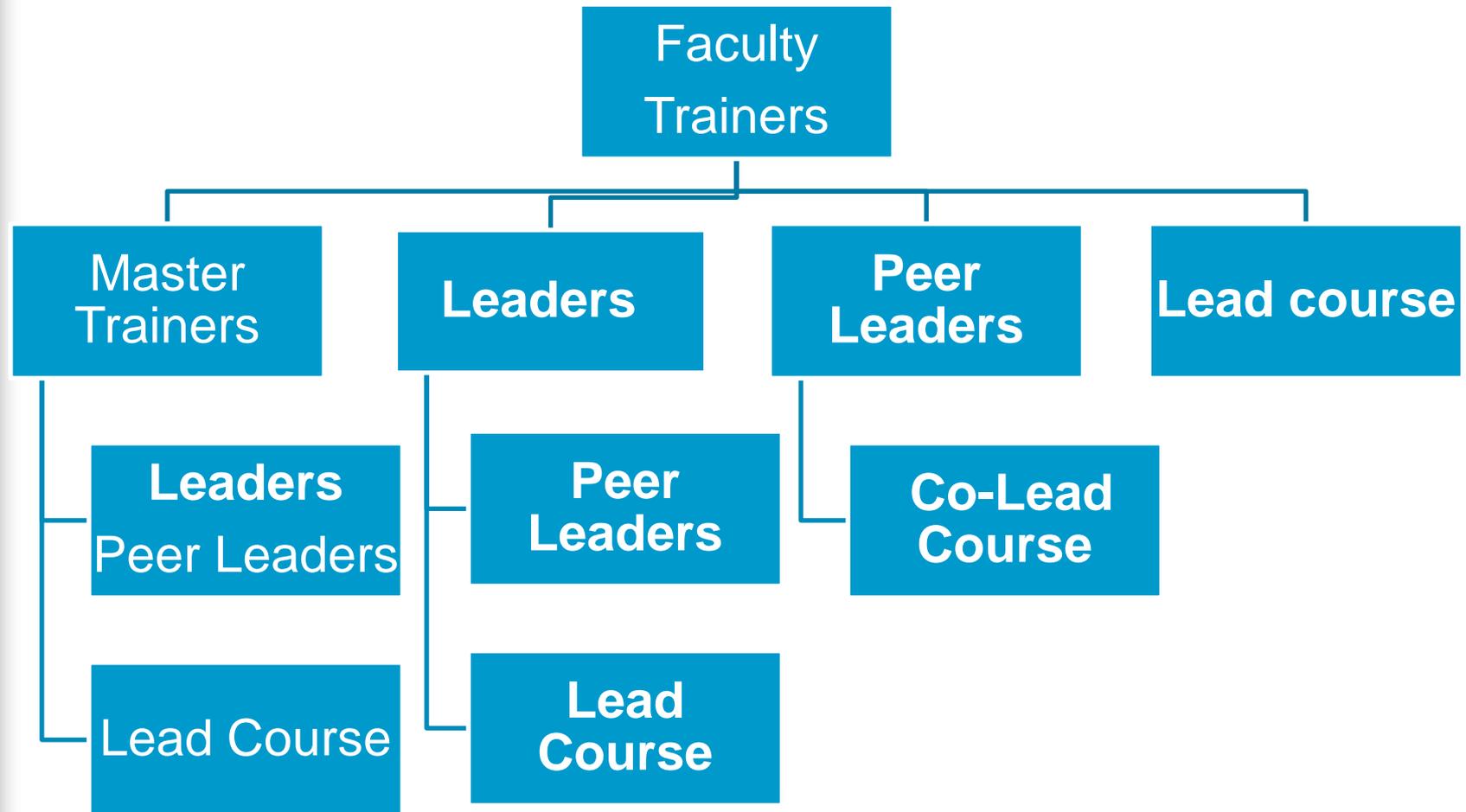
- Present for 5 - 10 minutes
- Your presentation is only part of the topic segment
- Work out how you will present your topic segment to encourage group interaction
- Remainder of trainees in your group are to act as “participants” during role play
- Complete a self-critique with specific examples
- Trainees and instructors will provide feedback afterwards during debriefing

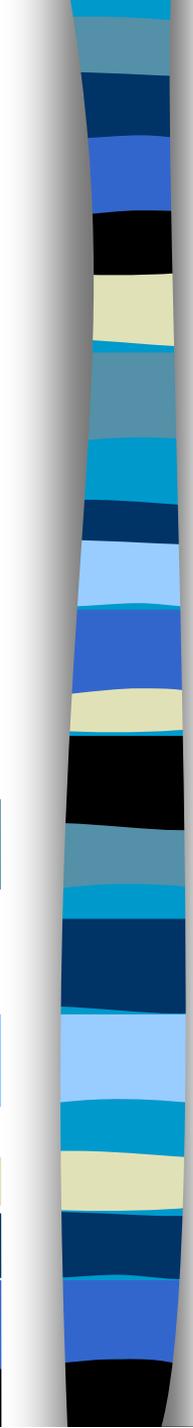
Who is on the Stepping On team?

Working in your small groups, identify the members of your Stepping On team



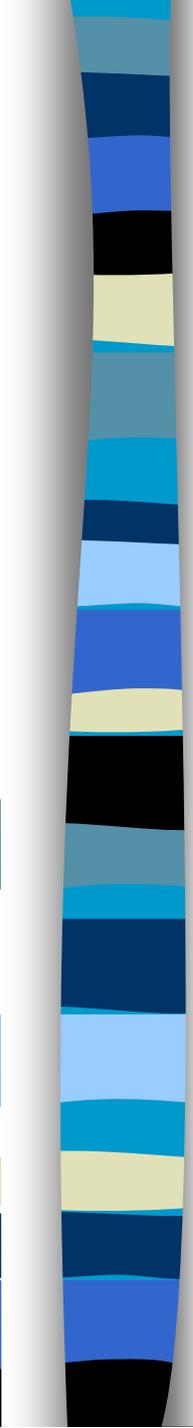
Stepping On Leader Roles





The Stepping ON “VIP”... the Peer Leader!

- Recruiting
- Training
- Role
- Working together



Marketing Stepping On Working in Your Small Group:

- Who is suitable to attend Stepping On?
- What marketing and recruitment strategies will you use?
- What have you already done to market and recruit?

Marketing Stepping On

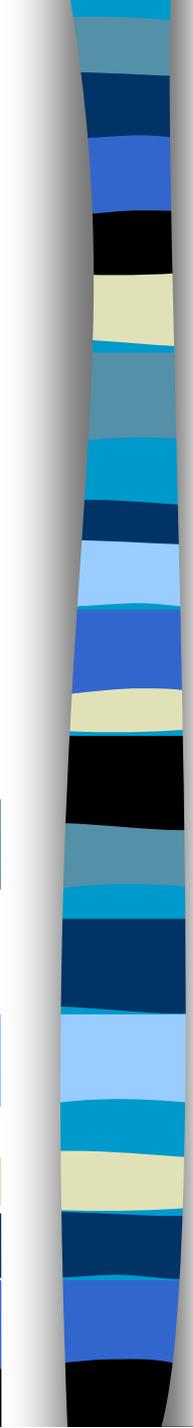
Elements of marketing plan:

- Budget
- Primary target market
- Marketing materials
- Recruitment methods
- Handling inquiries and registration
- Sustaining recruitment

▪ **Brainstorm:**

What are some ways to market the Stepping On Program?





Marketing Stepping On

Remember:

- One recruitment method is not sufficient
- Do not depend on referrals from physicians
- When possible use “person of influence” marketing
- Use your satisfied customers to “tell a friend” or spread the word
- Use a venue that is pleasant and familiar to the target market
- Strategic scheduling
 - Dates and times that work well may vary by community
 - Know what is happening in your community that may compete for your target market

Community Partners

- Win-Win
- Who are they?
- How to find them?



Preparing and Planning for Sessions

(Planning Check-list)

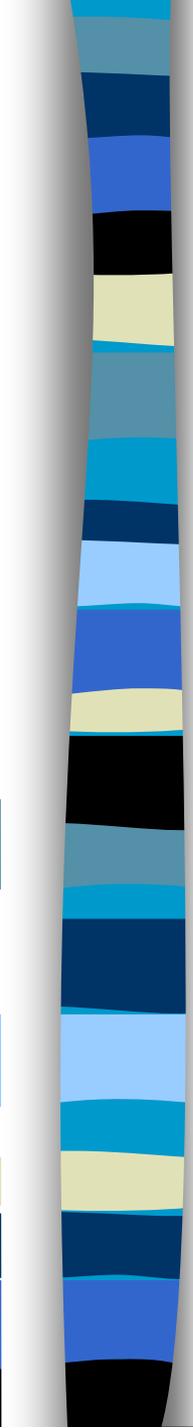


1. Read manual background and session
2. The guest experts
3. Meet with co-leader/peer leader
4. Market the program
5. Registration form
6. Consider Transportation Issues
7. Venue
8. The display and ankle weights
9. Confirm registrations
10. Shop for snacks



Brainstorm: With Your Community Partner:

- **List for your Stepping On start-up:**
Barriers to implementing the program
Enablers to implementing the program
- **Complete:** Goals and Getting Started handout
- What 3 things are necessary and realistic that you can do to prepare and implement Stepping On in the next month?



Review Trainee Goals

- In small groups:
 - Did you achieve your goal or goals?
- In large group:
 - What have you learned over the past two days?
- Final thoughts