

Breaking the Cycle of Falls: Preventing Falls and Injury using an Interdisciplinary Approach within the Community

Sadiya Kazi-Koya, M.S. OTR/L and Aaron McPherson, DPT, MBA

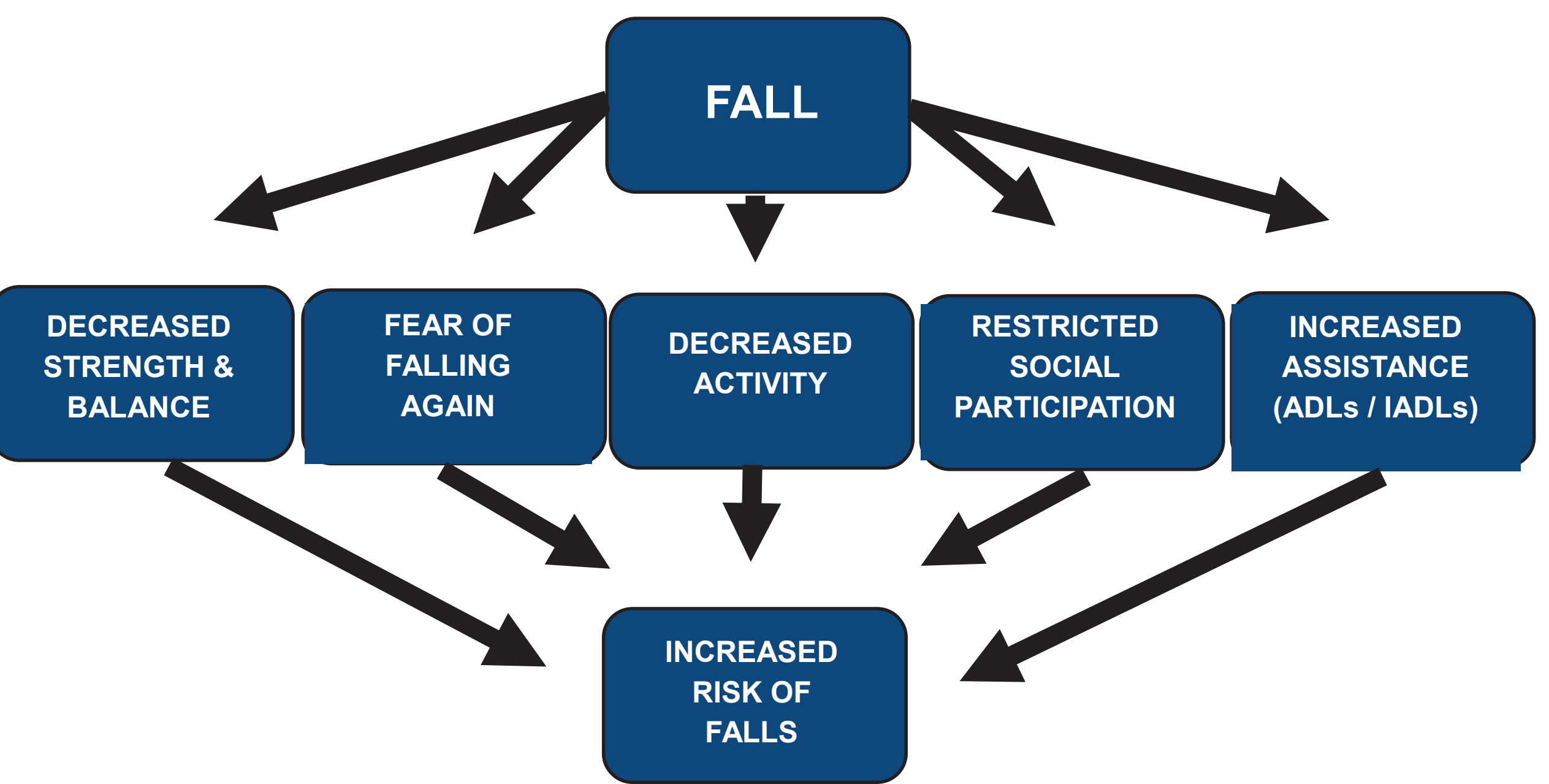


Introduction

Falls and injury in the elderly:
 Nearly one-third of community-dwelling individuals over the age of 65 fall each year, and this incidence rate increases with age (1,2). In addition, approximately 2.8 million older adults are treated in emergency departments annually for fall-related injuries and every year over 300,000 seniors over 65 are hospitalized with hip fractures (3,4).

Psychological and social considerations:
 Along with physical injury, the additional psychological consequences can be severe, with fear and anxiety of falling often as disabling as a fall itself (5). Other psychological factors related to falls include decreased self-efficacy, activity avoidance, and loss of self-confidence (6). Furthermore, the presence of falls in the 65 and older population show correlation to a decrease in social participation and an increase in social support (7).

Economic Impact:
 Annual direct medical costs associated with non-fatal falls in 2012 were approximately \$31 billion with 63% of those costs attributed to hospitalizations. These figures also fail to estimate the indirect costs associated with lost wages and caregiver costs of informal caregivers that typically occur as family members care for their loved ones (8,9).



The World Health Organization suggests that people with multiple chronic conditions are best served by an interdisciplinary group of professionals with complementary skills to address the biopsychosocial determinants of falls (10).

PACE (Program of All-Inclusive Care for the Elderly)

PACE is a State- and Federally-funded managed care program. PACE provides all-inclusive care for frail elders aged 55-years and above in an attempt to keep them safely at home for as long as possible. This is achieved through the care coordination amongst 11 disciplines within an Interdisciplinary Team, which centers around the participant.

CEI (Center for Elders Independence)

CEI is a PACE program that provides its enrollees with 24 hour medical care, primary care physician with a full medical clinic, a day center with recreational activities, rehabilitation services, dietary services, home care and transportation; so that elders can stay in their homes and not have to move to a skilled nursing facility.

Methods

What does CEI do to keep participants safe and able to live in their homes?

CEI's strengths are focused around:
 .the IDT and Care Coordination,
 .the delivery of care to participants at home and in the CEI day center,
 .and collaboration with community organizations / outside resources.

The Interdisciplinary Team at CEI consists of an:
 Activity Director, Chaplain, Day Center Aide, Dietician, Homecare Nurse, Nurse Practitioner, Occupational Therapist, Physical Therapist, Physician, Registered Nurse, Social Worker, and Transportation representative.



What does the IDT do to prevent falls / injury?

- . Discuss falls / fall management
- . Adjust Medications
- . Design individual strength & balance programs
- . Conduct home safety evaluations & provide DME
- . Provide ADL / IADL assistance in the home
- . Conduct home safety education

Our disciplines also conducts fun groups for fall prevention among our participants, including:

- . Tai Chi
- . Mindfulness / meditation
- . Home safety education
- . Strength training
- . Pain Management



Outside of the services that CEI provides directly to participants, we also collaborate with resources within the community to improve safety and quality of life.

Community Collaborations include:

- . Home Modifications (Rebuilding Together Oakland, Day-Break)
- . Pool Therapy (YMCA)
- . Caregiver Support & Education Classes (Support from Measure A)
- . Home Delivered Meals (Support from Kaiser)
- . Numerous Social Activities (Oakland Athletics, Older American's Month by The Mayor's Commission on Aging and Department of Human Services, East Bay Regional Parks)

Data / Results

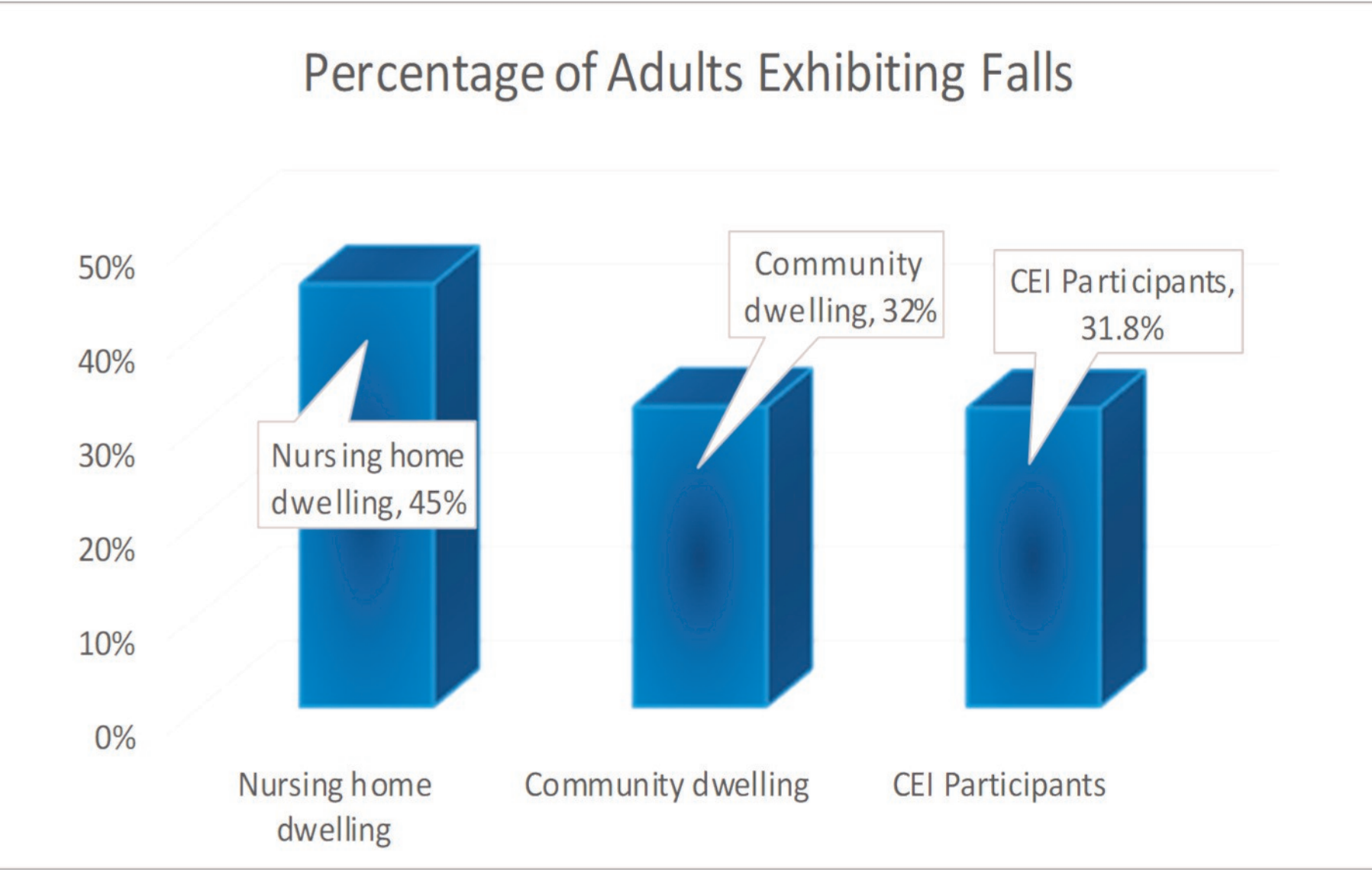


Figure 1. Percentage of Adults aged 65 and older exhibiting falls measured in nursing homes, in the community, compared with CEI participants

Studies indicate that fall rates in nursing homes are between 45% and 61% compared to 32% in adults aged 65 and older living in the community (1,11). While CEI participants are falling at equal rates to those living in the community, it is important to note that all CEI participants are certified as being at a "nursing home level of care".

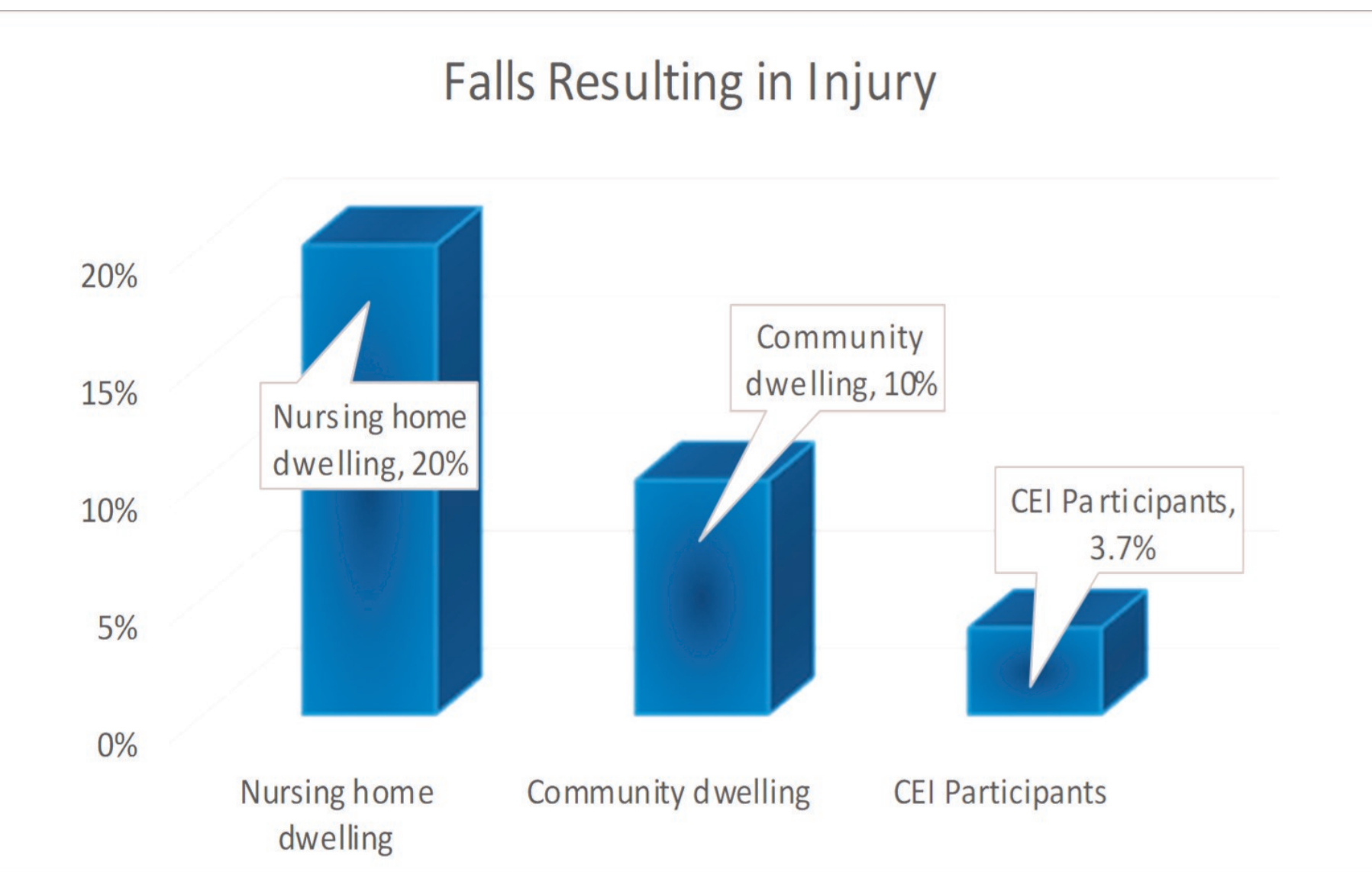


Figure 2. Percentage of Adults aged 65 and older experiencing falls resulting in injury measured in nursing homes, in the community, compared with CEI participants

Furthermore, rates of falls resulting in injury among community dwelling seniors averages 10%, while seniors in long term care settings are injured in falls at rates up to 20% (12). In 2017, 3.7% of CEI participants were injured due to falls.

The data shows that CEI participants have taken less falls and falls with injuries, as compared to seniors living in the community.



Conclusion

CEI has been able to demonstrate a program that will keep a frail subset of seniors from falling at levels lower than anticipated of those in long term care facilities, while still residing in the community. In addition, CEI has attributed to decreased rates of injuries when falls have occurred.

These results were obtained by creating an participant centered Interdisciplinary Team composed of medical professionals, caregivers, social workers, spiritual care, and other individuals who promote exercise and socialization. In addition, fall prevention is aided by teaming with community organizations that focus on shared goals of improving quality of life of seniors, through nutrition, socialization, and home modification.

While CEI and PACE are not the solution for every senior, the aforementioned components could easily translate to inclusion in a fall prevention plan in many settings in the community.

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