



JUNE 2015

## INJURY SPOTLIGHT

### *Older Adult Falls*

*The U-M Injury Center produces bi-monthly injury topic spotlights that include information about a Center member working on the topic, links to local and national resources, and an "Issues and Solutions" sheet.*

### Falls Among Older Adults

June has been designated [National Safety Month](#). For this month, the University of Michigan Injury Center is focusing on the prevention of older adult falls.

According to the Centers for Disease Control and Prevention, falls are the leading cause of both fatal and nonfatal injuries among older adults aged 65 or older. Nationally, there were more than 25,400 deaths due to fall-related injuries in 2013.<sup>1</sup> The rising number of fall-related fatalities is a problematic trend in the U.S., with the numbers reflecting a 96.3% rate increase from 1999 to 2013.<sup>1</sup>

Within Michigan, the numbers are increasing as well. In 2013, there were 838 fall-related deaths among older adults; and from 1999 to 2013, the rate of fatal falls more than doubled, an increase of 138.6%.<sup>1</sup>

Currently, there are over 1 million older adults aged 65 or older living in Michigan, accounting for 15% of the state's total population. According to the U.S. Census Bureau, this age group is projected to steadily increase, and in 2025, they will account for 18% of the population and in 2030, 19.5%.

As the older adult population continues to grow in Michigan and in the U.S., identifying and implementing effective, evidence-based falls prevention programs is imperative to the overall health and well-being of this population.



## State & National Statistics

### Michigan

- In 2013, there were 25,824 total hospitalizations for unintentional fall-related injuries among older adults 65 years or older, a rate of 173.6 per 100,000.<sup>2</sup>
- From 1999 to 2013, the rate of fatal falls among older adults in MI more than doubled, from 23.6 deaths per 100,000 to 56.3 deaths, an increase of 138.6%.<sup>1</sup>

### National

- In 2013, nearly 2.5 million older adults were treated in emergency departments for nonfatal fall-related injuries and more than 734,000 of them were hospitalized.<sup>1</sup>
- In 2010, the estimated total lifetime costs for unintentional fatal and nonfatal falls among

older adults totaled over \$37 billion.<sup>1</sup>

Data sources:

1. Centers for Disease Control and Prevention, National Center for Injury Prevention and Control. Web-based Injury Statistics Query and Reporting System (WISQARS).
2. Michigan Resident Inpatient Files, Division for Vital Records and Health Statistics, Michigan Department of Health and Human Services.

## June Issues & Solutions Sheet

Our [Issues and Solutions series](#) provides information on priority injury topics, paired with evidenced-based prevention programs that practitioners can implement.

See this month's Issues & Solutions sheet on **Tai Ji Quan: Moving for Better Balance** to learn more about one evidence-based older adult falls prevention program.

[Click here](#) to download.

**Older Adult Falls**

**Tai Ji Quan: Moving for Better Balance®**

**Michigan Statistics**

In 2013, there were 838 fatal falls among older adults (aged 65 or older) in MI, a rate of 56.33 per 100,000 compared to the U.S. (56.96) and Midwest (68.16).<sup>1</sup>

From 1999 to 2013, the rate of fatal falls among older adults in MI more than doubled, from 23.6 deaths per 100,000 to 56.3 deaths, an increase of 138.6%.<sup>1</sup>

**What is the Problem?**  
United States statistics:

- Falls are the leading cause of both fatal and nonfatal injuries among older adults aged 65 or older.<sup>1</sup>
- In 2013, nearly 2.5 million older adults were treated in emergency departments for nonfatal fall-related injuries and more than 734,000 of them were hospitalized.<sup>1</sup>
- In 2010, the estimated total lifetime costs for unintentional fatal and nonfatal falls among older adults totaled over \$37 billion.<sup>1</sup>

**What is One Solution?**  
Tai Ji Quan: Moving for Better Balance® (TJQMBB) is an evidence-based falls prevention program designed for community-dwelling older adults and individuals with physical limitations. The program consists of motor, sensory, and cognitive components to improve balance, gait, and mobility, enhancing performance of daily functional tasks and reducing the incidence of falls among older adults.<sup>2</sup>

**Program Components**  
The program's innovative approach combines traditional and contemporary Tai Ji Quan practice and is designed to improve skills directly applicable to daily functional activities (e.g., reaching, walking, stepping). It consists of a main routine of eight movements and a subroutine of Mini Therapeutic Movements®.<sup>2</sup>

**Evaluation** (Program formerly called Tai Chi: Moving for Better Balance)  
A randomized controlled trial was conducted with a sample of community-dwelling older adults aged 70 or older in Portland, Oregon. Participants were randomized into: 1) an intervention group attending Tai Chi classes, or 2) a control group attending stretching

## Member Highlight

### James A. Ashton - Miller, PhD

Dr. Ashton-Miller is the Director of the Biomechanics Research Laboratory at the University of Michigan and Distinguished Research Scientist and Professor affiliated with the Departments of Mechanical Engineering, Biomedical Engineering, Internal Medicine, the Institute of Gerontology, and the School of Kinesiology at the University of Michigan.

His research focuses on biomechanics including mobility impairments in older adults, trips, slips, and falls, older adult decision-making and risk-taking in physical tasks, and athletic injuries.



[Click here](#) to view his full member highlight.

## State & National Resources: Older Adult Falls

### Michigan

- [Comprehensive Fall Prevention for Community-Dwelling Older Adults](#). This report serves as a guide to help hospitals develop model hospital-based older adult fall prevention programs and clinics. Included are examples of fall risk assessment tools, algorithms for fall management, guidelines for reimbursement, and MI fall prevention programs.
- [Falls Among Older Adults in Michigan: A Growing Problem](#). View the Michigan Department of Health and Human Services's 2011 fact sheet illustrating the significant impact of falls among adults 65 and older in Michigan communities.
- [Michigan Fall Prevention Partnership - National Council on Aging \(NCOA\)](#). This profile provides a history of Michigan's fall prevention partnership.

### National

- [STEADI \(Stopping Elderly Accidents, Deaths & Injuries\) Tool Kit](#). This kit is designed for health care providers who treat older adults and includes basic information about falls, case studies, conversation starters, standardized gait and balance assessment tests (with instructional videos), and educational handouts about fall prevention for patients and their friends and family.
- [Preventing Falls: A Guide to Implementing Effective Community-Based Fall Prevention Programs](#). This guide provides information for community-based organizations on program planning, development, implementation, and evaluation.
- [CDC Compendium of Effective Falls Interventions: What Works for Community-Dwelling Older Adults, 3rd Edition](#). This report showcases effective, evidence-based falls prevention interventions designed to help public health practitioners, senior service providers, clinicians, and others who want to address older adult falls in their community.
- [University of Michigan Injury Center Tools & Programs Database](#). This database provides professionals and researchers with convenient access to evidence-based injury prevention programs, databases of evaluated programs and best-practice education materials. Click on this link to find filtered results specifically on older adult falls.
- [National Falls Prevention Resource Center - National Council on Aging \(NCOA\)](#). This center serves as a clearinghouse of tools, best practices, falls prevention state profiles and evidence-based falls prevention programs.
- [AGS/BGS Clinical Practice Guideline: Prevention of Falls in Older Adults - National Guideline](#)

[Clearinghouse](#). This guideline summary provides information on evaluation, management, prevention, risk assessment and screening of falls in older persons designed specifically for health care providers, physical therapists, physicians, and health personnel.

## Questions or Comments?

Email us at [UMInjuryCenter@umich.edu](mailto:UMInjuryCenter@umich.edu) or call 734-232-2105

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