Prevalence of Falls Among Vietnamese Older Adults

Regional Workshop on Integrating Policy and Research on Ageing in ASEAN

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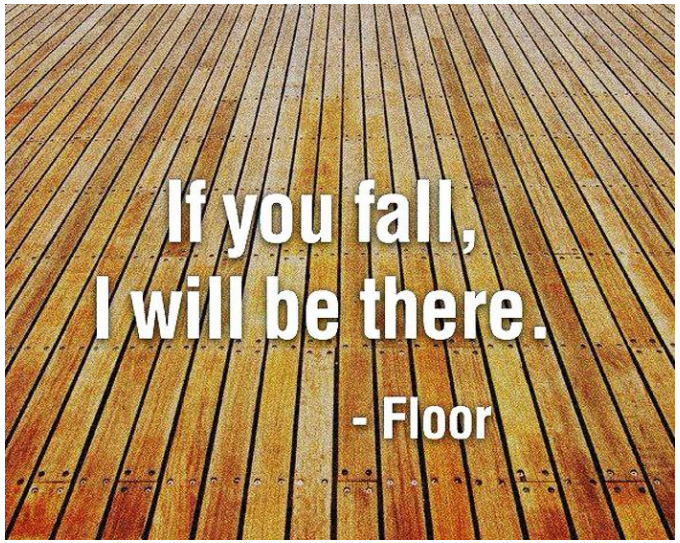
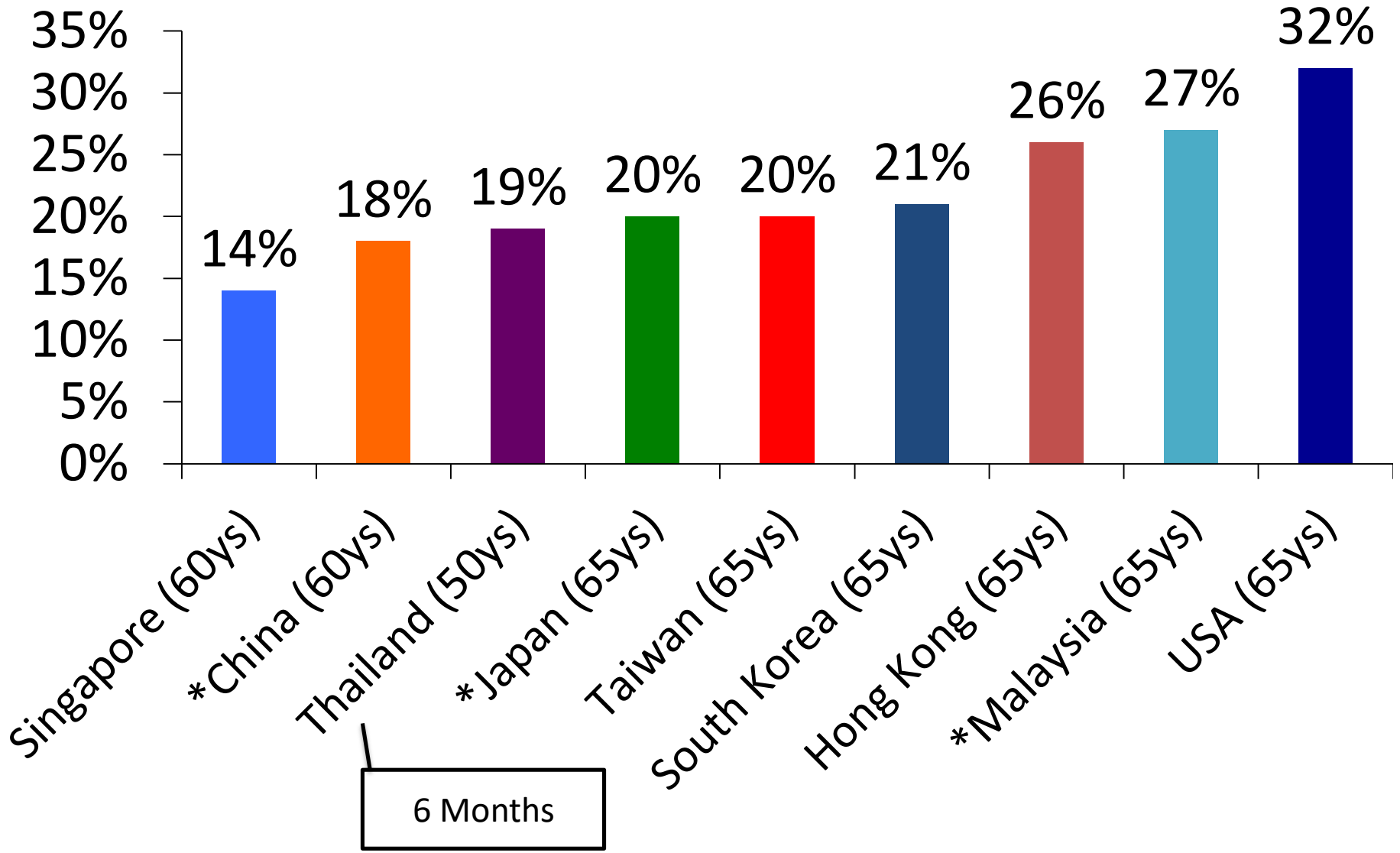
Agenda

- Background
- Preliminary Findings on Falls in Vietnam
- Discussion



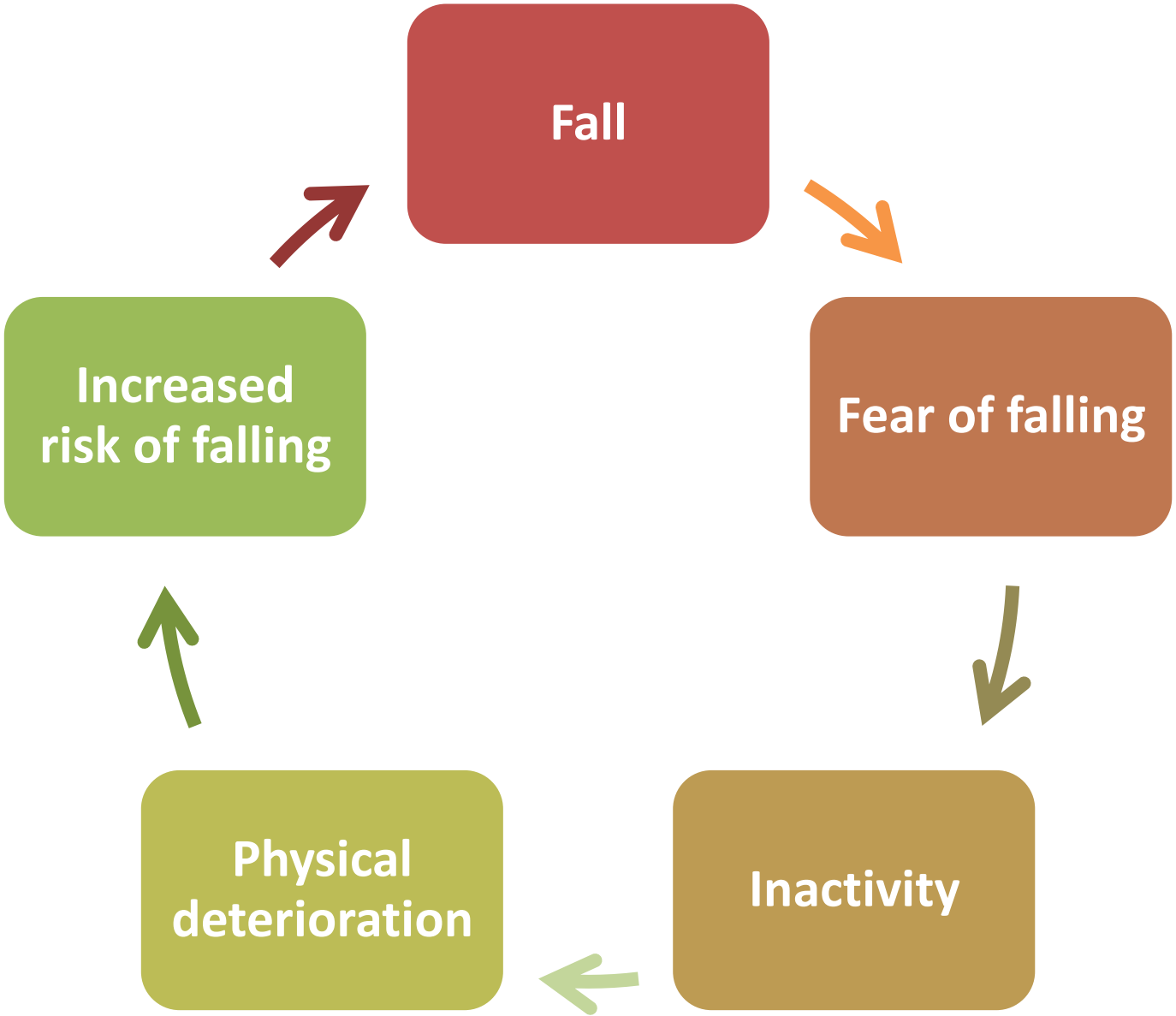
Falls among Older Adults

Background - Falls Rate/Year



Falls Consequences

The Vicious Cycle of Falling



Cost of falls

Available online at www.sciencedirect.com

Public Health

journal homepage: www.elsevier.com/puhe

Review Paper

Falls amongst older people in Southeast Asia: a scoping review

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Thailand
Malaysia
Singapore
Vietnam
Philippines
Indonesia

ARTICLE INFO

Article history:
Received 8 July 2016
Received in revised form
7 November 2016
Accepted 20 December 2016

ABSTRACT

Objectives: The older population in the Southeast Asian region is accelerating and is expected to surpass the proportion of the ageing population in North America and Europe in the future. This study aims to identify the research literature related to falls among older people in Southeast Asia, to examine current practice and discuss the future direction on falls prevention and interventions in the region

Prevalence of Falls among Vietnamese Older Adults

Data

- The Longitudinal Study of Aging and Health in the Vietnam
  - At least 60 years old
  - Representative sample from 10 provinces of 6 regions in Vietnam
- N = 6,050
- n = 5,326

Measures

- Falls
  - Have you fallen in the past 12 months? (*yes/no*)
  - How many times have you fallen in the past 12 months?
  - In that fall/in any of those falls, did you injure yourself seriously enough to need medical treatment? (*yes/no*)

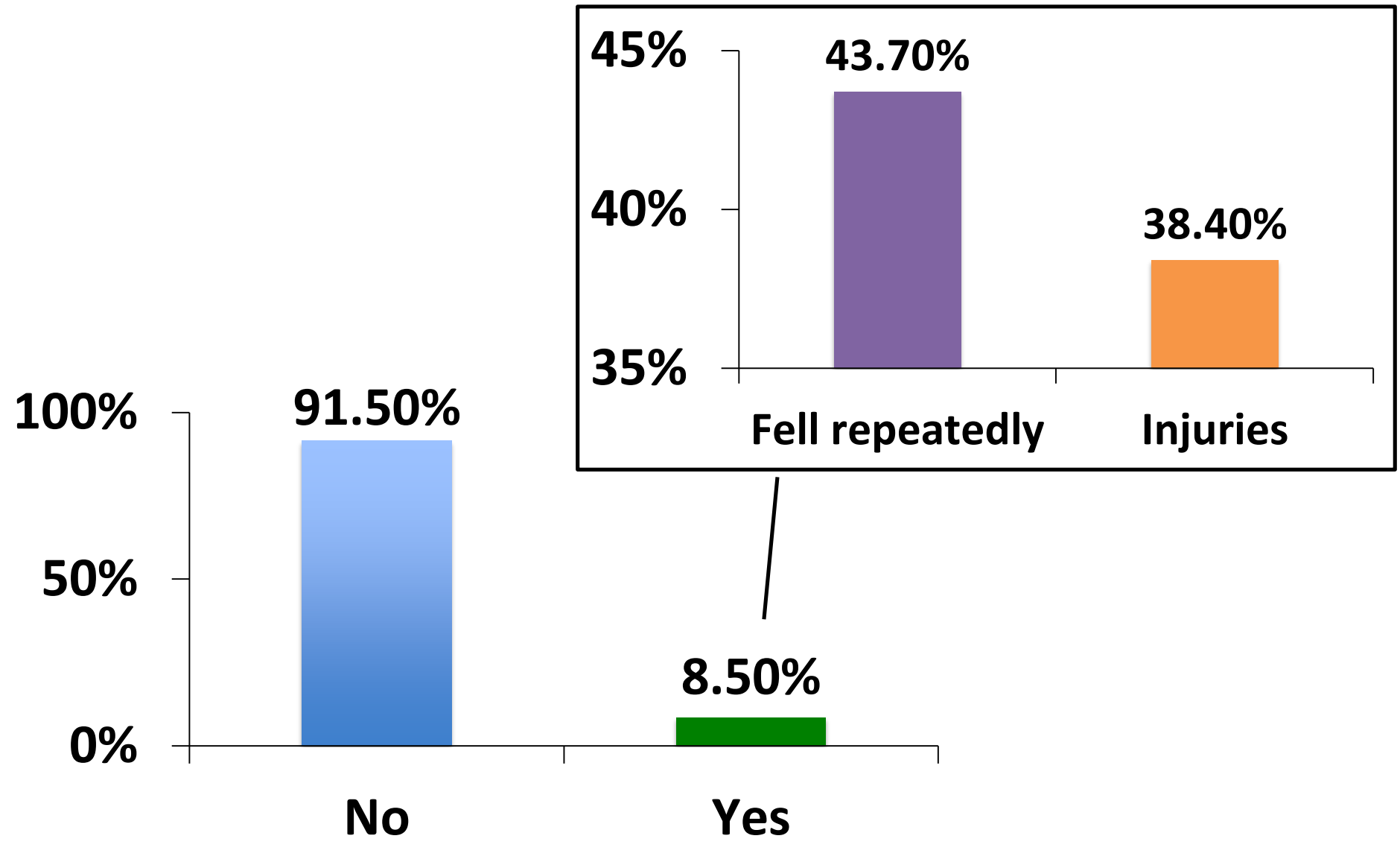
Measures

- Sociodemographic information
  - Age (in years)
  - Gender (female=1, male=0)
  - Ethnicity (Kihn=1, Tay=2, other=3)
  - Education
    - No education
    - Lower than high school
    - High school
    - More than high school (postsecondary job training, college and above)

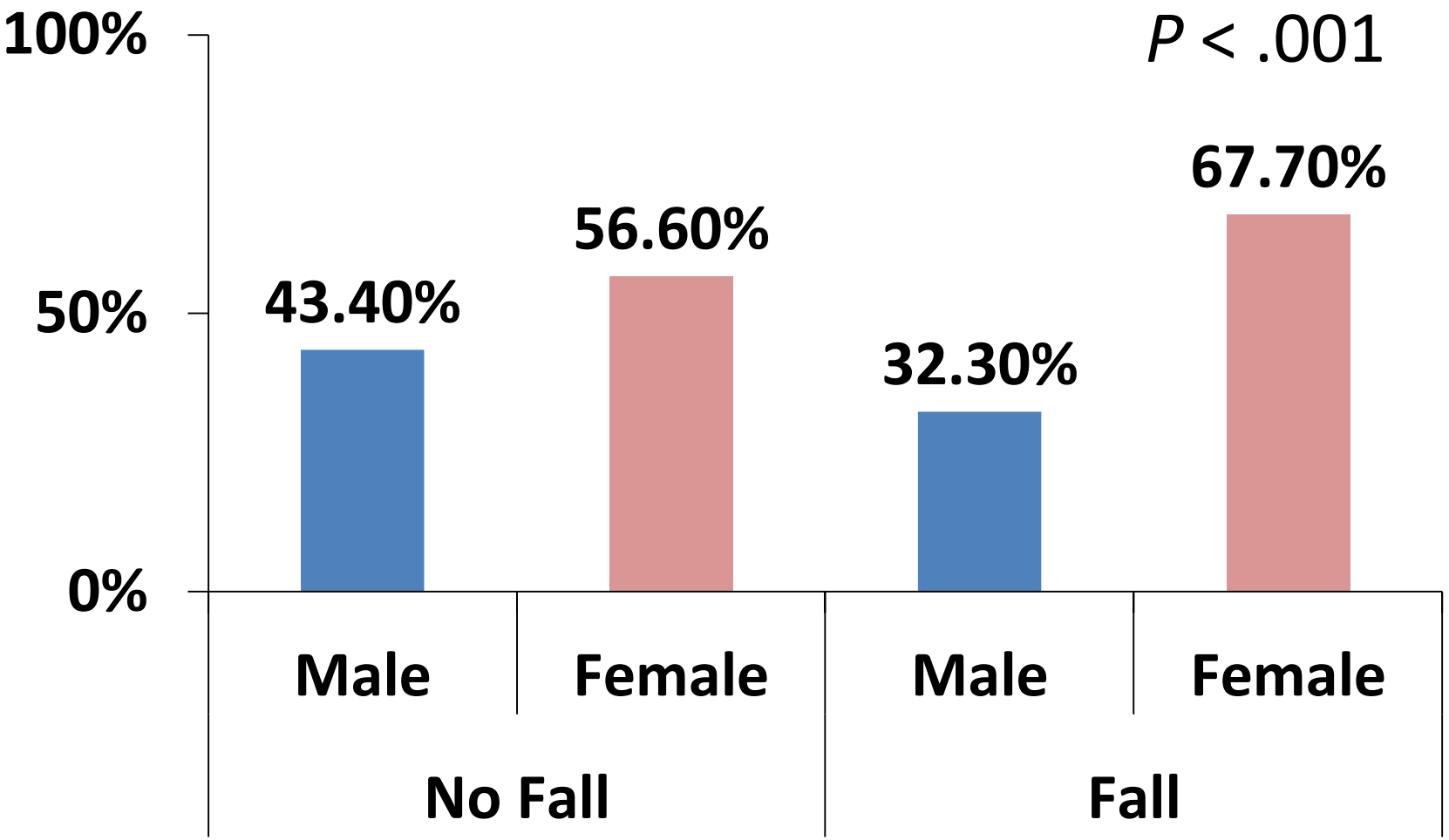
Measures

- Health
  - Mobility difficulty (0-10)
  - Functional impairment (0-14)
  - Chronic conditions (0-9)
  - Total number of insomnia symptoms (0-4)
  - Sleep medications (*yes/no*)
  - Incontinence (*yes/no*)

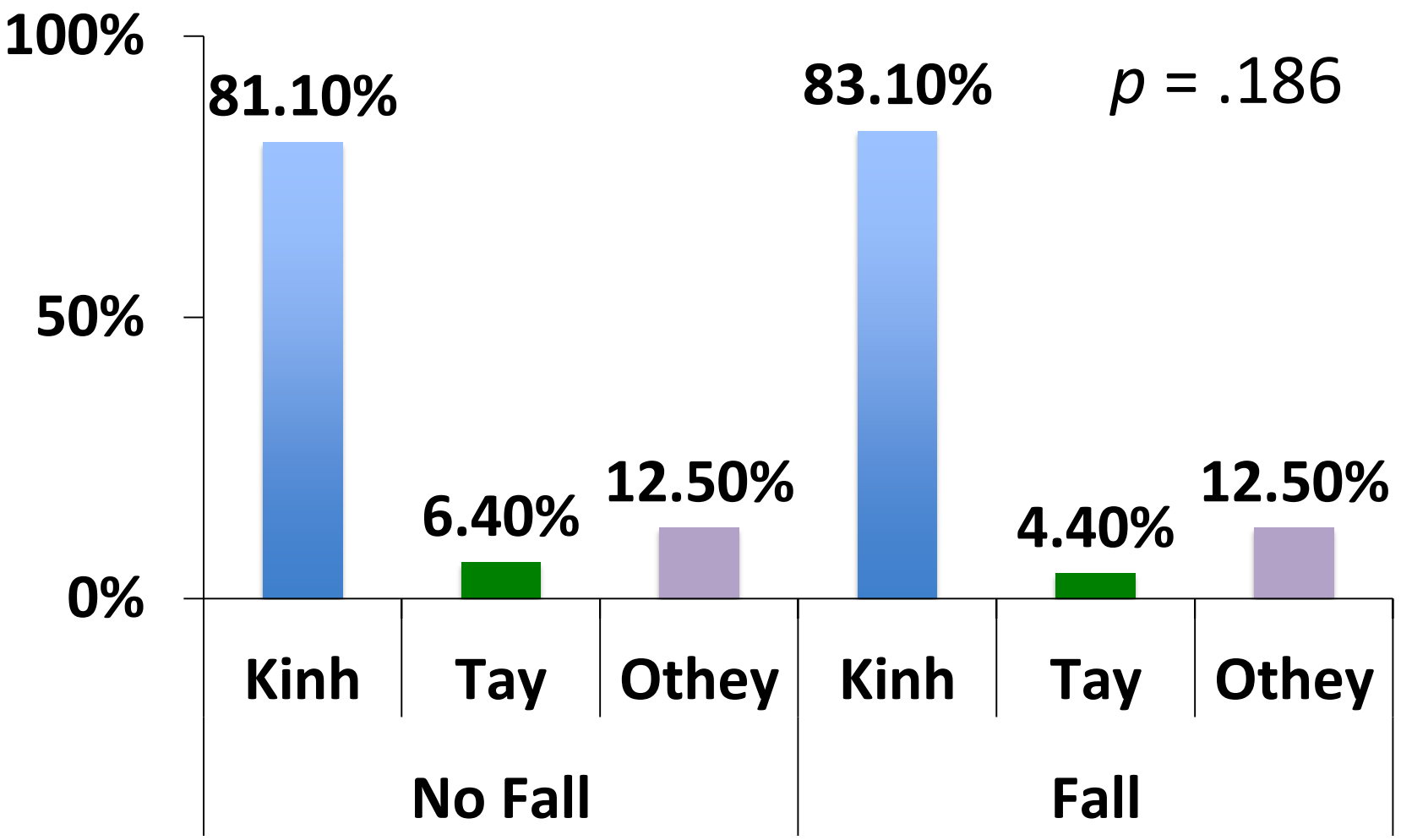
Results-Falls



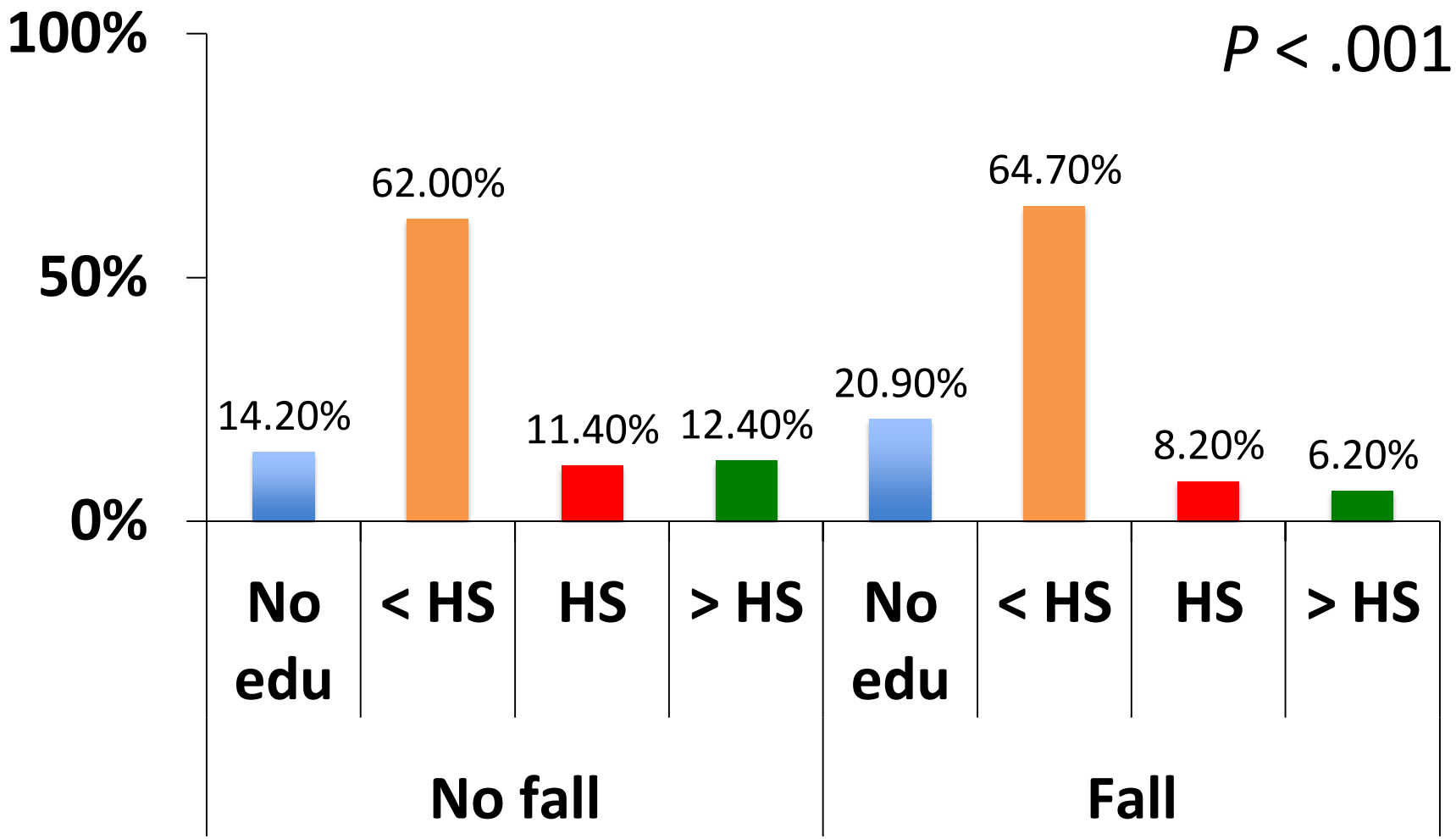
Results-Falls by Gender



Results-Falls by Ethnicity



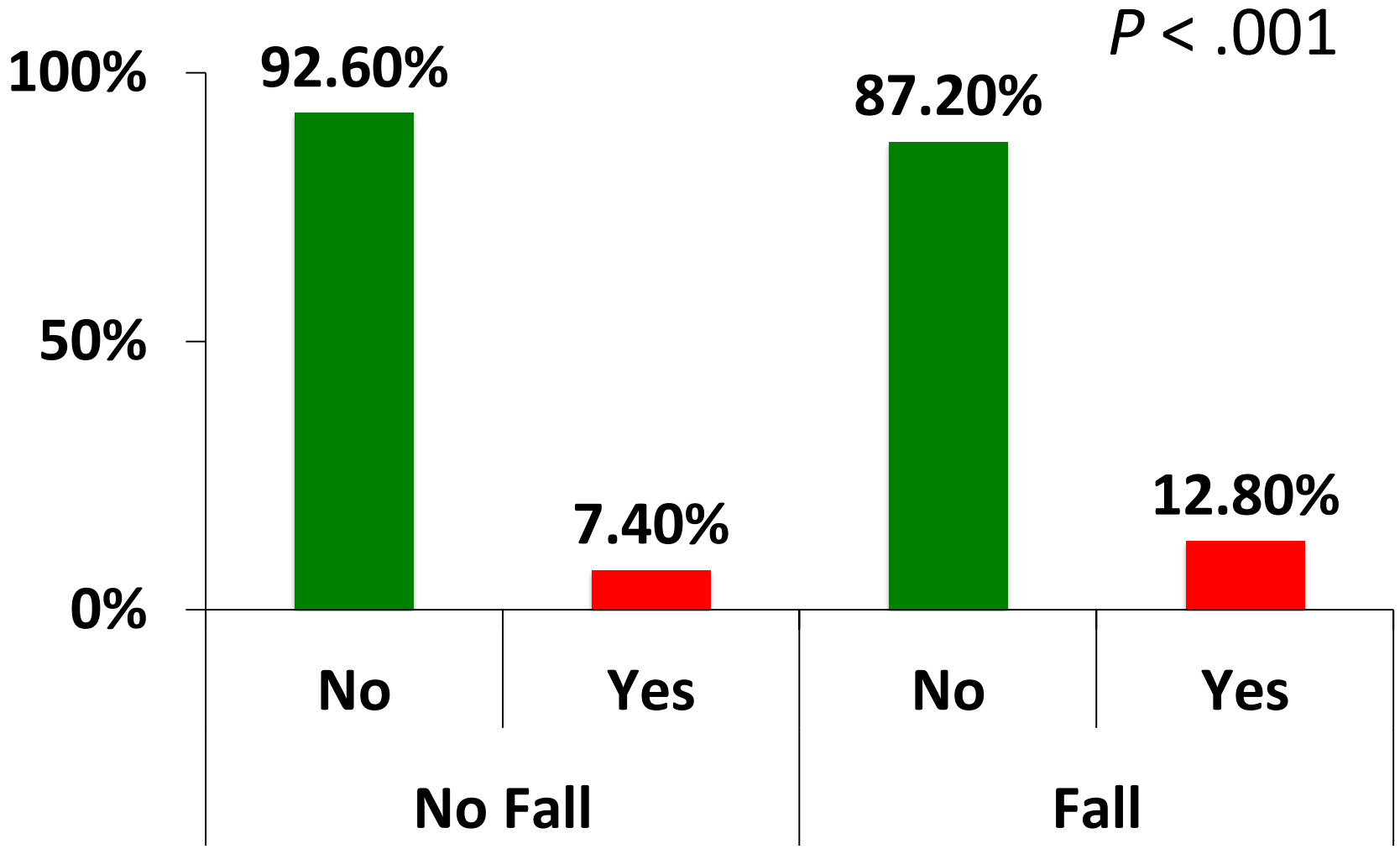
Results-Falls by Education (HS = High School)



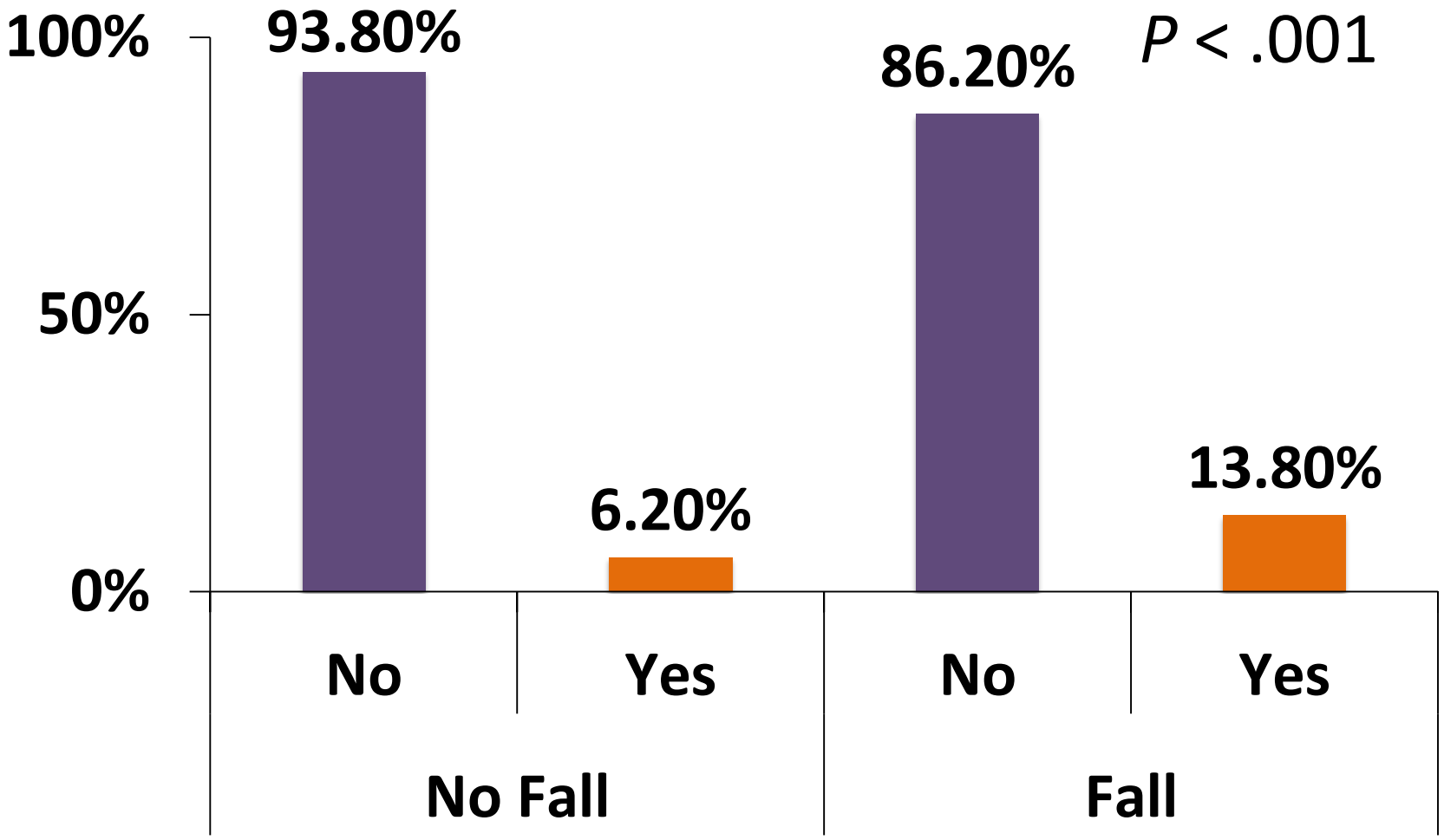
Results

	No Falls	**Falls**	*p*
	M (SD)	*M (SD)*	
Age (in years)	72.39 (8.69)	74.33 (9.71)	< .001
Mobility Difficulty (0-10)	2.42 (2.72)	4.03 (3.06)	< .001
Functional Impairment (0-14)	1.84 (3.29)	3.94 (4.72)	< .001
Chronic Conditions (0-9)	1.52 (1.31)	2.23 (1.52)	< .001
Total insomnia Symptoms (0-4)	2.27 (1.34)	2.62 (1.27)	< .001

Results-Falls by Sleep Medication



Results-Falls by Incontinence



Results

	Odds Ratio	95% Confidence interval
Age (in years)	**1.02**	**1.01-1.04**
Female	**1.60**	**1.32-1.94**
Ethnicity		
Kinh	1	
Tay	.66	.43-1.03
Other	.98	.74-1.30
Education		
No Education	**1**	
< HS	**.71**	**.56-.91**
HS	**.49**	**.33-.73**
> HS	**.34**	**.22-.53**

Results

	Odds Ratio	95% Confidence interval
Mobility Difficulty (0-10)	**1.20**	**1.16-1.23**
Functional Impairment (0-14)	**1.13**	**1.11-1.16**
Chronic Conditions (0-9)	**1.40**	**1.32-1.49**
Total insomnia Symptoms (0-4)	**1.23**	**1.14-1.33**
Sleep Medication (yes)	**1.84**	**1.39-2.43**
Incontinence (yes)	**2.43**	**1.84-3.20**

	Odds Ratio	95% Confidence interval
Age (in years)	.99	.97-1.00
Female	**1.34**	**1.08-1.67**
Education		
No Education	1	
< HS	.82	.63-1.08
HS	.70	.63-1.08
> HS	**.49**	**.31-.78**
Mobility Difficulty (0-10)	**1.08**	**1.03-1.14**
Functional Impairment (0-14)	**1.10**	**1.06-1.14**
Chronic Conditions (0-9)	**1.24**	**1.15-1.33**
Total insomnia Symptoms (0-4)	1.03	.95-1.12
Sleep Medication (yes)	1.33	.96-1.83
Incontinence (yes)	1.27	.88-1.84

Discussion

- Preliminary results
- Low falls rate, but it will increase
- Second wave of the LSAHV
  - Investigating predictors of falling
  - Validating standardized assessments within the Southeast Asian population (e.g., gait speed)
- Cross-country comparisons: Philippines and Vietnam

Discussion

Howland *et al. Injury Epidemiology* (2015) 2:25
DOI 10.1186/s40621-015-0058-z

Injury Epidemiology
a SpringerOpen Journal

ORIGINAL CONTRIBUTION Open Access

Savings in acute care costs if all older adults treated for fall-related injuries completed matter of balance

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Abstract

Background: Falls among older adults are a common and serious public health problem. Evidence-based fall prevention programs delivered in community settings and targeting older adults living independently are increasingly deployed throughout the nation. These programs tend to be offered by public and private organizations that serve older adults, and recruitment usually occurs through direct marketing to the target population, rather than through referrals from healthcare providers. *Matter of Balance*, a program developed to reduce fear of falling and associated activity restriction in community-dwelling older adults, is currently being delivered in 38 of the 50 United States. In this study, we estimate the one-year medical care cost savings if older adults treated at Massachusetts hospitals for fall-related injuries were referred by healthcare providers to participate in *Matter of Balance*.

Methods: Data from several sources were used for this study. We estimated annual cost savings in older adult falls recidivism for a hypothetical 100 patients presenting at an emergency department for a fall-related injury, assuming that all were referred to, and 50 % completed, *Matter of Balance*. This cost-saving estimate was subsequently expanded based on the actual number (43,931) of older adult patients presenting at, and discharged from Massachusetts emergency departments for all fall-related injuries in 2012. Cost savings were calculated for two additional participation rates: 25 % and 75 %. The return on investment (ROI), was calculated based on the percentage of return per each dollar invested.

Results: The calculated ROI for *Matter of Balance* was 144 %. Statewide savings ranged from $2.79 million assuming a 25 % participation rate to $8.37 million, assuming a 75 % participation rate.

A Matter of balance program

Actual cost of:

1. Running evidence-based programs
2. Healthcare cost due to falls

1-Year savings if 100 older adults were referred to evidence-based falls program and 50 % participated: $12,695 USD → $5.58 Million USD

Acknowledgements

- The LSAHV was funded by The Economic Research Institute for ASEAN and East Asia (ERIA).

Thank you!

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