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CONGRESS



19 – 22 March, 2012  
**ON HEALTHY AGEING**

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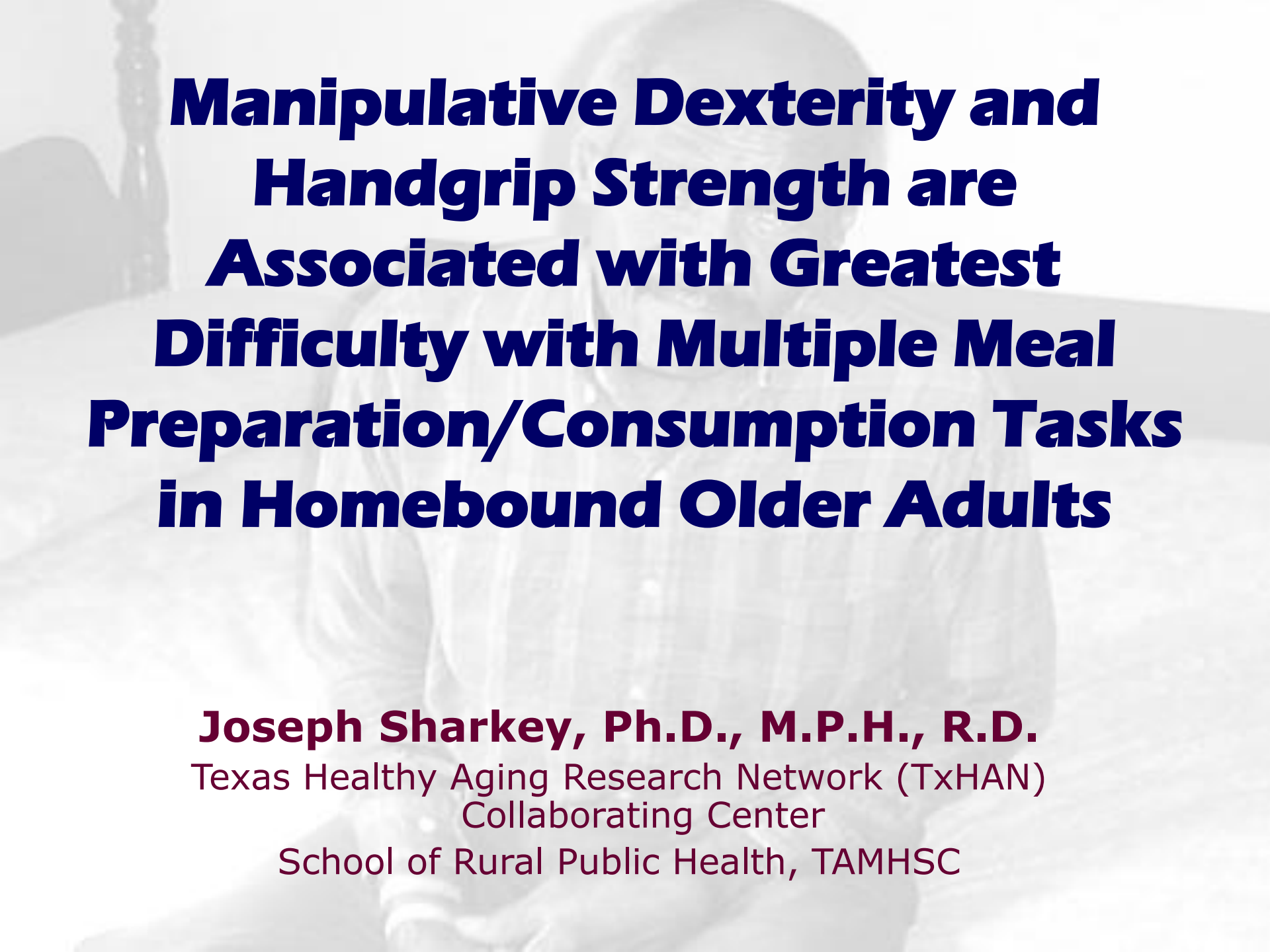


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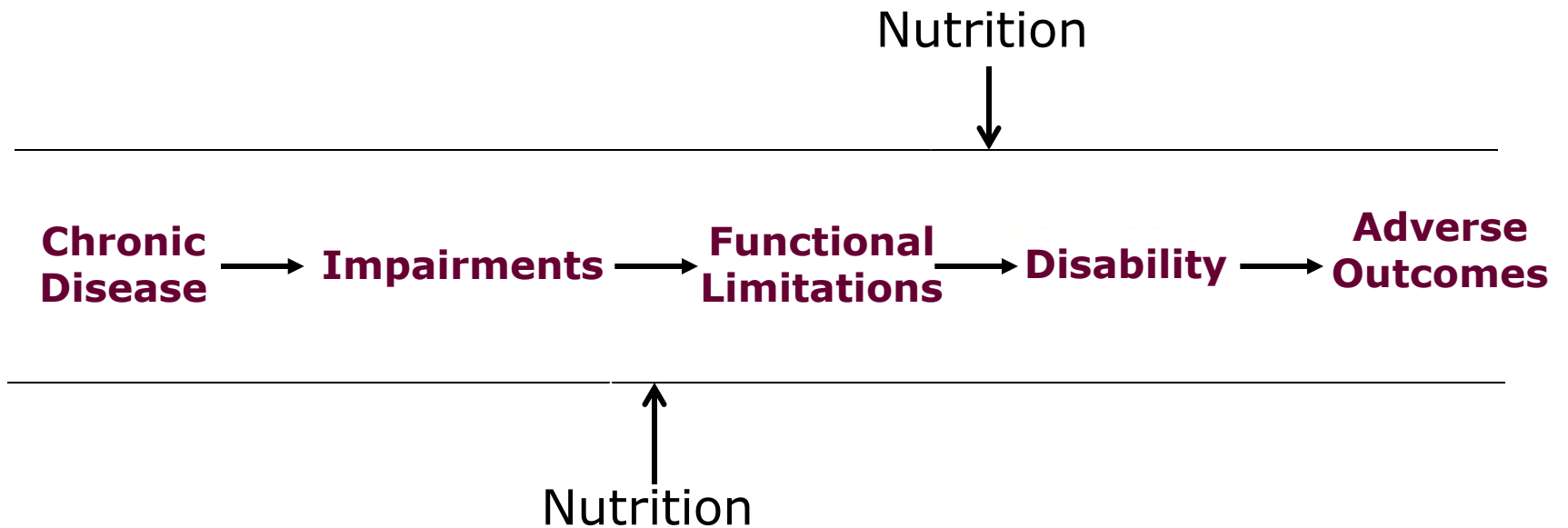
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**Manipulative Dexterity and  
Handgrip Strength are  
Associated with Greatest  
Difficulty with Multiple Meal  
Preparation/Consumption Tasks  
in Homebound Older Adults**

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# Nutrition, Disease, and Disablement



# Vulnerability of Homebound Older Adults

- ★ Increasing in numbers
- ★ Minorities
- ★ Comorbidity and meds
- ★ Increased risk for poor nutritional health
- ★ High users of community- and home-based services



# **Activities of Meal Preparation and Consumption (AMPC)**

- ★ Basic tasks associated with preparation and consumption of foods and beverages
- ★ Associated with lower intakes in Ca, D, Mg, P
- ★ May be associated with handgrip strength (HG) and/or manual dexterity (MD)

An elderly woman with short grey hair is seated in a wooden chair with a floral patterned cushion. She is wearing a white short-sleeved blouse with a floral pattern and dark red pants with a white polka-dot pattern. She is holding a silver cane with her right hand. The background is a plain wall with a window on the right and a green plant on the left. The text is overlaid on the image.

# **Purpose:**

**Examine the relationship of both manipulative dexterity (MD) and grip strength (HG) to difficulty with AMPC**

# Methods

- ★ NAFS – 345 homebound older adults
- ★ Self-reported demographic characteristics
- ★ Self-reported AMPC
- ★ Measured HG and MD
- ★ Ordered logistic regression models

# Demographic and Economic

Age in years, mean	78.2 ± 8.4
Female, %	80.9
Black	48.7
Education <9y	31.6
Income <\$750/m	65.6
Married	17.8
Lives alone	58.3



# Health Conditions

Heart	32.5
High blood pressure	37.4
Lung	21.4
Diabetes	25.5
Arthritis	74.2
Kidney	11.6
≥ 3 health conditions	44.3

# Activities of Meal Preparation and Consumption (AMPC)

Six self-reported questions that measured difficulty with performing specific tasks of meal preparation/ consumption

Open can

Lift cup or glass to drink

Open milk/juice carton

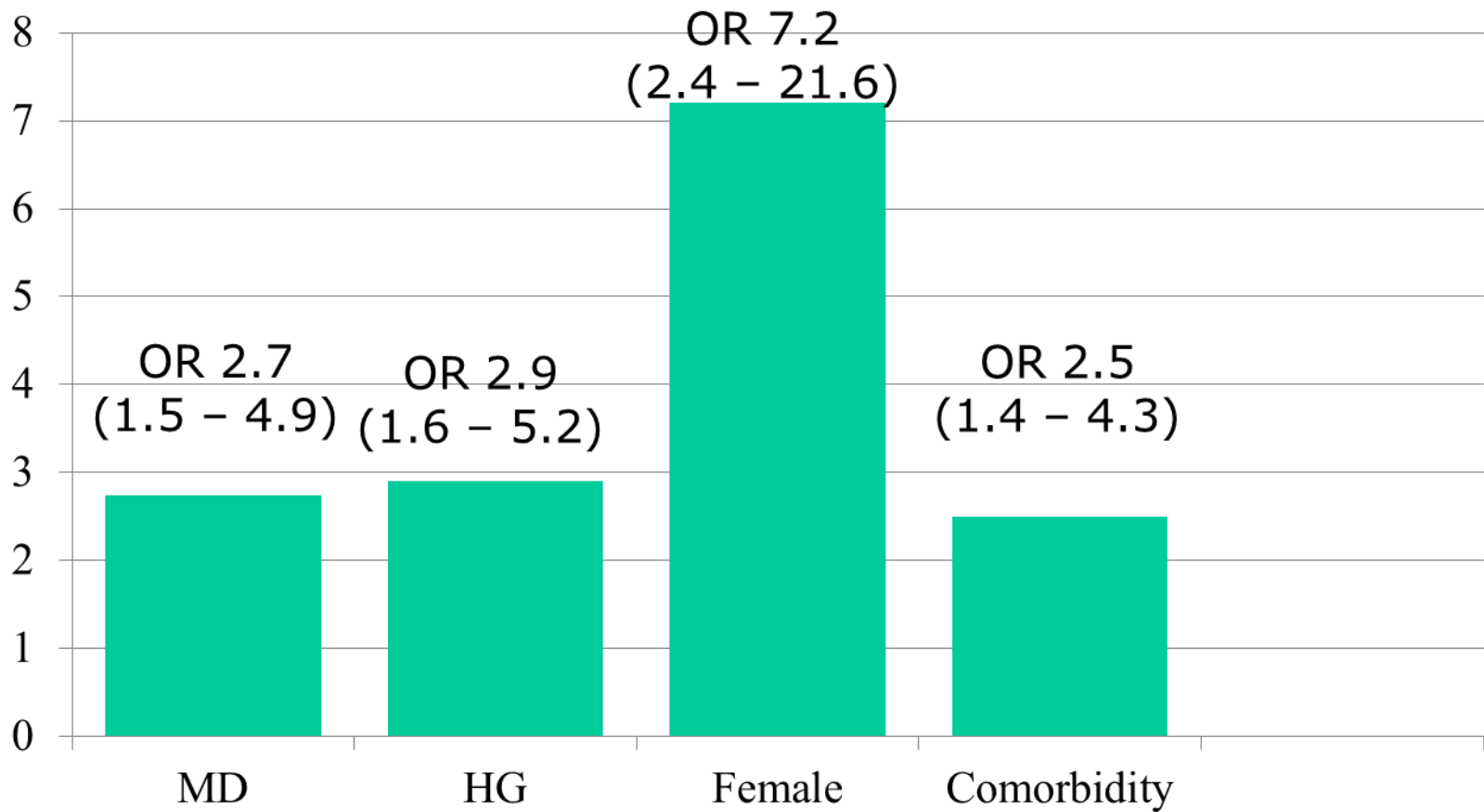
Previously opened jars

Remove safety seal

Open single serving pack

- 4-point Likert scale (1=no difficulty, 4=unable to do)
- Binary outcome: very difficult/unable vs. little/no difficulty
- One factor explained 93.7% of shared variance
- Internal reliability (Cronbach's  $\alpha = 0.76$ )

# Greatest Difficulty with AMPC



# Summary

- ★ Difficulty with HG and MD are powerful correlates of greatest difficulty in tasks of meal preparation and consumption
- ★ Difficulty with poor HG and MD may help identify older adults at risk of poor nutritional health and declining function
- ★ Future focus should be on improving HG and MD and the type of containers used by older adults



THANK YOU

