



# FALL RISK STRATIFICATION AMONG OLDER ADULTS

Population Health Management  
within the In-Patient Setting

**2023 Sino-American Symposium on  
the Culture of Disability**

Dawn Magnusson, PT, PhD  
Denver, Colorado USA



# Outline

AM-PAC MOBILITY SCORE		JOHNS HOPKINS HIGHEST LEVEL OF MOBILITY SCORE (JH-HLM)	
24	<b>8</b>	WALK 250 FEET OR MORE	
22-23	<b>7</b>	WALK 25 FEET OR MORE	
18-21	<b>6</b>	WALK 10 STEPS OR MORE	
16-17	<b>5</b>	STAND (1 OR MORE MINUTES)	
10-15	<b>4</b>	MOVE TO CHAIR/COMMODE	
8-9	<b>3</b>	SIT AT EDGE OF BED	
6-7	<b>2</b>	BED ACTIVITIES/DEPENDENT TRANSFER	
0	<b>1</b>	LAY IN BED	

Population Health Management -  
WHAT

Population Health Management -  
WHY

Approach

Practical Application



# **Population Health vs. Population Health Management**

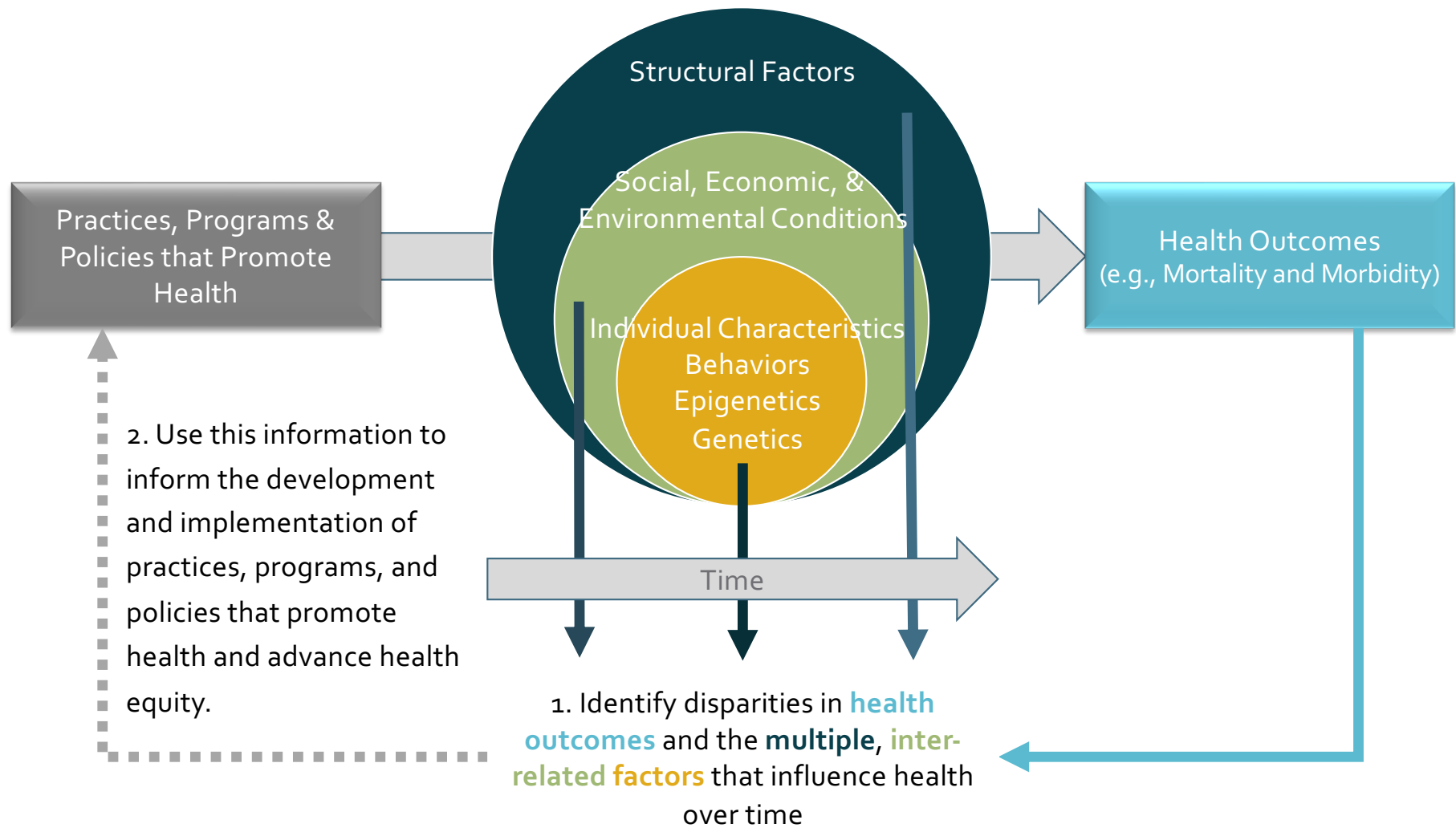




Image: American Psychological Association

## Health Inequities

- Avoidable differences in health outcomes between groups of people
- Arise from unjust social, economic, and environmental conditions.

World Health Organization



What is the Population?

# Population Health

Geopolitically-Defined Boundaries – it's important to consider these geopolitical boundaries given the strong influence of laws, regulations, and funding decisions on a population's health

Country



Yunnan Province



Kunming

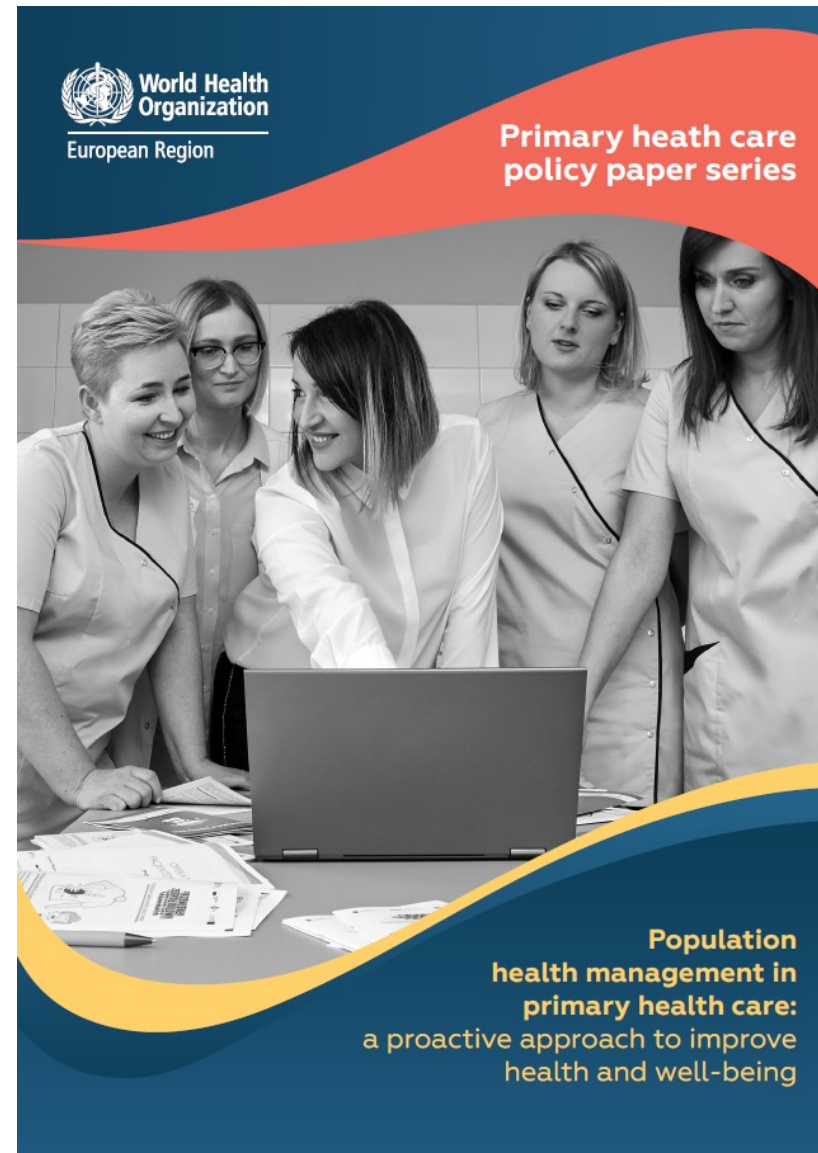


# Population Health Management - WHAT

Clinically-Defined Boundaries



- **WHO Definition:** A people-centered, data-driven and proactive approach to managing the health and well-being of a defined population, considering the differences within that population and their social determinants of health
- **Using data to:**
  - Highlight gaps in outcomes and care processes
  - Identify key factors driving inequities
  - Informing the design and implementation of effective practices, programs, and policies that advance equity
  - Promote proactive, value-based solutions across the care continuum



# Why Population Health Management?



↑ Disability and  
Comorbidities



↑ Costs

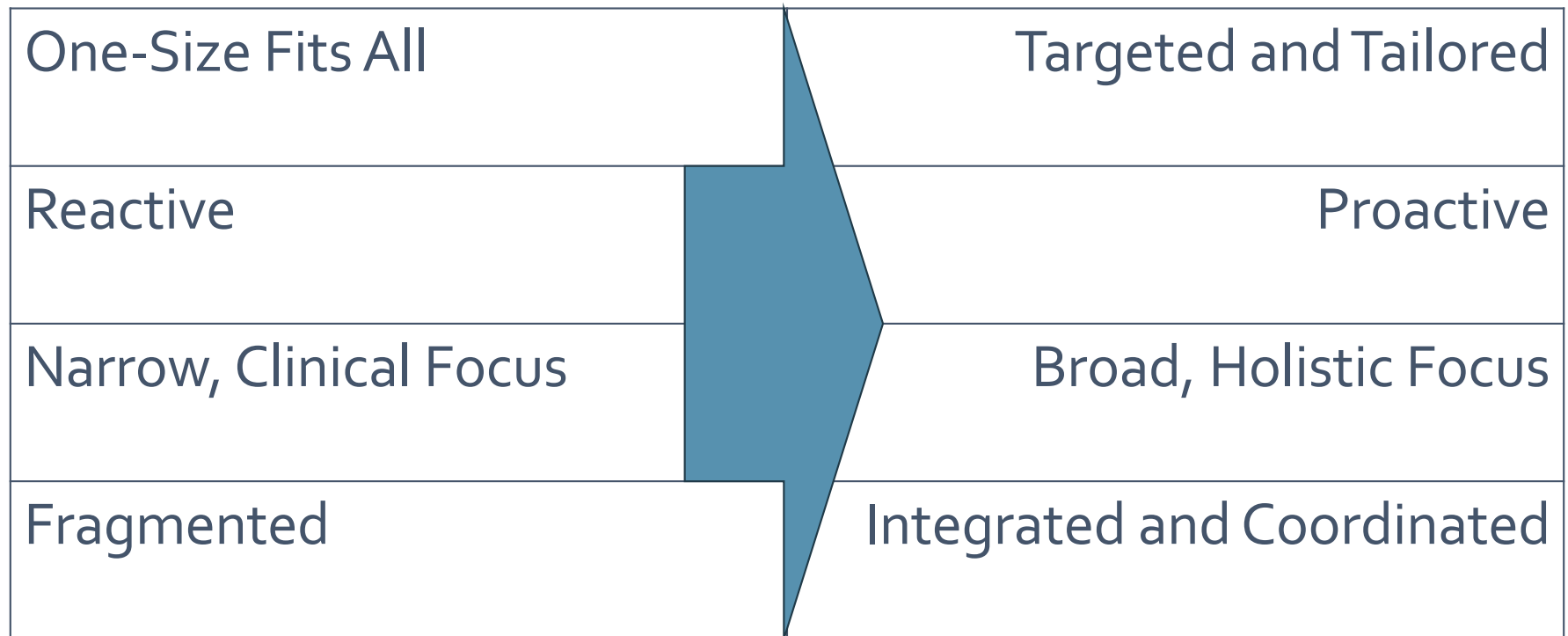


↑ Inequities

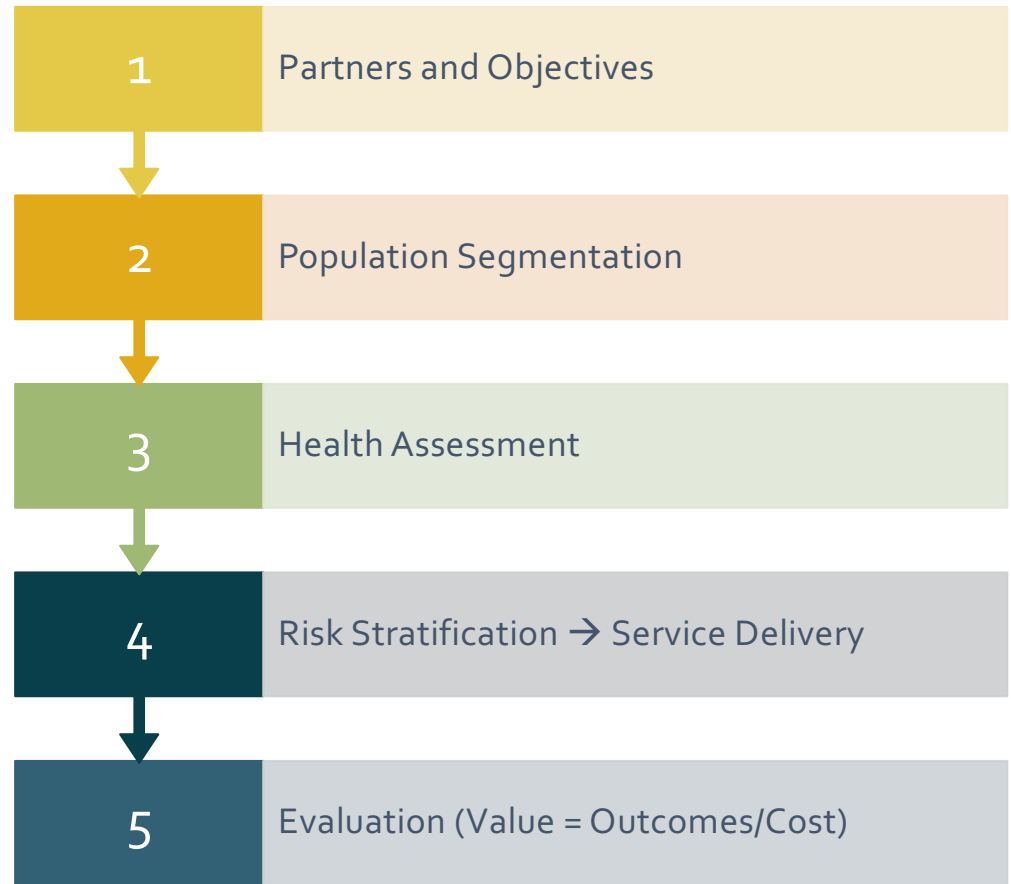
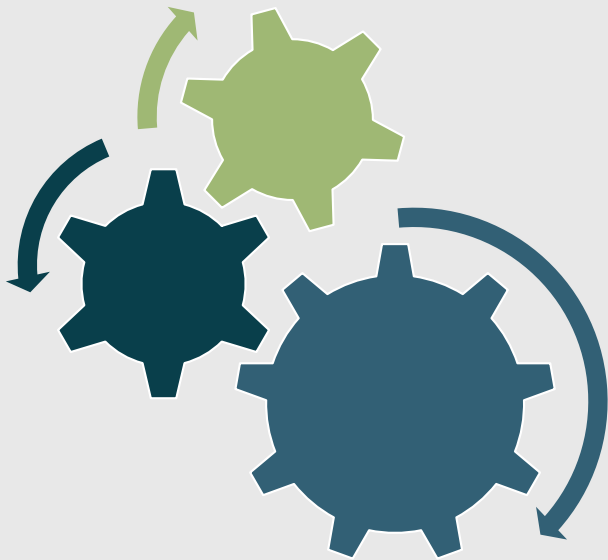
Driven by social and structural  
factors...



# System Changes



# Approach

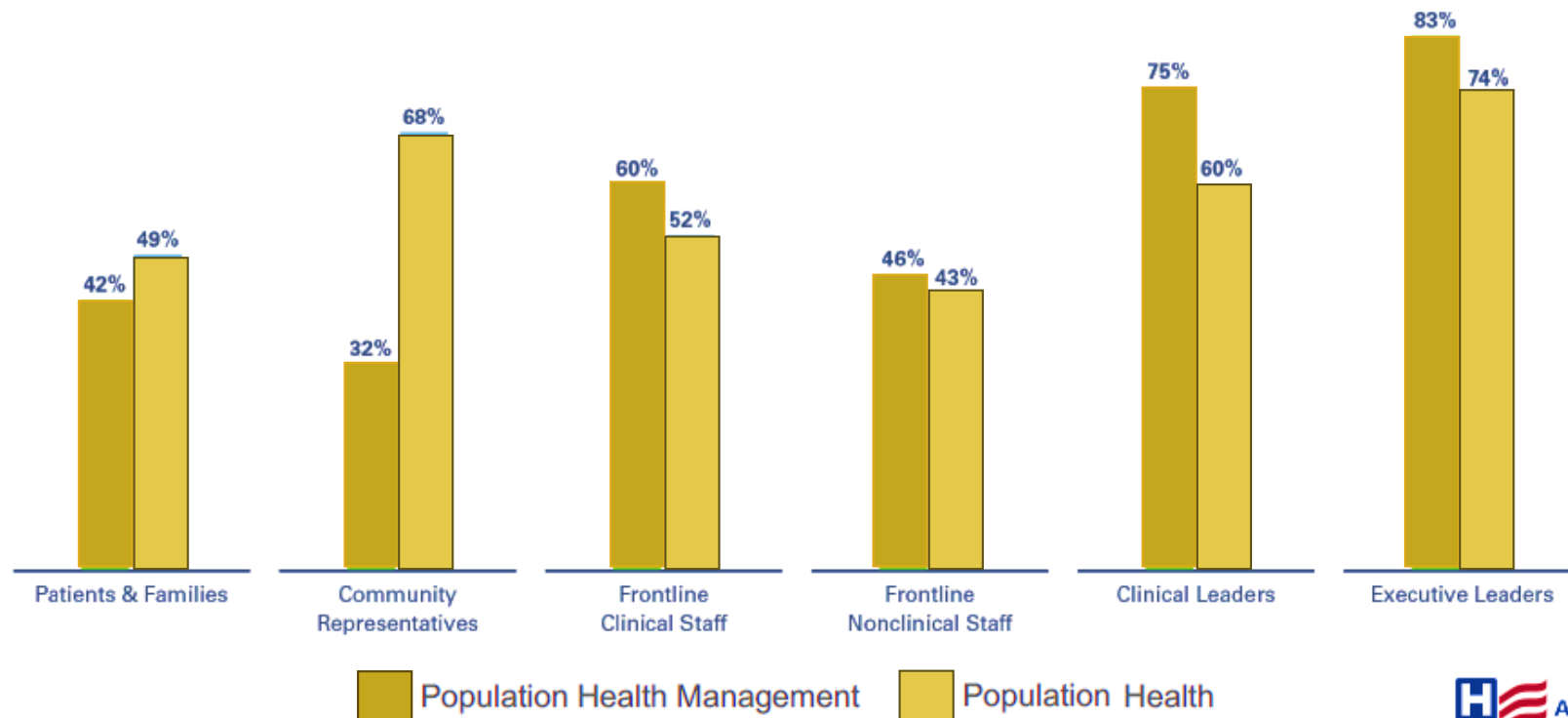


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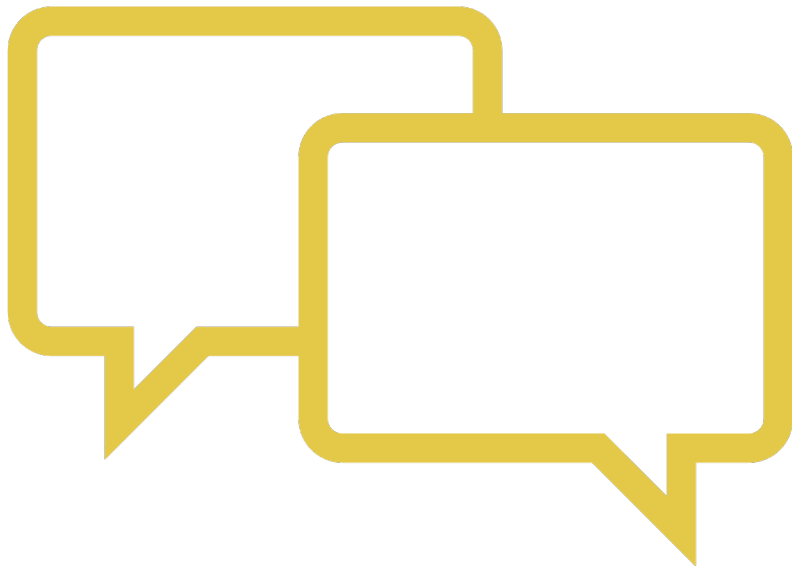
# IDENTIFY KEY PARTNERS & OBJECTIVES



# Who is involved in the implementation of population health strategies and initiatives?



Source: AHA 2018 Population Health, Equity and Diversity in Health Care Survey



## Partners and Objectives

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- What is your setting?
- Who are key partners – folks who will help inform/complete this work?
- What do you hope to accomplish?

2

## DEFINE THE POPULATION



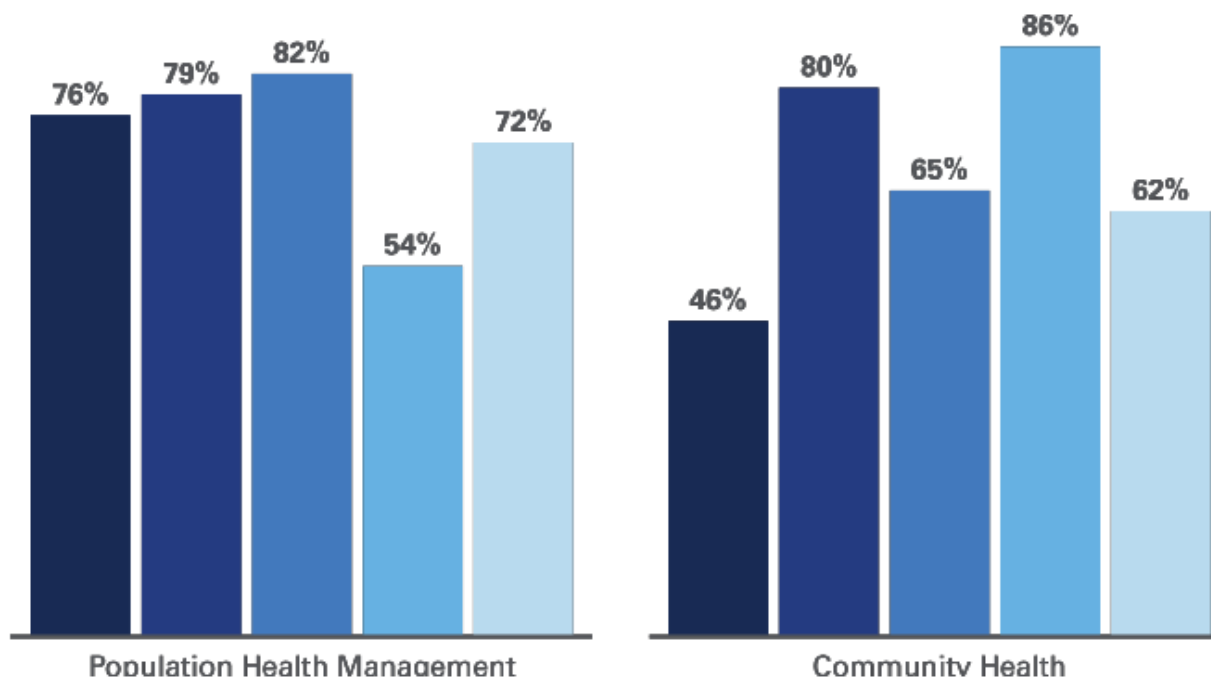


## SEGMENTATION

An approach to grouping clients into segments with relatively similar needs (e.g., condition, neighborhood, age, risk)

# How Do Hospitals Define Their Populations?

How respondents defined their populations for population health management and community health activities.



- Individuals for whom you have a financial risk
- Individuals who may utilize your hospital or health care system
- Individuals experiencing a certain disease or condition
- Individuals living in a specified geographic area or community
- Individuals with specific age or life phase-related health needs

Source: AHA 2018 Population Health, Equity and Diversity in Health Care Survey



## Clinical Population

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- Who makes up your clinical population?
- How might you further segment this population?

# Practical Example

## Setting:

- Academic Medical Center

## Population Segment

- Acute Care Unit

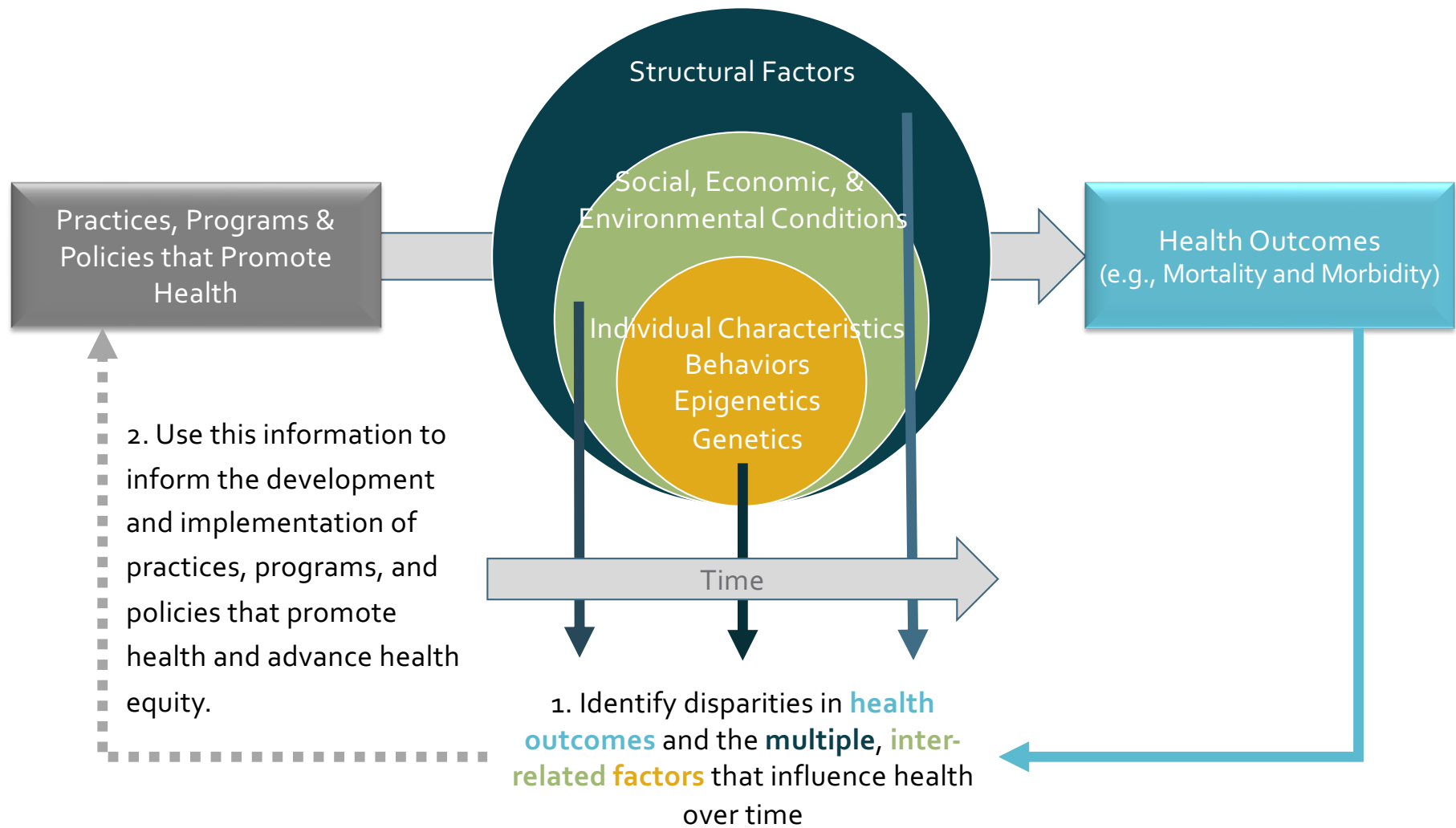
## Purpose:

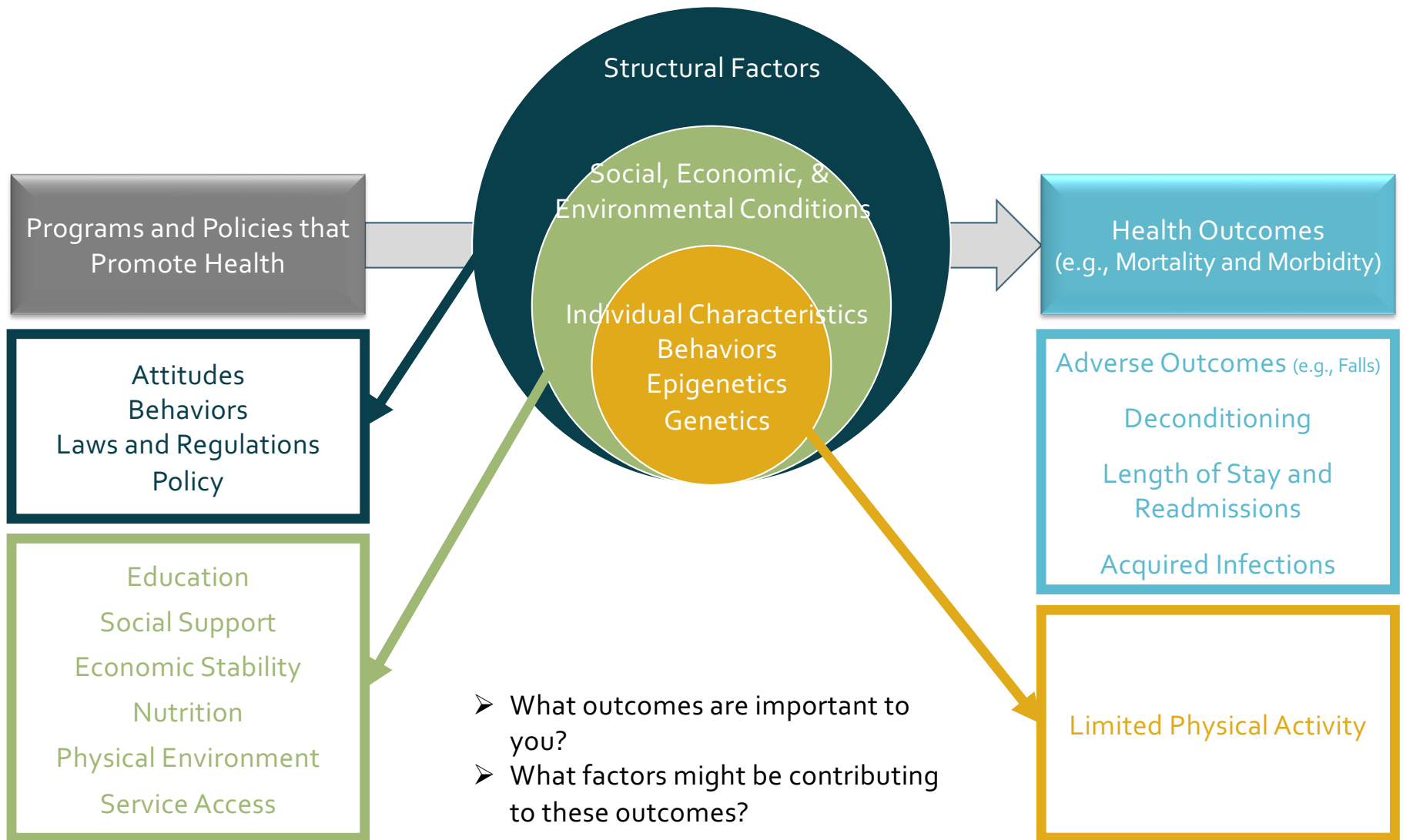
- Maximize patients' function and progress them to the next level of care
- Allocate resources in a way that is effective, efficient, and equitable

3

COMPLETE A  
HEALTH  
ASSESSMENT

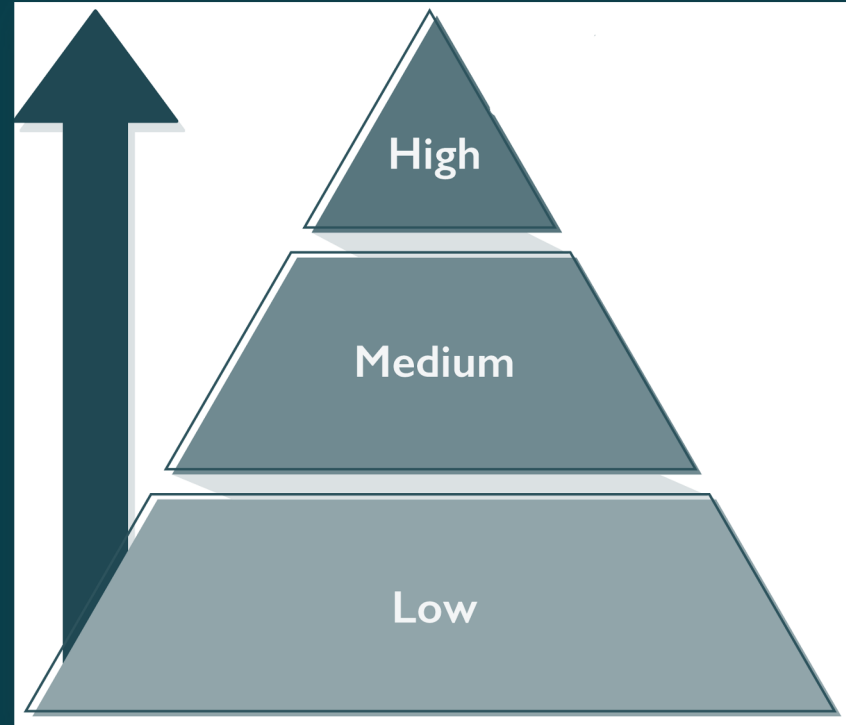


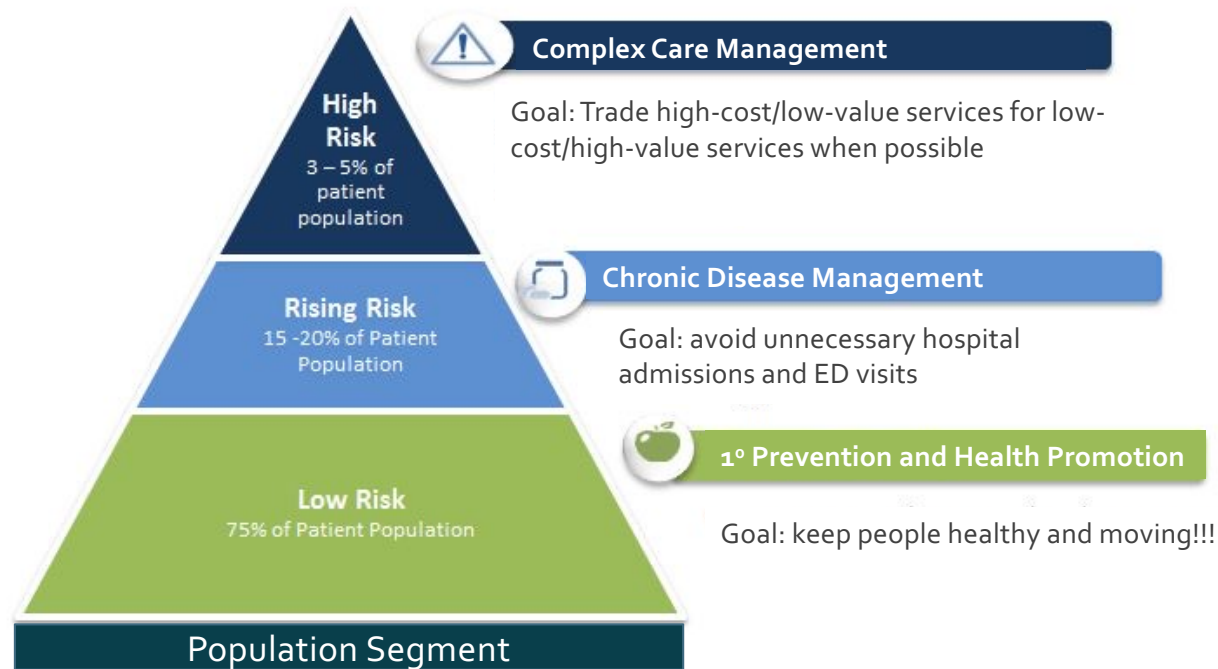




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STRATIFY  
RISK



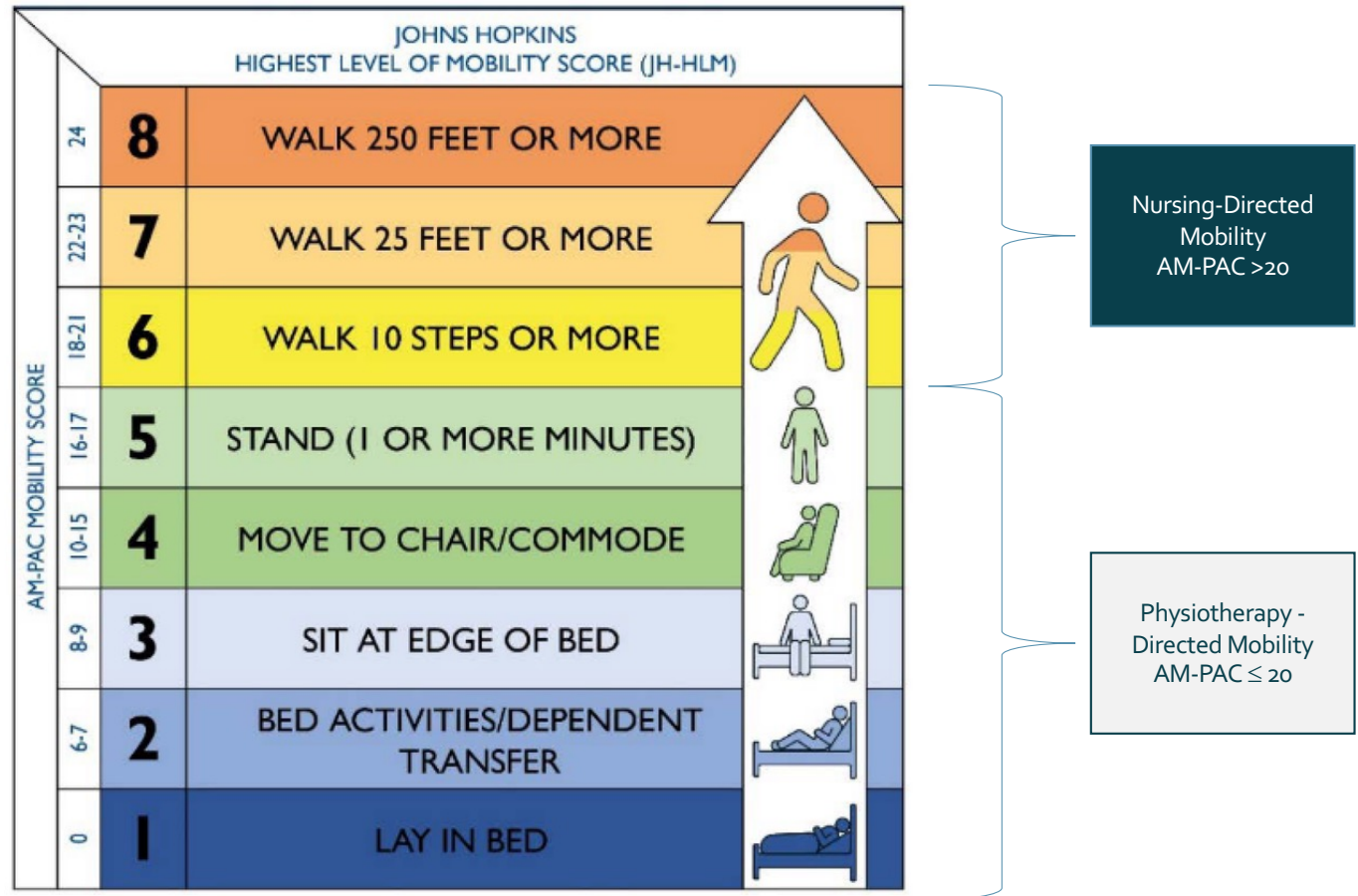


# Risk Stratification

An ongoing process for assigning a risk status to each member of the population segment using a holistic set of health indicators

# Service Model

1. Determine patient's functional status and fall risk (AM-PAC)
2. Allocate resources based on level of risk/service need
3. Establish plan of care (including mobility goals) with patient and care team
4. Progress toward next level of care (Home vs. Other)





PHYSICAL MEDICINE AND REHABILITATION

# Activity and Mobility Promotion (JH-AMP)

[Physical Medicine and Rehabilitation](#) > [Education and Training](#)

#EVERYBODYMOVES

## Combating Patient Immobility Harm

Bring JH-AMP to Your  
Hospital

# EVALUATION

- Decreased length of stay<sup>1,2</sup> (and readmission rates<sup>2</sup>)
- Reduced falls during hospital stay<sup>3</sup>
- Improved mobility during hospital stay<sup>3,4</sup>
- Improved mobility following hospital stay<sup>5</sup>

1. Hoyer et.al. 2016
2. Bergbower et.al. 2020
3. Kissane et.al. 2023
4. Goldfarb et.al. 2018
5. Brown et.al. 2016

**Thank you!**

谢谢

[Dawn.Magnusson@CUAnschutz.edu](mailto:Dawn.Magnusson@CUAnschutz.edu)

# Dawn Magnusson, PT, PhD

Dr. Magnusson is an Assistant Professor in the Physical Therapy Program at the University of Colorado Anschutz Medical Campus, USA. She received a PhD in Population Health Sciences, a certificate in Global Health, and an MS in Physical Therapy from the University of Wisconsin – Madison. Dr. Magnusson completed a two-year postdoctoral fellowship in General Academic Pediatrics, with a focus on health disparities research, through the Johns Hopkins School of Medicine, Department of Pediatrics. Dr. Magnusson's research employs community-based participatory research methods within a population health framework to a) describe the distribution of health outcomes within a population, b) understand the contribution and interconnectedness of multiple determinants of health within the population, and c) inform the development of innovative, community-based solutions that advance health equity for traditionally underserved communities.



# Population Health Management Framework

