

# Healthy Aging at the University of Illinois

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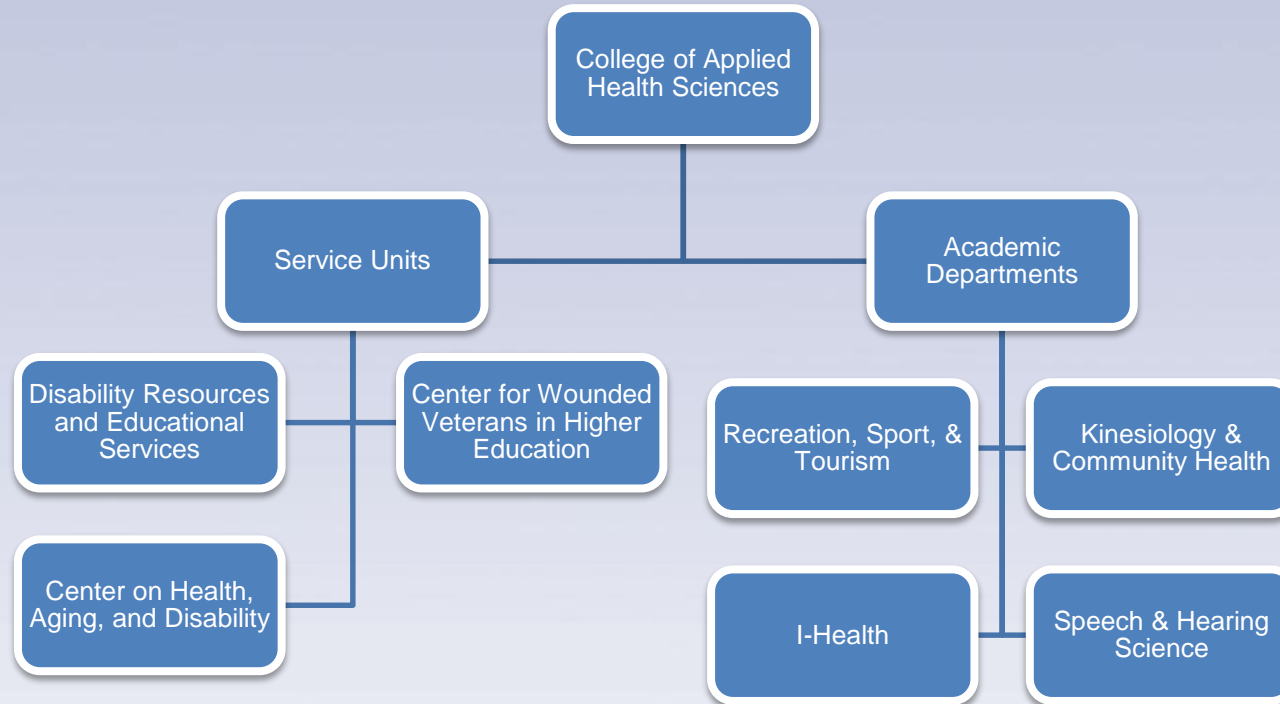


ILLINOIS

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# The College of Applied Health Sciences



# Center on Health, Aging, and Disability (CHAD)

- Center within the College of Applied Health Sciences with 100+ members from around campus.
- **Mission: Foster interdisciplinary research, education and outreach that promotes health and wellness, healthy aging across the lifespan, healthy communities and optimal participation of individuals with disabilities.**
- Who we are:
  - **Jeff Woods**, Director, 244-8815 (woods1@Illinois.edu)
  - **Jacob Sosnoff**, Associate Director, 333-9472 (jsosnoff.Illinois.edu)
  - **Wendy Bartlo**, Proposal Development and Outreach Specialist (wbartlo@Illinois.edu)
  - **Sa Shen**, Biostatistician, 300-9211 (sashen2@Illinois.edu)
  - **Penny Nigh**, Administrative Aide, 333-4965 (nigh@Illinois.edu)
  - Undergrad interns



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<http://chad.illinois.edu> (217) 333- 4965



# The Challenge of Aging

- Increased numbers of older adults worldwide
  - By 2060, there will be about 98 million older persons, more than twice their number in 2014 (US Department of Health and Human Services)
- High rate of stress for adult children and spouses who serve as caregivers
  - More than **65 million people**, 29% of the U.S. population, provide care for a chronically ill, disabled, or aged family member (AARP)
  - Family caregivers experiencing extreme stress have been shown to age prematurely. This level of stress can take as much as **10 years off a family caregiver's life** (Epel et al 2004)



# The Challenge of Aging

- The expense of healthcare and long-term care options
- Dramatic increases in morbidity/mortality when older adults transition to assisted-care
- Risk for social isolation that can contribute to cognitive decline and reduced quality of life
  - Perceived loneliness produces mortality and disease rates comparable to smoking (Holt-Lundstad et al 2010) and is associated with mortality and disease rates nearly as high as those linked with poverty and twice as high as those correlated with obesity (Cacioppo & Cacioppo 2014).
- Reduced mobility in old age



# Healthy Aging at Illinois

[Healthyaging.illinois.edu](http://Healthyaging.illinois.edu)

A collaboration between the

-Center for Health, Aging and Disability (College of AHS)

-Health Care Systems Engineering Center (College of Engineering)

for the benefit of all who do aging research on campus

Our goal is to bring campus faculty and students  
who do aging research together for the common good:

-new research interactions

-community connections

-connections with health care providers

-development of grant proposals

-seminar series

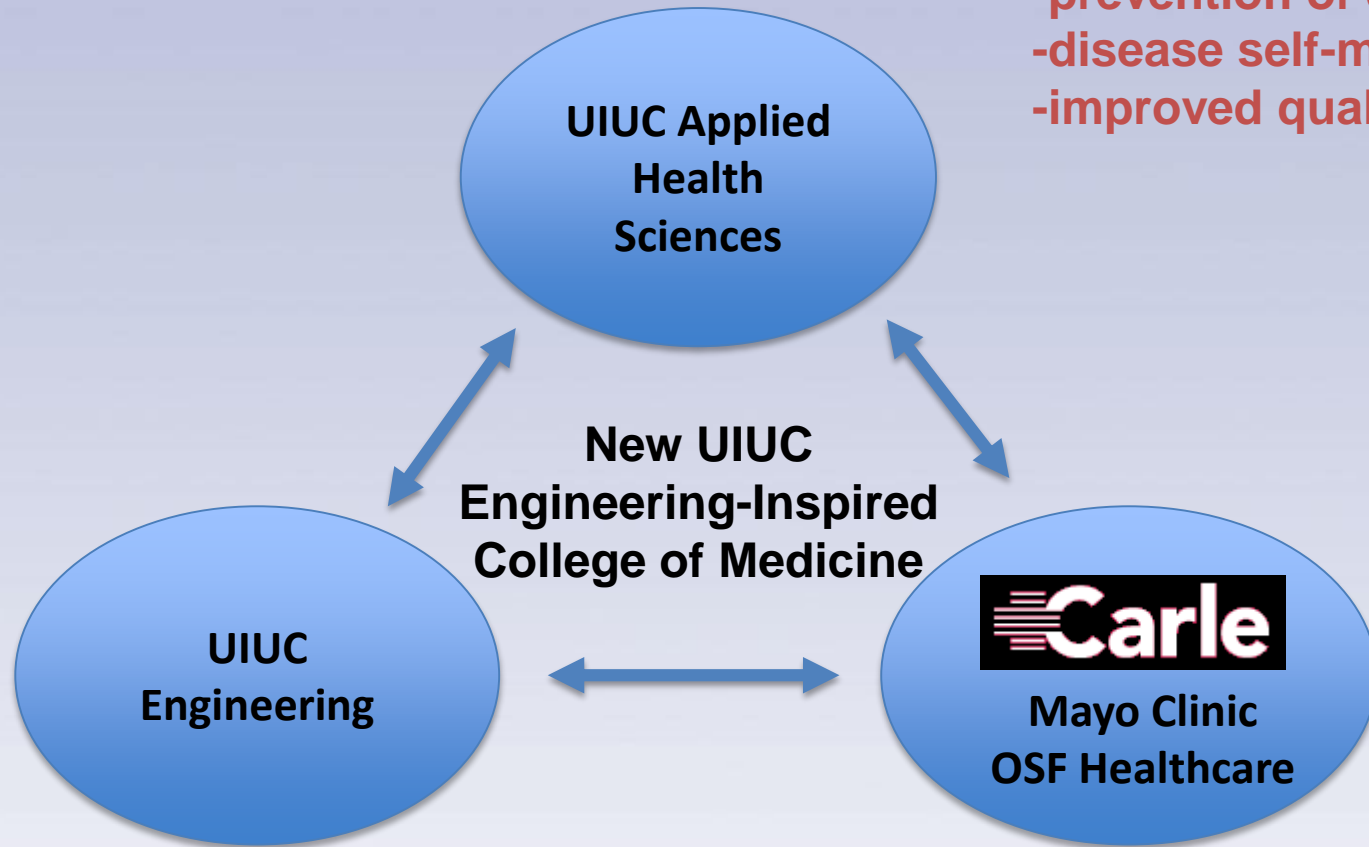
-creation of an intergenerational 'living laboratory'

-mutual benefit for older persons in C-U, service providers and UIUC



# HEALTH

- health is not medicine
- prevention of disease
- disease self-management
- improved quality of life

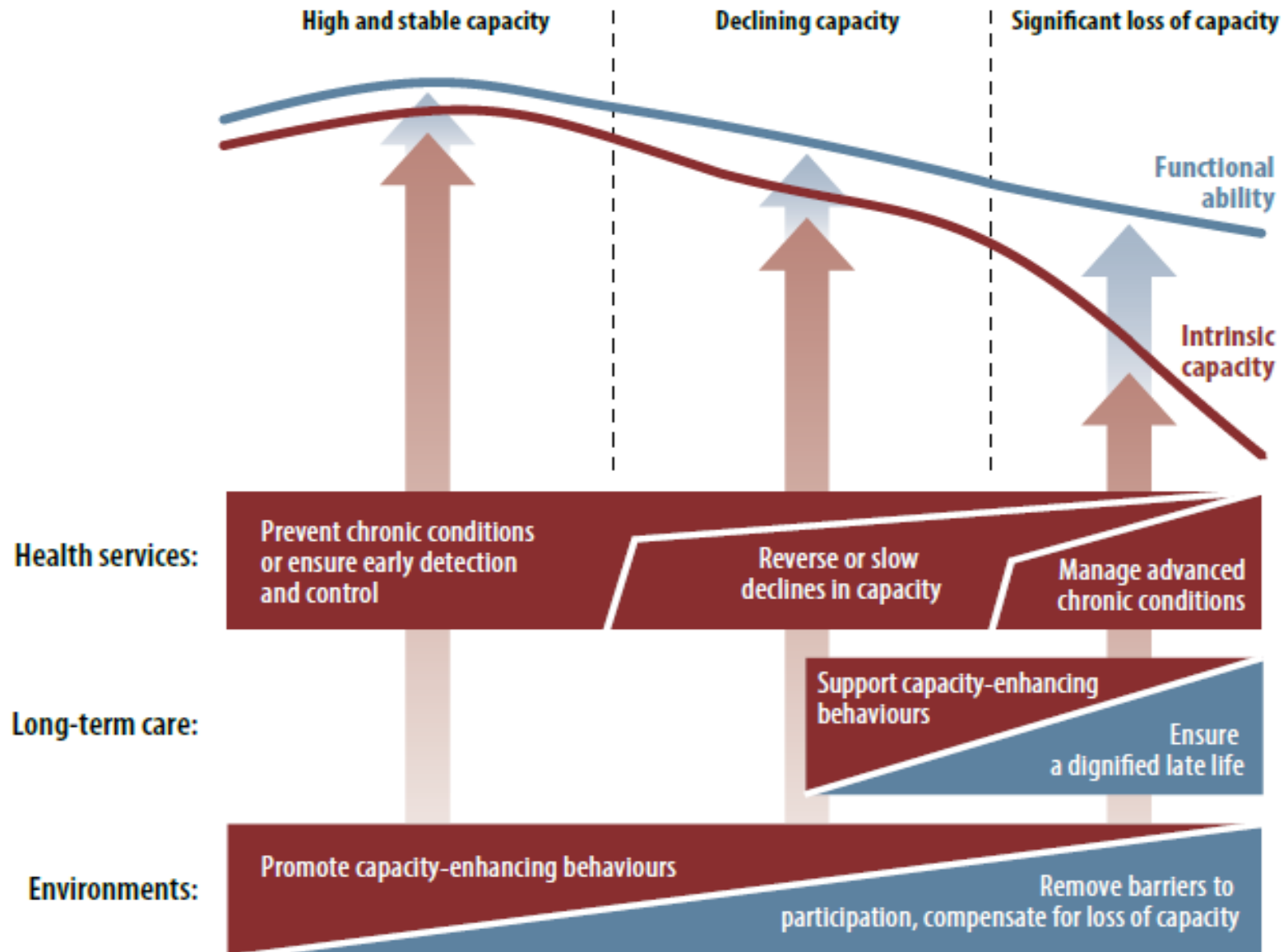


# TECHNOLOGY

# MEDICINE



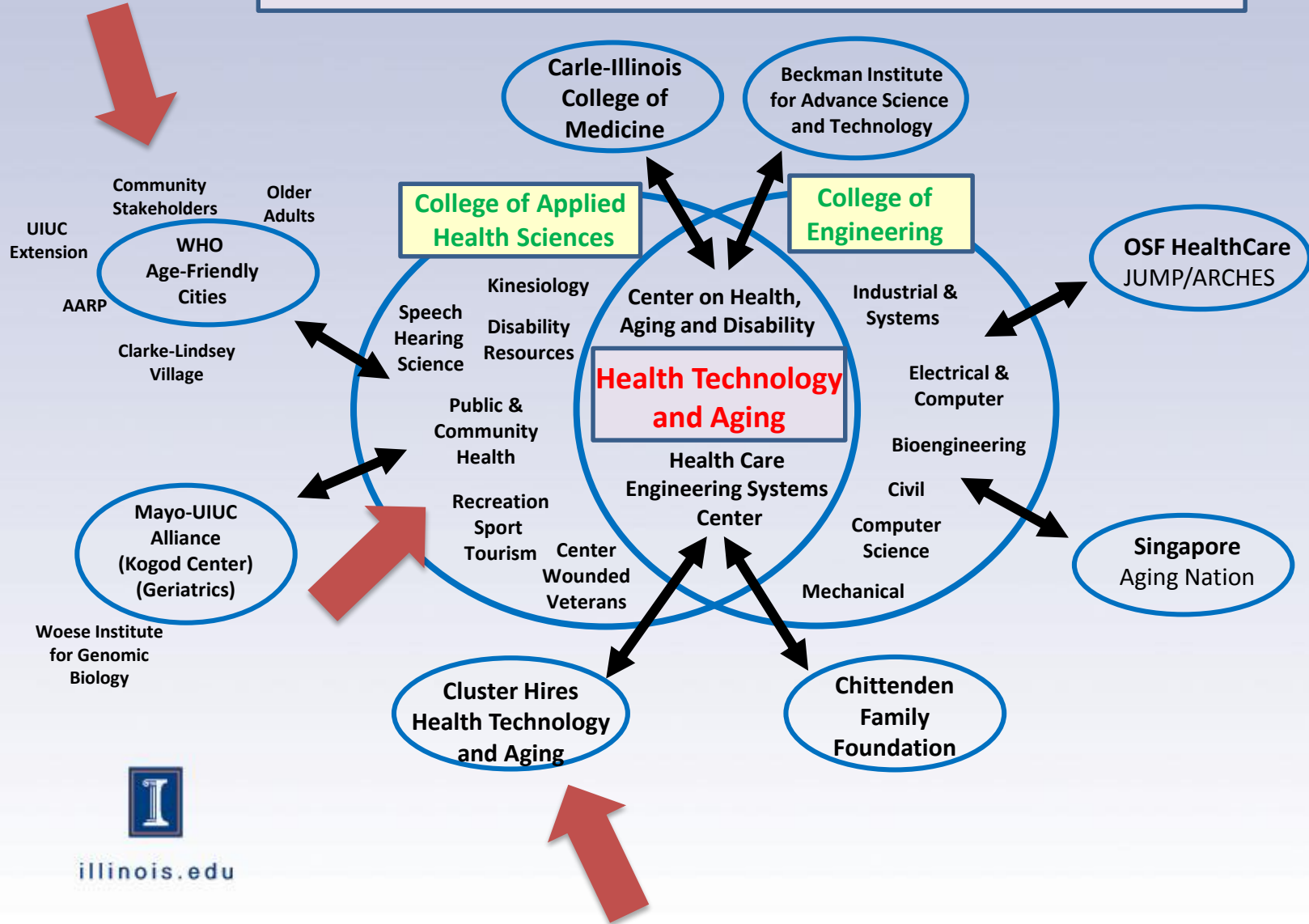
**Fig. 2.4.** A public-health framework for *Healthy Ageing*: opportunities for public-health action across the life course



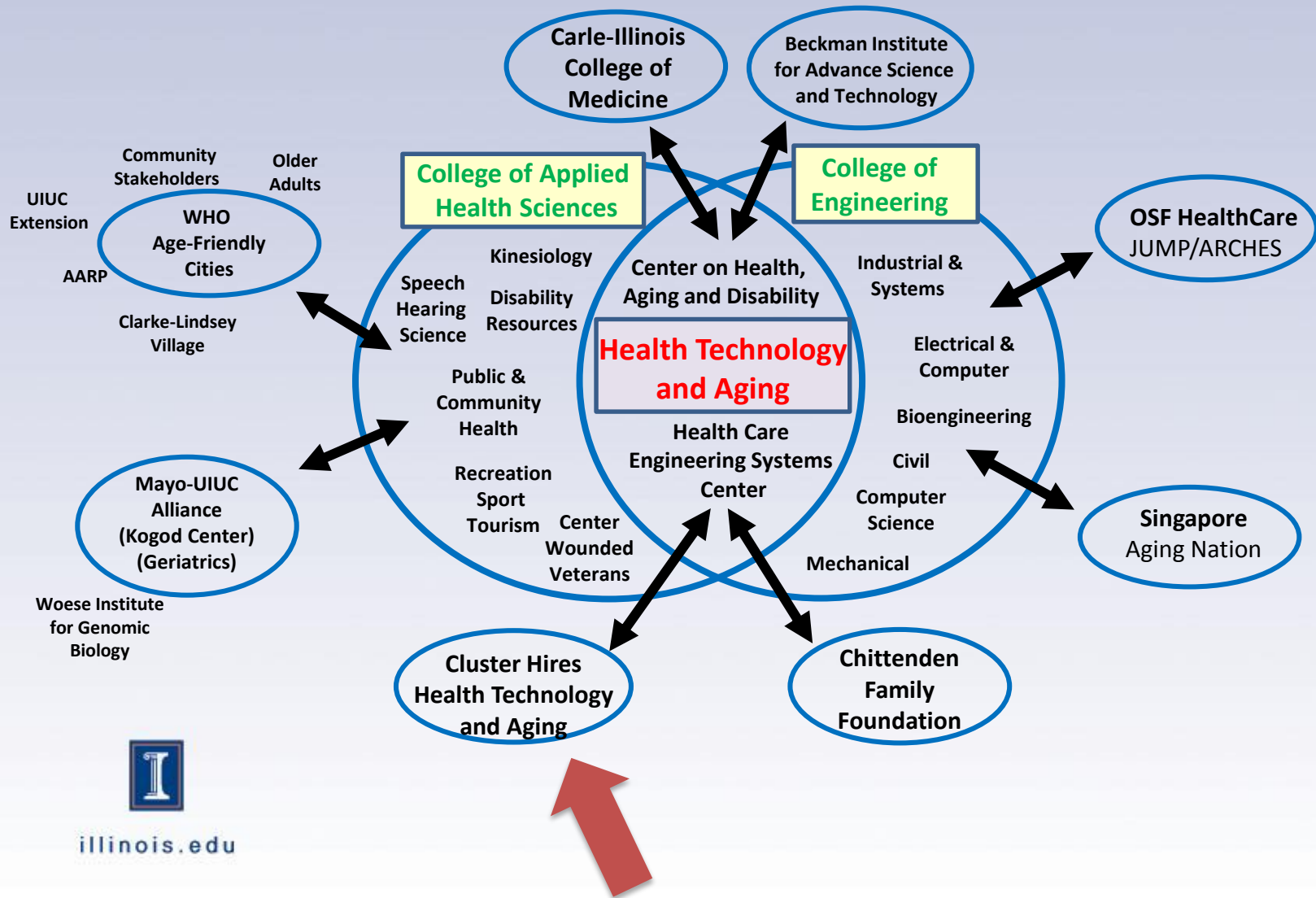


# WHY UIUC?

## Pieces of the Puzzle: Health Technology and Aging at UIUC



# Pieces of the Puzzle: Health Technology and Aging at UIUC



**POSITION ANNOUNCEMENT**  
**PROFESSOR in HEALTH TECHNOLOGY AND AGING**  
**University of Illinois at Urbana-Champaign**

**Description:** The University of Illinois at Urbana-Champaign (<http://illinois.edu/>) and the College of Applied Health Sciences (<http://ahs.illinois.edu>) is searching for a senior scholar at the Full or senior Associate Professor level to fill a campus-level Strategic Excellence Hiring position focusing on Human Health and Wellness with an emphasis on *health, technology and aging*. We are seeking a preeminent scholar whose approach to studying healthy aging bridges technology (e.g. mobile health, sensors, smart devices, rehabilitation and assistive technologies) and the biological, behavioral and/or social sciences. We are especially interested in a visionary leader whose research agenda will contribute to our campus excellence in *healthy aging* and the role technology can play in prevention and treatment of deteriorating health and disability and independent living among older adults.

**Qualifications:** Successful candidates must have an earned doctorate in the health or medical sciences. A record of academic scholarship and teaching that meets qualifications for the rank of full professor at the University of Illinois at Urbana-Champaign is required. Candidates must possess a commitment to interdisciplinary research and collaborations with faculty from a variety of disciplines including engineering. Desired qualifications include: expertise in the integration of health technology and the biological, social and/or behavioral sciences; a recognized national and international scholarly reputation; visionary leadership and the ability to advance and lead interdisciplinary research and teaching initiatives; and a record of successful funding from public or private sources.

# Welcome Wendy.....



The College of Applied Health Sciences  
at the University of Illinois at Urbana-Champaign presents

## Health Technology and Aging Senior Excellence Position Lectures



WENDY ROGERS, PhD

Professor, School of Psychology  
Director, Human Factors and Aging Laboratory  
Georgia Institute of Technology

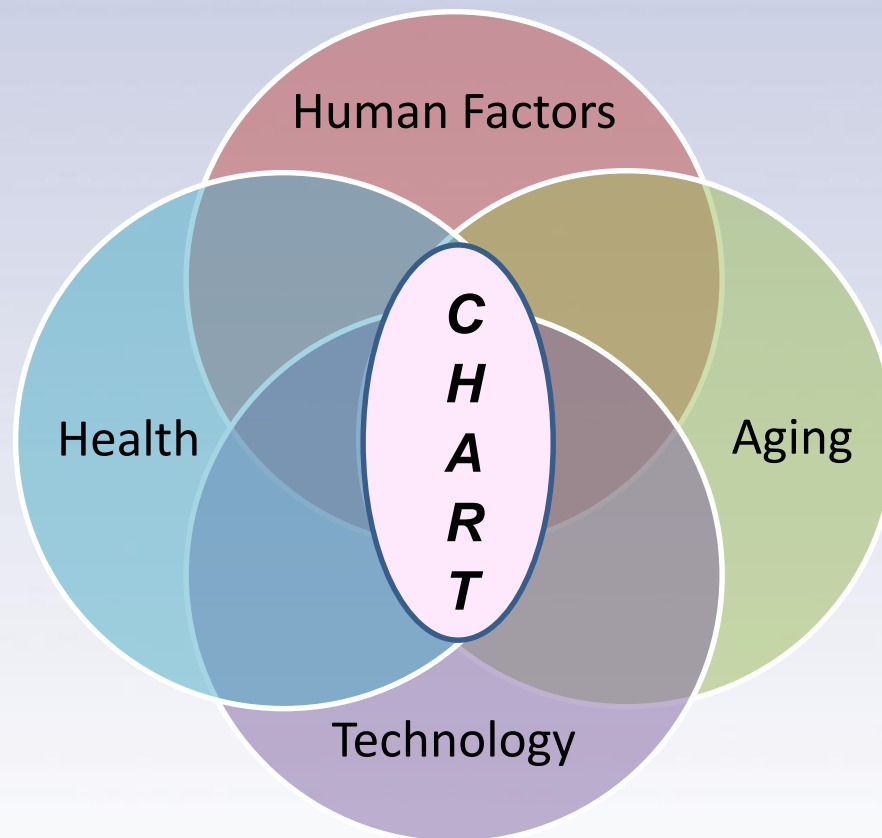
- new professor in AHS (formerly at GA Tech)
- brought in to lead new program in health, technology and aging
- studies:
  - design for aging, technology acceptance, aging-in-place,
  - human-robot interactions, cognitive aging and skill acquisition



# CHART

(Collaborations in Healthy Aging, Research, and Technology)

*Charting the course for successful aging*



# CHART

*Charting the course for successful aging*

## Necessary Components:

Interdisciplinary research support

Education and training (inter-generational)

International collaborations

Industry partnerships

Community linkages



# Community Linkages

Create opportunities for collaborations; identify challenging problems; expand participant registry; serve as resource links for researchers

## **Local** (examples)

- Area Agencies on Aging
- Senior centers
- Senior housing (HUD)
- Naturally Occurring Retirement Communities (NORCS)
- Home Health Agencies
- Social Service Providers

## **National** (examples)

- Advocacy Organizations
- AARP**
- Alzheimer's Association
- LeadingAge
- Deaf Seniors of America
- National Aging in Place Council



# Industry Partnerships

Partner to solve challenging problems; increase scale and distribution of solutions; translational science

## Models for Support

Donations

Funds

Equipment

Fellowships/Scholarships

Class sponsorship (design studio)

Contracts

## Collaboration Opportunities

Host monthly industry/academic/  
policy/community agency  
networking events

Yearly industry oriented events  
(demos, student posters, showcase)

Joint grants - SBIR/STTR, program  
projects

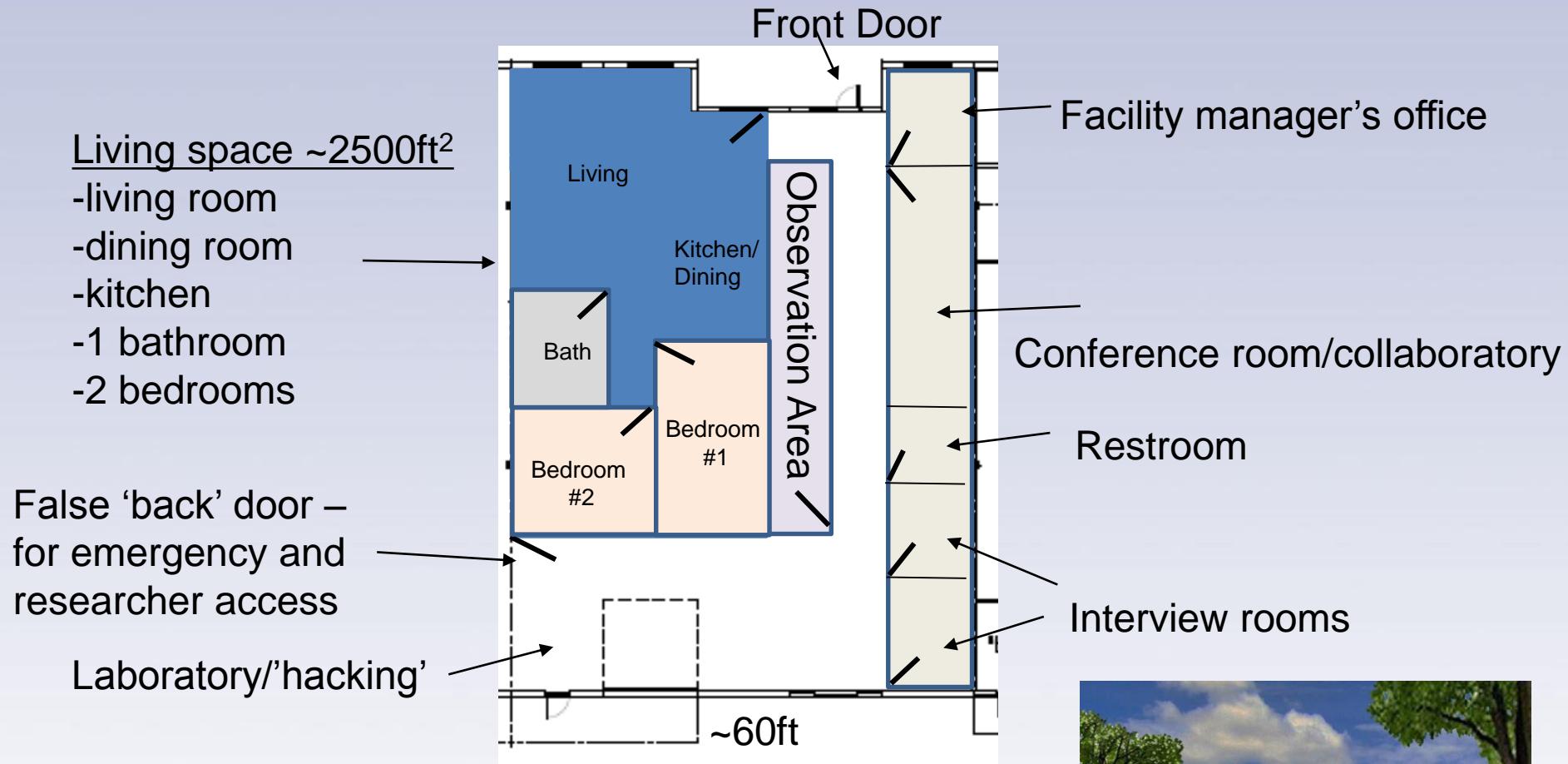
Aging 2.0 – collaborative for innovators  
with local chapters



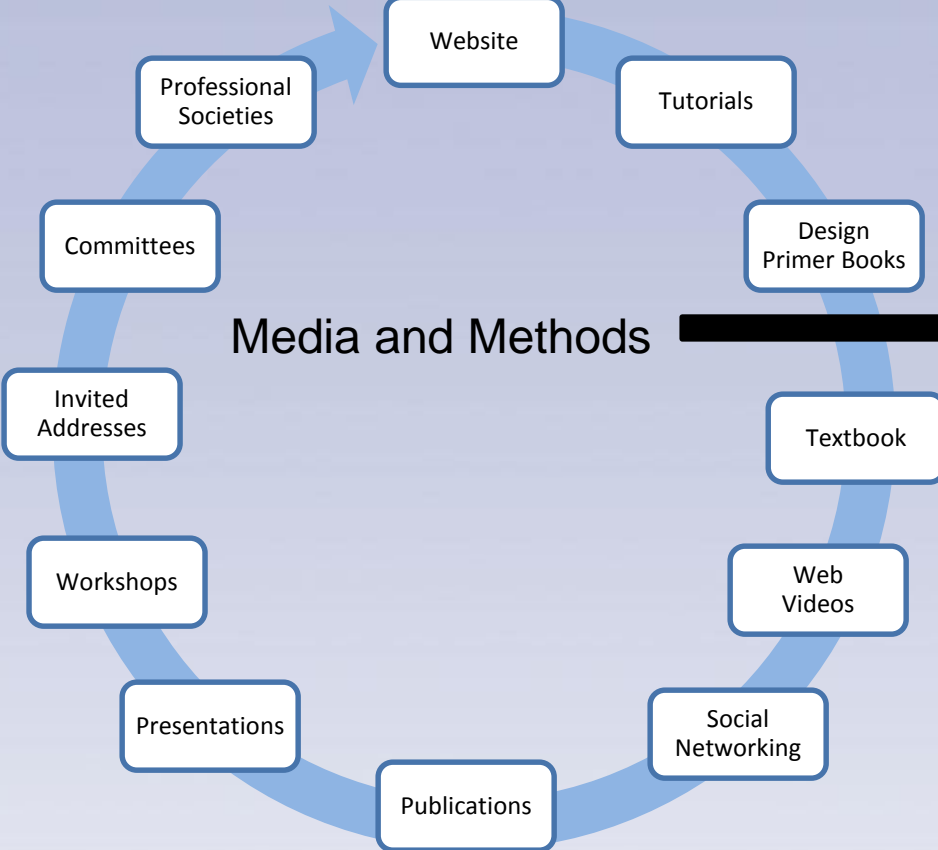


# Concept: UIUC's 'Smart Home' Research Laboratory

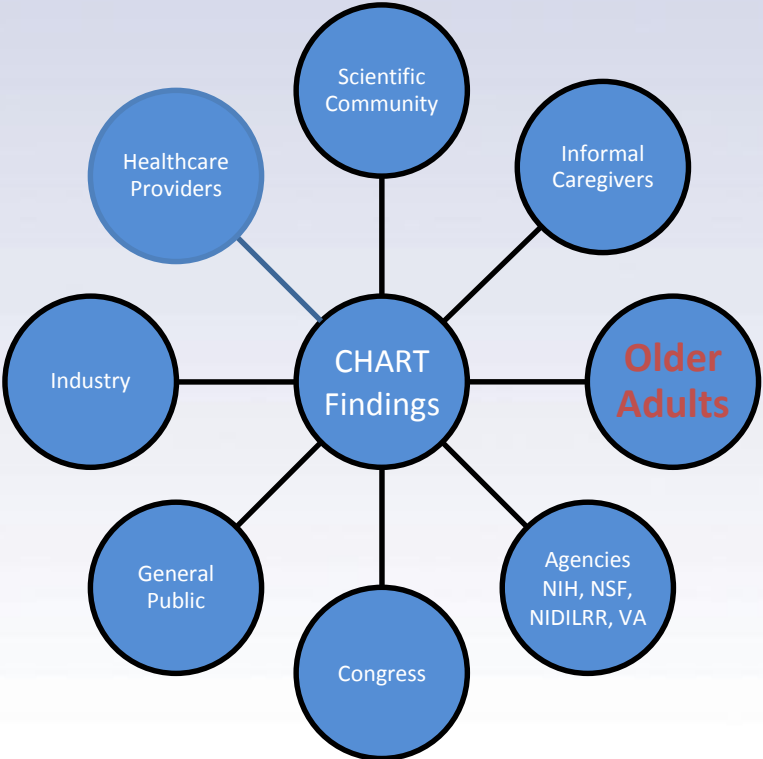
## The CHART HOUSE?



# Dissemination



## Target Audiences

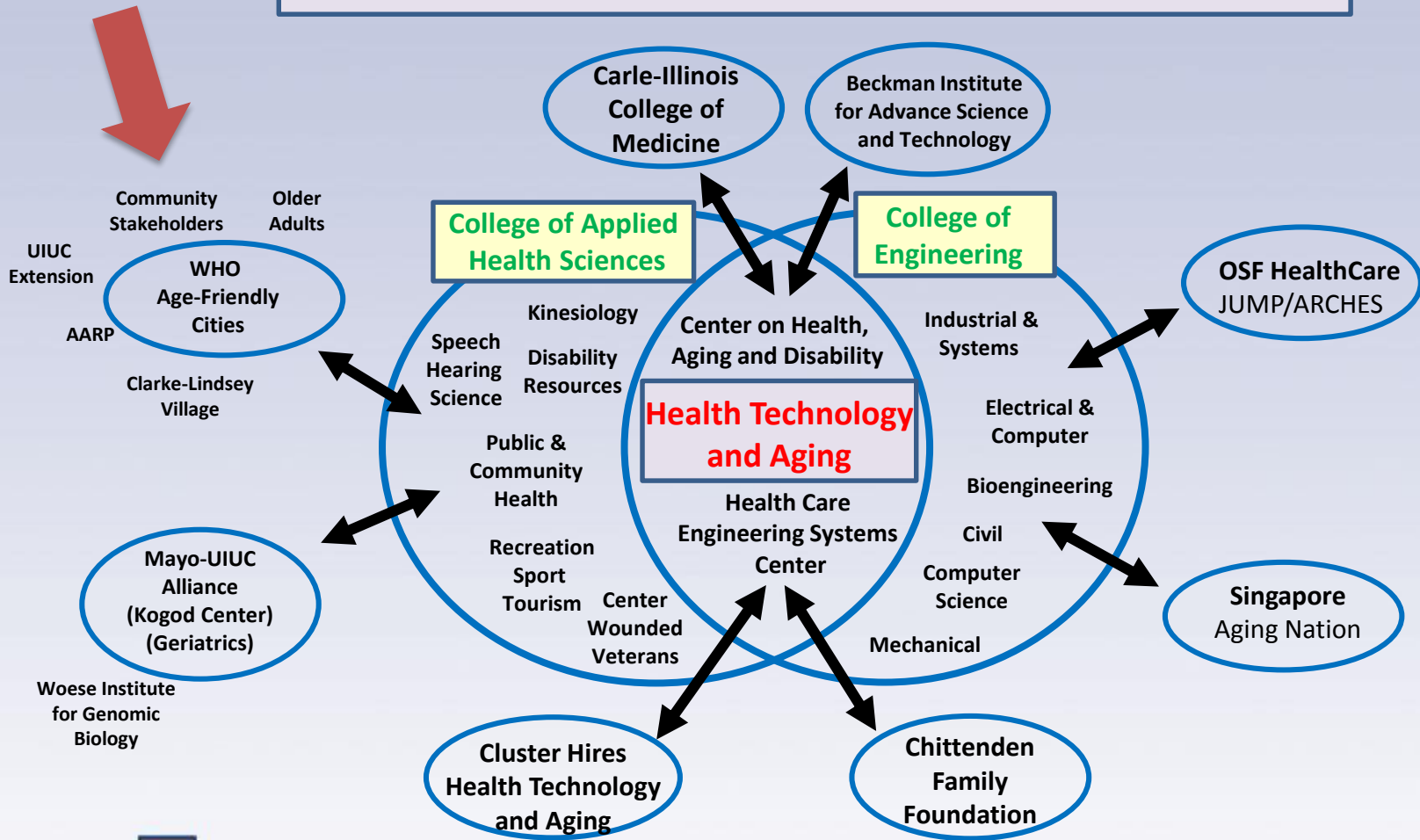


# CHART Core Values

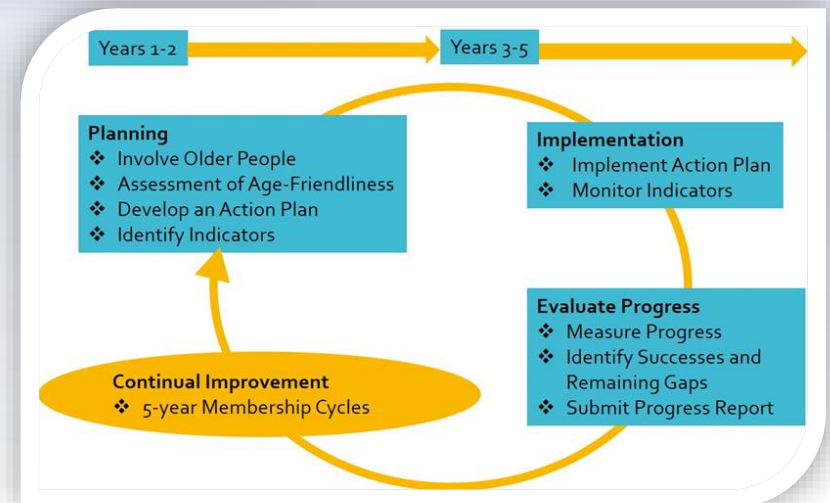
- Transformative approach
- Positive views about aging
- Inclusive and people-centered design
- Ensure equity, reduce disparities
- Affordable, available, high-quality, effective solutions
- Research with older adults, not for them
- Integration with industry, agencies, policy makers
- International in scope and impact
- Interdisciplinary and collaborative



# Pieces of the Puzzle: Health Technology and Aging at UIUC



# Aging Outreach Effort: Age-Friendly Champaign-Urbana



# Community Outreach for an Age-Friendly Champaign-Urbana

## What are our goals?

- to make Champaign-Urbana a more livable community for people of all ages
- to achieve status as an 'Age-Friendly' city in the eyes of the World Health Organization (WHO) and AARP



# Why does the Center on Health, Aging and Disability want to be part of this effort?

- Land grant mission 'service is in our DNA'
- Demonstrate to state government our local impact
- Attract high quality faculty, keep them in the community after retirement
- Learn from our older generation
  - (e.g. ExperienceCorps volunteers)
- Potential to address research questions
  - (technology, health and the new College of Medicine – a living laboratory?)
- Potential to interact with stakeholders to work together to solve problems
  - (e.g. EIAAA, health care providers, aging services)
- Opportunities for our students (undergrad and grad)
- Potential to attract non-traditional funding support for research and services



**CHAD has the capacity to coordinate and communicate to all stakeholders in an unbiased fashion. We have experience accessing resources (e.g. grants). We have topical expertise in the domains.**

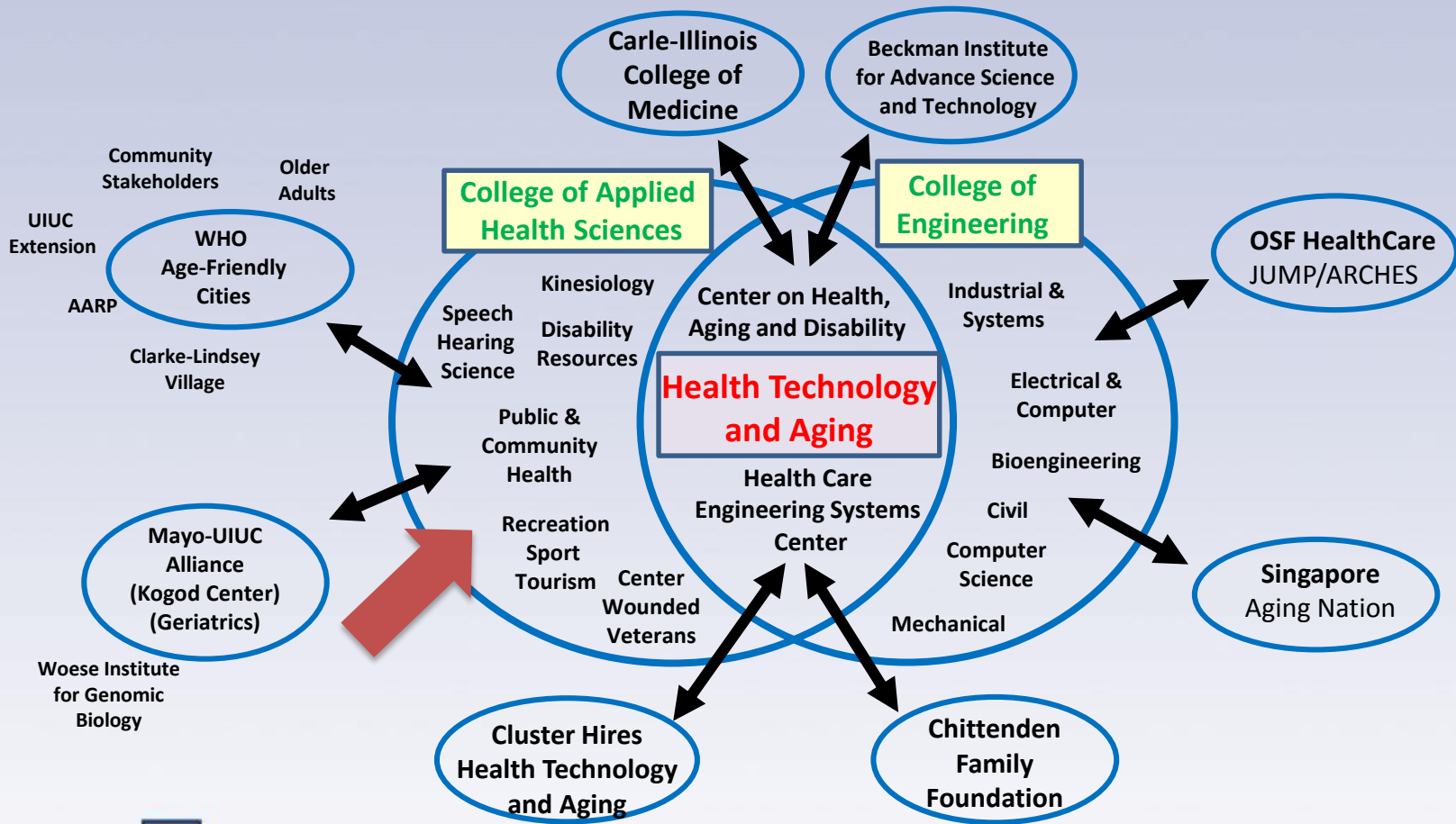
# Age-Friendly Champaign-Urbana Steering Committee 2016-17

- **Mr. Patrick Harness**
  - Community Liaison, Health Alliance
- **Ms. Debra Reardanz**
  - President and CEO, Clark-Lindsey Village
- **Mr. Ben LeRoy**
  - Associate Planner, City of Champaign
- **Ms. Elizabeth Tyler**
  - Community Development Director and City Planner, City of Urbana
- **Mr. Joe DeLuce**
  - Executive Director, Champaign Park District
- **Mr. Tim Bartlett**
  - Executive Director, Urbana Park District
- **Ms. Rosanna McLain**
  - Director, Senior Resource Center
- **Dr. Preston L. Williams Jr.**
  - Former Superintendent Urbana Schools
- **Ms. Traci Nally**
  - Vice President of Human Resources, the News-Gazette
- **Ms. Sue Grey**
  - President and CEO, United Way of Champaign County
- **Dr. Linda Coleman**
  - Professor Emerita, English and Women's Studies, EIU
- **Ms. Linda Tauber-Olson**
  - Regional Director Faith in Action, Presence
- **Ms. Dawn Henry**
  - Director of Rehabilitation, Carle Foundation Hospital
- **Ms. Kathleen Holden**
  - Retired UIUC Administrator





# Pieces of the Puzzle: Health Technology and Aging at UIUC



# AHS Faculty Research on Healthy Aging



# Older Latinos and Health



**Illinois Pathways to Health**



**The Dona Francisca Health Study**



**Andiara Schwingel, PhD**

Assistant Professor

Department of Kinesiology and Community Health

[andiara@illinois.edu](mailto:andiara@illinois.edu)

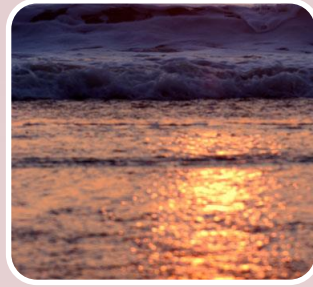
<http://adl.kch.illinois.edu>



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# Longer life expectancy and healthy lives

## Aging in Latin America, Caribbean and the US



Chronic conditions  
(i.e. diabetes, hypertension and heart disease)

Disability  
(e.g. activities of daily living)

Health disparities

Mental health

Social and family support



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Flavia Andrade

Associate Professor, Department of Kinesiology and Community Health

Fellow of the Gerontological Society of America

# Older adults in U.S. and China:

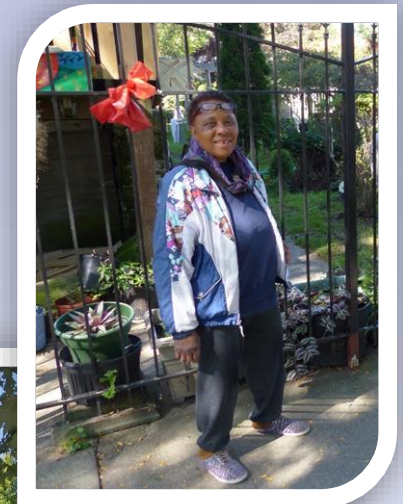


- Depression
- Cognitive impairment
- Functional limitations
- Obesity
- Dietary behavior and nutrient intake
- Health care service use and unmet needs

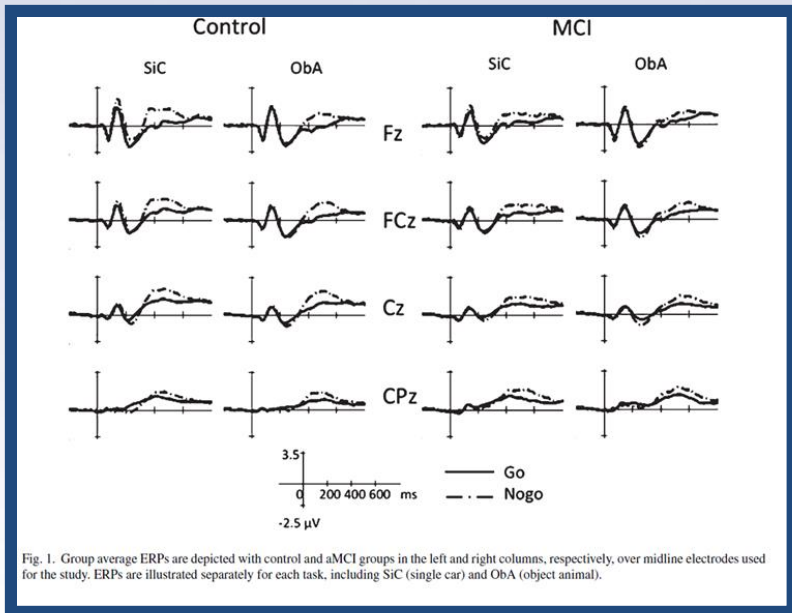
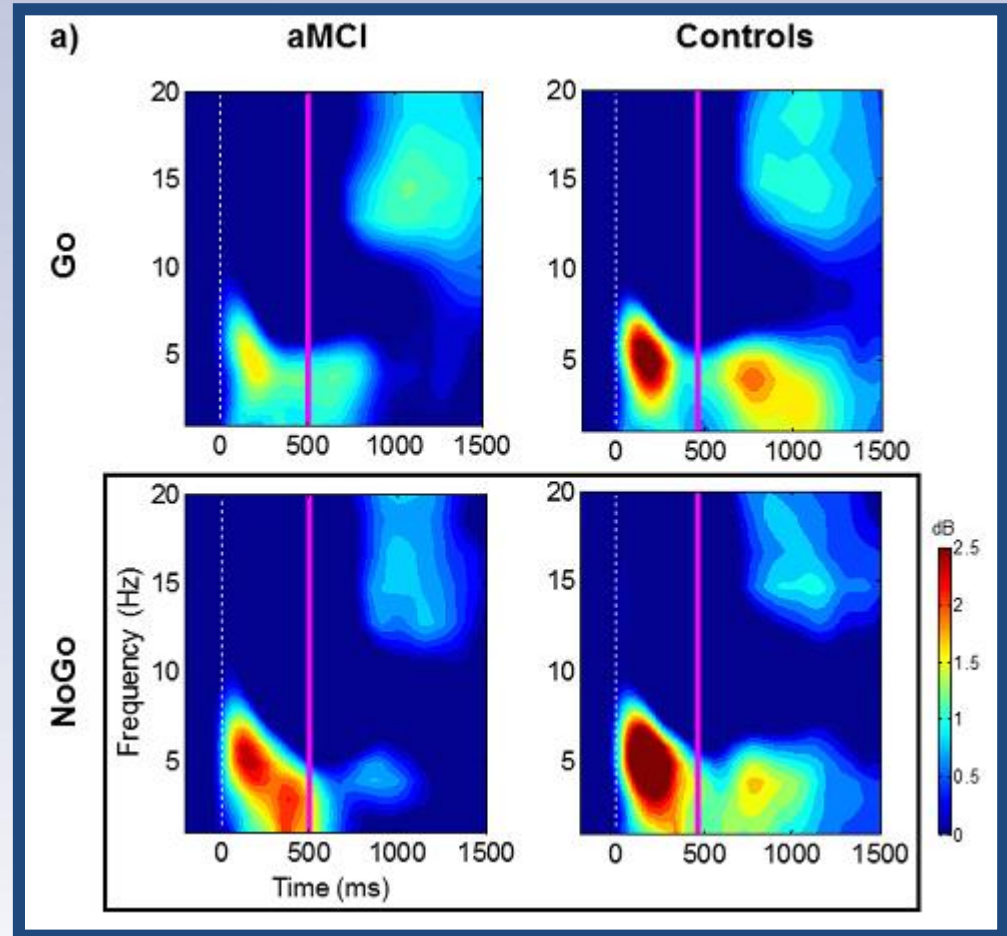


# Assessing the Benefits of Chicago's Large Lot Program

- **Urban vacancy in Chicago:** 50 year decline in population; more than 14,000 vacant properties
- **Effects:** depopulation, food deserts, crime, loss of community cohesion and sense of place
- **Chicago's Large Lot Program:** Property owners purchase vacant lots for \$1; Program does not target elderly, however high proportion have purchased lots
- **Benefits of Program:** Increased neighborhood control of vacant land, increase social interaction on block, and creates sense of belonging



# Aging and Neurocognition Lab



Raksha Anand Mudar, PhD, CCC-SLP  
 Assistant Professor  
 Speech and Hearing Science

# N-Balance – Leisure self-efficacy, fear of falling and fall prevention



- **Funding Organization:** Consortium for Older Adult Wellness (COAW)
- **Collaborators:** Health Departments and AAAs on the front range and western slope of CO and in northern Illinois.
- This is a 2-year longitudinal community-based intervention study w/a treatment and control group. Overall aim: Understand change over time in leisure self-efficacy and how fear of falling and incidents of falls effects participation in valued leisure activities & ADLs.





# Pathways to Health – Statewide Systems Change and Sustainability Project to Support Chronic Disease Self-Management Education (CDSME)



- Funding Organization: AgeOptions (via Administration on Community Living)
- Collaborators: AgeOptions, U of I Extension, AAAs, other aging services network organizations
- Aims: Understand facilitators and challenges to system change (e.g., increasing collaborations across sectors) and sustainability statewide regarding widespread dissemination and sustainability of CDSME



# Molecular Muscle Physiology Laboratory at UIUC

## Dissecting the Molecular Basis of Sarcopenia

Sarcopenia – degenerative loss of skeletal muscle mass and strength associated with aging

- ~25% of older adults >65 years of age
- ~60% of older adults >80 years of age

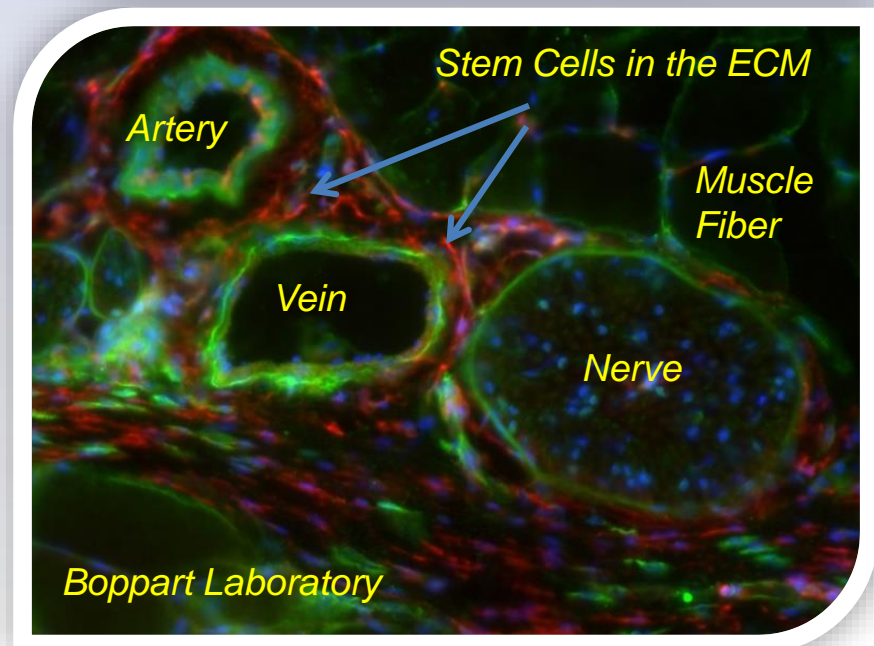
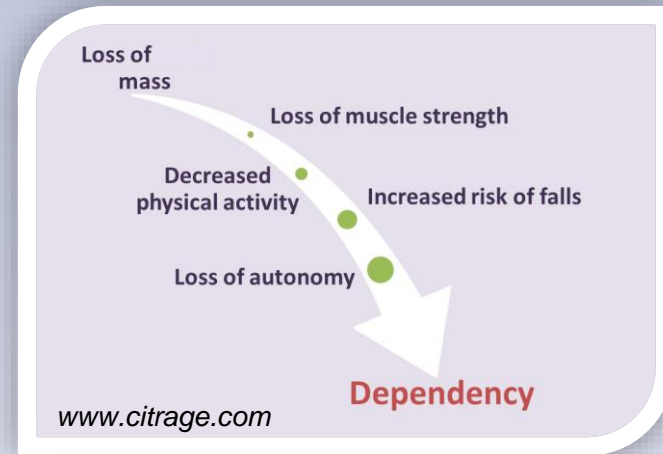
Numerous factors contribute:

- Loss of hormone, malabsorption/decreased protein synthesis, inactivity

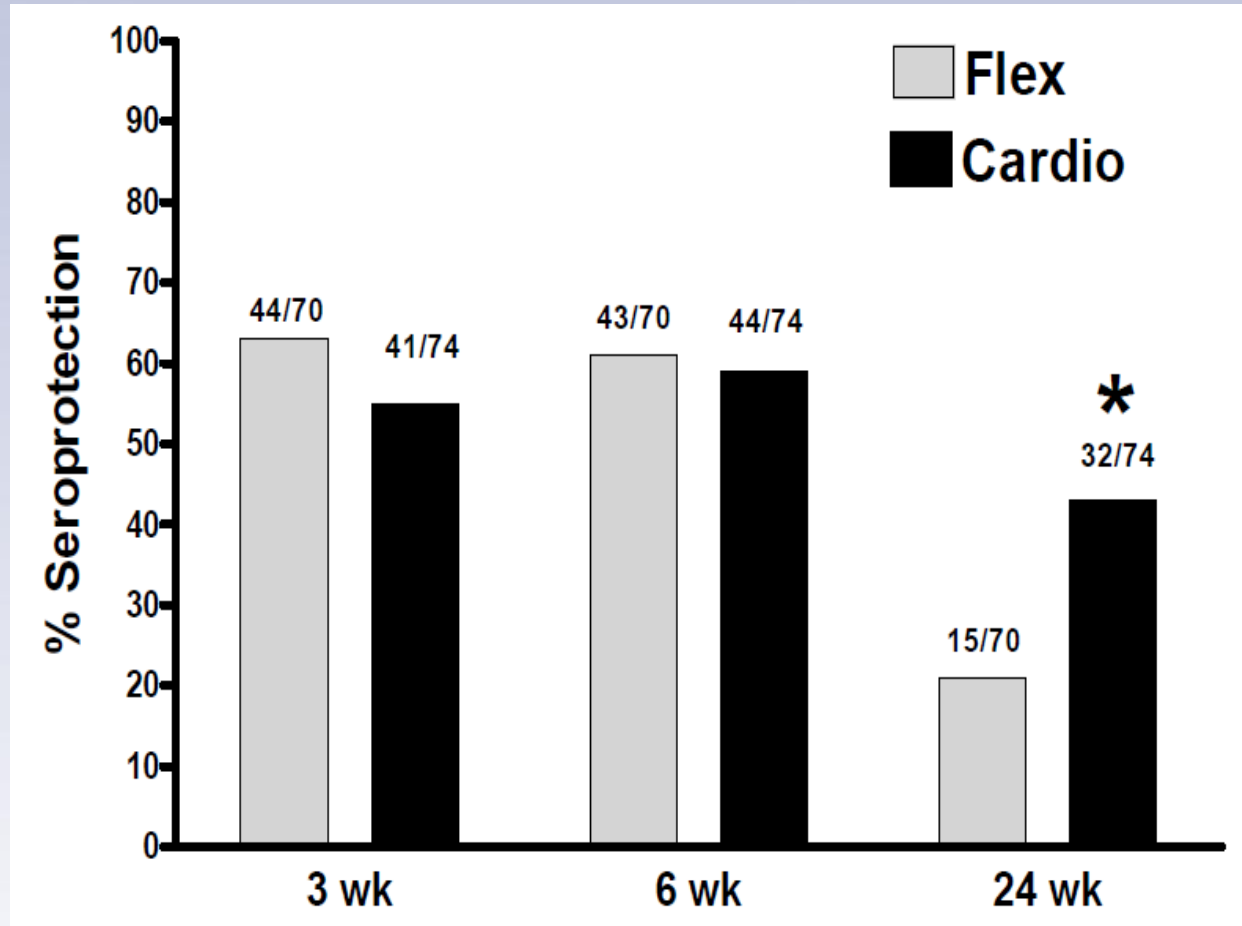


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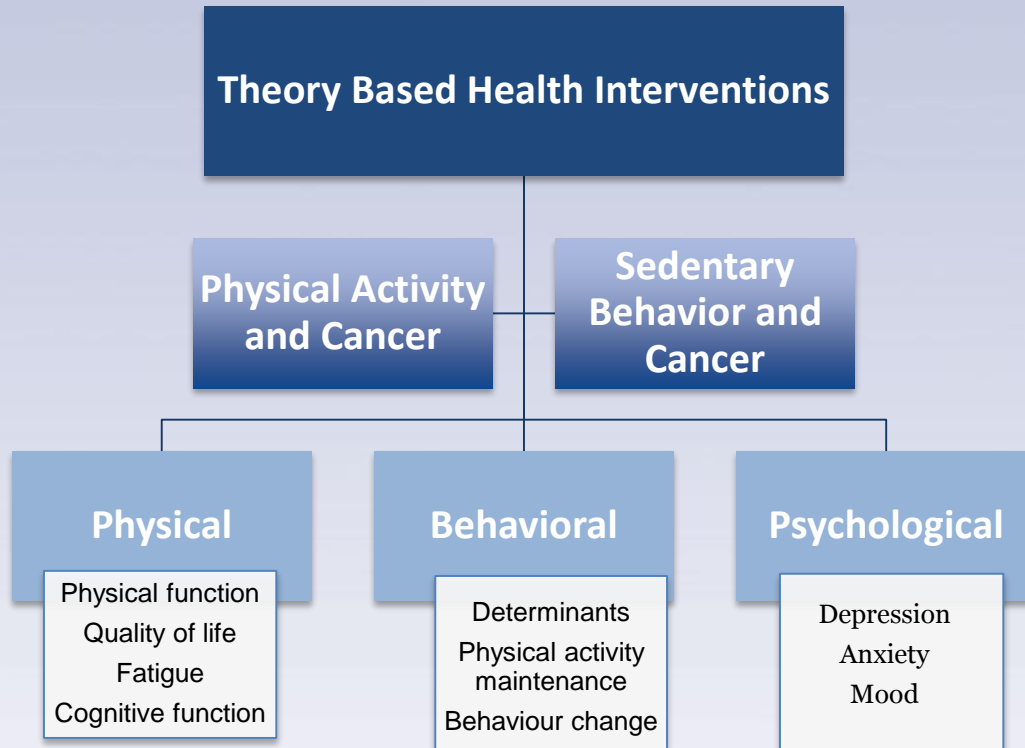
Dr. Marni Boppart  
Associate Professor  
Department of Kinesiology &  
Community Health



# Can Regular Exercise Improve Immune Age-related Decline in Vaccination Effectiveness?



# Promoting physical activity as an essential component in cancer control and survivorship



## Types of Research Questions:

Can exercise help manage treatment-related side effects?

Can exercise improve recovery and quality of life?

What is the role of exercise in cognitive functioning?

What is the optimal exercise program for benefits?

How do we maintain exercise levels throughout the cancer care continuum?



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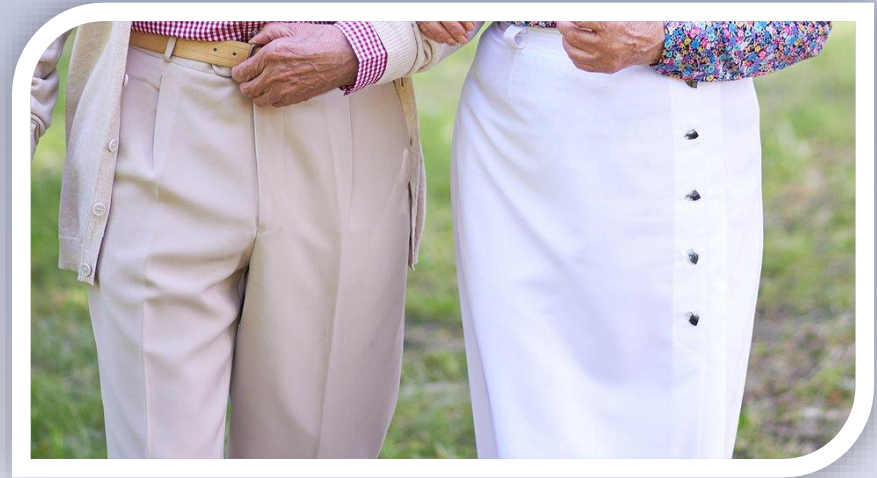
Dr. Linda Trinh  
Assistant Professor  
Department of Kinesiology and  
Community Health



University of Illinois at Urbana Champaign

EXERCISE ONCOLOGY LABORATORY

# Illini Falls Prevention Clinic



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IlliniFallClinic@illinois.edu



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**Please attend our upcoming events this spring:**

**Chittenden Symposium (research)  
Age-Friendly Champaign-Urbana (outreach)**

**THANK YOU!**



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**Age-Friendly Champaign-Urbana  
Like us on Facebook!**