



Enhancing Diverse Perspectives in Complementary & Integrative Health Research: Engaging Communities and Building the Research Workforce

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Speakers



Moderator

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Jolaade Kalinowski, Ed.D., M.A.
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Professor
Northwestern University



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Assistant Professor
University of New Mexico



Agenda

- Diversity in health research
 - Statistics and relevance
 - Avenues for increasing diverse perspectives
- NIH activities supporting diversity, equity, and inclusion (DEI)
- Panel of NCCIH-funded researchers
 - Novel ways to recruit, engage diverse participants
 - Diversity supplements to support career development
- Discussion and Q&A



Demographics: Nationally and in Health Research

US Population¹

- 50.4% Female
- 1.3% AI/AN*, 6.3% Asian, 13.6% Black, 19.1% Latino
- 8.9% with ≥ 1 disability
- 19.7% Rural

*AI/AN: American Indian/Alaskan Native

Health Research Ecosystem

- Clinical Trial Participants²
 - 41.2% Female
 - 0.2% AI/AN, 1% Asian, 10% Black, 6% Latino
 - Unknown % with disability
 - Unknown % Rural (believed to be low)
- STEM Research Workforce³
 - 35% Female
 - 0.6% AI/AN, 10% Asian, 9% Black, 15% Latino
 - 3% with ≥ 1 disability

1. US Census Bureau <https://www.census.gov/quickfacts/fact/table/US/PST045223>

2. BE Turner, et al. Lancet <https://doi.org/10.1016/j.lana.2022.100252> ; AZ Sosinsky, et al. Contemporary Clinical Trials <https://doi.org/10.1016/j.cct.2022.106718>

3. NSF Diversity and STEM: Women, Minorities, and Persons with Disabilities, 2023 Report <https://nces.nsf.gov/pubs/nsf23315/>



FORBES > SMALL BUSINESS

Underrepresentation In Clinical Research And Its Impact On Health Outcomes

F Sarah Louden Forbes Councils Member
Forbes Business Council COUNCIL POST | Membership (Fee-Based)

Feb 1, 2024, 08:30am EST

Sarah Louden, MHA, MBA, Founder and CEO of [Total Health](#).





DISABILITY RESEARCH

STEM PHDS WITH DISABILITIES ARE UNDERPAID AND UNDERREPRESENTED IN U.S. ACADEMIA

New research from the Disability Health Research Center reveals significant pay disparities among STEM PhD holders across all employment sectors

Despite decades of promises, health research still overlooks women



IMPROVING ACCESS TO CLINICAL TRIALS FOR RURAL POPULATIONS

March 8, 2021



Montana is one of the most rural states in the U.S. Nearly **half of its population** in rural regions, totaling slightly less than half a million people (442,718). Acc

FORBES > LEADERSHIP

The Importance Of Age Diversity In Clinical Trials, And Proactive Steps The Industry Can Take

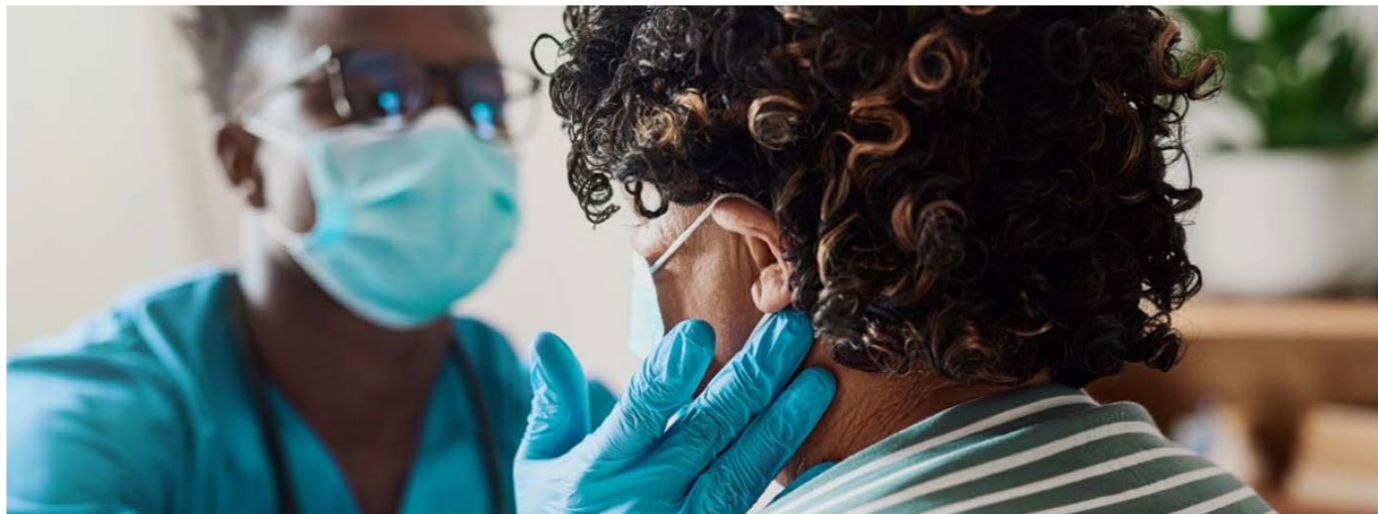
F Peter Buckman Forbes Councils Member
Forbes Business Development Council COUNCIL POST | Membership (Fee-Based)

Jul 13, 2023, 07:15am EDT

[Pete Buckman](#) is SVP at Medidata. He manages the Professional Services teams

NATIONAL ACADEMIES Sciences Engineering Medicine

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Lack of Equitable Representation in Clinical Trials Compounds Disparities in Health and Will Cost U.S. Hundreds of Billions of Dollars; Urgent Actions Needed by NIH, FDA, Others to Boost Representation

News Release | May 17, 2022

Lack of Diversity in Clinical Trials Hurts Research, and Costs Billions | AHA Scientific Sessions

November 11, 2023
Ron Southwick

News Article

f t in p e

Healthcare researchers say it's critical to get more women, Black

Priority Data Letter Full Access

Lack of Representation in Psychiatric Research: A Data-Driven Example From Scientific Articles Published in 2019 and 2020 in the *American Journal of Psychiatry*

Sarah L. Pedersen Ph.D., Rachel Lindstrom, Ph.D., Paula M. Powe, M.D., Kelly Louie, B.S., César Escobar-Viera, M.D., Ph.D.

Published Online: 1 May 2022 | <https://doi.org/10.1176/appi.ajp.21070758>



Lack of Diversity in Research: Downstream Effects

- Interventions/products that only work for some people
- Lack of scientific rigor, generalizability
- May erode credibility with communities
- Equity and ethics



What Can the Research Community Do?

Start Early, Collaborate Often: Key Steps To More Diverse Clinical Trials

By Alekhya Pochiraj
Operations, Genentech

Building Successful Diversity Initiatives In Clinical Trials Through Stakeholder Engagement

Source: Medidata AI

By Kelly McKee, VP, DCTs and Patient Registries

News |

More diverse staff may yield diverse patient groups in clinical trials

A lack of diversity in clinical trials is a result of insufficient trust from those in the community but there are methods to overcome this.

Partnership with Communities

Research Workforce Development

[nature](#) > [nature medicine](#) > [comment](#) > article

Comment | Published: 11 November 2021

Role of funders in addressing the continued lack of diversity in science and medicine

[Folakemi T. Odedina](#) & [Mariana C. Stern](#)

Funder-level Initiatives



How NIH is Supporting Diversity

- Initiatives focused on health disparities
- Plan for Enhancing Diverse Perspectives (PEDP)
- Diversity supplements
- UNITE data-driven think tank to promote equity
- Partnerships with minority-serving institutions
- Mentoring grants
- Outreach at conferences



Today's Speakers Illustrate NCCIH's Efforts to Encourage Diverse Perspectives

- Identified ways to partner, foster trust, and facilitate communication with diverse communities
- Explored career-development opportunities for researchers from underrepresented backgrounds





Harmony & Health: A culturally adapted faith-based mind-body intervention to reduce cancer risk in Black adults

(NIH/NCCIH R01 AT012375)

Scherezade K. Mama, DrPH

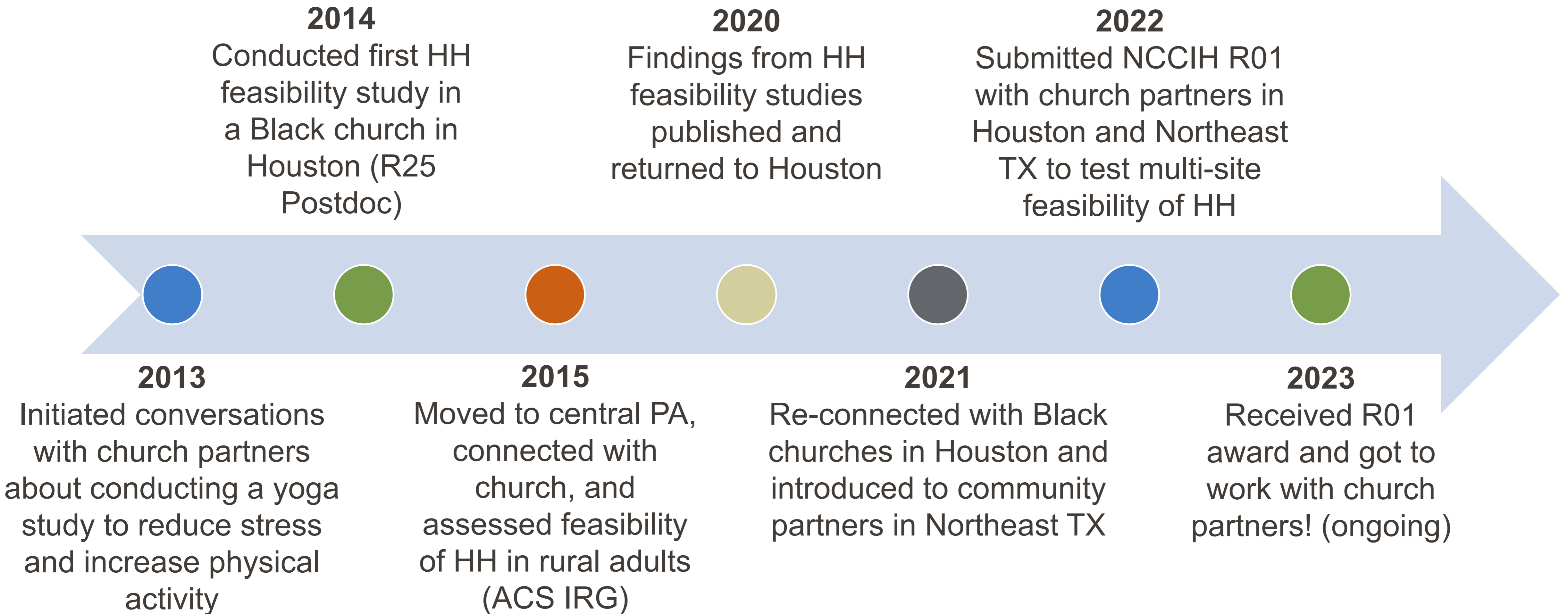
Assistant Professor | Department of Health Disparities Research

skmama@mdanderson.org | [X @schermama](https://twitter.com/schermama)

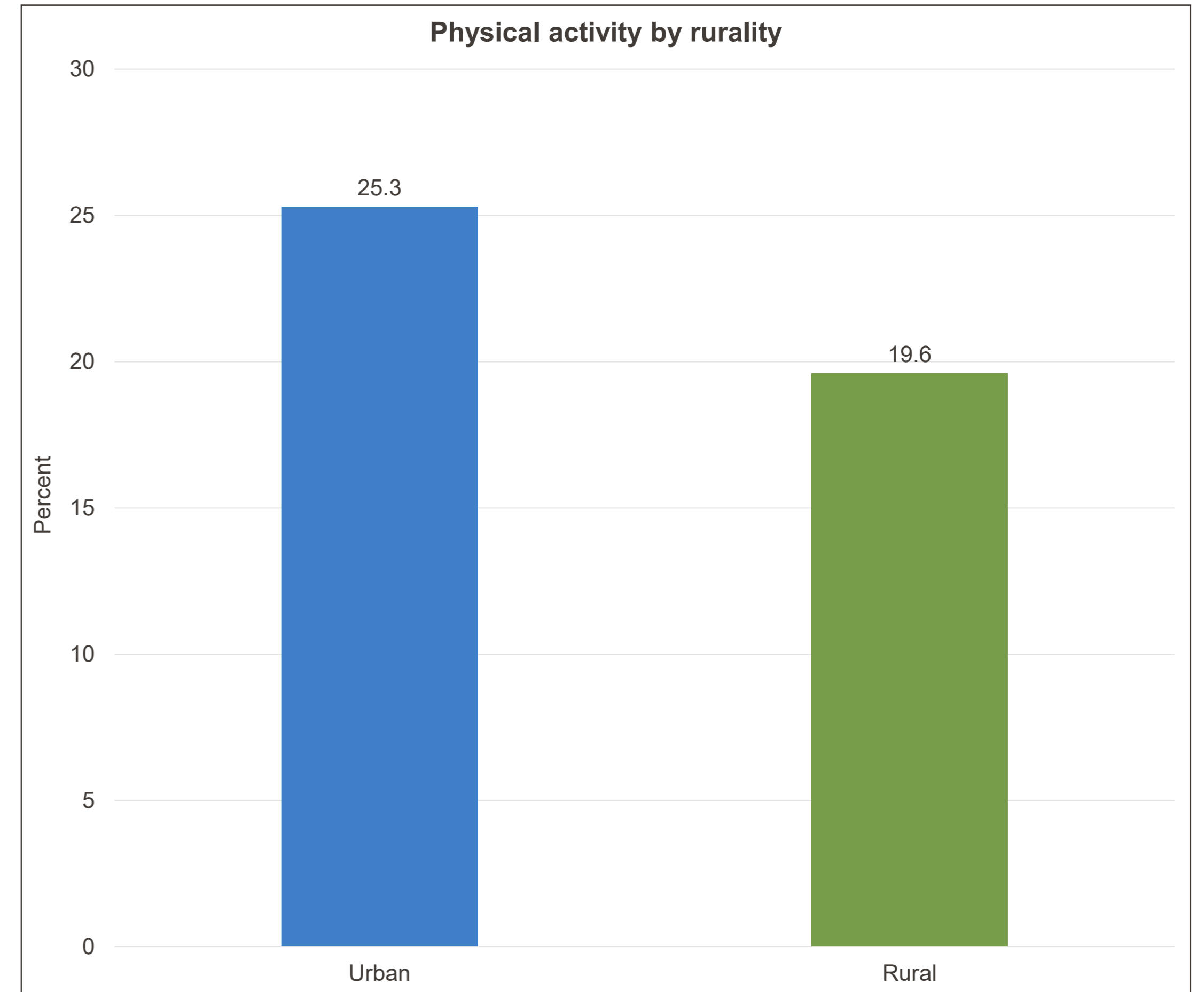
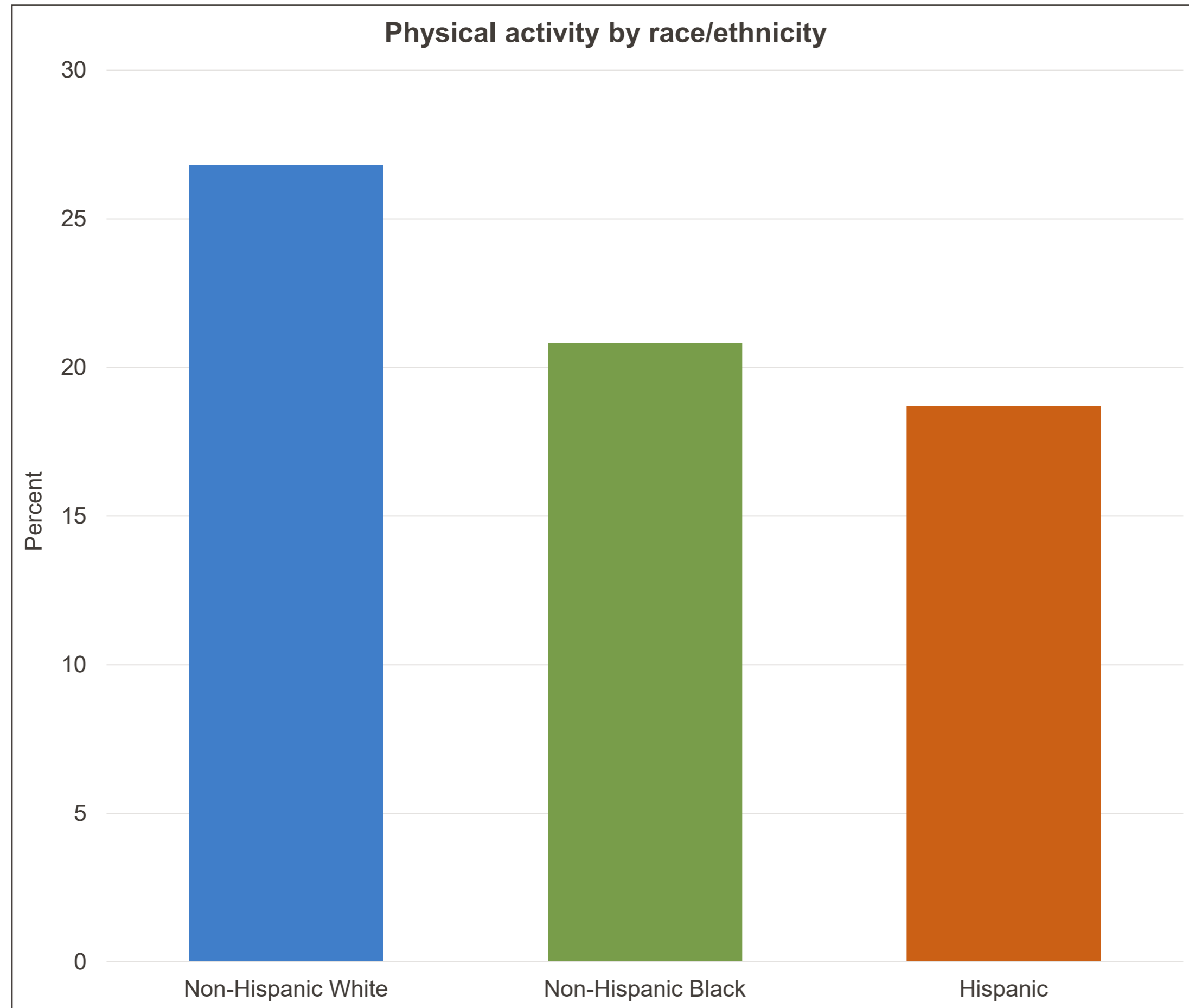
THE UNIVERSITY OF TEXAS
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Cancer Center

Making Cancer History®

“If you look really closely, most overnight successes took a long time.” – Steve Jobs



Physical activity disparities contribute to increased risk of cancer and other chronic health conditions



Mind-body practices improve physical health and promote wellbeing

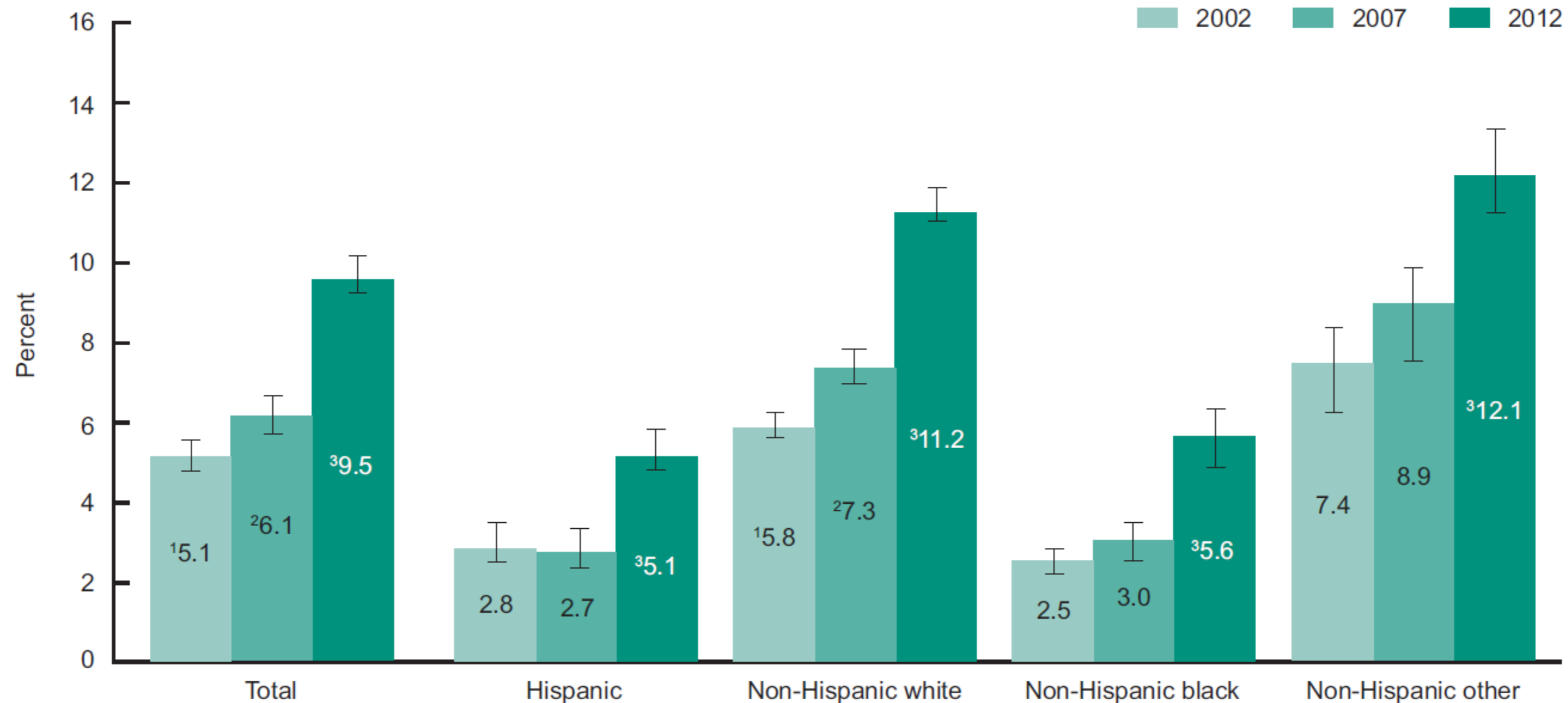
Mind-body practices unite body and mind through postures and breathing

- Improve physical function
- Improve immune function
- Reduce blood pressure
- Attenuate weight gain
- Improve overall health and wellness

Widely accepted as effective for improving physical and psychological well-being

21 million American adults practice yoga

Use of yoga has increased over time in U.S. adults, but uptake remains low among racial/ethnic minorities



┆ 95% confidence interval.

¹Significantly different from 2007 and 2012 ($p < 0.05$).

²Significantly different from 2012 ($p < 0.05$).

³Significantly different from 2002 and 2007 ($p < 0.05$).

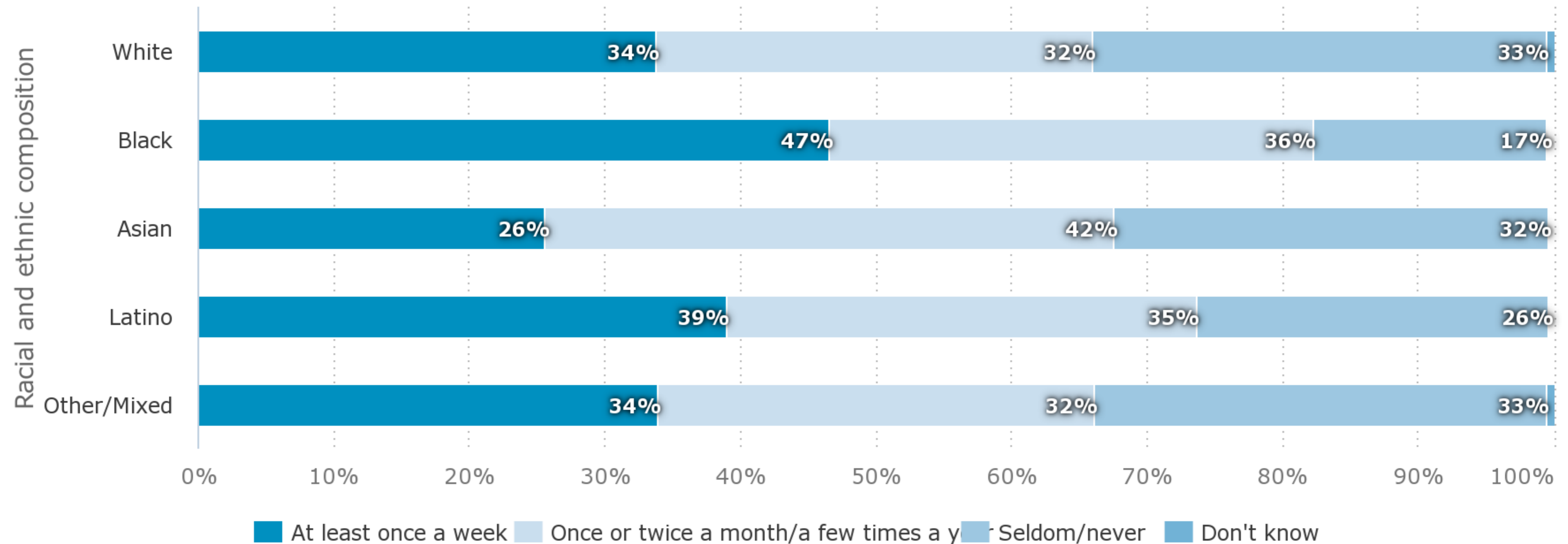
NOTES: Estimates are age-adjusted using the projected 2000 U.S. population as the standard population and four age groups: 18–24, 25–44, 45–64, and 65 and over. Estimates are based on household interviews of a sample of the civilian noninstitutionalized population.

SOURCE: CDC/NCHS, National Health Interview Survey, 2002, 2007 and 2012.

Churches are effective partners for health promotion efforts in underserved populations

Attendance at religious services by race/ethnicity (2014)

% of adults who attend religious services...



PEW RESEARCH CENTER

Historical resistance to yoga or meditation among Christians and church leaders

Practicing another religion

Grounding to the ground vs. God

An idle mind is the devil's playground

Thought of as an oxymoron (e.g., Christian Buddhist)

Could not sanction a yoga study in the church

De-emphasize yoga and emphasize “not yoga”

Deconstruct key components

- Poses or stretches
- Breathing
- Meditation



Cultural-adaptation of a mind-body program for churchgoers using Davidson’s Typology of Adaptation

Category and Definition	Harmony & Health adaptation
<p>Collaborative Working: Working with community members to determine what may be culturally appropriate, acceptable and effective in target community</p>	<ul style="list-style-type: none"> • Met with church leaders (pastor, elders, and ministry leaders) to understand the historical resistance to yoga among Christians and, specifically, among Project CHURCH church leaders • Discussed challenges and solutions to implementing a yoga-based intervention in churches
<p>Team: Matching program facilitators and investigators to target population and cross-cultural training of study personnel</p>	<ul style="list-style-type: none"> • Research staff were African American • Investigative team included racially/ethnically diverse members and women and men • Yoga instructor was a non-Hispanic Christian white woman trained in integrative medicine and research methods and experienced in leading yoga practices in diverse populations
<p>Endorsement: Ownership and support for intervention fostered through linkages in the community with respected individuals and organizations</p>	<ul style="list-style-type: none"> • Practicing yoga and participating in study not endorsed, per se, by church leaders for multiple reasons (e.g., coercion, beliefs) • Church leaders provided a platform for recruitment (e.g., at the church, from the pulpit, through church bulletins and email listserv)

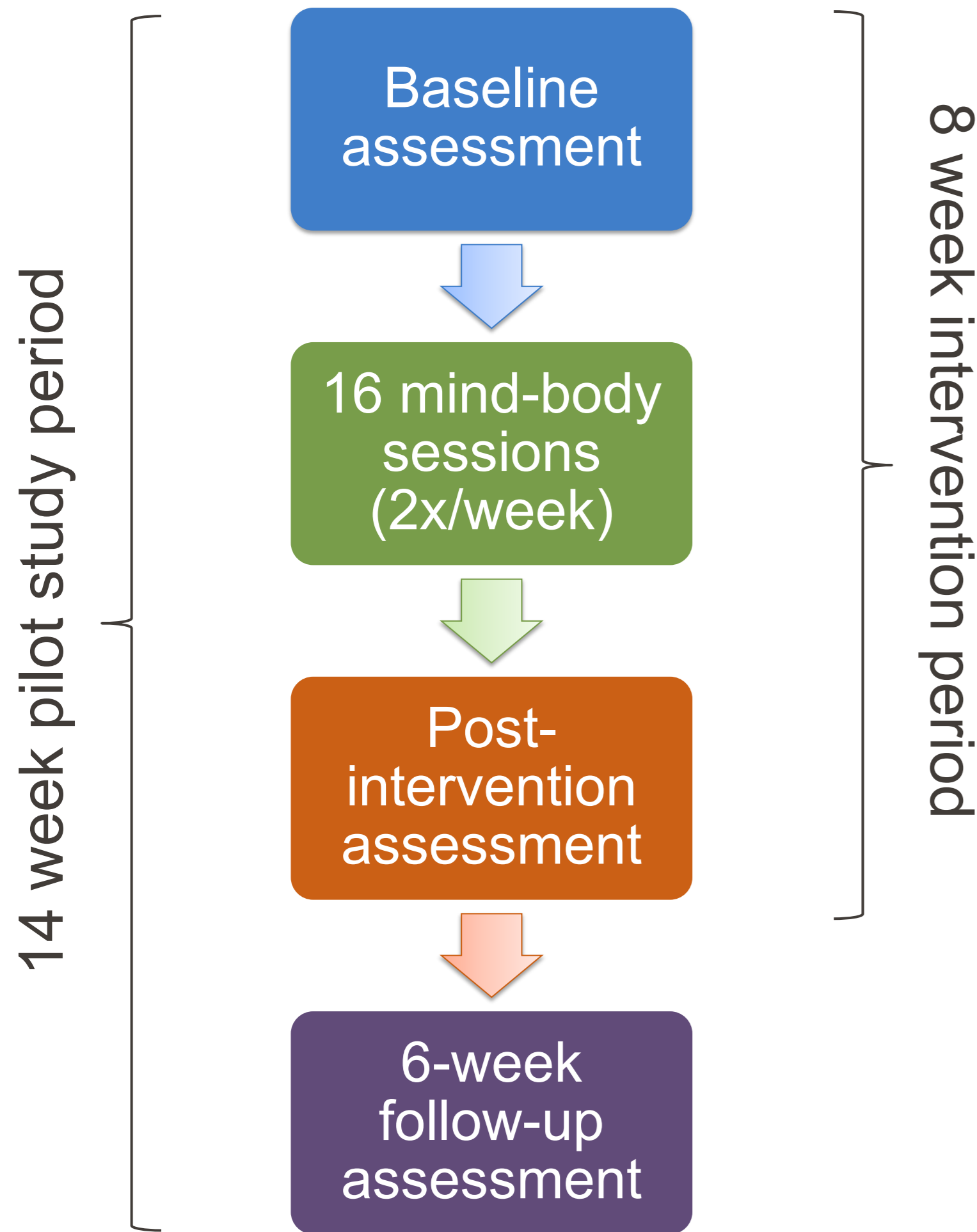
Cultural-adaptation of a mind-body program for churchgoers using Davidson’s Typology of Adaptation

Category and Definition	Harmony & Health adaptation
<p>Materials: Intervention materials adapted for appearance, language, and reading level or literacy</p>	<ul style="list-style-type: none"> • Included surface and deep structure adaptations • Study name selected to reflect congruence between spirituality and health (salient to church leaders and our target population) • Study recruitment materials depicted graphics including African American women stretching or in a yoga pose (e.g., lotus with prayer pose) • Instrumental worship music played during sessions
<p>Messages: Intervention messages reflect target population’s social and cultural values, were based on population’s preferences, and considered social norms unique to the context</p>	<ul style="list-style-type: none"> • Poses selected to be culturally (e.g., no worship or salutation poses) and physically (e.g., limited balancing or twisting poses) appropriate • Guided relaxation technique used in place of meditation • Incorporated scripture of the day to guide practice and relaxation
<p>Delivery: Intervention delivered in an appropriate/preferred format and considers employment situations, barriers to participation, appropriate incentives, and timing and setting of the intervention</p>	<ul style="list-style-type: none"> • Selected a location (centrally located with on-site, free parking) and time (evenings) that was convenient and suitable for the target population

Cultural-adaptation of a mind-body program for churchgoers

TRADITIONAL YOGA SESSION	HARMONY & HEALTH SESSION
Set an intention for your yoga practice	Introduce the scripture of the day (e.g., “I can do all things through Him who gives me strength.” Philippians 4:13)
Yoga postures or poses (asanas) with flow	Stretching and breathing using culturally and physically appropriate poses
Shavasana (corpse pose) with meditation or cool down <ul style="list-style-type: none"> • Empty your mind of thoughts • Focus on breath • Beginning of deeper meditative practices 	Guided relaxation focusing on scripture of the day <ul style="list-style-type: none"> • Focus on breath • Focus on God and His word

Feasibility outcomes in Black churchgoers in Houston, Texas and rural adults in central Pennsylvania



	Houston	Central PA
Recruitment (N, %)		
Interested	197	144
Screened	157 (79.7)	126 (87.5)
Eligible	88 (56.1)	60 (47.6)

Summary of changes in behavioral and psychosocial outcomes of interest in intervention group and by site

Outcome (Scale)	Houston Δ	Central PA Δ
Physical activity		
Self-reported (MET-min/week)	141.0	405.7
Accelerometer (MVPA min/day)	-1.9	9.6
Sitting time (hours/day)	-1.2	-3.5
Perceived stress score (0-16)	-0.8	-0.6
Depressive symptoms (0-60)	-1.9	-2.2
Anxiety (0-63)	1.4	0.2
Positive affect (10-50)	1.2	-0.2
Negative affect (10-50)	-0.7	-1.6
Health-related quality of life (0-100)	-2.1	0.3
Pain (0-100)	-24.7	-2.4
Spirituality (0-48)	3.7	-0.9

Lessons learned from Harmony & Health

Feasible in diverse populations

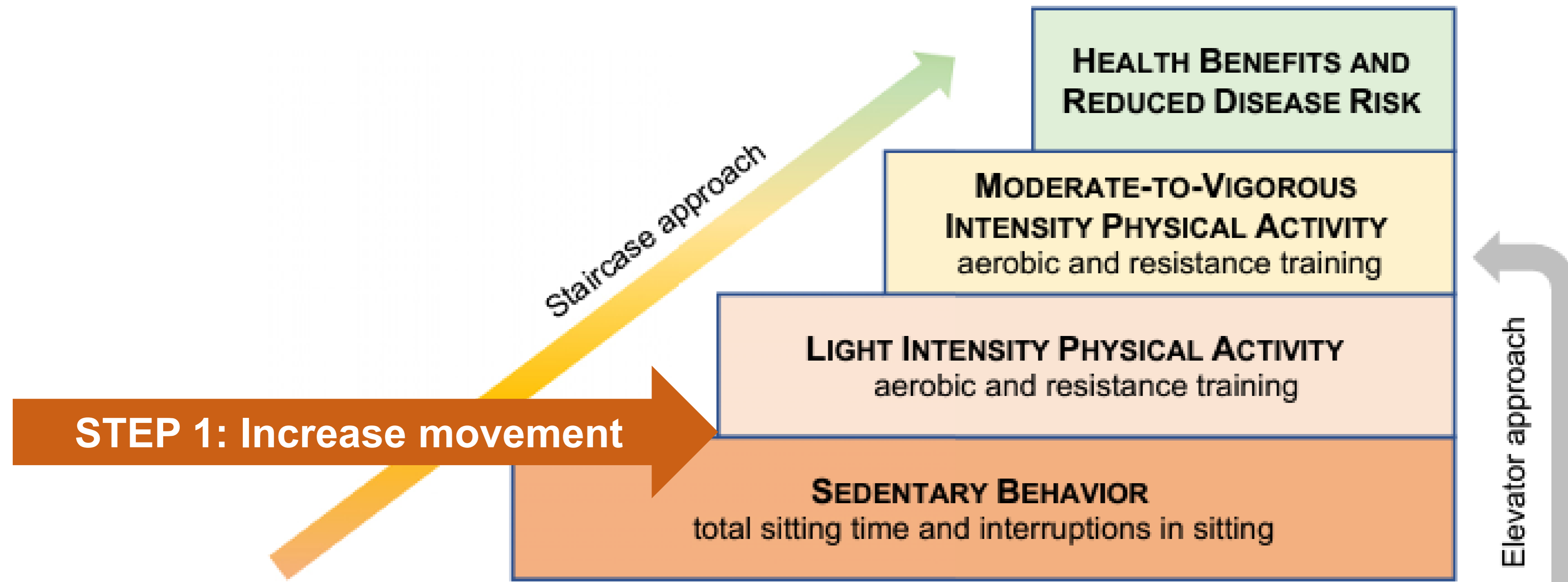
- Acceptable form of physical activity
- Integrates physical and psychological health and well-being

May be effective for improving behavioral and psychosocial outcomes

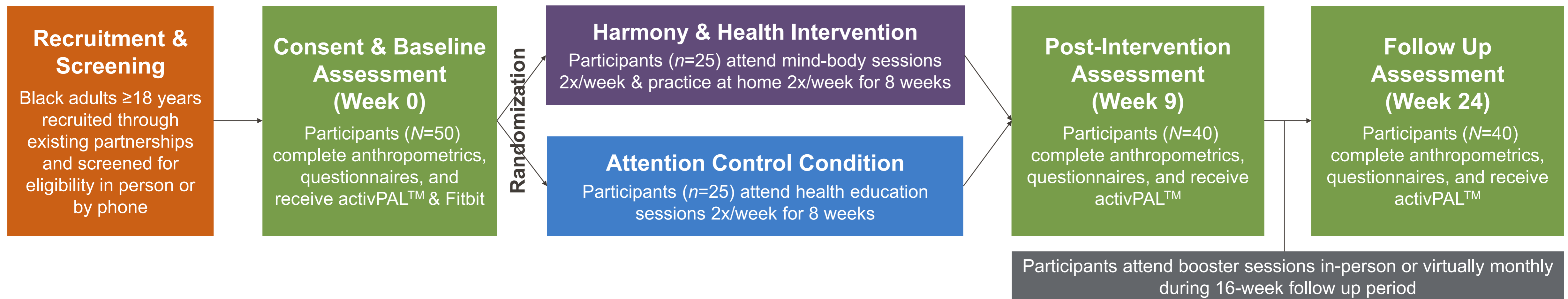
- ↑ physical activity and ↓ sedentary behavior
- ↓ stress, depressive symptoms, and anxiety
- ↑ quality of life and ↓ pain

Focusing on “sit less and move more” may be more effective among sedentary adults at increased risk for cancer

A staircase approach to reduce sitting and increase physical activity among low active adults



Multi-site feasibility in sedentary Black adults in Houston and Northeast, TX (NIH/NCCIH R01 AT012375)



A huge thanks to my village and community partners!

Funding sources

- CPRTP Postdoctoral Fellowship (R25T CA057730)
- American Cancer Society (124171-IRG-13-043-01)
- CCSG New Faculty Award (P30 CA016672)
- UT System Rising STARs Award
- NIH/NCCIH R01 AT012375

Collaborators

- Matthew Buman, PhD
- Lorenzo Cohen, PhD
- Yisheng Li, PhD
- Lorna McNeill, PhD, MPH

Community partners

- Mr. George Anderson, The Fountain of Praise (Houston, TX)
- Mr. Steven Holland, Hayter Chapel Church of God in Christ (Northeast TX)

My Research Team

- Clarissa Escobar, BS
- Brandy Friendly, MPH
- Lily Ju, MS
- Liz Lee, BA
- Dereck Reeves



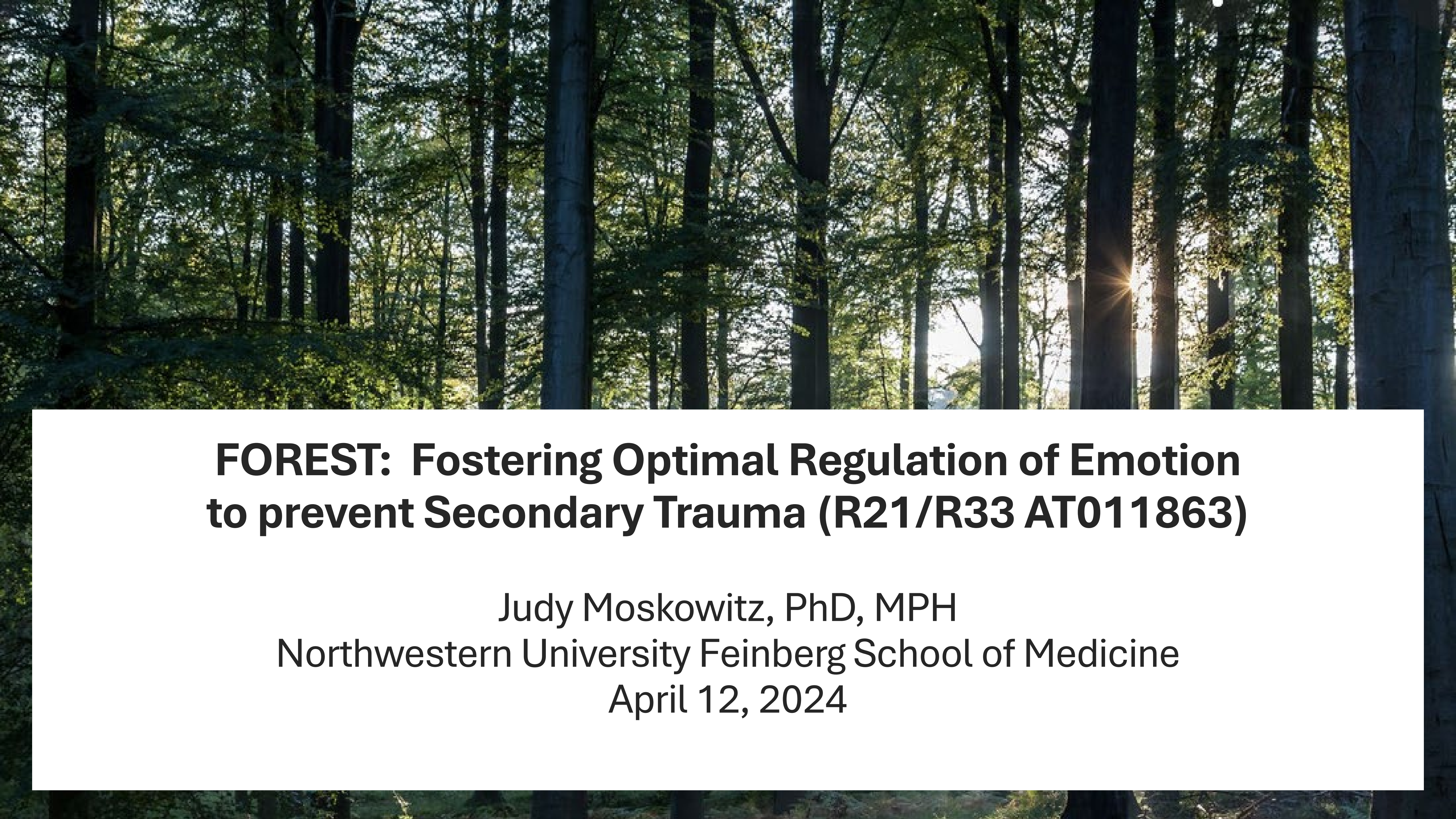
All of our Harmony & Health participants and community partners!

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**FOREST: Fostering Optimal Regulation of Emotion
to prevent Secondary Trauma (R21/R33 AT011863)**

Judy Moskowitz, PhD, MPH

Northwestern University Feinberg School of Medicine

April 12, 2024



Positive Emotion Regulation Program

- Emotional Awareness
- Noticing Positive Events
- Capitalizing or Savoring
- Gratitude
- Mindfulness
- Positive Reappraisal
- Focus on Personal Strengths
- Make and Pursue Attainable Goals
- Acts of Kindness
- Self Compassion



August 10, 2019

IAAPA

2019



Cultivating PEAs: A Partnership to Develop Positive Emotion Ambassadors in Violence Prevention Programs on the South and West Sides of Chicago

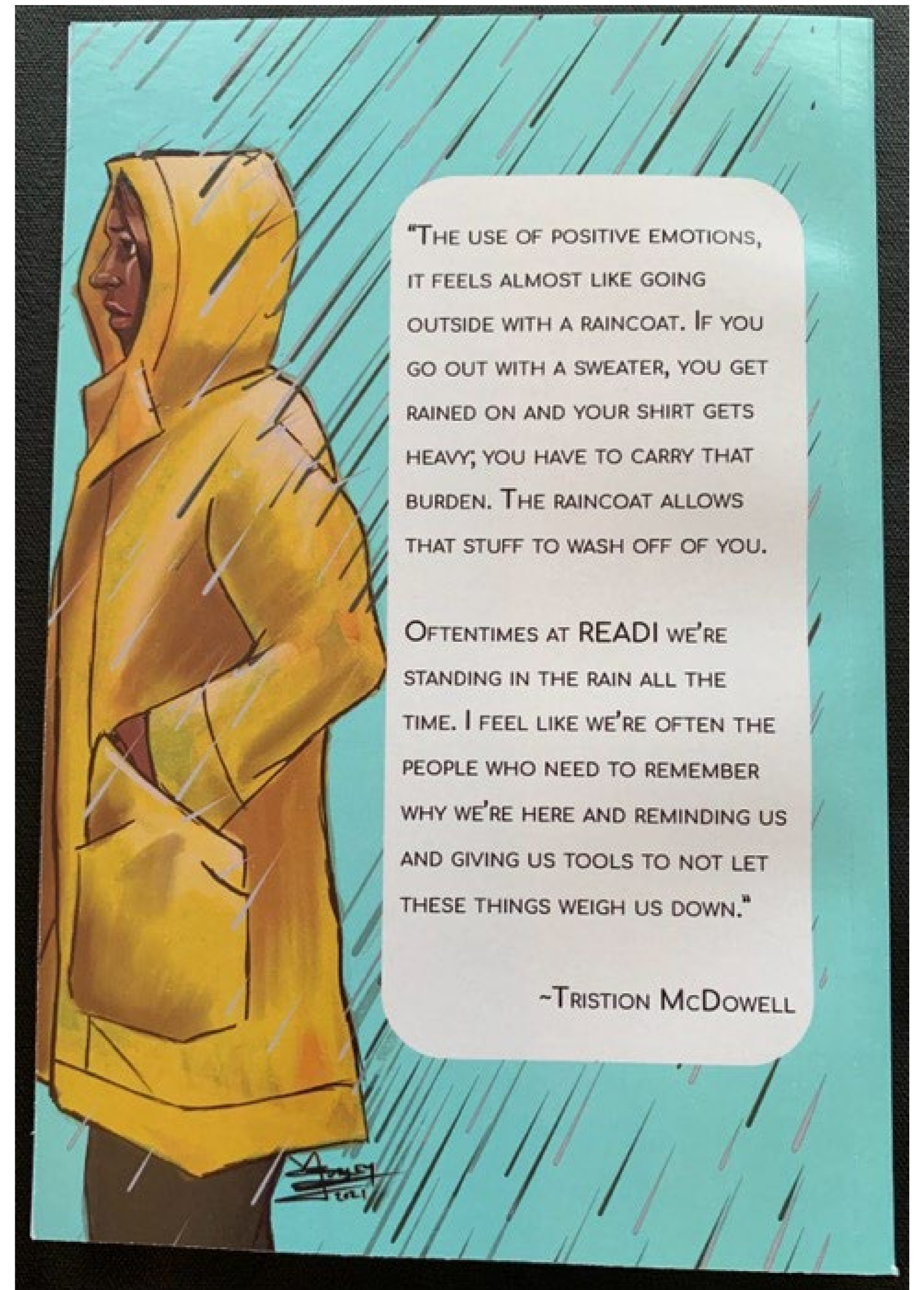


2020-2021

Funded by :

- Northwestern University Alliance for Research in Chicagoland Communities (ARCC)
- Northwestern Osher Center for Integrative Health

“I think for staff, it’s absolutely **necessary** and important because you can have **burnout**. You are dealing with **not just the emotions of yourself**, but of an entire group of other people that have a lot of things going on with them, and you have to tackle that on a consistent basis. PEAs, again, is necessary. I wish that it had been *[laugh]* twelve weeks and not six weeks. It could have been longer.”



“THE USE OF POSITIVE EMOTIONS, IT FEELS ALMOST LIKE GOING OUTSIDE WITH A RAINCOAT. IF YOU GO OUT WITH A SWEATER, YOU GET RAINED ON AND YOUR SHIRT GETS HEAVY; YOU HAVE TO CARRY THAT BURDEN. THE RAINCOAT ALLOWS THAT STUFF TO WASH OFF OF YOU.

OFTENTIMES AT READI WE’RE STANDING IN THE RAIN ALL THE TIME. I FEEL LIKE WE’RE OFTEN THE PEOPLE WHO NEED TO REMEMBER WHY WE’RE HERE AND REMINDING US AND GIVING US TOOLS TO NOT LET THESE THINGS WEIGH US DOWN.”

~TRISTION MCDOWELL

PAR-21-191 (R21/R33)
Firearm Injury and Mortality Prevention Research

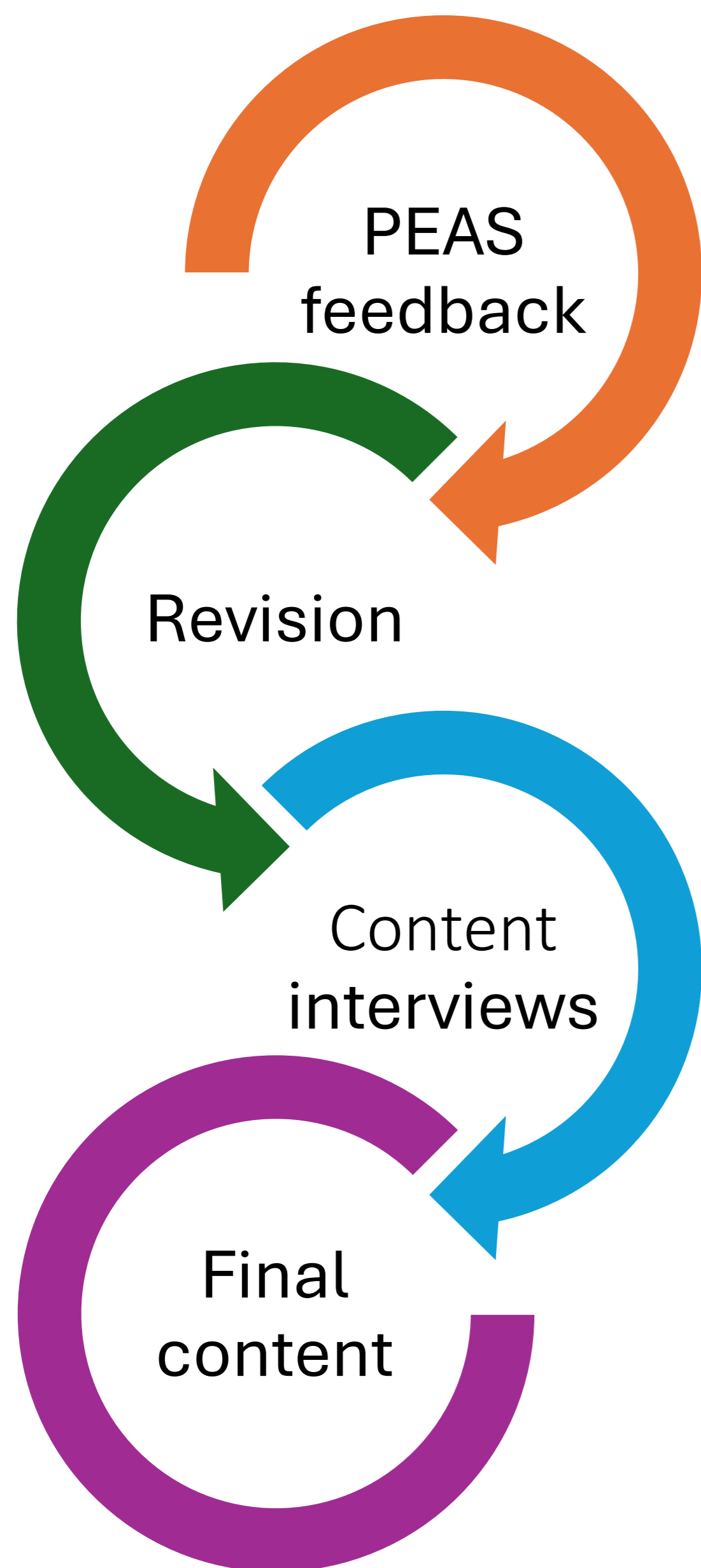
We aim to adapt, implement, and manualize the FOREST program of positive emotion skills for READI Chicago to sustainably enhance resilience, prevent burnout, and reduce turnover among staff working to prevent firearm injury and mortality.

R21: Sept 2021 – 2023

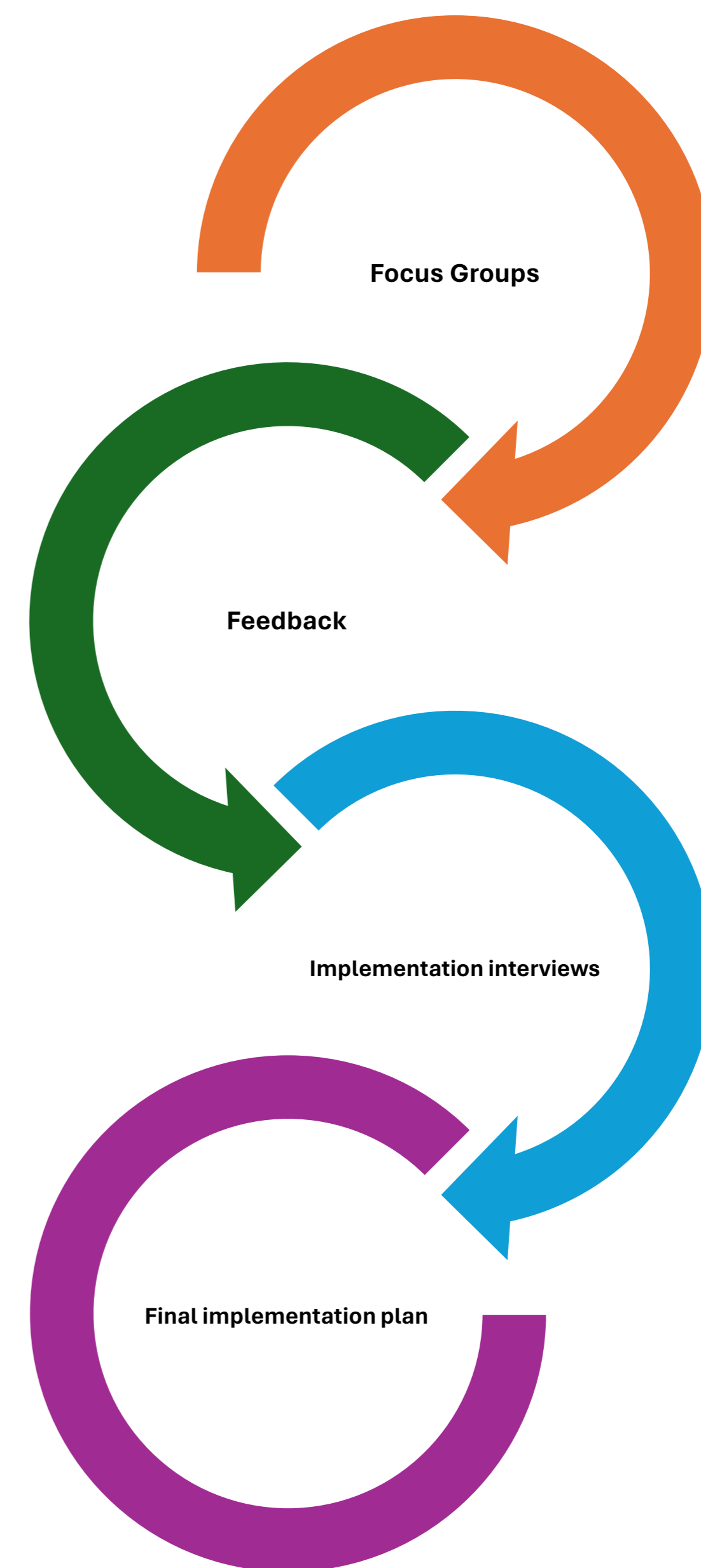
R33: Oct 2023 – Sept 2026

ClinicalTrials.gov #NCT05942469

Tailor content of FOREST for READI Chicago



Develop implementation plan





FOREST Plan (R33)



Introduction / launch sessions

FOREST manager



Train PEAs

who?
how to compensate?



PEAs + NU team co-lead 1 session/month (Fridays) x 9 months

PEAs meet monthly for ongoing training and support
PEAs lead more over time (NU available for consultation)



PEAs lead activities in ongoing READI meetings



Individual learning/practice in LMS



~annual evaluation

Timeline for FOREST Partnership



MEMORANDUM

Subject: A memorandum of understanding (MOU) between the University of Illinois at Chicago (UIC) and the University of North Carolina at Chapel Hill (UNC) regarding a partnership to develop and implement a new program for the Chicago area. The MOU outlines the goals, objectives, and responsibilities of both institutions and the timeline for implementation.

1. The MOU is intended to establish a framework for a long-term partnership between UIC and UNC.

2. The primary goal of the partnership is to develop and implement a new program for the Chicago area.

3. The program will focus on providing high-quality education and training to students in the Chicago area.

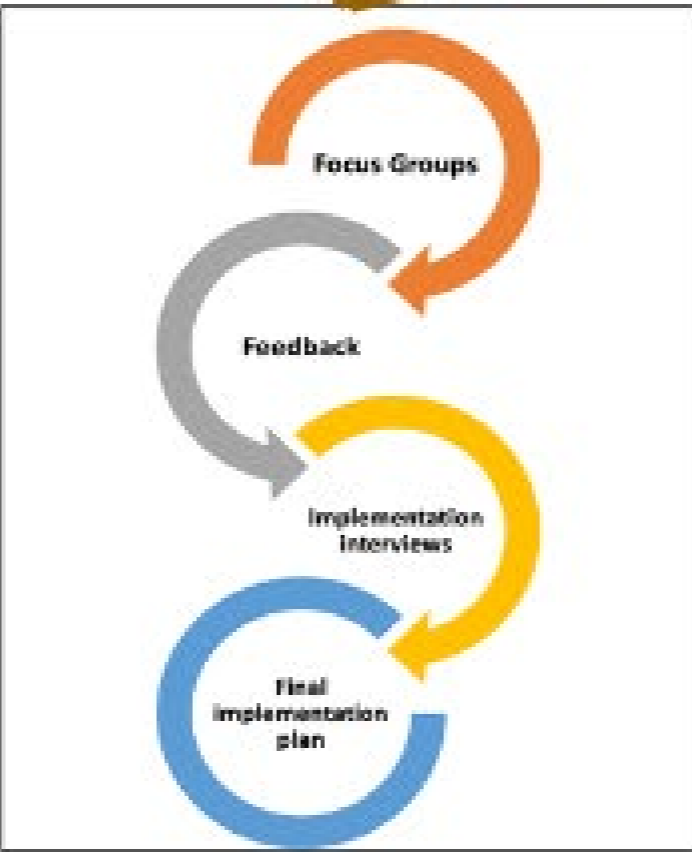
4. The program will be implemented in a phased manner, with the first cohort of students starting in the fall of 2020.

5. The MOU outlines the responsibilities of both institutions and the timeline for implementation.

6. The MOU is subject to review and approval by the appropriate governing bodies of both institutions.

7. This memorandum is intended to serve as a guide for the implementation of the program and is not intended to create a contract or any other legal obligations.

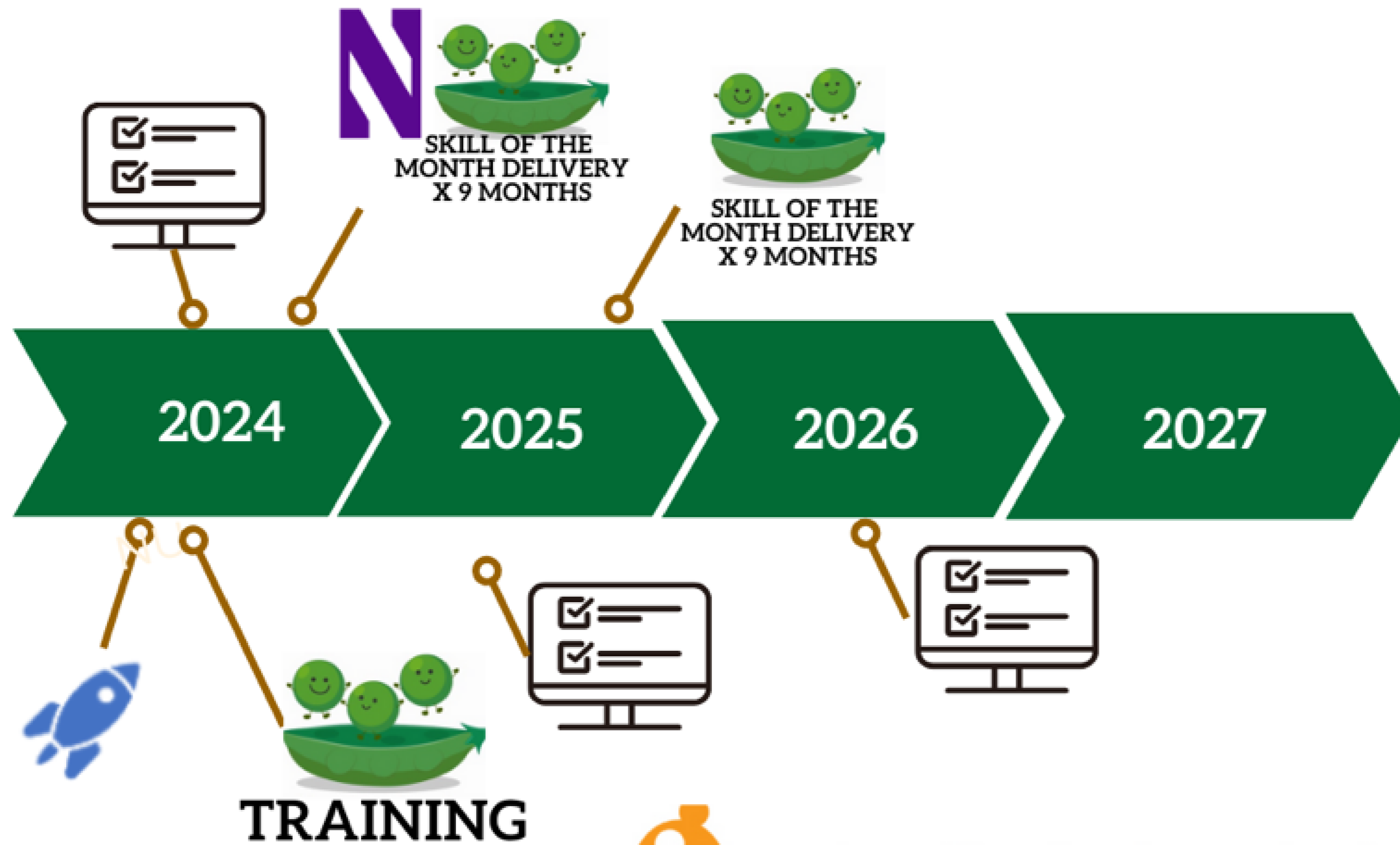
8. All other matters not addressed in this MOU shall remain subject to the applicable laws and regulations of the State of Illinois and the State of North Carolina.



FOREST Plan (R33)

Introduction / launch sessions	FOREST manager
Train PEAs	who? how to compensate?
PEAs + IU team co-lead 1 session/month (Friday) a 3 months	PEAs meet monthly for ongoing training and support PEAs lead more over time (all available for consultation)
PEAs lead activities in ongoing READI meetings	
Individual learning/practice in LMS	
*Annual evaluation	

Timeline for FOREST Phase 2



Enhancing Diverse Perspectives

Lessons Learned

- Partnership building is continuous
- Communication is key
- Ride the wave
- Be open to unplanned projects and directions

Questions?

