Enhancing Workforce Capacity for Care in HIV and Aging Populations

Insights from the Ryan White HIV/AIDS Program Special Projects of National Significance (SPNS) Aging with HIV Initiative

May 13, 2025

aging with HIV
Ryan White HIV/AIDS Program Initiative

Acknowledgment

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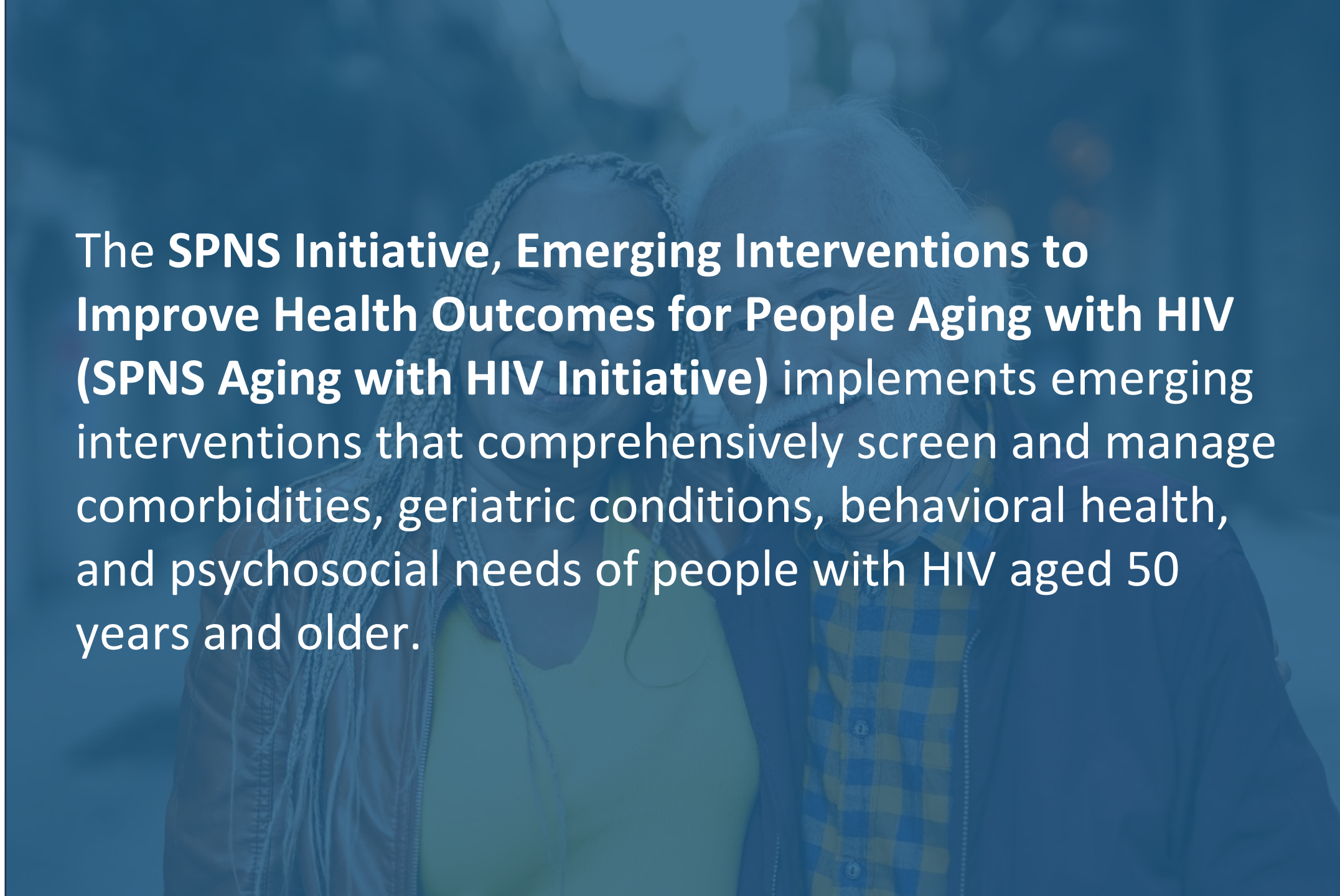
Zoom Reminders

- Please mute your line when you are not speaking.
- There will be 20 minutes for questions and answers at the end of both presentations.
  - Please enter all questions in the chat.

Agenda

1. Welcome and Introduction
2. Presentation by Lydia Aoun-Barakat, MD, Yale University
3. Presentation by Jacob Walker, MD, University of Chicago
4. Question and Answer Session
5. Upcoming Webinars & Closing



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The **SPNS Initiative, Emerging Interventions to Improve Health Outcomes for People Aging with HIV (SPNS Aging with HIV Initiative)** implements emerging interventions that comprehensively screen and manage comorbidities, geriatric conditions, behavioral health, and psychosocial needs of people with HIV aged 50 years and older.

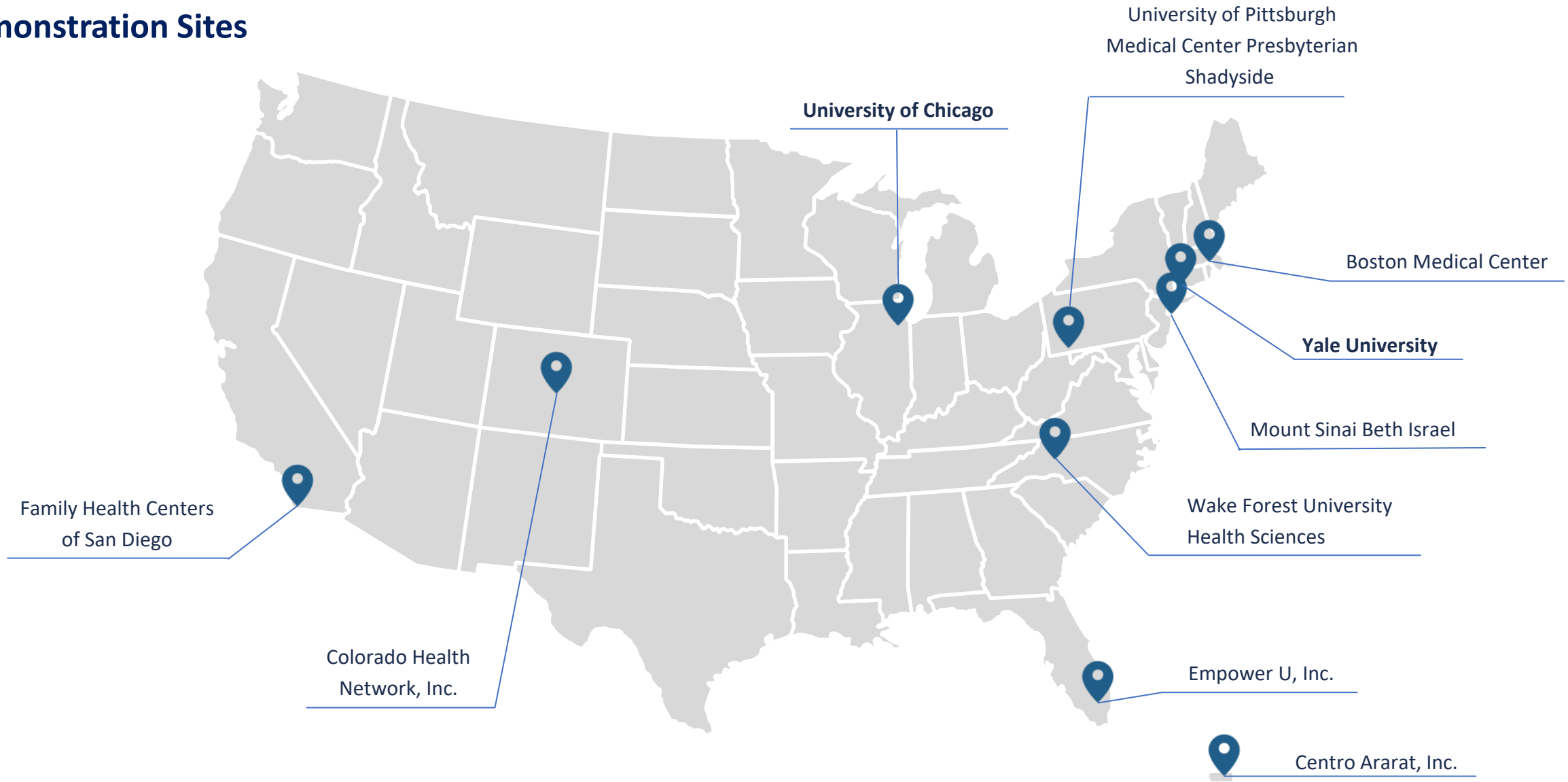
The Aging with HIV Initiative's goals include:

Implementing emerging interventions that screen and manage comorbidities, chronic conditions, geriatric conditions, behavioral health, and psychosocial needs of people with HIV ages 50 and older;

Assessing the uptake and integration of emerging interventions; and

Evaluating the impact of the emerging interventions.

Demonstration Sites



Why Enhance the Aging with HIV Workforce?

- Prepare the workforce for the aging with HIV population
- Address complex and interconnected care needs of people aging with HIV
- Close the geriatric-HIV care gap

Trainings to Enhance the Aging with HIV Workforce

(Intervention for Collaborative Care to Assess Risk and Eliminate Polypharmacy, Falls, and Fragility Fractures for Patients Aging with HIV (I-CARE-4-PAH))

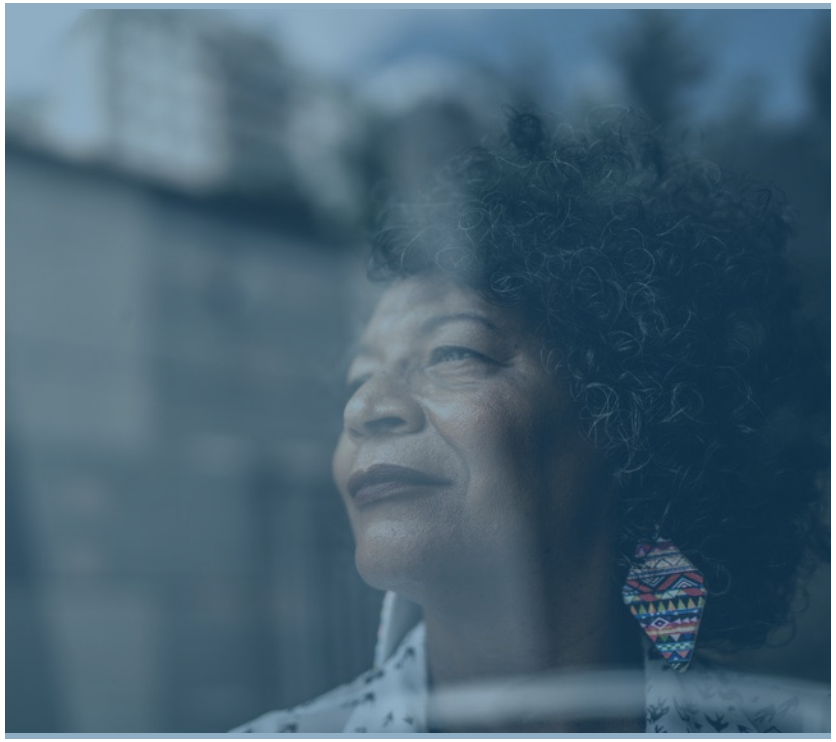
Yale University

Lydia Aoun-Barakat, MD

aging with HIV

Ryan White HIV/AIDS Program Initiative

Case Study



Ms. C is a 62-year-old woman with HIV who comes for a routine follow up visit.

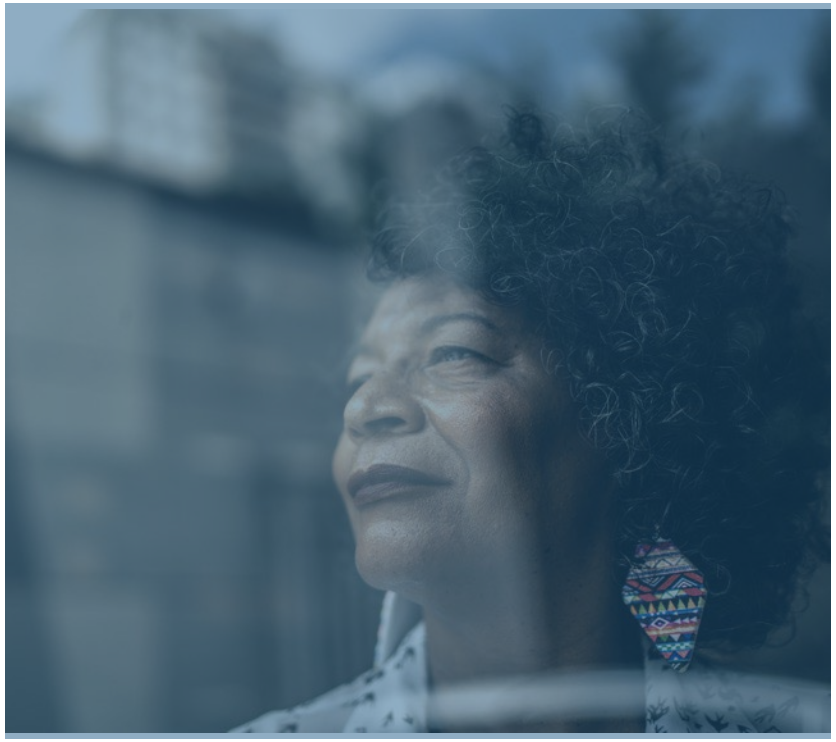
Past Medical History:

- HIV for 30 years well controlled
- Hypertension
- Diabetes Mellitus Type 2
- Depression
- Low back pain

Medications:

- TAF/FTC/BIC 1 tablet daily
- Lisinopril 20 mg daily
- Metformin 500 mg twice a day
- Citalopram 20 mg daily
- Rosuvastatin 10 mg daily
- Acetaminophen 500 mg/Oxycodone 5 mg, 1 tablet 1-2 times/week
- Vitamin D/Calcium 1 tablet daily

Case Study



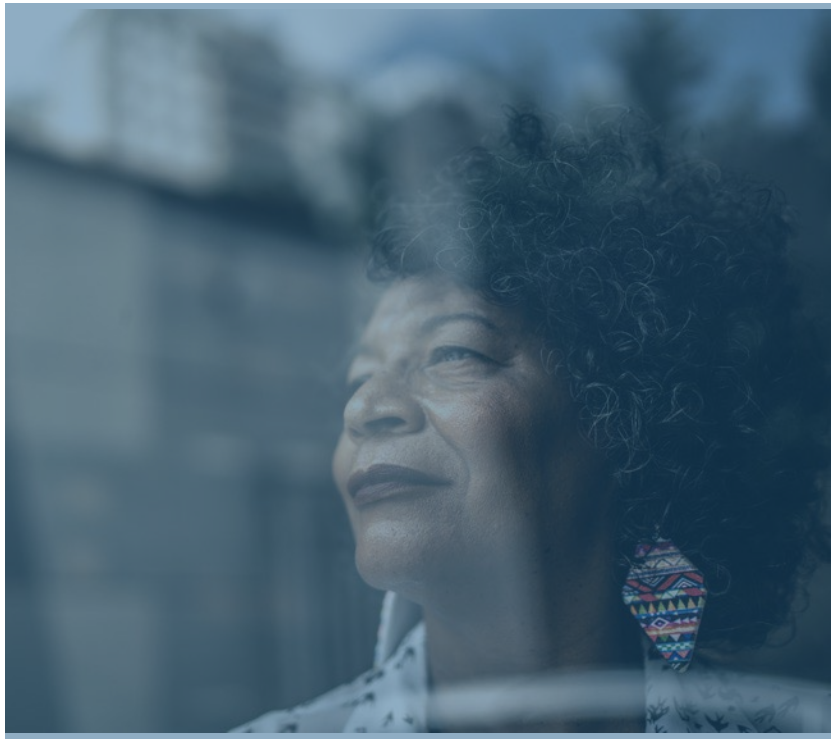
Social History:

- Lives home with her partner of 25 years also person with HIV
- 2 adult children
- Florist and has her own business
- Physically and financially independent
- Nonsmoker
- Drinks alcohol 1-2 drinks, 2-3 times/week
- No recreational drug use

Pertinent data:

- Her HIV viral load undetectable for years
- Her CD4 count 400-600 cell/dl
- The rest of her blood work within normal limits

Case Study



Other than appropriate

- Age-appropriate cancer screening
- Appropriate vaccination
- Eye and foot exam

What other health risk should be addressed?

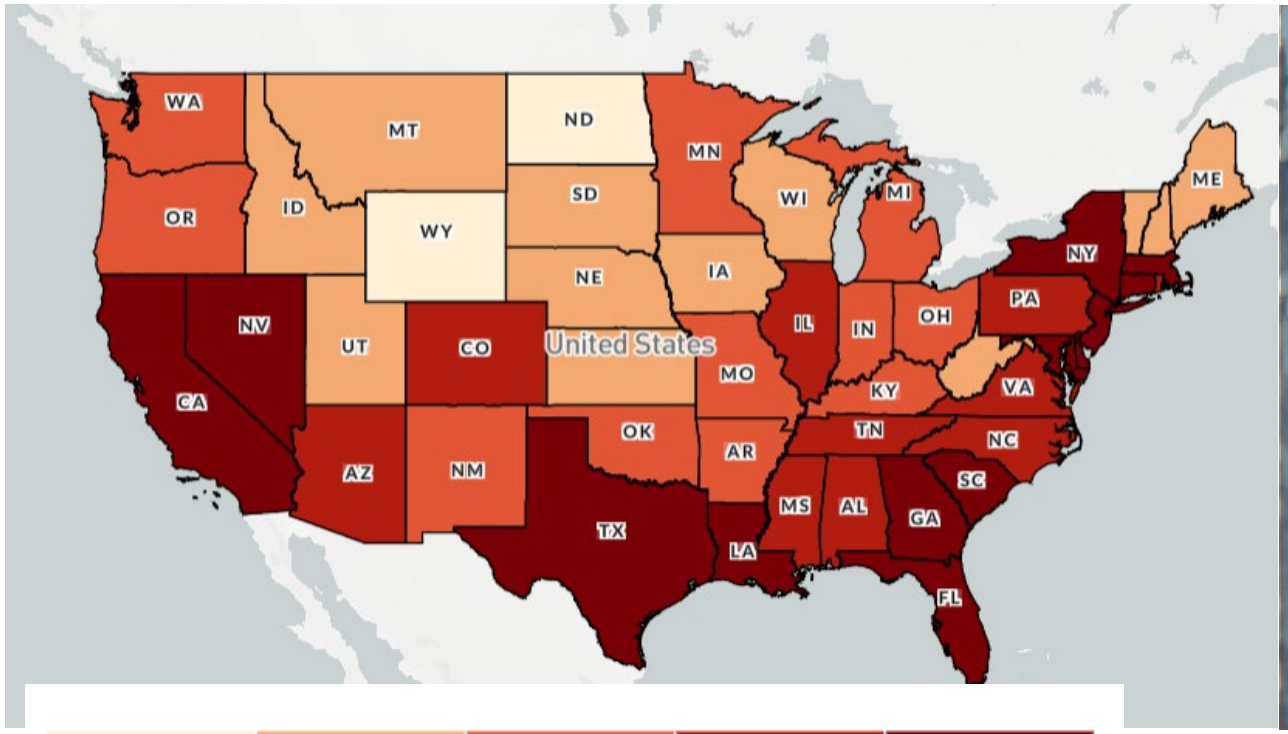
- Polypharmacy
- Fall
- Fragility Fractures

HIV providers don’t feel equipped to address these aging related conditions.

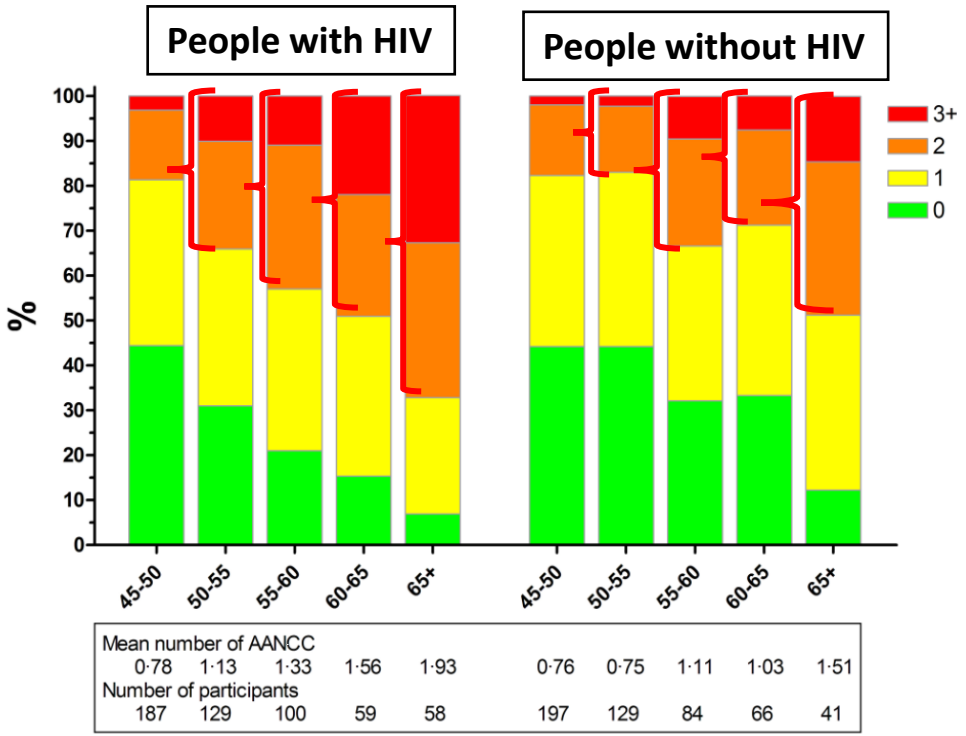
There is a need and interest in training HIV providers in geriatric assessment.

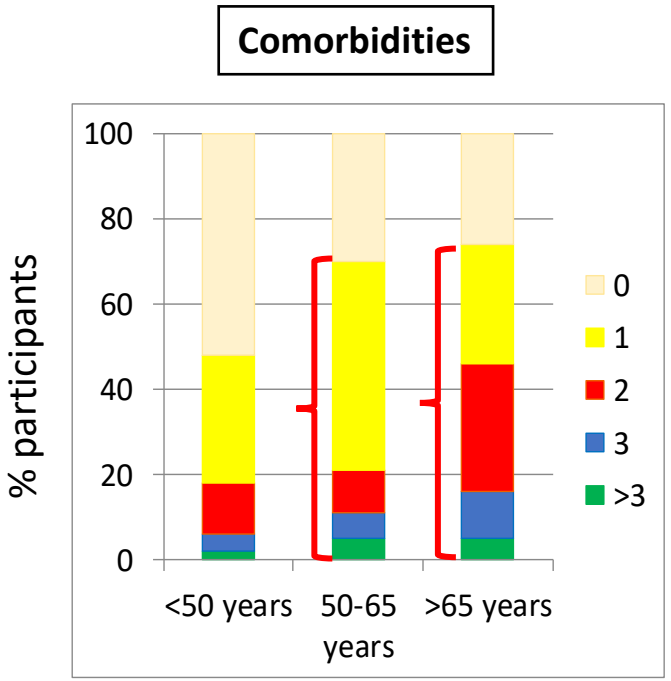
People with HIV are Growing Older

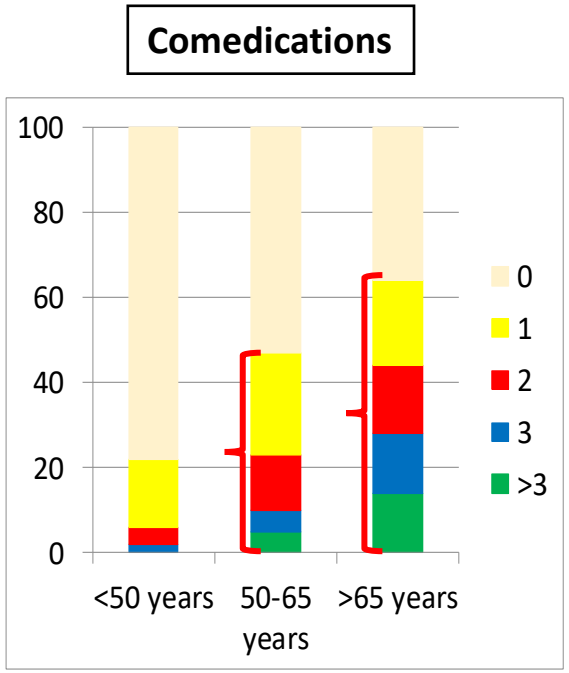
In 2023: In the U.S. 596,044= 54% of the people living with HIV are 50 years or older



HIV and Polypharmacy







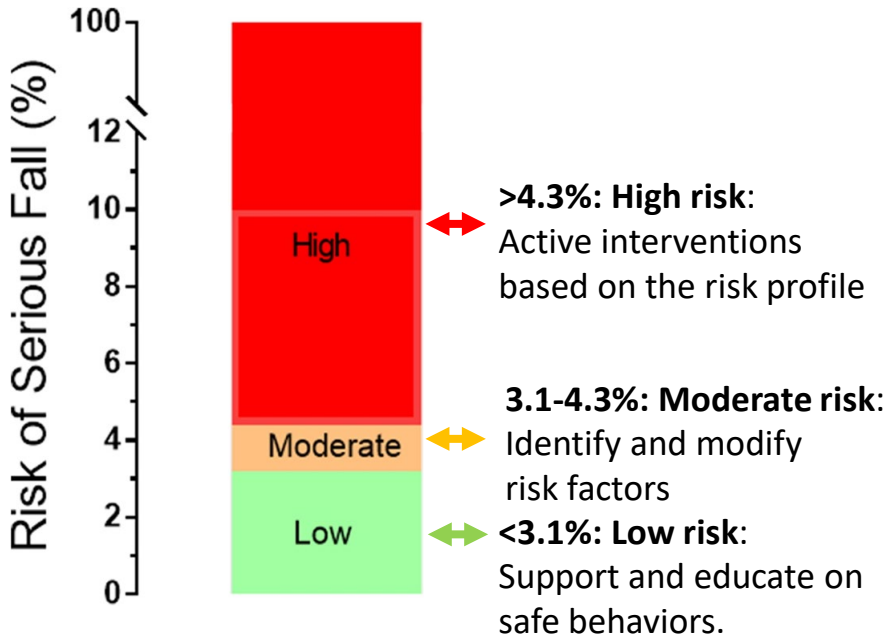
- 15-39% of people aging with HIV are exposed to polypharmacy
- People aging with HIV are exposed to polypharmacy ≥ 10 years earlier than general population
- Multiple medications are associated with significant drug-drug interactions

Schouten et al, Clin Infect Dis 2014; Hasse et al. Clin Infect Dis 2011; Edelman et al. Drugs Aging 2013; Justice et al. AIDS 2018

HIV and Fall Risk

- Prevalence of Falls is estimated to be ~30% among people aging with HIV
- A predictive Risk Score for serious falls using certain modifiable variables could be used to predict falls in persons with HIV

Predictor
Female sex
Person of color
BMI ≥ 25 kg/m^2
Fall within the past year
Diagnosis of alcohol abuse disorder
Audit C score
Anticonvulsants
Benzodiazepines
Muscle relaxants
Opioids
Selective serotonin reuptake inhibitors
Count of non-ART medications
Count of mental health comorbidities
Count of physical comorbidities
Pain score
VACS Index Score 2.0 (5-point increments)

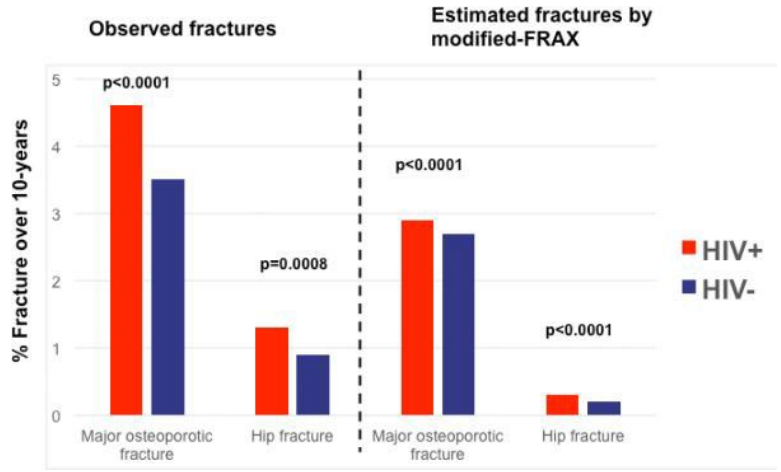


Erlandson et al. J. Acquir Immune Defic. Syndr 1999; Womack et al. J. Acquir Immune Defic. Syndr 2021; Womack et al. .J.Acquir Immune Defic. Syndr 2022; Womack et al. J. Am Geriatr Soc. 2023

HIV and Fracture Risk

- Risk for fracture is higher among people with HIV aged 50 years and older compared to those without HIV even after adjusting for demographics, comorbidities, smoking, and alcohol use (HR 1.32 and 1.24 respectively).

- Modified-FRAX underestimated the fracture rates persons aging with HIV compared to those without HIV. The accuracy improved when HIV was included as a cause of secondary osteoporosis.



Observed and modified-FRAX estimated rates of fracture by HIV status

Womack et al. PloS one 2011; Yin, Womack et al. J Acquir immune Defic Syndr 2016; Yang et al. AIDS 2018

HRSA-028
SPNS Grant on HIV & Aging
Yale Demonstration Site

Yale University School of Medicine
AIDS Program

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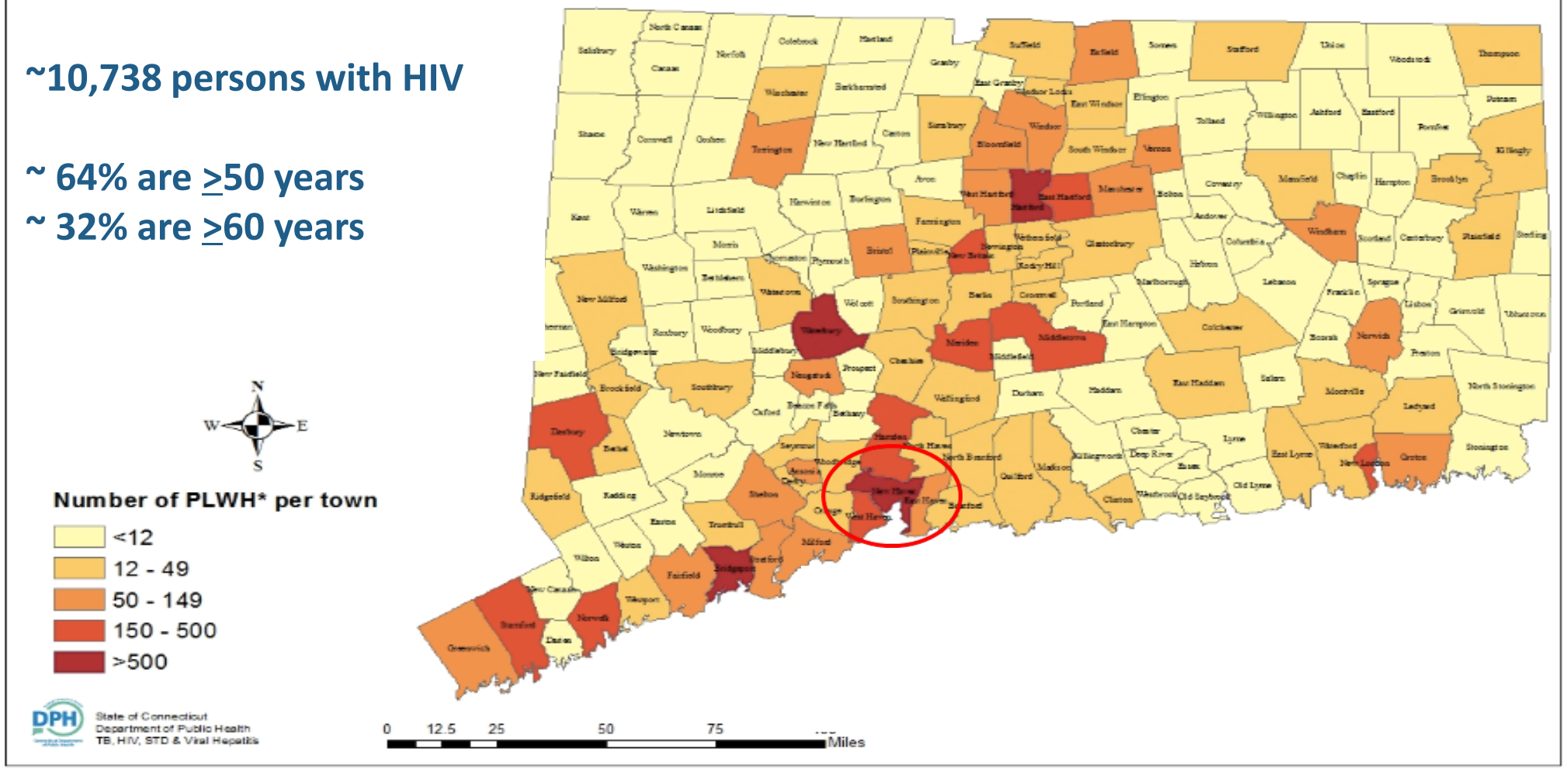
HIV Epidemiology in CT - 2024

~10,738 persons with HIV

~ 64% are ≥50 years
~ 32% are ≥60 years



Yale University and Yale New Haven Hospital Medical Center
New Haven, CT
HIV Rate in New Haven ~1,000/100,000 population

Yale Center For Infectious Diseases

Cohort of ~1,600 people with HIV
~ 1,150 of people with HIV (69%) are 50+ years of age
~ 31% are 60 years and older
~ 67% are persons of color.

Project: I-CARE-4-PAH

Intervention for Collaborative Care to Assess Risk and Eliminate Polypharmacy, Falls, and Fragility Fractures (4F) for People Aging with HIV

Brief Description:

The intervention aims to develop a collaborative care model that will build the capacity of providers at Yale Center for Infectious Diseases to assess and manage conditions associated with aging (4F) in their population through training on improved care delivery and health disparities.

Project Personnel

Team Lead

Dr. Lydia Aoun-Barakat
Co-PI

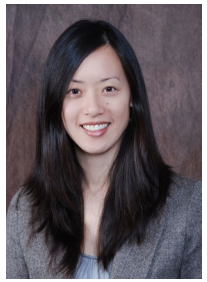
Dr. Julie Womack
Co-PI

Dr. Michael Virata
Evaluator

Chloe Johnson, MPH
Project Coordinator

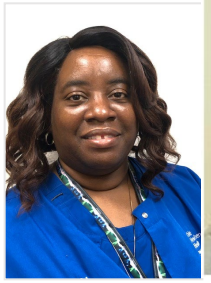
Advisory Board

Dr. Marottoli
Geriatrician



Dr. Hsieh
Rheumatologist

Dr. Payne
PharmD



W. Stewart
Lead Nurse

L. Sheehan
Physical Therapist

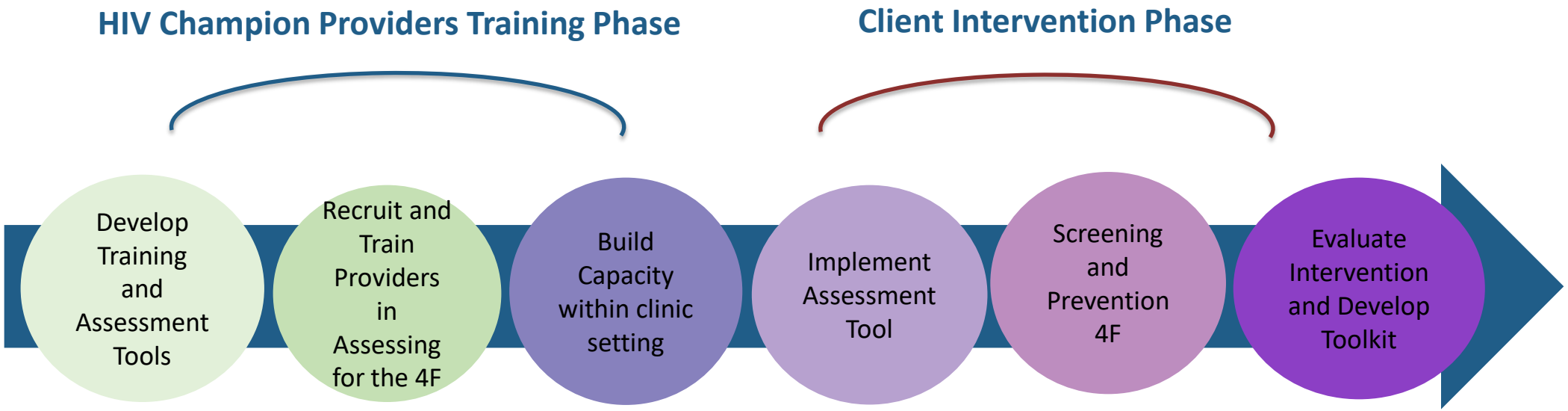
Anne Murphy
LCSW

K.D.
Peer Liaison

M.L

Project Implementation

- Launched in September 2022
- Train HIV Champion Providers to conduct a 60 minutes wellness visit for geriatric assessment addressing and preventing the 4F
- 2 Phase Process:



Resources

Provider Educational Videos:

- How to think like a Geriatrician
- Polypharmacy for providers
- Fall risk and Fragility fractures
- Live Gait and Balance Session

Patient Educational Videos:

- Fall prevention
- Basic exercises
- Advanced exercises
- Polypharmacy for patients
- Healthy diet for patients

Spanish translation in process

Postcard of fall educational video

Provider Tools:

- EPIC Note Template
- Tip sheet
- Toolkit

Patient Educational Material:

- Educational resource brochure
- Calcium rich diet
- Calcium and vitamin D for bone health
- Getting up from a fall
- Preventing falls in adults
- Fractures – The Basics
- Osteoporosis- The Basics

Website Development

Yale School of Medicine / Internal Medicine /

Infectious Diseases ≡ MENU

Home / Areas of Interest / HIV/AIDS +

Yale Infectious Diseases' 4Fs Program

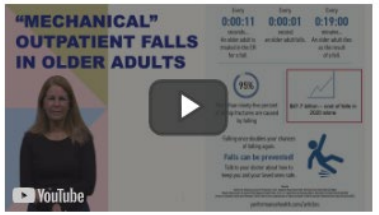
More than half of people living with HIV in the US are 50 years or older, and it is estimated that almost 25% will be 65+ years of age by 2030. At the Yale Center for Infectious Diseases, 2/3 of patients living with HIV are older than 50 years and almost 1/3 are older than 65 years.

Many patients cared for at our Center have two or more co-morbid conditions and are prescribed more than five medications. Fifty percent of men in our cohort report a fall in the past year. While not all these falls have resulted in a visit to a healthcare provider, it is well established that falls are a key cause of fragility fractures and hospitalization among older adults.

While HIV providers have expertise in providing outstanding care, they may lack the expertise in screening for and managing geriatric conditions such as polypharmacy, falls, and fragility fractures. Yale Infectious Diseases' 4Fs program seeks to help HIV providers improve the care they give to older adults living with HIV.

Polypharmacy for Providers - Part 1

Watch the video ⟶



Fall Prevention Advice

Watch the video ⟶

https://medicine.yale.edu/internal-medicine/infdis/research/hiv-aids/aging/

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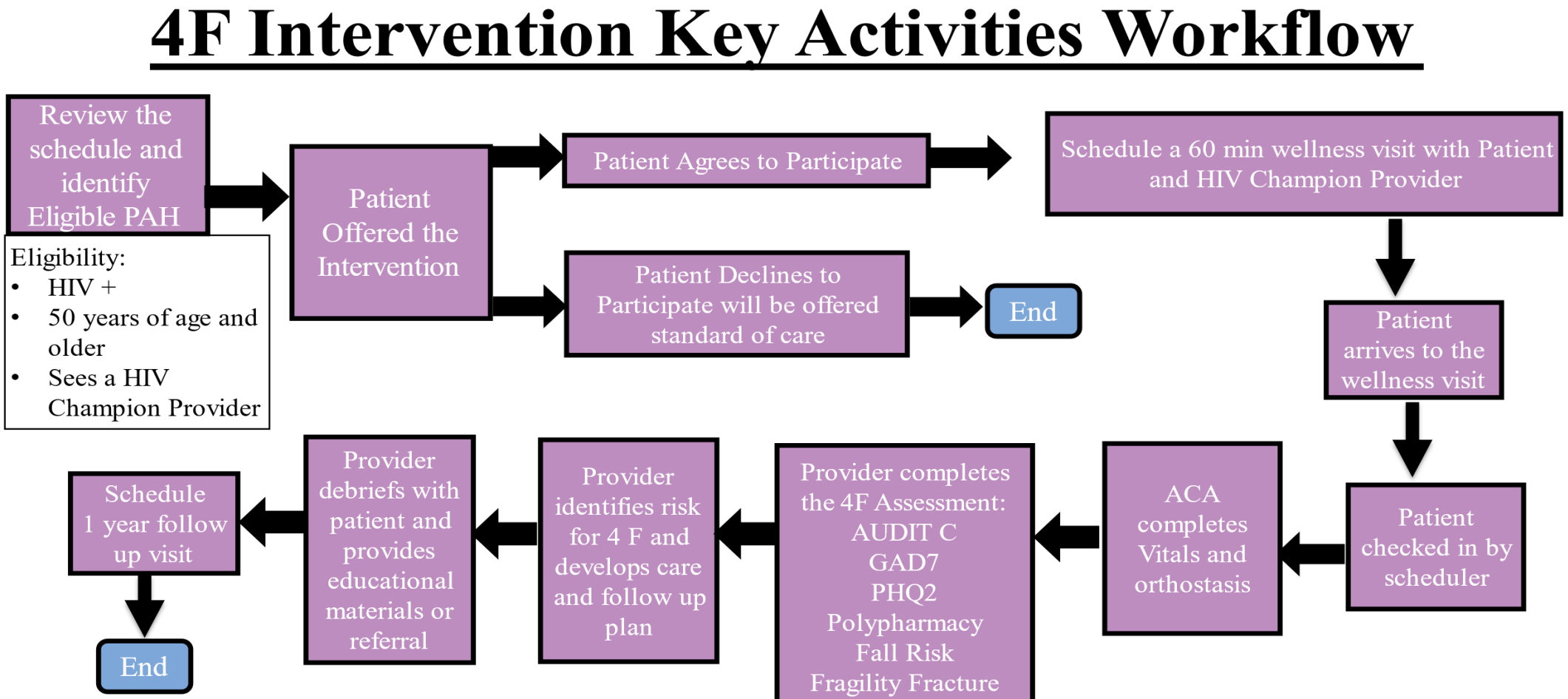
4F Wellness Visit Time Study

Time Study Time Sheet- I-CARE-4-PAH pilot 5/16/2023

START Time	Task	Personnel or Screeners	Task Completion check	Time Spent
8:30 AM	PAH arrives to appointment **Checks-in**	Front desk	1 min	8:31 AM
8:53 AM	Consent Patient	Project Coordinator	3 min	8:56 AM
8:59 AM	PAH completes NORC Survey	Project Coordinator	12 min	9:11 AM
9:13 AM	PAH brought to exam room	ACA or Nurse	2 min	9:15 AM
	PAH Demographics	Project Coordinator	skip	
9:29 AM	BRIEF Health Literacy Screening Tool	Project Coordinator	5 min	9:34 AM
9:15 AM	PAH vitals AUDIT C PHQ-2 GAD-7 Pain score Orthostatic check	ACA or Nurse	12 min	9:27 AM
9:39 AM	Pharmacy Assessment	Provider	5 min	
	Sleep Quality Assessment	Provider	1 min	
	Osteoporosis Screening	Provider	1 min	
	Fall Risk Assessment	Provider	1 min	
	Foot Exam / Footwear	Provider	3 min	
	Vision Assessment	Provider	2 min	
	Gait Assessment	Provider	3 min	
	Mental Health Diagnoses check list	Provider	1 min	
	Physical Health Diagnoses check list	Provider	2 min	
	Substance Use Disorders check list	Provider	1 min	
	What matters most?	Provider	2 min	10:26 AM
	Labs to be ordered	Provider enters necessary labs	none	
	FRAX Calculator Serious Fall risk Calculator VACS Index	Provider Project Coordinator Done in REDCap	skip	
	PAH gets labs drawn	Nurse	none	
	Gift card provided to PAH and signed paper	Project Coordinator	1 min	
	PAH **Checks-out**	Front desk or nurse	1 min	10:28 AM

Recruitment Flyer

Visit Workflow Process Mapping



4F Wellness Visit EPIC Note

- Demographics
- PHQ-2, GAD-7, and AUDIT- C
- Smoking and Substance Use History
- Sleep Quality Assessment
- **Polypharmacy/Medication Reconciliation/Medication count**
- **Fall Risk Questionnaire**
- **Fragility Fracture Risk Questionnaire and Calculator**
- Footwear and Foot Exam- Assessment for Neuropathy
- Vision Exam
- Gait Assessment
- Social determinants of health questions
- What Matters Most Question
- **Patient Care Plan:**
    - Summary of Findings
    - Educational material
    - DXA Scan if indicated
    - Referral if indicated

Polypharmacy:

- <9 not polypharmacy → Education on drug-drug interaction and adverse events
- 9-14 polypharmacy → De-prescribing if possible
- >15 hyperpolypharmacy → Refer to pharmacist

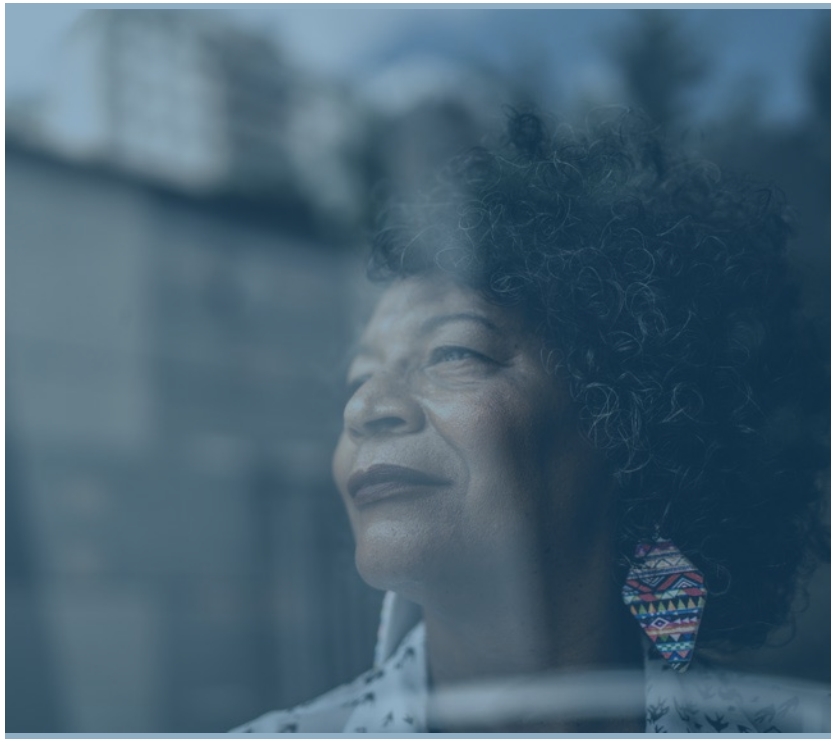
Fall Risk Score:

- <3.1% low risk → Support and encouragement for helpful behaviors
- 3.1-4.3% moderate risk → Identify and modify key risk factor/physical therapy
- >4.3% high risk → Active interventions based on the risk profile/ physical therapy

FRAX Risk Score:

- <10% low risk for 10 y risk for major fracture→ Lifestyle counseling
- 10-20% moderate risk → dual-energy X-ray absorptiometry (DXA Scan)
- >20% high risk → Start treatment +/- DXA Scan – Refer to specialist

Back to our patient Ms. C



Polypharmacy:

- 7-8 pills a day (<9 medications)
- Changed Metformin to extended release

Predictive Risk Score: 3.9% (moderate risk)

- Referral was made for physical therapy
- Discussed her alcohol use
- Discussed alternative medication to opioid
- Decided not to change selective serotonin reuptake inhibitor

FRAX Risk Score for 10 y risk for major fracture: 15% (moderate risk)

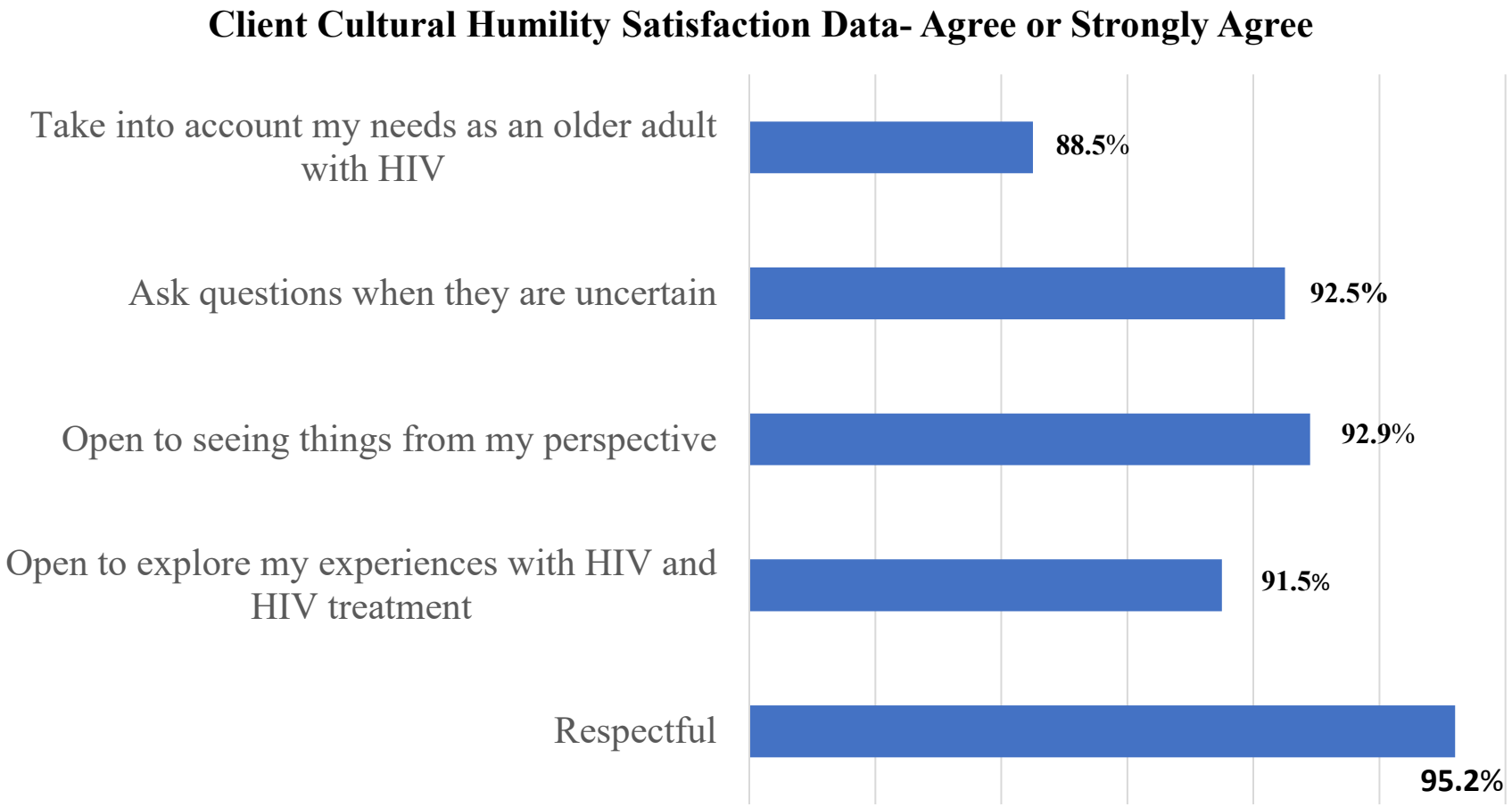
- DXA scan revealed osteoporosis
- Started on Bisphosphonate

Ms. C was seen in follow up and she felt well and was very grateful that her HIV provider offered her the 4F wellness visit and assessed her for polypharmacy, falls, and fragility fractures.

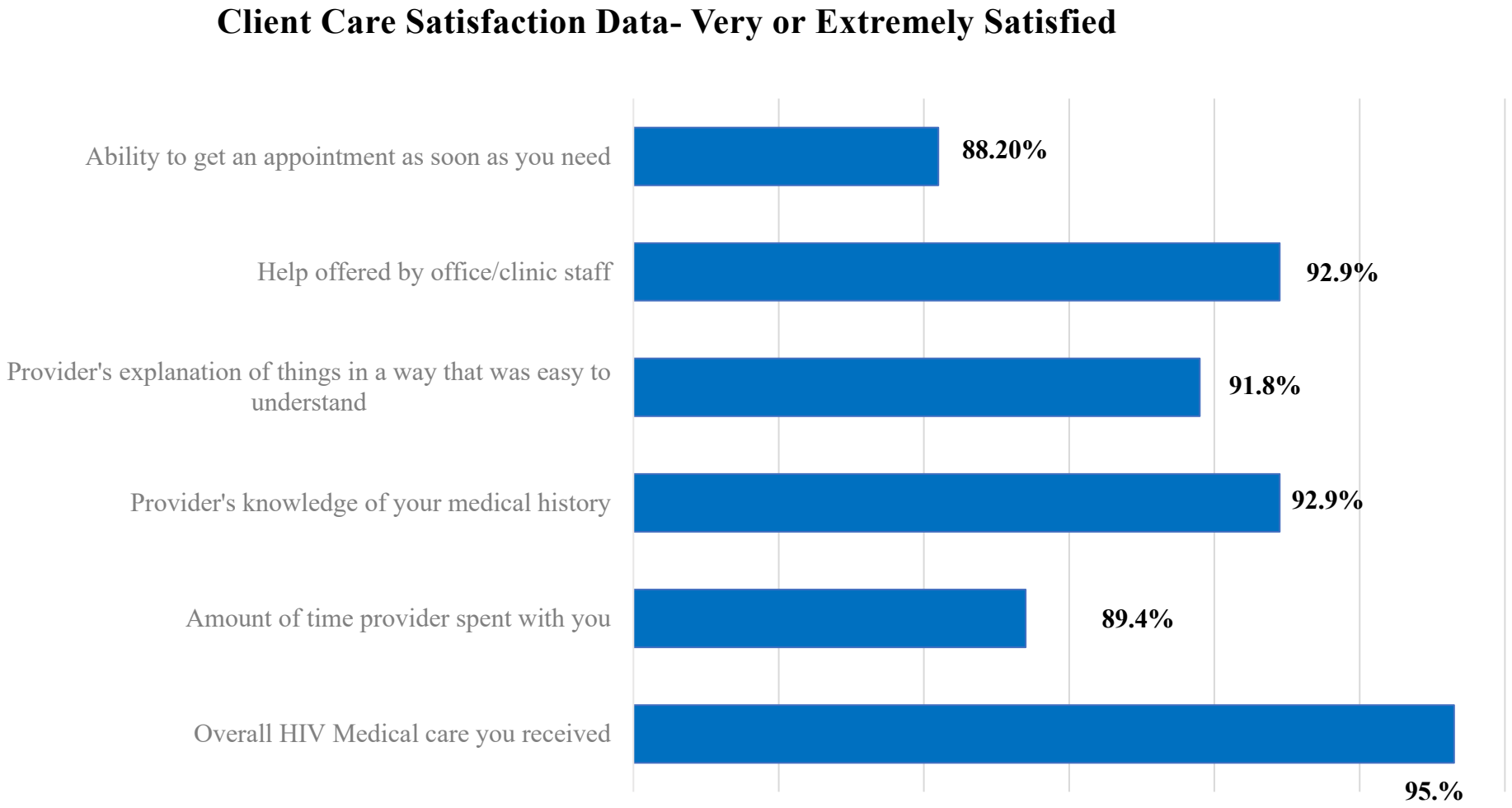
Our Participants had High Fall Risk and Polypharmacy Rates

Variable	N=125
Age	**63±6**
Race	
White	48%
Black	48%
Other	4%
Sex	
Male	50%
Female	49%
Current smoker	**30%**
Trouble sleeping	**30%**
Medication count	10±5 (1-26)
<9 medications	45%
9-14 medications	30%
≥15 medications	**25%**
Any areas on foot with decreased sensation	25%
Fall Risk	
Slipped or tripped in the past 12 months	**42%**
Fall resulting in injury	22%
Fall risk* (mean ± SD)	**4.05±4.13**
FRAX Score	
10 year risk for major osteoporotic fracture	8.71±6.95
10 year risk for hip fracture	2.11±3.58

Client Satisfaction Results



Client Satisfaction Results



Lessons Learned

Engage everyone

Train all staff

Eliminate inefficiencies

- Use time and motion studies
- Look for redundancies

Invest in recruitment

Work with local agencies

Thank You!

We would like to thank the YCID team, our HIV champion providers, our patients, and peer liaison for their support and participation.

This project is supported by HRSA Grant on HIV and Aging # 6H97HA46082
The Health Resources and Services Administration (HRSA), Department of Health and Human Services provided financial support for this Project I-CARE-4-PAH. The award provided 100% of total costs and 26% indirect cost. The contents are those of the author. They may not reflect the policies of the Department of Health and Human Services or the U.S. government

Stock photos. Posed by Models.

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HIV Dementia Champions:
Preparing the workforce for an aging population

University of Chicago
Jacob Walker, MD

aging with HIV
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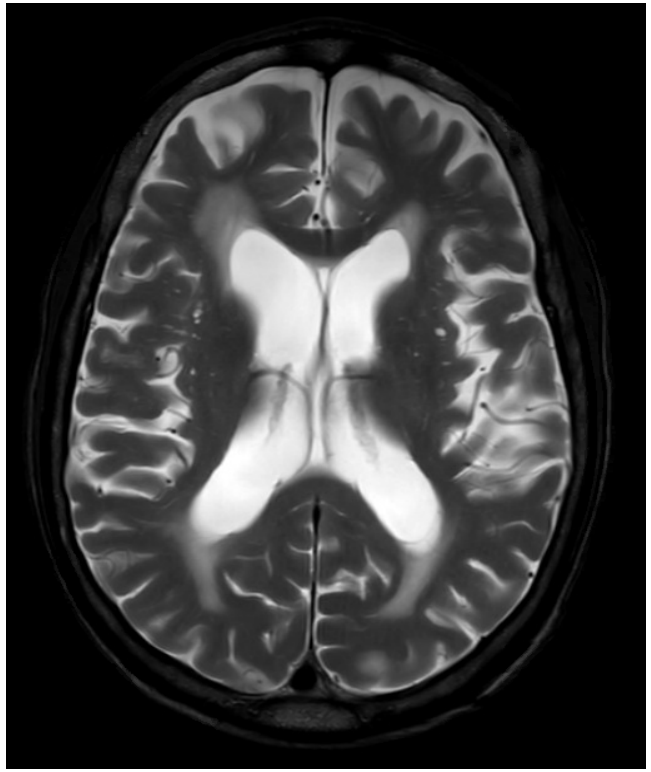
Dementia in HIV Care

- **Age is the greatest risk factor for dementia.**
- **People with HIV may be at *higher* risk of dementia due to high prevalence of risk factors (aIRR ~1.6).**
- **People with HIV are at risk for unique HIV-Associated Neurocognitive Disorders (HAND).**



UChicago Program Background

Concentration of older adults on Chicago's South Side.

High prevalence of cognitive impairment. Low advance care planning completion rate.

75% of community members perceive dementia as a "moderate" or "major" problem for their community.

High perceived education need from social work team.

Ryan White HIV/AIDS clinic

600+ clients

44% of all patients over 50

Seven of the eight poorest neighborhoods in Chicago fall within the service area

HIV Dementia Champion Program Goals

- Train the members of the HIV workforce as “champions” of dementia care.
- Enhance dementia-related clinical skills and knowledge of dementia care resources.
- Prepare champions to make HIV clinics more “dementia-friendly,” improving care for *all* patients.

HIV Dementia Champion Training

10 training Sessions

Paired with local experts
Active participation and discussion
Tailored to staff needs/experience
Resource sheets for each topic

Two self-assessments

Community reflection
Clinical evaluation and action planning

Training topics:

- Introduction to dementia
- Person-centered care
- Dementia screening and testing
- Working with caregivers
- Community dementia resources
- Legal frameworks
- Communication, stress, and distress
- Advance care planning
- Transitions of care

Recruitment Strategy

Dementia Lead

Geriatrics

HIV Lead

HIV Clinic

Coordinator

HIV Clinic

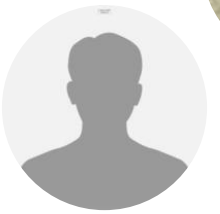
Leadership Team

Educator Team

alzheimer's association®

Champions

LCSW



Medical Assistant

Linkage coordinator

NP

Linkage coordinator

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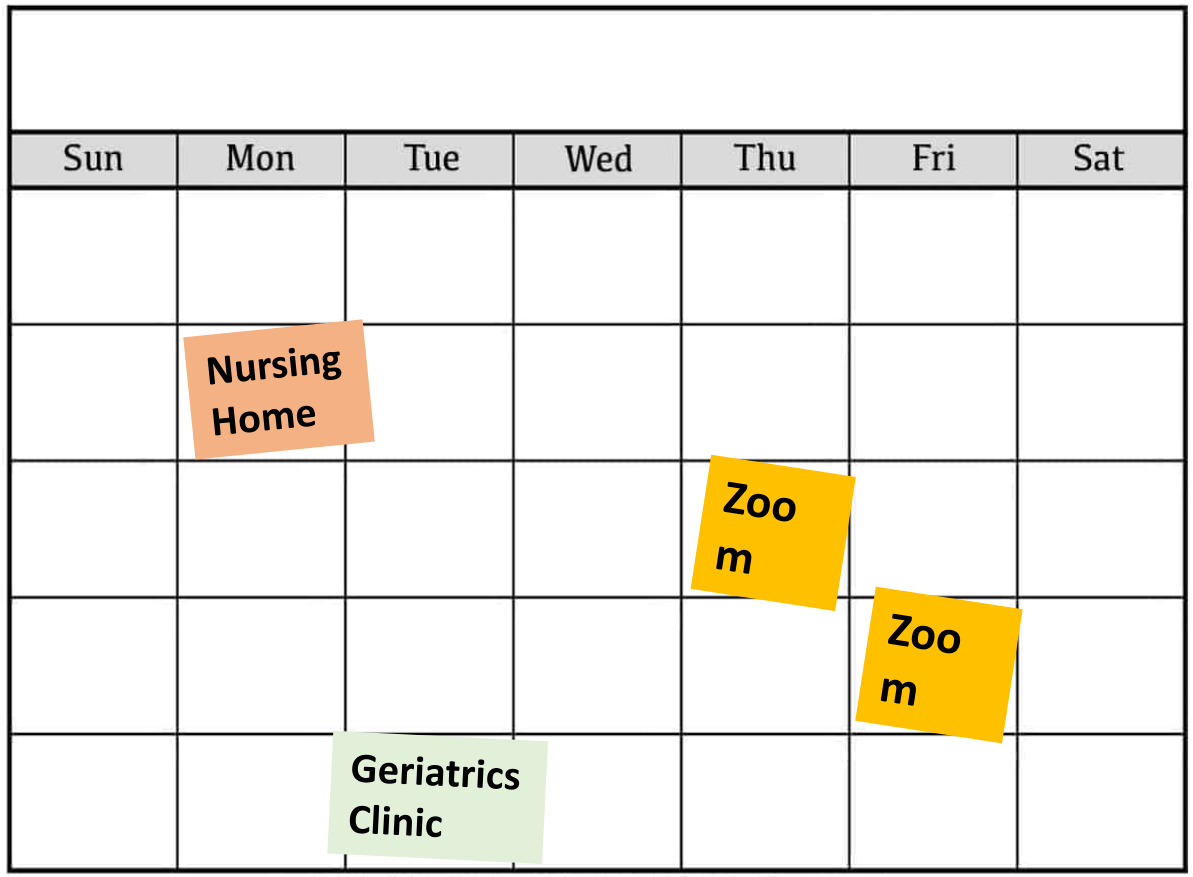
Training Structure

Individualized schedules for learners

Mix of in-person shadowing and remote sessions

Flexible to meet the needs of the organization and learners



Example Training Sessions

- Group didactics with a local elder law attorney
- Affiliated nursing home site visit with a geriatrician
- Presentation from the Alzheimer's Association of Illinois
- **Online MoCA training course**
- **1:1 Shadowing of a neurology nurse practitioner in the memory disorders clinic**
- **Clinic tour and individual meeting with a geriatric social worker**

UChicago Program Outcomes

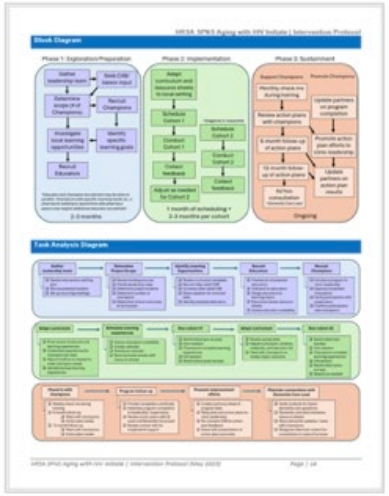
- High Champion satisfaction
- Highly rated acceptability and appropriateness
- Strong buy-in from our community advisory board
- Strengthened ties to community partners

UChicago Champions have used their training to…

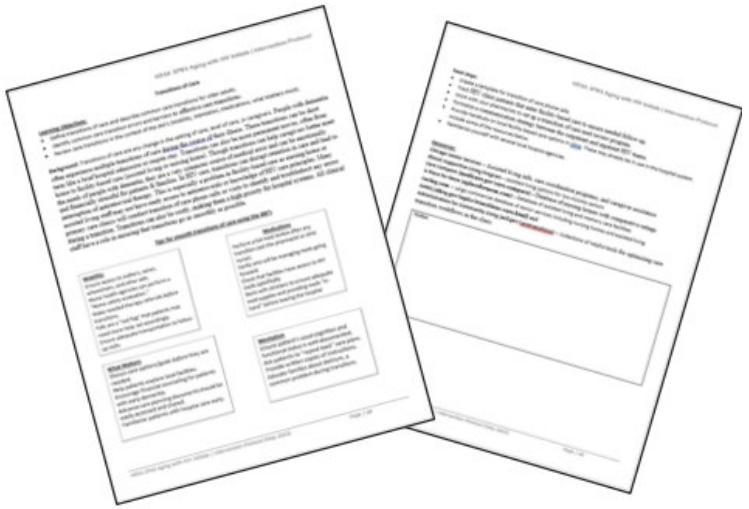
- Create a dementia screening clinical pathway
- Start a dementia caregiver support group within HIV clinic

Program Tools

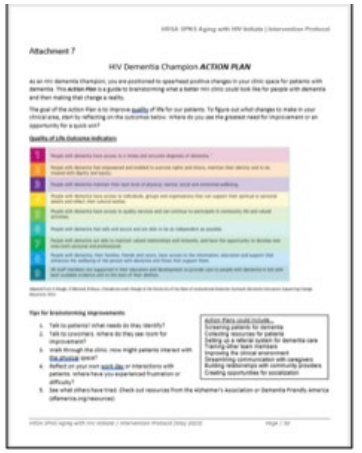
Implementation Blueprint



Resource Guides



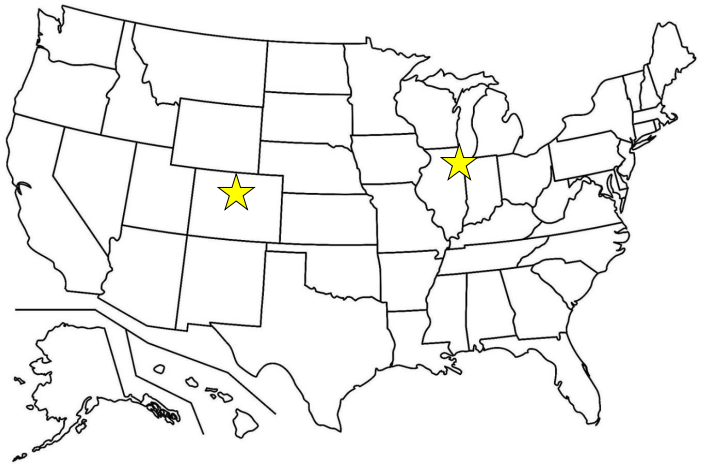
Assessment Tools



HIV Dementia Champion Program

- Replication is underway at two additional sites!
- Toolkits will be made available online (TargetHIV.org)
- Supplemental online CME in active development
- The UChicago Team is available for 1:1 coaching

aging with HIV
Ryan White HIV/AIDS Program Initiative



In Summary…

There is a unique need for dementia workforce training in HIV care

The HIV Dementia Champion program is a flexible intervention built around the needs of HIV clinic staff

We can use existing dementia care networks to promote ease of replication and relevance to trainees

Q&A Session (20 minutes)

Contact Information

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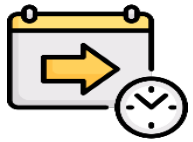
Upcoming Webinars



Webinar 2: Psychosocial Care & Supportive Services for People Aging with HIV

Date: May 15, 2025, 1:00pm – 2:00pm ET

Presented by: Colorado Health Network, Inc. and Family Health Centers of San Diego

Webinar 3: Promoting Wellness for Aging Adults with HIV: Exercise, Nutrition, & Beyond

Date: TBD

Presented by: Empower U, Inc. and Wake Forest University Health Sciences

Webinar 4: Personalized Care in HIV & Aging

Date: TBD

Presented by: Centro Ararat, Inc. and Mount Sinai Beth Israel

Webinar 5: Optimizing Medication Management of People Aging with HIV

Date: TBD

Presented by: Boston Medical Center and UPMC Presbyterian Shadyside

Keep an eye on your inbox for registration links!

Thank you!

Visit https://targetHIV.org/spns/aging for more information on the SPNS Aging with HIV Initiative.