Mobile testing to increase HIV-testing uptake in rural Alabama: a pilot implementation project (MOBILISE)

3rd National Ending the HIV Epidemic Partnerships for Research Meeting

April 15-16, 2024 I Los Angeles, CA



Lynn T. Matthews, MD, MPH

Associate Professor, Division of Infectious Disease Associate Director, Research and Partnerships, Mary Heersink Institute for Global Health University of Alabama at Birmingham, Heersink School of Medicine



lynnmatthews@uabmc.edu

DeAndra Tuyishime, MAEd, CHES, RPCV

Chief Prevention & Outreach Officer - Southern Region Five Horizons Health Services Montgomery, AL



dtuvishime@fivehorizons.org

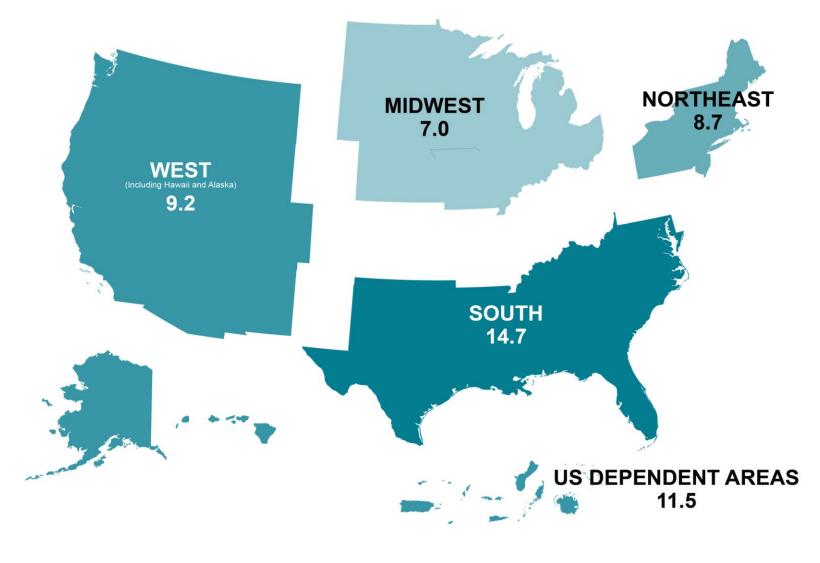


Disclosures

• None

Southern, rural states are a focus of the U.S. plan to End the HIV Epidemic (EHE)

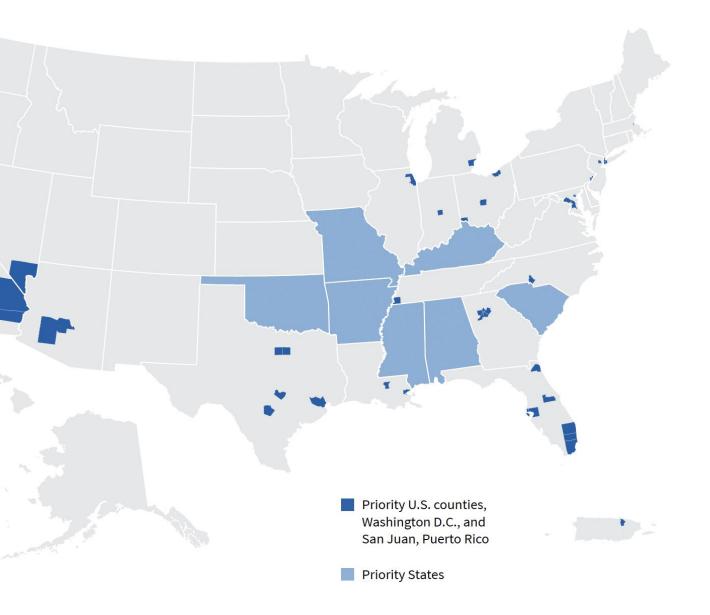
Rate of New HIV Diagnoses in the Us and **Dependent Areas by Region, 2021***†



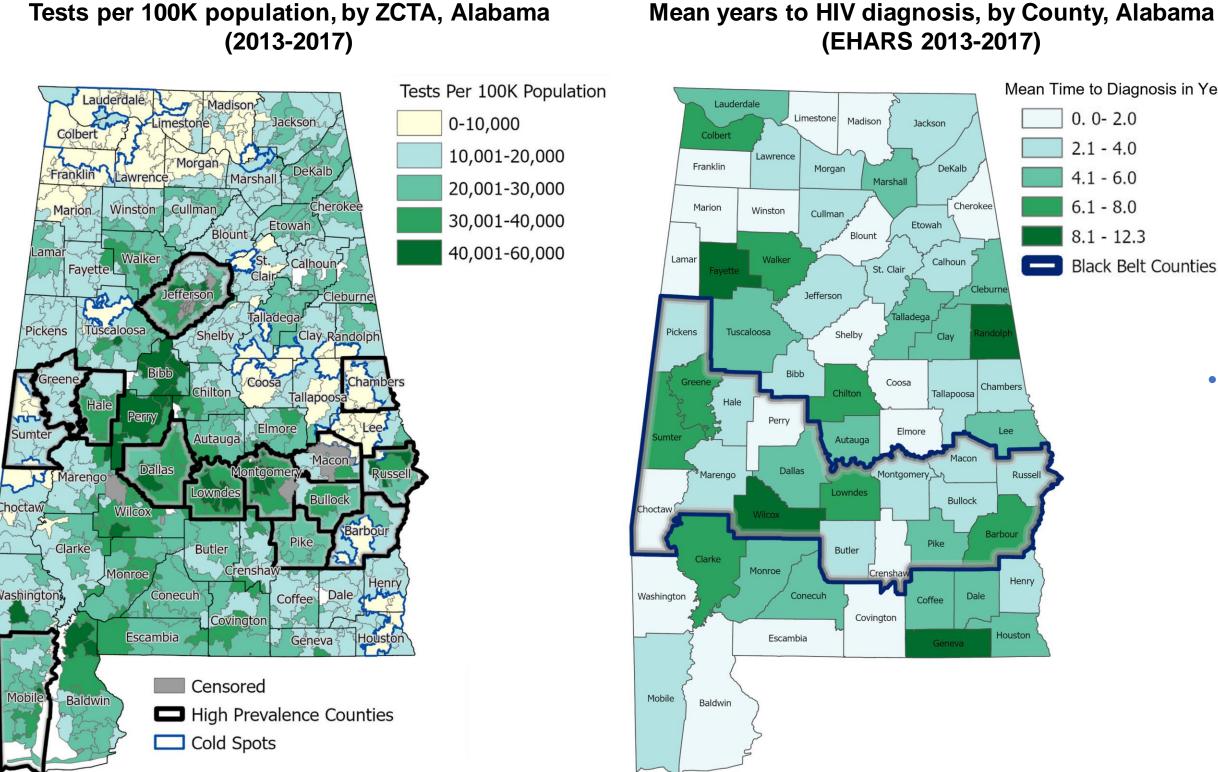
^{*} Rates are per 100,000 people ⁺ Among adults adults, adolescents, and children under the age of 13.

Source: CDC. Diagnoses of HIV Infection in the United States and dependent areas, 2021. HIV Surveillance Report 2023;34.

EHE Priority Counties and States



HIV testing gaps in Alabama: 37% ever-tested for HIV



3rd National Ending the HIV Epidemic Partnerships for Research Meeting

Mean Time to Diagnosis in Years

- 0.0-2.0
- 2.1 4.0
- 4.1 6.0
- 6.1 8.0
- 8.1 12.3
- Black Belt Counties
 - Modelling time to diagnosis based on CD4 count (Song 2017 JAIDS)
 - 3.7 (IQR 0-9.2) years across Alabama

Pitasi, CDC MMWR. 2019, Matthews, OFID. 2023

Rural U.S. challenges accessing testing overlap with challenges in global settings



Transportation needs

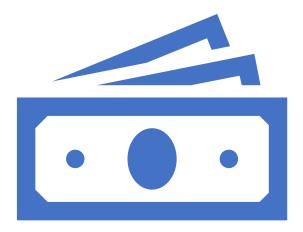


Provider discrimination and stigma



Pratt et al. Archives of Public Health, 2023; Suthar et al. PLoS Med, 2013; Sharma et al. Nature, 2015

3rd National Ending the HIV Epidemic Partnerships for Research Meeting



Financial constraints



Confidentiality concerns

Mobile HIV counseling and testing increases testing coverage

- WHO review, meta-analysis of community testing
 - Mobile HCT uptake 87%
 - Earlier Diagnoses
 - Increased HCT coverage (RR 7.07) with a trend towards reduced HIV incidence.
- Increased testing availability
- Reduced facility-associated stigmas
- Reach "hot spots"
- Little is known about mobile testing in rural America.

Suthar et al. PLoS Med, 2013, Schafer et al. JAIDS, 2017

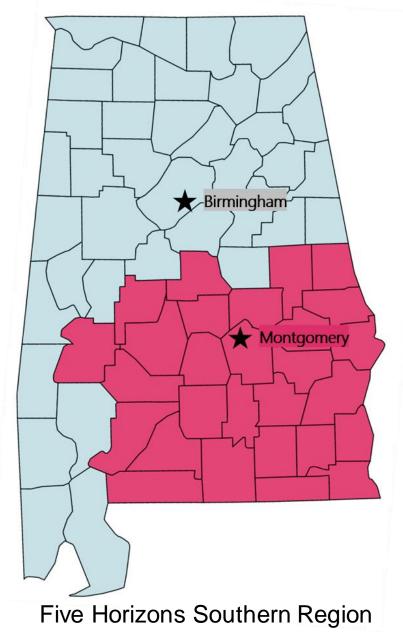


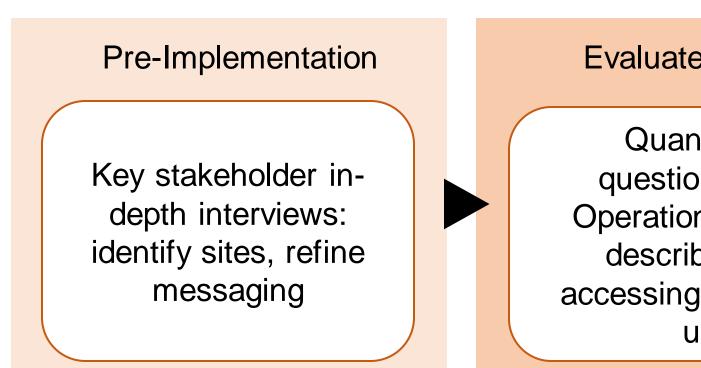


From AIDS Healthcare Foundation, South Africa.

Mobile Testing to increase HIV-testing Uptake in rural Alabama: **A Pilot Implementation Project**







Conceptual and implementation frameworks: Levesque model for healthcare access (Levesque et al. Int J Equity Health, 2013) and RE-AIM (Glasgow et al. Am J Public Health, 1999)

Funding: Ending the HIV Epidemic Supplement to UAB CFAR NIAD P30AI027767 (PI Heffron, PD Matthews)

Evaluate implementation of Mobile-based HCT

Quantitative questionnaire + Operational data to describe those accessing the mobile unit

Qualitative interviews with clients, providers, and community members for feedback on Mobile HCT

Pre-implementation Findings

Opportunities for Linking Clients to Rapid ART / PrEP	Methods for Refining Key Stigma Reducing Message
 On-site intake Telehealth support 	 Integrate HIV testing with other screenings
•On-site PrEP prescription	 Social media campaigns Emphasis on possibility of good quality of life when living with HIV

es

Community Champions

- Church leaders
- •Beauticians/Barbers
- •Sororities/Fraternities
- •Teachers
- •Politicians
- •Healthcare providers
- Activists

Methods

Population and Setting

- Adolescents and adults (ages 18-65) •
- Living in Alabama, particularly in rural • counties and the Black Belt region
- Received HIV testing and counseling from 5Horizons outreach team

- - college and university campuses •
 - health fairs
 - job resource centers
 - substance use support centers
 - churches



Survey

- Demographics •
- **Current HIV status**
- HIV risk perception
- Prior/future use of HIV self-testing or home-testing kits
- Acceptability, feasibility, appropriateness of mobile-based HCT.

(1) Stangl et al., J Int AIDS Soc. 2019. doi: 10.1002/jia2.25421.; (2) Cunningham et al., Med Care. 1999. doi: 10.1097/00005650-199912000-00010; (3) Thompson et al., Prev Med. 2004. doi: 10.1016/j.ypmed.2003.09.041; (4) Sherbourne & Steward, Soc Sci & Med. 1991. doi: 10.1016/0277-9536(91)90150-b; (5) Pratt et al. Archives of Public Health, 2023

3rd National Ending the HIV Epidemic Partnerships for Research Meeting

Recruitment

• Recruitment at clinical and outreach testing sites ⁵, including: Five Horizons Montgomery clinical location

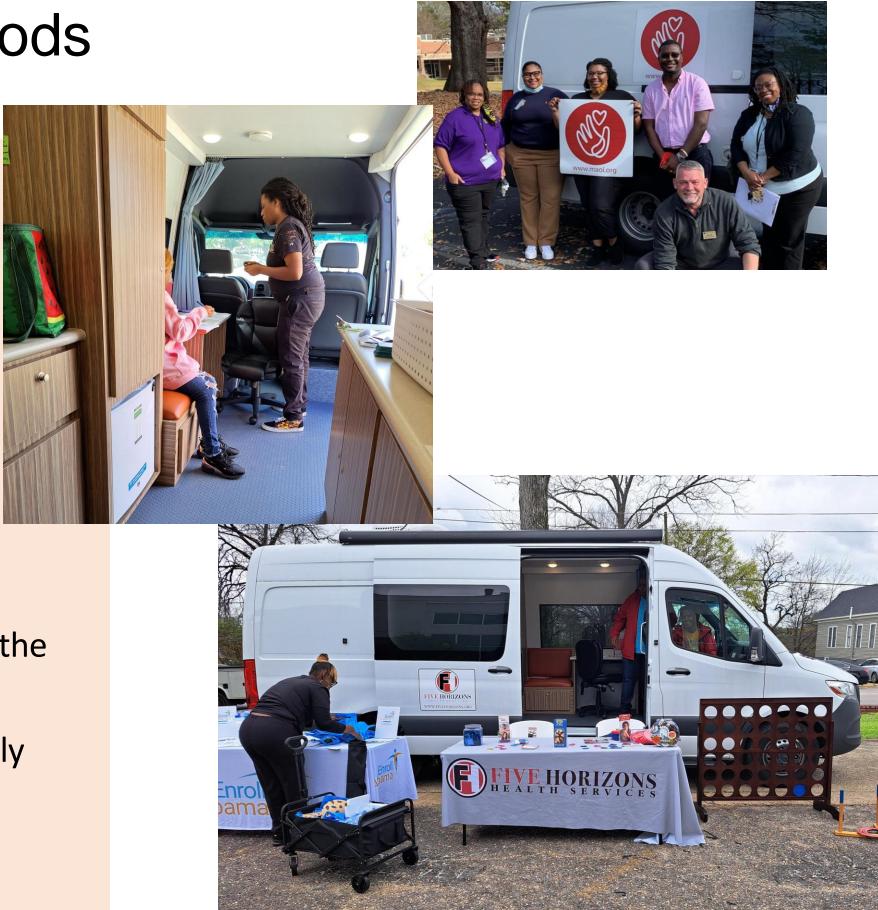
• Study recruitment flyer with QR code linking directly to the survey

- HIV-related stigma¹
- Barriers to accessing healthcare²
- Medical mistrust³
- Social support⁴

Methods

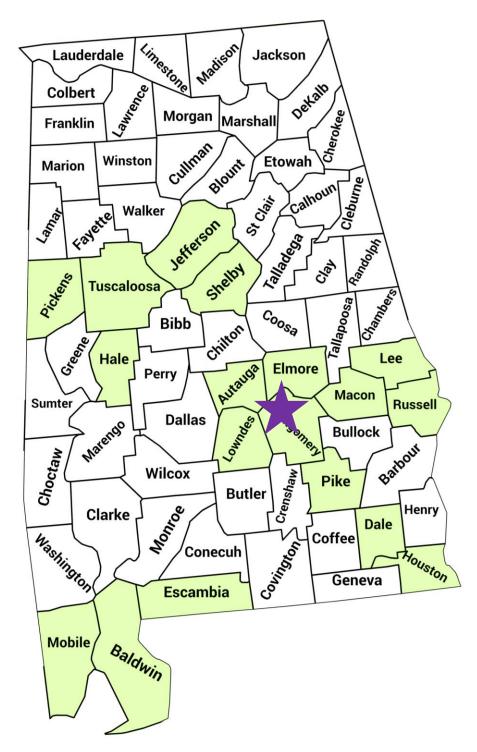
Challenges & Adjustments

- Delays in deployment of mobile testing unit(s)
 - Procurement, Procedures, Personnel, Protocols
- Leadership changes and challenges at partner site
 - Community buy-in during transitions
- Shifted strategy to explore experiences with any form of outreach testing/care that occurred outside of the clinic.
- Length of survey was difficult for some people to commit the time to complete
- Recruiting for and conducting in-depth interviews remotely limits engagement of new participants



Demographics, N=181

	N (%) or Mean (SD)	
Age	36.6 (11.4)	
Gender		
Cis-women	148 (78%)	
Cis-men	35 (19%)	
Gender diverse	6 (3%)	
Race		
Black or African American	173 (92%)	
White	11 (6%)	
Counties represented	18	
HIV serostatus negative	179 (95%)	
HIV risk perception low	128 (72%)	
HIV stigma ¹	3.5 (0.9)	Score range 0-5 Higher score, greater perceived community stigma.
Barriers to care score ²	2.5 (1.3)	Score range 0-6 Higher score, more barriers to care.
Medical mistrust ³	27.2 (5.9)	Score range 10-50 Higher scores, greater levels of mistrust.
Social support ⁴	61.1 (22.6)	Score range 0 and 100 Higher scores, more frequent availability of support.



Counties of residence reported by participants

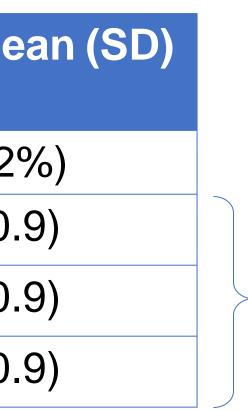
Acceptability of Mobile-based HIV testing

N (%) or Mean (SD)

Ever accessed mobile-based HCT	41 (22
Acceptability	3.9 (0
Feasibility	4.0 (0
Appropriateness	4.0 (0

People with more social support, higher perceived HIV risk, more barriers to care were less likely to rate mobile based HCT favorably in unadjusted models.

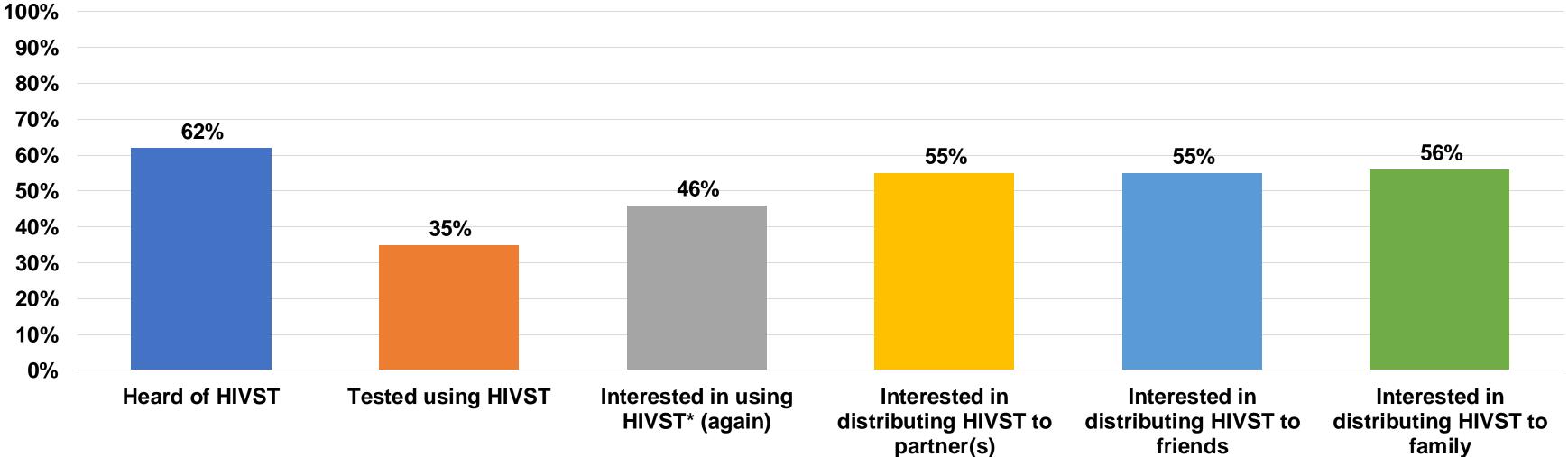
3rd National Ending the HIV Epidemic Partnerships for Research Meeting



Score range 0-5 Higher scores indicates greater levels of acceptability, feasibility, appropriateness.

Weiner BJ, et al. Implement Sci. 2017;12(1):108. doi:10.1186/s13012-017-0635-3

Interest in HIV-self testing (HIVST)



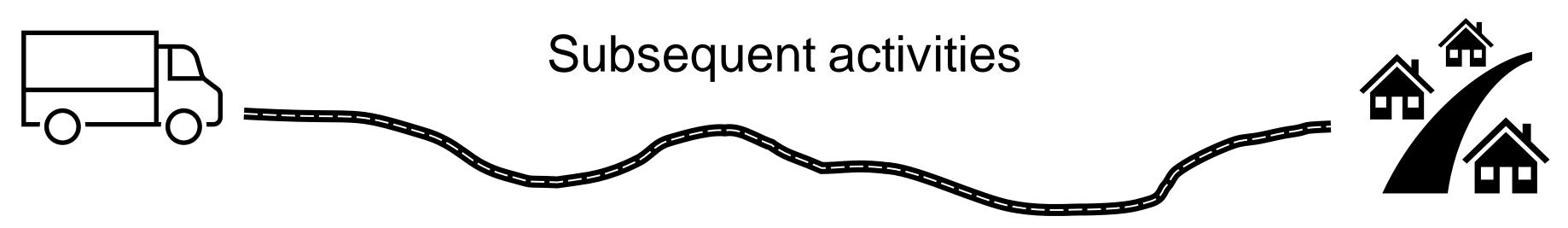
More perceived HIV risk, less likely to be interested in HIVST in unadjusted models.

*Top listed reasons for <u>not</u> wanting to pursue: • Prefer to be with testing counselor (27%) • I have questions (5%) • Test may be difficult to use (2%)

ed in	Interested in	Interested in
HIVST to	distributing HIVST to	distributing HIVST
(s)	friends	family

Summary

- Clients across a rural EHE state are interested in non-facility-based testing: opportunities to reach people who are not accessing facility-based care
- HIVST is an option for many, requires clear avenues to link to a counselor and followup care
- 78% of survey participants were women
 - Successfully reaching women who are often left out of HIV prevention
 - Need to also reach men
- Implementation of mobile testing requires clear protocols and procedures to procure, maintain, secure, staff, and manage the unit. Steep learning curve.
- Resilience and creativity of ASO/CBO leadership in Alabama; passion for the work



- One MGM Project
 - Work focused on Montgomery and surrounding counties to rebuild trust, build partnerships, mobile-based community outreach.
- Reaching broader populations through new partnerships



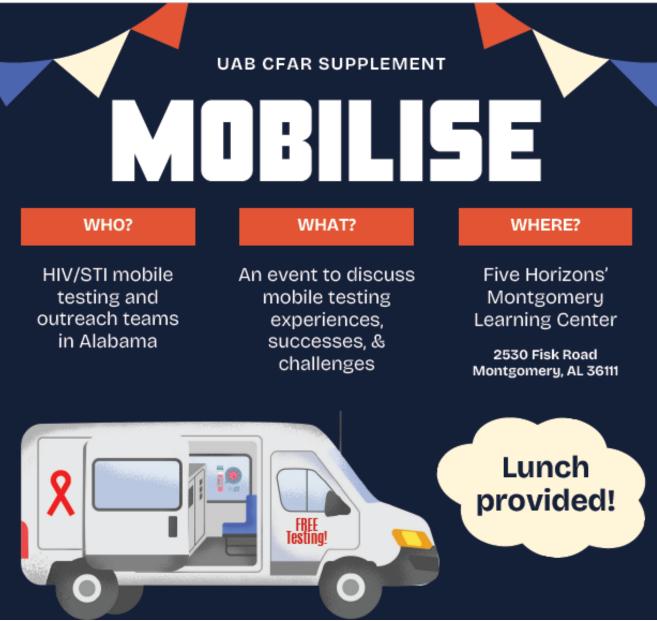
- e.g., People experiencing homelessness, local library partnership, open-mic night
- Planning for maintenance and upkeep of the van, upgrade the mobile unit to include bathroom facilities – important especially if integrating STI testing, PrEP care, and reaching more rural spaces.



Subsequent activities

Round table on mobile-based testing strategies





COASTAL

COAST-AL Study

- A type 2 hybrid effectiveness-implementation trial to evaluate a population health combination intervention to meet HIV testing, linkage, and viral suppression goals in coastal Alabama (COAST-AL). R01-AI69671, MPI Rana, Matthews
- One of three interventions is data informed testing outreach to expand testing reach

Acknowledgements



UAB Co-Investigators



Dustin Long



Ariann Nassel



Sonya Heath



Mirjam-Colette Kempf

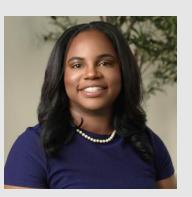


Emily Levitan

Current Community Partners



Billy Kirkpatrick Chief Executive Officer



Katherine Waldon Chief Community Impact Officer



TVE HORIZONS E A L T H S E R V I C E S

Shericka Williams Director of Programs, Southern Region

Research Coordinator

Consultant



Madeline Pratt



Ingrid Bassett Massachusetts General Hospital

Community Partners (Formerly MAO)

Black Belt Community Foundation





Bretia Gordon Former Director Education & **Training Officer**



Ashley Tarrant Former Chief Operations Officer



Christopher Spencer Community **Engagement Officer**



Felecia Lucky President