

Leveraging GIS and Health Department Partnerships to Inform HIV Testing Outreach in Coastal Alabama

John Bassler¹, Justice Jackson², Tommie Walker², Cherrite Peterson², Michelle Bernard², Stephanie Woods-Crawford², Kevin Michaels², Mariel Parman³, Larry Herald⁴, Emily B. Levitan⁵, Aadia Rana³, Lynn T. Matthews³

1 Center for AIDS Research, the University of Alabama at Birmingham

2 Mobile County Health Department

3 Department of Medicine, the University of Alabama at Birmingham

4 Department of Health Services Administration, The University of Alabama at Birmingham

5 Department of Epidemiology, the University of Alabama at Birmingham

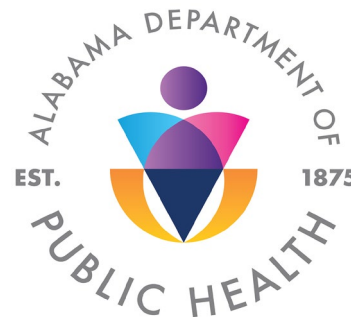


COASTAL

**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**

UAB MEDICINE

Center for
AIDS Research





UAB



Aadia Rana, MD
MPI



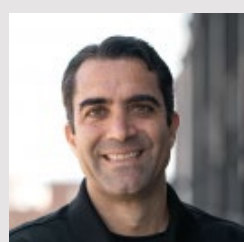
Lynn Matthews, MD, MPH
MPI



Larry Hearld, PhD
Co-I, Implementation
Science



Emily Levitan, ScD
Co-I, Epidemiology



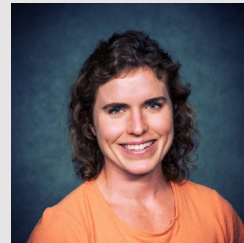
Michael Mugavero, MD
Co-I, Implementation
Science, CFAR



Madeline Pratt, MPH
Qualitative Data

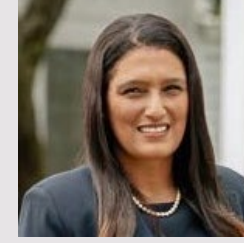


John Bassler, MS
Biostatistician

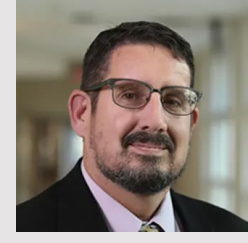


Mariel Parman, MPH
Study Coordinator

MCHD



Stephanie Woods-Crawford, PhD
Executive Director, Prevention & Wellness



Kevin Michaels, MD, MPH
Site PI, Co-I, Health Officer



Michelle Bernard
Clinic Administrator-Ryan White



Destiny Lankster
Grants Manager



Cherrite Peterson
STD Program Manager

STUDY AIMS AND DESIGN

Aim 1: Adapt COASTAL Content

Clinic Observations

In-Depth Interviews:
N=13 Key Stakeholders

Adapt

COASTAL Performance
Improvement Team Feedback

COASTAL Intervention
for MCHD

Aim 2: Test COASTAL

Implement within MCDH Jurisdiction

Clinical Effectiveness Outcome(s):

Days to viral suppression for new diagnoses

Implementation Outcome(s)-RE-AIM:

- Proportion of ZCTAs with >20% of adult population ever tested for HIV
- Proportion of patients linked w/in 30 days
- Fidelity; Adoption; Acceptability; Feasibility

Data Collection:

IDIs (N=40 clients) at 18M, 36M
Provider Surveys (Baseline, 18M, 36M)

Ongoing input from ADPH, MCDH, & Commercial Data

Aim 3: Implementation Mapping

Identify Implementation Strategies for
COASTAL

Implementation Needs Assessment

25 Key Stakeholder IDIs from ADPH
& ≥3 Public Health Areas

Identify Adoption & Implementation
Outcomes & Determinants

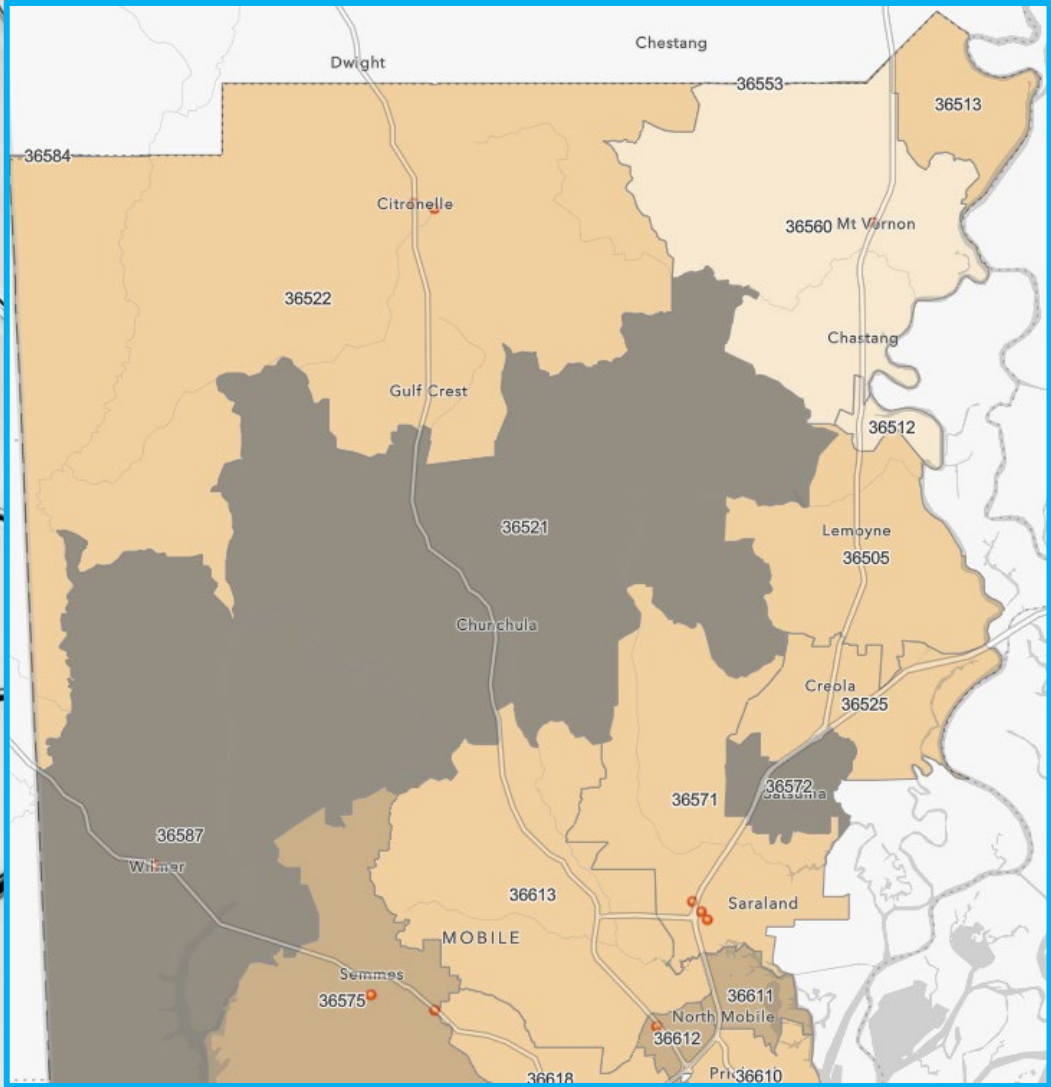
Select & Prioritize Implementation
Strategies

Concept Mapping & Nominal Group Technique

Develop Implementation Strategy
Protocols & Materials

3 Focus Group Discussions

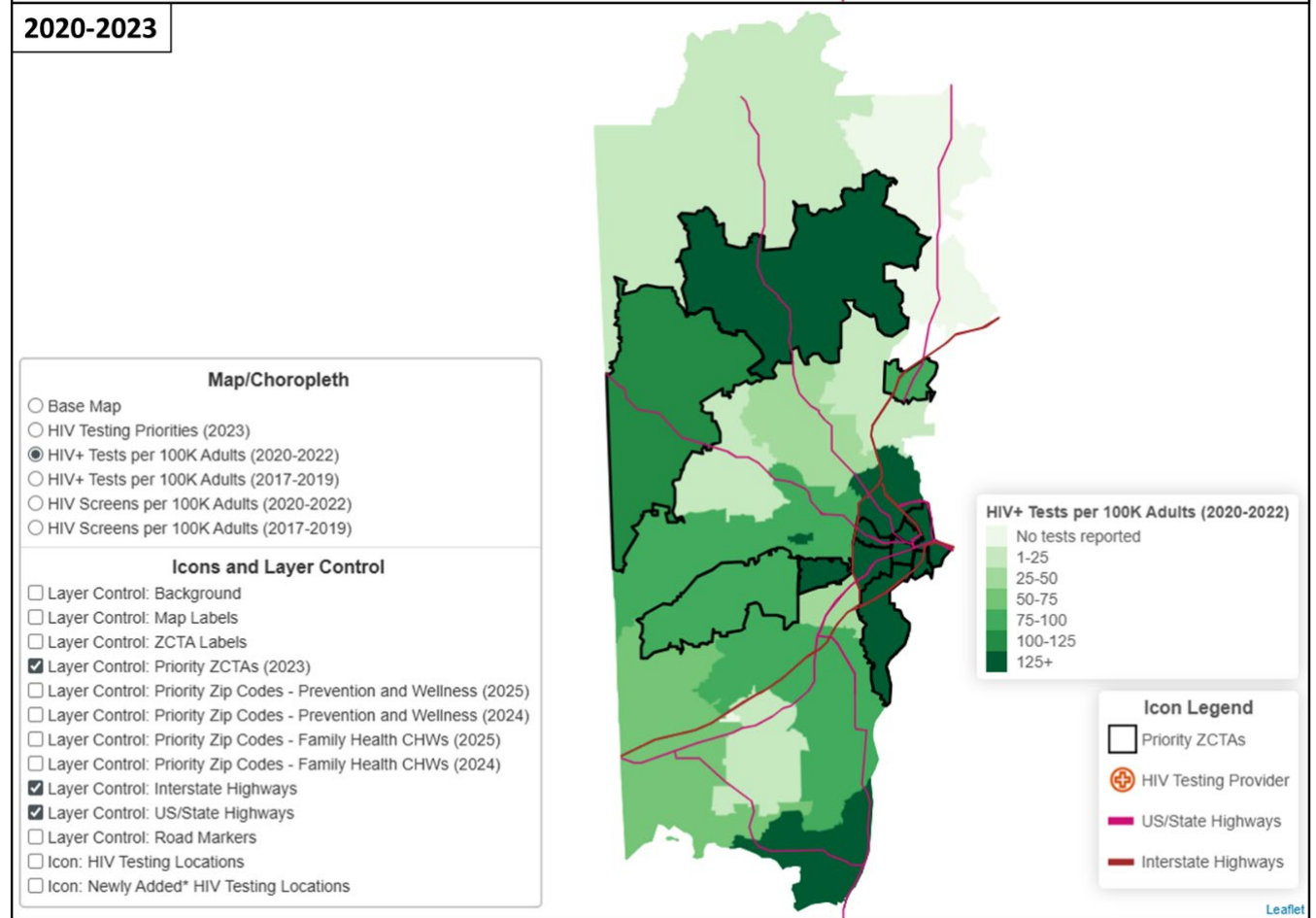
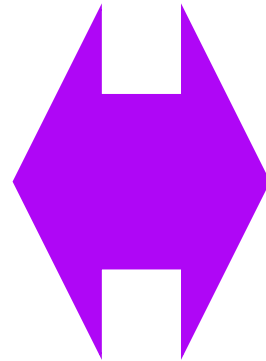
Ongoing COASTAL Performance Improvement Team Feedback



DATA SOURCES

Characteristics	ADPH eHARS (N=11,010)	Quest Diagnostics (N=210,371)	LabCorp (N=386,984)
Tests	11,010	393,979	628,650
		No. (%) or Median (Q1,Q3)	
Age, years	31 (24, 41)	33 (24, 49)	29 (23, 39)
Gender (current)			
Female		133,970 (63.7)	285,889 (73.9)
Male		76,362 (36.3)	100,952 (26.1)
(AMAB) Female		139 (0.1)	143 (0.0)
Race			
Black/AA	7,369 (66.9)	Not Available	Not Available
White	2,922 (26.5)		
Hispanic	224 (2.0)		
Multi-race	463 (4.2)		
Other/Unknown	32 (0.3)		
Missing	0 (0)		
Location			
Provider ZIP	Yes	Yes	Yes
Client ZIP	Yes	Yes	Yes
Labs			
CD4	Yes	Yes	Yes
HIV-RNA	Yes	Yes	Yes
Syphilis, GC, CT, TV	No	Yes	Yes
Abbreviations: AA-African-American, ADPH-Alabama Department of Health, eHARS-Enhanced HIV/AIDS Reporting System All newly diagnosed cases of HIV will eventually populate in ADPH's eHARS data.			

FLOW OF INFORMATION





OUTPUT

[HTTPS://JBASSLER.SHINYAPPS.IO/COASTAL-USFTC-2025/](https://jbassler.shinyapps.io/coastal-usftc-2025/)



LESSONS LEARNED

OUTPUT

- Summary-level maps are used to discuss testing priorities and track study progress
- Website accessibility aids study objectives and informs dissemination

THIS DOES NOT WORK WITHOUT OUR HEALTH DEPARTMENT PARTNERS!

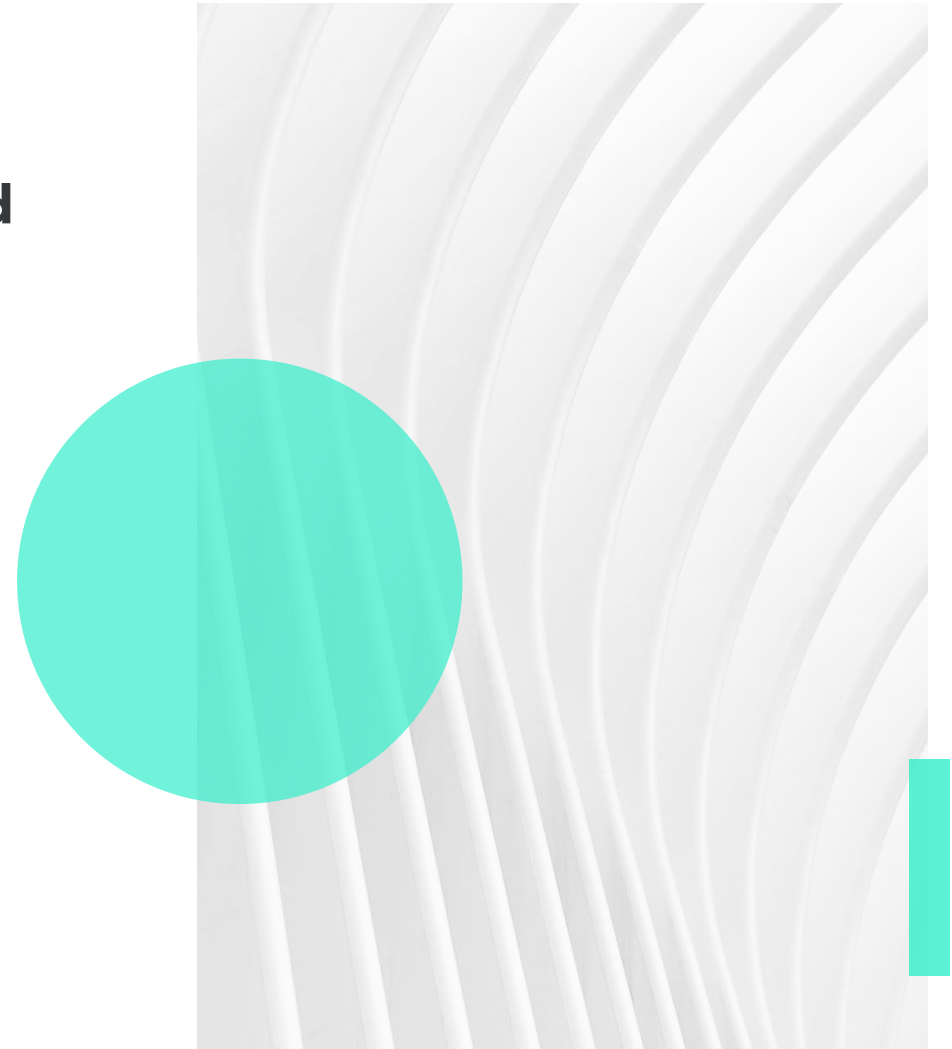
- Our partnership is founded on a mutual respect, and an open line of communication
- Engaging community health workers to help interpret findings and inform implementation plans for testing outreach is critical

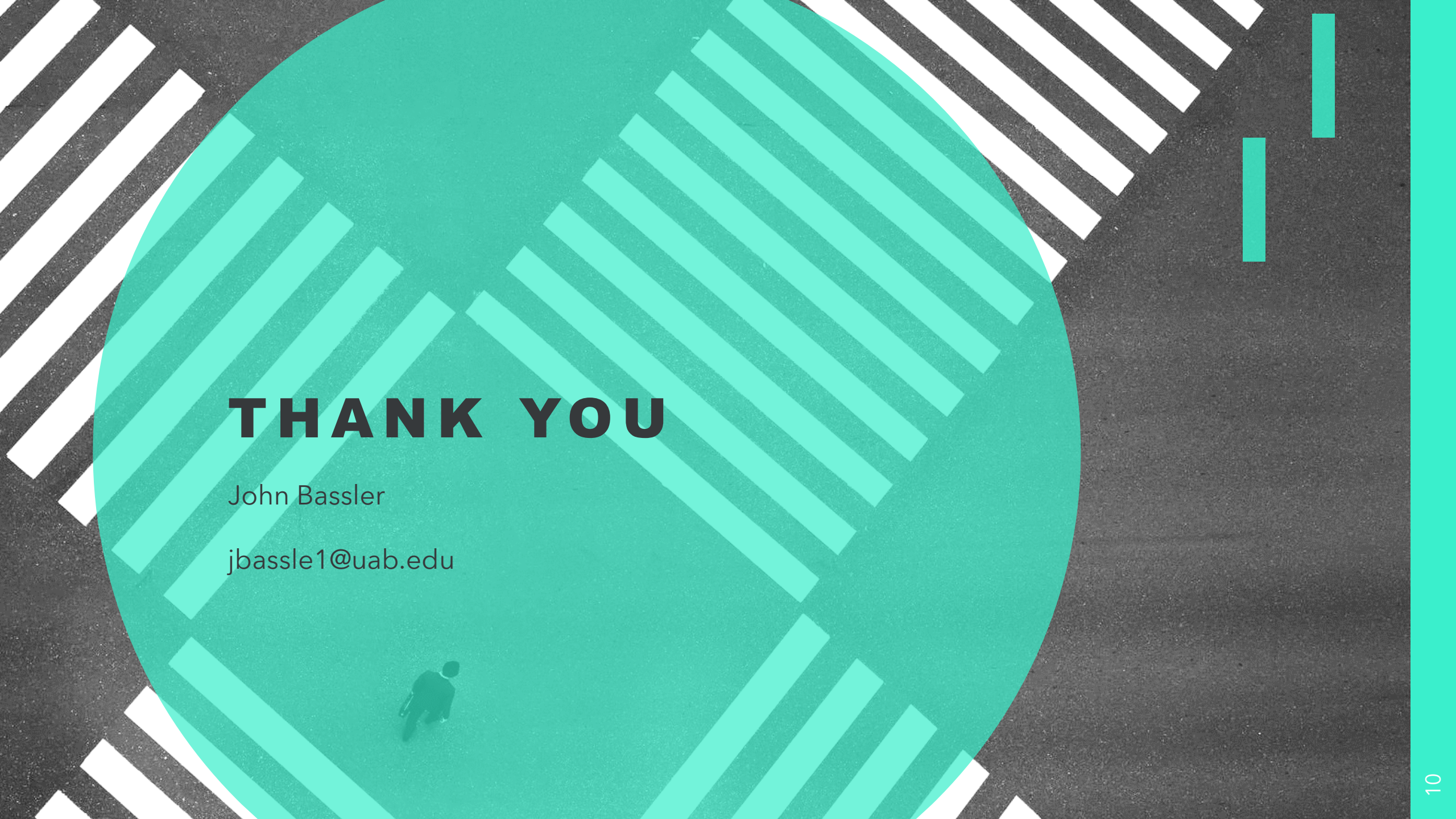


RECOMMENDATIONS

For researchers - engage with community members and local health department members early, and often

For all - GIS tools provide researchers and public health professionals with an integral tool to identify potential clusters of HIV infection and under-tested communities, supporting collaborative academic and public health department partnerships for EHE





THANK YOU

John Bassler

jbassle1@uab.edu