

PATIENT PERCEPTIONS OF BARRIERS TO INITIAL HIV CARE IN THE U.S. SOUTH THROUGH A TARGETED GEOSPATIAL LENS



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Background



- Late entry into HIV care is a problem in the US Southeast
- There is increasing recognition of structural and community-based barriers to HIV care beyond individual comorbidities
- The 2015 National HIV/AIDS Strategy called for linkage to care within 90 days of diagnosis and revised strategy calling for linkage within 30 days
- Across the U.S., “problem” neighborhoods exist
- Can we spatially target structural interventions to specific neighborhoods, like we target some health interventions to specific patient populations?

Study Objectives

- To identify local geographic clusters of HIV-infected persons who do not link to care within the first three months of diagnosis (“poor linkage clusters”)
- To describe socio-environmental barriers to care perceived by HIV-infected persons residing both in and outside community “poor linkage clusters” during the early diagnosis period



Methods: Identifying Local Spatial Clusters

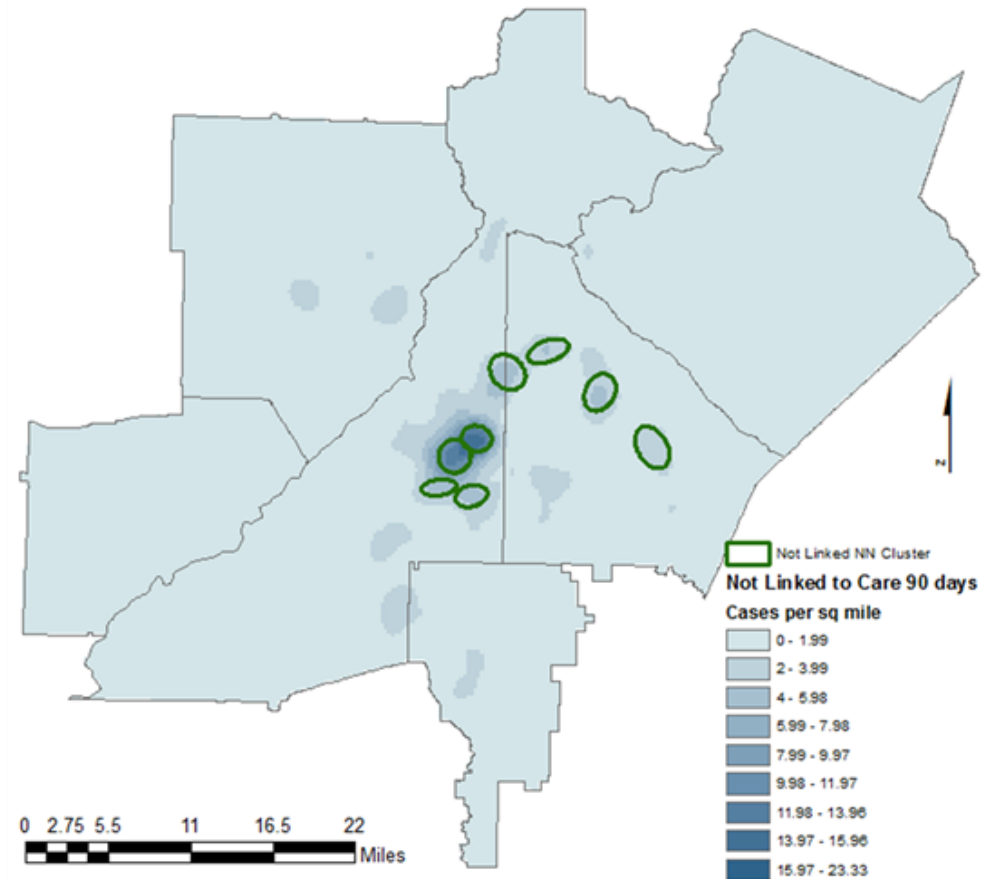
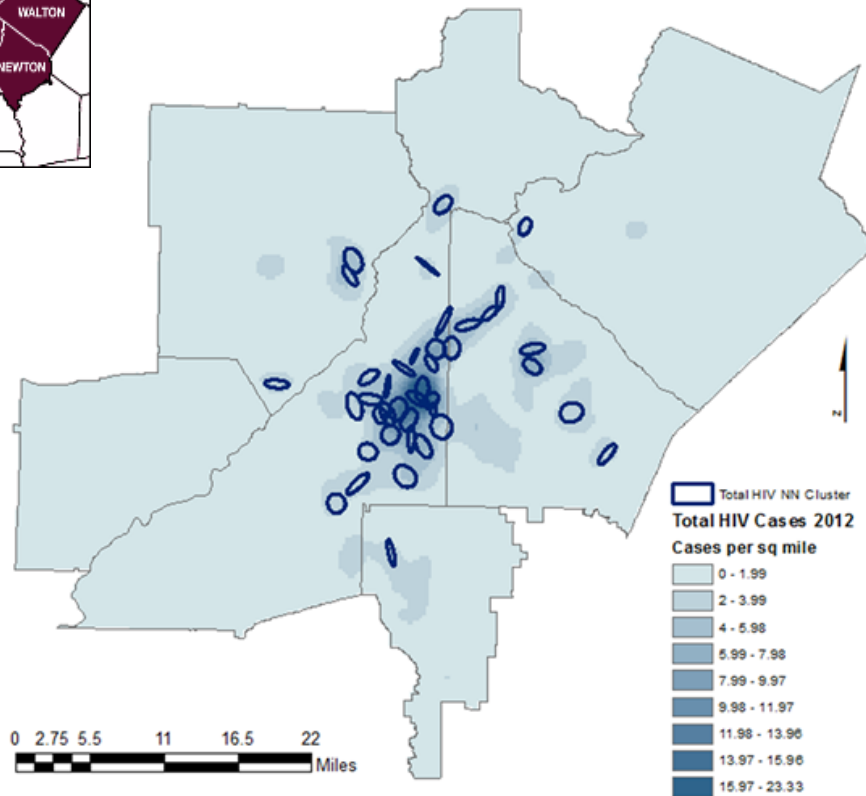
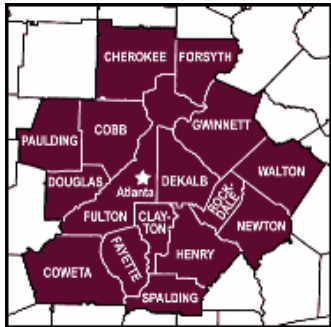


- Participants were recruited to the
Geographic Information System (GIS)
- Neighborhoods identified by GIS can be used
to evaluate for significant spatial clustering of HIV outcomes (ArcGIS 10.3.1,
SatScan 9.4.2, CrimeStat 4.02)
- Targeted participant recruitment both inside and outside clusters

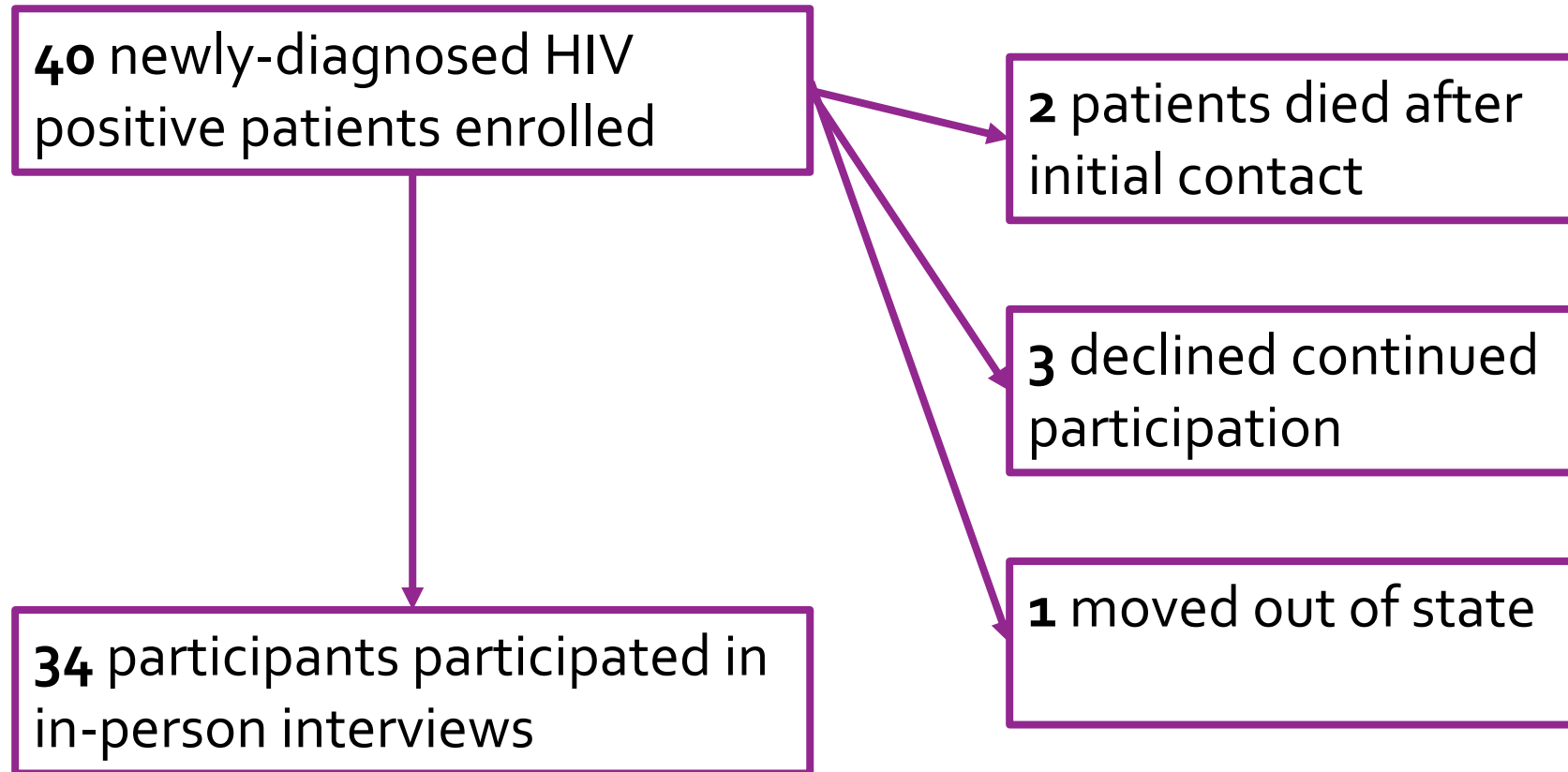
Methods: Targeted Qualitative Interviews

- During 2014-2016, we recruited newly diagnosed HIV patients both inside and outside cluster areas in Fulton and DeKalb counties, Georgia, USA
- Conducted semi-structured in-person interviews at least 90 days after diagnosis at location of participant preference
- Questions focused on: transportation, access to health facilities, housing stability, neighborhood violence, education, stigma, employment, health care utilization, insurance, perceived barriers and facilitators to HIV care
- Interviews were audiotaped, transcribed, and coded for analysis (NVivo 9.0)
- Codes and themes were developed deductively and inductively

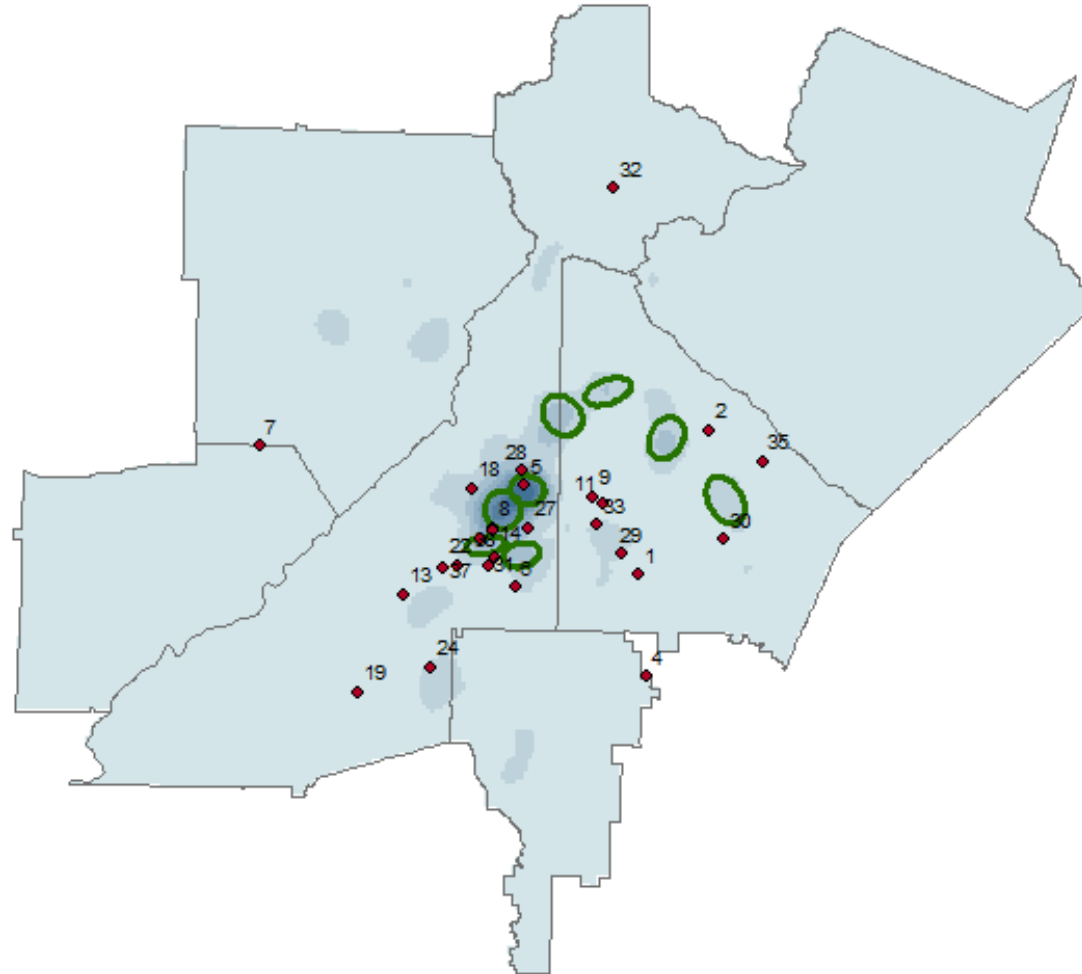
Results: Spatial Clustering of Poor Linkage to HIV Care



Participant Enrollment



Participant Locations Overlaid on "Poor Linkage Clusters"



Participant Characteristics (N=38)

Demographic Characteristic	Mean (SD) or N(%)
Age	39 (12)
Male	27 (71)
Hispanic Ethnicity	3 (8)
African American	35 (92)
High school graduate	24 (63)
Unemployed	23 (61)
History of incarceration	26 (68)
<i>HIV Transmission Category</i>	
Heterosexual sex	17 (45)
IVDU	1 (3)
MSM	13 (35)
Other	6 (16)
Uninsured	20 (53)
Resided in Poor Linkage Cluster at Diagnosis	13 (35)
Linked to Care by 90 days	17 (46)

Participant Characteristics (N=38)

Clinical and Social Characteristics	Mean (SD) or N(%)
Diabetes	4 (11)
Heart disease	3 (8)
Liver disease	7 (19)
Psychiatric condition	5 (14)
Active substance use	13 (34)
<i>Year of HIV Diagnosis</i>	
2014	15 (41)
2015	22 (59)
<i>Testing Location</i>	
Public Hospital or ER	23 (61)
Private or Academic Hospital	7 (18)
County Health Department or Clinic	4 (11)
<i>Current Residence</i>	
Shelter or street	5 (14)
Family or friends home	16 (43)
Apartment or house	14 (38)

Socio-Environmental Factors Associated with Linkage to Care

Socio-environmental Factor	Absent Linkage 90 days	Linked by 90 days	p-value*
Received HIV diagnosis in ER/Hospital	14 (82%)	7 (41%)	0.03
"Poor" or "Fair" access to major roadways	9 (53%)	3 (18%)	0.07
Access to a personal vehicle	6 (35%)	9 (53%)	0.49
"Poor" or "Fair" public transportation options	6 (38%)	3 (19%)	0.43
Presence of food insecurity	14 (82%)	9 (53%)	0.14
Presence of local HIV programs	0 (0%)	3 (21%)	0.22
Feel safe in neighborhood	10 (59%)	13 (76%)	0.46
Physical violence in neighborhood	8 (47%)	6 (35%)	0.73
Perception of community HIV stigma	9 (82%)	9 (64%)	0.41

*p-value from Fisher's exact test or two-sample t-test (as appropriate)

Results: Qualitative Findings

Three consistent socio-environmental barriers to HIV care linkage emerged in our interviews:

- Community stigma
- Transportation as a stressor
- Local hospital/clinic processes

Community Stigma

- Nearly all participants had some degree of fear when asked about disclosure in their community.

"Didn't want my church community to know, I guess you know. I didn't want people to know"

- Participants consistently spoke negatively when they discussed what they believed their community's attitudes were towards HIV infected individuals.

"They think we have a disease...you know, eeew, get away from me...then they are mean and call names and stuff like that."

- Participants discussed that healthcare workers lack confidentiality practices and exacerbate stigma

"They come around they going to give my [HIV status] away. They might be working on somebody else and they see these same caseworkers. Well, that case worker, uh, he's got it. My friend had that caseworker...he's got HIV and AIDS. "

Transportation as a Stressor

- Almost all participants without access to a vehicle cited transportation challenges
- Participants with access to their own or another's vehicle did not view this as a stressor
- Fare needed to get to appointments commonly cited as a barrier
 - "I couldn't ...find the change... [the clinic] was just too far and cost too much money for me to go."*
- Walk to transportation hubs like train stations and bus stops cited as unsafe
 - "I can just get off the bus and run, and run to the bus stop... I bet if I'm not careful ...then something easy can be escalated."*
- Public transit itself seen as unsafe
 - "There is no safety on MARTA. You get on the thing you'll get shanked, you'll get cut, you'll get shot, you'll get robbed. There is no safety on MARTA."*

Local Hospital/Clinic Processes

- Common dissatisfaction was wait time associated with starting treatment
 - "I wanted to start it [ARVs] right now, today, tomorrow, but we didn't"*
- Participants frequently discussed anxiety during this interim period
- Logistics of getting enrolled into care voiced as a barrier; tasks like getting a TB test stressed some participants.
 - "I just didn't know how to go about getting the assistance"*
 - "I was really scared and I didn't know where to start"*
- Insurance was not discussed often as a barrier (by these participants)

Conclusions & Next Steps



Community Stigma

- County HIV Task Force with community stakeholders
- Community publicity and engagement campaigns
- Community plays?

Transportation

- Sensitivity around public transportation issues
- Uber/Lyft for first medical appt?
- Role for telemedicine or electronic health delivery

Local Hospital/Clinic Process

- Inpatient antiretroviral initiation at Grady Hospital
- Rapid entry: 1st provider appt <72 hrs
- Elimination of TB test requirement for entry

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Study Limitations

- Quantitative analysis limited by small sample size
- Difficulty recruiting newly diagnosed HIV patients from all identified “poor linkage clusters”
- Percent linkage to care in our study cohort (46%) was lower than aggregate reports for the county and city, and still likely an overestimate
- Some conclusions of this study may be specific to a Southeast urban setting with limited public transportation

Socio-Environmental Factors Associated with Linkage to Care

Sociocontextual Factor	Absent Linkage 90 days	Linked by 90 days	p-value*
Received HIV diagnosis in ER/Hospital	14 (82%)	7 (41%)	0.03
"Poor" or "Fair" HIV counseling	5 (29%)	5 (29%)	1.00
"Poor" or "Fair" access to major roadways	9 (53%)	3 (18%)	0.07
Access to a personal vehicle	6 (35%)	9 (53%)	0.49
"Poor" or "Fair" public transportation options	6 (38%)	3 (19%)	0.43
Time to get to nearest HIV provider	31.8	42.10	0.20
Miles to nearest HIV provider	12.1	10.90	0.80
Perception of public transportation as safe	12 (71%)	13 (76%)	1.00
Presence of food insecurity	14 (82%)	9 (53%)	0.14
Presence of local HIV programs	0 (0%)	3 (21%)	0.22
Feel safe in neighborhood	10 (59%)	13 (76%)	0.46
Physical violence in neighborhood	8 (47%)	6 (35%)	0.73
Perception of community HIV stigma	9 (82%)	9 (64%)	0.41
Perception of community homophobia	8 (57%)	5 (42%)	0.70

*p-value from Fisher's exact test or two-sample t-test (as appropriate)

Living in a “Poor Linkage Cluster” and Linkage to Care: Exploring Sociocontextual Factors

Place of Residence at HIV Diagnosis	Absent Linkage 90 days	Linked by 90 days
Outside a “Poor Linkage” Cluster	14	10
Inside or Near a “Poor Linkage” Cluster	6	7