Barriers and Facilitators of Linkage to and Engagement in HIV Primary Care in New York City

PART I: Blayne Cutler, M.D.  
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PART II: Laurie J. Bauman, Ph.D.  
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PART III: Robert H. Remien, Ph.D.  
HIV Center for Clinical and Behavioral Studies/NY State Psychiatric Institute and Columbia University

Acknowledgements: The National Institute of Allergy and Infectious Diseases  
The National Institute of Mental Health
ENHANCING LINKAGE AND ENGAGEMENT IN CARE: THE NYC EXPERIENCE

Blayne Cutler, MD PhD
Director, HIV Prevention
Bureau of HIV/AIDS Prevention & Control
NYC Department of Health & Mental Hygiene
# Early HIV/AIDS Surveillance in NYC

## NEW YORK SURVEILLANCE FIGURES

<table>
<thead>
<tr>
<th>Disease</th>
<th>1st Dx (March)</th>
<th>Total Dx'd (Mar.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>KS</td>
<td>82 (74)</td>
<td>87 (79)</td>
</tr>
<tr>
<td>PCP</td>
<td>53 (47)</td>
<td>70 (62)</td>
</tr>
<tr>
<td>Other OI*</td>
<td>18 (16)</td>
<td>44 (39)</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>153 (137)</strong></td>
<td></td>
</tr>
</tbody>
</table>

**Women:**

<table>
<thead>
<tr>
<th>Condition</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCP alone</td>
<td>2/3</td>
</tr>
<tr>
<td>PCP + other OI</td>
<td>1/6</td>
</tr>
<tr>
<td>Other OI</td>
<td></td>
</tr>
</tbody>
</table>

**Total cases NYC = 159**

*(Total reported to CDC = 323)*

*OI is Opportunistic Infection.*
Trends in HIV/AIDS
New York City, 1981–2010

As reported to NYC DOHMH by September 30, 2011.
PLWHA, Persons living with HIV/AIDS.

* Data on deaths outside New York City are incomplete.
As reported to the New York City Department of Health and Mental Hygiene by September 30, 2011.
People With HIV Who Don’t Know It Account for Nearly Half of New Infections

People Living with HIV/AIDS: 1,128,250–1,228,400

Estimated New Infections (2009): 48,100

Account for:

~20% Unaware of Infection

~80% Aware of Infection

~49% of New Infections

51% of New Infections

Chen et al. MMWR Supplement. June 15, 2012 / 61(02):57-64
Scalable Strategies Deployed in NYC

- **Changing the Law**
  - Key provisions: mandatory offer, change in consent, LTC
  - Regulations and accountability

- **Jurisdictional Scale Up**
  - Mobilizing all stakeholders within a jurisdictions (Bronx/Brooklyn/NYC Knows)
  - Unified social marketing/new social media
  - Public/private and academic partnerships

- **Leveraging Contracts**
  - Using payment points to achieve programmatic outcomes
  - Aligning data reporting with national goals
  - Using new solicitations as opportunities to shift technologies
ECHPP Phase I in NYC (2010-2011)

- **Situational Analysis (3-4 months)**
  - **Assessment of current NYC landscape**
    - Describe activities underway in each of 24 CDC interventions
    - Comprehensive review of HIV prevention in NYC:
      - priority populations
      - epidemiology/surveillance data
      - prior modeling
      - community advisory plans
    - Development of goals and objectives for project period.

- **Preliminary modeling results: maximal infections averted**
  - Maximize HIV testing and linkage to care
  - Condoms, particularly high risk HIV (+) persons
  - Social marketing to HIV (+) persons
  - Community level interventions
  - Screening/treatment of STDS, SU/MH for HIV+
  - Partner services
Key Shifts Accelerated by ECHPP/NHAS
ECHPP Phase II in NYC (2011-2013)

– Further Scale Up of ‘Coefficients’ in TLC Strategy:

  • Testing
    – Enhance/Expand Jurisdictional HIV Testing
    – Shift in NYS Testing Law (September 2010)
    – Rebid of testing portfolio, use of MPAs (2011)

  • Linkage to Care
    – Contractual incentives for linkage and navigation (2011)
    – Required ARTAS training (2011)

  • Treatment
    – Medical case management for engagement/retention (2009)
    – Early ART recommendation (December 2011)
Key Shifts Accelerated by ECHPP/NHAS
ECHPP Phase II in NYC (2011-2013)

- Enhancing Prevention Among HIV (+) Persons
  - Clinic-based pilot of three PWP risk reduction models (2012)
  - Condom distribution to HIV (+) ‘universe’ (2011)
  - The Positive Life Workshop (September 2011)
  - Enhancement of PS for newly diagnosed and AHI cases

- Scale back low yield/high cost interventions
  - EBIs for low prevalence populations (2012)
  - Cofactor screening for low prevalence populations (2012)

- Deploy relevant structural interventions
  - Ex: change in NYS testing law (2010)
  - Clinical EHR prompts to facilitate routine testing offer (2009)
  - Early ART (December 2011)
Key Shifts Accelerated by ECHPP/NHAS
ECHPP Phase II in NYC (2011-2013)

– RFP Prevention Rebid

Service categories reflect ECHPP/NHAS goals:
1. Integrated sexual/behavioral health for priority pops
2. System level/structural change
3. CLIs/community mobilization
4. Condoms for highly impacted populations
5. Demonstration projects in CDC core areas
  - Biomedical/behavioral interventions that can reduce HIV incidence
  - Innovative HIV testing activities
  - Enhanced linkage to and retention in care
  - Advanced use of technology
Using Legislation to Expand HIV Screening

– Chapter 308: Laws of 2010

• MANDATORY OFFER of HIV test to all persons 13-64 most healthcare settings

• Simplified consent
  – Documented oral consent for tests that process in < 60 min
  – Can use general medical consent
  – Consent is now durable

• Simplified lab ordering

• Requires active linkage to care
Early Impact

NYC Residents Aged 18-64  Ever Tested for HIV  
(2007 to 2011)

NYC DOHMH, Community Health Survey, 2007-2011; Percentages are age-adjusted; *2011 data are preliminary.
# Early Impact

## Laboratory Reported HIV Testing

### 13 Month Before and After NYS Law (n=215)

<table>
<thead>
<tr>
<th></th>
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<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>Conventional HIV Screening Tests</strong> (Labs=98)</td>
<td>2,023,968</td>
<td>2,198,390</td>
<td>9%</td>
</tr>
<tr>
<td><strong>Rapid HIV Screening Tests</strong> (Labs=138)</td>
<td>294,764</td>
<td>322,881</td>
<td>9.5%</td>
</tr>
<tr>
<td><strong>Total (Number of Labs = 215)</strong></td>
<td>2,324,914</td>
<td>2,531,253</td>
<td>9%</td>
</tr>
</tbody>
</table>

NYS Department of Health, Laboratory Survey
Early Impact

Percent of Patients with HIV Test Results at CHCs and Small Practice Sites – By Age, NYC, 2009-2011 (n=97)

NYS HIV Testing Law Begins

- 18-64 years (p < 0.05)
- 13-17 years (p < 0.001)
- ≥65 years (not significant)

NYC DOHMH, Primary Care Information Project, 2009-2011
Jurisdictional HIV Testing Scale Up

The Bronx Knows
What’s Your HIV Status?
- stay safe + get care ? get tested

Brooklyn Knows
What’s Your HIV Status?
- stay safe + get care ? get tested

New York Knows
What’s Your HIV Status?
- stay safe + get care ? get tested
## Results

<table>
<thead>
<tr>
<th>Sector</th>
<th>HIV Tests</th>
<th>Confirmed Positive</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOTAL</td>
<td>607,570</td>
<td>4,820 (0.8%)</td>
</tr>
<tr>
<td>Hospitals</td>
<td>277,391</td>
<td>2,317 (0.8%)</td>
</tr>
<tr>
<td>CHCs</td>
<td>275,531</td>
<td>1,690 (0.6%)</td>
</tr>
<tr>
<td>CBOs</td>
<td>54,648</td>
<td>813 (1.5%)</td>
</tr>
</tbody>
</table>

# Results

<table>
<thead>
<tr>
<th>Year</th>
<th># Tested</th>
<th>Newly Diagnosed</th>
<th># New Pos Linked†</th>
<th>% New Pos Linked†</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>184,145</td>
<td>621</td>
<td>432</td>
<td>70%</td>
</tr>
<tr>
<td>2</td>
<td>207,759</td>
<td>611</td>
<td>490</td>
<td>80%</td>
</tr>
<tr>
<td>3</td>
<td>215,666</td>
<td>499</td>
<td>401</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>607,570</td>
<td>1,731</td>
<td>1,323</td>
<td>76%</td>
</tr>
</tbody>
</table>

Self-Reported HIV Testing in the Bronx
(% Bronx adults, aged 18-64, ever HIV tested, 2007-2010)

Source: Community Health Survey 2007-2010, Bureau of Epidemiology Services, NYC DOHMH
# Demographics of New Diagnoses

April 2008– March 2011

<table>
<thead>
<tr>
<th></th>
<th>New Diagnoses</th>
<th>New Diagnoses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><em>The Bronx Knows</em> Partners</td>
<td>Other NYC Boroughs</td>
</tr>
<tr>
<td><strong>N (%)</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>1,262 (100.0)</td>
<td>7,845 (100.0)</td>
</tr>
<tr>
<td><strong>Sex</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>765 (60.6)</td>
<td>6,179 (78.8)</td>
</tr>
<tr>
<td>Female</td>
<td>497 (39.4)</td>
<td>1,666 (21.2)</td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Black</td>
<td>638 (50.5)</td>
<td>3,828 (48.8)</td>
</tr>
<tr>
<td>Hispanic</td>
<td>575 (45.6)</td>
<td>2,172 (27.7)</td>
</tr>
<tr>
<td>White</td>
<td>39 (3.1)</td>
<td>1,533 (19.5)</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td>4 (0.3)</td>
<td>280 (3.6)</td>
</tr>
<tr>
<td>Native American</td>
<td>6 (0.5)</td>
<td>23 (0.3)</td>
</tr>
</tbody>
</table>

New York City Department of Health and Mental Hygiene, Bureau of HIV/AIDS Prevention and Control. Data for New Diagnoses as reported to NYC DOHMH by March 31, 2012.
## Demographics of New Diagnoses

**April 2008– March 2011**

<table>
<thead>
<tr>
<th>Transmission Risk</th>
<th>New Diagnoses <em>The Bronx Knows Partners</em> N (%)</th>
<th>New Diagnoses <em>Other NYC Boroughs</em> N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Men who have Sex with Men</td>
<td>320 (25.4)</td>
<td>3,905 (49.8)</td>
</tr>
<tr>
<td>Injection Drug Use History</td>
<td>99 (7.8)</td>
<td>376 (4.8)</td>
</tr>
<tr>
<td>Heterosexual</td>
<td>500 (39.6)</td>
<td>1,523 (19.4)</td>
</tr>
<tr>
<td>Perinatal</td>
<td>9 (0.7)</td>
<td>20 (0.3)</td>
</tr>
<tr>
<td>Unknown</td>
<td>334 (26.5)</td>
<td>2,021 (25.8)</td>
</tr>
</tbody>
</table>

New York City Department of Health and Mental Hygiene, Bureau of HIV/AIDS Prevention and Control. Data for New Diagnoses as reported to NYC DOHMH by March 31, 2012.
New York City Department of Health and Mental Hygiene, Bureau of HIV/AIDS Prevention and Control. Events reported to NYC DOHMH by March 31, 2012.* Linkage-to-care was considered to have occurred if any HIV viral load or CD4 test within 3 months (91 days) of HIV diagnosis, following a 7-day lag, was reported to DOHMH.
Linkage to Care within 12 Months: TBK Partners vs. Other NYC Boroughs

New York City Department of Health and Mental Hygiene, Bureau of HIV/AIDS Prevention and Control. Events reported to NYC DOHMH by March 31, 2012.* Linkage-to-care was considered to have occurred if any HIV viral load or CD4 test within 12 months of HIV diagnosis, following a 7-day lag, was reported to DOHMH.
## Linkage To Care By Sector Type

<table>
<thead>
<tr>
<th>Sector</th>
<th>Pre-TBK</th>
<th>Years 1-3</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>ALL BRONX KNOWS PARTNERS</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linked to care within 3 months, N (%)</td>
<td>336 (68.9%)</td>
<td>869 (69.9%)</td>
</tr>
<tr>
<td>Linked to care within 12 months, N (%)</td>
<td>399 (81.8%)</td>
<td>1048 (84.3%)</td>
</tr>
<tr>
<td><strong>Hospitals</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linked to care within 3 months, N (%)</td>
<td>232 (70.9%)</td>
<td>677 (71.3%)</td>
</tr>
<tr>
<td>Linked to care within 12 months, N (%)</td>
<td>277 (84.7%)</td>
<td>816 (86.0%)</td>
</tr>
<tr>
<td><strong>Community Health Centers</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linked to care within 3 months, N (%)</td>
<td>93 (71.0%)</td>
<td>175 (69.2%)</td>
</tr>
<tr>
<td>Linked to care within 12 months, N (%)</td>
<td>107 (81.7%)</td>
<td>213 (84.2%)</td>
</tr>
<tr>
<td><strong>Community Based Organizations</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Linked to care within 3 months, N (%)</td>
<td>11 (36.7%)</td>
<td>17 (41.5%)</td>
</tr>
<tr>
<td>Linked to care within 12 months, N (%)</td>
<td>15 (50.0%)</td>
<td>19 (46.3%)</td>
</tr>
</tbody>
</table>

* Linkage-to-care was considered to have occurred if any HIV viral load or CD4 test within 3 months or 12 months of HIV diagnosis, following a 7-day lag, was reported to DOHMH (depending on linkage category above).
Jurisdictional Testing Highlights

Assessing the Impact of a Community-Wide HIV Testing Scale-Up Initiative in a Major Urban Epidemic

Julie E. Myers, MD, MPH,*† Sarah L. Braunstein, PhD, MPH,† Colin W. Shepard, MD,† Blayne H. Cutler, MD, PhD,† Andrea R. Mantsios, MHS,† Monica M. Sweeney, MD, MPH,† and Benjamin W. Tsoi, MD, MPH†
DOHMH/CFAR ECHPP Collaboration Year One

• *Explore best practices & barriers in linkage to care among partners of The Bronx Knows*

  1. Use surveillance data to analyze linkage to care in the Bronx (specifically among TBK partners)
  2. Conduct qualitative interviews re: linkage practices
     • Explore differences by sector (Hospital, CHC, CBO)
  3. Case studies in linkage
     • Highlight 1-2 successful programs in each sector
• **Assess barriers to engagement and/or retention in care among vulnerable populations**

1. Young men who have sex with men
2. Transgender women
3. Foreign-born New Yorkers diagnosed with HIV
4. New York City residents recently released from jail
Figure 1. Perinatally HIV-infected Children (N=3,920), by Year of Birth and Vital Status, 1977–2009, NYC

The number of HIV-infected infants born each year decreased dramatically from the peak in 1990. This coincides with the use of perinatal prevention measures. 92% were born in NYC.
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Magaly Reid
Lorraine Smith
Katie Lewis
Einstein CFAR
HIV Center for Clinical & Behavioral Studies
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Acknowledgements: The National Institute of Allergy and Infectious Diseases
The National Institute of Mental Health
Interviews

- 30 testing programs representing all 70 sites in *The Bronx Knows*
- Interviewed 24 of 28 (86%)
- Conducted by phone
- Mean length = 45 minutes
• Selected 9 testing sites
  ▪ 3 each CBOs, CHCs, hospitals
  ▪ exemplary linkage rates
  ▪ ≥10 new HIV positive patients/year
• Interviewed program director on site, plus those responsible for linkage
Problems with Linkage to HIV Care
Intersection of System, Social and Patient Challenges

Health care system

Stigma

Special populations of patients
Linkage to HIV Care
Intersection of Patient, Social and System Challenges

Health care system

Stigma

Special populations of patients

1) Delay from test to care
2) Health care difficult to navigate
3) Care sites not patient friendly
Two reasons for the delay

**Confirmatory Test**
- Care sites require positive confirmatory test
- Confirmatory test delays linkage by 7-14 days
- CBOs must refer clients out for confirmatory test

**Scheduling appointments**
- Average wait is 1-3 weeks
- CBOs wait for preferred site
- Doctors are overbooked
- Clinic hours limited
Problems with Linkage to HIV Care
Intersection of Patient, Social and System Challenges

1) Delay from test to care
2) Health care difficult to navigate
3) Care sites not patient friendly
Patient navigation models

- **Classic**
  > one point person navigates physically and virtually

- **Temporary**
  > "classic" model but only until patient arrives at first medical appointment

- **Partial**
  > Multiple people provide idiosyncratic services (e.g., make appointments, maintain contact, remind about appointments, case management)
Problems with Linkage to HIV Care
Intersection of Patient, Social and System Challenges

1) Delay from test to care
2) Health care difficult to navigate
3) Care sites not patient friendly
Some care sites not patient friendly

- Clerical, front desk staff frequently mentioned
  - have an “attitude”
  - are not helpful
- Patients are not treated with respect
- Special populations poorly understood
Problems with Linkage to HIV Care
Intersection of System, Social and Patient Challenges

1) HIV stigma
   • public
   • perceived
   • enacted

2) Other stigma
HIV stigma: Barriers to linkage

- Fear of disclosure
- Feel judged by care staff
- Compound stigma
Problems with Linkage
Intersection of System, Social and Patient Challenges

1) Stigma
2) Unmet other needs
3) Misinformation
4) Hard to serve
5) Provider attitudes
What are special populations?

- Substance users (n=11)
- Mentally ill (n=5)
- Unstably housed, homeless (n=5)
- Transgender (n=5)
- Immigrants and undocumented (n=4)
- Race/Ethnic Groups (Latino n=3, West African n=3)
- MSM and YMSM (n=2)
- Recently released prisoners (n=2)
Why are special populations hard to link?

• Unmet basic needs, high stress
• Patient misinformation
  – care cost
  – deportation/loss of visa
  – no symptoms, denial of illness
• Hard to work with
  – locate, track
  – language barriers
  – low health literacy
Why are special populations hard to link? Stigma

• “What made them HIV positive is why they are hard to link”
• Patients lie; manipulate for benefits, drugs
• Resistance
  – Some people will not go to hospitals
  – Some don’t want to be found
  – If patients don’t want help, can’t force them
Best Practice
Best Practices
CBOs organizational practices

• **Commitment** – they champion serving special populations
• **Train** all staff in cultural competency and in special populations
• **Quality assurance**
• **Network** of care sites
Best Practices

CBOs linkage practices

• **Pro-active** individualized, comprehensive assessment of threats to linkage
• **Comprehensive** interim services (especially social work/case management, non-HIV)
• **Build relationship** between tester and client
• **Facilitate appointment**
  – Make appointment and remind them
  – Maintain contact
  – Escort patient to appointment
  – Find patients who missed the appointment
Best Practices
Health Care Sites

• Providers see new positive patients immediately
  ▪ Keep some appointment slots open
  ▪ Assign a covering MD to see new positive patients
  ▪ Evening and weekend hours

• Team approach

• Comprehensive services
Best Practices
CBOs and Care Sites: Minimizing HIV stigma

• Integrative approach
• Protect confidentiality
• Specific strategies used
  – physical touch
  – match patients to HIV care site
  – normalizing services (e.g., exercise, yoga groups)
RESEARCH
RECOMMENDATIONS

- Evidence-based interventions
- Patient navigation models
- Stigma-reducing practices
- Fit of linkage practices to different special populations
PUBLIC HEALTH RECOMMENDATIONS

1. Eliminate delay in linkage from required confirmatory test
2. Require timely HIV care appointments
3. Define health care system responsibilities to include linkage, retention and patient outcomes
4. Shift focus from quality care for *individual* patients to *public health* need to reduce transmission.
THE EINSTEIN STUDY TEAM

Laurie Bauman, PhD  Principal Investigator
Dana Watnick, MPH, MSSW  Project Director
Rosy Chhabra, PsyD  Case studies
Angelic Rivera, MPH, MCHES  Interviewer
Jamie Sclafane, MS, MCHES  Interviewer
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Acknowledgements: The National Institute of Allergy and Infectious Diseases
The National Institute of Mental Health
Goal

To study engagement in HIV medical care among four groups of people living with HIV (PLWHIV) in New York City:

1. African immigrants
2. Recently released prisoners
3. Transgender women (male to female transgender persons)
4. Young men who have sex with men (MSM)
Partners

Einstein-Montefiore Center for AIDS Research team
  ◆ Laurie J. Bauman, Ph.D.; Yvette Calderon, M.D.; Rosy Chhabra, Psy.D.; Dana Watnick, M.P.H., M.S.S.W.

HIV Center for Clinical and Behavioral Studies team
  ◆ Robert H. Remien, Ph.D.; Joanne Mantell, Ph.D.; Patricia Warne, Ph.D.

NYC Department of Health and Mental Hygiene team
  ◆ Blayne Cutler, M.D.; Benjamin Tsoi, M.D.
Aim 1: To use existing NYCDOHMH surveillance data to describe – at a population level – rates and patterns of insecure HIV care engagement among African immigrants, recently released prisoners, transgender women, and young MSM in New York City.

Aim 2: Through interviews with (a) community key informants and (b) HIV medical providers, to identify community- and structural-level factors associated with insecure care engagement among African immigrants, recently released prisoners, transgender women, and young MSM in New York City.
Aim 3: To identify individual-level factors that enhance and interfere with engagement in care among African immigrants, recently released prisoners, transgender women, and young MSM in New York City.

In each subpopulation we will target both PLWHIV who are engaged in regular care and those who are insecurely engaged (i.e., having never engaged in HIV medical care or having missed 2 or more consecutive HIV care appointments in the past year).
Study Phases

**Phase 1:** Analysis and interpretation of surveillance data describing the four populations

**Phase 2:** A qualitative study focused on PLWHIV (N=80) in the four groups as well as community key informants (N=16) and HIV healthcare providers (N=12) who serve/are knowledgeable about them and/or are potential “influencers” of intervention
Study Participants

**Community Key Informants (N=16):** Representatives from New York City CBOs, institutions, and churches and other community leaders who represent or work with African immigrants (N=4), recently released prisoners (N=4), transgender women (N=4), and young MSM (N=4).

**HIV Healthcare Providers (N=12):** Physicians, nurse practitioners, and physician’s assistants who provide medical care for HIV+ patients at New York City clinics.
Study Participants (cont’d.)

**PLWHIV (N=80):**
- At least 90 days post-HIV diagnosis (self-report)
- Able to speak English or Spanish
- Aged 18 or older
- No cognitive impairment that would preclude interview

Insecurely engaged in care (N=40, 10 from each group):
- Having missed 2 or more consecutive appointments in the last year (self-report)
African immigrants:
  ◆ Black West African immigrant from Anglophone country

Recently released prisoners:
  ◆ Released from prison or jail in the past 1-6 months

Transgender women:
  ◆ Assigned male at birth but living in female gender role

Young MSM:
  ◆ Aged 18 – 28 years
  ◆ Has sex with men
Procedures

Aim 1: To use existing NYCDOHMH surveillance data to describe – at a population level – rates and patterns of insecure care engagement.

◆ Examine linkage to and retention in care and viral suppression

◆ Compare city-wide estimates examining differences among our four vulnerable population groups
Aim 2: In interviews with community key informants and HIV medical providers, to identify community- and structural-level factors associated with insecure care engagement.

- 45 to 60-minute qualitative interviews
- Patient characteristics: language culture, health beliefs; stigma; access/insurance; drug/alcohol dependence
- System characteristics: hours of operation; patient-friendliness; care coordination; wrap-around services; prejudice/stigma
- Recruitment strategies for PLWHIV
Aim 3: To identify individual-level factors that enhance/interfere with engagement in care among African immigrants, recently released prisoners, transgender women, and young MSM.

- 45-60-minute qualitative interviews; narrative interviewing
- Linkage/non-linkage to HIV medical care: barriers and facilitators (individual- and system-level), social support, and CD4/VL results
- Engagement/non-engagement in care: barriers and facilitators (individual- and system-level), leaving care, CD4/VL monitoring
- ARV treatment: initiating treatment, adherence, staying on treatment
### Partnerships

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<tr>
<th>PROCEDURE</th>
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