Leveraging community and peer-based approaches to enhance the HIV care continuum from awareness of HIV status to viral suppression for HIV+ MSM in South Africa

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Objective: Optimize the continuum of HIV care for MSM

- Implement community-based HIV testing: new diagnoses/previous diagnoses

- Compare time to ART initiation (intervention vs. control)

- Assess use of peer health navigators (PHN) to link HIV+ MSM to sensitized clinics & support adherence

- Measure fidelity & feasibility of PHN adherence support & decentralization of ART programs
Study Design: Single step stepped-wedge

Two-arms

Immediate (3 sites):
- Began intervention immediately (Phase I)

Delayed (3 sites):
- Began with standard-of-care (SOC): HIV Testing & referral (Phase I)
- Began intervention after 10 months to assess effect of intervention (Phase II)

Intervention Package

- Point-of-care (POC)/Non-clinic-based LGBT friendly HIV testing
- POC CD4 testing (ART eligibility prior March 2017: UTT)
- POC Creatinine testing for kidney function
- POC ART initiation - 30 day starter pack
- PHN support: clinic visit, health care, ART adherence, ongoing counseling
- LGBT sensitization at referral clinics
Primary Outcome: Viral suppression

Secondary outcomes related to HIV care continuum

**Intervention**: Proportions of HIV+ men who enter care, receive CD4 results, initiated on ART & retained in care, etc.

**Implementation**: Acceptability, perceived credibility, adoption, maintenance and routinization of the continuum of HIV care for MSM

**Process**: Proportions of men offered & accept HIV testing, PHN services, POC CD4 testing, on-site ART initiation
Sites: paired on size; randomized within pairs to immediate- or delayed-onset

- **2 Large cities:**
  - Cape Town (immediate)
  - Springs (delayed)

- **2 Mid-sized cities:**
  - Pietermaritzburg (immediate)
  - Port Elizabeth (delayed)

- **2 Rural areas:**
  - Moloto (immediate)
  - Letsitele (delayed)
Recruitment & Eligibility

Multiple Recruitment Methods

- RDS
- Social media
- Referrals
- Community outreach
- Venue and events
- Community Advisory Boards

Eligibility criteria

- Men who report male sex at birth
- Aged 18 years or older
- Self-report anal intercourse in past year
- Resident in study city
- Complete study instruments in local language
- Willing to have their clinic and lab records assessed

Ongoing community engagement
Data Collection: Active & Passive methods

- Behavioral Survey
- In-depth interviews with participants
- PHN contacts and discussion topics
  - CommCare - mobile app downloaded on smartphones; stores ART adherence, clinic visits, reminders, contact info
  - NHLS lab results from public referral clinics
- Chart abstraction at local referral clinics
Consort Diagram: Prelim Enrollment

**Standard of care at delayed-onset sites**

- Enrolled and tested for HIV\[n=829\]
- Tested HIV positive\[138 (17\%)]
- Followed prospectively\[133 (96\%)]
- Eligible for treatment\[87 (65\%) - SOC\]

**Intervention at immediate-onset sites**

- Enrolled and tested for HIV\[n=808\]
- Tested HIV positive\[147 (18\%)]
- Followed prospectively\[135 (92\%)]
- Eligible for treatment\[110 (81\%)]
- Initiated ART\[97 (88\%)]

- Newly diagnosed\[(n=85; 62\% of HIV positive)]

- Newly diagnosed\[(n=102; 69\% of HIV positive)]
Age & characteristics of HIV+ participants

<table>
<thead>
<tr>
<th>Characteristics</th>
<th>Overall</th>
<th>Standard of Care</th>
<th>Intervention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total HIV+, enrolled prospectively; n (%)</td>
<td>268</td>
<td>133</td>
<td>135</td>
</tr>
<tr>
<td>Age: median (range)</td>
<td>26 (18-58)</td>
<td>28 (18-53)</td>
<td>26 (18-58)</td>
</tr>
<tr>
<td>CD4 status at enrollment; n (%)</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>&lt;200</td>
<td>34 (13%)</td>
<td>14 (11%)</td>
<td>20 (15%)</td>
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<tr>
<td>200-349</td>
<td>83 (31%)</td>
<td>33 (25%)</td>
<td>50 (37%)</td>
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<tr>
<td>350-499</td>
<td>73 (27%)</td>
<td>31 (23%)</td>
<td>42 (31%)</td>
</tr>
<tr>
<td>500+</td>
<td>66 (25%)</td>
<td>44 (33%)</td>
<td>22 (16%)</td>
</tr>
<tr>
<td>Pending results</td>
<td>12 (4%)</td>
<td>11 (8%)</td>
<td>1 (1%)</td>
</tr>
<tr>
<td>Viral Load at enrollment; n (%)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Detectable</td>
<td>194 (72%)</td>
<td>110 (83%)</td>
<td>84 (62%)</td>
</tr>
<tr>
<td>Undetectable</td>
<td>23 (9%)</td>
<td>11 (8%)</td>
<td>12 (9%)</td>
</tr>
<tr>
<td>Pending results</td>
<td>51 (19%)</td>
<td>12 (9%)</td>
<td>39 (29%)</td>
</tr>
<tr>
<td>Viral load; median (range)</td>
<td>19772 (20-4,105,909)</td>
<td>22700 (20-4,105,909)</td>
<td>18700 (52-1,270,000)</td>
</tr>
</tbody>
</table>
Clinic Chart Abstraction

- Unique identifiers used to link and follow participants (study ID, SA ID, DOB, etc.)
- Began chart abstraction in Port Elizabeth (PE) and Pietermaritzburg (PMB)
- PHN are successfully linking HIV+ men to care: Each site abstracted data from 11 clinics
- Successfully identified care outcomes through this innovative passive method
- Charts found: 23% of HIV+ participants in PE and 57% of HIV+ participants in PMB
- ART was prescribed and dispensed by clinic: 21% PE & 57% PMB
- MSM with previous HIV diagnoses more likely to link with clinic vs. new diagnoses
  - 35 vs. 16% in PE, 75 vs. 48% in PMB
National Health Laboratory Service (NHLS) Matching

- Linkage/Matching used unique identifiers (study ID, SA ID, DOB, etc.)
- Successfully identified care outcomes through this innovative passive method
  - Identified 88% of participants through matching process to understand care outcomes
- PHN are successfully linking MSM to care
- 29% of PLHIV attended a post-enrollment clinic visit
  - 32% of SOC participants; 27% intervention
  - Chart abstraction, shows participants link to care, get ART, **but follow-up labs have not been done**
  - Initial results: people with previous HIV diagnoses more likely to link with clinic vs. new diagnoses
  - 40% vs. 27% in delayed intervention sites; 35% vs. 23% in intervention sites
Preliminary Qualitative Findings: 34 interviews: PE, PMB, Moloto & Springs

Community-based Testing:
- Preference of MSM-friendly Khanyisa testing locations.
- Cited fear of HIV- and MSM-related stigma at public clinics.

POC CD4:
- Reduced wait time/anxiety; emphasized importance of ART initiation.
- Receiving diagnosis & CD4 results at the same visit demonstrated connection between HIV & CD4. Improved understanding.

On-site ART Initiation:
- Participants empowered by being able to take action immediately.

Peer Health Navigators:
- 74% of participants contacted by PHN at least once after enrollment visit; average of 3 contacts per participant
- Seen as support for treatment, appointments, information
- Source of emotional support; PHN often the only person to whom the participant has disclosed status
- Clinic navigation is a major benefit, particularly early after diagnosis. Participants gradually became more independent
- Described as instrumental in medication continuation after side effects. Reassured participants that side effects would diminish.
Summary and Next Steps

- **Khanyisa optimizes HIV care continuum – testing, treatment and care**
  - **Testing:** Community driven strategies work in diagnosing MSM with HIV – both newly diagnosed and previously diagnosed
  - **ART:** Community-driven strategies work in early ART initiation – key to ending epidemic
  - **Adherence support:** PHN support is effective in linkage and retention to care; will improve health care outcomes (premature to assess viral suppression)

- Preliminary outcome results are available (passive methods working)
  - ✔ Continuously improving NHLS lab matching & chart abstraction process

- All sites have completed Phase 1 enrollment; Port Elizabeth and Springs have started Phase 2 (intervention) enrollment

- Peer health navigation & training is ongoing
  - ✔ Opportunity to strengthen PHN counseling for newly diagnosed given preliminary data from chart abstractions
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