Engaging Men in HIV testing: What works?
Experience from HPTN071

Helen Ayles
Zambart, Zambia
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Why focus on men?

• “Men are being left behind in the push to 90-90-90, in turn affecting the lives of women and children” UNAIDS report 2017

• Why do we only talk about men in relation to preventing infections in women?

• Are men a “key population”?
  – Key to the epidemic
  – Key to the response
TREATMENT COVERAGE LOWER AMONG MEN

Figure 3.17. Antiretroviral therapy coverage among adults living with HIV aged 15 years and older, by sex, by region, 2016

What are the barriers for men?

- Men often portrayed negatively in HIV discourse
  - Bringing the virus into relationships
  - Infecting young women
  - Perpetrating GBV
- HIV services are less accessible for men
- HIV may threaten masculinity “real men don’t get sick”
- “Men usually say that HIV testing is for women” DiCarlo et al Culture Health and Sexuality 2014
HIV Care and Prevention Continua

General, KP, PP

HIV-POSITIVE

Retain, Counsel, Monitor & Support

Initiate ART

HIV TREATMENT

Adherence Support

UNDETECTABLE VIRAL LOAD

Prevention Toolbox: VMMC, PrEP, Condoms, Risk Reduction

Link

HIV-NEGATIVE

LINK & RETAIN IN PREVENTION SERVICES

Support Adherence, Repeat HIV Testing

REMAINS HIV-NEGATIVE

El Sadr 2016
Overall men:
• Less likely to know their status
• As likely to get onto ART
• Less likely to be virally suppressed
Why are we missing the men?

Men
- 59,283 enumerated
- 45,399 consented (77%)  
  - 36,398 know HIV status (80%)
  - 4,138 HIV-positive (11%)
  - 2,053 referred to HIV care  
    [among those never previously registered for HIV care, 1,933/1,964 (98%) referred]
- 42% initiated ART within 6 months  
  [estimated from 'survival' analysis]
- 55% initiated ART within 12 months  
  [estimated from 'survival' analysis]

Women
- 61,847 enumerated
- 55,703 consented (90%)
  - 47,089 know HIV status (85%)
  - 8,702 HIV-positive (18%)
  - 4,144 referred to HIV care  
    [among those never previously registered for HIV care, 3,850/3,883 (99%) referred]
- 41% initiated ART within 6 months  
  [estimated from 'survival' analysis]
- 53% initiated ART within 12 months  
  [estimated from 'survival' analysis]
When we find men they test.....
....and when they test they do link to services
How do we engage the men?

- Male Spaces
  - VMMC uniquely male preserve
  - Male campaigns
  - Male clinics

- New initiatives
  HIV-ST *“HIV-self testing is for the men…..”*
  - Painless/bloodless
  - Secondary distribution by women at ANC/FSW/community
“Man Up”

- Provided a range of health services
- Football matches, performances
- Raffle
What worked.....what didn’t?

- Lots of people came
- Accessed many health services
- Registration of people into their households very challenging and time consuming
- Costly
- Few additional men and households.......but is value in numbers or in reaching the “last 20%”
• Local Initiatives
  – Local campaigns for VCT day etc
  – Following men to work
  – Meeting men at bars
Is HIV self-testing a solution?

• Previous studies have found that certain groups seem to be reached more with HIV self-testing
  – Men
  – Youth
  – Key populations
• Secondary distribution using women to reach men has been successfully used
  – Mostly ANC and from HIV-ve women
• Could self testing help us?
HPTN071 (PopART) Trial

HPTN071 (PopART) is a cluster randomised trial being conducted in 21 urban communities in Zambia and South Africa (population ~ 1m) to investigate whether a combination HIV prevention package including Universal HIV testing and treatment can reduce HIV incidence at community level.

- Service promotion and referral for
  - HIV care for HIV +ve including PMTCT
  - VMMC
  - Tuberculosis
  - STI

- Universal testing: annual door-to-door HBT

- Universal treatment for HIV +ve irrespective of CD4 count

- Support for:
  - Retention in care
  - Adherence to treatment

- Facilitated by CHiPs

Legends:
- Town
- Cluster
- Road
- PopART Districts
- PopART Cities

CHiPs: Community HIV-care Providers
PMTCT: Prevention of Mother to Child Transmission
VMMC: Voluntary Medical Male Circumcision
TB: Tuberculosis
STI: Sexually Transmitted Infections
HPTN071 has been very successful in attaining the first 90 in urban mobile populations.

However, testing gaps remain:
- Men
- Young adults
- Most mobile individuals

To address these gaps, we piloted offering oral HIV self-testing (HIV-ST) in addition to standard HIV testing services (HTS).
Design and Outcome

• Two-arm cluster randomised trial, with unit of randomisation being zones within a community covered by a pair of lay counsellors (CHiPs)

• Primary outcome was the proportion of resident adolescents and adults (aged 16 years and older) who know their HIV status.
  
  – We define knowledge of HIV status as an individual self-reporting knowing their HIV-positive status or accepting an offer of HTS from the lay counsellor.

• Predefined subgroup analyses
  
  – Sex
  – Age group (16-29 Vs 30+)
Methods

- Four of the HPTN071 (PopART) intervention communities in Zambia were included in this pilot.
- These four communities had a total of 66 Community HIV Provider (CHiP) zones.
- Zones were randomly allocated to continue with the standard PopART intervention or to offer a choice of HTS including oral HIVST.
**Standard of care arm**

- **Universal testing**: annual door-to-door HBT
- **Facilitated by CHiPs**
- **Follow-up on referral**
- **Support for**: Retention in care, Adherence to treatment
- **VMMC facility**
- **Health centre**
- **Universal treatment for HIV+ve irrespective of CD4 count**

**Intervention arm**

- **PopART intervention (HTS using finger prick test)**
- **Option of HIVST**
  - Supervised
  - Un-Supervised
  - Secondary Distribution

**Service promotion and referral for**
- HIV care for HIV+ve including PMTCT
- VMMC
- Tuberculosis
- STI

**CHiPs**: Community HIV-care Providers
**PMTCT**: Prevention of Mother to Child Transmission
**VMMC**: Voluntary Medical Male Circumcision
**TB**: Tuberculosis
**STI**: Sexually Transmitted Infections
Control arm

3,018 Absent (22.0%)
232 Refused/Pending (1.7%)

13,706 Enumerated
10,456 Participated (76.3%)

9,304 Eligible for testing (89.0%)
1,152 Known HIV+ (11.0%)

7,800 Tested (83.8%)

204 HIV+ (2.6%)
7,596 HIV- (97.4%)

Intervention arm

2,782 Absent (21.0%)
195 Refused/Pending (1.5%)

13,267 Enumerated

9,967 seen initially (75.1%)

947 Known HIV+ (9.5%)
9,020 Eligible testing (90.5%)

4,238 Oral ST (54.6%)
3,519 RDT (45.4%)

89 HIV+ (2.5%)
3,430 HIV- (97.5%)

109 HIV+ (2.9%)
3,618 HIV- (97.1%)

242 Results via partner (74.9%)
81 Results in person (25.1%)

13 HIV+ (5.4%)
229 HIV- (94.6%)

323 Not seen initially (2.4%)

8 HIV+ (9.9%)
73 HIV- (90.1%)
## Knowledge of HIV status

<table>
<thead>
<tr>
<th></th>
<th>Standard of Care % (n/N)</th>
<th>HIV-ST % (n/N)</th>
<th>Adjusted OR (95% CI)</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Overall</strong></td>
<td>65.3 (8,952/13,706)</td>
<td>68.0 (9,027/13,267)</td>
<td>1.30 (1.03, 1.65)</td>
<td>0.03</td>
</tr>
<tr>
<td><strong>Males</strong></td>
<td>55.1 (3,571/6,486)</td>
<td>60.4 (3,843/6,368)</td>
<td>1.31 (1.07, 1.60)</td>
<td>0.009</td>
</tr>
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<td><strong>Females</strong></td>
<td>74.5 (5,381/7,220)</td>
<td>75.1 (5,184/6,899)</td>
<td>1.05 (0.86, 1.30)</td>
<td>0.62</td>
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<tr>
<td><strong>Young adults</strong></td>
<td></td>
<td></td>
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<tr>
<td>(16-29)</td>
<td>70.2 (4,917/7,002)</td>
<td>73.5 (4,972/6,769)</td>
<td>1.31 (1.05, 1.63)</td>
<td>0.02</td>
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<td><strong>Older adults (30+)</strong></td>
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<tr>
<td></td>
<td>60.2 (4,035/6,704)</td>
<td>62.4 (4,055/6,498)</td>
<td>1.22 (0.98, 1.52)</td>
<td>0.07</td>
</tr>
<tr>
<td><strong>Resident in R1 and R2, and not previously tested in R1 or R2</strong></td>
<td>20.6 (117/567)</td>
<td>29.7 (173/583)</td>
<td>1.76 (1.25, 2.48)</td>
<td>0.001</td>
</tr>
</tbody>
</table>
Qualitative Findings
(40 IDI & 11 FGD, 91 participants)

- Reduced clinic based barriers to HTS i.e. stigma, congestion
- Enhanced confidentiality
- Convenience and control
- Empowerment from knowing how to test

Acceptable for:
- Previously tested HIV-negative
- Busy and mobile people
- Married men
- Living with partner
- Key Population e.g. sex worker
- Higher social class
- Formally employed
Summary of key findings

• HIVST increased knowledge of HIV status among:
  – General population of adults aged ≥16 years
  – Men
  – Younger adults (aged 16 to 29)
  – Those previously NOT tested in round 1 and 2 of intervention.

• HIVST was acceptable and safe
  – Few social harms were reported
  – No self harm

• Secondary distribution was feasible and led to increased couple testing
Implications of findings

- We have extended the offer of HIV-ST to all Zambia PopART intervention sites for
  - Those who refuse standard testing
  - Absent household members (adults only)
- Zambia has adopted HIV-ST as part of its national policy
  - Costed roll out plan being developed
  - Global Fund request contained 100,000 HIV-ST for this year
  - PEPFAR also expanding HIV-ST
With thanks to:

• All research participants and their families
• The 4 research communities and their religious, traditional, secular and civil leadership structures
• Volunteers in the community advisory board structures
• All of the CHiPs workers and field researchers
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Conflicts of Interest: None to declare