Uptake of and Retention on HIV Pre-Exposure Prophylaxis (PrEP) among adolescent girls and young women in Kenya

LINA DIGOLO, C OCHIENG, A NGUNJIRI, M KIRAGU, J KYONGO, L OTISO, W MUKOMA

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Outline

◦ The Kenyan context

◦ What we did: Study methods & results

What we learnt

Conclusion
The Kenyan context

- 19% of the estimated 40 million people consists of adolescents and young adults aged 15 to 24 years

- **Incidence**— almost half of the new infection were in adolescents and young adults aged between 15 – 24 years (2015 estimates)

- **Gender disparities** – HIV prevalence in AGYW almost 4 times higher by the age of 24 compared to their male counterparts

- Robust HIV prevention program in Kenya

www.lvcthealth.org
Local Kenya NGO
Works in 27/47 counties in Kenya
Core area of work
- HIV testing and counseling
- HIV Prevention
- HIV care and treatment
- GBV
Focus populations: Adolescents and Young Women, MSM, FSW, PWID, PLWHIV, survivors of GBV, Discordant couples
Our Approach

Service delivery gaps?
- How to identify AGYW who require PrEP
- No information on what affects uptake and adherence to PrEP among AGYW

Policy Gap?
- Lack of PrEP operational guidance
- Lack of HCPs Training Curriculum
- Data collection and reporting tools
PrEP demonstration study (IPCP)- Research Question

The broad question of the study was:

“Can PrEP be introduced effectively, in a ‘real world’ setting as an additional tool to HIV prevention while optimizing other existing prevention efforts?”

“Real world” defined as situation where:

1. The intervention is integrated in functional HIV prevention facilities and within existing services
2. Participants are willingly enrolled in the intervention without reimbursement or incentives for participation
3. Standard of care is based on existing guidelines.

www.lvcthealth.org
PrEP demonstration study (IPCP) - Methods

Design and sites
- Prospective cohort study implemented from August 2015 to October 2017
- 7 HIV sites in 3 counties – rural / urban and Public / private

Target population
- Adolescent Girls & Young Women aged 15 to 29 years
- Female sex workers
- Men who have sex with men

Data collection & Analysis
- Used mixed methods – Quantitative and Qualitative
- Qualitative – IDIs with AGYW
PrEP demonstration study (IPCP)

Flow of study visits

1. Screening visit to project site for PrEP information and eligibility

2. Enrollment visit (after 2 weeks); Counseling & 1 mo. PrEP prescription

3. First follow-up visit (after 1 mo. or 6 weeks into the project); Counseling & 1 mo. PrEP prescription with 2 refills

4. Additional follow-up visits (quarterly: 3, 6, & 9 mos.; 1 or 3 mo. PrEP prescription)

   Pharmacy visits IF 1 mo. prescription (mos. 4, 5, 7, 8, 10, 11); refills & adherence counselling

5. Exit visit (12 months); Discuss post-project PrEP continuation

Ineligible if:
- HIV-positive test: Refer to HIV care
- Pregnant: Refer to ANC
- Hepatitis B infected, poor renal function, or other exclusion criteria: refer for care as appropriate

- HIV-positive test: Refer to HIV care and resistance testing
- Pregnant: Refer to sub-study
- Adverse effects: Clinical management and possibly discontinue PrEP

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- Pregnant: Refer to sub-study
- Adverse effects: Clinical management and possibly discontinue PrEP
## PrEP demonstration study (IPCP) – Results

### Demographic Characteristics (N= 693)

<table>
<thead>
<tr>
<th>Demographic Characteristics</th>
<th>15 to 29 years (median 22.5 years)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>Frequency (%)</td>
</tr>
<tr>
<td>Marital status</td>
<td></td>
</tr>
<tr>
<td>• Single</td>
<td>442(63)</td>
</tr>
<tr>
<td>• Married</td>
<td>231(33.3)</td>
</tr>
<tr>
<td>• Widowed</td>
<td>5(0.7)</td>
</tr>
<tr>
<td>• Divorced</td>
<td>15(2.2)</td>
</tr>
<tr>
<td>Level of Education</td>
<td></td>
</tr>
<tr>
<td>• None</td>
<td>3(0.4)</td>
</tr>
<tr>
<td>• Primary</td>
<td>319(46.2)</td>
</tr>
<tr>
<td>• Secondary</td>
<td>304(44.0)</td>
</tr>
<tr>
<td>• College / University</td>
<td>65(9.4)</td>
</tr>
<tr>
<td>Living arrangement</td>
<td></td>
</tr>
<tr>
<td>• Living alone</td>
<td>139(20.3)</td>
</tr>
<tr>
<td>• Living with partner</td>
<td>235(34.5)</td>
</tr>
<tr>
<td>• Living with parents / relatives</td>
<td>291(42.4)</td>
</tr>
<tr>
<td>• Others</td>
<td>21(3%)</td>
</tr>
<tr>
<td>Employment status</td>
<td></td>
</tr>
<tr>
<td>• Employed</td>
<td>146(19.6)</td>
</tr>
<tr>
<td>• Unemployed</td>
<td>542 (78.7)</td>
</tr>
<tr>
<td>• Other</td>
<td>12(1.7)</td>
</tr>
</tbody>
</table>
Factors associated with uptake – Age

Median = 21.5 (19.6 - 24.9)
Uptake Median = 22.8 (20.1)
P = 0.01
Factors associated with uptake – Marital Status

<table>
<thead>
<tr>
<th>Marital Status</th>
<th>Uptake</th>
<th>None Uptake</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Single</td>
<td>358(61.0%)</td>
<td>84(79.2%)</td>
<td>0.004</td>
</tr>
<tr>
<td>Married</td>
<td>211(35.9%)</td>
<td>20(18.9%)</td>
<td></td>
</tr>
<tr>
<td>Widowed</td>
<td>4(0.7%)</td>
<td>1(0.9%)</td>
<td></td>
</tr>
<tr>
<td>Divorced</td>
<td>14(2.4%)</td>
<td>1(0.9%)</td>
<td></td>
</tr>
</tbody>
</table>
Factors associated with uptake – Living Arrangement

<table>
<thead>
<tr>
<th>Living arrangement</th>
<th>Uptake</th>
<th>None Uptake</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alone</td>
<td>121(20.9)</td>
<td>18(17.0)</td>
<td>0.001</td>
</tr>
<tr>
<td>With Partners</td>
<td>213(36.7)</td>
<td>22(20.7)</td>
<td></td>
</tr>
<tr>
<td>Separated by work</td>
<td>3(0.5)</td>
<td>0(0.0)</td>
<td></td>
</tr>
<tr>
<td>With friend/s</td>
<td>16(2.8)</td>
<td>2(1.9)</td>
<td></td>
</tr>
<tr>
<td>With parents/ relatives</td>
<td>227(39.1)</td>
<td>64(60.4)</td>
<td></td>
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The p-value for the difference in uptake is 0.001.
Retention on PrEP by the AGYW

Factors influencing uptake
- Sexual partner / peer/ guardian discouragement
- Belief of misconceptions and myths on PrEP use
- IPV
- Poor perception of HIV risk
- Conflicting priorities like school and work
Adherence to PrEP by the AGYW

‘...forgetting to remove the medicine because I didn’t want my husband to see them but now I am alone I am just taking them well...’ YW, KOCH

Drug Level Testing Results for active IPCP PrEP Users

<table>
<thead>
<tr>
<th>Series 1</th>
<th>Series 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>8</td>
<td>8</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>6</td>
<td>2</td>
</tr>
<tr>
<td>19</td>
<td>21</td>
</tr>
</tbody>
</table>
Lessons Learnt

• Decision making around PrEP use is not autonomous: Powerful influencers- Young men and male counterparts, Mothers and older women, , Sexual partners, Peers

• Meaningful engagement of target populations and community organizations- CAC

• Stigma remains a major barrier:
  - Packaging: rattling noise of pill bottles deter adherence
  - Associated with promiscuity
  - Preferred service delivery points within health facilities

• Health Service Provider vs. End User Interactions Matter
  - Regular training (attitudes, emerging information), increased burden
Lessons Learnt

• Simplify procedures at initiation
  ❑ HIV testing and other procedures (affected recruitment)

• Flexibility on timings and settings
  ❑ What works best for different populations?

• Intimate partner violence as a result of PREP uptake
  ❑ Need for community education and support

• Emerging myths and misconceptions
  ❑ Birth control, Elections, Reducing Libido, HIV infection means

• Awareness creation: promotion of non-HIV related benefits may have a stronger effect on generating interest than those focusing on HIV prevention alone (for both young men and women)
PrEP uptake among AGYW was high

Uptake was less among younger women, married & living with their partners

Factors influencing uptake - Sexual partner / peer / guardian discouragement, misconceptions and myths on PrEP use, poor risk perception, conflicting priorities

Adherence was poor

How do we communicate PrEP matters!
- we need to know what matters to young women
- Judgmental attitudes will be detrimental
Pending question?

How do we measure seasons of risk in AGYW?

How do we measure adherence to PrEP in a resource limited setting?

What strategies work in improving adherence to PrEP among AGYW?
Our Impact

Demonstration of Research Policy-Practice Cycle using oral PrEP

**Gap:** Lack of evidence to inform the delivery of oral Pre-Exposure Prophylaxis (PrEP) as part of HIV combination prevention package in Kenya

**LVCT Health Research:**
- *Feasibility study on PrEP uptake* – 2013: established willingness among MSM, FSW and Young women to take PrEP for HIV Prevention

This project has demonstrated the effective delivery of daily oral HIV pre-exposure prophylaxis (PrEP) as part of an HIV combination prevention intervention among young women at high HIV risk, FSW and MSM in Kenya.

PrEP is offered in 6 implementing sites – 5 LVCT Health NGO sites, and one government health facility, across 3 counties in Kenya-Nairobi, Kisumu and Homa bay.

**Technical assistance through the Ministry of Health (NASCOP) PrEP Technical Working Group for development of:**

- **2016:** Guidelines on Use of Antiretroviral for Treating and Prevention of HIV Infection in Kenya
- **2017:**
  - Framework for the Implementation of Pre-Exposure Prophylaxis of HIV in Kenya
  - Pre-exposure Prophylaxis for the Prevention of HIV Infection - A Toolkit for Health Service Providers
  - National Monitoring and evaluation framework for oral PrEP including the data collection tools

**Sep 2016:**
- Cascade of lessons learnt on the Introduction of PrEP as an addition to existing HIV prevention interventions to HIV prevention in DREAMS project
- Lessons from IPCP research utilized for design and implementation of LVCT Health’s CDC-funded scale up projects (STEP and Daraja Projects)

**Oct 2017:**
- LVCT Health provided technical leadership in development of health provider training materials, service delivery strategies and tools including standard operating procedures, M&E tools for introduction of PrEP in CDC-funded HIV prevention and care and treatment programs
Our Impact: Policy advocacy & development
Project Implementing Partners