Implementers’ perspectives and modifications to implementation strategies used to increase oral PrEP initiation and persistence among cis-gender adolescent girls and young women and female sex workers in South Africa: a sequential explanatory mixed methods study

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Adolescent girls and young women (AGYW) and female sex workers (FSW) in South Africa face a disproportionally high risk of HIV acquisition.

Pre-exposure prophylaxis (PrEP) uptake and persistence remain low.

TB HIV Care (THC), a non-profit organization in South Africa, is the largest provider of PrEP for women.
Using a mixed-methods approach, we sought to quantitatively assess and qualitatively explore three strategies implemented by THC to increase PrEP initiation and persistence among AGYW and FSW in South Africa.

I. Case Management
II. Airtime Incentive Program
III. Mobile Van PrEP Provision
**Methods**

**Study Design**

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**Phase 1 - Provider Perspective Survey** (April-August 2021)

- **Analysis informed FGD guide**

**Phase 2 - Focus Group Discussions** (March-May 2023)

- **Framework and Thematic Analysis**

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**Participants and location:** 153 providers/implementers completed a self-administered survey.

**Measures:**
- Acceptability of Intervention Measure (AIM)
- Intervention Appropriateness Measure (IAM)
- Feasibility of Intervention Measure (FIM)

**Outcomes:** implementation outcomes, perceived difficulty to implement, and perceived importance.

**Statistical analyses:** proportions

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**Participants and location:** a nested subsample of 64 providers and data captures participated in 8 focus group discussions; 4 AGYW and 4 FSW sites.

**Procedure:** 60–90-minute focus group discussions

**Analyses:** framework and thematic analyses

**Frameworks:** Framework for Reporting Adaptations and Modifications to Evidence-Based Implementation Strategies (FRAME-IS) and Proctor et al.’s implementation outcomes framework
Phase I: Results

Perceived Effectiveness of PrEP Strategies

<table>
<thead>
<tr>
<th>PrEP Service Provider (%)</th>
<th>Most Difficult to Implement</th>
<th>Best for PrEP Initiation</th>
<th>Best for PrEP Persistence</th>
</tr>
</thead>
<tbody>
<tr>
<td>WhatsApp support</td>
<td>31</td>
<td>12</td>
<td>5</td>
</tr>
<tr>
<td>Loyalty rewards program</td>
<td>18</td>
<td>6</td>
<td>1</td>
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<tr>
<td>SMS PrEP refill reminders (individual)</td>
<td>0</td>
<td>3</td>
<td>2</td>
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<td>SMS PrEP refill reminders (bulk)</td>
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<td>6</td>
<td>3</td>
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<td>General Self-Support/Positive messaging</td>
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<td>5</td>
<td>0</td>
</tr>
<tr>
<td>Clinical monitoring for providers</td>
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<td>1</td>
<td>0</td>
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<td>Mobile PrEP provision</td>
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<td>15</td>
<td>4</td>
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<td>PrEP mobilization</td>
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<td>15</td>
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<tr>
<td>PrEP risk screening form</td>
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<td>1</td>
<td>1</td>
</tr>
<tr>
<td>Social media</td>
<td>0</td>
<td>1</td>
<td>1</td>
</tr>
</tbody>
</table>

Implementation Outcomes

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Phase I: Results

Perceived Effectiveness of PrEP Strategies

Implementation Outcomes

#CONTINUUM2024
Phase I: Results

Perceived Effectiveness of PrEP Strategies

Implementation Outcomes

#CONTINUUM2024
Phase I: Results

Perceived Effectiveness of PrEP Strategies

Implementation Outcomes

[Bar chart showing perceived effectiveness of PrEP strategies with significance levels indicated.]

* p < .05, ** p < .01, *** p < .001

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Phase I: Results

Perceived Effectiveness of PrEP Strategies

Implementation Outcomes

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![Graph showing perceived effectiveness of PrEP strategies with statistical significance levels (p < .05, ** p < .01, *** p < .001).]
Phase 2: Case Management

Barriers

➢ Case management delivery change from linkage officers to ambassadors.

“‘The challenge that [ambassadors] faced is that they can’t recruit as well as [linkage officers]… If they are struggling to recruit, the facilitator or another team member has to help them recruit.’” – AGYW site provider

Adaptations/Modifications

➢ Reactive adaptations by management to have ambassadors provide case management.

➢ Modifications by implementers. To meet program targets, facilitators or other implementers would assist ambassadors with case management.

"'Most of the case manager's duties fall onto the social worker. The social worker has to do both the case manager's job and their own.'” – AGYW site provider
"I think it would be good if they employed some case managers that would come to the site with us because the work that we have is overwhelming." – FSW site provider
Barriers
➢ Technological difficulties in implementing the airtime incentives.
➢ Some PrEP users lacked or borrowed phones.

Adaptations/Modifications
➢ Reactive adaptation by management to de-implement the airtime incentive.

“There were a lot of complaints that happened because of [the inability to load the airtime] so we decided that we were not going to give out the airtime vouchers to clients who do not have their phones on them during the visit.“ – FSW site provider
"People really need food. Food is always a necessity…Food will also get them to adhere to their treatment because they won’t be able to say that they can’t take medication because they don’t have food." – FSW site provider

"I think that hygiene packs really help with initiation and retention…we should have smaller things like little gift packs that are branded with the company logo. Things like pens and wristbands. Small things that someone can keep as a souvenir.” – AGYW site provider

"Sometimes clients don’t have phones. I think that we should look into giving clients gift vouchers instead of airtime so that clients without phones can also get something." – FSW site provider
Barriers

“people **cycle in and out**. So, they take PrEP for one month and then stop for the next month because they are not sexually active….They take it like they’d take the morning-after pill.” – FSW site provider

Adaptations/Modifications

- Implementers deliver components of the strategy that are outside of their responsibility to meet program targets

“Another challenge is that **sex workers change sites**. I will ask them where I can find them and then they will say they work there all the time but sex workers move around a lot. If there is no money they travel to another site.” – FSW site provider
“I think all health facilities should have mobile clinics because going to health facilities can be challenging for service users. **Peer educators and nurses** should be in these mobile vans because they **play a huge role in recruiting and retaining** service users.” – FSW site provider

“We do so much when we get to the sites. We educate and mobilize once we are on site. One of the **major reasons why people are still taking PrEP is because we educate them** on the importance of taking PrEP.” – FSW site provider
Phase 1 – Provider Perspective Survey (April-August 2021)

➢ Providers perceived case management, the airtime incentives program, and the mobile van PrEP provision as acceptable, appropriate, and feasible.

➢ Most difficult strategies to implement were technology-based and demand-creation strategies:
  ➢ WhatsApp support group
  ➢ SMS PrEP individual refill reminders
  ➢ social media
  ➢ airtime incentive

➢ Best strategy to support PrEP initiation and persistence: Incentive strategies

Phase 2 – Adaptations Focus Group Discussions (March-May 2023)

The majority of strategy changes were:

➢ Reactive adaptations (planned alterations to address current challenges/barriers) decided by management.

➢ Modifications (unplanned changes) decided among the providers and implementers due to:
  ➢ limited personnel resources
  ➢ lack of staff retention
  ➢ increasing demands
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