# Implementation of a Community-Based HIV Programme in SA: Where are the Gaps?

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## Introduction

South Africa has implemented a community-based HIV programme (CBHP) since 2012, which is part of its primary healthcare re-engineering strategy to improve public healthcare. The CBHP including community health workers (CHWs) constitutes the following activities: HIV education, referral for HIV testing, and tracing individuals lost to the programme[1].

## Why did we want to look at this?

This research evaluated the fidelity of implementation (FOI) of the fully operational CBHP against the guidelines in the rural Mopani district of Limpopo province, South Africa (Figure 1). Mopani district is at the forefront of implementing strategies to improve community health.

Figure 1. A typical rural dwelling in Mopani district

## What was our approach?

We used the contextual framework by Carroll et al for the assessment of implementation fidelity of the CBHP using quantitative and qualitative methods [2]. Three elements of the framework (adherence, potential moderators, and programme outcomes) were evaluated in three studies as follows:

1

***Adherence*** was assessed in a community survey of 900 randomly selected households by measurement of coverage, frequency, duration, and content of CHW visits in comparison to the guidelines.

2

We used an exploratory study to assess ***potential modifiers*** to implementation. In-depth interviews were conducted with community members, team leaders, community leaders, and social workers. Focus group discussions were conducted with CHWs and facility nurses. The Consolidated Framework for Implementation Research (CFIR) was used to interpret the findings [3].


3

We assessed the ***outcomes*** element defined as the impact of HIV services delivered by the CBHP on case identification, adherence support to individuals on antiretroviral therapy (ART) and tracing of individuals lost to the ART programme.

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What did we find out?

1. With regards to adherence, good content (67%) and duration (100%) of CHW visits was reported in the community survey.

2. Facilitators to implementation of the CBHP include positive perceptions of the CBHP from stakeholders and self-motivation of CHWs to perform their duties. Barriers include stigma, cultural issues, and the lack of infrastructure and team leader supervision. The findings from the exploratory study in relation to the CFIR framework are further detailed in Figure 2.

However, there was room for improvement of the CBHP coverage at 47% and frequency at 39% of visits.

Figure 2. Factors influencing CBHP implementation in relation to the CFIR framework

**1. Intervention characteristics**

**Complexity**
- Number of services required per patent
- Number of households to be visited
- Number of CHWs deployed in the community

**2. Outer setting**

**Networking**
- Formal: Lack of support from NGOs, NPOs, NDoH, OPMs and social workers
- Informal: Support or lack thereof from community, community leaders, and traditional healers
- Inadequate integration of HIV programme into facilities

**Patient needs and resources**
- Denial and fear of stigma, poverty

**External policy and incentives**
- Lack of formal programme, unclear CHW reporting structures, high workload, inadequate stipends, undefined roles of CHWs, CHWs find their work satisfying due to positive impact on communities

**3. Inner Setting**

**Implementation climate: *Capability***
- Unacceptance of CHWs in the community
- Clear processes in place for defaulter tracing
- Lack of involvement and role clarification for social workers
- Poor integration into PHC system in terms of existing workflows

**Implementation climate: *Readiness for implementation***
- Lack of involvement of OPMs with CHWs and team leaders
- Desire for ongoing training
- Inadequate resources and infrastructure (office space)

**4. Characteristics of individuals**

**Knowledge and beliefs**
- Motivated CHWs, wealth of knowledge of CHWs

**Self-efficacy**
- Adequate knowledge and skills, good initial training, desire for ongoing training

**5. Implementation Process**

**Engaging**
- Lack of relationship building with the community and traditional healers

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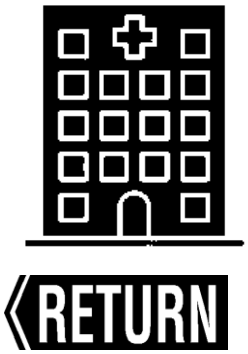
What did we find out?

3. Adherence support to individuals on ART was provided during 5 657 visits, and only one individual was referred for complications, suggesting a need for improvement in the identification of complicated cases of individuals on ART.

Tracing of individuals lost to the ART programme showed that 53% of those found by the CHWs reverted back to the facility.




In terms of the effectiveness of CHW referrals for HIV services, the uptake of referral for HIV testing services was 73%.

4. Adaptation of the Carroll framework.

The Carroll framework for implementation fidelity was adapted to be utilized in a rural contexts to assess similar community-based HIV programmes in South Africa. Refer to Figure 3.

## SO WHAT?

We assessed FOI of a fully operational rural CBHP in the context of HIV, making this study unique. The adapted conceptual framework for implementation fidelity, provides a feasible approach to guide and strengthen FOI evaluations of CBHPs across Africa.

The context-specific findings will assist policy makers in making informed decisions to optimise the CBHP and contribute largely to controlling the HIV epidemic in South Africa.

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# *Implementation Science Tool* for a Community-Based HIV Programme in SA: Where are the Gaps?

Findings were used to adapt the Carroll framework for implementation fidelity. The diagram below represents the proposed adapted conceptual framework (Figure 3).

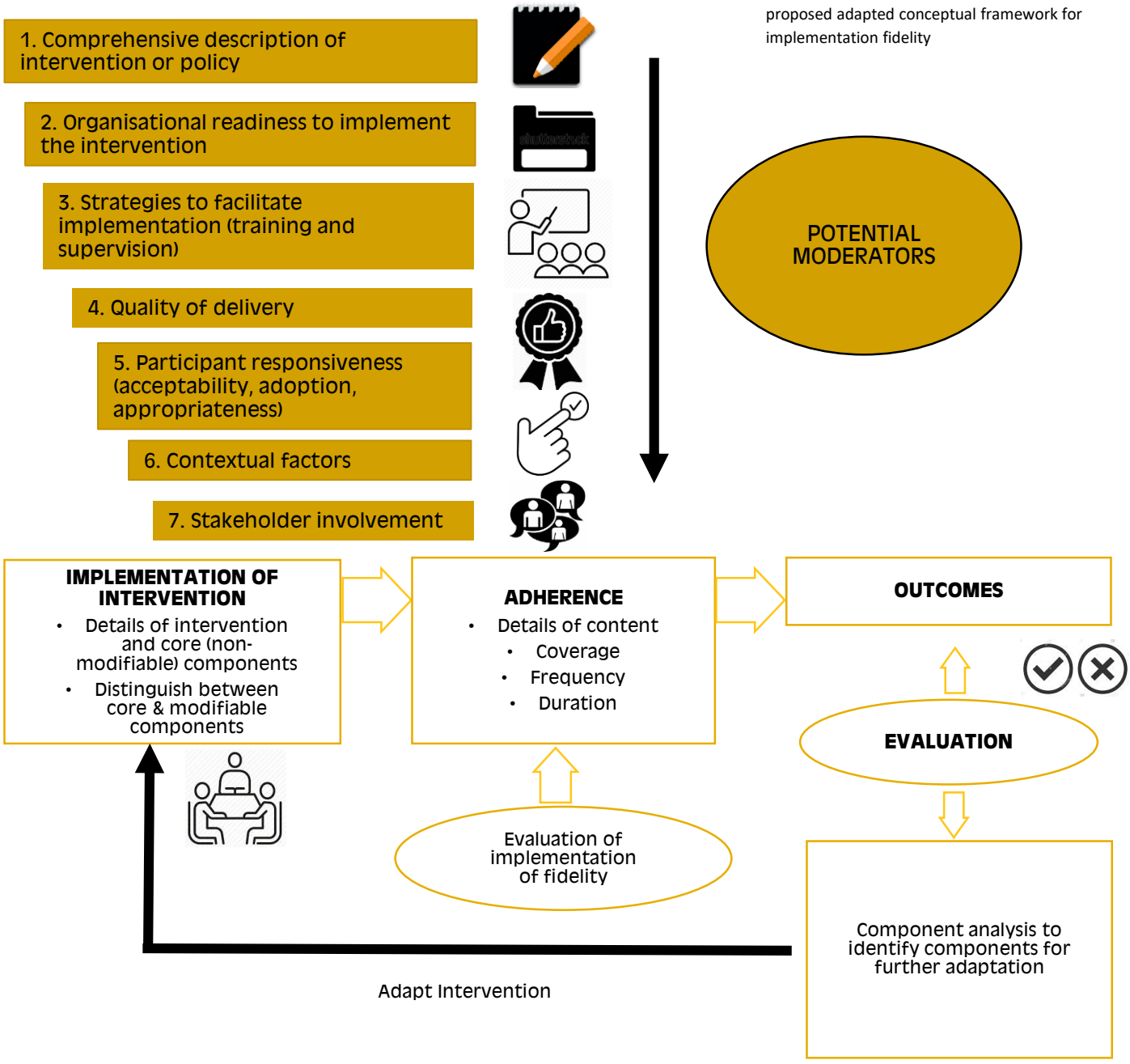


Figure 3. Diagrammatic representation of the proposed adapted conceptual framework for implementation fidelity

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## TAKE-HOME MESSAGES: *Policy Implications*

1. **Specifications of the requirements for the recruitment of CHWs.** Key CHW skill requirements should be defined. CHWs recruited should have the ability to engage well with the community and healthcare professionals.

2. **Establishment of an agency to regulate processes of the CBHP.** Standards and practices of CHWs should be regulated. Context-appropriate remuneration for CHWs and permanent employment of CHWs should be modulated. CHWs need to work over weekends and be compensated appropriately.

3. **Specification of the scope of work.** CHW scope of work should be clearly specified.

4. **Resources and infrastructure support.** Adequate resources should be provided for CHWs to perform their duties. Resources should be made available for training and continuing education. Adequate infrastructures should be available to hold meetings and trainings.

5. **Formalise training programme.** Design a context-specific training curriculum for CHWs and team leaders and update curriculum to keep abreast with current knowledge. Documentation of CHW and team leader training and expertise is required.

6. **Create supervisory mechanisms.** Establish a management hierarchy and an appropriate supervision model for team leaders to manage and assess CHWs with formal reporting mechanisms.

7. **Stakeholder involvement.** Engage key stakeholders at all levels for buy-in and continuous support of the CBHP.

8. **Integration of the CBHP into the formal health system.** The CBHP should not exist in a silo as a vertical, disease-specific programme. Clinical and managerial integration of the CBHP into the formal health system is warranted.

9. **Scale-up.** Establish a step-wise implementation plan to scale-up the programme. Conduct a readiness assessment of all sites where scale-up will occur. Plan evaluations at different time points to evaluate FOI and CBHP outcomes.

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For further information, please refer to the sources of publication below:

1. Naidoo N, Railton J, Jobson G, Matlakala N, Marincowitz G, McIntyre JA, et al. Making ward-based outreach teams an effective component of human immunodeficiency virus programmes in South Africa. South Afr J HIV Med. 2018;19(1):778.
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## References

1. National Department of Health. Provincial Guidelines for the Implementation of the three streams of PHC Re-engineering. 4 September 2011.
2. Carroll C, Patterson M, Wood S, Booth A, Rick J, Balain S. A conceptual framework for implementation fidelity. Implementation science: IS. 2007;2:40.
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1. The US President's Emergency Plan for AIDS Relief (PEPFAR) through the United States Agency for International Development (USAID) (Cooperative Agreement number 674-A-12-00015).
2. Fogarty and NIAID, The UNC-Wits AIDS Implementation Science and Cohort Analyses Training Grant (Grant number: 5D43TW009774-02).
3. University of Witwatersrand, School of Public Health.