



PANTHER -95- STUDY

Evaluating Perceptions and Acceptance of Urine Tenofovir

Point-of-Care Testing for ART Adherence in Namibia

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DISCLOSURE STATEMENT

I have no relevant or material financial interests that relate to the research described in this paper.

Background

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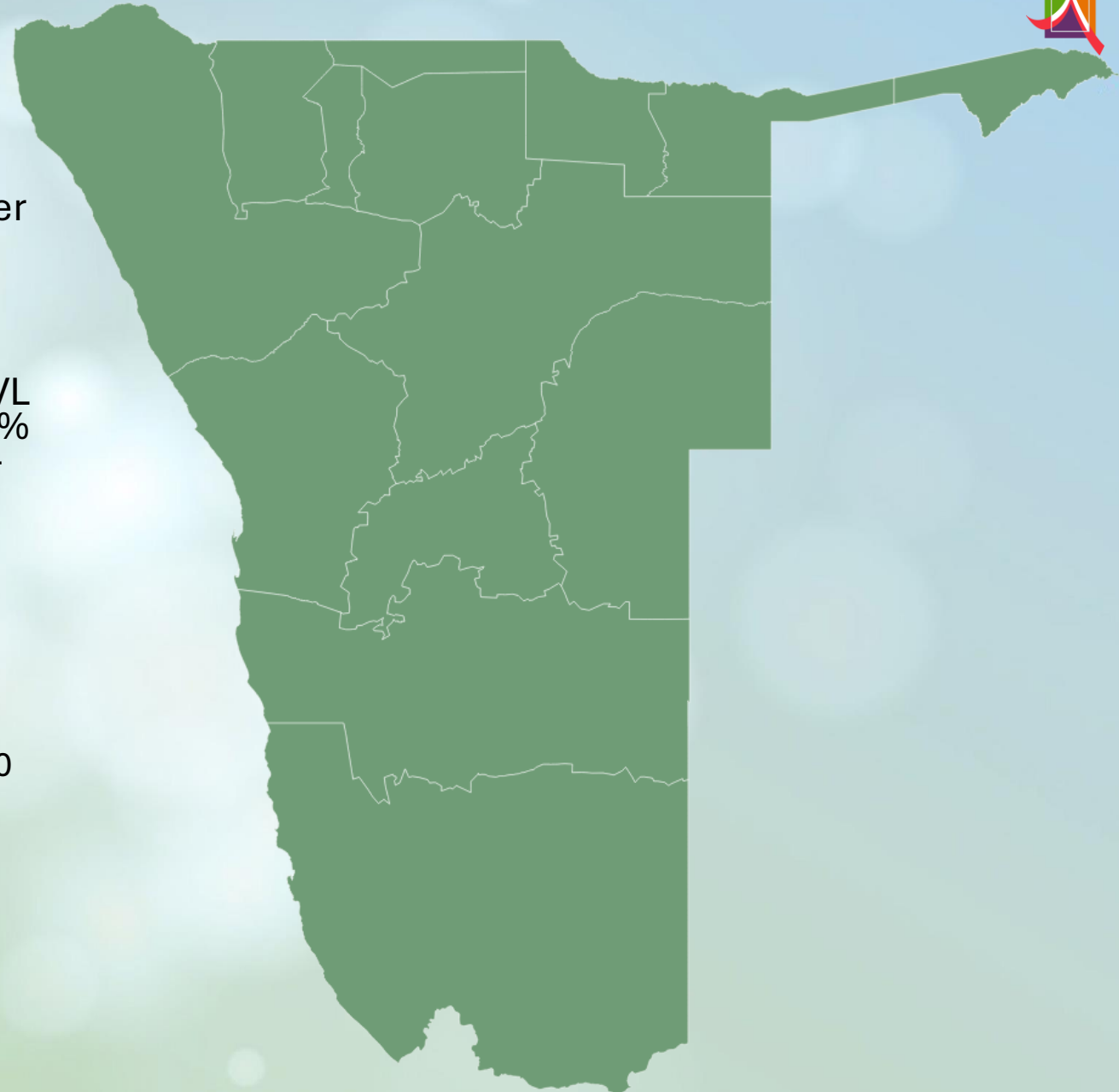


- Namibia adopted Tenofovir, Lamivudine & Dolutegravir (TLD) as a first-line regimen in 2019 as per WHO guidance.
- Enhanced Adherence Counselling (EAC) is the standard care for all PLHIV with viremia.
- Nearly 90% of patients on TLD with virologic failure (VL >1000 copies/mL) achieved VS within 3 months & 97% by 9 months following EAC that incorporated a urine-based POC TFV test.

Project Goal: Improve virologic suppression using POC urine tenofovir (TFV) test integrated with enhanced adherence counselling (EAC+)

Target Population: PLHIV with unsuppressed viral load (<1000 copies/mL) on TLD regimen for more than 6 months

In this analysis, we focus on the acceptability of this highly effective adherence intervention (**reference Bikinesi et al**)

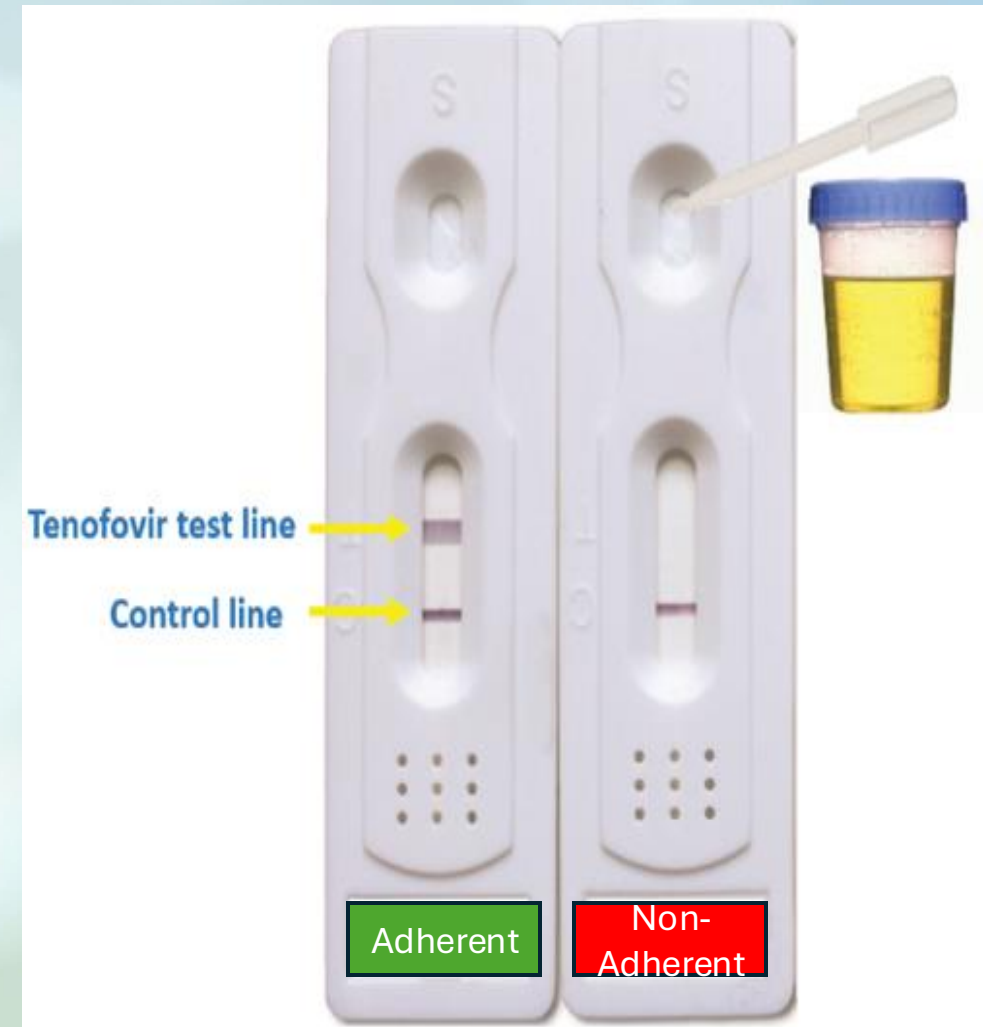




Study Objectives

Aim: Explore the acceptability and perceptions of:

- PLHIV receiving POC urine TFV test integrated in EAC session
- (EAC+)Healthcare workers (HCWs) delivering EAC+



Methods

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Design: Mixed Methods survey (Quantitative cross-sectional & Qualitative comments)

Sample: 202 PLHIV and 94 HCW.

43 facilities selected based on reporting a high number of PLHIV with unsuppressed VL > 1000 copies while on TLD > 6/12 in all 14 regions.



Key Implementation Metrics:

Perception of test accuracy and usefulness (Attitudes)

Willingness to reuse (Acceptability)

Discomfort handling sample (Feasibility)

Adoption in real-life settings

Fidelity of the test kit manufactured by HAL (**Specificity 100% / Sensitivity 96%**)



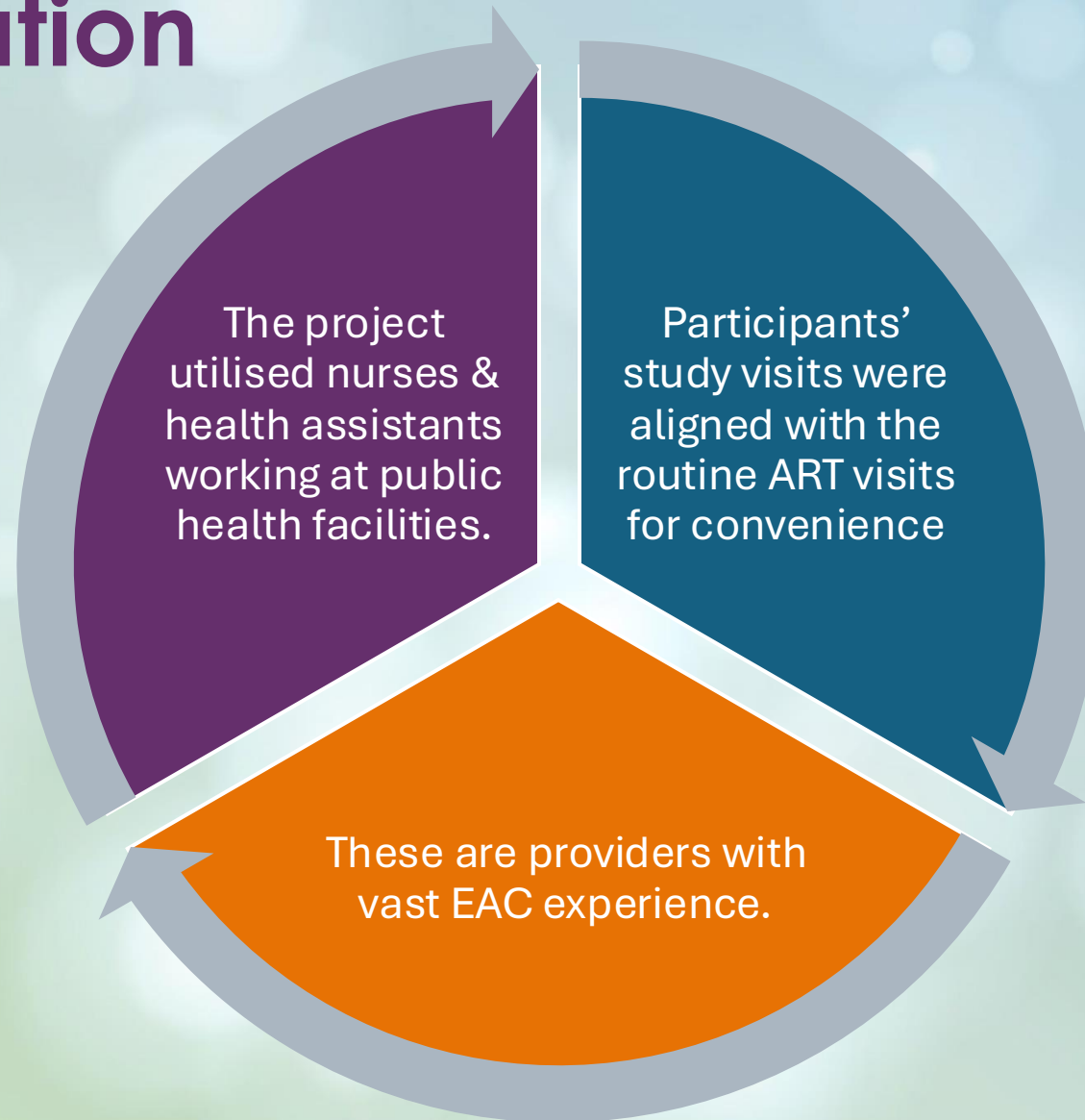
Analysis:

Generalised Estimating Equations

A model to assess predictors (age, sex, ART duration) of positive perception

Implementation

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What worked

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Partners did the Rigorous training with ongoing support through video offline.



Quality assurance of training by lab personnel is ongoing to assess fidelity



Simplifying result interpretation



Two lines: Positive for Non-Adherence



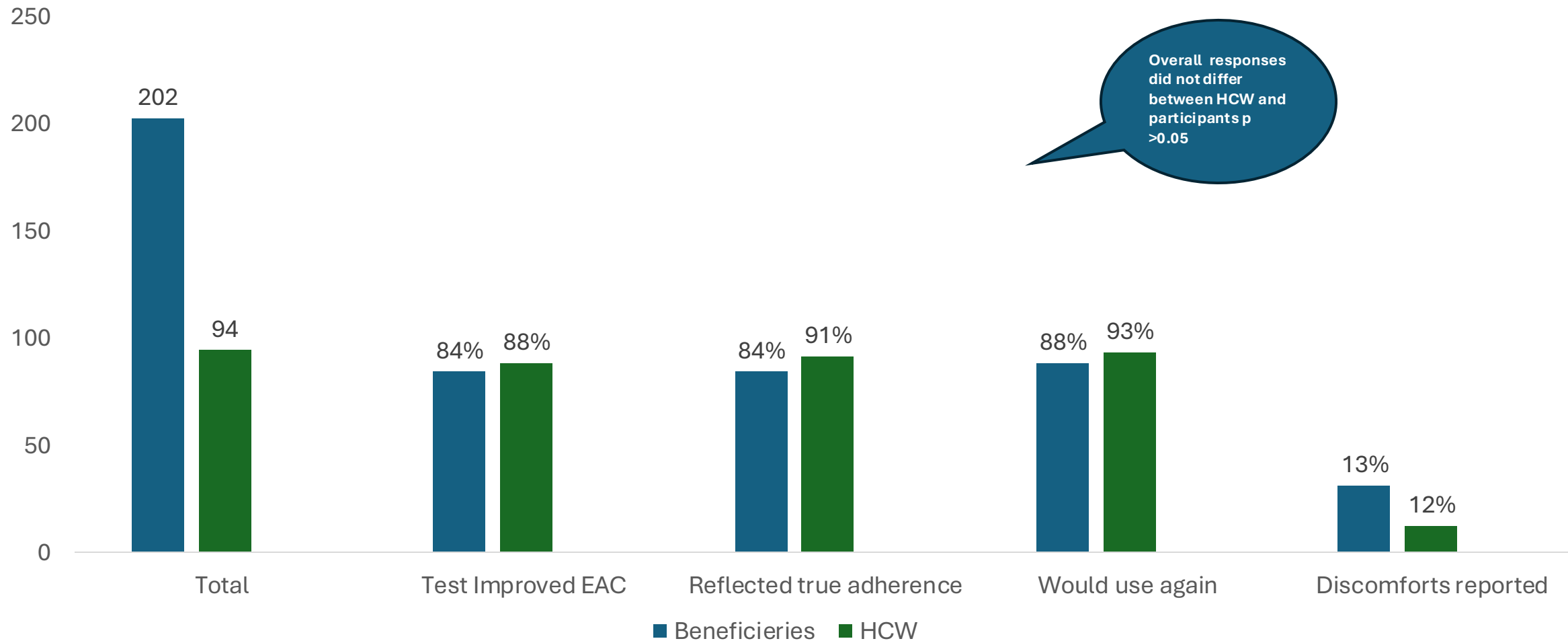
One line: Negative for Non-Adherence

Participant & HCW Results

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Responses Beneficiaries n=202 & HCW n=94



Participant Perceptions

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Test Accuracy

The majority (84% PLHIV) report confidence in test results

Feasibility

Minimal discomfort handling urine samples (11% HCW & 31% PLHIV)

Acceptability

Strong willingness to reuse the test (87% HCW & 84% PLHIV)



Age Influences on Positive Outcomes

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Only older participants (≥ 45 years) are more likely to report counselling benefits.

Odds ratio 1.89, 95% CI: 1.18–3.04, $P = 0.008$



Quotes from Study Participants

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"I enjoyed the study, and I wish to continue with it even if the viral load results are good. It helped me a lot when it came to taking my medication and coming on time."



"I felt at ease with the study, it was an eye opener for me, hence, I was facing challenges taking my TX daily and forgetting, but since I was enrolled in the study everything became easy."



"No problem with it, it helped me to be accountable and disciplined me a lot on how to take my tablets on time. The demonstration of the viral load beads has also helped me to understand how the virus works in the body."



"Adherence sessions encouraged me to take my TX. For this, I would like to extend my appreciation for the study. Thank you"



"I enjoyed it very much, even though in the beginning it sounded a bit complicated"



"I was nervous for the urine test because I was not free every time, I came to my ART follow up"



"I don't believe you the tested the Urine for adherence"



"Requires a lot of time"



"The study takes up so much of your time, even if you know that it will be good."



"I just don't like it"

Quotes from Health Care Providers

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“Results interpretation became easier with practice.”



“Urine tests facilitated open patient discussions.”



“The urine test kit helped my counselling skills because the person can see that he is not taking, and an open conversation happens thereafter”.



“Urine collection is a time-consuming process”.



“I experienced discomfort delivering conflicting results especially with the elderly”.

Conclusions

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High acceptability among both PLHIV and HCWs.

Valuable tool to strengthen EAC+ and improve ART adherence.

Recommendation:

- Innovative implementation strategies for the younger population are required.
- Further scale-up through multi-site randomised trials to assess long-term impact.





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