Acceptability of woman-delivered HIV self-testing to the male partner: a qualitative study of antenatal clinic participants in Malawi

Supported by wellcome trust

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Background

High rates of HIV transmission within established sexual relationships in Africa call for novel HIV testing strategies that can serve both partners to encourage testing and linkage into HIV treatment or prevention services.

HIV self-test (HIVST) kits enable novel strategies, including partner-delivered kits to encourage testing as a couple at home.

We explored the acceptability of using antenatal clinics (ANCs) as recruitment points, building on strong prevention of mother-to-child transmission (PMTCT) programmes in Malawi.

We sought the views of women attending ANC and their male partners concerning female partner-delivered HIVST kits, either alone or with different approaches aimed at encouraging subsequent linkage into care or prevention.

Project aim

To refine aspects of suggested interventions based on HIVST, and to identify additional interventions to be formally tested in a Phase II *adaptive* multi-arm multi-stage cluster randomized trial.

Methods

A formative qualitative study using focus group discussions (FGDs) and in-depth interviews (IDIs) (Fig 1).

Participants in the FGDs and the IDIs were purposively sampled with the aim of having between 8-12 participants per FGD.

Two FGDs each with women only, men only and mixed gender (N = 6) were conducted followed by twenty IDIs (10 men and 10 women).

Eligibility criteria for participation included:

- Being an adult (≥18 years) and
- Current attendance at ANC by the woman or a man having a pregnant woman who is currently attending ANC and
- Residence in urban Blantyre

Simple content analysis was used to analyse data.
Ethical approvals: College of Medicine Research and Ethics Committee (COMREC), P.08/15/1784 and LSHTM Ethics committee, 10332.

Written or thumbprint-witnessed informed consent was obtained from all participants.

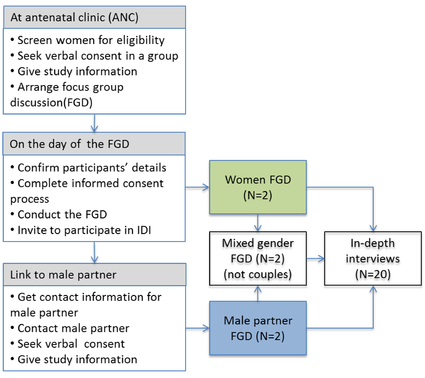
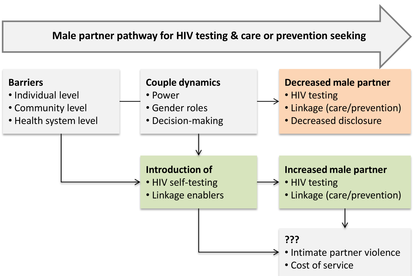


Fig 1: Recruitment flow for FGDs and IDIs

Conceptual framework

Multiple barriers exist that deter men from ANC involvement and have led to lower uptake of couple or partner HIV services (Fig 2). These barriers operate at different levels: individual, couple, community and health system.

The introduction of HIV self-testing is expected to mitigate most of the barriers through increased convenience, privacy and confidentiality. This should lead to increased uptake of HIV testing among male partners although additional interventions may also be required to increase subsequent linkage into care or prevention. However, it is not known if HIVST and these additional interventions especially financial incentives may lead to increased incidence of adverse events.



Results

A total of 42 participants (24 women and 18 men) took part in the FGDs and IDIs, each FGD had between 5-8 participants.
Women were relatively young with median age of 24.5y (interquartile range: 21.0-29.0) compared to their male partners 28.5y (IQR: 25.8-34.5).

Theme: *Delivering self-test kits to woman in antenatal clinics*

Both men and women were very positive about the prospect of the woman bringing self-test kits home because they felt this would ease the requirement that they both go to ANC or any other HIV testing site to have a test. Although others felt that this might lead to *trust issues* the majority felt it would not lead to intimate partner violence. The quotes below illustrate these points:

Female, FGD, Ndirande

"[Taking self-test kits home for the man to use] *would be acceptable because he doesn't want to come to the clinic, so he can use the self-test kits because he finds it hard to come here*"

Male, Mixed FGD, Ndirande

"…you have brought me these? It just shows that you don't trust me so there really can be some problems more especially if the approach was also not good"

"Men would definitely accept self-test kits because they would say, aaah, why should the Doctor test me? Aaah, it's better to be the first to know my HIV status.You would feel shy when meeting the Doctor who knows that you are HIV positive."

Male, IDI, Ndirande

"Because in marriages there are things that make one to fear. Other men are difficult, yes others would manage but most of them cannot manage ... The only difficulty may be that he would just refuse and that is it, but not reaching the extent of beating, no."

Female, FGD, Zingwangwa

Theme: *Additional interventions to improve linkage*

FGD and IDI participants were asked about different types of strategies that could be added to HIV self-testing provided through ANC in order to increase HIV testing and linkage into care (ART) or prevention (condoms, counselling and voluntary medical male circumcision). The potential strategies included:

1.Fixed financial incentives
   a) low amount-transport equivalent ($3)
   b) higher amount-to cover transport and opportunity cost ($15
   c) lottery incentive ($3 equivalent)
2. Reminders: SMS and phone call.

Participants felt that providing a financial incentive would increase the number of male partners who would test and link into care or prevention, because this would remove a crucial economic barrier. However, a lottery incentive was not well received by participants as they felt it would discourage many people who have not won lottery. The quotes below illustrate these points:

Female, FGD, Ndirande on transport equivalent incentive

"Because when he self-tests, if you tell him to go to the clinic to receive counselling he would say he has no transport to go there but ***if transport money is there he won't have any excuse****"*

Male, FGD, Zingwangwa on high amount financial incentive

"When you come to the clinic you spend the whole day with no food for today. ***Providing a high financial incentive would encourage other male partners*** *upon hearing that their friend has food for today by going to the clinic"*

"…and it's only one person who has won while the ones who have lost are many so the message that will be spread will be from the ones that have lost because they are many."

Male, Mixed FGD, Ndirande on lottery financial incentive

"When the SMS is received, many people just ignore it by mistaking it for Airtel [Network provider promotional SMSs] *and you just delete it right away before even reading it. Better if it's phone calls…"*

Male, FGD, Zingwangwa on SMS vs phone call reminder

Discussion & conclusion

This formative study has shown that reaching male partners through their women who are attending ANC may be acceptable, safe and may increase the number of male partners who test for HIV and link into care or prevention.

A number of tentative modifications have now been made to the initial design of the trial (Table 1). Although use of lotteries was not preferred by participants, we will still maintain this arm as lotteries are expected to be more effective in theory.

Partner-delivered HIVST through antenatal clinic and additional interventions were acceptable to both men and women.

Table 1: Design modifications after formative study

Prior plan	Post formative study plan
Give women 2 HIV self-test kits to take home	Give women 3 HIV self-test kits to take home
Give voucher incentives Have a medium incentive intervention arm	Give cash incentives No longer have medium incentive arm
Give US$15 in the high incentive arm	Give US$10 in the high incentive arm
Only one winner in the lottery incentive arm	No modification to allow quantitative comparison
Send SMS to participants in the reminder arm	Make phone call in the reminder arm

Key references

UNAIDS. 90-90-90 2014; UNAIDS. Gap Report 2014; Nyondo *et al.* BMC Public Health 2013; Nyondo *et al.* PLoS One 2015; MacPherson *et al.* JAMA; Musheke *et al.* BMC Public Health 2013; Thirumurthy *et al.* JAMA 2014; Thirumurthy *et al.* JAMA 2016; Choko *et al.* PLOS Med 2014; Choko *et al.* PLOS Med 2015