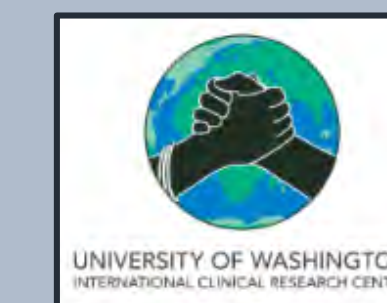


# Users May Lack Confidence in ART for HIV Prevention: A Qualitative Analysis

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## Background

- Antiretroviral-based approaches to HIV prevention have been shown to reduce new infections in clinical trials and demonstration settings.
- To optimize uptake and anticipate barriers to effective rollout, we must understand users' perspectives on antiretroviral treatment (ART) for prevention of HIV transmission.
- We explored serodiscordant couples' understandings of and feelings about treatment as prevention using qualitative data from the Partners Demonstration Project.

## Methods

- The Partners Demonstration Project employed an integrated delivery strategy of daily oral pre-exposure prophylaxis (PrEP) and ART for serodiscordant couples in Kenya and Uganda.
- PrEP use was time-limited and discontinued after HIV-infected partners had been on ART for 6 months.
- Multiple in-depth qualitative interviews were conducted with a subset of 48 couples from the Kampala, Uganda Partners Demonstration Project site (N interviews=195).
- Interview topics included: (a) perceived purpose and meanings of PrEP and ART; (b) adherence; (c) experiences of PrEP discontinuation; and (d) understandings of antiretroviral treatment as prevention.
- Interviews were audio-recorded, transcribed into English and coded using Atlas.ti software by two trained analysts.
- Coded data were inductively analyzed to identify themes representing couples' understandings of and feelings about using ART for prevention of HIV transmission. Categories were developed to represent the themes.

## Results

### 1. Serodiscordant couples generally understood the idea that ART helps to prevent HIV transmission to uninfected partners.

- As part of regular clinical follow-up visits, couples were counseled that ART and time-limited PrEP taken together substantially reduce HIV risk.
- They understood that ART weakens the "strength" of the virus and reduces viral load, and that a "weaker virus," along with improved health of the HIV-infected partner, lowered the risk of transmitting HIV.

...The way that medicine (ART) works is that it lowers the strength and number of the virus that one has and hence lowers the chances of infecting others. I think that the higher the viral load, the easier to spread the virus. - HIV-uninfected male

### 2. At the same time, doubts about the effectiveness of ART for HIV prevention were salient in the qualitative data.

- Couples doubted ART effectiveness for prevention because they understood the risk of HIV transmission is not eliminated completely by ART.
- Reasons cited for doubting effectiveness included the idea that ART was still being "tested" for prevention through research, and knowing or hearing of others who had acquired HIV from partners who were taking ART.

...I use my sister as an example because her husband was taking ART yet she was negative. They were told how to use the medicine and were given condoms. After the man took ART for some time, he refused to use condoms and ... my sister ended up getting HIV which she did not have before. - HIV-uninfected female

Figure 1. Map of Uganda



### 3. Couples questioned whether ART alone could protect HIV-uninfected partners from HIV acquisition. Lack of confidence in ART for HIV prevention took the following forms:

Once PrEP had been discontinued, uninfected partners in particular felt more vulnerable to HIV acquisition in the absence of other methods of protection, like condoms or PrEP.

There is protection from HIV for me but it is low. Okay the fact that he is taking ART, reduces the strength of the virus but it does not give me enough courage to say that I may not acquire HIV if he does not use condoms or if he again uses one incorrectly and it breaks. - HIV-uninfected female

Couples were skeptical that a reduction in viral load from sustained ART use will protect the uninfected partner from acquiring HIV.

The medicine I am taking cannot protect someone from HIV. ART only reduces on the viral load and is not used for protection. - HIV-infected female

Uninfected individuals were sometimes uncertain about partners' adherence to ART. Doubts about adherence stemmed from distrust in the relationship.

I was not sure about her ART adherence because we were not taking the medicine at the same time. She used to take ART at a time when I am still at work so I could reach home and she tells me that she has taken ART. But as you know human beings, I could not trust something I have not seen myself. I had doubt that maybe she is telling me lies. - HIV-uninfected male

Overall, couples preferred to use multiple methods of protection simultaneously. Uninfected individuals could not have "total trust" in any one method of protection once their partner had been diagnosed with HIV.

I cannot be confident. Although the viral load was suppressed, it still needs to have double protection if available and possible to use... - HIV-uninfected female

According to me, the chances [of transmission] are few, as they told us, but I do not accept or believe it with all of my intelligence. It would be best that we both swallow the medicine up to the end, without anyone stopping to take his or her medicine... But when it is one person who is taking the medicine (ART) when the other is not taking the medicine (PrEP), then I do not believe or trust it even if the chances are few. - HIV-uninfected female

### 4. Ultimately, many serodiscordant couples in our sample were not yet "ready" to trust new biomedical HIV prevention strategies.

- The concept of using antiretroviral treatment "as prevention" was unfamiliar to participants.
- Uninfected partners who had relied on PrEP for protection had difficulty believing that HIV protection could come from medicine taken by someone else.

Because if I take PrEP I know that it is in my blood and it is protecting me from HIV. So I do not see how ART taken by the other person can protect me yet it goes into her body. I am not sure about where I can derive protection from HIV if I have not taken the medicine myself. Where does protection come from in such a situation? - HIV-uninfected male

What I am trying to say is that I know ART works but you cannot tell me that it can be used to reduce the chances of infecting another with HIV. It may be true but I do not believe such. I believe that it can be used by that person himself ... who has the virus. - HIV-uninfected male

Table 1. Participant Characteristics

HIV-uninfected Partners (N=48)	%/ (IQR)
Gender (Female)	56%
Age (Median)	32 (IQR 26-37)
Initiated PrEP	90%
Days on PrEP before PrEP Stop (Median)	252 (IQR 168-378)
PrEP Stop after 6 months ART use	70%

## Conclusions

- Qualitative data from an evaluation study of integrated ART and PrEP delivery suggest that serodiscordant couples lack confidence in the effectiveness of treatment as prevention.
- This reluctance to trust ART arises from unfamiliarity with new biomedical HIV prevention strategies.
- It may take time for individuals to develop confidence in antiretroviral treatment as prevention.

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