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Conclusions: The integration of STI, HIV, and antenatal care services may have contributed to most women

similar in terms of age, HIV-status, and STI-related symptoms to those diagnosed with a curable STI in the main study population. Among the seven who did not enroll, five reported that they told their partners about the STI diagnosis and one reported that her

I had challenges of, for two months I used to get itchy down there and I'd ask myself why, you see.
(Participant 6, age 31)

While only one woman mentioned partner infidelity as a reason for testing, seven women reported that their partners were likely having sex with other women and one woman said "... he is all over the place. There's no one that doesn't know him." (Participant 12, age 25) Two women ended relationships with their partners because they impregnated other women. Alcohol use was discussed by five women as a contributor to infidelity. "Yes, when I ask him, he says he was drunk and didn't know what he was doing." (Participant 1, age 24).

Women's reaction to STI diagnosis

Four of the 15 women reported that they were "okay" with their positive STI results or "accepted" them and did not choose to elaborate further upon probing. Only a few reported that they were very surprised to be infected and the remainder expressed relief or an appreciation for being able to receive treatment for an infection.

Now, when I was told, I just accepted that, yes, maybe they'll help me. I just really wanted help.
(Participant 11, age 21) ***

That's why I accepted because even if I had received wrong results [testing positive], I knew I would be helped, and the baby. (Participant 9, age 28)

Partner notification experiences

Among the 13 women who told their partners about the STI results, three had recently separated from their partners and the remainder were still with the partner who they had been with for one year or longer at the time of notification. In notifying their partners, most women told them in person, without much delay from time of diagnosis and were straightforward in sharing the news. All but a few women reported using the contact slip to help inform their partners about the STI results.

I told him that "Mr. I was told that we have STI's." ... And again I showed him the clinic card, because you had marked it somewhere.
(Participant 1, age 24) ***

Yes. I didn't go around in circles, I got in and said, I was in [the clinic] and there were people testing for sexually transmitted diseases so I also ten

[this news is] sensitive and can't be said over the phone." (Participant 7, age 33) One person shared the results through an image of her medical record on Whatsapp.

Reasons for telling partners were generally multi-faceted and included wanting to protect the partner's health, prevent reinfection, and not wanting to keep a secret from the partner.

Because we are together, we sleep together. So obviously, what I have I must share with him. So that if he also needs help he may get it. (Participant 4, age 33)

One woman said that counselling provided in the clinic encouraged her to ensure that her partner was treated.

The advice that [clinic staff] gave me is the one that gave me that courage to tell them. [They] told me it's safe to get treated for that and my boyfriend to get treated...Because there will be no point of me getting treated and him not. (Participant 11, age 21)

The two women who did not notify their partners were no longer in a relationship with the baby's father at the time that they received the STI results. One

woman, who was no longer together with the baby's father reported, "it was just laziness," (Participant 10, age 32) that prevented her ex-partner from seeking care. Several women reported that their partners may not have been treated if the treatment was injection. Several women reported having problems getting the partner treated when they didn't have the contact slip. One partner was confused about what to say when he arrived at the clinic without a contact slip.

He told me that, when he gets to the hospital what should he say. And I told him "no when you get to the hospital, there's no evidence that I can give you, when you get to the hospital you tell them my partner was tested and she was found with STI's." (Participant 5, age 35)

Many women explained that it's difficult to get male sex partners to access health care even for HIV testing. For example, five of 15 women in our sample, including three women living with HIV, did not know their partners' HIV infection status, and reported that their partners were likely "testing through me." Several women mentioned that their partner was unwilling to get tested because he could check his status when she got tested.

Yes, because when I said go and test, I tested myself, he asked me "are you ok" and I said "I'm fine" then he said "yes that means I'm fine." Do you see the issue? (Participant 12, age 25) ***

He is very difficult when it comes to testing. When I go and test and then show him he believes he is also ok. (Participant 5, age 35)

Among treated partners, half of the women accompanied them to the clinic. When partners went to the clinic on their own, some participants had doubts that they were treated.

I'll just have to believe I can't dispute it. [Interviewer: He hasn't shown you his card or anything?] No, he hasn't shown me. (Participant 9, age 28)

While most women were cured when tested approximately 4 weeks after STI diagnosis and treatment, three women retested positive for CT at the first test of cure. One of these women did not notify her partner after the first diagnosis and had sex without a condom. Thereafter, she notified him, he was treated, and her second test of cure was negative. Similarly,

the remaining two women's partners were treated only after the first test of cure was positive, and in both cases clinic staff called to encourage the partners to seek treatment.

Preferences for notifying partners in the future

Participants were asked questions about how they might want to notify a partner in the future and different options were described to them. When asked, in general, how they would prefer to notify partners in the future, most women preferred to tell their partner themselves in person and generally thought the way they told him went well. Only the woman whose partner was angry with her upon notification preferred to have a healthcare provider notify.

Me as a woman, I can tell him. If it's a problem and he can't understand, that's when I can take him to you [clinic staff] so you explain what we are talking about. (Participant 6, age 31)

We also asked how women preferred that partners get treatment, and described possible options, which included: bringing treatment home to partners (e.g. women would bring information and treatment home for their partners to take prior to him being examined by a healthcare provider), have partners go to the clinic alone (with probing questions on whether a contact slip was sufficient or if a provider should call), or accompany partners to the clinic. Most participants said that they would like to accompany their partners to the clinic for treatment because many said that otherwise he may not go.

But if you give me the paper [contact slip] I'm going to need to go with him because if I don't he won't

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We assessed pregnant women's experiences and prefer-

partner notification (3 days, range 0–17) [31]. Such strategies could help address the concern expressed by many of our participants that they would not be able to answer all of their partners' questions.

Participants in our study were unwilling or unable to notify previous partners about an STI diagnosis, which is a finding similar to previous research in Southern Africa [23, 24]. While women are not at risk of reinfection from ex-partners, not notifying a likely STI case may represent a missed opportunity to reduce infections in the community. Studies have estimated that 70–80% of partners of index cases with NG are infected and 60–70% of partners of index cases with CT are infected [32, 33].

In circumstances where women are unable or unwilling to notify their former partners themselves, it may be possible for electronic communication technologies to play a role, such as SMS, or web-based notification. Although little research has taken place in sub-Saharan Africa, there is growing research on the acceptability and utilization of these technologies for STI notification [34]. Further, many participants expressed concerns that their partners may have other casual sex partners who could potentially also be reached

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In conclusion, the aim of our study was to gain a more detailed understanding about the experiences and preferences of pregnant women related to notifying partners about an STI in a setting with a high antenatal HIV prevalence. The integration of STI, HIV, and antenatal care services may have contributed to most women's willingness to notify partners. However, logistical barriers to partner treatment remained. In order to improve rates of partner notification and treatment, reduce rates of re-infection during pregnancy, and subsequently reduce adverse maternal and infant outcomes due to antenatal STIs; more research is needed to identify effective and appropriate strategies for partner treatment.

A French translation of this article has been included as [Additional file 1](#).

A Portuguese translation of the abstract has been included as [Additional file 2](#).

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| A | 1: Translation of this article into French. (PDF 303 kb) |
| A | 2: Translation of the abstract of this article into Portuguese. (PDF 376 kb) |

Abbreviations

APT: Accelerated partner treatment; COREQ: Consolidated criteria for reporting qualitative research; CT: Chlamydia trachomatis; HIV: Human immunodeficiency virus; IPV: Intimate partner violence; NG: Neisseria gonorrhoeae; STI: Sexually transmitted infections; TV: Trichomonas vaginalis; UNAIDS: Joint United Nations Programme on HIV/AIDS; USD: United States dollar; WHO: World Health Organization

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