

The influence of antiretroviral treatment on willingness to test: a qualitative study in rural KwaZulu-Natal, South Africa

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Previous quantitative studies suggest a mutually reinforcing relationship between HIV counselling and testing (HCT) and antiretroviral treatment (ART). HCT is the entry into ART, and access to ART appears to increase HIV-testing uptake in settings with historically low uptake. Adopting a qualitative approach, this study examined the influence of ART on willingness to test for HIV, in a rural community in South Africa. Ninety-six in-depth interviews from a large community-based HIV-prevention trial were analysed. The data provide insight into the community members' views, perceptions and experiences regarding ART, and how they draw on these in making decisions about HIV testing. Several key factors that supported a positive relationship between ART and HIV testing were noted. These included the beliefs that ART brings hope and that it prolongs life; the powerful positive effect of witnessing the recovery of someone on treatment; and that ART encourages early HIV-testing behaviour. A few negative factors that could potentially weaken the effects of this positive relationship between ART and HCT uptake were the disclosure difficulties experienced by those enrolled in treatment, beliefs that ART does not cure HIV disease, and the travel distance to testing and treatment facilities from where people live and work. HIV/AIDS-service providers and programme planners should actively draw on these observations, to encourage increased HIV testing in communities and to ensure that the maximum number of people get the HIV treatment and care services that they require.

Keywords: accessibility, ART, attitudes, baseline surveys, community-based programmes, HIV/AIDS, HIV testing, qualitative research, treatment issues, utilisation patterns

Introduction

The increased affordability and availability of antiretroviral treatment (ART), particularly in many parts of sub-Saharan Africa where the burden of HIV infection and disease is most widely felt, is viewed as a significant step in combating the epidemic (De Cock, Mbori-Ngacha & Marum, 2002; Asante, 2007; Bhagwanjee, Peterson, Akintola & George, 2008; Nyanzi-Wakholi, Lara, Watera, Munderi, Gilks & Grosskurth, 2009). ART has also brought new hope to persons living with HIV or AIDS (Bharath-Kumar, Becker-Benton, Lettenmaier, Fehringer & Bertrand, 2009) by significantly improving the quality of life of people living with the disease (Nuwaha, Kabatesi, Muganwa & Whalen, 2002) and challenging the perception that HIV infection is imminently fatal (Bouille, Hilderbrand, Menten, Coetzee, Ford, Matthys *et al.*, 2008). It has also been suggested that treatment uptake could positively impact stigma. If more people on treatment disclosed their HIV status, for example, this could result in greater acceptance of people living with HIV or AIDS (Bouille *et al.*, 2008; Nyanzi-Wakholi *et al.*, 2009). Contrary to this, some authors show that ART could result in a reduction of self-stigma and a possible normalisation of HIV infection, but that this could be counterbalanced by the persistent

blaming and stigmatising attitudes of people living with HIV or AIDS, which in turn may impact HIV prevention, testing and disclosure (Roura, Urassa, Busza, Mbata, Wringe & Zaba, 2009; Agnarson, Masanja, Ekström, Eriksen, Tomson & Thorson, 2010). ART also has HIV-prevention benefits in that it lowers the viral load and decreases the infectivity of infected persons (McClelland & Baeten, 2006).

Realising the benefit of treatment requires another, equally important health behaviour, however — that of taking an HIV test, and following up with a CD4 cell count. Only once people have been tested and know their HIV and wellness status can referral be made to available treatment, care and support services (Day, Miyamura, Grant, Leeuw, Munsamy, Baggaley & Churchyard, 2003; Strode, Van Rooyen, Heywood & Abdool Karim, 2005; Hutchinson & Mahlalela, 2006; Morin, Khumalo-Sakutukwa, Charlebois, Routh, Fritz, Lane *et al.*, 2006; Kawichai, Celentano, Chariyalertsak, Visrutaratna, Short, Raungyuttikarn *et al.*, 2007; Matovu & Makumbi, 2007; Bhagwanjee *et al.*, 2008; Wanyenze, Nawawu, Namale, Mayanja, Bunnell, Abang *et al.*, 2008; Wringe, Isingo, Urassa, Maiseli, Manyalla, Chagalucha *et al.*, 2008). Surveys conducted in sub-Saharan Africa indicate that on average only 12% of men and 10% of women in the general population have been tested for HIV and know their

results (World Health Organization, UNAIDS & UNICEF, 2007). While there has been an increase in the number of people who are aware of their HIV status in South Africa — from 11.9% in 2005 to 24.7% in 2008 (Shisana, Rehle, Simbayi, Zuma, Jooste, Pillay-Van Wyk *et al.*, 2008) — far too many people do not know their HIV status.

Using primarily quantitative surveys, previous studies suggest a mutually reinforcing relationship between HIV counselling and testing (HCT) and ART, whereby access to ART appears to increase HIV-testing uptake where it has been historically low, such as in many parts of sub-Saharan Africa (Nuwaha *et al.*, 2002; Day *et al.*, 2003; Haidula, Holland, Kenyon, Musheko, Van der Veen & Bussell, 2004; Hutchinson & Mahlalela, 2006; Warwick, 2006; Kawichai *et al.*, 2007; Cockcroft, Anderson, Milne, Mokoena & Masisi, 2007; Matovu & Makumbi, 2007; Bhagwanjee *et al.*, 2008; Wringe *et al.*, 2008). Botswana had a five-fold increase in the number of HIV tests performed once treatment became available (Warwick, 2006). Similarly, Namibia reported a 41% increase in HCT following the introduction of ART, including a greater influx of symptomatic clients — especially males — who had not previously known they were HIV-positive (Haidula *et al.*, 2004).

In a study to understand the factors influencing people's decisions to participate in HCT (Nuwaha *et al.*, 2002), Ugandan researchers concluded there is a need to link HCT with treatment and care services — especially ART — since most participants chose to test because of perceived AIDS-related symptoms (Nuwaha *et al.*, 2002). In South Africa, Day *et al.* (2003) investigated the attitudes of goldmine workers towards HCT, including whether the availability of ART would encourage testing for HIV. Participants in the study expected that wider ART availability could swing the balance in favour of greater uptake of HCT services in their context.

Notably, researchers have demonstrated that as ART became increasingly available in sub-Saharan Africa, the accessibility of HCT services expanded in innovative ways (Matovu & Makumbi, 2007). In a study conducted in South Africa, researchers highlighted that HIV-testing facilities and programmes that provided a continuum of care and support (e.g. community mobilisation, home-based care, support groups, psychological programmes, counselling, and hospice) had rapidly expanded together with rapid-testing capacities (Hutchinson & Mahlalela, 2006). While there is a potentially positive relationship between ART and HIV-testing uptake, the increased availability of voluntary counselling and testing for HIV (VCT) services in many countries may have also contributed to testing optimism and increased uptake in these contexts (Hutchinson & Mahlalela, 2006).

While the literature points to a strong relationship between ART accessibility and increased uptake of HIV testing, much more needs to be understood about how people weigh various factors — such as ART availability — in their decisions to test for HIV. In this article, we analyse in-depth qualitative interview data from a rural South African site participating in the National Institute of Mental Health (NIMH) Project Accept (HPTN 043) HIV-prevention trial, to better understand individual and community-level

perceptions about ART and how these may influence uptake of HIV testing in a high-HIV-prevalence community where stigma and discrimination have been rife.

Methods

The study

The National Institute of Mental Health (NIMH) Project Accept (HPTN 043) is a community randomised trial designed to measure the effectiveness of a community-based model of VCT. In the study, 48 communities in Zimbabwe, Tanzania, South Africa (two sites: rural KwaZulu-Natal and Soweto) and Thailand have been randomised to either an intervention or a control arm. Matched community pairs in each site were randomised to receive standard clinic-based VCT services or else standard VCT plus an enhanced community-based voluntary counselling and testing (CBVCT) intervention. The CBVCT intervention consists of community mobilisation activities, mobile VCT services, post-HIV-test support services and an enhanced quality-assurance model, all in an effort to rapidly increase the number of people who know their HIV status (see Genberg, Kulich, Kawichai, Modiba, Chingono, Kilonzo *et al.*, 2008; Khumalo-Sakutukwa, Morin, Fritz, Charlebois, Van Rooyen, Chingono *et al.*, 2008; Maman, Abler, Parker, Lane, Chirowodza, Ntrogwisangu *et al.*, 2009). An enhanced quality-assurance model was used to evaluate the quality of counselling; it comprised observation and periodic recording and reviewing of counselling sessions, and reviewing and discussing counsellors' notes about the sessions. The qualitative component of the trial is designed to provide insight on changes in secondary study outcomes, including HIV-risk behaviours, HIV stigma, HIV-testing behaviours and HIV-related discussions.

Site description

Vulindlela is a sub-district in KwaZulu-Natal Province, situated about 150 km west of Durban, with a total population of approximately 500 000 people. All eight study communities of between 6 000–10 000 people each had relatively equal access to either fixed or mobile VCT services. At the start of the project in 2005, ART was not yet available. A few years later, ART was increasingly available at the level of the sub-district through three primary health-care clinics situated in close proximity to the study communities, in addition to nearby tertiary hospital facilities.

Procedures

In addition to a baseline behavioural survey, a qualitative cohort was recruited and followed up four times throughout the study period: at baseline, and at 6 months, 15 months and 30 months post-intervention. The data were collected through semi-structured interviews with a sample of community members who had been randomly selected for a baseline survey. To be eligible for the qualitative interviews, the participants had to be between 18 and 32 years old, currently residing in Vulindlela, and planning to remain a resident for the next 2–3 years. To select participants, we stratified the baseline survey sample by gender, age (i.e. younger participants aged 18–24, and older participants

aged 25–32), and partner status (single or coupled). We randomly selected two to three participants per category in each of the communities.

A standardised semi-structured qualitative interview guide was developed for all sites. The interview guides were pre-tested at the five sites participating in this study. The feedback from all sites was reviewed and incorporated by a central qualitative assessment committee, and a final standardised interview guide was distributed to the sites for use. Trained interviewers conducted 30- to 60-minute in-depth interviews in the participants' homes. The interview guide comprised questions on the role played by the availability of ART in HIV-testing decisions. At the level of the individual we asked directly whether the availability of ART played or would play a role in a person's decision to get tested for HIV. To establish community-level views on the topic, we explored whether or not the participants thought that the availability of ART influenced community members' decisions to get tested for HIV or not.

We selected the six-month data set, collected during March to October 2007, for analysis here, as this was the period during which ART rollout began in South Africa and in KwaZulu-Natal Province.

Data processing and analysis

The interviews were conducted in Zulu and later transcribed and translated into English. Topical or descriptive coding (Miles & Huberman, 1994) was systematically applied to all transcripts using the standardised coding manual developed by the multi-site study team with the aid of ATLAS.ti software. We extracted broad topical codes for use here (i.e. general knowledge and awareness of ART and HIV-testing discussions). We used ATLAS.ti to develop memos on these codes, including views and extracts from the 96 participants interviewed. Subsequently, we developed interpretive codes to identify and analyse additional themes that emerged within the topically coded data. In doing this, we noted similarities and differences in the stories about treatment and testing across the individual and community levels. These themes were either positive factors that explained the relationships between ART and HCT or factors that potentially undermined the positive relationship between ART and HCT.

The study received ethical clearance from the institutional review boards of the University of the Witwatersrand (Johannesburg) and the University of California (Los Angeles).

Results

A total of 96 participants were recruited for the six-month post-intervention interviews. Of the total sample, 52 participants (54%) had tested for HIV and 44 (46%) had not previously tested for HIV (Table 1).

In analysing the data, we identified several key factors supporting a positive relationship between ART and HIV testing. Many participants expressed strong positive views about the facilitative role that ART played at both an individual and community level in encouraging HIV testing: participants thought that ART availability and accessibility

brought hope, had the potential to prolong life, had a powerful positive effect as a result of seeing others recover, and encouraged early HIV-testing behaviour.

Treatment brings hope: 'My life will go on — it's not finished'

The majority of the participants felt that treatment brings a sense of hope to someone diagnosed with HIV. A tester explained how this works:

'Because it is also encouraging me that even if it's said that I...I do have this disease, it means there is a way that is able to assist me in that I will be able to...my life will go on. It's not finished, because those drugs, it means they are able to help in that life moves forward' (single male tester, age group 25–32, intervention community).

The fact that treatment made being HIV-infected a more manageable condition gave a sense of hope to community members. According to a non-tester:

'Eh, according to my thinking then, in that really, really what causes [testing] is that people go and test because it encourages them a lot, because it gives them hope for them to know that eh, actually HIV can still be controlled instead of it being like a disease that just kills people' (single male non-tester, age group 25–32, intervention community).

Prolonging life: 'ARVs...can make your life to continue'

The participants explained that the availability of treatment encouraged early HIV testing, and testing and treatment combined to prolong the lives of people who were infected. Talking about his personal views regarding this, a non-tester said:

'Because a person knows that, okay, if I ever find out that I have it, here is this thing [ART], it's going to help me, yes, it's going to be able to help me. Because if it's not there, it could be worse.'
Interviewer: What makes you to think that it can be worse? *'Because actually people...you know that even if I do test...I won't get something [ARVs] to*

Table 1: Demographics of the sample at the time of the six-month post-intervention interviews (n = 96)

Characteristics of the sample	n	%
Gender:		
Females	49	49
Males	47	51
Age:		
Younger (ages 18–24)	47	49
Older (ages 25–32)	49	51
Couple status:		
Single	48	50
Coupled	48	50
HIV-test history:		
Tester	52	54
Non-tester	44	46
Community type:		
With intervention	48	50
Control (without intervention)	48	50

help so that I can survive. You already know that, okay, I know that if I go and test and find out that, oh, I already have it [I'm HIV infected], I then go and collect the tablets only and just swallow them and just try to prolong life' (coupled male non-tester, age group 25–32, comparison community).

The availability of ART motivated community members to test, as many believed that ART suppresses the virus while enabling someone diagnosed with HIV to live longer. The quotes below from two non-testers illustrate how ART encouraged HIV testing in the community:

'Eh. Yes, really the way I look at it, they [community members] must be encouraged, because if you know that, okay, you find that you must now start taking the ARVs, you see you can make your life to continue' (single male non-tester, age group 18–24, comparison community).

'Yes, they [community members] can be able to go and test because now they have told themselves that a person, when they test and find that they have it, you see, you are still able to say, okay, get this thing that will be able to neutralise this thing inside.... You find that even there if you get to neutralise, that is where you get something that will make you live for long, you understand, that thing, having to live with pains most of the time will distance itself from you. You understand that thing... and also with regaining your weight, but only if you commit yourself into saying — This is where I am and that's where I'll stand' (coupled male non-tester, age group 18–24, comparison community).

Testing early is beneficial: 'Test early and find out... then receive care'

At both the individual and community levels, the participants felt that testing for HIV early enabled one to realise the full benefits of treatment: taking treatment early meant that it could be effectively used to help the body fight HIV disease. According to one participant, this motivated her to test:

'Yes. Because if you test early and find out that you are sick, you receive care. The tablets are able to help you. Uhum...after a person had taken the tablets, they recover. So you will see a person so and so is recovering. Let me go and test, I do not know. You see that thing and get motivated' (single female tester, age group 25–32, intervention community).

Thus the transformative capacities of ART to restore critically infected people to vibrant normalcy — the Lazarus syndrome (see Demmer, 2000) — acted as a strong motivator for HIV testing.

Bearing witness to treatment recovery: 'They are just well, just like all people and they are fresh'

The participants reported that personally knowing someone living with HIV and seeing them recover because of treatment was a powerful motivator in encouraging HIV testing, and it also gave hope. One tester explained:

'Yes. Yes, it does play a role because I sometimes just see...there is a person that I am mentioning that

I know who takes them [ARVs]; they are just well, just like all people, and they are fresh [very healthy]. You will not tell that they have AIDS. Because they take ARVs, and then those who do not take them they can just be noticed anyway that they are sick' (coupled female tester, age group 18–24, intervention community).

A similar effect was noticed at the community level. The participants felt that when others witnessed someone in the community receiving ART and recovering from being bedridden, it motivated them to get tested:

'They were telling me that there was one girl...the thing that made them to test. There was a girl whom she was a friend with, she was healthy and plump, but one day she saw her very ill, bedridden, sick to death. She said that — No, I am suffering from AIDS. ...She says she visited her after six months or a year, I cannot recall. Oh, I remember she said that she bumped into the lady in town. She could not recognise her, the lady called to her and she said — Hhawu, can you see me now? She responded and said — No it's been a long time since I met you... who are you? She told her and she said — Hhawu, this is you! Having just gained weight, just okay, being herself, she said — My friend, ARVs helped me. She said I am also going for a test. She tested that way' (single female tester, age group 18–24, intervention community).

While the participants generally confirmed a positive relationship between treatment availability and HIV testing in this rural area, some participants pointed to several factors that could limit the positive relationship between HIV treatment and HCT in this context. These included disclosure difficulties faced by HIV-positive people on treatment, the perception that ART does not cure HIV infection, and the physical distances to testing and treatment facilities.

Treatment disclosure difficulties: 'Those that are taking them hide that...'

While treatment played an important role in encouraging communities to test, some participants felt that this positive impact could be magnified if more HIV-positive people on treatment disclosed their status to others. A non-tester said:

'Yes, if maybe those who are taking them [ARVs] can disclose. If a person can say, as you can just see me I down them and I just do not have a problem. Even those who have not tested can be encouraged that if they can just test and be like so and so, what will I have? Now what is a problem is that even those that are taking them [ARVs] hide that, and I am going to be one of them' (coupled female non-tester, age group 25–32, intervention community).

As expressed by this participant, if people disclosed that they are on treatment — instead of feeling ashamed about it — it could help to normalise HIV and AIDS. Of significance is that while this participant felt that others on treatment should disclose, she acknowledged that should she be in the same situation, she would likely hide the fact that she was on treatment.

By taking ART openly, one is inadvertently disclosing one's HIV-positive status and laying oneself bare to be talked about in the community. According to some participants in this study, community members who were sick and frail and seen to be taking treatment were often the focus of community gossip about their condition. This kind of community response to people on treatment could discourage rather than encourage people to test and access treatment and care services:

'Some people don't like ARVs because their HIV status will get disclosed as they will be seen by people taking this type of treatment. Meaning if you take them...you need to hide so that people don't see you.' Interviewer: So people don't like ARV's? *'Yes they don't like them because they increase the chances of getting disclosed from their status. You don't have another option but to take ARV's. You must take them but hide it. Don't show people. I can hide them because if someone enters my room and finds them he will spread the news to the rest of the community that I am taking ARVs, meaning I've got HIV. I will not want them to know that I am HIV-positive. Even if I was going to survive with the treatment, but if they know, I will be more stressed and will get sicker'* (coupled female tester, age group 18–24, intervention community).

Antiretroviral treatment is not a cure: 'Because they don't end the disease, people don't get encouraged'

Contrary to the predominant view that ART gives hope and makes HIV and AIDS a more manageable condition, some participants stressed ART does not heal HIV disease completely but merely suppresses it. Consequently, they felt that people would be more likely to test if ART cured HIV infection completely:

'Yes, maybe if they were healing it completely, maybe people would be encouraged [to test]. Yes, to go and check; now because they don't end the disease, people don't get encouraged because of that. I mean people will be encouraged a lot once the cure to finish it off completely' (single male non-tester, age group 25–32, comparison community).

Proximity of testing and treatment services: 'Hospitals are regarded as distant places...just like these clinics'

The fact that HIV treatment was only available at secondary or tertiary hospitals, and hence some distance from where people worked and lived, discouraged rather than encouraged people to test for HIV. The participants felt that if treatment services could be provided through primary healthcare clinics situated much closer to where people live, than through a few hospitals far away, it would encourage people in the community to test:

'Yes, in fact it can prompt them to go. Hum, if they are still available in places like the hospital. The hospitals are regarded as distant places...just like these clinics. And also in the caravans, maybe, if you have just been tested you [and] are given them. You see.' Interviewer: Can that prompt people to

test? *'Yes, indeed'* (single male tester, age group 25–32, intervention community).

Discussion

Using a qualitative approach, we explored how the rollout of ART in 2007 in a rural South African community with high HIV prevalence and attendant HIV stigma and discrimination influenced people's decisions to test for HIV. We were encouraged by some of the findings that emerged.

The data show that people appeared generally well-informed about the need to test for HIV early in order to maximise the benefits of ART. This is corroborated by the study conducted by our Soweto colleagues in Project Accept who found that men and women who had heard of ART in their urban context had higher odds of VCT uptake and were more likely to participate in repeat HIV testing (Venkatesh, Madiba, De Bruyn, Lurie, Coates & Gray, 2011). This knowledge — which is important for HIV-prevention and treatment programmes — needs to be capitalised on and reinforced by service providers as the treatment programme continues.

Equally affirming was the strong positive, motivating and hope-inducing role that ART played in encouraging individuals and communities to test for HIV. This (and other) beliefs were shared by both testers and non-testers: by those who have acted on the health decision to test for HIV, and by those who have yet to do so. As treatment rollout coincided with the scaling up of HCT services in South Africa, it is impossible to conclude if the availability of treatment alone contributed to these positive views and attitudes expressed about HIV testing (cf. Hutchinson & Mahlaele, 2006). But, in the extracts here, the participants point to the important role that treatment plays in encouraging HIV testing in contexts where universal treatment was previously denied to the majority of the population. Programme planners and service providers working in HIV-testing and treatment settings should actively draw on these messages of hope, based on the observations and conclusions of ordinary people, to encourage increased testing in the community, and to ensure that the maximum number of people get the treatment and care services that they require.

An additional finding that emerged was the potential for universal treatment uptake to both positively and negatively impact stigma and discrimination in a context of high HIV prevalence like rural KwaZulu-Natal (Bouille *et al.*, 2008; Nyanzi-Wakholi *et al.*, 2009). Our data pointed to two facets of the role of HIV treatment in stigma reduction. We saw the positive aspect of this through the restoration to health of numerous community members who were expected to die from AIDS ('the Lazarus syndrome': see Demmer, 2000).

As shown in a qualitative study in Tanzania, which investigated the dynamics between HIV stigma, ART provision and VCT uptake, treatment can result in the normalisation of HIV disease and could encourage VCT uptake (Roura *et al.*, 2009). Many participants in this study commented that personally knowing and seeing someone with HIV or AIDS recovering through treatment — that is, having living testimonies of this — was a powerful incentive for others to learn their own HIV status since treatment brought hope and

promise for a prolonged and continued life following an HIV diagnosis. The Project Accept intervention is informed by the premise that personal, living testimonies regarding HIV testing will increase the motivation for others to test, and may also reduce social isolation, stigma and fear in study communities (Genberg *et al.*, 2008; Khumalo-Sakutukwa *et al.*, 2008; Maman *et al.*, 2009). Our findings suggest that these personal testimonies regarding treatment may act in a similar way to create more supportive community contexts that could significantly alter perceptions about HIV and AIDS and those living with HIV, and thus support stigma-reduction efforts in the community.

Some studies caution that the potential normalisation of HIV disease as a result of widespread treatment could be undermined by persistent blaming and anticipated stigma at a community level, which may impact on HIV prevention, testing and disclosure (Roura *et al.*, 2009; Agnarson *et al.*, 2010). Our data revealed the potential for knowledge about others' treatment to fuel rather than reduce discriminatory behaviour towards PLHIV. Taking treatment is a visible act both within the confines of one's home and also beyond the boundaries of it — as the private actions of pill-taking are often publicly dissected and gossiped about in communities. Other studies show associations between anticipated stigma and non-disclosure, noting that barriers to disclosure persist despite antiretroviral availability (Wolfe, Weiser, Bangsberg, Thior, Makhema, Dickinson *et al.*, 2006). Our participants felt that more deliberate disclosure by those on treatment could have potentially greater and far-reaching impacts in encouraging others to test, and would help to normalise HIV, testing, and treatment. Being on treatment and non-disclosure has been linked to: increased sexual activity among ART users as their health improves, increased HIV-risk behaviour, lower medication adherence and treatment failure (Roura *et al.*, 2009). Disclosure of HIV status (and we would add treatment disclosure) is critical to both treatment and prevention efforts. Lay counsellors and adherence counsellors need to assist, support and encourage disclosure within the family, to begin with, and then beyond, to create ever-expanding zones of protection and safety to address and challenge community gossip and stigma.

Finally, the data signal the important role that health systems and facilities play in ensuring successful expansion of HIV treatment. At the time of data collection in 2007, ART rollout in South Africa was at an early stage. The optimism and hope that came with the advent of ART in this context was very high. But some participants noted that the travel distance to the treatment services was a potential barrier to treatment uptake. To encourage greater HIV testing and expanded treatment uptake, services need to be closer to where people live and work.

The study has limitations. The questions asked in this qualitative study operated at two levels — asking individuals directly about the relationship between ART availability and their HIV-testing decisions and motivations. But it was only with continual rephrasing and negotiation through shared understanding that the participants came to understand and respond to the questions explicitly. Significantly, it was when we asked the individuals about their perceptions of *others'* views on ART and HIV testing that their responses were

most forthcoming. This greater ease in giving third-person views on the affect of ART on HIV testing may point to the high levels of stigma that existed in the community at the time of the study.

As this study only used young people aged 18–32 years, our findings reflect the views of this particular age group in the community and may not necessarily reflect the experiences and perceptions of older people. Lastly, we cannot rule out the influence of traditional medicine on people's willingness to test for HIV, as this study was conducted in rural communities where the use of traditional medicine is common. The participants made frequent references to traditional healing in relation to ART availability and HIV testing. This influenced their perceptions about ART availability as they sometimes spoke about traditional medicines and their role in the prevention, treatment and cure of HIV or AIDS.

Conclusions

This study confirms that there is a mutually reinforcing relationship between HCT and ART. It provides evidence that ART availability and accessibility have the potential to significantly impact on HIV-testing uptake — especially in a rural community with high HIV prevalence, where stigma and discrimination have been widespread and HIV-testing uptake has been historically low. In addition to confirming a mutually reinforcing relationship between ART and HIV testing, this qualitative study provides insight into community members' views, perceptions/meanings and experiences of ART, and how people draw on these in making decisions about testing for HIV. HIV/AIDS-service providers and programme planners should actively draw on these observations and conclusions made by ordinary people, to encourage increased HIV testing in communities and to ensure that the maximum number of people get the treatment and care services that they require.

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