

**STRATEGIC ASSESSMENT TO DEFINE A
COMPREHENSIVE RESPONSE TO
HIV IN IRINGA, TANZANIA**

**RESEARCH BRIEF
HIV TESTING AND COUNSELING**

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INTRODUCTION

The Iringa region of Tanzania has among the highest rates of HIV in the country at 9.1% prevalence in the general population (Tanzania Commission for AIDS [TACAIDS], 2013). The reasons behind this elevated HIV prevalence are not fully understood, and the response to HIV in Iringa has thus far been insufficient to match the need. The Iringa strategic assessment was designed to inform the development of comprehensive HIV prevention interventions that respond to key factors linked to HIV-related risk in Iringa, Tanzania. The strategic assessment synthesized existing data; conducted additional analyses of representative population-based data from the Tanzania HIV/AIDS and Malaria Indicator Survey; and conducted a large number of qualitative interviews and focus groups with key informants, service delivery providers and clients, and people at heightened risk of HIV in Iringa. Together, these findings provide a better understanding of the reasons behind the high HIV prevalence in the region and help to identify and tailor an appropriate set of interventions to address it. In this brief, we present qualitative findings related to HIV testing and counseling in Iringa.

HIV testing and counseling (HTC) refers comprehensively to the process of pretest counseling, risk-behavior assessment, informed consent, HIV testing, and individually-tailored post-test risk reduction counseling (USAID, 2010). Beyond helping millions of people learn their HIV status (WHO, 2011), HTC has resulted in reduction of behaviors associated with heightened risk of HIV transmission in various low- and middle- income countries (Denison et al., 2008; Fonner et al., 2012; Kennedy et al., 2012). Additionally, HTC serves as a key entry point to HIV care and treatment services, including antiretroviral therapy (ART). Recent evidence suggests that early treatment with antiretroviral drugs can reduce HIV transmission by up to 96% among serodiscordant couples (Cohen et al., 2011), strengthening the importance of earlier diagnosis through HTC.

Despite the recognized importance of HTC, UNAIDS estimates that more than 60% of HIV-infected individuals worldwide are unaware of their HIV status (UNAIDS, 2008). Further, among those individuals who *do* undergo HTC globally, there is a cascade of patient losses through the testing and counseling stages. For example, many of those who receive positive HIV test results never return for the results of their initial CD4 count (Rosen & Fox, 2011).

In Tanzania, levels of HTC are generally low. In the most recent national survey, only 62% of women and 47% of men in Tanzania have been tested and received their results at some point in their lifetime (TACAIDS, 2013). In the year preceding the survey, 30% of women and 26.5% of men in the overall adult population had been tested for HIV and received results (TACAIDS, 2013). In Iringa, lifetime prevalence of ever testing and receiving results for HIV was 68.6% among women (26% in the past year) and 52.7% among men (28.2% in the past year). Despite these low rates of HTC in the region, 98.5% of women and 92.6% of men said they knew where they could get an HIV test performed (TACAIDS, 2013). These results suggest that research is needed to better understand the barriers preventing widespread utilization of HTC services in Iringa.

In this brief, we discuss knowledge, motivators, barriers, and experiences of HTC in Iringa in order to inform the development of a comprehensive HIV prevention intervention.

METHODS

Between January and October, 2012, the Iringa strategic assessment conducted 123 interviews to gain a variety of perspectives on the proposed combination HIV prevention intervention components.

Interviews were conducted with a wide variety of community members, service delivery recipients, and key informants. This included 34 key informants (7 health care workers, 6 religious leaders, 9 non-governmental organization [NGO] workers, 6 government administrators, 2 village leaders, and 4 other individuals), 30 clients of HIV-related services (6 each from HIV testing and counseling, HIV treatment, male circumcision, prevention of mother-to-child transmission [PMTCT], and gender-based violence services), and 59 members of populations at heightened risk for HIV (10 sex workers, 10 truckers, 10 drug users, 9 men who have sex with men, and 20 plantation workers).

An interview guide was developed to cover certain key topic areas, though interviewers were encouraged to probe on responses to explore related topics and experiences. All interviews were conducted in Kiswahili or English, transcribed, and translated into English if necessary.

Qualitative data analysis was conducted through identification of recurrent patterns and themes in two ways. First, an early stage of qualitative data analysis was used to quickly synthesize broad patterns and themes from the data using regular debriefing sessions with interviewers. This discussion-based approach provided preliminary findings for rapid use and helped to facilitate an iterative process of data collection. Second, completed transcripts were analyzed following Crabtree and Miller's (1999) five steps in qualitative data analysis, or what they call the "interpretive process": (1) Describing, (2) Organizing, (3) Connecting, (4) Corroborating, and (5) Representing. Interview transcripts were read through to identify common themes, and codes were developed and applied to the text and organized using the computer software package Atlas.ti (version 5.2, Scientific Software Development GmbH, Eden Prairie, MN). Insights and connections made between themes were organized through written memos and discussion between study team members.

Ethical approval for this study was received from institutional review boards at Muhimbili University of Health and Allied Sciences, Johns Hopkins Bloomberg School of Public Health, and the Tanzania National Institute for Medical Research.

RESULTS

Five major themes related to HTC emerged in the context of the interviews: knowledge and awareness of HTC services, motivators to testing, barriers to testing, attitudes toward partner and couples testing, and experiences with disclosure. We present findings from these themes below.

Knowledge and awareness of HTC services

HTC procedure and significance

Overall, participants appeared to be fairly well informed about HTC procedures and the importance of knowing one's HIV status. The knowledge of HTC services expressed through in-depth interviews was typically based on the informant's personal testing experiences or their vicarious awareness of other people's HTC experiences. One participant reported the following regarding his HIV testing experiences:

I know that first you will be tested blood and you will be provided with results and they will ask you whether you are ready for the results and they will ask you about the way you are living at home, and I know that they will be asking me whether I have wife or am living alone because I've just gone on my own for the sake of my health and I will have to explain on my own. (Male drug user, 32 years)

Another participant explained her views on the importance of getting tested due to the benefits of early HIV treatment:

Personally, I think it is better to test. Once you know your status you take your medications and continue to live [...] Like my sister I used to live with at Kilombero, she had this disease [HIV]. Whenever her husband gave her money to go to the hospital, she didn't want it, until she got worse with ulcers around her mouth. That is when she went to test and was found to be HIV-positive. She only took about two doses of ARVs, but unfortunately she is now dead. So if you go test earlier you can live. (Female sex worker, 23 years)

Mobile populations such as truckers also seemed knowledgeable about the importance of HTC services and ART:

What I know about HIV testing is that most of the time we do hear from the radio and from the news. They usually announce that everyone should know his health so that he can live with hope [...] when you know about your health, if you are safe, you get courage of continuing to protect yourself, and if you are already infected you know how you will live then, and consider yourself as a normal person, and you may be given the principles of living so that you become a good human being [...] I think that is the benefit. (Male trucker, 32 years)

Availability of HTC services in Iringa

In addition to their familiarity with HTC, most participants reported awareness of where they could access these services in their community. As one plantation worker correctly noted:

If one wants to know his HIV status he should go to Msitu Dispensary here in Sao hill or to the District hospital in Mafinga. (Female plantation worker, 28 years)

Even when the HTC services were far away, or when the participants seemed unsure of the location, they still often mentioned a place where they thought HTC services could be available. One drug user said:

Frankly speaking, I don't know [where HTC services exist in Iringa] because I am not among the sick people, mmh, and I have never been closer to someone who is sick, so I don't know anything about HIV-related services here in Iringa. But I heard about UMATI – this is a place where they provide these HIV testing and counseling services maybe, and also at Ngome hospital. (Male drug user, 43 years)

However, some participants were not able to say where they could access HTC services if they chose to do so. This lack of awareness was common among truckers who are constantly moving between regions and borders and are typically not from Iringa. Nevertheless, even some truckers were able to name the district hospital or other HTC locations.

Motivators to testing

Participants reported many different factors that motivate themselves and other community members to seek HTC services. Motivators included individual factors (most frequently surrounding a major life event), community-level factors (such as education and mobilization), and structural factors (distance to services).

Individual factors: life events

In general, most participants who had tested for HIV expressed a positive attitude toward testing and were willing to cite motivating factors. On the individual level, many testing decisions coincided with a preparation for a life event, such as a new relationship, marriage, or pregnancy. One HTC client entering a new relationship reported:

[Interviewer: What made you or motivated you to test?] [...] It was because we saw that we don't know each other and that we wanted to know whether we are healthy or not. (Female HTC client, 27 years)

One plantation worker echoed this sentiment, saying:

I decided to test because I just wanted to know my health status. It is good since I want to get married. (Female Plantation Worker, 24 years)

One health care worker also indicated that most of her HTC clients are young people who are about to get married:

Young people are very aware of testing, because they don't just say [...] "I want to test so that I can know my health status" [...] but they specifically say [...] "I am expecting to marry so I want to know whether my health is good or not." (Female health care worker, 47 years)

A majority of the female participants who had tested for HIV said they were tested during visits to antenatal clinics (ANC) as a routine part of PMTCT services.

I have tested because of this pregnancy. Even if it was not this pregnancy, if I had any trouble I would test to find what's hurting me and what causes suffering in my body. When I was pregnant I came in to this safe place and what they explained to me, I saw it was right, it's just a normal thing. (Female PMTCT client, 29 years)

However, some female participants felt that HIV testing was presented as mandatory during ANC visits, and they were not given a chance to refuse. For example, one PMTCT client shared her experience of testing during an antenatal visit:

They asked me are you ready to test or are you not ready. I told them I am not ready, and they told me, "You are supposed to test!" Then I said ok and there were no more questions. (Female PMTCT client, 28 years)

Community factors: education and mobilization

Participants were also asked to think in terms of their community, and what factors would motivate the people around them to partake in HTC. On the community level, some participants suggested education about testing and mobilization for HTC services was the best way to increase service utilization. For example, one trucker said,

There is not any other way than sitting with the community members and continue educating them, because as you continue to educate them, most of them will get the intended education and you may find among 10 [people educated], 5 might be convinced [to test] [...] I think if we continue giving them education that will be helpful. (Male trucker, 33 years)

Structural factors: distance to services

Participants also spoke of structural factors, primarily distance, which facilitate the use of HTC services. One trucker, when asked what should be done to motivate people to go for HIV testing, expressed the importance of proximity:

You know, some hospitals are very far. If it is near like here, it will be very good. It will be easily accessible even for treatment. You see that place where my truck is parked? If it will be 10 kilometers away that will be very far. But if these services are just here, I

can just say let me go to test [...] I think it will be good and helpful if they will be here.
(Male trucker, 27 years)

Although long distances to testing facilities were identified as a barrier to HTC by some participants, others contrarily argued that it was preferable to visit HTC centers located further away. Visiting a center further away limits an individual's chance of being identified by someone at the HTC center, thereby reducing his or her risk of stigmatization:

[Interviewer: Maybe I would like to ask you, in your view why do you think a person from this place does not test and goes to test for HIV in another area?] That habit is for the person who is given the information that he is infected [with HIV]. He wants that when he is being given that information, there is no one who will know him. And then after that is when he will arrange himself to see where he shall take the service so that those who are surrounding him/her do not get any information concerning him. This will help him. (Male health care worker, 29 years)

Motivators to repeat testing

Some participants spoke of their own motivation, or the perceived motivation of others, to get tested for HIV more than once, generally to confirm their initial HIV test results. Some explained that during their first visit, they were advised to return for testing by HTC service providers after the window period. One of the gender-based violence service users explained:

I have a tradition of going to test every time. You go to test and they tell you come back after three months, so I did. I completed the first three turns. When I got pregnant, I was told to test again. (Female, 28 years)

Doubting the accuracy of HIV test results was also identified as a reason for getting re-tested. As one health care worker stated,

The biggest perpetuator in this is the fear of stigma in the communities, because one does not truly want to believe that he/she has HIV. Thinking of how the society and their spouse will take it, so one will repeat the test at other facilities thinking that it was done wrongly. I remember I once tested a certain mother and she went to test somewhere else then she came back to told me that she got the same results from the health facility she went. As you can see, that means she was not satisfied with what I told her. (Female health care worker, 49 years)

Another key informant from a different health facility made a similar claim about the motivators of repeat testing, stressing the financial burden this practice can place on the health system:

The problem is that [patients] have the tendency to get tested in more than one facility. What I am trying to say is in what ways can we maintain people to be tested in only one center instead of many centers, the important thing is to continue to emphasize them that, when you test someone and noticed that they are infected with HIV and tell that

person that he/she is infected with HIV even if he will go and test somewhere else he/she will still be HIV-positive the same as here, and it is not proper to test in several different centers because first it costs the government to buy those test kits for the facilities, its cost full. (Female health care worker, 29 years)

Interestingly, it appears that a small number of HIV-negative clients also re-tested because they wanted to test positive for HIV in order to qualify for economic assistance. The key informant quoted above went on to provide an example of a client who was upset after testing HIV-negative, and the reasons why she decided to re-test:

I tested one woman here when I told her that your results are negative she cried because she wanted to be HIV-positive. I let her cry then later on I told her, "Sorry mother, I wanted to know why did you cry?" And she said, "With my poor life I thought that if I had HIV infection I would have gone to ALAMANO and get some aid, but if I don't have HIV infection it means I'll not be able to get the aid. And I am not capable of finding food and basic needs for my children." You see? So they go to other places because they think that they will be provided with those things like uniforms, clothes, food. (Female health care worker, 29 years)

Another health care worker from a different health facility also confirmed this desire of some HTC clients to test positive in order to earn financial benefits:

There was also one time that I tested someone and found negative but asked me whether I did it correctly then decided to go to test somewhere else where was also found negative. This person got very frustrated because he knew that he will not get any loans since they are provided to people living with HIV only. As you see, others are very poor and they want to have HIV as an excuse to get financial loans. (Female health care worker, 49 years)

Barriers to testing

In interviewing health care providers, service users, and populations at heightened risk of HIV, participants reported on the barriers to seeking and accessing HTC services in Iringa. These barriers can also be categorized on as individual level factors (such as fear of testing or perceptions of invulnerability), interpersonal level factors (such as negative interactions with health care workers), and structural level factors (such as lack of materials or distance to facilities).

Individual factors: fear and perception of health

On the individual level, participants cited factors such as fear of discovering one's status and the perception of being healthy as barriers to seeking HTC services. Some participants expressed that their awareness of their own risk behaviors contributed to the fear of getting tested and discovering their status:

A large percent of [the reason people don't test for HIV] is fear, because they don't trust themselves on their risky behaviors. It is very difficult to just make a decision of going to test and know about their health status. (Male truck driver, 32 years)

During the interviews, participants were asked to share their thoughts on fellow community members' attitudes towards HTC services and their perceptions of the barriers and facilitators to using these services. The idea of fear of learning one's status was echoed in participants' perceptions of barriers to testing that affect others in their community, as this trucker explained:

They are afraid. Aaah, hearing that you are living with HIV is not good that is why have to ask you why you went to test and what you will do once found positive or when found negative, other may say they will start the treatment and others may commit suicide. (Male trucker, 32 years)

A similar idea of fear was expressed by another participant, who believed some people associate a seropositive status with death:

Mmh, I think its worries only, because they fear death. Because most of them have a view that if I am tested and found to be HIV-positive, they know that they will die. So many people are worried about death; many people are scared of going for voluntary testing. (Male drug user, 43 years)

Participants also expressed reluctance to test while still feeling healthy and appeared to perceive that being very ill was an indicator of HIV infection:

Right now I have not fell sick and I don't have that problem. I can't go because [...] I cannot just go to the hospital for a disease that I don't have. (Male drug user, 43 years)

Interpersonal factors

A few participants mentioned unprofessional behavior displayed by health care providers as discouragement for seeking services. This was specifically mentioned as a barrier for particular populations such as drug users:

Some of the workers who are providing these services [HTC] have no integrity, so they should be educated/trained that we are human beings too; do this and this so that we should be treated equally like others who are not using drugs when receiving testing services. (Male drug user, 43 years)

Structural factors

Even if they possessed the willingness to get tested, many participants cited structural factors as barriers to accessing HIV testing and receiving their results. Lack of HIV test kits at health facilities in and around Iringa was mentioned by both clients and health care workers. One PMTCT client at a health center recalled this personal experience:

When I became pregnant I became sick for a long time. In September when I came here to test for pregnancy they told me that there were no HIV test kits. They only tested me for pregnancy and sexually transmitted diseases. When I tested for sexually transmitted diseases, they told me I have none. They gave me an appointment and I came on November to test for HIV. (Female PMTCT client, 29 years)

In Iringa, dispensaries procure HIV test kits from the district hospital or nearby health centers, yet stock outs at dispensaries were common. A health care worker at a timber plantations dispensary explained: We expect the test kits from the district so we use and when they are finished we go to the district again and ask for more, if they still have them they give to us, for that case we provide the service daily [...] if they are finished we tell our clients that we don't have test kits and advise them to go to Mafinga or elsewhere with VCT [voluntary counseling and testing] facility to get tested. (Female health care worker, 47 years)

Other participants expressed concerns about the long travel, especially to get quality HTC services. One key informant stressed the long distance many clients must travel to attend quality HTC services, and the need for more mobile, accessible health facilities:

Many people suggest that these services should also reach to people who are living far away from these health centers. For example, they say that they don't get these good quality services at their local dispensaries, so they suggested that we should do some HIV testing campaign and outreach in the remote villages. I also think there is no need for a person to worry about distance travel and wait until he/she falls sick then decide to come to the health facilities to test for HIV. Or just someone has to travel all the way to come and check for his/her HIV status, so they want us to go to different places also. (Female health care worker, 49 years)

Some participants also mentioned the long waiting time to receive test results and the associated anxiety as one of the barriers to HTC services:

Once they have tested you then they will tell you to come back tomorrow because some doctors tends to hide your HIV test results, rather than telling me on the same day so as to remove my worries and the pains in my heart. Doing that they just create pain and worries. (Male drug user, 32 years)

Attitudes toward partners and couples testing

In addition to HTC knowledge, motivators, and barriers, participants offered opinions on partners and couples testing. Among these were thoughts about gender differences in testing attitudes, feelings about couples counseling and testing, and responses to a proposed program that anonymously suggests testing to the partners of a newly diagnosed client.

In general, there was a consensus that men's attitudes towards HTC services differ from those of women such that the burden of testing often falls on the female:

Since the past people use to complain that many men didn't want to go and test, they waits until his wife becomes pregnant. If the wife is found to be pregnant then he knows she will test for HIV, but when men are asked to do the same they refuse. (Female health care worker, 49 years)

Some participants felt that couples' counseling and testing may provide a means of bridging this gap. As one gender-based violence service user said of couples' counseling and testing:

Well it is a good thing, though still there is a poor response from men. Our husbands do not like to go test. To me it is a good thing because when you go together it feels better because you get the results together. I cannot say the same for my husband [...] but if I go alone I can hide the results from my husband, he won't know anything. (Female gender-based violence services client, 45 years)

There was some resistance to the idea of couples' counseling and testing, as responses indicated that some people rely on their partner's results as the best indicator of their own HIV status:

A person may say that [my wife's results] are the only test results I trust, without knowing that there is something called discordance – that is, in testing, the man [may be] found to be negative and the woman positive or the man positive and the woman negative. (Female health care worker, 39 years)

Participants were also asked about their opinion on anonymous partner notification services for people who test HIV-positive. This program was described to only a few participants, mainly service users, and was generally met with more acceptance than skepticism. Some thought the program would be beneficial as long as anonymity was ensured. As one participant said, "I think it will be good because they don't know if I am the one who mentioned their names there." (Female PMTCT client, 29 years)

Others remained skeptical:

Aah it won't be possible. [Interviewer: Why?] It is because everybody knows that no one wants his/her secrecy to be revealed to anybody. [Interviewer: And for example what if nobody speaks of it?] Aah nothing will happen but there will be a lot of blame. [Interviewer: What kind of blame?] Blame saying, "Why someone had mentioned me! And said such things about me!" (Male HIV care and treatment client, 33 years)

Experiences with disclosure

The study team also explored participants' experiences with disclosing their HIV test results with partners, family members, friends, and others. In general, participants spoke of fear of stigma, discrimination, and loss of important relationships as important considerations in disclosure. This care

and treatment services user, for example, expressed the difficulty she had in deciding when and to whom she would disclose her status:

I involved my mother after testing. I didn't tell her that now am going to test; I decided alone, I went secretly. After testing then I decided to involve my mother because I will not be able who will help me if I hide it. Also it was to protect her since she may be helping me saying, "Ooh my daughter!" while I have my problem, so I involved my mother and young sister. (Female HIV care and treatment client, 23 years)

Stigma and discrimination were often brought up when participants spoke of disclosure practices within the local community. One health care worker said:

I still say it is stigmatization that contributes to non-disclosure. Yes [...] because even those who test hide their HIV status. (Female health care worker, 49 years)

Others participants expressed their worries on ending their relationships if they dared disclose their HIV status to their partners, as this HTC client hypothetically explained how most men would react to a spouse who revealing an HIV-positive status:

Even though she will come to tell him it will be quite difficult for him to accept that situation. He will only know that she was just unfaithful! That is the only reason she got that disease from another man! Taking that into account, if she [persists in] telling him, later on, as a man, he will become rude to the extent of raising a conflict, which at the end he will chase her away. (Male HTC client, 37 years)

DISCUSSION

We examined knowledge, motivators, barriers, and experiences with HTC in Iringa. In a wider sense, this strategic assessment aimed to provide a more in-depth look at the complexities of learning and revealing one's HIV status, offering insight into the stigmas and socio-cultural dynamics that influence HIV testing behavior.

Overall, Iringa residents showed relatively high knowledge of HIV, HTC, and service availability. Participants were able to describe several factors that encourage individuals to test for HIV. However, numerous barriers to HIV testing remained. This confirms findings from the Tanzania HIV/AIDS and Malaria Indicator Survey that although over 98% of adult-age women and 92% of adult-age men in Iringa know where they could get tested for HIV, fewer than 30% have ever been tested (TACAIDS, 2013). The relatively higher uptake of HTC among women in Iringa is likely due to HIV testing during ANC services. However, our data suggest that beyond pregnant women, there is an urgent need address barriers to HTC and scale-up service availability to reach underserved populations, including rural communities, populations at heightened risk for HIV, and men.

In rural communities, structural factors were a large part of the reluctance to access HTC services, particularly distance to travel to reach HTC services. Increasing the number and improving geographic distribution of HTC service delivery sites by offering mobile and home-based testing options could reduce this barrier. Additionally, the participants' call for reduced waiting hours at quality facilities and more adequate human resources for health need to be addressed alongside the scaling up of services. As many governmental and private dispensaries employ only a single clinical officer and a nurse, or sometimes only a single nurse, there is a need for an assessment of these small dispensaries' staffing needs so as to reduce burden at the district hospitals. Currently, Tanzania only allows clinical personnel to conduct HIV testing; a consideration of task-shifting to lower-skilled providers may help to reduce demands on higher-level providers and make HTC more widely available in lower-level facilities and through outreach services. To address stock-outs of HIV test kits at the regional level, there is a need to examine and improve the reliability and efficiency of the supply chain management. Addressing these structural barriers to HTC access will in turn usher more clients into the treatment services they require.

Yet, improvement of health care service accessibility and supply chain management will not automatically increase HTC uptake. In our interviews with populations at heightened risk of HIV, we learned that interpersonal barriers had a significant influence on the decision to get tested. This included judgmental conduct on behalf of service providers toward drug users, men who have sex with men, and female sex workers. When scaling up human resources, attention should be given to ensure that staff members receive adequate training to deal with the specific needs of these populations, particularly if outreach services for them are expanded.

Further, HTC services must be expanded to reach men in multiple ways, including encouraging them to join their partners during ANC visits. Other strategies to increase HTC among men could include scaling up couples counseling and testing in stand-alone HTC sites, expanding HTC in sexually transmitted infection and tuberculosis clinics, continuing to achieve high HTC rates in scaled-up male circumcision

services, and providing provider-initiated testing and counseling in other clinical settings. Home-based and/or mobile HTC and mobile HTC may also help to reach underserved men, particularly those in more rural areas.

Finally, linkages between services are also crucial. In this study, a few individuals reported testing multiple times because they wanted to test positive for HIV in order to qualify for economic assistance. Although only a small number of individuals reported this in this study, the possibility of this happening highlights the need for more program linkages with other social services for HIV-negative clients, such as male circumcision or other services as available, and suggests that the social context of poverty and lack of economic opportunities must be taken into consideration when designing comprehensive programs for HIV in the region.

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