

## Perceptions of door-to-door HIV counselling and testing in Botswana

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### Abstract

Prevalence of HIV infection in Botswana is among the highest in the world, at 23.9% of 15 - 49-year-olds. Most HIV testing is conducted in voluntary counselling and testing centres or medical settings. Improved access to testing is urgently needed. This qualitative study assessed and documented community perceptions about the concept of door-to-door HIV counselling and rapid testing in two of the highest-prevalence districts of Botswana.

Community members associated many positive benefits with home-based, door-to-door HIV testing, including convenience, confidentiality, capacity to increase the number of people tested, and opportunities to increase knowledge of HIV transmission, prevention and care through provision of correct information to households. Community members also saw the intervention as increasing opportunities to engage and influence family members and to role model positive behaviours. Participants also perceived social risks and dangers associated with home-based testing including the potential for conflict, coercion, stigma, and psychological distress within households. Community members emphasised the need for individual and community preparation, including procedures to protect confidentiality, provisions for psychological and social support, and links to appropriate services for HIV-positive persons.

**Keywords:** HIV/AIDS, counselling and testing, home-based HIV testing, Botswana, qualitative research.

### Résumé

La prévalence de l'infection par le VIH au Botswana compte au nombre des plus élevées du monde, à 23.9% dans la catégorie des personnes âgées de 15 à 49 ans. La majorité du dépistage du VIH est réalisé dans des centres de conseil et de dépistage volontaire ou dans des structures médicales. Un meilleur accès au dépistage est urgemment nécessaire. Cette étude qualitative a étudié et documenté les perceptions par la communauté du concept de conseil et dépistage rapide du VIH en porte-à-porte dans deux des districts associés aux prévalences les plus fortes du Botswana.

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Les membres de la communauté ont associé de nombreux avantages positifs au dépistage du VIH en porte-à-porte, à domicile, et notamment son aspect pratique, confidentiel, sa capacité à augmenter le nombre de personnes dépistées, et les possibilités d'augmenter les connaissances sur la transmission, la prévention et la prise en charge du VIH par la fourniture d'informations appropriées aux ménages. Les membres de la communauté ont également vu cette intervention comme augmentant les possibilités de faire participer et d'influencer les membres de la famille et de présenter des comportements positifs. Les participants ont également identifié des risques sociaux et des dangers associés au dépistage à domicile, et notamment le potentiel de conflits, de coercition, de stigmatisation et de détresse psychologique au sein des ménages. Les membres de la communauté ont mis l'accent sur la nécessité de la préparation des individus et des communautés, et notamment des procédures visant à protéger la confidentialité, la possibilité d'une assistance psychologique et sociale, et de mise en relation avec les services appropriés pour les personnes séropositives.

**Mots clés:** VIH/Sida, conseil et dépistage, dépistage du VIH à domicile, Botswana, recherche qualitative.

## Introduction and background

The prevalence of HIV-1 infection in Botswana, a country of approximately 1.75 million people, is among the highest in the world, currently 23.9% among 15 - 49-year-olds (UNAIDS 2008). Bobirwa and Selebi-Phikwe health districts in northeastern Botswana are among the highest-prevalence districts; Selebi-Phikwe has the highest rate in the country at 26.5% in 2008 (Botswana National Aids Coordinating Agency 2009). Results of the 2007 antenatal care clinics (ANC) sentinel surveillance survey showed a prevalence of 49% for Selebi-Phikwe and 42.9% for Bobirwa. Increasing access to HIV testing, care and treatment in these areas remains a high priority.

Voluntary counselling and testing (VCT) centres in Botswana saw a steady rise in those being tested for HIV between 2000 and 2004 (Creek, Alwano, Molosiwa, Roels, Kenyon, Mwasalla *et al.*, 2006). According to the Makgabaneng Listenership Survey of 2004, 37% ( $N=208$ ) of persons ever tested for HIV had been tested in VCT centres (Pappas-DeLuca, Koppenhaver and Makgabaneng Listenership Survey Group 2004). Since 2004 the national government has promulgated a policy of routine HIV testing in all medical facilities that has been met with overwhelming acceptance by the public (Weiser, Heisler, Leiter, Percy-de Korte, Tlou, DeMonner *et al.*, 2006). The majority of participants in a recent survey in five districts in Botswana believed that routine testing would decrease barriers to testing (89%) and increase access to antiretroviral treatment (93%) and would also decrease HIV-related stigma (60%) and violence toward women (55%) (Weiser *et al.*, 2006). Despite these efforts, as of late 2005, access to testing, especially in some rural areas, remained limited, with persons in urban areas significantly more likely to have ever been tested than persons in rural areas (32% v.24%,  $p<.05$ ) (Pappas-DeLuca *et al.*, 2004). Innovative models are needed to reach those who have not yet been tested. For example, an innovative home-based HIV testing programme met with considerable acceptance in Uganda, in eastern Africa. Participants in the Uganda programme cited increased convenience and privacy as advantages over facility-based testing (Were, Mermin, Bunnell, Ekwaru and Kaharuza, 2003; Wolff, Nyanzi, Katongole, Ssesanga, Ruberantwari & Whitworth, 2005).

In 2005, in order to help meet the need for testing, the BOTUSA Project, a collaboration between the Government of Botswana and the United States Centers for Disease Control and Prevention (CDC), considered an intervention to deliver HIV counselling

and rapid testing on a door-to-door basis to approximately 10,000 households in targeted sections of Bobirwa and Selebi-Phikwe. The proposed intervention called for trained counselors to deliver voluntary and confidential HIV counselling and rapid testing to households and to refer HIV-positive persons to appropriate services. To assess the acceptability of such a home-based testing programme in Botswana, we carried out a qualitative study among community members in the two districts. The purpose of the study was to explore attitudes and perceptions regarding delivery of rapid HIV counselling and testing to individuals and families on a door-to-door basis, and to gather data to inform the design of an intervention.

## Description of the study

### Data collection methods

We used qualitative methods, namely focus group discussions, to elicit the views of community members. Each participant also completed a short anonymous socio-demographic survey used to characterise focus group participants (Table 1). Qualitative methods are used to gather descriptive detailed data about a topic or question; they necessarily rely on small samples and are not meant to provide statistically representative results. Focus groups are particularly useful for testing new concepts and enable the research team to quickly gather a large amount of data about the range of opinions on a given topic (Schensul, Schensul & LeCompte, 1997).

The team developed an interview guide in collaboration with implementing partners in Botswana, including the Botswana National AIDS Coordinating Agency and Ministry of Health. The guide included questions designed to elicit information on perceptions of HIV testing in general; views on the proposed home-based counselling and testing delivery model and how it should be carried out; and recommendations for how to introduce and implement the intervention. Prior to asking questions about HBCT, the focus group facilitator briefly described the home-based testing approach. The guide was translated into Setswana and back-translated into English for verification of accuracy. The data collection team participated in a week-long training course in interviewing and focus group techniques, the biology and epidemiology of HIV/AIDS, recruiting and screening procedures, and the objectives of the project. Team members, including experienced facilitators, were recruited through a local contractor with a history of implementing qualitative research projects in Botswana. Focus group guides were reviewed

extensively during the training to ensure understanding of the intent of questions.

### Sampling and recruitment

We recruited 18 - 45-year-old adult current usual residents from Selebi-Phikwe and Bobirwa districts who had been sexually active within the past year. Participants were recruited using a purposive sampling method, for variables of interest, namely age and gender. Participants were recruited from public places, such as bus stops, shopping areas, and community events, and from different locations on different days and times in each district in order to obtain a reasonable cross-section of the community. Local civil and social service leaders, schools, community organisations and employers were solicited for support in recruiting participants. Focus groups usually took place within 24 hours of recruitment in convenient locations such as schools and community meeting halls. No names or identifiers were collected. Focus groups lasted between one and two hours. Facilitators tape-recorded all discussions after obtaining verbal consent. We conducted eight focus groups: four in each community, with 6 - 8 participants in each group. Two groups were conducted with women and two with men. Groups were divided by age ranges, 18 - 24 and 25 - 45.

### Participant characteristics

Fifty-eight adult residents participated in the focus groups; 51.7% of these were male. All participants were between 18 and 45 years of age, with a median age of 26 years (Table 1). Thirty-three (57%) participants were unemployed. All participants had completed 12 or fewer years of schooling, with a median of 10 years completed (range 0 - 12 years). Being away from home for an extended period of time was common: 34% had been away from home for more than 1 month in the past 12 months with a mean of 2.9 months away from home, and 45% (26/58) planned to be away from home for more than 1 month in the next 12 months. The majority of participants were currently in a steady sexual relationship (64%), although only 8 lived with their current partner (14%), and only 3 were married (5%).

### Data analysis

Tapes were transcribed in Setswana, translated into English, cleaned and imported into a qualitative data analysis programme, QSR N6 (QSR International, Melbourne, Australia, Version 6). The analysis was led by an anthropologist with experience in conducting qualitative data analysis. The analysis team consisted of two project team members who were not directly involved in data collection. Using a grounded theory approach (Strauss & Corbin 1990), the two-person team read all transcripts and developed a codebook, using deductive and inductive coding in an iterative process of analysis. Deductive coding was used first to group data by domains of interest to the research team based on research questions. Deductive coding was followed by inductive or analytical coding in which additional codes were developed to keep track of ideas or themes emerging through of further reviews of the data. In qualitative data analysis, themes are defined as recurring ideas or concepts that are derived from or reflective of the participants' lived experience (Online QDA Project 2009). Following this step, the analysis team developed matrices to capture patterns and review them across sites and groups. The

**Table 1. Socio-demographic characteristics of focus group participants**

	N	%
<b>Age</b>		
18 - 20	12	20.7
21 - 25	16	27.6
26 - 30	11	19.0
31 - 35	8	13.8
36 - 40	4	6.9
41 - 45	7	12.1
<b>Sex</b>		
Male	30	51.7
Female	28	48.3
<b>Years of schooling</b>		
Median	10	
Range	0-12	
<b>Occupation</b>		
Unemployed	33	56.9
Student	8	13.8
Government/Clerical/Teaching	7	12.1
Trading/vending	4	6.9
Taxi/truck driver	1	1.7
Home business	1	1.7
Other or missing	4	6.9
<b>Years in Bobonong or Selebi-Phikwe</b>		
Median	13	
<b>Months away from home in past year</b>		
Median	3	
<b>Planned to be away &gt;1 month in next year</b>		
	26	44.8
<b>In steady sexual relationship?</b>		
Yes	37	63.8
No	20	34.5
No response	1	1.7
<b>Living with partner</b>		
Yes	8	14.0
No	36	63.2
No response	14	22.8
<b>Married to partner</b>		
Yes	3	5.2
No	27	46.6
No response	28	48.3
<b>Has children</b>		
	35	60.3

team reviewed the codebook, coding reports and matrices, along with the draft of preliminary findings, with the Botswana study coordinator and field team members to clarify issues and validate findings. The Botswana team also reviewed and provided comment on the final report.

### Ethical considerations

The Institutional Review Board of CDC and Botswana Health Research Development Committee (HRDC) approved the study. Data collection was carried out between mid-March and June 2005. At recruitment, the interviewer read a verbal consent script to the

participant. Each potential participant was informed about the purpose of the study, the procedures to be followed, risks and benefits anticipated, their rights as a participant, and that participation was voluntary. Potential participants were informed that the interview would be audio recorded to best capture an accurate record of his/her perspective and experiences; that the participant could refuse to answer any question or stop the interview at any time; and that the audio recordings would be destroyed after they had been transcribed and reviewed for accuracy. Verbal consent for participation was then sought for enrollment.

### Findings from qualitative data analysis

Among the 58 participants, ideas and perceptions about home-based counselling and testing clustered around two sets of ideas or themes. First, conceptually, participants talked about HBCT as a particular method of delivery for HIV counselling and testing. Ideas about HBCT as a method explored both individual- and community-level benefits, as well as challenges related to implementing or carrying out HIV counselling and testing at the household level. The second set of themes concerned the social aspects of testing, including the interpersonal, intra-household, and community context in which home-based counselling and testing takes place, and the effect that it could have on social relationships. Participants discussed the potential of HBCT for engaging family members, positive role modeling, and providing additional support to HIV-positive persons. They were, however, also acutely aware of social risks and dangers associated with HBCT. Stated another way, the first set of ideas clustered around HBCT as a method of delivering HIV counselling and testing, while the second set reflected notions regarding the potential impact of HBCT on social relationships.

### Benefits and challenges of HBCT as a method

Focus group participants associated HBCT with several benefits to the community, in particular the capacity of the programme to greatly increase the numbers of persons aware of their HIV status by reaching people within their own homes. HBCT was also viewed as an efficient means of disseminating correct information to community members, thus expanding the number of people in the community correctly informed about how to reduce HIV transmission. Participants also associated HBCT with assistance from trained counsellors who could help them disclose positive test results to family members, provide information about caring for positive family members, and link them to needed services. Participants noted the convenience of HBCT, saying that it eliminates the need to make an appointment, travel to a distant VCT site, or wait for a busy counselor. Participants noted that some people are 'lazy' about getting tested and were unlikely to take the time to travel to a testing site, while other persons avoid traditional voluntary counselling and testing (VCT) sites because of the fear of being recognised and stigmatised.

*Really I think it's a good idea because most of us are too lazy to actually go to the hospital. We think of going to test as a great deal of work. Now if this programme could be introduced at home most of us would appreciate it and take the initiative to test. (Female, age 26 - 45 years, Bobonong)*

However, while participants associated several community and individual-level benefits with door-to-door home-based testing, they also pointed out that counselling and testing at home presents a different set of challenges than testing delivered in a clinical setting or VCT centre. In a typical VCT site, an individual client (or couple) usually meets with a counsellor in a private room in a somewhat controlled environment. Participants pointed out that households may be small or crowded, may lack private space, and would be likely to include multiple family members present or nearby, thus creating a more complex environment for the testing team to deal with. Decisions about where testing would be carried out in the household, which household members should be present, where test results would be delivered to the client, and how disclosure would be handled would need to be made in each instance, requiring counsellors trained and skilled in handling a variety of situations. Thus, while participants liked the ease and convenience associated with HBCT, they viewed the method as not without challenges, particularly for counselling and testing field teams.

### Social benefits and social dangers

Considerable discussion of home-based counselling and testing reflected ideas about social relationships and the impact that testing could have, for better or worse, on these relationships. Home-based HIV-testing was viewed as having the potential to reach and influence family members and increase knowledge about HIV/AIDS transmission and improve health-related and emotional care within families. However, it also was associated with potential social risks and dangers.

As mentioned earlier, the potential for home-based, door-to-door HIV testing to expand its reach to persons who had not been tested and to convey accurate information about HIV prevention, care and treatment was a persistent theme across all groups. Participants saw home-based testing as a powerful tool for reaching into households and helping them to engage other family members who were reluctant testers or who doubted the existence of HIV. Older family members, in particular, were characterised by participants as being more likely to subscribe to traditional beliefs that deny the existence of HIV/AIDS. Because older parents and extended family members (e.g. aunts) often become primary caregivers to the sick and dying (Lindsey, Hirschfeld and Tlou, 2003), participants felt it would be especially important to reach them through HBCT.

*I think it's a good thing for people to be tested at home, our parents doubt if this disease exists, and they say it does not exist. They think that this disease is caused by condoms; they say that [condoms] are for white people so parents to a large extent discourage the youth from testing. (Male, age 26 - 45 years, Bobonong)*

Among women who often characterised their male partners as reluctant to be tested, the intervention was perceived to have leveraging potential; while a woman might not be able to convince her partner to go get tested at a traditional site, he might agree to be tested if a testing team arrived at home.

*I think it's OK because men here are stubborn - because if a woman asks him to go and test, he will refuse but if this team arrives at home as a surprise and asks him to test he will probably agree to test. (Female, age 18 - 25 years, Selebi-Phikwe)*

In keeping with the notion of engaging, educating and persuading reluctant family members, participants saw HBCT as an opportunity to role model positive behaviours for elders, male partners, and children.

*I think it is important to test when relatives are present or anybody else for that matter, [because] most people don't see the importance of testing. Some will only realise it...after some time when you have tested in the household and maybe you have the virus. Therefore, when you test at home, they will have an opportunity to learn more about it and maybe they will get tested while there is still time. (Male, age 18 - 25 years, Selebi-Phikwe)*

HBCT was also viewed as having the potential to help families improve health-related and emotional support to HIV-positive family members. Participants believed that HBCT would increase their knowledge of appropriate care, decrease myths about HIV transmission within households, and help them link family members identified through HBCT as HIV-positive to other available care, treatment and support services, such as counselling for a 'healthy lifestyle' or PMTCT (prevention of mother to child transmission) services. Participants also saw home-based testing as an important entry point for providing emotional comfort and support for HIV-positive partners and family members.

*So if the testing is done at home, those living with the person who is positive will be able to provide support as they will know what the person requires. They will not be alone. (Female 18 - 25 years, Selebi-Phikwe)*

*I think that is a very difficult issue but I think it is good to test with your partner. I say this because if both of you get tested, you would be able to comfort one another. Unlike if you both test at different times. (Male, 18 - 25 years, Bobonong)*

As mentioned above, door-to-door testing transforms what traditionally has been a one-on-one interaction between provider and client carried out in a relatively neutral setting, into a profoundly social exercise that takes place within a family or household environment. Thus, another persistent theme was one of potential social risk or danger associated with this model. These risks included creating or exacerbating conflicts within couples or families, experiencing psychological distress, particularly in the case of a positive test result, and other negative outcomes such as loss of emotional or financial support. Participants discussed the potential for introducing distrust, conflict and violence into a sexual partnership if differences of opinion arose about undergoing testing or in the case of discordant test results. For example, participants noted that sexually active adolescents might be reluctant to test at home, but could be subject to overt

or covert pressure to test from parents. Concerns expressed included feeling shame and embarrassment if one were positive, fearing rejection by a negative partner and bringing disgrace to one's family.

There were also concerns about to handle or discuss a loved one's positive status, often expressed as a desire to not embarrass or shame the person. Sharing test results among family members was described in ideal terms, as the 'right' thing to do; while at the same time, there was considerable discomfort about how this would be handled, with discordant results in a couple perceived as a 'huge problem'. Concerns about discordance tended to differ along gender lines. For example, some men indicated that if they were HIV-positive and their partner was negative, they would prefer to end the relationship so the female partner could 'live freely with someone who is negative without the fear that her life is in danger' (Male, age 18 - 25 years, Bobonong). Other men said they would leave out of fear that their female partners would reveal their HIV-positive status to others. For women, the primary concern related to discordance was being accused of infidelity. Some women speculated that it would be easier to share a positive result if there were another plausible reason for becoming infected, for example a history of caring for an HIV-positive person.

*You could have gotten infected when you were nursing someone. It wouldn't be that you got infected through sexual intercourse. Some people might think that you have been cheating on them. Some might assume that since you once nursed, for instance, your cousin and didn't use gloves or maybe you got in contact with infected blood or something else. I have been married for a long time, and it would be difficult, if I test positive and he tests negative. If there hasn't been anyone I have nursed, it would be difficult. (Female, age 26 - 45 years, Bobonong)*

Some women indicated that they would prefer not to talk with partners at all about HIV testing until after they had been tested, while other women described scenarios in which they had a 'hypothetical' discussion with a male partner in order to discuss various options before actually being tested.

*It's better to talk first and reach an agreement of what's going to happen. If you are positive you will still be my partner, that's what life is all about, unlike when you just go and test without telling your partner and you come out positive, they might tell you that they don't want you anymore. (Female, age 18 - 25 years, Bobonong)*

Other social risks and dangers mentioned included stress, sadness and the potential for suicide among HIV-positive persons. Concern about suicide was raised primarily among men, usually in conjunction with the notion that one needs to be psychologically 'ready' to accept a positive test result. Readiness might require being counselled several times beforehand. Men especially, expressed fear of being pressured into testing before they were ready.

Participants shared the notion that individuals, families and indeed the wider community should be 'ready' or adequately

'prepared' before testing in order to mitigate negative outcomes. HIV counselling was viewed as integral to the intervention and an important benefit in and of itself. Counselling was described as essential to 'preparing' persons to test, as well as necessary to help them deal with the psychological stress associated with HIV-positive test results. This was epitomised by a participant who said, *'In actual fact, a person needs to go for counselling several times before they test. What we have is great fear.'* Being counselled several times theoretically enables the person to become more psychologically ready to test. A related notion was *'accepting one's condition'*, the view that one needs to have come to terms with his or her HIV-positive status before revealing it to others. Participants also thought that support services and psychological support should be available for those who experience distress, and that plans should be made to ensure that persons testing positive were linked to care and treatment.

Parallel to the notion of individual psychological 'preparation' was the notion of readying the wider community for implementation of door-to-door HIV testing. Participants emphasised that some community members might need time to become accustomed to the idea of home-based testing; therefore, plans to introduce HBCT should be communicated in advance through existing institutional and social networks such as churches, youth organisations, women's organisations, and Village Development Committees to widely disseminate information about the rationale for and implementation of home-based testing. Many participants said that public endorsement of the intervention by the Government of Botswana would be critical to its success, and suggested drawing on influential leaders such as members of Parliament, community elders and retired health professionals to mobilise support for the intervention.

## Discussion

In recent years, increased demand for HIV testing in response to availability and rapid scale-up of antiretroviral therapy, and the advent of rapid HIV testing technology, have prompted the development of multiple models that include provider-initiated HIV testing as the standard of care in clinical settings, and streamlined counselling protocols for high-volume, resource-limited settings (Grabbe, Menzie, Taegtmeier, Emulkule, Angala, Mwegu *et al.*, 2010; Marum, Taegtmeier, & Chebet, 2006; Menzies, Abang, Wanyenze, Nuwaha, Mugisha, Coutinho *et al.*, 2009; Liechty, 2005). Rapid HIV testing has been an important development because it can be carried out in non-clinical settings and facilitates same-day delivery of test results (Greenwald, Burstein, Pincus and Branson, 2006; Hutchinson, Branson, Kim and Farnham, 2006), enabling many more HIV-positive persons to become aware of their status and be linked to needed care and support services (Matovu & Makumbi, 2007; Helleringer S, Kohler H, Frimpong J & Mkandawire J, 2009). There is considerable evidence that HIV-positive persons who know their status are more likely to change their behaviours in order to protect their partners (Weinhardt, Carey, Johnson and Bickham, 1999; Marks, Crepaz, Senterfitt and Janssen, 2005; Marks, Crepaz and Janssen, 2006). Benefits to individuals who test negative include prevention education and counselling to reduce HIV transmission risks. The HBCT model has the potential to increase access to HIV counselling and testing where it is most needed including the capacity to reach large numbers of people who have yet to be

tested, including men, who are less likely to access traditional VCT services or to have been recently tested (Fako, T 2006; Weiser *et al.* 2006; Mitchell, Cockcroft, Lamothe, Andersson, 2010).

Significantly, many participants in the two communities felt that the opportunity for family members to test at home would enable families to support HIV-infected individuals. One might speculate, therefore, that a positive outcome of HBCT would be reduction in the prevalence of stigmatising attitudes within the family and the wider community. Our study findings show that residents recognise the importance of HIV testing for accessing care and treatment for HIV but that social risks may outweigh benefits for some members of the community. Social risks include stigma and shame associated with being HIV-positive, along with potential exposure of participation in socially undesirable sexual behaviour. Fear of rejection, abandonment, and becoming a social outcast outweigh fear of HIV for some participants, while other participants may simply avoid HIV testing because they perceive it as only relevant for those persons who are engaged in high-risk behaviours. Empirical evidence supports the idea that personal acquaintance with an HIV-infected individual decreases negative attitudes toward persons living with HIV/AIDS (Macintyre, Brown and Sosler, 2001). HIV-related education can also decrease stigmatising attitudes and increase willingness to have a test for HIV (Kalichman and Simbayi, 2004; Peltzer, Nzewi and Mohan, 2004; Lauby, Bond, Eroglu and Batson, 2006).

Many participants perceived pre-test counselling as a stage of psychological or emotional preparation for testing, characterised as being 'ready' or 'prepared' to accept a positive HIV test result. Counselling was mentioned in conjunction with concerns about the potential for suicide among those who were not adequately 'prepared' for their test results. While there are no data to suggest that persons who test HIV-positive in Botswana will commit suicide, this was clearly a topic of concern to participants. These concerns will need to be addressed directly within communities where the intervention will take place, and additional psychosocial support may be needed.

Participants' expectations of what constitutes 'counselling' diverged from current models of counselling and testing that emphasise shorter counselling messages. Instead, participants characterized 'counselling' more broadly as receiving support and information that would help them prepare psychologically and emotionally for testing. Participants also viewed counselling as including other kinds of assistance from counsellors such as assistance with facilitating disclosure among household members and linking HIV-positive persons to services.

To adequately address these concerns, HIV testing and counselling teams need to be prepared to handle a variety of emotional and social issues, in addition to delivering standard HIV prevention messages. Planning should include intensive training for counsellors in how to approach and assess the dynamics within households and minimize the possibility that any family member is coerced into undergoing HIV testing. After preliminary general information about HIV testing is given to the household as a whole, each individual member should have the opportunity to meet privately with a counsellor and accept or decline testing. The

right of family members, including adolescents, to refuse testing should be respected. Counsellors should recognise that some family members will be in a pre-contemplative stage (Prochaska 1994) and will need additional counselling or assistance before making a decision to be tested. Counsellors should be trained to use standardised pre- and post-test individual, couples and family counselling protocols as appropriate. Disclosure of HIV status to other family members should be initiated by the client, with counsellors trained to assist, if the client desires. Counsellors also should be prepared to help couples understand serodiscordance, a concept that is widely misunderstood in some communities (Bunnell, Nassozi, Marum, Mubangizi, Malamba, Dillon, *et al.*, 2005, Kebaabetswe P, Ndase P, Mujugira A, Sekota T, Ntshimane M, Owor A, *et al.*, 2010), and the need to disclose positive HIV status to all sex partners. Finally, provisions should be made to ensure appropriate referrals and adequate psychosocial support to family members.

The findings of this study are subject to the limitations of the study design. Findings are based on small samples; sampling was conducted for variables of interest, namely local residence, age, and gender in a quota sampling strategy (Bernard, 1988). In addition, although every attempt was made to recruit at a wide variety of times and places, over half of our respondents were unemployed, and this study may under-represent the views of employed community members. However, given Botswana's high rate of unemployment (National AIDS Coordinating Agency (NACA) *et al.*, 2005), participants appear to be representative of the broader population in this respect as well as in their high rates of mobility and low marriage rates. In addition, the responses to our questions may have been influenced by social desirability bias: some participants may have expressed what they felt the facilitators expected to hear. We did not recruit participants on the basis of their previous experience with HIV testing; therefore, it is not possible to assess differences in perceptions that might exist between those persons who had experience and those who did not regarding the proposed intervention. Finally, some questions posed to the groups were necessarily speculative in nature, since the proposed programme does not yet exist; it is therefore difficult to predict reactions to a programme once it is implemented.

In summary, this study found that participants associated many benefits with the concept of home-based HIV counselling and testing in these two high-prevalence Botswana districts, including convenience, the capacity to reach persons reluctant to test such as men and elders, and the opportunity to provide additional support to family members. At the same time, participants noted challenges and risks including the potential for conflict and coercion within households, and distress related to positive test results. Community participants felt that the success of the intervention would rest in large part on adequate preparation and a plan that addressed community concerns and incorporated community recommendations for implementing the intervention.

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