

**UNDERSTANDING THE DYNAMICS OF
HIV/AIDS AND FAMILY PLANNING
AT THE COMMUNITY LEVEL IN ZAMBIA**

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Acknowledgements

We would like to thank the HCP staff in Zambia, especially Lynn Lederer and Emmanuel Fiagbey, who provided invaluable support in the implementation of this study. The authors would also like to acknowledge Lynn van Lith and Sanjanthi Velu for their comments and recommendations on earlier iterations of this paper. Finally, we would like to extend our sincere gratitude to the participants who made this study possible.

This publication was made possible by support from USAID under the terms of Cooperative Agreement Associate Award No. 690-A-00-04-00225. The opinions expressed are those of the authors and do not necessarily reflect the views of USAID.

The HCP project is based at Johns Hopkins Bloomberg School of Public Health's Center for Communication Programs (CCP) in partnership with the Academy for Educational Development (AED), Save the Children, the International HIV/AIDS Alliance, and Tulane University's School of Public Health and Tropical Medicine.

Introduction

In the midst of an HIV and AIDS epidemic that is characterized predominantly by heterosexual transmission, individuals of reproductive age in Zambia make fertility-related decisions in an environment much more complex than in previous generations. It is vital for health communicators to understand how HIV-positive status and high prevalence, regardless of one's status, influence fertility-related decisions so as to more fully address the public's reproductive health concerns.

HIV prevalence in Zambia remains high. The results of the 2001-2002 Zambia Demographic and Health Survey (Central Statistical Office, 2003) found that 16 percent of respondents were HIV positive, with women (18%) more likely than were men (13%) to test positive. The highest rates were recorded amongst individuals in the midst of their reproductive lives: 5 percent of 15-19-year-olds, 25 percent of individuals ages 30-34, and 17 percent among the 45-59 age group tested positive. The national mean HIV prevalence among adult (15-44 years old) pregnant women has remained at 18-20 percent since 1994 (UNAIDS/WHO, 2005:24). Though recent evidence indicates the national rate may be declining, there is also evidence that new infections continue to occur at significant rates in some parts of the country (Monze, 2004).

This report examines the role of HIV and AIDS in fertility decision-making, changing social norms about child-bearing and contraceptive use, and it explores the role of communication in that process. While research has shown that social norms often discourage HIV-infected people from having children (Rutenberg, Biddlecom & Kaona, 2000; Feldman & Maposhere, 2003), many people living with HIV and AIDS desire and expect to have children. A US-based national study of HIV-infected individuals found that 28-29 percent of respondents wanted

children in the future (Chen et al., 2001); a study of 250 men in Brazil living with HIV found that 43% wanted children (Paiva et al., 2003); and a study of women in Zimbabwe found that young childless women often wanted to become pregnant (Feldman & Maposhere, 2003). When one or both partners are infected, individual factors in tandem with social ones influence fertility decisions. A recent article in the *Lancet* (Myer, Morroni, & El-Sadr, 2005) called for more research to understand the factors that influence HIV-infected women's reproductive decisions. The study discussed herein also explores the impact on men's reproductive decisions.

This is not the first study based on interviews with community members in Zambia about their fertility desires in light of high HIV prevalence; two published studies relied on data collected in the 1990s when the evidence of HIV and AIDS in the community was not as ubiquitous as it is today (Baylies, 2000; Rutenberg, Biddlecom & Kaona, 2000). This study is, however, the first to examine this issue from the multifaceted perspectives of HIV-positive men and women, community members whose status was not a criterion for selection, and community leaders.

METHODOLOGY

Study Setting

The study was carried out in peri-urban and rural communities in the three districts of Katete, Siavonga, and Kapiri Mposhi. The study sites were selected in an effort to reach native speakers of the three most widely spoken Zambian languages – Nyanja, Tonga, and Bemba, respectively. Katete and Siavonga were selected given their relatively high contraceptive use and high HIV prevalence rates among rural districts. Kapiri Mposhi, located along a major transport route, was included since it registered the highest HIV prevalence rate amongst all peri-urban districts in Zambia (Central Statistical Office, 2003).

Situated amongst rolling hills, Katete is home to 216,000 predominantly Chewa/Nyanja speaking people. Located 493km east of Lusaka, Katete is economically dependent on Chipata, (the capital of Eastern Province) for its goods and services. Life in Katete centers on agriculture and trading. Formal employment is minimal, largely restricted to government departments, agricultural marketing agencies and the business community. Katete lies near the border of Mozambique, which facilitates the free flow of people and goods between the two nations. The most notable health facility is St Francis Mission Hospital, also an ART centre and long considered the hub of all health facilities as it has over the years been known to handle referral cases not only from the approximately 16 health centers from within Katete but from other parts of the province as well.

Siavonga is a small mountainous town bordering Kariba town in Zimbabwe. It is located 219km south of Lusaka and off the shores of Lake Kariba. The waters of Lake Kariba and the Zambezi River present a major source of livelihood for the 66,000 inhabitants of the town through commercial fishing. Tourism is another major economic activity providing formal employment to the local people. The community in Siavonga is also engaged in subsistence farming, basket weaving, cross-border trade and stone crushing. The most common language of communication is Tonga. The basic health infrastructure includes approximately 13 health centers and a modern district hospital, which also serves as an ART centre.

Kapiri Mposhi is a small “junction town” located 202km north of Lusaka and with a population of 220, 000. It lies on the Great North road and the rail line, both of which link the southern part of the country to the north. This is also where the Tanzania Zambia Rail line (TAZARA) starts.

The Zambian government's policy of liberalization led to the closure of the formerly state-run Kapiri Glass factory, which was a source of livelihood for the local population through formal employment and trading of the factory's merchandise. As Kapiri is an inland port, particularly for goods from the Great Lakes countries, trade has continued to flourish and is considered to be the main economic activity for the peri-urban populations. For the rural populations, agriculture continues to be a source of livelihood. With the highest HIV/AIDS prevalence rate among the peri-urban districts of Zambia, Kapiri Mposhi has been a center of activity for a number of non-governmental organizations implementing HIV/AIDS prevention and treatment programs. Among the 19 health facilities in Kapiri, the District Hospital serves as the ART center.

Data and Methods

Focus group discussions and semi-structured interviews were used in data collection. Focus group discussions were held to learn how the HIV epidemic has influenced fertility decisions within participants' communities as well as to discern how they think HIV-positive status *should* influence decision about whether and when to have a/another child. Recruitment of focus group participants was carried out with the assistance of community-based organizations and Neighborhood Health Committee members, as well as with the assistance of NGO staff, including the Health Communication Partnership of Zambia (HCPZ). Before the discussions commenced, the research team introduced themselves, explained the purpose of the study, and read the consent form to the group as a whole. Participants were given the opportunity to opt out; the focus groups were held with those who orally consented. Separate groups were conducted with men and with women; each group comprised between 6 and 12 participants.

Respondents for the semi-structured interviews were identified through clinics or community-based organizations in the study areas. While this approach worked quite well in Katete and Kapiri Mposhi, the research team initially had difficulties recruiting people living with HIV and AIDS for the study in rural Siavonga until a church leader in the community offered to help. Staff members of the identified clinics or organizations were asked to approach HIV-positive individuals, explain the nature of the research, and ask the identified individuals if they were willing to participate. The clinician or other community-based agent then read the information statement to those who responded affirmatively. The prospective respondents were then asked if they would prefer to meet the interviewer at the clinic, in the homes, or in some other location of their choice. When an interviewer met a potential interviewee, he or she explained the nature of the research, read the consent form, and asked the individual to sign or mark the form.

Key informants, including chiefs, counsel members, and staff of community-based organizations, were recruited through the auspices of community-based organizations and local clinics in the three study sites for semi-structured interviews. Written informed consent was obtained prior to the interviews.

The research protocol and consent forms were approved by the Committee on Human Research, the Johns Hopkins School of Public Health, and by the Research Ethics Committee of the University of Zambia.

All the interviews and discussions were audio-taped, transcribed and translated into English. The data were reviewed for main themes and then coded by theme and sub-theme. Coded text

was organized into synthesis tables to facilitate comparison across different categories of informants.

RESULTS

Respondent Characteristics

The research team interviewed ten women and seven men living with HIV/AIDS. The respondents ranged in age from 26 to 45. Eight were married, seven widowed, one divorced, and one had never married. Of this group, two had no children, 9 had between one, two or three children, and 6 had four or more children. Six focus groups were held with men and six with women for a total of 144 FGD participants. The participants were between the ages of 18 and 65, evenly split between users and non-users of contraception, most were married and all but six participants had children. The key informants included a headman, several health care providers, two HIV/AIDS program staff, and a psycho-social counselor.

Perceptions about HIV Prevalence in the Community

Awareness of HIV/AIDS was widespread in all the study sites, and concern about the consequences at both the community and household levels was expressed by focus group participants.

It is very serious and it is really taking us back as far as development is concerned. You can find that when a person is sick, some people have to be by the bedside instead of . . . participating in productive activities. If the patient dies, it is now the whole community that is affected by the funeral programs and expenses. So instead of being productive and maybe investing the money well, people spend time either on the bedside or at the grave and attending to funeral expenses. (FGD, men, Siavonga)

There are a lot of children who are being kept by the grandparents. There are also homes which are headed by teenagers. (FGD, women, peri-urban Kapiri).

HIV prevalence also took a toll on community cohesion, as described by a woman living with HIV/AIDS:

It has brought divisions among the people especially people who don't know how HIV comes about. They don't have any love for their friends. (Widow, age 42, 7 children ever born, HIV+, rural Siavonga)

Due to their first-hand experience with HIV and its consequences, people living with HIV/AIDS also mentioned the personal effects of HIV:

HIV has contributed a lot of problems in my community--financial, physical, mental problems. HIV has actually affected me even personally. I was married, my wife passed away because of HIV/AIDS. (Married man, age 45, 6 children ever born, HIV+, peri-urban Kapiri)

Some in the focus group discussions, though none of the individuals who were HIV-positive, denied its existence in their communities.

Taking a look at our community we have not yet experienced this problem, maybe because let me say, okay most of us have not gone for testing yet. Maybe had we been tested already, we could judge the problem but as at now we are saying in this community, we have not yet experienced it. (Men, rural Siavonga, FGD)

Yes, just as he has said, in this village we have not yet experienced the problem of one suffering from HIV/AIDS because even those who die, die from just these other little sickness. For us to know that this person is infected we have not yet seen but maybe with your explanations we may now start noticing a few things for us to know the problem. Right now there is no one we have noticed to be infected . . . (Men, rural Siavonga, FGD)

These comments reflect a degree of awareness that HIV/AIDS may very well be present in their midst, despite a shared reluctance to bring to light – even an unspoken agreement to leave in the shadows – the illness and its consequences.

Fertility desires and expected family size

Children, respondents noted, are important to the community, the family and the individual. The community, it was said, needs children for continuity, to provide leadership in the future, and to increase the size and strength of the community.

They must have children for the population to increase. (Male HIV/AIDS program officer, rural Katete)

We need to have children because if you don't have children now and we die when we grow old, this world will have no people to remain behind. In short, for continuity of the generation. It is important because we bring about a new generation to replace the one that is phasing out. (Men, FGD, rural Katete)

Couples, it was suggested, have children as an expression of their love, to share the experiences of everyday life, to work the land, and as insurance for their old age.

In Bemba we say “Mayo mpapa naine nkakupapa.” That is: “Mother, put me on your back, I’ll also put you on my back later.” This means that when the child grows up, they will be able to take care of the parents. (Women, FGD, rural Siavonga)

And, at the individual level, children are often seen to make the woman or man:

One of the reasons why couples have children is to command respect from society. A man without any children is, for instance, not considered man enough. (Kapiri, FGD, peri-urban women)

It is important because it is one of the ways in which a woman can be recognized as a daughter in-law or somebody in the society. (Female key informant, peri-urban Kapiri)

The community expects a couple to bear children. As usual, if you don’t have children in the community, you are not counted much. (Male key informant, Siavonga)

While there was universal agreement that children are integral to their lives, there was no consensus on the number of children a couple should have or how many the family or the community expected of a couple, with the ideal family size ranging from two to twelve children, though there was a clear preference for five or more among those who gave a numeric response. It was fairly common, however, for respondents to think not in terms of numbers, but in terms of the ability to conceive and bear children.

Some women want to have children for as long as their fertility can accommodate saying that children are a God given gift so there is no need to limit God on his blessings. (Siavonga, FGD, men)

Like some men, mum, most of these men do not want us to stop having children. You will be unpacking even if he knows he won’t manage them, and they do not even think of this sickness. He will just be calling for sex; you just conceive that’s how it should be. Is this not happening in your homes? Oh yes! (Siavonga FGD, women)

Nonetheless, respondents tended to agree that fertility norms were changing toward smaller families. Men were more likely than were women to cite economic constraints as the primary reason couples were choosing to have smaller families. All the men’s groups mentioned economic hardship as a deterrent to large families.

It has become very difficult for a family to look after a large number of children because of economic hardships. One can’t manage to pay school fees for them, clothe them, and go on, hence the need to have a small number of children. (Men, FGD, rural Katete)

People can't afford food, and it's difficult to send children to school because of the economic difficulties. (Headman, rural Siavonga)

Some men also mentioned HIV/AIDS:

"... because this disease is not like STDs where one could be given an injection or two and get well. This one does not heal and, as if that is not enough, it is also passed on to the children born after infection." (Men, FGD, Siavonga)

At the beginning of this same FGD, the men had argued that HIV had not yet come to their village.

Most of the women's groups mentioned HIV/AIDS with a few groups also citing economic exigencies when asked why people in their communities were having fewer children than in the past. Given the prevalence of HIV/AIDS, there was the recognition that the sexual act could place one at risk:

If you don't contract a disease on your first child, you fear that the second or next child can come with some disease for you – you can get infected on conception of the next child. (Women, FGD, rural Katete)

Both male and female groups as well as several key informants also expressed concern about the fate of children left behind when their parents die from AIDS-related illnesses.

People are dying and leaving a lot of orphans behind. (Women, FGD, rural Katete)

Who would remain behind to look after the children? So then, they consider this and think it is a lesser burden if they left behind a small number, rather than a large number, of children. (Men, FGD, rural Siavonga)

Yes, they would rather have fewer children because of the problem the community is facing about the street kids. When the parents are infected with HIV, when they die [the children] remain orphans. (Male counselor, peri-urban Kapiri)

In addition to the hardships that affect so many lives in Zambia today, several men attributed changes in fertility desires to human agency rather than to fate:

The other thing is couples now sit down and discuss how many children they are supposed to have and they don't just bear children anyhow. (Kapiri, FGD, peri-urban men)

There is a change because they are now spacing the children using family planning methods. (Siavonga, FGD, rural men)

HIV and childbearing

The findings show that opposition to HIV-positive people choosing to initiate or continue childbearing is fairly normative. Most community members expressed the need to advise their male and female relatives who were HIV positive to refrain from having children in the event that they tested positive. The concern most often expressed among community members was that the child would die prematurely. There was a widespread belief among focus group participants that the children of HIV-positive men will inevitably contract the virus.

I wouldn't advise him to have a child because it would be born sick and would eventually die. (FGD 4, Katete Men, Rural)

He should not have another child because the child would be HIV positive also and may not live longer. (Women, FGD, peri-urban Kapiri)

There is nothing he will bear. Immediately that child is born, it will die, because he is already infected. The virus will swim to the child. (Women, FGD, rural Siavonga)

No, No. He should not have a child because the child won't live many days. It will die. (Men, FGD, rural Siavonga)

When asked what advice they would give a woman who knew that she was HIV-positive, many respondents expressed a concern for her health.

I would tell her not to go ahead because if she went ahead and have children, she may die earlier than she would have if she did not have a child. (FGD 4, Katete Men, Rural)

No I cannot encourage her because she might endanger her life now. Going to have a child is like risking somehow. It's a win or lose situation. (Headman, rural Siavonga)

I would encourage or advise her to stop sleeping around even if she intended to have a child so that her life can be prolonged. (FGD 1, Katete Women Rural)

The last quote assigns blame to the woman who is HIV-positive by assuming that she is "sleeping around," yet concern for her longevity predominates. Some, however, urged a measured approach in that they would encourage a women living with HIV/AIDS to first learn whether her health could withstand pregnancy and childbirth.

I would tell her that she goes to the doctor and have her viral load checked and then seek advice from the doctor and then she can go ahead to have children. (Female nurse, peri-urban Kapiri)

Firstly, we have to see if her health can handle child bearing. If the health is bad, I would not encourage her to have this child. (FGD 5, Kapiri men, Peri-urban)

Not all respondents, however, held the belief that HIV-positive individuals should forever forgo childbearing. One woman noted that it should not be a unilateral decision as a couple should make the decision jointly.

It is up to him to make a decision whether to have a child or not, and then if he wants to, it is better the decision is still passed to the wife to find out if she is also of the idea of having a child. So if they intend to have a child, they may, as long as they make sure they use the health facility services, so they really understand and then prevent their partner so that they lessen the transmission of the virus to the baby. (FGD 12, Kapiri women, Peri-urban)

One key informant indicated that he would try to dissuade HIV-positive clients from childbearing, but would ultimately honor their wishes, while another key informant argued that people living with HIV/AIDS *should* have children.

Actually we as counselors we respect client's opinion. The client comes to me saying we want to have children. We make sure we educate them and tell them the dangers of having children. If the clients insist we tell them to go ahead. (Male counselor, peri-urban Kapiri)

Being HIV positive doesn't mean that one should not have children. If one is in the childbearing age, with or without AIDS they should have children because Zambian society needs children. (Female nurse, peri-urban Kapiri)

In a men's FGD in peri-urban Kapiri, the first participant to respond to the question about what advice to give an HIV-positive woman voiced the opinion that:

A person who is HIV positive has all the rights to have a child provided she goes for counseling and is taught how to care for the baby so that it doesn't become infected at birth. (FGD 5, Kapiri men, Peri-urban).

This seemed to set the tone for other participants, none of whom argued that HIV-positive women should avoid pregnancy; rather others in the group suggested that a *woman* living with HIV/AIDS should only expose herself to pregnancy if she was sufficiently healthy or on ARVs. Yet, earlier in this same FGD, the statement that HIV-positive *men* should not even think of having children went unopposed.

Of the 17 respondents with an HIV-positive diagnosis only three—two of whom had no children—indicated the desire to have a child, with one person still undecided.

I want two or three . . . because children help out when you are sick and you send them to go and do one thing or the other. (Single woman, age 26, no children ever born, HIV+, rural Katete)

Yes I would want to have some, but since we are keeping orphans at our place, I wouldn't want to have too many children. (Married man, aged 32, no children ever born, HIV+, Katete)

A number of reasons were advanced for the decision against childbearing among HIV-positive individuals. Among these were fear of death, concerns about re-infection, disquiet at the thought of infecting an unborn child or one's husband, wife or partner, and the recognition that pregnancy can take a toll on an HIV-positive woman's body. The following responses were typical among people living with HIV/AIDS.

Because I know any time I would die and it is not right to have a child now and leave him/her behind suffering. (Married woman, aged 34, 2 children ever born, HIV+, Katete)

I fear if I become pregnant I will re-infect myself and become sick and maybe my child will be sick. (Married woman, aged 27, 2 children ever born, HIV+, Kapiri)

Because the effects of pregnancy on somebody who is HIV positive. The effect of that pregnancy on my wife that is what I fear. I mean after giving birth what will the condition of my child and my wife be? (Married man, aged 45, 6 children ever born, HIV+, peri-urban Kapiri).

Because I know my status I can't accept a pregnancy. The pregnancy reduces the energy. So the pregnancy may weaken your body. (Widow, age 40, 6 children ever born, HIV+, peri-urban Kapiri)

I may be influenced (to have a child) but the truth is I'm sick and the one I may decide to have a baby with may be negative so I may end up infecting her, which is not right. (Widower, aged 38, 1 child ever born, HIV+, rural Katete)

Well, after knowing my status I stopped thinking of having children again. It is due to my being HIV positive. Positive people are not allowed to have children. (Married man, 4 children ever born, HIV+, peri-urban Kapiri)

When the HIV-positive man from Kapiri said that HIV-positive people are "not allowed to have children," the interviewer asked him whether this was his own belief or something he had been taught. He responded that it was what he had been taught, which suggests that it was a decision imposed on him. Yet, later in the conversation, he claimed that he wouldn't want to have a child even with access to ARVs since the drugs would only prolong life, not cure the disease. This claim was backed up by the fact that he reported always using a condom during sex. It was clear, however, that he was very troubled by his inability to have more children as he returned to the topic time and again. He and his wife, who was also positive, had lost their fourth—and last—child when the child was but two years of age. Near the end of the

conversation, he indicated that he would consider having another child if the child would “never have AIDS.”

In addition to concerns about the well-being of a child born to HIV-positive parents and the health of the would-be mother, many respondents were also concerned about the ethical implications of exposing another person to the risk of transmission, whether the infected individual was a man or a woman.

Isn't it she is already infected? She will infect another person. (FGD 7, Siavonga women, rural)

If she begins to have children, the virus would multiply especially when having sex. (FGD Kapiri women Peri-urban)

No, he will also die. He may impregnate someone's child, and she too will die, let him keep to himself. He will die! (Women, FGD, rural Siavonga)

You know the way men are, he can go and start infecting innocent women so better he just stays. (FGD, Kapiri men, Peri-urban)

Because that man has diseased blood so if he attempts to have children, he may end up infecting the woman. (FGD 4, Katete Men, Rural)

I would advise him not to have a child because AIDS is mainly transmitted through sex and sex is the only way through which a child is brought about, he can end up infecting the other partners. (Male HIV/AIDS program officer, rural Katete)

Interestingly, most of the respondents living with HIV/AIDS who were single or widowed said that they had looked or would only look for a partner who was also HIV-positive so as not to put an HIV-negative person at risk of transmission.

Disclosure of HIV-positive status

While the majority of the study participants recognized the importance of disclosing one's HIV status, there were gender differences. Men were more inclined than women were to disclose their HIV status to their spouses. The following statements are illustrative.

It is important to tell your wedded wife that you are HIV positive so that she becomes aware. If she knows it will help you to decide on which method to use when meeting her. Maybe there is a way that you can try to abstain or maybe when you want to have sex with her you use condoms. So the survivor will remain taking care of the children. [FGD, Siavonga, Men]

It is important to tell your wedded wife that you are HIV +. To me that is not a problem. You can actually discuss with your wife to solve that problem. In terms of any problems, you can fight it together with your wife. [FGD, Siavonga, Men]

Even among the men who decided to disclose their HIV status to their wives, the decision and process can be quite difficult as indicated in the statements that follow.

I told her according to what I was taught that I shouldn't tell her point blank but to go step by step. I started by telling her that I had been put on some drugs for 3 months and after I finish I would be required back for some check ups. After some time I asked our boss, the director so that he could ask my wife on my behalf to go for VCT but it looked difficult for him too. Then I gathered some courage and told her that what ever happens, neither of us should carry the blame because we made a mistake at first. We should have gone for VCT so that we could ascertain which one of us was sick. She then went and tested positive; now she is also taking some ARVs. (Married man, age 32, no children ever born, HIV+, Katete)

Yes I told her [my wife] but it wasn't easy, but I advised her not to get mad or do anything stupid about what had happened and that we just had to accept the situation at hand. I advised her on my own that she should come with me and also do the testing, because I was found positive and being my wife I thought it was important for her to have the test as well. But I didn't have too many problems with convincing her since she was an equally informed person, so each time I came to the hospital for reviews, she always came along with me. (Widower, age 43, 4 children, HIV+, Katete)

But there are some women, you see these marriages some are marriages on paper. Some if you tell them your status they will tell you: "Since you are sick how can I live with a sick man?" So it depends on the type of a wife you have. If she does understand you tell her. (Men, FGD, Siavonga)

As one woman living with HIV/AIDS reported, her husband could only tell her when he was under the influence of alcohol.

He went to drink and then came back drunk then he started telling me, "Me, I went for VCT and I'm HIV positive." So in the morning I asked him: "Is it true what you told me yesterday that you went for VCT and you are positive?" He said: "Yes." Then I spent two weeks that is when I also went to confirm and was found positive. (Married woman, age 27, 2 children ever born, HIV+, peri-urban Kapiri)

Women were less willing than were men to disclose their serostatus to their spouses. As revealed in the statements that follow, the reason was straightforward: Women feel more vulnerable to abandonment or censure than do men.

If you go and get tested when you come to discuss with him you will be blamed that you are the one who has brought this problem in the home even when he knows it's his fault. Meanwhile, he has already infected me so I just have to stay. (FGD, Siavonga Women, rural)

Fear of being questioned or blamed. Now if it is difficult to discuss the curable (syphilis or gonorrhoea) what more of the incurable (HIV/AIDS). How many of us here can have the courage to discuss with our husbands over our results from the hospital? (FGD, Siavonga Women, rural)

If he agrees to discuss with you your status, you will then conclude that you are dying. "Now where did you get this when you know that I as your husband, am not promiscuous." You see, this makes us keep quiet in fear of being divorced. (Women, FGD, peri-urban Kapiri)

I feel it is equally important for her to discuss her status with her husband. But the problem we face in our communities, when it is the woman who is HIV+ the man decides to divorce the wife, but when it is the man who is positive, the wife won't do it. (Female health care provider, Siavonga)

In sum, it was not uncommon for women in the focus groups to express fear of blame for bringing the illness into their marriages or of abandonment by their husbands; a fear expressed by only one man.

Responses to the question on the need to discuss one's HIV status with sexual partners other than one's spouse were mixed. Some of the respondents felt that it was important to tell their sexual partners so that they can access VCT services in case they too are infected. Yet, trust between sexual partners was less evident than between husband and wife.

Girlfriends have no manners. They will publish that you have AIDS. (Men, FGD, Siavonga)

Ah, to tell a girlfriend that I am HIV-positive, no, I can't. But if I want to maintain her as a friend, I would keep to myself instead of wasting other peoples' lives. (Men, FGD, Siavonga, rural)

The HIV/AIDS status must be kept confidential so apart from my wife, I cannot tell anyone else. (Men, FGD, peri-urban Kapiri)

For me I can tell her so that she should not expect my 'services' anymore because I will have started abstaining. I would tell her in such a way that she gets assisted by going for VCT. (Men, FGD, peri-urban Kapiri)

Even those with extra marital affairs should go and inform their partners about the status so that they can also take a step. But unfortunately this is not happening. (Women, FGD, Katete)

That's the thing because if I tell him he would shun me. He would chase me away that I am no longer of use. (Women, FGD, Siavonga)

The avoidance of infection (or re-infection) was cited by focus group discussants as well as by key informants as an important reason to inform sexual partners of one's status.

All respondents who were married at the time of their HIV-positive diagnosis shared the results with their spouses. Yet, this may not be typical; a female nurse in Kapiri reported: "Mostly positive pregnant women are not given support even by their husbands. That is why they fear disclosing their status to their family." Among our interlocutors, most of the women living with HIV/AIDS sought testing when urged to do so by husbands who had been diagnosed with HIV/AIDS or after their husbands passed away following a prolonged illness.

All the interviewees living with HIV/AIDS had also discussed their status with either a relative or close friend. The major reason people living with HIV/AIDS cited for discussing their status with others was their desire for empathetic understanding and support, both material and immaterial. With only a few exceptions, they reported that close relatives and friends were supportive and sympathetic, but this was not universally the experience.

If people discover that you are sick they will not eat with you. Even sleeping together they do not want. Even your own relatives can distance you. Some would not even want to be identified with you as a relative. This is the big problem I have seen that has been brought by this HIV/AIDS.
(Female aged 42, Siavonga, rural, widow, 7 children ever born)

One woman, however, had noticed a change in people's attitudes, a change she attributed to the fact that many people are HIV-positive as attested by the long lines outside clinics that provide ARVs.

You know when people hear this one is HIV positive they try to stay away from that person but at least now people are beginning to understand because even when I go to get the ARVS you find a very big line when getting the medicine. (Female aged 39, Siavonga, rural, widow, 3 children ever born)

Yet, stigma against people who are living with HIV/AIDS persists as evident in concerns expressed by several focus group discussants. The following is an exchange that took place among men in a village in Siavonga:

I also need to tell them because others can have knowledge that will benefit me. Some of them can give me some medicine to help me when I can't go to get medicine at the hospital. At least they will help me.

(Laughter.)

We are difficult. When you tell your friends, they will all go away and you'll remain lonely.

You will be the topic of the day.

You'll find that before you even reach home to tell them the news the message has already arrived.

The goodness of keeping it a secret is to avoid stigmatization.

You cannot gather spilt water. So let's educate the community to understand our status because AIDS is here. The affected are people like us and those living with AIDS are human. They need help, they are our friends.

In the other men's groups, mixed opinions were also expressed. Similarly, in the women's groups, some participants asserted that openly discussing the pandemic would help educate the public as well as help the affected individuals obtain necessary help, others argued that one should disclose only to one's spouse or immediate family members.

Now when they tell me, I will keep it to myself. I will not tell even my friend. If we will go somewhere with my husband, we shall go just the two of us and they will counsel us on how we should stay together. Even my neighbor must not know that I am sick that is a secret for two of us. (Women, FGD, Siavonga)

Finally, there were several individuals who argued that HIV-positive individuals will not disclose their status because they do not want to die alone.

Others do not want to be tested because if they are found positive it will encourage them to meet as many people as possible out of frustration so that she also infects others. This makes many shun testing. (Women, FGD, Siavonga)

But the problem I have observed here is people don't want to come out because they want to infect others so that they can feel the pain, many of them instead of them alone. (Women, FGD, Katete)

What I will do is shun [girlfriends] but not going announcing to them that I am sick. But if I become annoyed, I can go and continue meeting with her and many others so that they die with me too even all 100 of them. (Man, FGD, Siavonga)

The last comment stands in sharp contrast to the many participants who maintained that it is unthinkable to knowingly expose another to the virus.

HIV and Family Planning

Most of the respondents were aware of family planning and its importance; many directly mentioned or alluded to the fact that the prevalence of HIV in their communities influenced their thinking about contraception.

They told us that it is important to embrace family planning procedures because if we already have, say five children, it means that our blood is weaker and when we go to the labor ward on delivery, we tend to lose a lot of blood thereby reducing our chances of survival especially if we are positive (Katete women, rural, FGD).

The other help we are getting is that kind of family planning where we are encouraged to use condoms. This way we are prevented from becoming pregnant and, just in case one of the partners has HIV, the other one is protected from contracting it (Peri-urban Kapiri, women, FGD).

These days you don't have to have more children because of HIV you never know may be your partner have got HIV, so we don't want to have unintended pregnancies. (Women, FGD, peri-urban Kapiri)

Yes it has especially when one discover his/her status when they have say two children they fear to go ahead to have more children because when they do so, they are likely to live shorter than they would have lived without conceiving. (FGD 11, peri-urban Kapiri men).

Yes, because one of the ways to prevent the spread of AIDS is to practice family planning through the use of condoms. (FGD 3, Katete Men, Rural)

Notwithstanding the apparent widespread knowledge about family planning and its benefits, some misconceptions still exist concerning its negative effects.

They say if you take too much of family planning you stop having children. Those who are barren already they will never have children for the rest of their life. (Siavonga female FGD)

They say the [condom's] lubricant itself gives some disease after some time. (Men, FGD, peri-urban Kapiri)

Misconceptions aside, the sentiments expressed above are important in that they highlight the impact HIV/AIDS has had on family planning in terms of limiting childbearing as well as choice of contraceptive method to use. This is succinctly put in the following excerpt.

If you want to be protected from catching HIV/AIDS, one is advised to use a condom and since a condom does not only protect AIDS but also pregnancies, we can say that it plays a role in family planning. That means that if one person uses a condom, he is protecting himself from AIDS as well as planning the family. (Men, FGD, Siavonga)

Other groups, men and women alike, mentioned the dual protection afforded by the condom. This seems to indicate a growing realization that, apart from abstinence, only the condom reduces both the risk of unplanned pregnancy and the transmission of HIV/AIDS.

Fertility decision-making in light of medical advances

The availability of voluntary counseling and testing seemed to be widely available to participants in this study, especially for pregnant women. Generally speaking, pregnant women were willing – even sought – to be tested.

Some of them know how their husbands move. So they would like to know if they have the disease or not. (Men, FGD, Siavonga)

We become happy for it allows us to know our status and they will tell you what you need to do. That's the good part why we like it. (Women, FGD, Siavonga)

Actually what we do here in Kapiri District we first start with specialized group discussion where the pregnant women come and then we talk to them about HIV/AIDS. From there we ask: Who would like to know their status? You find that three-quarters of them agree to be tested. (Male psycho-social counselor, peri-urban Kapiri)

All the pregnant women are counseled on HIV/AIDS. They are counseled and actually testing is done at this [antenatal] centre. . . . Most of them would like to know their HIV status. (Male HIV/AIDS project assistant, Katete)

Yet, some women were worried about their partners' reactions, whether to the fact that they had sought testing without permission or to HIV-positive results.

[Pregnant women] want to be counseled about VCT but they are afraid of their partners. (Male health provider, Katete)

[Before accepting VCT] most of them say they should go and consult their husbands first. (Female nurse, peri-urban Kapiri)

While the general sense among key informants was that women typically want to be tested, a nurse from Kapiri said that the number of women attending the antenatal clinic in her area had decreased “. . . because women fear that when they come for an antenatal session, they would be talking about HIV and AIDS.” From this single statement, however, we cannot assess the extent of this phenomenon. Nor can we ascertain why women might be reluctant to talk about HIV/AIDS, so the question remains: Does this observed reticence result from fear of an HIV-positive diagnosis or fear of discussing the matter with a partner?

Men were also aware of VCT and knew that they could choose to be tested or not if they went to a clinic for information or counseling. Many asserted that it was important to know one's status and several men said they had been tested, but this did not seem to be the norm.

With respect to the prevention of mother-to-child transmission (PMTCT), only a few people in the group discussions reported that they had never heard about it; the majority were aware that pregnant women who tested positive for HIV could obtain drugs either locally or at a district hospital. All but one HIV-positive respondent had heard about PMTCT. Many respondents recognized the need to protect the newborn during the birthing process; several mentioned the need to start taking the drugs prior to labor.

I'm not sure but I have just heard that people who go to antenatal these days even if you are positive you can have children because there is a drug that they give to prevent your child from getting infected. (Widow, aged 39, 3 children ever born, HIV+, rural Siavonga)

They also told us that in most cases, the baby gets the infection from the mother during birth not before. (Women, FGD, Katete)

I heard and those drugs are there at the hospital that is why pregnant mothers are encouraged to undergo VCT so that in case she tests positive, she can be put on these drugs. (FGD 11, peri-urban Kapiri men)

Transmission happens at childbirth. If the mother's blood meets with the baby's blood, the child can get HIV. (Married man, 4 children ever born, HIV+, peri-urban Kapiri)

But I was told that there is some medicine they give to expectant mothers who are HIV+. These are given medicines to drink while pregnant. When it is time for delivery, then the baby is treated upon delivery so that the baby is free from HIV. (FGD 8, Siavonga men, rural)

None, however, seemed to have a clear picture of the process. Respondents reported that they had been given mixed messages about breastfeeding. Some were confused and others misinformed about the role of breastfeeding in PMTCT, although a few people did mention the importance of exclusive breastfeeding for six months.

I hear during the early stages of breastfeeding a baby, some say you can breastfeed while others are saying it is not safe. It seems to be dangerous to the baby. Others say they are minimal while others are saying they cannot be ignored. It seems at times a problem may develop. (Siavonga woman in FGD)

We are told that at some stage, the pregnant woman goes to the clinic for counseling and further instructions on how to take drugs and at what time. The baby also is given some dosage three

days after birth, and when this happens she can breast feed for up to 18 months. (FGD, Men, peri-urban Kapiri)

The other thing is when that baby is born, it is supposed to be feeding on breast milk alone for about six months and after this, she can feed the baby on other food stuffs, because if the mother continues to breast feed the baby, she would easily get sick. (FGD 11, peri-urban Kapiri men)

On breastfeeding, I hear you only breastfeed for 6 months then you stop. (Married woman, aged 27, 2 children ever born, HIV+, peri-urban Kapiri).

The message that open sores, whether on the mother's breast or in the baby's mouth, could place the infant at risk of contracting HIV did seem to come through to many respondents.

We are taught that when you have some sores on your breast and a baby has some sores in the mouth, it will contract the virus from that even if it was born negative. (FGD, Katete women)

If the breast has a sore, the baby can get the disease while breastfeeding. (Married man, 4 children ever born, PLWHA, peri-urban Kapiri)

Respondents' views on the effectiveness of PMTCT covered the whole range, from ineffective, moderately effective, to highly effective.

I have heard but, you know these drugs don't cure AIDS and the virus is in the blood, and my blood and the baby's mix, so chances that the baby would come out with no disease are very minimal. (Married woman, aged 34, 2 children ever born, HIV+, rural Katete).

Yes, I have heard about it but I have not been taught about it. I have heard that at least transmission does take place. (Married man, age 45, 6 children ever born, HIV+, peri-urban Kapiri)

Even though the counselor told me that I can have a child and the child can be protected from getting infected I was still not convinced, because there is a higher risk of that child getting infected. (Married woman, aged 27, 2 children ever born, HIV+, peri-urban Kapiri)

They say that the baby under normal circumstances is not infected but only gets the virus if mishandled at birth. So if the mother starts taking drugs, the chances for the baby to survive are very high. (Siavonga women FGD)

It is also possible to have an AIDS free child. All you have to do is to be counseled how to go about it. You will be told what to do when you want a baby. They will tell you the baby will come out minus AIDS. (Men, rural Siavonga)

I know that there are some drugs that are given to expecting mothers so that they don't pass on the virus to their babies. The birth attendant is supposed to be very swift in pulling out the baby so that the mother's blood does not spill over it. (Single woman, aged 26, no children ever born, PLWHA, rural Katete)

The levels of knowledge were variable; many seemed to have only a vague sense of how, when and with what degree of probability PMTCT can protect the newborn child.

Yet, the general message that PMTCT is available has been widely disseminated as it was brought up when the respondents were asked whether a pregnant woman living with HIV/AIDS would consider terminating her pregnancy. While a few respondents acknowledged that abortion is an option that some HIV-positive women will choose, most thought it was not a viable option and some said they had never heard of anyone taking that course of action. Rather, they suggested that transmission of the virus to the infant could be avoided.

I don't think they would [abort] because these people are taught at the clinic that, that child is not sick yet unless she is mishandled at delivery. That is why they are always encouraged to go and deliver from the hospital not home. So she cannot think of terminating the pregnancy. (FGD 4, Katete Men, Rural)

If she was correctly counseled, she wouldn't unless she was not counseled. (FGD 11, peri-urban Kapiri men)

There is nothing she can do, no nothing. Since both are hers, they are on her body, and if she thinks of aborting it will lead to her death and so, it's better to tell the nurse that I am pregnant and I have a virus. The job is theirs. (Women, FGD, rural Siavonga)

She needs to just go to antenatal for prevention. (Women, FGD, Siavonga)

They think that since they are infected, they will give birth to a dead baby and if at all it comes out alive, it will be sick and won't live long. So they sometimes think that the burden of the carrying that pregnancy is not worth. (Women, FGD, Katete)

Some do that, they abort. . . .Yes they do and look for herbs to do so. (Men, FGD, Siavonga)

A male HIV/AIDS program assistant from Katete indicated that in communities or villages where HIV information is lacking, community members will “tell them this is the end of your life; the best thing [is] to terminate the pregnancy because this pregnancy is going to worsen your status”; while better-informed individuals will “encourage that person to go and seek help from the hospital.”

When asked whether the availability of drugs to prevent mother-to-child transmission would affect the fertility decisions of HIV-positive individuals, several groups indicated that it would

have a positive effect, while others noted that the risk of infecting one's spouse or partner remained.

Some of them will think, now that I can have this treatment let me have another baby. (Men, FGD, rural Siavonga)

Others persevere and go on to have a baby because we are taught that there are some medicines which prevent the baby against the mother's disease. (Women, FGD, rural Katete)

. . . the woman's life is at stake. And the man too risks . . . re-infection. (Men, FGD, peri-urban Kapiri)

Several groups noted that it should be a mutual decision.

If they mutually agree as a couple, they go to the hospital and follow the given advice, they are given medicines, and use them accordingly, they can have children. (Women, FGD, rural Siavonga)

Among people living with HIV/AIDS, the question about their knowledge of and access to ARVs elicited responses focused on the advantages to their health and longevity.

I was told that these drugs will improve my life but they will never kill the HIV virus. They will just make it dysfunctional. It doesn't heal. (Widow age 39, 3 children ever born, HIV+, Katete)

What I can say concerning ARVs is that they really work, because when you look at me, this is not the way I used to be. I never used to manage to lift any heavy object or walk a long distance but now I am fit. (Widower, age 38, 1 child ever born, HIV+, rural Katete)

Yes, I was told that drugs are there that can prolong my life. I can also get better if I follow the instructions well and continue with my work. (Male, age not disclosed, 4 children ever born, HIV+, peri-urban Kapiri)

Okay, they help to boost the immunity though they do not cure. (Divorced woman, aged 36, 3 children ever born, HIV+, rural Siavonga)

The impact of access to ARVs on respondents' fertility desires was variable: some said that ARVs would make no difference, while for others the drugs seemed to offer renewed hope for future childbearing.

Actually when I heard that you could still have a child even if you are positive, I thought that if I found a Mr. Right I would go for it. (Widow, aged 39, 3 children ever born, HIV+, Siavonga)

Since my partner is already weak and taking the ARVs, it would make her life very vulnerable by having her pregnant because she might even get weaker and eventually die so the issue of children for me is out of question. (Widower, aged 43, 4 children ever born, HIV+, rural Katete)

While some in the focus group discussions did think the availability of PMTCT would positively affect an HIV-positive individual's decision to have children, access to ARVs did not seem to have that affect as most respondents thought that HIV-affected couples would or should continue to avoid pregnancy. In short, questions focused on the availability of medication to avoid transmission to the *newborn infant* seemed to inspire hope so that child-bearing seemed a viable option. Yet, questions centered on prolonging the life of HIV-positive adults seemed to evoke concerns about the ultimate end.

No, it doesn't affect number of children because ARVs only protects you alone not the baby, so the baby can still be born infected. (FGD 1, Katete Women, Rural)

As we have already said, this only tones down [the illness]. . . So it gives this person some more time, that's all, not that he can bring up a family, no. (Men, FGD, rural Siavonga)

ARVs make the virus sleep, it does not kill the virus, so we cannot plan to have children. The end result is in the grave. (Women, FGD, peri-urban Kapiri)

Key informants were more likely than were FGD participants to mention the role of ARVs in enabling people living with HIV/AIDS to fulfill their fertility desires.

These days we have ARVs, of which when somebody is put on those ARVs, the viral load will remain at that level. So I see no need to stop someone who is HIV+ to have a child. And especially for women, we have PMTCT. There are those drugs which are given when that woman is in labor. So, I feel there is no need of stopping them. (Male HIV/AIDS project assistant, rural Katete)

Actually, those who are on ARVs ask us about having children . . . We advise them to come back to the doctors to be tested and if they find that their immune system is still okay, they want to have children. The doctors talk to them and advise them to have children. (Male counselor, peri-urban Kapiri)

A male counselor, however, noted that the ARVs themselves sometimes cause a woman living with HIV/AIDS to ask about abortion because of concern about the potentially detrimental affect on the unborn child.

Actually they say these ARVs, when you take them you have a problem; some say maybe they can terminate the pregnancy. But we talk to them about the goodness of the drug. (Male counselor, peri-urban Kapiri)

The other key informants who work in the health sector reported that none of their HIV-positive patients had sought abortion; rather, the affected individuals asked about the way forward.

Informational Needs and Sources

Focus group participants, people living with HIV/AIDS and the key informants alike expressed the need for more information about virtually all the issues raised over the course of the interlocations, from the prevention of pregnancy to the prevention of transmission during breastfeeding, from stigma reduction to care and support for family and friends, and from VCT to ARVs. Among the requests for additional family planning information were the following:

How to prevent the unintended pregnancy if already affected and, if already pregnant, how she is going to prevent her child from getting the infection and also on changing behavior. (Male health care provider, peri-urban Kapiri)

Women learn about family planning during antenatal and under-five clinic visits but us men are hardly taught. I think family planning should be taught even to us men so that we know instead of being told by our wives all the time, for we also need to know. (Male FGD, Siavonga)

At the close of a discussion on transmission during breastfeeding, one man pleaded:

But on this question, if you go without telling us the truth, you shall leave us in suspense, we do not know anything. So you tell us. (Man, FGD, Siavonga)

Many respondents wanted to learn more about HIV testing, transmission, and treatment. There was a widespread recognition that their information was inadequate, which left many with the sense that they were vulnerable to forces they could neither influence nor control.

We need to know what VCT is and what is needed for one to go there and we need lessons at the community level in order to be sensitized. (FGD 8, Siavonga men)

I would like to encourage as many people as possible to go for VCT. We need more education. (Men, FGD, peri-urban Kapiri)

You know we are human and we have children, we want to know so that we can warn our children. These are bad days. Even us who do not have children we need to know. (FGD, Siavonga women)

As you may know here in the village we have not enough information and we may be cheating ourselves. How can we protect ourselves against this HIV/AIDS?

(FGD, Katete Women)

The other thing is since they say that once you are started on ARVs, you are not supposed to stop . . . you like take them for the rest of your remaining life. What will happen to us when the people making these drugs stop? (Widow, age 39, three children ever born, HIV+, Katete)

Even those who are relied upon for advice and guidance reported a need for more extensive knowledge. As one health care provider lamented: “Due to the lack of training, our information is very limited.”

Respondents mentioned a wide range of sources for information about HIV-related matters, including outreach workers, drama groups, home-based care organizations, community meetings, schools, churches, clinics, and the radio.

Discussion

The findings show that HIV/AIDS and family planning are intertwined – one could say, integrated – in the minds of many Zambians as they confront the very real and present danger posed by heterosexual transmission of the virus. Given the dire economic conditions of so many Zambians, economic exigencies were cited as factors that led to fewer children, especially among men. Yet, many study participants – women and, to a lesser extent, men – spontaneously mentioned the influence of HIV/AIDS in reducing their desired family size as well as that of their compatriots.

This stands in contrast to a number of other studies. A case in point is a qualitative study carried out in Ndola, Zambia, in 1997, which found that: “. . . participants' high awareness and concern about HIV and AIDS were not directly reflected in their childbearing decisions. Instead, the most important and most common factor that influenced childbearing decisions was economic conditions; specifically, women and men said their ability to provide for their children determined their childbearing decisions” (Rutenberg, Biddlecom & Kaona, 2000:126).

Similarly, other studies that have explored the relationship between an HIV-positive diagnosis and subsequent fertility behavior have found that known HIV status has little association with childbearing. For example, interventions with HIV-positive women in Africa have not been found to motivate a significant change in reproductive outcomes. In-depth interviews among

women in Cote d'Ivoire who had learned their HIV status during pregnancy revealed that most women (12 out of 15) with fewer than four children intended to become pregnant again even though they had been advised not to have more children because of their infection (Aka-Dago-Akribi H et al., 1999). Similar findings were reported from Zaire, where a study of fertility rates in 238 HIV-infected women followed for 3 years postpartum found "disappointingly" high fertility rates in women who had been provided with a comprehensive program of HIV counseling and birth control (Ryder et al., 1991).

At least one study, however, did not point exclusively in this direction. In a study conducted in Zambia in 1995, researchers found that no one mentioned HIV/AIDS "as a factor influencing their preferred family size during the initial survey" (Baylies, 2000: 78). Further investigation, however, found that 17 of the 65 individuals re-interviewed did mention that the threat posed by HIV/AIDS had led to the decision to have fewer children. Among those individuals, it was primarily worries about unduly burdening others with minor children they would leave behind and, secondarily, an effort to reduce their own risk that led to this decision (Baylies, 2000: 83).

The aforementioned studies, however, were conducted in the 1990s, when few knew the cause of death given the scarcity of HIV testing sites and when even fewer acknowledged the cause of death when AIDS-related. It is difficult – though not impossible as we saw in a few quotes listed above – to continue to deny the presence of HIV/AIDS in Zambia. It is now a reality that has directly or indirectly affected the lives of most Zambians. It may be that women were more likely to mention HIV/AIDS as a deterrent to large families because they are the primary caregivers, while men mentioned economics because the social norm assigns them the role of major breadwinner.

Importantly, this study found that another widely cited reason for avoiding childbearing when HIV-positive was an ethical consideration: namely, the moral duty not to expose one's spouse – sometimes extended to one's partner – to potential infection. Since artificial insemination is not an option in Zambia, sexual intercourse places one's partner at risk of infection and, when both are infected, of re-infection, a fact that is too-often overlooked in the literature when the focus is exclusively on the HIV-positive individual's *right* to bear children,

without addressing the concomitant *responsibility* to honestly discuss the risks with a sexual partner. While the obligation to protect unborn or breastfeeding infants from HIV transmission was cited in earlier studies as a reason to avoid future childbearing, the imperative to protect a sexual partner was not widely discussed.

Whereas earlier studies found a widespread belief that vertical transmission of HIV/AIDS from mother to infant was inevitable (Rutenberg et al., 2000: 127), most of which were conducted prior to the widespread availability of PMTCT programs, our study found quite the opposite: many respondents seemed to believe that HIV transmission would be avoided if the delivery was “properly handled,” with only a few recognizing that this risk of transmission in Zambia remains high. Recent research estimates vertical transmission between 18 and 30 percent in resource-constrained settings such as Zambia (Eure et al., 2006; Martinson et al., 2006; Stringer et al., 2005). Accurate information about transmission rates seems not to have been widely disseminated – or understood – in Zambia.

Of the sixteen HIV-positive interviewees, only three – two of whom had no children – expressed a clear desire for children. This is an area that would require more research as it is important to explore the fertility needs and concerns of young women and men, which differ from their older counterparts. A few HIV-positive interviewees mentioned that they would consider another pregnancy if they could be certain the child would be born “AIDS-free.” For the most part, the interviewees who stated unequivocally that they would avoid another pregnancy also mentioned that they were using condoms. The interviewees seemed to have come to this decision not because, as someone who is HIV-positive they “weren’t allowed” to have children, but because of their poor health conditions, the unacceptable risk of infecting their partner, or the high probability of having an HIV-positive infant. While stigma remains a serious problem, it seemed to be an obstacle more with respect to disclosing one’s status than to limiting one’s fertility desires.

Men continue to find it easier to disclose their status to their wives than it is for women to reveal their status to their husbands, a finding that echoes those of other studies and can be understood in terms of gender inequity. Women’s reluctance (a reluctance that arises from fear

of censure or abandonment) to inform husbands about their HIV status has also been reported in other studies. For example, in northern Thailand, nearly a quarter of 50 HIV-infected mothers who participated in the government's PMTCT program did not inform their husbands of their HIV status, and two-thirds did not inform their husbands of their participation in the program (Likhitwonnawut, 2002). Similar findings were reported for Uganda (Angulo, 2002). In our study, all HIV-positive respondents discussed their status with their spouses. Nonetheless, the fact that women find it harder to do so than is true of men came up time and again. More research is needed to explore what would enable women to disclose their status more readily.

It was relatively rare for a man, and rarer still for a woman, to discuss an HIV-positive diagnosis with a sexual partner who was not also a marital partner. Respondents, whether they knew their status or not, reported that, while it was vital to discuss one's status with close relatives, it was risky to disclose an HIV-positive diagnosis with the community at large. Deep and abiding trust, it seems, rarely extends far beyond the hearth when it comes to HIV and AIDS.

The evidence suggests that there is still a relatively high prevalence of multiple, concurrent sexual partners in Zambia, which has fueled the epidemic. For instance, in 2001, about 20% of men reported more than one sexual partner in the previous year (Central Statistical Office, 2003). Therefore, research is needed to understand what factors would facilitate disclosure to non-marital partners as well as what factors would facilitate mutual faithfulness.

The findings reported herein clearly support the wisdom of integrating HIV/AIDS testing and counseling and family planning. Increasingly, the public tends to think of the two in tandem: Most people want to know how to protect themselves, their partners, and their children from HIV transmission, recognizing that it may well include contraceptive use. Access to counseling and testing should therefore be a standard part of family planning services. Integrating counseling and testing into family planning services can therefore reduce the stigma associated with HIV, and increase access to and use of VCT services. Family planning programs have both

an opportunity and an obligation to assist individuals in making informed choices that will enable them to safeguard their well-being.

As has been emphasized in recent international consensus statements issued by WHO (Global Call to Action, 2004) and UNFPA (New York Call to Commitment, 2004), the integration of reproductive health (of which family planning is a component) and HIV/AIDS policies and programs will save lives and money and help scale-up and speed-up urgent effective responses. The challenge to service providers is, therefore, to promote not only access, but also consistent and correct use of condoms. The available literature suggests that most unplanned pregnancies and HIV/STI transmissions occur because condoms are not used consistently and correctly (Steiner et al., 1999). Consistent and correct condom use is estimated to be as much 97 percent effective in protecting against both unintended pregnancy and HIV transmission (Trussell and Kowal, 1998; Weller and Davis, 2002; Mann et al., 2002).

New technical guidelines from the U.S. Agency for International Development (USAID) state that such integration is most appropriate in countries where the epidemic has moved beyond groups at higher risk of infection and where HIV prevalence has climbed above one percent among pregnant women receiving antenatal care. In these countries with generalized epidemics, the number of people who need both family planning and HIV services is likely to be high (USAID, 2003). Zambia falls squarely in this category.

Recommendations

Take care of the basics. One implication of the research is that simply because we're focusing on fertility/HIV dynamics, it does not mean that we can forget the "bread and butter" basics of family planning or HIV communication. For instance, there is obviously a real need to: (1) discuss family planning in a comprehensive way that addresses misconceptions; (2) tackle stigma; (3) pursue gender programming that empowers women to bring issues up without retaliation; and (4) promote PMTCT programs, among others.

Gender is a central, not a peripheral issue in integration. Many women are reluctant to discuss test results with their husband or other partners because they fear violence or

abandonment. Most men have no problem sharing results with their wives, but rarely discuss their status with other partners.

Intensify programs for male involvement in reproductive health matters. Men are often left out, or relegated to the periphery, of reproductive health programs. Recognize men's responsibilities by encouraging them to get tested, to use condoms consistently, and to participate in couple counseling about HIV/AIDS and family planning.

Promote spousal communication. Several participants referred to the need for better spousal communication. Through communication modeling and role play, couples can be encouraged to discuss the constellation of issues that connect HIV/AIDS and family planning. At this time of crisis, they are likely to be highly motivated to take action given the depth and breadth of the epidemic.

Deepen family planning communication. Part of the "take care of the basics" point is simply that it is clear that there is much more room for family planning communication. The "old" economic and health rationales for family planning still resonate with people and we should continue to discuss it in that context. We need to refine family planning counseling to address rumors and misconceptions. There is an ongoing need to promote correct and consistent use of condoms.

In addition to condoms, HIV-positive women should be offered other contraceptives. Women who do not want to risk pregnancy should not have to rely solely on condoms, over which they may have little, if any, control and which may not be used consistently.

This study has shown that fertility regulation was also associated with concerns about children's welfare. Family planning programs should take advantage of this by promoting safer sexual behavior in order to avoid HIV infection for the benefit of the family. Encouraging people to take action for the benefit of children and the family may resonate more strongly with couples than individually focused justifications for behavior change.

Refine counseling and testing. It is clear throughout the findings that both pretest and post-test counseling must be strengthened. For instance, family planning is not discussed seriously within the VCT context. Also, clients are neither adequately prepared for the implications of their results nor counseled adequately post-test regarding issues such as breastfeeding, family planning, fertility, couple communication, stigma, and the efficacy of ARVs.

Emphasize trusted friends and relatives. While many who are HIV-positive feel abandoned and stigmatized by the broader community, they do seem to receive support and solace from close relatives and friends. Communication programs must take advantage of this point of calm amidst the storm of negative feedback by, for instance, counseling that circle of friends along with the individual living with HIV/AIDS, both in post-test interactions with the provider and in post-test clubs. Model that behavior in the mass media by showing that there is someone out there whom you can trust to provide you support and sympathy.

Create a compassion movement. People will not get tested, take care of themselves fully, or talk to partners until they have the sense that compassion is a social norm. Stigma remains the norm. Encourage the formation of, and, where these exist, support the operations and activities of community-based groups. Community groups are important in enhancing the process of community engagement, which is essential in bringing about environmental and behavioral changes that will *change social norms*, thus improving the health of the community and its members (Fawcet et al.; 1995).

Much can be learned from what is happening in Kapiri Mposhi, one of the sites for this study. Community members in this area have organized themselves into groups, one of which is the PMTCT post-test club called “Tubombele pamo” or “let us work together” club. Members of this group, who are both positive and negative, go out into the communities on selected days of the week to sensitize people about the prevention of mother-to-child transmission of HIV. The Network of Zambian People Living with HIV/AIDS (NZP+) is also very active in the area as are drama groups.

Properly communicate PMTCT, including information about breastfeeding when HIV-positive. While most people in our study had heard of PMTCT, they typically had only vague

notions about prevention during the birthing process and breastfeeding. Moreover, most did not have a realistic sense of the risk of transmission. Many thought PMTCT was highly effective, while a few thought it was completely ineffective. The public should be given correct information so they can make their decisions based on realistic assessments. HIV-positive women should be told that the chances of transmitting the virus to their infant during birth or breastfeeding are one in three, one in six, or the results of the most recent research. Moreover, there are conflicting signals about the conditions required for safe breastfeeding, and the public is unsure how to read them.

Devise clear messages about childbearing when positive. People are getting many conflicting signals about whether they should or should not have children when they're positive. The decision should lie with the couple, who deserve accurate information regarding the probable outcomes. It is unethical and, ultimately unproductive, to mislead people into a false sense of security while at the same time a violation of human rights if denied to bear children on status alone.

Refine treatment communication. Many people do not know about the availability of ARVs, the realistic extent of that availability, and the effectiveness of the medications.

Embark on campaigns for mass voluntary counseling and testing. There is already a precedent for this in Zambia. For example, from March 23 to April 8, 2005, a mass voluntary counseling and testing (VCT) exercise was conducted on a pilot basis in Kalingalinga, one of the compounds in Lusaka, the capital city of Zambia. At the end of the exercise a total of 700 people turned up and were counseled and tested. This clearly demonstrates the potential of VCT not only to increase the number of people seeking this service but also the potential to reduce stigma attached to HIV.

Encourage couples' counseling and testing. Women and, to a lesser extent, men noted that it is difficult to disclose an HIV-positive diagnosis to one's spouse or partner. Individual women and men need help with this from counselors and other health care providers.

The integration of family planning and HIV-related services will lead to enhanced health outcomes that include not only a decrease in vertical transmission from mother to child and a reduction in unwanted pregnancies and unsafe abortions, but also a decline in horizontal transmission of the HIV virus.

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