

# Reproductive Decision-Making in the Context of HIV And AIDS: A Qualitative Study in Ndola, Zambia

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**Context:** As the AIDS epidemic continues to spread in Sub-Saharan Africa, increasing numbers of women of childbearing age and their partners have become infected with HIV. Family planning programs potentially can reduce perinatal and heterosexual transmission, but effective programmatic strategies depend on how HIV and AIDS influence reproductive decision-making.

**Methods:** In 1997, eight focus groups and 23 in-depth interviews were conducted among women and men in Ndola, Zambia, an area with a high prevalence of HIV and AIDS. Coded transcripts and summary matrices permitted substantive themes to be analyzed by gender of study participants.

**Results:** In the absence of signs or symptoms of illness, HIV's impact on women's and men's childbearing and contraceptive use decisions is generally weak. One important exception is the study participants' observation of the burden of caring for children whose parents have died of AIDS. However, when signs or symptoms of the illness are present, both women and men are overwhelmingly against continued childbearing and support the use of condoms to prevent transmission of the disease to a spouse. Many women said they would fear getting pregnant if they suspected they were HIV positive because pregnancy would "bring out" the disease, and some women said that before having another child they would consider taking an HIV test.

**Conclusions:** Family planning programs could help clients ascertain their own risk of infection and thus reduce perinatal transmission of HIV by frankly discussing risk factors, offering HIV testing and assisting couples affected by HIV make better choices about contraceptive methods.

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The continued spread of the AIDS epidemic in Sub-Saharan Africa has led to increased numbers of women of childbearing age and their partners who are infected with HIV. Fertility rates remain high in many countries most severely affected by AIDS. Hence, a major mode of transmission of the AIDS virus in the region is from infected mothers to their children during pregnancy, delivery or breastfeeding. In developing countries,

25-35% of infants born to HIV-infected women become infected themselves.<sup>1</sup> In some areas of Sub-Saharan Africa, vertical transmission of HIV has led to rising child mortality rates, eroding the hard-won gains of child survival programs.<sup>2</sup> Moreover, the children who escape infection from their HIV-positive mothers are likely to join the rapidly growing number of children orphaned by parents who have died of AIDS. For example, in Zambia, the Ministry of Health estimates that by 2000 more than 500,000 children younger than 15 had been orphaned by the AIDS deaths of their mothers or of both parents. If present trends in Zambia continue, the number of AIDS orphans will increase to more than one million by 2010.<sup>3</sup>

The promotion of family planning services among HIV-positive women can prevent and reduce births of children who have a high probability of dying from AIDS or being orphaned upon the death of one or both of their parents.\* In the absence of antiretroviral prophylaxis and affordable, safe breast-milk substitutes, the principal strategies to prevent HIV infection in infants are HIV prevention in women and men and couples' use of contraception when the woman is HIV-posi-

tive. Moreover, if a couple chooses a barrier method, contraceptive use will prevent or slow transmission of the virus from one partner to the other.

Few studies have explored reproductive decision-making among people who live in a location with a high prevalence of HIV and who generally do not know their HIV status (due to the absence of HIV testing other than for diagnostic purposes).<sup>4</sup> Most of what we have learned about the impact of HIV and AIDS on reproductive decision-making is based upon studies of women who learned their HIV status through participation in clinical research or from pilot voluntary HIV counseling and testing services.

The 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. Couples appeared to be cognizant of the risk of HIV infection and AIDS—particularly for their children—and sometimes reported changes in contraceptive behavior, yet fertility levels were not affected greatly.<sup>5</sup> In-depth interviews among women in Côte d'Ivoire who learned their HIV status during pregnancy revealed that despite having been advised not to have more children because of their infection, most women (12 out of 15) with fewer than four children planned

\*Women living with HIV and AIDS have the right to be respected and supported in their reproductive choices. This includes the right to have or not to have children. (Source: Gilks C et al., Sexual health and health care: care and support for people with HIV/AIDS in resource-poor settings, Health and Population Occasional Paper, London: Department for International Development, 1998.)

†Studies in the United States among high-risk populations have reached similar conclusions: HIV serostatus, AIDS knowledge and perceived risk for getting AIDS were not associated with reproductive decisions, in part because women and men strongly desired children and had poor knowledge about perinatal transmission. (Sources: Ahluwalia IB, DeVellis RF and Thomas JC, Reproductive decisions of women at risk for acquiring HIV infection, *AIDS Education and Prevention*, 1998, 10(1):90-7; Weiss SH, Weston CB and Quirinale J, Safe sex? misconceptions, gender differences and barriers among injection drug users: a focus group approach, *AIDS Education and Prevention*, 1993, 5(4):279-293; and Williams AB, Reproductive concerns of women at risk for HIV infection, *Journal of Nurse-Midwifery*, 1990, 35(5):292-298.)

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to become pregnant again.<sup>6</sup>

Whether women know (or suspect) they are infected with HIV or fear becoming infected through unprotected sexual intercourse with their partners, a pregnancy can affirm a woman's own health, or at least her capacity to bear a healthy child. Women use pregnancy to demonstrate the absence of HIV infection and continuing good health,<sup>7</sup> and frequently cite fear of abandonment as the underlying motivation for demonstrating good health—and avoiding any suspicion of HIV infection.<sup>8</sup> Even among discordant couples (where only one partner has HIV) in which both partners are aware of each other's HIV status, couples choose to have more children, despite the risk of transmission to the uninfected partner and the child, to avoid the danger of rejection by the community.<sup>9</sup>

Regardless of women's own desired reproductive response to HIV infection, many lack the ability to negotiate openly with their partners about reproductive decisions and contraceptive use. In a study in Kinshasa, Zaire, more than 97% of 238 women infected with HIV-1 were unwilling to inform their sexual partners of their HIV status because of fear of divorce, physical harm or public scorn.<sup>10</sup> Women's motivation to protect themselves and others, including their intention to avoid future pregnancies, can be undercut by the opposition of their partners. In Zimbabwe, husbands are more likely to want children after an HIV diagnosis than are wives, particularly wives who have been intimately involved with a sick HIV-positive child. Wives feel they have to accept their husband's decision or risk losing the relationship.<sup>11</sup> Two studies from Rwanda confirm that informing partners and involving them in a woman's HIV testing and counseling has little effect on subsequent contraceptive use and pregnancy.<sup>12</sup> This is not to imply that partners have the final say; some women may find it easier to practice contraception secretly than to obtain the agreement of their partners.<sup>13</sup>

Given the potential for family planning programs to reduce perinatal and heterosexual transmission, more research is needed to understand if and how the AIDS epidemic influences reproductive decision-making. One author notes that there is a "disconnect" between the silent HIV infection and fertility decisions.<sup>14</sup> Research is needed not only on how women and men make decisions but on which, if any, interventions would assist them in making better choices about childbearing and contraceptive use and empower them

to act on those choices.

This article has two main objectives: to examine perceptions of risk among women and men who live in a setting with a high prevalence of HIV and how these perceptions are related to decisions about childbearing and contraceptive use; and to identify possible programmatic responses to assist women and men in having their desired number of children when they want them while avoiding HIV infection and transmission. Ideally, programmatic responses identified in the diagnostic research presented in this article will be tested in later intervention studies.

## Methods

### *Study Setting*

We conducted the study in Ndola, a major urban center in the Copper Belt of Zambia; in 1990, its estimated population was 375,000. Of Zambia's 10 million people, 51% reside in urban areas that share many of Ndola's characteristics. The study setting is part of the "AIDS belt," where the AIDS epidemic is at an advanced stage.<sup>15</sup> According to Ministry of Health estimates, nearly one out of five adults in Zambia is infected with HIV; 950,000 Zambian adults and 70,000 Zambian children are infected and more than 400,000 AIDS cases in Zambia (including people who have died from AIDS) had occurred by the end of 1996.<sup>16</sup>

Sentinel surveillance data from antenatal clinics in Zambia suggest that 25% of pregnant women in urban settings are infected with HIV.<sup>17</sup> The HIV prevalence rate in Ndola is as high as or higher than the average for urban areas in Zambia: A recent study recorded prevalence rates in Ndola at 20% among adult men and 30% among adult women.<sup>18</sup> The convergence of transportation networks in Ndola and the role the city plays as an entertainment and supply base for a substantial number of miners, seasonal workers and mobile traders fuels the HIV epidemic in Ndola.

The 1996 Zambia Demographic and Health Survey indicates that knowledge of AIDS is nearly universal among both women and men, and that more than 80% know that even a healthy-looking person can have the HIV virus.<sup>19</sup> Despite the high level of HIV and AIDS awareness, only 27% of sexually active women and 55% of sexually active men had ever used a condom (either to prevent pregnancy or to avoid STDs). Use of contraceptive methods is equally low: Only 26% of married women reported using any contraceptive method, and only 14% of married women relied on a modern method of contracep-

tion. Moreover, among married Zambian women, 27% have an unmet demand for contraception.

### *Data and Methods*

We draw on qualitative data collected through focus-group discussions and in-depth interviews. Because our purpose is to develop an understanding of how women and men perceive their risk of HIV and AIDS and how this affects reproductive decision-making, data to address such topics should be more nuanced and multidimensional than a set of structured survey items usually can offer. Qualitative approaches encourage discussion, allow for fuller responses than a structured questionnaire and accommodate the emergence of unanticipated issues. The Tropical Diseases and Research Centre (TDRC) in Ndola conducted the focus-group discussions and interviews.

To collect views from a cross-section of the population in urban Ndola, we selected two low-income areas, one medium-income area and one high-income area. The moderator and the person who recorded the discussions and interviews, employees at the TDRC, visited with nurses at the clinics in the selected communities and explained the purpose of the data-collection efforts. The nurses then met with relevant community leaders—traditional healers, community-based distributors of contraceptives and welfare officials. These community leaders in turn went into the community to invite women and men who were using contraceptives (known by the clinic nurses) and those who were not using contraceptives to participate in the discussions and interviews.

Eight to 11 people participated in each of the focus groups. Almost all participants in the focus-group discussions and interviews were 20–40 years old. The TDRC conducted eight focus groups, with a total of 76 participants, and 23 interviews in the first six months of 1997. The focus-group and interview participants were divided evenly between women and men, and all participants were married. We intended the focus groups and interviews to be exploratory and not necessarily to capture views representative of the entire Ndola population. In general, there was a high level of consistency between the results presented here and findings from other studies in Zambia.<sup>20</sup>

We developed a set of questions to guide the focus-group discussions and interviews. The third author trained the field teams, which involved a briefing on the nature and objectives of the study; a discus-

sion of all questions and probes in the guidelines; role-playing; and practice interviews. The TDRC convened the discussions in convenient community locations and carried out interviews in the respondents' homes. The focus-group discussions averaged 2–3 hours. A female nurse moderated the discussions and a female assistant recorded them. Although the TDRC sought the permission of a respondent's spouse before the interview, the interviewers met privately with each participant. The interviews lasted approximately one and one-half hour for women and approximately two hours for men.

The TDRC tape-recorded all discussions and interviews and translated the transcripts from Bemba to English. All authors read the transcripts and developed codes to identify important substantive themes. We then coded the transcripts and independently prepared summary matrices of the TDRC's interpretations of the substantive themes, by gender of study participant. We followed this process to ensure a systematic basis for assessing the content, distribution and frequencies of the views the participants expressed in their conversations.

## Results

### *Community Impact of HIV and AIDS*

Despite the widespread prevalence of HIV and AIDS in Ndola, there was little evidence among study participants of fatalism about contracting HIV. Most women and men clearly articulated ways they use to avoid getting the disease—or at least reasons why they believe they are protected from the disease—and the importance of avoiding the disease, especially because of the problems HIV and AIDS cause for families and children. This lack of fatalism about contracting HIV indicates that women and men feel they have choices for their own reproductive and sexual behavior and that they play an active role in selecting those choices.

However, 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. When we asked participants whether HIV is changing the way people in their community think about the number of children they would like to have or when they would like to have them, most respondents were perplexed about how HIV

would affect these decisions unless one knew he or she was infected. Many respondents, particularly men, said that fertility norms in the community were changing toward smaller families. However, this reduction was not in response to HIV, but in response to a deteriorating economy.

One key exception is the study participants' observation of the burden of caring for deceased family members' children. As one woman said,

"Well, our life styles have changed because so many families have left their children scattered. Because of feeling pity on these children, you take them and keep them and take care of them, as a result, from the little [you have], you cannot manage to feed them all including your own children which God has given you, it is becoming very difficult."—*Female focus-group participant, medium-income area*

The study participants frequently encountered orphaned children in their own communities who were receiving insufficient care from overburdened guardians. The extra burden of raising orphans leads couples to act in two possible ways: limiting their own childbearing to accommodate the added expenses and responsibilities of caring for relatives' children; or refusing or curtailing their obligations to care for relatives' children. While our evidence does not support one outcome over the other, it suggests that HIV and AIDS have an indirect impact on reproductive decision-making through the economic burden of supporting children. The large numbers of AIDS orphans in Zambia and even greater numbers projected for the future mean that the burdens of raising children may have an even wider impact on couples' childbearing decisions than what we see here.

We identified two less common but interesting views on the impact of HIV and AIDS on childbearing decisions related to the economic well-being of one's own children. The first view is that the responsibility to care for one's children should prevent one from engaging in risky sexual behavior that can lead to HIV infection. One woman made the following argument to her husband:

"That is why, my friend, we should behave ourselves. Now if we become promiscuous with the large family we have, where will it go? Now how are the children going to be educated?"—*Female interview participant, age 38*

The second view, expressed primarily by men, is the concern that bearing too

many sons and daughters will lead to poverty, which will lead to risky sexual behavior on the part of the children. In short, they said that if a man has more children than he can provide for, the children will not grow up well and the girls in particular will grow up to be promiscuous and will bring HIV and AIDS to the family.

All women and men knew to some degree about a range of modern and traditional family planning methods, including condoms, to prevent pregnancy and sexually transmitted diseases. This high level of awareness is in line with national survey data on contraceptive knowledge in Zambia, which show that more than 90% of women and men are aware of the condom and that only 4% are not aware of any contraceptive method at all.<sup>21</sup> Yet despite the concern about the consequences of HIV and AIDS in the community at large, there was little call from participants in this study for a greater reliance on condoms and the dual protection they offer against unwanted pregnancy and disease.

### *Impact of Individual HIV Status*

The majority of study participants repeatedly pointed out that it is difficult for people to say what effect HIV and AIDS have on reproductive decisions if they do not know their own status. We asked respondents in the in-depth interviews how much they personally felt at risk of HIV infection. More than half felt that they were not at any risk of HIV. The main reasons women and men gave for not feeling at risk were that they were "well behaved," they trusted themselves or they and their partner trusted each other. It was clear that the study participants had internalized the message that "sticking to one partner" can help protect one from HIV infection.

While more than half of all respondents said they were not at risk of contracting HIV and AIDS, a substantial minority expressed some feelings of risk. Women in particular described their personal risk in indirect ways. They tended to say they trusted their husbands but at the same time expressed uncertainty about whether they were right to trust that extramarital behavior was not occurring:

"I am worried sometimes because I am also a human being and I am married, I would not know about my husband's movements while myself I am innocent so it worries me."—*Female interview participant, age 34*

The common view among women was that it is difficult to raise the issues of HIV

risk and prevention, in part because women fear their husbands will assume that the women are being unfaithful or engaging in risky behavior themselves.

In contrast, most men assumed that married women were safe from HIV. The main reason men felt themselves at risk was due to past promiscuous behavior. Despite reports that promiscuity is common in their community, none of the participants in the qualitative interviews and discussions mentioned current promiscuous behavior. While this may reflect real behavior change, it more likely indicates reluctance to admit to socially proscribed behavior. Interestingly, in another study conducted in the same community, a notable proportion of married men reported having engaged in risky sexual behavior.\*

Married women and men who acknowledged some risk of HIV infection in focus-group discussions and interviews were willing to consider condom use to prevent disease transmission. While very few women reported actually using condoms with their husbands, many women said that wives could insist that their husbands use them in extramarital relationships. Some women mentioned that men use condoms with their girlfriends in order to protect the wife, and a few women even said they would purchase condoms for their husbands to use in extramarital relationships. Mostly, though, women preferred that husbands not engage in such relationships.

Finally, many women said that if they suspected they were HIV positive, they would fear getting pregnant, as pregnancy would "bring out" the disease. It is noteworthy that women's suspicions of being HIV-positive and concerns about how a pregnancy would affect their health is one way in which HIV may influence their childbearing decisions. Some women even said that they would be willing to have an HIV test prior to getting pregnant as a step toward planning for another child, although this was by far an uncommon statement about the personal actions the married participants would take.

### **Potential Impact of Known HIV Status**

HIV and AIDS have a pronounced effect on reproductive decision-making if one is known to be HIV-positive. Without exception, married women and men urged both pregnancy prevention and condom use to prevent the spread of the disease if someone showed signs of illness.

The study participants advocated preventing pregnancy among women with HIV and AIDS for several reasons. For ex-

ample, they believed that pregnancy will make AIDS manifest—that is, that pregnancy "brings out" AIDS in a woman with symptoms. Pregnancy in an HIV-positive woman is believed to lead to a rapid deterioration of the woman's health and then eventual death:

"...that is how it is when a woman is pregnant—that is when all the diseases in the body come out and make HIV because the disease is already in the body. Soon after delivery everything just comes out and the baby does not live longer, it dies, and [for] the mother also the disease becomes very serious."—*Female focus-group participant, low-income area*

Respondents offered varying explanations about why this happened and disagreed about whether a woman's health started to decline during the pregnancy or after delivery. However, their certainty about and consensus on the negative impact of pregnancy on the health of an HIV-positive woman was clear. Whether the pregnancy was aborted or carried to term, the outcome would be the same. Almost all women stated unequivocally that if a woman knew she had HIV, she should avoid getting pregnant because of the negative impact on her health.

Additionally, the overwhelming majority of women and men felt that if a woman were infected and became pregnant, then the unborn child certainly would become infected and die because of vertical transmission of the HIV virus from mother to child. With few exceptions, respondents asserted that if an HIV-positive woman had a baby, the child would be born infected, sick and "already dead." They reported that HIV is transmitted in the womb when the mother and infant share the same blood or at birth, particularly if one used unclean instruments to cut the umbilical cord. Only a few respondents recognized that not all babies were at risk of infection from their HIV-positive parents. Three interview participants mentioned that they had heard that not all babies born to HIV-positive parents die, and one knew of a healthy child who had survived its mother who had died (or was thought to have died) of AIDS.

Men in particular felt strongly that an HIV-infected woman should not give birth to more children who would be certain to die, both because of the sadness the child's death would bring to the family and to avoid expending generally scarce family resources on burying the child.

Moreover, study participants said couples affected by HIV should consider ex-

isting children's welfare, since the mother (and father) will die prematurely. In general, women and men believed that once AIDS is in the home, first one parent and then the other will die. Most respondents were deeply worried that if this happened to them, they would not know how their children would live:

"The reason why AIDS disease is so difficult is that, if you have it, like me, meanwhile the wife at home is innocent, I will take it from somewhere else and bring it to my wife at home. So maybe my wife will die first and then I follow. Now, those children whom we have, how are they going to live? Those are the biggest worries that are there."—*Male focus-group participant, medium-income area*

When we asked study participants what HIV-positive women and men should do to avoid pregnancy, the initial response from both often was "avoid sex in the home" (i.e., abstain). Men listed a number of practical suggestions for implementing this: to have another woman elsewhere, to have two beds or to send the wife away. However, study participants quickly qualified abstinence within marriage as difficult to implement and hard on a marriage. Instead, women and men recommended use of some type of contraceptive method other than abstinence. As previously noted, the study population knew about a range of family planning methods, and the focus-group participants engaged in lively discussions (summarized in Table 1, page 128) about the most appropriate method for an HIV-positive woman trying to avoid pregnancy.

With few exceptions, women and men discussed similar method-specific family planning issues, three of which were paramount: effectiveness in preventing pregnancy, side effects and effectiveness in preventing HIV transmission. Everyone agreed that HIV-positive women would want to be protected from pregnancy by an effective method, but it also was important that the method agree "with the blood of the woman" and not "disturb" her health. Women and men argued that

\*Data from a probability sample of married women and men living in the urban Ndola district showed that 16% of husbands said they were currently in a sexual relationship with a woman other than their wife, and among those men, 43% said they were not using any contraceptive method in those relationships. Married men's risky sexual behaviors and the associated health consequences did not occur without wives' awareness: Among the married women in that survey, 34% said they felt themselves at moderate or great risk of contracting HIV and AIDS. (Source: Biddlecom AE and Kaona FAD, 1998, reference 20.)

**Table 1. Summary of respondents' perspectives on attributes of selected contraceptive methods for HIV-positive women**

Method	Effectiveness at preventing pregnancy	Health side effects	Effectiveness at preventing HIV transmission
Pill/injectables	Highly effective	Many side effects, problematic for HIV-positive women	Not effective
Sterilization	Most effective method, but culturally not very acceptable	No mention	No mention
Traditional methods	Low effectiveness	Few side effects, safe for HIV-positive women	Not effective
Condom	Highly effective	Main side effect is breakage	Doubts about effectiveness

the pill, injectables and sterilization are most effective but also can cause side effects, which may be particularly worrisome for an HIV-positive woman. The pill was the main focus of discussion about negative side effects.

While sterilization did not come up in the women's discussion groups and interviews, men were divided in their support for the method. Some advocated for sterilization as the most effective method, while others found it culturally unacceptable. Participants believed traditional methods to be appropriate for women with HIV because they do not have health side effects, but most study participants dismissed these methods as being inconsistently effective in preventing pregnancy and not effective at all in preventing HIV infection.

Most discussion centered on condom use to prevent pregnancy when a woman is HIV-positive. Both women and men said condoms would be a good method for a husband and wife to use to prevent pregnancy. Respondents perceived that when the motivation is to extend the woman's life and mitigate HIV's impact on the family, the stigma about condom use is reduced and the need to negotiate use is minimized. Many respondents also mentioned that condoms prevent "blood contact" (contact with sperm) when either partner is HIV-positive, suggesting that they were aware of the benefit of reducing the risk of infection in serodiscordant couples. However, a few men mentioned doubts about the efficacy of the condom to prevent disease transmission.

## Discussion

### Conclusions

The findings from this qualitative study indicate that the widespread prevalence of HIV in the community plays little role in women's and men's own childbearing and contraceptive use decisions. The one

exception is the impact of obligations to care for the children of family members who have died of AIDS. A number of women and men cited the extra burden of caring for AIDS orphans as a reason to curtail their own future childbearing. Estimates of the number of AIDS orphans in the future suggest that this reason may grow in importance.

In the study population, HIV and AIDS appear to have little effect on childbearing and contraception unless there are signs or symptoms present. When we asked women and men to consider a hypothetical case where a woman knew she was HIV-positive, the majority view was that pregnancy should be avoided and condoms would be one of the best methods to use. Such changes in reproductive behavior have not been found by studies in the region conducted among populations who were informed of their HIV status. That research found that knowledge of one's own HIV status sometimes influenced later contraceptive use but not subsequent fertility.<sup>22</sup>

One way to explain these seemingly contradictory attitudes and practices is that HIV-positive women are having unwanted births or births they would prefer not to have if they could do so without paying a large price in their relationship or community. Thus, we need to know more about what factors so strongly influence women or couples to continue childbearing in the face of such poor outcomes for the unborn child. Moreover, we need to determine what information, services and support would help them limit childbearing, if they so choose.

### Recommendations

The reproductive health field has viewed family planning programs as a logical focal point for STD, HIV and AIDS prevention services because these programs serve large numbers of women; already

address sensitive issues of sexual behavior and fertility control; and provide methods that can prevent both unwanted pregnancy and disease. What might family planning programs consider doing to help people achieve their family-building goals while avoiding HIV infection and transmission of HIV to themselves, their partners and their children?

- *Encourage women and men to evaluate their risks of contracting HIV and to consider having an HIV test.* Study participants felt that women with HIV should not bear children, yet they also acknowledged that because few people actually know whether they are infected, they do not often consider HIV when making reproductive decisions. In this setting, where many people are concerned about their risk of HIV infection but do not know their HIV status, family planning programs could help clients ascertain their own risk of infection, and thus perinatal HIV transmission, through frank discussions of risk factors and HIV testing.

The risk factors for HIV are well known, and a number of risk-assessment checklists, tools and exercises have been developed for providers to use during counseling—in individual or group sessions with peers, with and without partners, and for self-assessment. Family planning programs should explore how these tools could be integrated into their programs to help clients assess whether they may be infected or are at high risk of infection, as well as what their appropriate reproductive and contraceptive choices are. Programs could also promote or offer voluntary HIV testing to women and men. An initial step may be to provide counseling about the advantages as well as the potential negative consequences of an HIV test and referrals for testing.

Any program that promotes voluntary HIV testing for women must first ascertain whether the benefits of the test will outweigh potential harm. In some settings, women who have sought HIV testing, particularly when they receive a positive result, have suffered violence from or have been abandoned by their partners or by others in the community. It is encouraging that we received few reports of these latter situations from our study participants. In fact, many men said that they commonly are the ones who bring AIDS into the home and that women are victims of their behavior.

Other results of our study (not presented here) suggest that tests may be unacceptable in long-standing relationships because of the issues they raise about trust.

There may also be a danger that clients will avoid family planning clinics altogether to avoid being offered an HIV test. However, current experience with introducing HIV counseling and testing into maternal and child health services demonstrates that when HIV testing is accompanied by quality counseling, more women accept than shun the service.<sup>23</sup> Knowledge of one's HIV status may not be sufficient to affect fertility decisions, but it certainly is a necessary first step for making an informed choice.

• *Capitalize on concerns about children's well-being.* Women and men clearly are concerned about the impact of HIV and AIDS on their children. In Ndola, Zambia, the most compelling arguments for fertility regulation are linked to the well-being of the child.<sup>24</sup> It is widely accepted that births should be spaced sufficiently to allow an appropriate length of time for children to develop, for the mother to fully recover from a pregnancy and birth, and for the family to acquire adequate economic resources to support the child.

Family planning programs could take a similar approach to promoting safer sexual behavior in order to avoid HIV infection for the benefit of the family. Women and men know what types of behavior change—limiting their number of partners and using condoms—will reduce the risk of HIV infection. However, they need justification for behavior change, particularly when it is difficult to admit to the behaviors that put them at risk. Suggesting change for the well-being of children and the family may resonate more strongly with couples than other rationales for behavior change such as preserving individual health.

• *Assist couples affected by HIV to make informed choices about contraceptive methods.* Once a couple affected by HIV makes a decision to avoid a pregnancy, they need good information about the benefits and drawbacks of the various contraceptive methods. Given available methods, a couple's choice is to abstain from sexual relations (which study participants rejected as impractical), use two methods concurrently (a barrier method and a more effective contraceptive method), or understand and accept that there are trade-offs between the efficacy of the various methods to prevent pregnancy and to prevent transmission of the virus. Family planning programs should update providers on the safety and efficacy of various methods and address special needs of HIV-positive women (for example, women with AIDS may suffer from diar-

rhea, and thus absorption of hormonal methods may be poor).

Family planning services can be important sources of information, methods and assistance for preventing perinatal and heterosexual transmission of HIV. Family planning programs have achieved notable success in recent years in delivering their message about the benefits of family planning for maternal and child health. In settings where the prevalence of HIV is high, programs should now incorporate how HIV may affect family health into discussions about choosing whether to use a contraceptive method and which method to use. Programs have both an opportunity and an obligation to assist couples in making informed choices that will enable them to safeguard their family's health and well-being.

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## Resumen

**Contexto:** *A medida que continúa la epidemia del SIDA en los países del Africa Subsahariana, aumenta el número de mujeres en edad reproductiva y de sus parejas que se contagian con*

el VIH. Los programas de planificación familiar tienen el potencial de reducir la transmisión perinatal y heterosexual, aunque las estrategias programáticas eficaces dependen en la medida en que el VIH y el SIDA influyen en la toma de decisiones en materia reproductiva.

**Métodos:** En 1997, se realizaron ocho grupos focales y 23 entrevistas en detalle a mujeres y hombres de Ndola, Zambia, una región con una elevada prevalencia de VIH y SIDA. Mediante transcripciones codificadas y matrices resumidas se pudieron analizar temas sustantivos según el género de los participantes en el estudio.

**Resultados:** Cuando no hay signos o síntomas de enfermedad, el impacto del VIH en las decisiones de mujeres y hombres en cuanto a su fecundidad y su uso de anticonceptivos es generalmente débil. Una excepción importante es la observación de los participantes con respecto al problema de atender a niños cuyos padres han fallecido debido al SIDA. Sin embargo, cuando se presentan signos o síntomas de la enfermedad, tanto mujeres como hombres se muestran totalmente en contra de continuar teniendo hijos y apoyan el uso del condón para prevenir el contagio de esta enfermedad a su cónyuge. Muchas mujeres indicaron que tendrían temor de quedar embarazadas si sospecharan que tenían el virus, porque de esta ma-

nera el embarazo "produciría" la enfermedad, y algunas mujeres indicaron que antes de tener otro hijo, considerarían la posibilidad de someterse a una prueba para detectar el VIH.

**Conclusiones:** Los programas de planificación familiar podrían asistir a las personas para conocer su propio riesgo de infección, y así reducir la transmisión perinatal del VIH mediante la comunicación franca acerca de los factores de riesgo, la oferta de exámenes para detectar el VIH y la asistencia a las parejas afectadas por el VIH a tomar decisiones acertadas con respecto a los métodos anticonceptivos.

## Résumé

**Contexte:** Tandis que l'épidémie du sida continue à ravager l'Afrique subsaharienne, de plus en plus grands nombres de femmes en âge de procréer et leurs partenaires sont séropositifs. Les programmes de planning familial pourraient potentiellement réduire le risque de contamination périnatale et hétérosexuelle, mais les stratégies programmatiques efficaces dépendent de l'influence du VIH et du sida sur les décisions de procréation.

**Méthodes:** En 1997, huit groupes de discussions dirigées et 23 entrevues en profondeur ont été organisés parmi la population féminine et masculine de Ndola, en Zambia, une région à prévalence élevée du VIH et du sida.

Les transcriptions codées et matrices récapitulatives ont permis l'analyse des thèmes substantiels en fonction du sexe des participants à l'étude.

**Résultats:** En l'absence de signes ou symptômes de maladie, l'incidence du VIH sur les décisions de procréation et de pratique contraceptive des femmes et des hommes est généralement faible, à l'exception notable de l'observation des participants relative à la charge représentée par les enfants dont les parents sont morts du sida. En présence des signes et symptômes de la maladie toutefois, les femmes comme les hommes se disent totalement opposés à la poursuite de toute procréation et supportent l'usage du préservatif afin d'éviter la contamination d'un conjoint. Beaucoup de femmes ont déclaré qu'elles auraient peur de se trouver enceintes si elles soupçonnaient être séropositives, de peur que la grossesse fasse «sortir» la maladie, et certaines ont indiqué qu'elles considéreraient de se faire tester avant d'avoir un autre enfant.

**Conclusions:** Les programmes de planning familial pourraient aider leurs clientes à évaluer leur propre risque d'infection et réduire ainsi le risque de contamination périnatale à travers la discussion franche des facteurs de risque, l'offre de tests de séropositivité et l'assistance aux couples affectés par le VIH dans leurs choix contraceptifs.