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## Perspectives about childbearing and pregnancy planning amongst people living with HIV in Gaborone, Botswana

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### Abstract

Despite advances in clinical care, safer conception services are not utilised in many high HIV prevalence countries, including Botswana. We conducted in-depth interviews with ten HIV healthcare providers and ten women living with HIV to develop a deeper understanding of attitudes surrounding childbearing and pregnancy planning. Interviews were analysed using a phenomenological approach. Providers felt it was a human right and normative for women living with HIV to have children but also expressed concerns about women living with HIV having children. Women themselves anticipated stigma from providers regarding childbearing although most described supportive care and had not experienced stigmatising treatment. Although providers believed pregnancies amongst women living with HIV were unplanned, women described discussing pregnancy desires with sexual partners. Despite providers voicing a rights-based approach to childbearing amongst women living with HIV, hesitancy towards pregnancy remains. This is felt by women living with HIV and perceived as stigma, which may make them less likely to seek fertility and safer conception advice. Safer conception interventions are unlikely to be successful if women do not feel comfortable discussing childbearing with providers.

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## Keywords

safer conception; childbearing; pregnancy planning; Botswana; HIV

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## Introduction

About 70% of the 35.3 million people living with the human immuno-deficiency virus reside in sub-Saharan Africa and an estimated 60% of these are women, most in their reproductive years (UNAIDS 2013). Data from various African countries suggests that HIV infection reduces but does not eliminate the desire for children in HIV-affected couples (Keogh et al. 2012; Tesfaye et al. 2012; Gutin et al. 2014). Childbearing amongst people living with HIV carries certain risks including the possibility of vertical and horizontal transmission. However, with appropriate interventions such as adherence to anti-retroviral therapy (ART), it is possible for women living with HIV to bear children with minimal risks to themselves and their infants and to greatly reduce or eliminate the risk of transmission to partners who may not be living with HIV (Cohen et al. 2011; Rodger et al. 2016; WHO 2017). Despite these advances in clinical care, safer conception services are still nascent in many high HIV prevalence countries, including Botswana.

People living with HIV often face anticipated, perceived, and/or experienced stigma when trying to exercise their reproductive rights. People living with HIV in sub-Saharan African contexts often fear judgement from their healthcare providers because of their fertility desires (Matthews et al. 2012; Saleem et al. 2016). In addition, qualitative studies in sub-Saharan Africa have found that providers often hold negative attitudes about childbearing amongst people living with HIV and encourage people living with HIV to cease childbearing (Ddumba-nyanzi, Kaawa-ma, and Johannessen 2016; Colvin et al. 2014; Goggin et al. 2014; Kawale et al. 2015). People living with HIV in sub-Saharan African settings also report negative provider treatment, discriminatory provider attitudes, and a counselling environment that is perceived as unsupportive of childbearing for HIV-affected couples (Clouse et al. 2014; Gourlay et al. 2014; Colvin et al. 2014). Examples of this include hostile treatment and scolding from public facility providers and stigmatising attitudes related to pregnancy amongst people living with HIV. However, sub-Saharan African research suggests that some providers do acknowledge and respect the reproductive rights of people living with HIV (Matthews et al. 2014; Kawale et al. 2015).

In the pre-ART era, the public health response in many countries was to tell women living with HIV to avoid pregnancy due to legitimate concerns about HIV transmission to infants. This tended to stigmatise childbearing. However, in recent years as treatment options have improved and the risk of HIV transmission during pregnancy has been drastically reduced, stigma surrounding childbearing has persisted despite updated policies that are supportive of pregnancy amongst people living with HIV (WHO 2017). These policies recognise the fundamental right of women living with HIV to comprehensive sexual and reproductive health services while also recommending that all pregnant women living with HIV should be initiated and maintained on lifelong ART (Botswana MOH and Masa 2016; WHO 2017).

Around the world, most safer conception services are based on the idea that people living with HIV plan their pregnancies and will seek services from healthcare providers when they desire a pregnancy. Pregnancy planning, or the decision-making, communication, actions, and steps to achieving one's pregnancy desires, can vary by context but may include elements such as fertility desire discussions with partners or providers, optimising health prior to pregnancy, management of long-term health conditions, ceasing risky behaviours, adopting healthy behaviours, financial planning and/or discontinuing contraception (Drevin et al. 2017; Hall et al. 2013). However, few people living with HIV in sub-Saharan African settings report having fertility desire or safer conception discussions with providers and so the idea of planning pregnancies may seem less relevant (Kawale et al. 2015; West et al. 2016). Antenatal sentinel surveillance data from Botswana supports this as 55% of women living with HIV report that their pregnancy was unplanned (Government of Botswana 2011). Also, research suggests the concept of planned pregnancy may not be culturally salient for some women (Evens et al. 2015; Schaan et al. 2016). The idea of pregnancy planning assumes that behaviours such as childbearing are under an individual's autonomous control without taking into account the varied social, economic and cultural factors that might impact fertility. For some women, childbearing may include a complex calculation that involves personal desires, the desires of one's partner and the wider family or community (Evens et al. 2015).

Botswana has one of the highest HIV rates in the world with an adult prevalence of 22.8% (UNAIDS 2017). Women of reproductive age comprise the largest group of people living with HIV in Botswana with 27.4% of women aged 15 to 49 years living with HIV (UNAIDS 2017). Despite having high HIV treatment coverage and a healthcare system where access to primary care is not a limitation (National AIDS Coordinating Agency 2014), Ministry of Health (MOH) policies have provided little guidance on offering safer conception for people living with HIV (Botswana MOH and Masa 2016).

In order to develop a deeper understanding of what may influence safer conception service implementation and uptake in Botswana, it is necessary to appreciate how healthcare providers and women living with HIV approach childbearing. We conducted individual in-depth interviews to develop a deeper understanding of the attitudes that guide providers and women living with HIV as they navigate issues around childbearing and pregnancy planning in Botswana. Insights in this area can help target interventions and enhance sexual and reproductive health services for people living with HIV.

## Materials and Methods

### Setting, study population, and participant recruitment

We conducted 20 individual in-depth interviews between August 2015 and January 2016 with sexual and reproductive health/HIV providers and women living with HIV in Gaborone, Botswana. Providers and women living with HIV were drawn from government-supported clinics, non-governmental organisation supported clinics, and a clinic at a tertiary educational institution in Gaborone, the capital of Botswana. Eligibility criteria for providers included being a medical doctor, nurse or midwife, 18 years of age or older, willing to participate in the study, able to give informed consent and working at a study clinic in

Gaborone. Eligibility criteria for women living with HIV included being 20 to 40 years old, previously or currently pregnant, accessing care at a study clinic in Gaborone, willing to participate in the study and able to give informed consent.

Providers were purposively sampled to represent a range of different healthcare settings where people living with HIV might access safer conception services. Providers were approached at their facilities and assessed for interest and eligibility. All approached providers took part in the study. Women living with HIV were sampled to represent those who might access safer conception services in the public sector (reproductive years (20-40), varying amounts of time on treatment, varying relationship statuses (married, in relationship, single), and varying partner status (concordant positive or discordant relationships)). Women living with HIV accessing care at the study sites were informed about the study by health centre staff. Those who were interested were referred to the study coordinator. The coordinator screened women for eligibility and explained the study aims. After assessing eligibility, less than 5% of women did not complete interviews, most commonly citing time constraints. Women were reimbursed 30 Botswana Pula (3 USD at the time of the study) to cover transport costs. By using this sampling technique, we were not trying to create a representative sample, but rather, attempting to gather in-depth information that could capture various viewpoints and the lived experiences of women living with HIV and providers (Seidman 2006).

### Data collection

The data collection and analytic processes were informed by a social constructivist framework (Lincoln and Guba 2013) that is focused on capturing and reporting multiple experiences and perspectives so as to develop an enhanced understanding of a particular context and cultural setting. A social constructivist approach also allows one to learn about a cultural group from their perspective using the language or phrases they use to construct meaning (Patton 2002). The goal of these interviews was to understand the varied attitudes and experiences of providers and women living with HIV as they navigate issues related to childbearing and pregnancy planning.

The interview guide was drafted, tested and revised through a collaborative process involving the PI (a sexual and reproductive health researcher from the USA), two experts in the field of sexual and reproductive health/safer conception (one doctor from Botswana, one researcher from the USA) and two local researchers with many years of experience in sexual and reproductive health/HIV research in Botswana to ensure exploration of appropriate constructs. All members of the study team conduct behavioural research focused on sexual and reproductive health amongst people living with HIV. Provider interview domains included demographic factors (age, years working as clinician and years working with people living with HIV), attitudes about childbearing amongst people living with HIV, experiences around people living with HIV becoming pregnant, reasons why people living with HIV desire children, pregnancy planning and discussions with clients about childbearing. Women living with HIV interview domains included demographics (age, time since HIV diagnosis, ART status, relationship status, partner HIV status, obstetric history), experiences of pregnancy when living with HIV, treatment and reactions from providers

while pregnant, provider attitudes about childbearing amongst people living with HIV, and whether they came to a health centre prior to pregnancy to seek safer conception advice or services.

In-depth interviews with providers were conducted in English by the PI in private spaces at the health centre where the provider worked or a private location of the participant's choosing. All providers were fluent in English (the official language of Botswana). Interviews lasted approximately one hour. Local research assistants who were fluent in English and Setswana (the local language) conducted interviews with women living with HIV. Research assistants were all experienced qualitative interviewers. Interviews with women living with HIV took place in English or Setswana, depending on the preference of the participant. Interviews were conducted in private spaces at the health centre where the woman was recruited or a private location of her choosing. Interviews lasted approximately one hour. A transcript in English was produced for each interview from either English or Setswana digital recordings. A member of the study team reviewed each transcript for quality and accuracy and corrections were made when necessary.

### Data Analysis

We analysed the data using a psychological phenomenological framework (Creswell 2013; Patton 2002). Psychological phenomenology is focused on describing what a given group of people have in common as they experience a phenomenon. It is an inductive analytic approach that allows the patterns, themes and categories of analysis to emerge from the data (Creswell 2013; Patton 2002). It differs from other approaches to qualitative enquiry in that the primary focus is on identifying elements of a particular phenomenon by describing both what the phenomenon is and how it is experienced by a particular group (Creswell 2013).

After reading the transcripts and creating memos, we identified significant statements in the data (Moustakas 1994). These statements were grouped into clusters of meaning and recurring themes (Moustakas 1994). We iteratively developed inductive codes that emerged from the data to complement our initial a priori codes, which were derived from our research questions (Miles, Huberman and Saldana 2014). The PI and a sexual and reproductive health expert identified, discussed and compared key themes and developed a codebook.

The web application Dedoose was used to facilitate data management and coding (Dedoose 2016). After examining the main themes in each interview, cross-case and comparative analyses were conducted to deepen our understanding by exploring similarities and differences across cases and between groups (Miles, Huberman and Saldana 2014; Creswell 2013). The PI led the analysis and regularly consulted with collaborators and members of the Botswana study team to discuss interpretation of the data and ensure the cultural salience of findings. In cases where there was disagreement about interpretation, discrepancies were discussed until consensus was achieved.

### Ethical Approvals

Ethical approvals were obtained from the University of Michigan Health Sciences and Behavioral Sciences Institutional Review Board (Ann Arbor, Michigan), the University of Botswana Research Ethics Committee, the Office of Research and Development (Gaborone,

Botswana), and the Health Research and Development Division of the Botswana MOH. Permissions were also obtained from heads of health facilities before recruitment of providers and women living with HIV took place. Since the only record linking the participant and the research would be the consent document, we received a waiver of documentation of written informed consent in order to fully protect the identities of all study participants. However, all participants provided comprehensive oral informed consent.

## Findings

Ten interviews with HIV/sexual and reproductive health providers, and 10 interviews with women living with HIV were conducted (see Table 1). The sample of providers consisted of six nurses, three midwives and one medical doctor. The mean age of providers was 41, they had been clinicians on average for 18 years, and had worked with people living with HIV for a mean of 10 years. The mean age of women living with HIV was 32 years and women had known their HIV status for an average of seven years (ranging from 1-13 years; although one woman was perinatally infected). All women living with HIV were using ART and had used treatment for a mean of six years. Two women were single, three were in relationships (not cohabiting) and five were cohabiting with a partner/ spouse. Seven women reported that their most recent sexual partner was living with HIV while three said their most recent partner was not living with HIV. Women reported a mean of 2.4 lifetime pregnancies and 1.8 living children. Four women were pregnant at the time of their interview (none was a first pregnancy) while six women had recently been pregnant. Nine of the 10 women living with HIV had become pregnant since learning of their HIV status. All women were residing in Gaborone.

The data are presented through textual descriptions of the phenomena. The composite descriptions offer an explanation of the underlying structure which exists across the respondents' experiences (Creswell 2013; Moustakas 1994). When quotations are included, we have assigned pseudonyms to protect anonymity and confidentiality for all participants. The results section is organised to reflect aspects of two key phenomena of interest: childbearing and pregnancy planning.

### Childbearing

Healthcare providers voiced the opinion that childbearing was normative and a human right but also expressed hesitancy towards childbearing amongst people living with HIV. In contrast, women living with HIV thought providers were not supportive of them having children and feared receiving poor treatment from providers if they became pregnant. Despite this, some women described receiving caring support when they were pregnant.

### Childbearing as normative and a human right

Both providers and women living with HIV felt it was normative for people living with HIV to desire children, that childbearing was a human right, and it was a personal choice. Both providers and women living with HIV felt that despite one's HIV status, desiring children was a normative part of being a woman in Botswana. Both women living with HIV and providers felt it was natural for women to want to be mothers.

I think everyone desires to be a mother at one point and some people get married and they are HIV-positive and ... around here there is this common understanding that once you are married, to be a real wife, you have to give that man a baby. (Lesedi, Nurse, age 30)

As soon as a woman tests positive, it should be part of the post-counselling. She should be afforded a chance to digest her results but somehow given information about carrying on as a woman which includes having children. (Opelo, woman living with HIV, age unreported)

Providers generally described a rights-based approach to people living with HIV having children, expressing that there was no law saying that people living with HIV could not get pregnant and that HIV status does not mean that women cannot be pregnant. Providers also felt that childbearing was a personal choice and that people living with HIV can make their own informed decisions. Some providers also felt their role was to advise clients, not to deny them the chance to have children. Only one woman living with HIV echoed this idea. Women living with HIV did not use language about rights or reproductive choice.

They [people living with HIV] have the right to reproduce so we cannot deny them ... It's their right to have children ... there's no law that says you HIV-positive people, you are not going to get pregnant. (Neo, Midwife, age 38)

It's not their [healthcare provider's] place to tell me if I can or cannot have another baby. (Stella, woman living with HIV, age 25)

**Healthcare provider concerns about childbearing**—Despite expressing that childbearing was normative and a human right, most providers had concerns about childbearing amongst people living with HIV, suggesting that childbearing under certain conditions was troubling. Three main sub-themes emerged with regard to provider concerns. Concerns focused on repeat pregnancies, pregnancies in discordant relationships and the inability of providers to influence pregnancy decisions.

**Concerns regarding repeat pregnancies.**—Some providers voiced uneasiness about repeat pregnancies, suggesting that one pregnancy was acceptable but repeat pregnancies were concerning because of health risks for the mother and transmission risks for the partner and infant. When trying to communicate these concerns, providers sometimes used language that suggested to women living with HIV that they did not encourage pregnancies.

We do give some advice to say if you have a child, what really prompts you to have the second child? ... We ... talk to them and see what really prompted them to be pregnant- not necessarily meaning that she shouldn't be pregnant – we look at all these avenues ... and you'll find maybe somebody has four children and she wants another child. So, we will ask what really forces you to have children? What pushes you to have the fifth child? (Phatsimo, Nurse, age 55)

You know some nurses, when inside the consultation room, they will tell you to your face. They can say why do you continue getting pregnant? Don't you think you should stop having children? Others will say, use pills or don't you know condoms are free? (Sethunya, woman living with HIV, age 38)



**Concerns regarding transmission to partners.**—Childbearing in the context of discordant relationships was seen as a challenging situation for providers. Despite recognition of the right to have children, there was concern about people living with HIV infecting partners and about blame for HIV infection within relationships. Providers seemed hesitant to encourage childbearing because they felt that even though conception could be made safer, it was not possible to completely rule out the risk of transmitting HIV.

With the discordant partners it's controversial because you will think of somebody transmitting HIV to the other and having in mind that I'm HIV-positive and this one is HIV-negative ... But also, they have the right to have children as well. But it's a dilemma. (Neo, Midwife, age 38)

For you to have a baby you need to not be using any protection. Now if you are going to be having a baby and you don't use protection, there are high chances of you being infected. Are you telling us that you don't mind being infected? And also, the implications that may arise afterwards because somebody can turn around afterward and say you infected me. So, we really talk to them ... and those that are positive, we will advise them to come here but the majority they don't come. (Phatsimo, Nurse, age 55)

**Concerns regarding pregnancy decisions.**—Most healthcare providers felt it was inevitable that women living with HIV were going to become pregnant and there was little they could do to either prevent pregnancy or help women before pregnancy occurred. Providers said that they had to accept the situation and do the best they could to ensure the health of infants. This same view was expressed by some of the women living with HIV.

It's a dilemma, you see that this lady is pregnant, and you know her status ... she's on treatment, on ART, and she's pregnant. You know you have to accept the situation and now take steps, so they remain ... in good health status ... and prepare for the baby. (Neo, Midwife, age 38)

I am of the view that if you are pregnant then there is nothing, they [healthcare providers] can do. They cannot terminate the pregnancy. They can't do anything – so it is just to help that person move on. (Lorato, woman living with HIV, age 39)

**Women living with HIV anticipate stigma from providers**—In contrast to the rights-based rhetoric expressed by providers, the main theme that emerged from women was the feeling that they were not supposed to have children. Most women felt providers were not supportive of people living with HIV having children and as a result, did not share information about how to have safe pregnancies. The language that providers used during consultations also suggested to women either overtly or subtly that childbearing by women living with HIV was not encouraged. Some women anticipated stigma and were concerned about what nurses would say to them if they became pregnant. Although one woman described a situation in which she felt stigmatised, most women had not personally experienced the stigmatising behaviour they feared. The anticipation of stigma seemed to come from stories women had heard from other women about poor treatment from nurses.

They [healthcare providers] do not encourage women who are HIV-positive to have children, they believe that once one has the virus, she should not be pregnant so they don't tell them that one can take certain steps and then be able to have a child safely. (Thabo, woman living with HIV, age 35)

This time they were not happy, especially after I told the doctor the father of the child is HIV-positive also. (Kagiso, woman living with HIV, age 31)

**Supportive care from providers**—Despite a feeling that providers did not support pregnancies amongst people living with HIV, many women reported positive experiences where they received support from providers when they were pregnant. Women living with HIV described situations where providers were kind and encouraged them that they could have safe pregnancies.

She [the provider] was the one who kept saying I am going to have a baby, she kept giving me support. ... she told me ... that I can fall pregnant. (Thabo, woman living with HIV, 35 years)

My second pregnancy I received good help, the nurses in this clinic are very nice ... I know in some clinics like in our village; nurses can be rude to women. They can say we want to die, or we cost the government or that we are careless. That is why I don't like going to village clinics. I don't want to be insulted. (Kagiso, woman living with HIV, 31)

## Pregnancy Planning

A common theme that emerged among providers and women living with HIV were that some pregnancies are unplanned. However, it also appeared that while most providers believed that the majority of pregnancies amongst women living with HIV were not planned, women themselves described some elements of planning. It appeared that providers and women conceptualise pregnancy planning in different ways.

**Conceptualisations of pregnancy planning**—Most providers associated “planning” with seeking medical advice from a healthcare service. If women did not seek clinical pre-conception counselling, providers often saw this as a lack of pregnancy planning. Women however tended to view pregnancy planning as discussing pregnancy desires with partners and taking steps to protect their partners from HIV transmission.

I think the perfect plan would be talk to your healthcare providers so they can assist you with a process before you start trying. ... The pregnancies, unless they talked to a healthcare worker, I think chances are they are probably not planned. (Teemane, Doctor, age 42)

**Pregnancy as a ‘planned’ event**—Healthcare providers and women agreed that some pregnancies are unplanned. Providers said it was common for women living with HIV to report that their pregnancies had ‘just happened’, that condoms ruptured, or they were unprepared for a pregnancy when it occurred. Similarly, some women (aged 25 to 31) said their pregnancies just happened.

Few are planned. Others I would think they are not planned because we ask them, was it your intention to be pregnant and they say no. They say, I was using a condom and it burst – that is the thing – few would say yes. (Phatsimo, Nurse, age 55)

It [the pregnancy] was a mistake. We were not prepared to have a child. It just happened. (Tshiamo, woman living with HIV, age 25)

**Pregnancy to fulfil a partners' desire for children**—In their interviews, most women living with HIV highlighted their male partner's desire for children as a key factor impacting their pregnancy desires. Most women had discussed childbearing with their partners and their partner had a say in whether they became pregnant. Some women said that it was their partners who had greater childbearing desires than they did. In addition, some women had children from previous relationships but felt the need to have children with new partners.

We spoke and discussed the issue between the two of us. He wanted a child more than I did. (Opelo, woman living with HIV, age unreported)

We have to agree on everything [related to childbearing] but I'll admit he has more say than me ... He earns more and he is the man, culturally he is the head of the house. (Kago, woman living with HIV, age 24)

**Pregnancy and safer conception discussions with partners**—Despite providers feeling that pregnancies were often unplanned, most women living with HIV described discussing childbearing desires with their partners. Some couples had also discussed ways to make conception safer. One woman described doing research on the Internet about ways to make conception safer while another explained that she and her partner discussed possible ways to protect him from acquiring HIV when trying to conceive. Echoing this, some providers felt that women planned pregnancies by discussing their desires with partners.

... when we decided to have this kid ... I said ... maybe let's go ... to South Africa, and get the artificial thing ... no contact, but he said well, I know your status and I am in all the way. Why can't we just do it naturally? The natural way, not having to do some things that may then be expensive and maybe I will not feel comfortable with it. (Lorato, woman living with HIV, age 39)

I think most of the time they discuss with their partners on when and how, when ... to reproduce. (Joyce, Nurse, age 33)

**Pregnancy planning discussions with providers**—Although women described discussing pregnancy desires and sometimes safer conception with partners, few discussed pregnancy desires with providers. Providers often said they told women living with HIV to speak with them when they desired a pregnancy, although few did. However, some providers recognised that although many women say their pregnancies are unplanned, it may be that women fear seeking services from healthcare providers prior to pregnancy, causing few women living with HIV to admit that they desired or planned pregnancies. Only one woman living with HIV had gone to seek formal advice from a provider before trying to become

pregnant even though most women interviewed had experienced a pregnancy after learning their HIV status..

I honestly think a lot of women are scared to ask or initiate conversations with nurses, just like I was. (Kago, woman living with HIV, age 24)

Why would I tell a nurse that I am having sex? (Laughing) (Stella, woman living with HIV, age 25)

## Discussion

Most safer conception interventions are predicated on the idea that pregnancies are planned and that people living with HIV will seek advice from providers when they want to conceive. In this qualitative study of healthcare providers and women living with HIV from Botswana, we found that despite providers voicing a rights-based approach to childbearing, hesitancy towards pregnancy among people living with HIV remained. Anticipated stigma was experienced by women living with HIV and may make them less likely to seek fertility and safer conception advice. In addition, providers generally believed pregnancies amongst people living with HIV were unplanned because women did not seek provider guidance prior to conception. However, women living with HIV did describe discussing pregnancy desires with partners, suggesting some elements of planning. This difference in the way that women living with HIV and providers conceptualise pregnancy planning is an important challenge. It may be possible to reach women living with HIV with safer conception information and strategies when they have begun childbearing discussions with their partners. However, women are unlikely to seek safer conception services unless they view providers as supportive of childbearing.

This study suggests that healthcare providers in Botswana may be at a turning point as it relates to supporting childbearing for people living with HIV. All providers recognised the right of people living with HIV to be pregnant and the cultural pressure to bear children despite HIV status. Providers also took a normative pro-natalist approach towards expectations of motherhood and understood the importance of motherhood to one's gender identity as a woman in Botswana. This is encouraging, as providers in other contexts have been reported to hold negative attitudes towards childbearing amongst people living with HIV (Colvin et al. 2014; Ddumba-nyanzi, Kaawa-ma and Johannessen 2016; Goggin et al. 2014). However, providers also voiced hesitancy towards childbearing amongst people living with HIV with particular concern for discordant couples and repeat pregnancies. A similar tension has been noted in other sub-Saharan African settings where providers have expressed a rights-based approach to people living with HIV having children, but also voiced reservations about such childbearing (Kawale et al. 2015; Goggin et al. 2014). In the light of research that has shown that ART adherence can eliminate the risk of transmission to uninfected partners and that has prompted UNAIDS and other leading organisations to launch the Undetectable=Untransmittable (U = U) campaign, it will be imperative to educate providers that people living with HIV with an undetectable viral load cannot transmit HIV. This may help to further reduce HIV transmissions and ensure reproductive rights for women living with HIV.

It may be that providers are struggling with ever changing HIV care possibilities and client needs. Historically, the response was to deny people living with HIV their reproductive rights due to concerns about HIV transmission risks to partners and infants (Steiner, Finocchiaro-Kessler and Dariotis 2013). However, updated guidelines on sexual and reproductive health for women living with HIV stress the reproductive rights of women living with HIV and studies suggest people living with HIV can greatly reduce the risks of HIV transmission to partners and infants (Cohen et al. 2011; Pettifor et al. 2011; WHO 2017). While the general outlook of providers seems more supportive of reproductive rights for people living with HIV, improvements can be made since providers are having trouble translating rhetoric into practice. Current Botswana HIV clinical care guidelines mention various safer conception approaches but provide little guidance on the package of services to offer women living with HIV who want to become pregnant (Botswana MOH and Masa 2016). More detailed safer conception counselling guidelines would aid providers in delivering this service to HIV-affected couples.

Although women living with HIV felt their childbearing was not supported, they generally did not experience overt stigmatisation while accessing HIV care. This is in contrast to other settings where women living with HIV have reported high levels of provider stigma when trying to access sexual and reproductive health services (Clouse et al. 2014; Gourlay et al. 2014). It is possible that stigma operates more subtly in Botswana. For example, while providers did not express overtly stigmatising views towards childbearing amongst people living with HIV, their statements suggest hesitancy about women living with HIV having repeat pregnancies or children within discordant relationships. It is also possible that what is perceived as stigma may be a lack of provider knowledge about safer conception. Knowledge about safer conception among providers has been found to be low in some sub-Saharan African contexts (Matthews et al. 2014; Kawale et al. 2015). Safer conception educational campaigns for providers may help address this issue. In addition, the sense of helplessness that providers expressed with regards to either preventing pregnancy or encouraging safer conception before pregnancy occurs may add to the feeling amongst women living with HIV that providers do not approve of people living with HIV having children. As a result, women living with HIV anticipate stigma from providers for their reproductive choices. This is similar to a South African study in which participants reported anxiety over perceived judgmental attitudes from providers towards people living with HIV who want children (Matthews et al. 2015).

Healthcare providers and women living with HIV described differing views about what constitutes pregnancy planning. Most providers associated “planning” with seeking pre-conception advice from a provider and saw the advice they could provide women about their health as the most important component of pregnancy planning. However, as noted in other contexts (Goggin et al. 2014; West et al. 2016), providers reported that few women living with HIV or couples seek pre-conception counselling and instead arrive for services when pregnant. In the light of the anticipated stigma that women living with HIV described, it is not surprising that few women seek such services. In addition, this focus on clinical advice neglects an appreciation of other factors that might impact childbearing decisions.

Although they generally had not received formal pre-conception counselling before becoming pregnant, most women living with HIV had discussed childbearing with their partners and their partner had a say in whether they became pregnant. This highlights the importance of partners in reproductive decision-making, which has been noted elsewhere (Gutin et al. 2014; Tesfaye et al. 2012). In a recent a study in Botswana 52% of men said they communicated with their partners about pregnancy (Letshwenyo-Maruatona and Gabaitiri 2018). Focusing on male partner engagement and targeting the forms of communication that men in Botswana are most comfortable with, such as receiving information from the media or from male clubs (which are groups used to sensitise men about sexual and reproductive health programs), may help to further involve men in sexual and reproductive health services (Letshwenyo-Maruatona and Gabaitiri 2018).

These findings draw attention to two assumptions that guide most safer conception interventions: namely, the idea that pregnancies are planned; and the assumption that people living with HIV will seek advice from providers when they want to conceive. The data from this study suggest that women in Botswana may be planning their pregnancies by discussing fertility desires with partners. However, they generally do not seek pre-conception advice from providers, thereby foregoing services that could optimise their health, improve treatment adherence, reduce the chances of partner transmission, and protect fetuses early in pregnancy. In addition, this research highlights that women may not seek safer conception services from providers because they anticipate stigma. Safer conception interventions are unlikely to be successful if women do not feel comfortable discussing childbearing with providers. In order to destigmatise childbearing for people living with HIV and to reach more women who may be contemplating pregnancy with comprehensive reproductive healthcare, it is necessary to routinely discuss fertility desires at HIV care visits with all people living with HIV of reproductive age. This should be followed by either the provision of safer conception or contraceptive services in order to fully support the reproductive rights of people living with HIV to have or limit pregnancies as they see fit. With time, such discussions may help normalise childbearing and reduce the stigma that women living with HIV anticipate.

### Strengths and Limitations

This study has both strengths and limitations. This was an urban sample and the findings are not generalisable to all contexts. The sampled healthcare providers consisted mostly of nurses and midwives. It is possible that the attitudes of this cadre of providers may differ from higher or lower-level providers. However, since nurses provide the bulk of primary healthcare in Botswana (WHO Regional Office for Africa and African Health Observatory 2016), the attitudes of this group are especially relevant. The sample size of ten women living with HIV and ten providers is modest. As a result, important attitudes might have been missed but providers and women living with HIV repeated the same themes, despite the small sample. Finally, women living with HIV in this study were interviewed at various points during or following their pregnancy. It is possible that perceptions may vary depending on the amount of time since pregnancy, creating some issues with recall. However, interviewing women at various points in their pregnancies or post-partum allowed

us to examine the diverse attitudes of women living with HIV who had recently experienced pregnancy.

## Conclusions

Childbearing is a human right and central to the construction of gender identity for many cultures, regardless of HIV status. Women living with HIV will continue to have children despite advice from providers to stop childbearing and regardless of the HIV transmission risks involved (West et al. 2016). As Botswana continues to implement a test and treat approach, greater numbers of people living with HIV who have childbearing desires will enter care. Offering safer conception services as part of a larger continuum of care supports the rights of people living with HIV, can reduce HIV transmission risks, and support healthy childbearing.

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**Table 1:**

Demographic characteristics of study participants

<b>Women living with HIV (n=10)</b>	
Mean age	31.9
Relationship status	
Single	2
In relationship (not cohabiting)	3
In relationship/married (cohabiting)	5
Mean years since HIV diagnosis	7
Currently on ART	10
Mean years using ART	5.9
HIV status of primary partner	
HIV-positive	7
HIV-negative	3
Mean number pregnancies	2.4
Mean number living children	1.8
Pregnancy after learning HIV-positive status	
Yes	9
No	1
Currently pregnant	
Yes	4
No	6
<b>Healthcare providers (n=10)</b>	
Mean age	41.1
Clinical cadre	
Nurse	6
Midwife	3
Doctor	1
Mean years as clinician	17.7
Mean years at clinic	5.5
Mean years working with PLHIV	9.9