UCSF

UC San Francisco Previously Published Works

Title

HIV-Positive Men's Experiences with Integrated Family Planning and HIV Services in Western Kenya: Integration Fosters Male Involvement

Permalink

https://escholarship.org/uc/item/51z2z9rh

Journal

AIDS Patient Care and STDs, 28(8)

ISSN

1087-2914

Authors

Patel, Rena Baum, Sarah Grossman, Daniel et al.

Publication Date

2014-08-01

DOI

10.1089/apc.2014.0046

Peer reviewed

AIDS PATIENT CARE and STDs Volume 28, Number 8, 2014 © Mary Ann Liebert, Inc. DOI: 10.1089/apc.2014.0046

HIV-Positive Men's Experiences with Integrated Family Planning and HIV Services in Western Kenya: Integration Fosters Male Involvement

Rena Patel, MD,¹ Sarah Baum,² Daniel Grossman, MD,^{2,3} Rachel Steinfeld,³ Maricianah Onono, MD,⁴ Craig Cohen, MD,³ Elizabeth Bukusi, MD,⁴ and Sara Newmann, MD³

Abstract

A growing body of evidence indicates that integrating family planning (FP) services into HIV care is effective at improving contraceptive uptake among HIV-positive women in resource-poor settings, yet little research has examined HIV-positive men's experiences with such integration. We conducted in-depth interviews with 21 HIV-positive men seeking care at HIV clinics in Nyanza, Kenya. All clinics were intervention sites for a FP/HIV service integration cluster-randomized trial. Grounded theory was used to code and analyze the data. Our findings highlight men's motivations for FP, reasons why men prefer obtaining their FP services, which include education, counseling, and commodities, at HIV care clinics, and specific ways in which integrated FP/HIV services fostered male inclusion in FP decision-making. In conclusion, men appear invested in FP and their inclusion in FP decision-making may bolster both female and male agency. Men's positive attitudes towards FP being provided at HIV care clinics supports the programmatic push towards integrated delivery models for FP and HIV services.

Introduction

Since the 1994 International Conference on Population and Development (ICPD) in Cairo, integration of family planning (FP) services with routine HIV care has gained international support^{1,2} and national momentum in some sub-Saharan African (SSA) countries such as Kenya.³ The need and desire for FP services is substantial among HIV-positive persons in both resource-limited^{4–10} and resource-rich^{11–14} settings. The unmet need for FP services is particularly high in Kenya; one study found that nearly 70% of HIV-positive women in western Kenya indicate wishing to delay their fertility for another 2 years or not have any further children.¹⁵ Yet, among this same population, only 19% of the women reported the use of more effective contraception (defined as hormonal methods, intrauterine devices (IUDs), and permanent methods).¹⁶

Two systematic reviews have now demonstrated that integrating FP and HIV services is feasible and has varying degrees of positive health outcomes. ^{17,18} Studies of FP/HIV integration demonstrate acceptability to both patients and providers. ^{19–21} Some cohort studies have documented that

integrated services can decrease pregnancy rates 22 and increase uptake of hormonal contraceptive methods. 23,24 Most recently, the first cluster-randomized trial (CRT) of integrating FP into routine HIV care services, conducted in western Kenya, demonstrated an increase in more effective contraception use, from 17% at baseline to 37% one year after integration in the intervention arm. 16 The trial also found the intervention to be cost-effective. 25

Traditionally, FP programs have been directed towards women. Yet, some data suggest men's thoughts on FP strongly influence their female partner's decision-making. A baseline survey for the above CRT found that 75% of HIV-positive women in HIV care reported making FP decisions jointly with their partner. A study of pregnant women in western Kenya found that women who indicated having discussed their FP intentions with their male partners and perceiving their partner's approval were two of the strongest factors associated with contraceptive use intentions. Furthermore, men do prefer being involved in FP decision-making with their partners. Male involvement in FP may increase contraception use as demonstrated in Ethiopia.

¹Division of Infectious Diseases, and ³Bixby Center for Reproductive Health, Department of Obstetrics, Gynecology, and Reproductive Sciences, University of California San Francisco, San Francisco, California.

²Ibis Reproductive Health, Oakland, California.

⁴Centre for Microbiology Research, Kenya Medical Research Institute, Kisumu, Nyanza, Kenya.

While data are emerging from FP/HIV integration studies on HIV-positive women's fertility desires and contraceptive use, very little data exist on male involvement. Prior to implementation of the above-described CRT, male participants strongly felt that integration of FP/HIV services would increase access to and foster counseling the couple together for FP.³⁰ Our study examines HIV-positive men's actual experiences with FP integration into HIV care 1 year after the above-described CRT was implemented. As integration of FP/HIV services expand, understanding men's role in this context will be central to integration's success.

Methods

Study design and sites

This cross-sectional qualitative study was conducted between July and October 2011. It was part of endline data collection for the CRT evaluating the impact of integrating FP/HIV services on contraceptive prevalence. ¹⁶ Participants were recruited from 18 public sector HIV treatment clinics from four districts in Nyanza Province, Kenya, including Kisumu East, Nyatike, Rongo, and Suba. Within Kenya, Nyanza Province tends to have the highest levels of poverty and HIV prevalence. 31,32 While Kisumu is the third largest city in Kenya, the majority of this region is comprised of agrarian or fishing communities. Of the 18 clinics, two were dispensaries, eight health centers, three subdistrict hospitals, and two district hospitals. Sixteen of the clinics were located in rural settings, and two were in towns with a population of approximately 7000 persons. Greater details on the baseline characteristics of each clinic, such as rural/urban setting, facility size, number of patients receiving care, etc. can be found in the primary outcomes publication.¹⁶ All sites provided comprehensive HIV care and treatment including the provision of antiretroviral therapy (ART) and condoms for HIV prevention. These sites were supported by Family AIDS Care and Education Services (FACES), a collaboration between the University of California, San Francisco (UCSF) and the Kenyan Medical Research Institute (KEMRI).³³ The Committee on Human Research at UCSF (CHR No. 10-00590) and the Ethical Review Committee at KEMRI (SSC No. 1254) approved the study.

As part of the CRT, 12 sites were randomized to the FP/HIV integration intervention arm and provided FP counseling and more effective contraceptive methods in the HIV clinic. The six control sites provided FP counseling and referrals to maternal child health (MCH)-FP clinics. At all sites, men interested in vasectomy were referred to private sector providers. Trained community health workers conducted FP-related health talks in waiting areas at all sites. The FP health talks lasted 15–30 min and covered the following: importance of using contraception to prevent unintended pregnancies; information on all methods of contraception, including permanent methods; importance of dual protection; and common side effects, myths, and misconceptions about contraception.

Participants, eligibility, and recruitment

Eligible participants were nonsterilized, HIV-positive men 18 years of age or older, accessing care at one of the 12 integrated sites participating in the CRT. We chose a convenience sample of 1–2 men per site to participate in this qualitative study. The interviewer screened male patients after they completed their clinic visit and invited the first eligible and willing participant to complete the interview. After the first interview was completed, this process was repeated to identify the second participant. Each participant provided voluntary written informed consent and received a travel reimbursement of approximately \$2.50 USD.

Interviews

The semi-structured interview guide was translated into Dholuo (the participants' first language). Each interview lasted approximately 1 h and was conducted by a trained interviewer. The domains covered in the interview guide included reproductive intentions, thoughts about FP, perceived barriers to obtaining and using effective contraception, and experiences with various FP services, including integration with HIV care and referral-based services. All interviews were audio recorded. The participants completed a survey on demographic information prior to the interviews.

Data analysis

The English transcriptions were managed in Atlas-ti 6.2.23 (Scientific Software Development, Berlin). Transcripts were coded and analyzed using an adaptive grounded theory approach. An initial codebook was constructed from the interview guide and a preliminary content analysis. Two investigators independently conducted the initial coding of a sample of transcripts and discrepancies in coding were resolved through discussion and consensus. Inductive codes were further developed as concepts emerged. Finally, codes were grouped to identify thematic trends and variant views.

Results

There were 21 men who participated in this study from integrated sites. Their median age was 39 years (range 27–55), 95% were married, 50% had secondary school or higher education, and 90% were currently on ART. They had a median of four living children (range 1–8), and 95% of the men indicated they or their partner were using a contraceptive method, with 28% indicating dual method use, using condoms along with a more effective contraceptive method (see Table 1).

Generally, the men's actual experiences with FP services were positive and satisfactory. The term "FP services" includes education and counseling on all FP methods, and provision of contraceptive methods for their female partners and male condoms. Lack of access to FP services was not a major issue. No participant indicated having to pay for a FP method. The participants indicated that they and their partners generally found health care providers present at the clinic and their preferred FP methods available. None of the participants themselves felt that the services were located too far, but a couple indicated how others in their village may benefit from having FP services brought closer to home.

The first part of the results section discusses the motivations these men had for using FP services. The men overwhelmingly preferred obtaining their FP services at HIV clinics, and the second section addresses reasons for this preference. The third section explores how integrated FP 420 PATEL ET AL.

TABLE 1. PARTICIPANT CHARACTERISTICS (N = 21)

	N (%)
Age in years, median (range)	38.2 (27–55)
Marital Status	
Married or cohabitating	20 (95%)
Unmarried	1 (5%)
Education	
Primary school or less	10 (48%)
Secondary school or higher	11 (53%)
Literacy	
Reads with difficulty or not at all	1 (5%)
Reads easily	20 (95%)
Residence	
Rural	19 (90%)
Urban/semi-urban	2 (10%)
Occupation	11 (50%)
Agriculture/farming	11 (52%)
Fishing Manual labor	5 (24%)
Selling goods, health worker, other	4 (19%) 3 (14%)
	` /
Lifetime number of sexual partners, median (range)	7 (4–15)
Number of living children, median (range)	4 (1–8)
Number of total children, includes alive	5 (1–11)
and dead, median (range)	- ()
Time since HIV diagnosis in years,	2 (1–7)
median (range)	
Currently on antiretroviral therapy	19 (90%)
Disclosed HIV status to main partner	20 (95%) ^a
Main partner's HIV status	
HIV positive	12 (57%)
HIV negative	8 (38%)
Unknown	1 (5%)
Current contraceptive use	20 (95%)
More effective contraception use ^b	6 (29%)
Combined oral contraceptive pills	1
Depomedroxyprogesterone	3
Intrauterine device	$\frac{0}{2}$
Contraceptive implant Permanent method	0
Male condoms	19 (91%)
Condoms I mare effective contracention	14 (67%)
Condoms + more effective contraception	5 (24%)

^aOne missing value.

services facilitated male inclusion and involvement in FP decision-making.

Men's motivations for using FP services

Overall, men saw FP as an important tool that empowered them to make choices according to their desires and needs. Almost all participants noted that FP facilitated birth spacing:

"What has encouraged us to use the methods is that, as we started using the services, our plan was to have our third child after three to four years, and that has worked out for us!" (39 years old, 7 children, HIV+ partner)

When further exploring specific reasons for birth spacing, three primary themes emerged which included (1) improved

provision of resources for existing children, (2) benefit to personal health, and (3) prevention of HIV transmission to others.

Improves provision of resources to children and families. Being able to adequately provide necessities such as education, clothing, and food for their children and families was an important factor in birth spacing. The rising cost of living was seen as a major motivation to have smaller families, as this participant explained:

"You see the cost of living has gone higher making it difficult to meet the needs of a family like offering children good education and family up keep. For us in this area there is no proper source of income..." (48 years old, 8 children, HIV-partner)

Improves personal health. Since contraception was offered alongside ART at the integrated clinic sites, some of the men perceived that contraception in combination with ART led to health improvements. Birth spacing was seen as helping both partners recover their physical and mental health in the context of HIV infection.

"Personally I have been sick on and off because of my condition, but I am happy I have no small child who would bother me with sickness." (35 years, 8 children, HIV- partner)

Additionally, a few men recognized that FP might reduce risks associated with pregnancy and delivery for their partners, such as post-partum hemorrhage.

Prevention of HIV transmission to partners and infants. Some of the men viewed their preferred FP method—namely condoms—as having the additional benefit of preventing transmission of HIV and other sexually transmitted infections (STIs) to uninfected partners in addition to preventing unwanted pregnancies, or dual protection. One participant stated, "When I went to the hospital, I tested HIV-positive while my wife was negative, that is how I ended up using condoms because there was no way [I was] going to have unprotected sex with my wife," (28 years old, 2 children, HIV- partner). Participants also indicated the importance of preventing transmission to an infant.

A few men also commented on the use of dual methods, condoms for prevention of HIV transmission and the use of more effective contraception to prevent unintended pregnancy. One participant indicated, "Since my partner already had an implant, it was necessary to also talk to me about condom use so that we are fully protected as a family," (48 years old, 8 children, HIV- partner).

Preferences for integrated FP services

The men overwhelmingly indicated that their preferred site for provision of FP services was at the HIV care clinic as compared to MCH-FP clinics. Participants wanted FP services at the same time as their HIV care appointment because (1) it would streamline services, (2) they trusted their HIV clinic and its providers, and (3) it helped them integrate FP/HIV care into their lives.

Streamlined services at HIV clinics. Nearly all the men felt the HIV care clinics were less crowded and that the

^bMore effective contraception is defined as hormonal methods, intrauterine devices (IUDs), and permanent methods.

services were more streamlined and efficient, which allowed them to save time, as compared to the MCH-FP clinics. Additionally, men noted that getting FP access at the HIV clinics meant the couples could coordinate their appointments.

"I would like [FP] at the [HIV clinic because] it would mean that when the service provider at the [HIV clinic] is through with HIV-related services, my wife will get her family planning injection right there from the same service provider [and] I'll be given condoms, pick my medications from the pharmacy then head home [rather] than being sent elsewhere to receive the family planning services." (36 years old, 2 children, HIV+ partner)

This type of experience was in contrast to the long waiting times at MCH-FP clinics:

"Because the MCH is usually crowded, there are several children to be immunized, some need other services and that takes time, whereas, at the [HIV clinic] services are offered much faster." (48 years old, 8 children, HIV-partner)

Identifying with and trusting their HIV care clinic and its providers. Participants most closely identified with their HIV care clinic due to their HIV diagnosis. One participant explained, "I would like to receive [FP services] from the clinic where I receive my HIV medications because that is the place where I found out about my HIV positive status, it is the place where I get advice and counseling," (43 years old, 6 children, HIV+ partner).

Many of the men felt that it was easier working with providers at the HIV care clinics due to having already disclosed their HIV positive status. Others implied feeling comfortable with knowledge of other client's HIV status, as one participant said, "I like the [HIV clinic] because we are already free with each other because we have all known our HIV positive status," (46 years old, 4 children, HIV+partner).

Several of the men indicated not identifying with the MCH-FP clinics. They felt the MCH-FP clinics were meant for women and not for adult men. One participant said, "I don't see men going there. I only see women and only expectant women," (51 years old, 7 children, HIV+ partner). Additionally, some men reported that having young children around the women at the MCH clinics made the men uncomfortable receiving FP services from the same location.

Integrating FP and HIV education and counseling helps HIV-infected patients better integrate the two in their lives. A couple of the men commented on how having integrated FP services with HIV care services conceptually also unified these two elements of their lives. One participant said, "It impresses me very much that I get the teaching together at once...because when it is taught together, I can understand them together," (55 years old, 3 children, HIV+ partner). They implied that having integrated services made it easier to implement the knowledge gained about both types of services and led to more uptake and adherence to them.

Male inclusion in FP counseling was facilitated by FP/HIV integration

Alongside the convenience of integrated FP services, another salient theme that emerged was men's perception of inclusion in the FP decision-making process for their

families. Below we explore specific factors facilitating this feeling of inclusion.

Providers built rapport. Some men felt included in FP decision-making when the providers, for example, asked them their opinions during FP counseling. One participant remarked, "The service provider kept asking me about my views and thoughts during the talk... After explaining to us different methods of family planning, I was asked as the husband what my opinion was on which method my wife should use," (39 years old, 7 children, HIV+ partner).

Others commented on how subtle aspects of their interactions with the health care providers helped build rapport. A participant remarked, "Yes [the provider] tried to talk to me calmly, asking me how I have been, and that thing would impress me, I felt he welcomed me happily," (36 years old, 4 children, HIV+ partner). Other techniques that fostered inclusion were the provider asking open-ended questions, inquiring about the man's health, and making frequent eye contact. All participants felt their privacy and confidentiality were well respected by their providers, which also helped build trust.

Joint couples counseling. While couple's counseling for FP was not explicitly part of the integrated service model, couples were often counseled together or encouraged to return for counseling together. Some of the men felt that contraception use pertains to both partners and therefore joint counseling was very beneficial.

"I think because some of the methods of family planning both of us can use...[For example], I can use [condoms] as my wife can also. So if I'm part of the discussion, [it] isn't bad." (27 years old, 2 children, HIV+ partner).

Joint counseling also meant that the providers could actively help build consensus between the partners. One participant said, "[The health care provider] wanted us to be one thing, so that one does not have their views different from the other's," (36 years old, 3 children, HIV+ partner).

Health talks and counseling improved FP knowledge among the men. Most of the men found the health talks interactive and educational. Nearly all indicated that the community health workers giving the talks were highly informed and the men trusted the talks' content. Some of the men indicated that counseling them specifically about FP enabled them to handle any complications or to support their partner in her adherence to the chosen FP method. "...if my wife is doing something I have to get information about it so if any complications arise I don't get surprised," said one male (32 years old, 4 children, HIV+ partner).

Discussion

This study is one of the first to explore HIV-positive men's experiences with integrated FP/HIV services. We found that HIV-positive men in care are invested in FP and prefer obtaining their FP services, including counseling on all methods and method provision for them and their partners, at HIV care clinics. Furthermore, integrated FP/HIV services fostered male inclusion in FP decision-making.

The men in this study overwhelmingly indicated FP was important to their lives. Providers and female partners, on the

422 PATEL ET AL.

other hand, often perceive male partners as uninterested. In a South African study, women enrolled in a prevention of mother-to-child transmission program perceived their male partners as uninterested in their antenatal care, but many of their partners demonstrated active interest. 36 Birth spacing made the men in our study feel they could better provide for their existing families. Birth spacing also had the perceived benefit of improving their and their partners' emotional and physical health, a dimension that likely takes on greater emphasis for HIV-positive individuals. Birth spacing has been shown to improve maternal and child health. 37,38 The men also felt using contraception helped prevent transmission to their partners and infants. These findings signal that men are aware of FP's benefits and targeted education messages resonate with these men. Male investment in FP is likely the first step in male involvement in efforts to improve uptake of more effective contraception. The next step may be improving communication between men and their female partners and providers.

Male participants in our study overwhelmingly preferred obtaining FP services at their HIV care clinics, instead of antenatal or MCH clinics. This was a similar finding among men at the non-integrated sites in the CRT as well. ¹⁵ The men strongly identified with their HIV care clinic and its providers over the MCH clinics. Integration of FP and HIV services is occurring at several types of facilities in SSA, not just at HIV care clinics. For example, HIV testing, counseling, and even treatment is being integrated into antenatal care or MCH clinics. 17,18 Given the men's strong preference for HIV clinics as their source of FP services, we argue that integrating FP services into HIV clinics should be kept a priority as this model likely fosters male involvement in FP, which, in turn, may improve contraceptive use.²⁹ In addition, HIVpositive men in SSA tend to have worse clinical outcomes as compared to women ^{39–45} and face unique challenges in accessing and remaining in HIV care and treatment, 46-50 and integrated FP services may serve as one of many tools to attract and retain these men.

The key concern in male involvement in FP decisionmaking is the possibility of encroaching on female autonomy. For example, involving men may foster patronizing attitudes or prevent women from adequately voicing their opinions during interactions with providers if the male partners are present. Involving men may reinforce providers' socialized norms of patriarchy. While all the men in our study indicated that their female partner's FP preferences were important to them, it is difficult to interpret the strength or actualization of this belief. On the flip side, involving men may foster their buy-in and having providers counsel both partners together, in a gender equitable manner, may facilitate consensusbuilding between the couple. Ultimately, it was not clear from our data if and how female autonomy was compromised. Findings from surveys conducted after implementation of the CRT, however, do show that men had more gender equitable attitudes after integration.⁵¹ More research is needed to investigate how to include men in FP in ways that promote gender equity and bolster, as opposed to restrict, female agency.

Some men did mention the importance of using condoms alongside a more effective contraceptive method. Though reported infrequently in our qualitative study, dual method use did increase over time at integrated and control sites in

the CRT.¹⁶ Engaging men in FP at HIV clinics is an opportunity to help improve dual method use. Effective messaging techniques to promote dual method use need to be studied and tested further in high HIV prevalent communities to reduce HIV transmission.

This study has several limitations. Participants were recruited through a convenience sample. Hence, those who agreed to participate in our interviews may be more inclined towards utilizing FP services than other men, though none of the men recruited refused to participate. Social desirability bias may have prompted men to answer some of the questions as favorably as they did, such as valuing their female partner's views on FP. This study sample is not representative of all HIV-positive men in Nyanza and our findings have limited generalizability. Nonetheless, our findings do offer a range of perspectives of men in this population.

In conclusion, HIV-positive men in care appear invested in FP and their inclusion in FP decision-making may bolster both female and male agency. In addition to the evidence that integrating FP services into HIV care improves the uptake of more effective contraceptive methods among women, the positive male attitudes observed here also support the programmatic push towards integration. Further studies need to examine how HIV-positive women feel about male involvement in FP and how best to provide integrated services that fully engage men while still promoting women's autonomy in FP decision-making.

Author Disclosure Statement

No competing financial interests exist.

References

- United Nations. The Glion Call to Action on Family Planning and HIV/AIDS in Women and Children: Recommendations for Action. Geneva, Switzerland, 2004:1–6.
- Joint United Nations Programme on HIV/AIDS (UNAIDS). Global Plan Towards the Elimination of New HIV Infections. Geneva, Switzerland, 2011.
- NASCOP and Division of Reproductive Health. National Reproductive Health and HIV/AIDS Integration Strategy. Nairobi, Kenya, 2009.
- Mmbaga EJ, Leyna GH, Ezekiel MJ, Kakoko DC. Fertility desire and intention of people living with HIV/AIDS in Tanzania: A call for restructuring care and treatment services. BMC Public Health 2013;13:86.
- Anand A, Shiraishi RW, Bunnell RE, et al. Knowledge of HIV status, sexual risk behaviors and contraceptive need among people living with HIV in Kenya and Malawi. AIDS 2009;23:1565–1573.
- Beyeza-Kashesya J, Kaharuza F, Ekström AM, Neema S, Kulane A, Mirembe F. To use or not to use a condom: A prospective cohort study comparing contraceptive practices among HIV-infected and HIV-negative youth in Uganda. BMC Infect Dis 2011;11:144.
- Sarnquist CC, Rahangdale L, Maldonado Y. Reproductive health and family planning needs among HIV-infected women in Sub-Saharan Africa. Curr HIV Res 2013;11:160– 168.
- Elul B, Delvaux T, Munyana E, et al. Pregnancy desires, and contraceptive knowledge and use among prevention of mother-to-child transmission clients in Rwanda. AIDS 2009;23 Suppl 1:S19–S26.

- 9. Keogh SC, Urassa M, Kumogola Y, Mngara J, Zaba B. Reproductive behaviour and HIV status of antenatal clients in northern Tanzania: Opportunities for family planning and preventing mother-to-child transmission integration. AIDS 2009;23 Suppl 1:S27–S35.
- Wanyenze RK, Tumwesigye NM, Kindyomunda R, et al. Uptake of family planning methods and unplanned pregnancies among HIV-infected individuals: A cross-sectional survey among clients at HIV clinics in Uganda. J Int AIDS Soc 2011;14:35.
- 11. Sun M, Peipert JF, Zhao Q, et al. Trends in contraceptive use among women with human immunodeficiency virus. Obstet Gynecol 2012;120:783–790.
- 12. Nöstlinger C, Desjardins F, Dec J, Platteau T, Hasker E, Group EVS. Child desire in women and men living with HIV attending HIV outpatient clinics: Evidence from a European multicentre study. Eur J Contracept Reprod Heal Care 2013;18:251–263.
- Finger JL, Clum G a., Trent ME, Ellen, and the Adolescent Medicine JM. Desire for pregnancy and risk behavior in young HIV-positive women. AIDS Patient Care STDS 2012;26:173–180.
- 14. Carter MW, Kraft JM, Hatfield-Timajchy K, et al. The reproductive health behaviors of HIV-infected young women in the United States: A literature review. AIDS Patient Care STDS 2013;27:669–680.
- Newmann SJ, Grossman D, Blat C, et al. Does integrating family planning into HIV care and treatment impact intention to use contraception? Patient perspectives from HIV-infected individuals in Nyanza Province, Kenya. Int J Gynaecol Obstet 2013;123:e16–e23.
- Grossman D, Onono M, Newmann SJ, et al. Integration of family planning services into HIV care and treatment in Kenya: A cluster-randomized trial. AIDS. 2013;27(Supplement 1):S77–S85.
- Lindegren M, Kennedy C, Bain-Brickley D, et al. Integration of HIV/AIDS services with maternal, neonatal and child health, nutrition, and family planning services: A review. Cochrane Libr 2012;10.
- O'Reilly KR, Kennedy CE, Fonner VA, Sweat MD. Family planning counseling for women living with HIV: A systematic review of the evidence of effectiveness on contraceptive uptake and pregnancy incidence, 1990 to 2011. BMC Public Health 2013;13:935.
- 19. Liambila W, Askew I, Mwangi J, Ayisi R, Kibaru J, Mullick S. Feasibility and effectiveness of integrating provider-initiated testing and counselling within family planning services in Kenya. AIDS 2009;23:S115–S121.
- Church K, Mayhew S. Integration of STI and HIV prevention, care, and treatment into family planning services:
 A review of the literature. Stud Fam Plann 2009;40: 171–186.
- Newmann SJ, Mishra K, Onono M, et al. Providers' perspectives on provision of family planning to HIV-positive individuals in HIV care in Nyanza Province, Kenya. AIDS Res Treat 2013; Article ID.
- Ngure K, Heffron R, Mugo N, Irungu E, Celum C, Baeten JM. Successful increase in contraceptive uptake among Kenyan HIV-1-serodiscordant couples enrolled in an HIV-1 prevention trial. AIDS 2009;23:S89–S95.
- 23. McCarraher DR, Vance G, Gwarzo U, Taylor D, Chabikuli ON. Changes in contraceptive use following integration of family planning into ART services in Cross River State, Nigeria. Stud Fam Plann 2011;42:283–290.

- Kosgei RJ, Lubano KM, Shen C, et al. Impact of integrated family planning and HIV care services on contraceptive use and pregnancy outcomes: A retrospective cohort study. J Acquir Immune Defic Syndr 2011;58:121–126.
- 25. Shade SB, Kevany S, Onono M, et al. Cost, cost-efficiency and cost-effectiveness of integrated family planning and HIV services. AIDS 2013;27:S87–S92.
- Matthews LT, Crankshaw T, Giddy J, et al. Reproductive decision-making and periconception practices among HIVpositive men and women attending HIV services in Durban, South Africa. AIDS Behav 2013;17:461–470.
- 27. Akelo V, Girde S, Borkowf CB, et al. Attitudes toward family planning among HIV-positive pregnant women enrolled in a prevention of mother-to-child transmission study in Kisumu, Kenya. PLoS One. 2013;8:e66593.
- Becker S. Couples and reproductive health: A review of couple studies. Stud Fam Plann 1996;27:291–306.
- Terefe A, Larson CP. Modern contraception use in Ethiopia: Does involving husbands make a difference? Am J Public Health 1993;83:1567–1571.
- Steinfeld RL, Newmann SJ, Onono M, Cohen CR, Bukusi EA, Grossman D. Overcoming barriers to family planning through integration: Perspectives of HIV-positive men in Nyanza Province, Kenya. AIDS Res Treat 2013; Article ID 861983.
- 31. Kenya National Bureau of Statistics (KNBS) and ICF Macro. Kenya Demographic and Health Survey 2008–09. Calverton, Maryland, 2010.
- 32. Kimanga DO, Ogola S, Umuro M, et al. Prevalence and incidence of HIV infection, trends, and risk factors among persons aged 15–64 years in Kenya: Results from a nationally representative study. J Acquir Immune Defic Syndr 2014;66:S13–S26.
- 33. Lewis-Kulzer J, Penner J a, Marima R, et al. Family model of HIV care and treatment: A retrospective study in Kenya. J Int AIDS Soc 2012;15:8.
- 34. Onono M, Blat C, Miles S, et al. Impact of family planning health talks by lay health workers on contraceptive knowledge and attitudes among HIV-infected patients in rural Kenya. Patient Educ Couns 2013;13:8–11.
- 35. Charmaz K. Constructing Grounded Theory: A Practical Guide Through Qualitative Analysis. 1st ed. London: SAGE Publications Ltd, 2006.
- 36. Villar-Loubet OM, Bruscantini L, Shikwane ME, Weiss S, Peltzer K, Jones DL. HIV disclosure, sexual negotiation and male involvement in prevention-of-mother-to-child-transmission in South Africa. Cult Health Sex 2013;15: 253–268.
- 37. Conde-Agudelo A. Birth spacing and risk of adverse perinatal outcomes. JAMA 2006;295:1809–1823.
- 38. Conde-Agudelo A, Rosas-Bermúdez A, Kafury-Goeta AC. Effects of birth spacing on maternal health: A systematic review. Am J Obstet Gynecol 2007;196:297–308.
- 39. Druyts E, Dybul M, Kanters S, et al. Male sex and the risk of mortality among individuals enrolled in antiretroviral therapy programs in Africa: A systematic review and meta-analysis. AIDS 2013;27:417–425.
- 40. Geng EH, Hunt PW, Diero LO, et al. Trends in the clinical characteristics of HIV-infected patients initiating antiretroviral therapy in Kenya, Uganda and Tanzania between 2002 and 2009. J Int AIDS Soc 2011;14:46.
- 41. Hawkins C, Chalamilla G, Okuma J, et al. Sex differences in antiretroviral treatment outcomes among HIV-infected adults in an urban Tanzanian setting. AIDS 2011;25:1189–1197.

424 PATEL ET AL.

- 42. Kanters S, Nansubuga M, Mwehire D, et al. Increased mortality among HIV-positive men on antiretroviral therapy: Survival differences between sexes explained by late initiation in Uganda. HIV AIDS (Auckl). 2013; 5:111–119.
- 43. Mutasa-Apollo T, Shiraishi RW, Takarinda KC, et al. Patient retention, clinical outcomes and attrition-associated factors of HIV-infected patients enrolled in Zimbabwe's National Antiretroviral Therapy Programme, 2007–2010. PLoS One 2014;9:e86305.
- 44. Penot P, Héma A, Bado G, Kaboré F. The vulnerability of men to virologic failure during antiretroviral therapy in a public routine clinic in Burkina Faso. J Int AIDS Soc 2014; 17:1–7.
- 45. Cornell M, Schomaker M, Garone DB, et al. Gender differences in survival among adult patients starting antiretroviral therapy in South Africa: A multicentre cohort study. PLoS Med 2012;9:e1001304.
- 46. Kingori C, Reece M, Obeng S, et al. Impact of internalized stigma on HIV prevention behaviors among HIV-infected individuals seeking HIV care in Kenya. AIDS Patient Care STDS 2012;26:761–768.
- 47. Schneider H, Govender V, Harris B, Cleary S, Moshabela M, Birch S. Gender differences in experiences of ART services in South Africa: A mixed methods study. Trop Med Int Health 2012;17:820–826.

- 48. Nyamhanga TM, Muhondwa EPY, Shayo R. Masculine attitudes of superiority deter men from accessing antiretroviral therapy in Dar es Salaam, Tanzania. Glob Health Action 2013;6:21812.
- 49. Siu GE, Wight D, Seeley J. How a masculine work ethic and economic circumstances affect uptake of HIV treatment: Experiences of men from an artisanal gold mining community in rural eastern Uganda. J Int AIDS Soc 2012;15:1–9.
- Siu GE, Wight D, Seeley J a. Masculinity, social context and HIV testing: An ethnographic study of men in Busia district, rural eastern Uganda. BMC Public Health 2014;14:33.
- 51. Newmann SJ, Grossman D, Blat C, et al. Does integrating family planning into HIV care improve attitudes towards gender equity? Results from a cluster randomized trial in Nyanza, Kenya. In: Integration for Impact. Nairobi, Kenya, September 2013.

Address correspondence to:
Rena Patel, MD
Division of Infectious Diseases
University of California San Francisco
350 Parnassus Avenue
Suite 908, Box 0378
San Francisco, CA 94143–0378

E-mail: rena.patel@ucsf.edu