



Published in final edited form as:

*Soc Sci Med.* 2006 October ; 63(8): 1998–2009. doi:10.1016/j.socscimed.2006.05.008.

## The promises and limitations of female-initiated methods of HIV/STI protection

Joanne E. Mantell<sup>a,\*</sup>, Shari L. Dworkin<sup>a</sup>, Theresa M. Exner<sup>a</sup>, Susie Hoffman<sup>a,b</sup>, Jenni A. Smit<sup>c</sup>, and Ida Susser<sup>d</sup>

Shari L. Dworkin: sld2011@columbia.edu; Theresa M. Exner: tme1@columbia.edu; Susie Hoffman: hoffman@pi.cpmc.columbia.edu; Jenni A. Smit: j.smit@rhru.co.za; Ida Susser: IdaSusser@aol.com

<sup>a</sup>HIV Center for Clinical and Behavioral Studies, NYS Psychiatric Institute and Department of Psychiatry, Columbia University NY, NY, USA

<sup>b</sup>Mailman School of Public Health, Columbia University NY, NY, USA

<sup>c</sup>Reproductive Health and HIV Research Unit, University of the Witwatersrand, South Africa

<sup>d</sup>City University of New York, USA

### Abstract

New methods are now available, and others are being developed, that could enable women to take the initiative in preventing sexually transmitted infections. However, attempts to capitalize on “female-controlled” preventive methods thus far have met with limited success. Female-initiated methods were introduced to intervene in the state of gender relations and assist women who are disempowered vis-à-vis their male partners. Paradoxically, however, we underscore that it is the very structure of regional and local gender relations that shapes the acceptability (or lack of acceptability) of these methods.

This paper specifically addresses how the structure of gender relations—for better and for worse—shapes the promises and limitations of widespread use and acceptance of female-initiated methods. We draw on examples from around the world to underscore how the regional specificities of gender (in)equality shape the acceptance, negotiation, and use of these methods. Simultaneously, we demonstrate how the introduction and sustained use of methods are shaped by gender relations and offer possibilities for reinforcing or challenging their current state. Based on our analyses, we offer key policy and programmatic recommendations to increase promotion and effective use of women-initiated HIV/STI protection methods for both women and men.

### Keywords

Female-initiated barrier methods; Gender relations and roles; Female condom; Microbicides; Diaphragm; HIV/STI prevention

## Introduction

The global plight of women, exacerbated by the unprecedented threat of the HIV epidemic, was prominently featured at the 2004 International AIDS Conference in Bangkok. In some parts of the world, women are disproportionately infected relative to men, and this gender imbalance is increasing (UNAIDS/UNFPA/UNIFEM, 2004). Women account for half of the 38.6 million adults with HIV in 2005 (UNAIDS, 2006). Although we have known for more than a decade that women are at risk for HIV/AIDS through heterosexual sex, it has taken these burgeoning numbers and the disease's decimating toll to recognize that they are a primary face of the epidemic. In sub-Saharan Africa and the Caribbean, the majority of women are infected during unprotected sex with an infected male partner (UNAIDS, 2004a), and most new AIDS infections in the US are due to heterosexual transmission (Centers for Disease Control and Prevention (CDC), 2004). Women's risk is driven by the intersection of biological susceptibility, socio-cultural values and norms, and structural factors.

Gender, as a structural factor, organizes social relations, shaping opportunities and constraints surrounding sexual interactions between women and men (Farmer, Connors, & Simmons, 1996; Schoepf, 1992). The structure of gender relations is also fundamental to the acceptability and use of women-initiated HIV/STI prevention methods. Recognition of the importance of women's reproductive and sexual rights (United Nations, 1994, 1996), women's difficulties in negotiating male condom use, and the increased feminization of AIDS, have all served as a catalyst for the development and promotion of women-initiated disease prevention methods (Annan, 2004; Elias & Heise, 1994; Gollub, 2000; Gollub et al., 2000; Heise & Elias, 1995; Gupta & Weiss, 1993; Stein, 1990; Stein, 1993; Susser & Stein, 2000; UNAIDS, 2004b).

The re-establishment of condoms for sexual protection in the AIDS era represented the return of an old technology that gave men control over disease protection and, for women, required explicit or implicit negotiations with partners (Giami & Spencer, 2004). By contrast, the introduction of the oral contraceptive pill in the 1960s allowed the sexual liberation of many women, for the first time placing pregnancy prevention under their control and disassociating reproduction from sexual intercourse (Ehrhardt & Exner, 1991). It remains unknown, however, as to whether the introduction of these new female-initiated HIV/STI prevention technologies will follow the path of the pill and transform women's bargaining power to enable self-protection.

In this paper, we argue that the adoption of a female-initiated HIV/STI prevention method, evidenced by satisfaction with and willingness to use it, rests in large part on the structure of gender relations in the target society. We first briefly review these methods. We then address how gender relations structure the promises and limitations of the acceptability and use of these methods and how these methods offer new possibilities for shaping gender norms and gender relations. Finally, we offer some policy and programmatic recommendations to increase promotion and effective use of women-initiated HIV/STI protection methods for both women and men.

The *female condom* is the only physical barrier method in addition to the male condom that has established contraceptive efficacy (Farr, Gabelnick, Sturgen, & Dorflinger, 1994; Trussell, 1998) and high likelihood of STI prevention efficacy (Feldblum et al., 2001; Fontanet et al., 1998; French et al., 2003; see Cecil, Perry, Seal, & Pinkerton, 1998; Hoffman, Mantell, Exner, & Stein, 2004, and World Health Organization, 1997, for reviews). The *diaphragm*, one of the oldest known contraceptives available to women, has similar contraceptive efficacy to that of the female condom when used with a spermicide (Trussell, 2004; see Cook, Nanda, & Grimes, 2003, for review). Although it has the potential to prevent HIV (Cohen, 2002; Moench, Chipato, & Padian, 2001), the diaphragm's efficacy in preventing the acquisition of HIV has not yet been demonstrated. A number of studies have found the diaphragm to be acceptable as a contraceptive method (Bulut et al., 2001; Di Giacomo do Lago, Barbosa, Kalckmann, Villela, & Gohiman, 1995; Harvey, Bird, Maher, & Beckman, 2003), and more recently, as a potential HIV/STI prevention method (van der Straten et al., 2005). *Microbicides*, chemical barriers that may be formulated as a gel, suppository, film, or incorporated into a sponge or intravaginal ring with slow, extended release of the product, are under active development but not yet available for use (Alliance for Microbicide Development, 2004; see Rockefeller Foundation Microbicides Initiative, 2002, for a review of mechanisms of HIV prevention, and Mantell, Myer et al., 2005, for a review of acceptability issues). Under the best of circumstances, microbicides will offer only partial protection against HIV and are unlikely to be as efficacious as condoms. Still, in populations where condom use is low, even a partially efficacious microbicide could avert millions of infections (Foss, Vickerman, Heise, & Watts, 2003).

## **Gender relations and the acceptability and use of female-initiated disease prevention methods**

Over the past 10 years, public health research has increasingly articulated how gendered structures of labor, power, and emotional cathexis shape health risks for women and men, including those related to HIV/AIDS (Connell, 1987; Pulerwitz, Amaro, DeJong, Gortmaker, & Rudd, 2002; Pulerwitz, Gortmaker, & DeJong, 2000; Wingood & DiClemente, 2000). Although inequitable gender relations led to the creation of female-initiated disease prevention methods, these same relations of inequality make it difficult for women to use female-initiated methods, especially in long-term relationships. Monolithic assumptions of female choice, autonomy, control, and empowerment were built into the promise of female-initiated technologies. These assumptions overlooked the fact that structures of gender have distinct “rules of the game” that call for women to use “different strategies to maximize security and optimize life options with varying potential for active or passive resistance in the face of oppression” (Kandiyoti, 1988, p. 274). The “patriarchal bargain”, or the ways in which women choose (or are forced) to draw on various strategies to cope with various gradations of inequality (Kandiyoti, 1988; Kibria, 1990), will affect women's success in using female-initiated disease prevention methods. Whereas shifting gender relations may afford more opportunities to use female-initiated disease prevention methods (Susser, 2001), there is a great deal of diversity in how much, when, and in what ways women can and will transform the state of gender relations with men (Kandiyoti, 1988).

Despite these trends, gender relations and roles have not been a central feature in discussions of female-initiated method acceptability and promotion (Schoeneberger, Logan, & Leukefeld, 1999). Inadequate attention to the gendered context that shapes method introduction and individuals' negotiations is surprising, given that male partner resistance is reported to be a major factor in women's discontinuation of female condom use (Beksinska, Rees, McIntyre, & Wilkinson, 2001; Farr et al., 1994; Ford & Mathie, 1993; Sakondhvat et al., 2001; Welsh, Feldblum, Kuyoh, Mwarogo, & Kungu, 2001).

In the section below, we apply the concept of the patriarchal bargain to explore the promises and limitations of female-initiated HIV/STI prevention methods in various contexts. We examine the ways in which these methods shape and are shaped by three domains: (1) women's empowerment and gender equality, (2) the re-negotiation of gender norms, and (3) covert method use.

### **Promises: improvements in women's empowerment and gender equality**

Putting options for protection into women's hands is vital to curbing sexual transmission of HIV/AIDS, given contexts of inequality, economic dependence upon men, and gendered norms of monogamy and multiple sexual partnerships (Ankrah & Attika, 1997). Some studies suggest that the female condom enhances women's empowerment because it can increase safer sex, enhance bargaining power within relationships, and optimize control over the body (Busza & Baker, 2004; Choi, Roberts, Gomez, & Grinstead, 1999; Francis-Chizororo & Natshalaga, 2003; Gollub, 2000). This perception of bodily control also is evident in women's reports of feeling protected due to inserting the device themselves (Klein, Eber, Crosby, Welka, & Hoffman, 1999) and avoiding situations, e.g., men piercing holes in male condoms, that are predicated on trusting the male partner (Pool et al., 2000a).

Women who engage in transactional sex for economic reasons report greater empowerment as a result of female condom use—especially when their male partners resist using male condoms. Some female sex workers report that the female condom enhances their control (Busza & Baker, 2004) and direct bargaining over the negotiation process with clients (Setiadi, Jatiputra, & Santoso, 1996).

In contexts other than sex work, research shows that some married women whose husbands demand sex and refuse to use condoms derive greater control over their bodies and fates with female condom use (Chege, 1999). This also may be true in situations where women face the risk of unexpected or forced sex or high levels of risk for gender-based violence. In these types of situations, having a protective product that can be inserted prior to sex or remain in place for a long duration are important considerations (Orner et al., 2006).

More broadly, given the extent to which a culture of human rights and/or social movements for feminism has affected women in various regions, many may be poised to become "*female condom women, more autonomous from men, more able to make their own decisions*" (Kaler, 2001, p. 789). This also may become true for women who use diaphragms and microbicides. Therefore, female methods are a part of an already changing state of gender relations and can be a catalyst for further changes.

Since gender is relational, the above trends also shape masculinities. Given the widely varying positions of status that men hold, and the way in which some men critically reflect on narrow constructs of masculinity, men in several countries are considering female-initiated methods as furthering the goals of gender equality. Even men who adhere to beliefs that male sexuality is innately uncontrollable and/or more powerful than female sexual desire acknowledge that women have the right to protect themselves. In one Zambian study, men reported that “...some husbands stop their wives from taking any [family planning] methods, and yet they can’t control their desires...It is better she uses a method she is comfortable with, especially if her husband is not understanding. She has the right to take a pill secretly” (Biddlecom & Fapohunda, 1998, p. 365).

Furthermore, in South Africa, given long histories of anti-apartheid activities and shifting gender relations, men are viewed by some as politicized, “willing to take a stand to promote gender equity” (Peacock, 2002, p. 40), or to end women’s oppression (Morrell, 2001). In India, Kenya, Costa Rica, Thailand, the Dominican Republic, and Colombia, there have been efforts to transform gender roles and encourage men to talk about sexuality and disease prevention as part of HIV/AIDS programs (UNAIDS, 2001). Men can and will play an important role in the acceptance and negotiation of female-initiated methods.

### **Challenges: backlash against perceived advances**

Rapid social transformation due to globalization, urbanization, and structural adjustment have exacerbated gender inequalities and increased opportunities for sexual interactions (Gilbert & Gilbert, 2004). In some contexts, these broader changes have increased women’s status and called into question the effects of women’s “emancipation” on men (Baylies & Bujra, 1995; Posel, 2003; Twiggs, 2003). For example, in South Africa, some men report that their roles are more precarious than before due to concerns about destabilizing male power or privilege (Hunter, 2005; Walker, 2005).

During periods of shifting gender relations and reproductive and sexual paradigms, possibilities for backlash may increase when women negotiate the use of female-initiated methods, given historical evidence that advances for women often are perceived as a loss of power for men (Kimmel, 1996; Messner, 1997). In the context of these changes, the initiation of female methods can be threatening to men. A method that signifies a woman’s control over her body may be viewed more generally as a sign of her sexual freedom, challenging male authority or overstepping local or regional values. In cultures where men control women’s choices and opportunities, men may feel their decisions about reproductive and sexual health should supersede those of women. Some research suggests that men believe that use of female-initiated methods gives women too much power over sex (Francis-Chizororo & Natshalaga, 2003; Geloo, 2002; Mantell, Adeokun et al., 2001; Pool et al., 2000a), leading men to feel insecure or threatened (Ankrah & Attika, 1997). This may be especially pronounced in cultures where women’s bodies and sexuality are viewed as literally belonging to the husband (Duffy, 2005) or where they are subjected to strong cultural edicts, such as female genital mutilation and wife inheritance/“cleansing” of widows (Luginaah, Elkins, Maticka-Tyndale, Landry, & Mathui, 2005; Oyaro, 2004). Thus,

perceived shifts in gendered power relations brought about by the use of female-initiated HIV/STI prevention methods may not be welcomed by men.

The most extreme example of backlash—violence and sexual coercion of women—has been associated with increased risk of HIV/AIDS (Dunkle et al., 2004; Maman et al., 2002). Several US studies indicate that women may run the risk of physical or sexual abuse if they attempt to use a female condom without approval from their partners<sup>1</sup> (El-Bassel, Gilbert, Rajah, Foleno, & Frye, 2000; Haignere et al., 2000; Witte, Wada, El-Bassel, Gilbert, & Wallace, 2000), and this also could hold true for covert use of a diaphragm or microbicide. It is true that without the availability of female-initiated methods, women face the threat of being exposed to HIV due to lack of social power to engage in protected sex. However, the introduction of female-initiated disease prevention methods can create difficult tensions between preserving cultural trends that honor male power and decision-making and moving toward gender equality.

### **Promises: opportunity for re-negotiation of gender norms**

In contrast to the previous section that describes the promises and limitations of female-initiated methods in terms of macro-oriented gendered contexts, this section examines these opportunities and constraints at the level of gender norms. Providing women with access to their own prevention methods might not raise their wages, cultural valuations, or reduce discriminatory legal practices, but these methods can act as a catalyst to change norms of self-care, communication and decision-making about sex and fertility, and sexual pleasure.

Some of the literature on reproductive technologies and fertility (Becker, 1996; Biddlecom & Fapohunda, 1998) suggests there is space for transforming male gate-keeping of disease prevention methods. For example, men in numerous countries have responded positively to women having their own methods. In the US, rural and urban men characterized women who would use a microbicide to be taking care of themselves in a beneficial way (Coggins, Blanchard, & Friedland, 2000). Several studies of the female condom and microbicides indicate men's endorsement of these methods (Coggins et al., 2000; Pool et al., 2000a; Ramjee, Gouws, Andrews, Myer, & Weber, 2001). In a study of diaphragm use in the US, only 13.4% reported that partner resistance was a reason for discontinuing its use (Harvey et al., 2003). If men are supportive of female partners' need for self-protection, this might de-emphasize the centrality of women's caring for others at the expense of themselves.

The availability of women-initiated methods also provides a catalyst for breaking norms of female sexual silence, enhancing women's communication with their sexual partners about sexuality and HIV/STI prevention. In one US study, suggesting female condom use to one's partner predicted use of this method (Choi, Gregorich, Anderson, Grinstead, & Gomez, 2003). A study of the female condom in Brazil and Kenya reported that the peer support groups on the female condom helped them talk about sex more candidly with their male partners (Ankrah & Attika, 1997). Since the couple is an important unit of analysis in sexual and reproductive health matters (Becker, 1996), such discussions can offer women and men

---

<sup>1</sup>Despite this legitimate concern, to date, no carefully designed empirical studies have compared the likelihood of partner abuse associated with women initiating female versus male condom use.

an opportunity for understanding each partner's wishes and potentially for renegotiating norms.

Gender norms around sexual pleasure that tend to favor men also can be altered with female condoms, and potentially with microbicides and diaphragms. Use of these methods could shift emphasis from male sexual pleasure to an empowered sense of female sexual subjectivity (Woodsong, 2004), resulting in enhanced sexual pleasure for both women and men due to lubricant use or increased lubrication, the stimulation of the outer ring, the novelty of use, or male partners' assistance with insertion (Francis-Chizororo & Natshalaga, 2003; Green et al., 2001; Hernández, de Caso, & Ortíz, 1996; Klein et al., 1999; Woodsong & Koo, 2002). For example, in a southwest Uganda study, nearly all of the women and most of the men reported that female condom and spermicide use did not interfere with their sexual pleasure; nearly one-quarter of the women and two-thirds of the men reported that these products actually increased their sexual enjoyment (Pool et al., 2000b). In the US, the perception of enhanced sexual pleasure has been associated with increased female condom use among family planning clients (Choi et al., 2003). The above findings are particularly important given the broader pattern that some women are challenging traditional ideas about norms of passivity in sex and the centrality of male sexual pleasure, and thus may reflect ongoing transformations in gender roles (e.g., see Spronk, 2005).

### Challenges to re-negotiating gender norms

Whereas many men may be supportive of self-care and more progressive gender norms, it may be difficult at the interpersonal level for men to give up the protection that they provide in the patriarchal bargain. Underscoring this theme, one male participant in a *Zambian* study said: *"By using a condom, my wife is demonstrating a liberation I am uncomfortable with. It is as though she cannot trust that I can protect her"* (Geloo, 2002). Women, too, may be unwilling to give up the benefits of protectionism that men provide. Given widespread discourses in Sub-Saharan Africa about the need for protection and ideologies that hold men responsible for safeguarding the household and family health, control over female methods might be accommodated within the domain of male decision-making.

Some men believe that women's use of these methods will transgress the boundaries of decision-making in the household, and that these decisions should be made by men themselves or jointly with their partners. Hence, in some societies, women's methods may be seen as fostering unacceptable changes in women's and men's decision-making roles. Where cultural norms and laws put forth the idea of men as "in control" or gatekeepers of women's bodies and sexuality, female methods introduced fear that male sexuality will be regulated by women. Other men fear that female-initiated method use will unleash women's sexuality, promoting female "promiscuity", infidelity, or relationship disruption. For example, in focus groups in Malawi and Zimbabwe, one man said: *"It [microbicide] shouldn't be sold to women, because they will just use it to have sex with other men"* (Bentley et al., 2004). The same dynamic has been reported in southwestern Uganda, where men claim that: *"if these products would be controlled by them [the women] I wouldn't like it, because if she gets used to it, she will go wherever she likes and in the end I will fail to keep her"* (Pool et al., 2000a, p. 202).

Finally, although by no means universal, researchers have highlighted how male pleasure predominates in sexual scripts and larger cultural ideologies (Bowleg, Lucas, & Tschann, 2004; Ortíz-Torres, Williams, & Ehrhardt, 2003). Research has shown that many women like the female condom and enjoy the greater control it affords in bargaining, but do not want to be perceived as choosing a method that diminishes male decision-making or pleasure. Furthermore, many women cite male resistance as a key impediment to continued use of the female condom (Artz et al., 2001). In some instances, this protest may be related to perceptions or actual experiences of men's diminished sexual pleasure.

### **Promises: covert methods give women control over sexual protection**

Those introducing women-initiated protection assumed that even in the most inequitable contexts, a code of secrecy would prevail, as occurred with women who use the pill and injection to hide contraceptive use from their partners (Castle, Konaté, Ulin, & Martin, 1999). The female condom may provide a viable alternative for imposing and secretly using rather than negotiating female condom use. Sex workers in a Mexico City study reported: *"You can earn more money 'promising' them you won't use a condom, and when they find out there was protection, they don't have a problem"* (Hernández et al., 1996). Other studies suggest that married women whose husbands may be drunk or demand sex and refuse to use condoms may be able to use the female condom (Ankrah & Attika, 1997; Chege, 1999).

Clandestine use can be seen as an act of resistance to women's subordination, providing women with a way to derail norms that give men freedom and control over sex and protection. The diaphragm does not require the male partner's cooperation because in many cases, it cannot be detected (Moench et al., 2001). For some women, concealment of the method is particularly important. For example, in Zimbabwe, using the diaphragm covertly was associated with consistent use (van der Straten et al., 2005).

### **Challenges: covert methods are incorporated into the gendered status quo**

Clandestine use has been promoted as a distinctive advantage of microbicides. However, accumulating evidence suggests that women in steady relationships want to or do disclose to male partners that they used a candidate/surrogate product (Mantell, Myer et al., 2005; Orner et al., in press; Weeks et al., 2004; Woodsong, 2004). For these women, candor was preferred over secrecy. Part of the reason for this is that many women consent to male authority or enjoy a degree of joint decision-making. It had been assumed that female methods would empower women by giving them sole decision-making; however, many women in steady partnerships consult men on decisions relating to their sexuality.

Furthermore, surreptitious use of female-initiated HIV/STI prevention methods may be illusory, given that they are inserted directly into the vagina. Some women are concerned that their partners will discover the method during sex, possibly eroding trust in the relationship or leading to violence. In the case of sex workers, some research suggests that men offer more money in return for unprotected sex (Tran, Detels, Hien, Long, & Nga, 2004). Neither the female condom nor more discreet barrier methods will automatically circumvent the need to inform sexual partners and negotiate their use. These findings highlight the limitation in promoters' and researchers' choice to view women as the target



population, instead of embracing the relational nature of gender, which would entail engaging women and men simultaneously.

## **Conclusions: implications of promoting female-initiated HIV/STI prevention methods**

A more nuanced understanding of how gender relations structure the promises and limitations of female-initiated prevention methods is critical to increasing their widespread acceptability and use. To advance the field, we suggest the following:

### **Consider the state of local and regional gender relations to tailor promotional strategies and messages for female-initiated disease prevention methods**

It is important to explore both the current state of gender relations and the shifting trends in the region, given that these influence introduction approaches, common backlash tendencies, and the opportunities that these methods provide for the renegotiation of gender norms. One-size-fits-all strategies concerning empowerment and covert use will not necessarily lead to increased uptake and continued use of female-initiated methods, highlighting the need for practitioners to remain cognizant of the need for a range of female-initiated methods and the appropriateness of particular negotiation strategies.

Potential areas to be addressed include: (a) the effects of gender relations on the acceptability of female-initiated methods and their continued use; (b) the role methods play in the promotion of women's empowerment compared to reinforcement of patriarchy; (c) the dynamics and determinants of partner decision-making regarding use of female-initiated methods; (d) gender hierarchy impediments to transforming gender relations; (e) use of collective strategies that engage women in the promotion of female methods; (f) evaluation of the effects of structural interventions that seek to transform gender relations on the acceptability and use of female-initiated methods; (g) assessment of the effects of structural interventions that promote female-initiated method use on gender relations; and (h) the influence of gender norms that stress childbearing on use of female-initiated methods and gender relations. Research and interventions targeted to HIV-positive persons, HIV-negative persons, and couples of mixed serostatus in these areas are needed.

### **Engage men in the promotion of female-initiated methods**

Men should be integrated into the female-initiated method trajectory—from a product's initial development to its reach in the marketplace—to maximize the use of these methods as prevention options. In cultures where negotiation of either male or female condoms would erode marital trust, signal a lack of love, and imply acceptance of infidelity, men may benefit from knowledge and experience in using female-initiated methods for disease protection in marital and extramarital relationships (Hirsch, Higgins, Bentley, & Nathanson, 2003).

A review of the acceptability of new HIV/STI prevention methods in the US (Severy & Spieler, 2000) suggests that many men prefer the female to the male condom because it is less constricting and more natural. For men who feel that male condoms detract from their

sexual pleasure, promoting the concept of sexual enjoyment of female methods could be an effective strategy. Male partners' preferences have been reported to influence women's use of female condoms and candidate microbicides (Artz et al., 2000; Choi et al., 1999; Coggins et al., 2000).

Focusing on ways for men to protect their own health and the health of their families and partners while assisting men to be more open about talking about sex, sexuality, and HIV/AIDS is of paramount importance. Equally important in prevention programs is to ensure that men are not marginalized and treated as individuals to blame (UNAIDS, 2001). Rather, prevention workers need to underscore that men are not a homogeneous group and are situated within broader social and economic contexts that have meant difficult changes for both women and men. Additionally, drawing upon men's experiences of race/ethnic, class, or other inequalities can be a starting point for increasing conscientization about the parallel between these oppressions and gender inequalities. As Patricia Hill Collins reminds us: *"Depending on the context, an individual may be an oppressor, a member of an oppressed group, or simultaneously oppressor and oppressed"* (Hill Collins, 1991, p. 225). Engaging men in these difficult dialogues can help men to hear messages about the need for improved health for both women and men and diminish the sense that supporting gender equality reduces male power.

**Recognize that female-initiated methods for HIV/STI prevention do not exist in a gender-neutral landscape, even though they have been uncritically infused with ideologies of female empowerment, autonomy, and personal choice**

The discourse and practice associated with female-initiated methods operationalize female empowerment through feminist ideals of "choice", "control", and resistance to male control of women's bodies and sexuality. Contrary to hopes and desires, no one physical or chemical barrier method—female condom, diaphragm, microbicide—will alter women's relationship power, and no one approach to method introduction and dissemination can be a road map across widely varying structures of gender relations around the world. Exhortations to use condoms, which challenge partners' perceptions of fidelity, may be unacceptable to both women and men where trust is crucial to the emotional bond in the relationship and the sexual double standard reigns.

**Balance the need to draw strategically upon masculine ideologies that will protect women and men from HIV/STIs with the risk that programmatic decisions may perpetuate gender inequality**

Increasingly, public health has attempted to articulate the costs of "traditional" masculinity to women's and men's health (Courtenay, 2000; International HIV/AIDS Alliance, 2003; Messner, 1997; Rivers et al., 1998; UNAIDS, 2001). If such efforts continue to highlight how contemporary gender roles can compromise men's and women's health while simultaneously underscore how men have a personal investment in challenging these roles, this will assist in expanding the protection of both women and men (Lewis, 2003; Peacock, 2002).

Since many women consent to degrees of male authority and view it as part of a societal bargain that offers women benefits and protections (Connell, 1987; Kandiyoti, 1988), the mutual benefits provided by female-initiated methods should be promoted. Messages that endorse these methods need to go beyond simple polarized use/non-use, rejection/acceptance, resistance/allowance to include strategic negotiations that draw on a variety of benefits and limitations of a method to each partner. Appealing to men's desires to maintain authority in decision-making, protectiveness toward their partners, families, or leadership in the community, can be used to gain their commitment to the fight against both HIV/AIDS and gender-based violence. Messages to men that can equate use of female-initiated prevention methods with masculinity, manliness, and responsibility for their own and others' health, are likely to be effective.

However, promoters of female methods cannot assume that male-positive messages are inherently gender-equitable. Strategically drawing upon masculinist discourse may lead to masculine-bolstering behaviors that reinforce gender inequality and harm women (Kimmel, 1996; Messner, 1997). Thus, the challenge is to strike a balance between respecting the state of gendered power relations on the ground, fighting for greater gender equality, and underscoring its benefits to men. Additionally, highlighting the costs of masculinity to both women and men, and facilitating men's investment in gender equality can reshape the perception that gains for women mean losses for men.

### **Realize that the structure of gender relations can shape the acceptability and use of female-initiated methods and that conversely, female-initiated methods could contribute to shifting the state of gender relations**

This is suggested by responses to the advent of hormonal contraception and Viagra™ (Giami & Spencer, 2004) as well as our analysis in this paper. There is a need for both short-term and long-term solutions to the prevention of HIV/STIs among women. Short-term approaches will continue to focus on female-initiated methods—both existing and new ones—that could potentially strengthen women's immediate ability to protect themselves from HIV/STIs. Long-term solutions will require political and social changes that will address the underlying causes of women's and men's vulnerabilities—the intersecting web of gender inequalities; the increasing feminization of poverty; and gender, racial, and class discrimination. Over time, with interventions that create opportunities for change in the balance of gendered power at the structural, household, and couple level, the promises of female-initiated methods will move closer to being fulfilled. Without the assistance of multilevel interventions that shift gendered contexts in the long run, new technologies will continue to be accommodated into the prevailing structure of gender relations in which they were created.

### **Acknowledgments**

This research was supported by the National Institute on Child Health and Human Development Grant 1 R01 HD046351, Female Condom Use in South Africa, Joanne E. Mantell, Principal Investigator; National Institute of Mental Health Training Grant, T32 MH19139, Behavioral Sciences Research in HIV Infection, Anke A. Ehrhardt, Principal Investigator National Institute on Child Health and Human Development Grant R01-HD037343, Promotion of Dual Protection among Inner-City Women, Theresa M. Exner, Principal Investigator; and National Institute of Mental Health Grant RO1-MH74370, A Structural Intervention to Promote Women's Health, Theresa M. Exner, Principal Investigator, HIV Center for Clinical and Behavioral Studies at the New York State Psychiatric

Institute and Columbia University. We acknowledge the contributions of Zena Stein and Mags Beksinska to the conceptualization of the ideas in this manuscript. For comments on earlier versions, we thank Jennifer Hirsch; the members of the HIV Center for Clinical and Behavioral Studies' International Core; and the anonymous reviewers.

## References

- Alliance for Microbicide Development. *The Microbicide Quarterly*. 2004; 2(2):1–23.
- Ankrah, EM.; Attika, S. Adopting the female condom in Kenya and Brazil: Perspectives of women and men. A synthesis. Arlington, VA: Family Health International, FHI AIDS Control and Prevention Project (AIDSCAP), Women's Initiative; 1997.
- Annan, K. Stronger leadership needed at every level in fight against HIV/AIDS, Plenary Session. Fifteenth International AIDS Conference; Bangkok, Thailand. 2004. (press release SG/SM/9418 AIDS/77)
- Artz L, Maculoso M, Brill I, Kelaghan J, Austin H, Fleenor M, et al. Effectiveness of an intervention promoting the female condom to patients at sexually transmitted disease clinics. *American Journal of Public Health*. 2000; 90(2):237–244. [PubMed: 10667185]
- Baylies, C.; Bujra, J. Discourse of power and empowerment in the fight against HIV/AIDS in Africa. In: Aggleton, P.; Davies, P.; Hart, G., editors. *AIDS: Safety, sexuality and risk*. London: Taylor & Francis; 1995. p. 194-222.
- Becker S. Couples and reproductive health: A review of couples studies. *Studies in Family Planning*. 1996; 27:291–306. [PubMed: 8986028]
- Beksinska ME, Rees H, McIntyre JA, Wilkinson D. Acceptability of the female condom in different groups of women in South Africa—A multicentred study to inform the national female condom introductory strategy. *South African Medical Journal*. 2001; 91:672–678. [PubMed: 11584783]
- Bentley ME, Fullem AM, Tolley EA, Kelly CW, Jogelkar N, Srirak N, et al. Acceptability of a microbicide among women and their partners in a 4-country phase I trial. *American Journal of Public Health*. 2004; 94(7):1159–1164. [PubMed: 15226137]
- Biddlecom AE, Fapohunda BM. Covert contraceptive use: Prevalence, motivations, and consequences. *Studies in Family Planning*. 1998; 29(4):360–372. [PubMed: 9919630]
- Bowleg L, Lucas KJ, Tschann JM. “The ball was always in his court”: An exploratory analysis of relationship scripts, sexual scripts, and condom use among African American women. *Psychology of Women Quarterly*. 2004; 28:70–82.
- Bulut A, Ortayli N, Ringheim K, Cottingham J, Farley TMM, Peregoudov A, et al. Assessing the acceptability, service delivery requirements, and use-effectiveness of the diaphragm in Colombia, Philippines, and Turkey. *Contraception*. 2001; 63(5):267–275. [PubMed: 11448468]
- Busza J, Baker S. Protection and participation: An interactive programme introducing the female condom to migrant sex workers in Cambodia. *AIDS Care*. 2004; 16(4):507–518. [PubMed: 15203418]
- Castle S, Konaté MK, Ulin PR, Martin S. A qualitative study of clandestine contraceptive use in urban Mali. *Studies in Family Planning*. 1999; 30(3):231–246. [PubMed: 10546314]
- Cecil H, Perry MJ, Seal DW, Pinkerton SD. The female condom: What we have learned thus far. *AIDS and Behavior*. 1998; 2:241–256.
- Centers for Disease Control and Prevention (CDC). *HIV/AIDS Surveillance Report*. 2004. p. 15
- Chege, J. Female condom community intervention trial, focus group discussions. Nairobi: Family Health International; 1999.
- Choi KH, Gregorich SE, Anderson K, Grinstead O, Gomez CA. Patterns and predictors of female condom use among ethnically diverse women attending family planning clinics. *Sexually Transmitted Diseases*. 2003; 30(1):91–98. [PubMed: 12514450]
- Choi KH, Roberts KJ, Gomez C, Grinstead O. Facilitators and barriers to use of the female condom. Qualitative interviews of women with diverse ethnicity. *Women & Health*. 1999; 30(1):53–70. [PubMed: 10813267]
- Coggins C, Blanchard K, Friedland B. Men's attitudes towards a potential vaginal microbicide in Zimbabwe, Mexico and the USA. *Reproductive Health Matters*. 2000; 8:132–141. [PubMed: 11424261]

- Cohen, CR. The diaphragm: A female controlled method to prevent HIV and other sexually transmitted infections. Paper presented at Microbicides; 2002; Antwerp, Belgium. 2002.
- Connell, RW. Gender and power. Stanford: Stanford University Press; 1987.
- Cook, L.; Nanda, K.; Grimes, D. In the Cochrane library. Oxford Update Software; 2003. Diaphragm versus diaphragm with spermicides for contraception (Cochrane review).
- Courtenay WH. Engendering health: A social constructionist examination of men's health beliefs and behaviors. *Psychology of Men and Masculinity*. 2000; 1(1):4–15.
- Di Giacomo do Lago T, Barbosa RM, Kalckmann S, Villela WV, Gohiman S. Acceptability of the diaphragm among low-income women in Sao Paulo, Brazil. *International Family Planning Perspectives*. 1995; 21:114–118.
- Duffy L. Culture and context of HIV prevention in rural Zimbabwe: The influence of gender inequality. *Journal of Transcultural Nursing*. 2005; 16(1):23–31. [PubMed: 15608096]
- Dunkle KL, Jewkes RK, Brown HC, Gray GE, McIntyre JA, Harlow SD. Gender-based violence, relationship power, and risk of HIV infection in women attending antenatal clinics in South Africa. *Lancet*. 2004; 363(9419):1415–1421. [PubMed: 15121402]
- Ehrhardt, AA.; Exner, TE. The impact of HIV infection on women's sexuality and gender roles. In: Blumenthal, S.; Eichler, A.; Weissman, G., editors. *Women and AIDS: Promoting health behaviors*. Rockville: DHHS; 1991. p. 35-40.(papers from a workshop sponsored by National Institute of Mental Health and the National Institute on Drug Abuse. 27–29 September 1987)
- El-Bassel N, Gilbert L, Rajah V, Folen A, Frye V. Fear and violence: Raising the HIV stakes. *AIDS Education and Prevention*. 2000; 112:154–170. [PubMed: 10833040]
- Elias C, Heise L. Challenges for the development of female-controlled vaginal microbicides. *AIDS*. 1994; 8(1):1–9. [PubMed: 8011219]
- Farmer, P.; Connors, M.; Simmons, J. *Women, poverty, and AIDS: Sex, drugs, and structural violence*. Monroe: Common Courage Press; 1996.
- Farr G, Gabelnick H, Sturgen K, Dorflinger L. Contraceptive efficacy and acceptability of the female condom. *American Journal of Public Health*. 1994; 84(12):1960–1964. [PubMed: 7998637]
- Feldblum PJ, Kuyoh MA, Bwayo JJ, Omari M, Wong EL, Tweedy KG, et al. Female condom introduction and sexually transmitted infection prevalence: Results of a community intervention trial in Kenya. *AIDS*. 2001; 15(8):1037–1044. [PubMed: 11399986]
- Fontanet AL, Saba J, Chandelying V, Sakondhvat C, Bhiraueus P, Ruggao S, et al. Protection against sexually transmitted diseases by granting sex workers in Thailand the choice of using the male or female condom: Results from a randomized controlled trial. *AIDS*. 1998; 12:1851–1859. [PubMed: 9792386]
- Ford N, Mathie E. The acceptability and experience of the female condom, Femidom among family planning clinic attenders. *British Journal of Family Planning*. 1993; 19:187–192.
- Foss AM, Vickerman PT, Heise L, Watts CH. Shifts in condom use following microbicide introduction: Should we be concerned? *AIDS*. 2003; 17:1227–1237. [PubMed: 12819525]
- Francis-Chizororo M, Natshalaga NR. The female condom: Acceptability and perception among rural women in Zimbabwe. *African Journal of Reproductive Health*. 2003; 7(3):101–116. [PubMed: 15055153]
- French P, Latka M, Gollub EL, Rogers C, Hoover DR, Stein ZA. Use-effectiveness of the female versus male condom in preventing sexually transmitted disease in women. *Sexually Transmitted Diseases*. 2003; 30(5):433–439. [PubMed: 12916135]
- Geloo, Z. Men feel female condom threatens patriarchy. Inter press service. 2002. [http://server778.dnslive.net/pipermail/gainsnet\\_un-instraw.org/2002/000107.html](http://server778.dnslive.net/pipermail/gainsnet_un-instraw.org/2002/000107.html)
- Giami A, Spencer B. Les objets techniques de la sexualité et l'organisation des rapports de genre dans l'activité sexuelle: Contraceptifs oraux, préservatifs et traitement des troubles sexuels. *Revue d'Epidémiologie et de Santé Publique*. 2004; 52:377–387. [PubMed: 15480295]
- Gilbert T, Gilbert L. Globalisation and local power: Influences on health matters in South Africa. *Health Policy*. 2004; 67:245–255. [PubMed: 15036812]
- Gollub EL. The female condom: Tool for women's empowerment. *American Journal of Public Health*. 2000; 90(9):1377–1381. [PubMed: 10983187]

- Gollub EL, French P, Loundou A, Latka M, Rogers C, Stein ZA. A randomized trial of hierarchical counseling in a short, clinic-based intervention to reduce the risk of sexually transmitted diseases in women. *AIDS*. 2000; 14:1249–1255. [PubMed: 10894290]
- Green G, Pool R, Harrison S, Hart GJ, Wilkinson J, Nyanzi S, et al. Female control of sexuality: Illusion or reality? Use of vaginal products in southwest Uganda. *Social Science & Medicine*. 2001; 52(4):585–598. [PubMed: 11206655]
- Gupta, GR.; Weiss, E. ICRW Policy Series. Washington, DC: International Center for Research on Women; 1993. *Women and AIDS: Developing a new health strategy*.
- Haignere CS, Gold R, Maskovsky J, Ambrosini J, Rogers CL, Gollub E. High-risk adolescents and female condoms: Knowledge, attitudes, and use patterns. *Journal of Adolescent Health*. 2000; 26(6):392–398. [PubMed: 10822180]
- Harvey SM, Bird ST, Maher JE, Beckman LJ. Who continues using the diaphragm and who doesn't: Implications for the acceptability of female-controlled HIV prevention methods. *Women's Health Issues*. 2003; 13:185–193. [PubMed: 14583167]
- Heise L, Elias C. Transforming AIDS prevention to meet women's needs: A focus on developing countries. *Social Science & Medicine*. 1995; 40:931–943. [PubMed: 7792632]
- Hernández, G.; de Caso, LE.; Ortíz, V. Sexual negotiation, women's empowerment, and the female condom in Mexico. Mexico City: National AIDS Program of Mexico; 1996.
- Hill Collins, P. *Black feminist thought: Knowledge, consciousness, and the politics of empowerment*. New York, London: Routledge; 1991.
- Hirsch JS, Higgins J, Bentley ME, Nathanson CA. The social constructions of sexuality: Marital infidelity and sexually transmitted disease—HIV risk in a Mexican migrant community. *American Journal of Public Health*. 2003; 92(8):1227–1237. [PubMed: 12144974]
- Hoffman S, Mantell JE, Exner TM, Stein ZA. The future of the female condom. *Perspectives on Sexual and Reproductive Health*. 2004; 36(3):120–126. [PubMed: 15306270]
- Hunter M. Cultural politics and masculinities: Multiple-partners in historical perspective in KwaZulu-Natal. *Culture, Health & Sexuality*. 2005; 7(3):209–223.
- International HIV/AIDS Alliance. *Working with men, responding to AIDS*. Brighton, UK: International HIV/AIDS Alliance; 2003.
- Kaler A. 'It's some kind of women's empowerment': The ambiguity of the female condom as a marker of female empowerment. *Social Science & Medicine*. 2001; 52:783–796. [PubMed: 11218180]
- Kandiyoti D. Bargaining with patriarchy. *Gender & Society*. 1988; 2(3):274–290.
- Kibria N. Power, patriarchy and gender conflict in the Vietnamese community. *Gender & Society*. 1990; 4(1):9–24.
- Kimmel, M. *Manhood in America: A cultural history*. New York: Free Press; 1996.
- Klein H, Eber M, Crosby H, Welka DA, Hoffman JA. The acceptability of the female condom among substance-using women in Washington, DC. *Women & Health*. 1999; 29(3):97–114. [PubMed: 10466513]
- Lewis, M. *Gendering AIDS: Women, men, empowerment, mobilization*. VSO; 2003. [www.vso.org.uk/resources/position\\_pa-pers.asp](http://www.vso.org.uk/resources/position_pa-pers.asp)
- Luginaah I, Elkins D, Maticka-Tyndale E, Landry T, Mathui M. Challenges of a pandemic: HIV/AIDS-related problems affecting Kenyan widows. *Social Science & Medicine*. 2005; 60(6):1219–1228. [PubMed: 15626519]
- Maman S, Mbwapo JK, Hogan NM, Kilonzo GP, Campbell JC, Weiss E, et al. HIV-positive women report more lifetime partner violence: Findings from a voluntary counseling and testing clinic in Dar es Salaam, Tanzania. *American Journal of Public Health*. 2002; 92:1331–1337. [PubMed: 12144993]
- Mantell, JE.; Adeokun, L.; Weiss, E.; Jagha, T.; Adedimeji, B.; Isola, G., et al. The impact of male gender roles on HIV risk in southwest Nigeria (abstract, session 5250). 129th Annual meeting of the American Public Health Association; Atlanta, Georgia. 2001.
- Mantell JE, Myer L, Carballo-Diéguez A, Stein ZA, Ramjee G, Morar NS, et al. Microbicide acceptability research: Current approaches and future directions. *Social Science & Medicine*. 2005; 60:319–330. [PubMed: 15522488]

- Messner, MA. The politics of masculinity: Men in movements. Thousand Oaks, CA: Sage; 1997.
- Moench T, Chipato T, Padian N. Preventing disease by protecting the cervix: The unexplored promise of internal vaginal barrier devices. *AIDS*. 2001; 15(13):1595–1602. [PubMed: 11546933]
- Morrell, R., editor. Changing men in southern Africa. Pietermaritzburg, South Africa: University of Natal Press; 2001.
- Ormer P, Harries J, Cooper D, Moodley J, Hoffman M, Becker J, et al. Challenges to microbicide introduction in South Africa. *Social Science & Medicine*. 63(4):968–978. (in press).
- Ortiz-Torres B, Williams SP, Ehrhardt AA. Urban women's gender scripts: Implications for HIV. *Culture, Health, & Sexuality*. 2003; 5:1–17.
- Oyaro, K. Clash between tradition and common sense. *The nation*. 2004. <http://allafrica.com/stories/200408110443.html>
- Peacock, D. The men as partners program: Working with men in South Africa to end violence against women and prevent HIV/AIDS. Distributed at. XIV international HIV/AIDS conference; Barcelona, Spain. New York: Engender-Health; 2002.
- Pool R, Hart GJ, Green G, Harrison S, Nyanzi S, Whitworth JAG. Men's attitudes to condoms and female controlled means of protection against HIV and STDs and STDs in south-western Uganda. *Culture, Health & Sexuality*. 2000a; 2(2):197–211.
- Pool R, Whitworth JAG, Green G, Mbonye AK, Harrison S, Wilkinson J, et al. An acceptability study of female-controlled methods of protection against HIV and STDs in south-western Uganda. *International Journal of STD & AIDS*. 2000b; 11:162–167. [PubMed: 10726938]
- Posel, D. Sex & secrecy conference. Johannesburg, South Africa: Wits Institute for Social and Economic Research, University of the Witwatersrand; 2003. Getting the nation talking about sex: Reflections on the politics of sexuality and 'nation-building' in post-apartheid South Africa.
- Pulerwitz J, Amaro H, DeJong W, Gortmaker SL, Rudd R. Relationship power, condom use, and HIV risk among women in the USA. *AIDS Care*. 2002; 14(6):789–800. [PubMed: 12511212]
- Pulerwitz J, Gortmaker SL, DeJong W. Measuring sexual relationship power in HIV/STD research. *Sex Roles*. 2000; 42(7/8):637–660.
- Ramjee G, Gouws E, Andrews A, Myer L, Weber AE. The acceptability of a vaginal microbicide among South African men. *International Family Planning Perspectives*. 2001; 27(4):164–170.
- Rivers K, Aggleton P, Elizondo J, Hernandez G, Herrera G, Mane P, et al. Gender relations, sexual communication and the female condom. *Critical Public Health*. 1998; 8(4):273–290.
- Rockefeller Foundation Microbicides Initiative. Mobilization for microbicides. The decisive decade. New York: The Rockefeller Foundation; 2002.
- Sakondhavit C, Weeravatrakul Y, Benette T, Pinitsoontorn, Kuchaisit C, Kukieattikool P, et al. Consumer preference study of the female condom in a sexually active population at risk of contracting AIDS. *Journal of the Medical Association of Thailand*. 2001; 84(7):973–981. [PubMed: 11759978]
- Schoeneberger M, Logan TK, Leukefeld C. Gender roles, HIV risk behaviors, and perceptions of using female condoms among college students. *Population Research and Policy Review*. 1999; 18:119–136.
- Schoepf, BG. Gender relations and development: Political economy and culture. In: Seidman, A.; Anang, F., editors. *Twenty-first century Africa: Towards a new vision of sustainable development*. Trenton: African World Press; 1992.
- Setiadi, B.; Jatiputra, I.; Santoso, G. Sexual negotiation, the empowerment of women and the female condom. A study with commercial sex workers and housewives in Jakarta. Jakarta: Institute of Applied Psychology, Faculty of Psychology University of Indonesia; 1996.
- Severy L, Spieler J. New methods of family planning: Implications for intimate behavior. *Journal of Sex Research*. 2000; 37:258–265.
- Spronk R. Female sexuality in Nairobi: Flawed or flavoured? *Culture, Health & Sexuality*. 2005; 7(3): 267–277.
- Stein ZA. HIV prevention: The need for methods women can use. *American Journal of Public Health*. 1990; 80:460–462. [PubMed: 2316768]

- Stein ZA. HIV prevention: An update on the status of methods women can use (editorial). *American Journal of Public Health*. 1993; 83:1379–1382. [PubMed: 8214223]
- Susser I. Sexual negotiations in relation to political mobilization: The prevention of HIV in a comparative context. *AIDS and Behavior*. 2001; 5(2):163–172.
- Susser I, Stein ZA. Culture, sexuality, and women's agency in the prevention of HIV/AIDS in southern Africa. *American Journal of Public Health*. 2000; 90(7):1042–1048. [PubMed: 10897180]
- Tran TN, Detels R, Hien NT, Long HT, Nga TPH. Drug use, sexual behaviours and practices among female sex workers in Hanoi, Viet Nam—A qualitative study. *International Journal of Drug Policy*. 2004; 15:189–195.
- Trussell J. Contraceptive efficacy of the Reality™ female condom. *Contraception*. 1998; 58(3):147–148.
- Trussell J. Contraceptive failure in the United States. *Contraception*. 2004; 70:89–96. [PubMed: 15288211]
- Twiggs, L. Health E-news. 2003. What's wrong with South African men?.
- UNAIDS. Working with men for HIV prevention and care. Geneva, Switzerland: 2001.
- UNAIDS. AIDS epidemic update 2004. Geneva: UNAIDS; 2004a.
- UNAIDS. The global coalition on women and AIDS. Geneva: UNAIDS; 2004b.
- UNAIDS. 2006 report on the global AIDS epidemic. Geneva: UNAIDS; 2006.
- UNAIDS/UNFPA/UNIFEM. Women and HIV/AIDS: Confronting the crisis. Geneva, Switzerland: 2004.
- United Nations. Programme of action of the International Conference on Population and Development, 7.27–7.33, 8/31, U.N. document A/CONF.171/13/Rev.1; Cairo, Egypt. 1994.
- United Nations. Platform for action and the Beijing declaration. Fourth world conference on women; 4–15 September 1995; Beijing, China. New York: United Nations; 1996. p. 60
- van der Straten A, Kang MS, Posner SF, Kamba M, Chipato T, Padian NS. Predictors of diaphragm use as a potential sexually transmitted disease/HIV prevention method in Zimbabwe. *Sexually Transmitted Diseases*. 2005; 32(1):64–71. [PubMed: 15614123]
- Walker L. Men behaving differently: South African men since 1994. *Culture, Health & Sexuality*. 2005; 7(3):225–238.
- Weeks MR, Mosack KE, Abbott M, Sylla LN, Valdes B, Prince M. Microbicide acceptability among high-risk urban U.S. women: Experiences and perceptions of sexually transmitted HIV prevention. *Sexually Transmitted Diseases*. 2004; 31(11):682–690. [PubMed: 15502677]
- Welsh MJ, Feldblum PJ, Kuyoh MA, Mwarogo P, Kungu D. Condom use during a community intervention trial in Kenya. *International Journal of STD & AIDS*. 2001; 12:469–474. [PubMed: 11394984]
- Wingood GM, DiClemente RJ. Application of the theory of gender and risk factors, and effective interventions for women. *Health Education and Behavior*. 2000; 27(5):539–565. [PubMed: 11009126]
- Witte SS, Wada T, El-Bassel N, Gilbert L, Wallace J. Predictors of female condom use among women exchanging street sex in New York City. *Sexually Transmitted Diseases*. 2000; 27(2):93–100. [PubMed: 10676976]
- Woodsong C. Covert use of topical microbicides: Implications for acceptability and use. *Perspectives on Sexual and Reproductive Health*. 2004; 36(3):127–131. [PubMed: 15306271]
- Woodsong, C.; Koo, H. Holistic view of acceptability among a multi-ethnic population of adults women and men. Paper presented at the microbicides-2002 conference; Antwerp, Belgium. 2002. <http://www.itg.be/micro2002>
- World Health Organization, A. The female condom: A review. Geneva: UNAIDS; 1997.