

Covert Use of Topical Microbicides: Implications for Acceptability and Use

Pervasive and persistent power inequities in sexual relationships lead many women in the world to develop strategies to protect their reproductive health and hide these strategies from their male partners. The prevention of unwanted pregnancy through secret contraceptive use is perhaps the best known of these. A growing number of women also need strategies for preventing transmission of sexually transmitted diseases (STDs), including HIV. Although abstinence, monogamy and condom use are effective for preventing infection, they require participation of the male partner, which is problematic for many women. Women would benefit from methods that protect against infection and that can be used in secret, if necessary.

Topical microbicides, substances that are applied in either the vagina or the rectum to reduce the risk of infection, currently hold great promise, in part because they do not require the active participation or even knowledge of the partner.¹ Such innovations invite new decision-making strategies. How a woman decides to use a new product is a complex process—a balance of her perception of risk, understanding of the product and how it works, anticipation of her partner's reaction to use and consideration of the relationship's balance of power. Furthermore, even though these concerns are likely to be similar for women everywhere, socioeconomic status and social and cultural norms will influence the outcome of such decision-making. Use of microbicides, theoretically under a woman's control, may not be possible if she has no decision-making power in sexual activities.

Control may be accomplished through secret or hidden use, which carries its own risk should it be discovered. Most likely there will be variations in how covert use is rationalized and accomplished, yet the implications have not been well considered by researchers and advocates for microbicides. Some strategies may be less secret than others, with women preferring secrecy yet not fearing discovery. For other women, potential repercussions of discovery could preclude even consideration of use.

The introduction of microbicides is still a few years away, which affords researchers time to study the implications, consequences and advisability of secret use. Covert use and its possible risks and benefits should be considered far in advance of product introduction. Well-informed introduction is paramount. Careful attention to product presentation and cultural context is necessary, as some marketing strategies could either encourage or discourage covert use, discourage use altogether or alienate male partners, which could make the discovery of covert use more perilous for women.

This paper discusses findings from research on contra-

ceptive and condom use as well as microbicide studies, to show how women decide to use a new product. The term “covert” is used in this paper, since it is less associated with illicit or illegal activities than “stealth” or “clandestine.”

BACKGROUND

The microbicidal potential of more than 50 experimental drug products is currently being investigated.² Research on microbicide safety and efficacy is proceeding along multiple fronts: vaginal and rectal use for HIV and selected STD prevention, and vaginal use for pregnancy prevention. Among the wide variety of delivery modes and formulations under various stages of development, gels or creams that are applied before each sex act using an applicator have advanced furthest in clinical testing. Limited behavioral data are typically collected in early safety trials. However, studies have addressed the acceptability of microbicides and the conditions that affect their use.³

Research on the covert use of microbicides is hypothetical at this point, but past experiences with covert contraceptive use, which has been necessary for many women worldwide, provide some insight. Although women bear the greatest burden of rearing children, in many countries reproductive decision-making is controlled by men and the extended family.⁴ Men may refuse to allow their partners to use contraceptives, associating contraceptive use with sexual infidelity and the erosion of male authority.⁵

Aspects of the sexual relationship that influence contraceptive decision-making are also relevant to microbicide use. Such factors include intimacy, sexual enjoyment and communication.⁶ For example, adults who communicate a desire for safer sex and discuss their experiences with previous sexual partners and STDs are more likely to use condoms.⁷ However, it is easier to talk about pregnancy than STDs.⁸ Thus, it is likely that microbicides will be used covertly with at least some partners at some times.

Given the variations in the nature and context of sexual relationships, a woman's decision to use or even attempt to use a new product will not be a simple matter. Furthermore, in contexts where men control household finances, the costs of microbicides used covertly will need to be hidden. Women will most likely take into account a host of factors that change over time, and such factors should be considered by researchers interested in microbicide acceptability and use. For discussion purposes, these factors are grouped into four categories: perception of risk, product characteristics, partner reactions to use, and gender and autonomy.

By *Cynthia Woodsong*

Cynthia Woodsong is senior scientist in the Behavioral and Social Sciences Division, Family Health International, Durham, NC.

Physical characteristics will... affect women's perception of and interest in microbicides, and the potential for covert use is an important attribute.

PERCEPTION OF RISK

When microbicides become available, women will have something new to consider as they assess risk in sexual relationships and make decisions about protection from HIV and other STDs. Such risk assessments are often unreliable, based on a partner's outward appearance and assumptions about his lifestyle, rather than honest and explicit discussions of STD history and experiences with other partners. The risk of infection, and a couple's communication about that risk, will vary across types of relationships and may shift over time. The perceived level of risk—and therefore condom use—may be highest at the beginning of a relationship, and unless condoms are serving as a contraceptive method, couples often stop using them once trust has been established.⁹ As Flood has noted, "Having sex creates trust, and trust means sex without condoms."¹⁰ A suggestion to resume condom use is likely to raise doubts about fidelity. Disclosure of microbicide use could raise similar concerns.

People in long-term relationships generally consider themselves less at risk than those in brief, casual or compensated sexual liaisons, and therefore are much less likely to use condoms.¹¹ For many groups (e.g., sex workers, substance users and people with multiple partners), the risk of STDs is a chronic reality. For others, risk may occur in cycles that coincide with the formation and dissolution of relationships, as well as periods of infidelity in monogamous relationships.¹² Darroch and Frost note that in the United States, interest in microbicide use is highest among single women, and lowest among married women who trust their husbands to be monogamous.¹³ According to Gregson and colleagues, Zimbabwean women report marital monogamy as their safety strategy.¹⁴

Unfortunately, monogamy presents a myriad of problems. A Population Council report observes: "In many regions, a significant proportion of women are infected with HIV by their husbands. Even when women themselves are monogamous, their partners may not be."¹⁵ Women who suspect their partner of infidelity may be unable to act on this suspicion, because in much of the world a double standard prevails—women are expected to remain faithful, whereas men are not.

PRODUCT CHARACTERISTICS

A contraceptive's characteristics are relevant to the understanding of covert use. Women have demonstrated a willingness to tolerate a wide array of undesirable characteristics and side effects when motivated to avoid pregnancy.¹⁶ Physical characteristics will also affect women's perception of and interest in microbicides, and the potential for covert use is an important attribute. However, views on product attributes are difficult to disentangle. For example, studies on microbicides have indicated that potential users are concerned about "messiness," but it is not clear if this refers to inconvenience (needing to clean up), a potential reduction in sexual pleasure, concerns about partners' reactions or a concern that messiness would decrease the potential for

covert use.¹⁷ Similarly, concern about the length of time necessary between insertion and intercourse may be focused either on not disrupting the moment or on the feasibility of covert use.

According to Severy and Silver, people choose the contraceptive method with the fewest perceived negative attributes.¹⁸ For prevention of HIV and other STDs, microbicides are likely to compare favorably with condoms, because condom use is widely thought to decrease sensation and diminish pleasure, the acts of applying and of removing and discarding a condom may disrupt the sexual encounter, and the suggested use of condoms can raise trust issues. Although some progress has been made on erotic approaches to condom use, condom use still ranks low among pleasurable activities associated with sex.

The potential for microbicides to be used more discreetly than condoms is an important product characteristic. Although women will most likely view this as a positive attribute, men may perceive it as positive or negative. For example, men may dislike the possibility of being exposed to a substance without their knowledge, or the idea that their partner can exercise such autonomy. On the other hand, like women, they may see an advantage to minimal disruption, if any, in their sexual pleasure. Both men and women may value not having to discuss the need for protection.

PARTNER REACTIONS TO COVERT USE

Certain culturally prescribed sexual practices may make covert use difficult. In cultural groups that value a dry vagina during sexual intercourse, the lubricating qualities of microbicides may preclude covert use.¹⁹ The lubricating quality may make men doubt their partner's fidelity or suspect her of having a vaginal infection.²⁰ Some women will fear a negative and perhaps violent response from partners who discover covert use.

In contrast, some women in one U.S. study believed that covert use might improve the sexual encounter for male partners, saying that the extra lubrication could heighten his feeling of prowess in sexually arousing the woman.²¹ Indeed, some men in the study whose partners used a proxy product were pleased that the extra lubrication freed them from extensive foreplay to stimulate their partners. Women said the additional lubrication made sex physically more enjoyable for them, and some reported a thrill from the act of secrecy itself. Since insufficient vaginal lubrication during sex is a common problem, microbicides could improve sexual intercourse for many women, regardless of the cultural preferences of men.

Women who choose to inform partners of microbicide use may incur increased risk if men discontinue condom use because of inappropriate confidence in microbicides, which will likely be less effective than condoms. This behavior has been observed in early microbicide clinical trials, where efficacy is yet to be determined.²² Moreover, if men prefer microbicides to condoms, they may insist on use, even if women do not want to use them.

GENDER AND AUTONOMY IN SEXUAL RELATIONSHIPS

In many relationships, men hold power over sexual decision-making, including condom use. Research has documented women's lack of power and autonomy in sexual relationships,²³ as well as imbalanced gender roles for making sexual and reproductive health decisions.²⁴

Increasing women's power in reproductive decision-making is one objective of increasing contraceptive prevalence. Contraceptive use has been associated with increased female autonomy and more general improvements in the quality of women's lives.²⁵ Progress has been made in empowering women to negotiate condom use, and in some settings it has become increasingly acceptable for women to protect themselves.²⁶ However, this applies largely to those in casual relationships and to commercial sex workers, whereas the protection of married women against HIV and other STDs the world over continues to rest firmly on the practice of monogamy.

Microbicides will most likely be applied by women and not require a partner's cooperation, so decisions about their use could rest primarily, if not totally, with women. Although many would agree with the goal of increasing women's power and autonomy in reproductive health decision-making, women may resent having to assume the sole responsibility for using contraceptives.²⁷ Microbicides could become another example of women's taking on the burden for protection against the negative consequences of sexual behavior.

Studies have reported men's acceptance of hypothetical microbicides, although it is not clear if this is partially based on a belief that such products will protect them from an infected partner. Although no clinical trials of such bidirectional protection have been planned, studies eliciting men's reactions have included this assumption in their description of future microbicide products.²⁸ If microbicides offer protection only to the female partner, acceptability and use may be more problematic. This could also raise accusations that microbicides facilitate female promiscuity.

Providing women with a covert means of protection should not obviate the need to strive for more equitable responsibility between partners for risk reduction. Studies have found that some men do not think women should have the ability to use microbicides without informing male partners and receiving approval.²⁹ Women who say they would not be likely to attempt covert use have cited fear of retribution as well as a sense of duty to tell partners.³⁰ Women in coercive or commercial sex relationships particularly need a product that can be used covertly.³¹ Bentley and colleagues have observed that women might be more likely to use microbicides covertly with a new partner because he would be less likely than a regular partner to notice anything unusual in the vagina.³²

DECISION-MAKING ABOUT COVERT USE

Women trying to decide whether or not to use microbicides covertly will most likely weigh their perception of a partner's risk of infection with HIV or other STDs against the

chances of successful covert use and fear of retribution if discovered. The decision-making process is similar to the decision to use contraceptives, many of which can be used without the partner's knowledge.

However, the potential for covert use will not necessarily result in actual covert use. Although 90% of women in a U.S. survey responded favorably when asked about this potential,³³ women enrolled in early microbicide studies using actual and proxy products have tended to inform their partners in advance.³⁴

A study that used vaginal lubricants as a proxy for microbicides in a population of adult and teenage males and females of mixed ethnicity also found no clear consensus on covert use.³⁵ Some women reported that they would be likely to attempt covert use just to see if they could "get away with it." If successful, they said, they could tell their partner later. Others thought it best to inform their partner before use, valuing open communication as well as fearing repercussions. Both women and men said that it is important to choose the right moment to tell one's partner.

Women and men in the study were asked about the appropriateness of covert use with three partner types: steady, casual and new. Although there was strong agreement that women should tell steady partners about microbicide use, this agreement diminished in regard to casual and new partners. Overall, men felt more strongly than women that they should be informed about microbicide use, regardless of partner type.

Women expressed the importance of the content of the message they would convey, if they chose to disclose use. They noted that a microbicide's potential to provide some contraceptive protection as well as STD protection for the male partner would enhance the partner's acceptance. Some believed STD prevention could potentially get a "free ride" if they could present a contraceptive purpose for microbicide use (e.g., as a backup method).

Women said that covert use might be more likely in situations where their partners were inebriated, or very sexually aroused, since it would meet with fewer objections or the partner would be less likely to notice the product in the vagina. Male participants acknowledged that such scenarios would encourage covert use. Women further suggested that a product that improves the sexual encounter by providing a comfortable amount of lubrication, and also has an attractive smell, taste or tingle, might enable them to use microbicides without disclosing their true purpose.

It is apparent that covert use could take different forms, with some strategies more clearly covert than others. For example, women in steady, long-term relationships might find it difficult to use a microbicide with their partner—just as they would find it difficult to use a condom. They might resort to secretly inserting the product, hiding it and offering deceptive explanations for a change in vaginal lubrication.

In settings where it is the norm for women in new or casual relationships to protect themselves, women may feel empowered to use a product without notifying their part-

ner. This is covert use of a different nature. In this circumstance, the consequences of discovery would probably be less serious. Similarly, when a woman learns that her partner is having sex with another person, and her sense of risk increases, in some cultural contexts her perceived right to covert protection may also increase. Although it is regrettable that women may not innately feel justified in protecting themselves from harm, it is important that they have options for protection.

CONCLUSION

Worldwide, a common route of transmission of HIV and other STDs to women in steady relationships (including marriage) is from the male partner. Topical microbicides could help balance inequities in sexual relationships by shifting aspects of relationship dynamics, power and control.

It is important to recognize that the covert use of microbicides will not necessarily be empowering for women, at least within the context of a relationship. Ideally, a woman should be able to use the introduction of a new product as an opportunity to talk with her partner about risk reduction behavior and reach a mutually acceptable strategy. Still, a woman's own assessment of her relationships and risks, influenced by social and cultural norms for behavior, will likely drive her decision on whether to use a microbicide, and on whether to use it covertly. The introduction of microbicides could result in an increase in societal expectations for women to assume greater responsibility for infection prevention, which might actually exacerbate gender inequities.

The potential for mixed messages underscores the importance of carefully introducing these products to the public. Otherwise, covert use could backfire. Communities, health care practitioners, women's health advocates and mass media could create a favorable or a hostile environment for women making decisions about microbicide use. For example, messages that microbicides "kill" AIDS could cause concerns about safety for both vaginal and penile tissue, and women might doubt that covert use would be feasible. Messages that herald "female control" could alienate men, particularly those in traditionally patriarchal societies. This could make covert use riskier for women, as the consequences of discovery may become harsher.

Depending on the cultural context, marketing products as a way to "enhance pleasure" or to maintain a "clean and healthy vagina" could make it easier for women to use microbicides. This could enable couples to have a superficial discussion regarding the use of a new product in the vagina. Both partners might know, but not discuss, the product's primary purpose. This could also minimize the repercussions if a partner discovers covert use of the product.

If microbicides are developed and introduced so as to increase acceptability of the products, covert use should be less necessary. It will be important to convey microbicides' potential contraceptive effect, as well as protection for the male partner, as these attributes will contribute to acceptability. Although the pace and regulatory environ-

ment for developing new pharmaceutical products is challenging for social and behavioral research, clinical trials provide a unique opportunity to learn from women who are actually using microbicides. It is imperative to link clinical, social and behavioral research, in order to further advance our understanding of microbicide use, both open and covert.

REFERENCES

- Stein Z, Myer L and Susser M, The design of prophylactic trials for HIV: the case of microbicides, *Epidemiology*, 2003, 14(1):80-83.
- Harrison P, Rosenberg Z and Bowcut J, Topical microbicides for disease prevention: status and challenges, *Clinical Infectious Diseases*, 2003, 36(10):1290-1294; and Science Working Group of the Microbicide Initiative, *The Science of Microbicides: Accelerating Development*, New York: Rockefeller Foundation, 2002.
- Elias C and Coggins C, Acceptability research on female-controlled barrier methods to prevent heterosexual transmission of HIV: where have we been? where are we going? *Journal of Women's Health and Gender-Based Medicine*, 2001, 10(2):163-173.
- Gollub E, The female condom: tool for women's empowerment, *American Journal of Public Health*, 2000, 90(9):1377-1380.
- Castle S et al., A qualitative study of clandestine contraceptive use in urban Mali, *Studies in Family Planning*, 1999, 30(3):231-246; and Watkins SC, Rutenberg N and Wilkinson D, Orderly theories, disorderly women, in: Jones G et al., eds., *The Continuing Demographic Transition*, Oxford, UK: Clarendon Press, 1997, pp. 213-245.
- Heise L, Beyond acceptability: reorienting research on contraceptive choice, in: Ravindran TKS, Berer M and Cottingham J, eds., *Beyond Acceptability: Users' Perspectives on Contraception*, London: Reproductive Health Matters, 1997, pp. 6-14.
- Fisher J and Fisher W, Changing AIDS-risk behavior, *Psychology Bulletin*, 1992, 111(3):455-474.
- Heise L and Elias C, Transforming AIDS prevention to meet women's needs: a focus on developing countries, *Social Science & Medicine*, 1995, 40(7):931-943; and Fullilove M et al., Black women and AIDS prevention: a view towards understanding the gender rules, *Journal of Sex Research*, 1990, 27(1):47-64.
- Woodsong C and Koo H, Two good reasons: women's and men's perspectives on dual contraceptive use, *Social Science & Medicine*, 1999, 49(5):567-580; and Coggins C, Blanchard K and Friedland B, Men's attitudes towards a potential vaginal microbicide in Zimbabwe, Mexico and the USA, *Reproductive Health Matters*, 2000, 8(15):132-141.
- Flood M, Lust, trust and latex: why young heterosexual men do not use condoms, *Culture, Health and Sexuality*, 2003, 5(4):353-369.
- Gillmore M et al., Heterosexually active men's beliefs about methods for preventing sexually transmitted diseases, *Perspectives on Sexual and Reproductive Health*, 2003, 35(3):121-129; and Abdool Karim Q and Moran N, *Women and AIDS in Natal/KwaZulu, South Africa: Determinants to the Adoption of HIV Protective Behavior*, Washington, DC: International Center for Research on Women, 1994.
- Gorbach P et al., "It takes a village": understanding concurrent sexual partnerships in Seattle, Washington, *Sexually Transmitted Diseases*, 2002, 29(8):453-462; and Macaluso M et al., Partner type and condom use, *AIDS*, 2000, 14(5):537-546.
- Darroch J and Frost J, Women's interest in vaginal microbicides, *Family Planning Perspectives*, 1999, 31(1):16-23.
- Gregson S et al., Is there evidence for behavior change in response to AIDS in rural Zimbabwe? *Social Science & Medicine*, 1988, 46(3):321-330.
- Population Council, *The Case for Microbicides: A Global Priority*, New York: Population Council, 2001.
- Expanded Programme of Research, Development and Research Training in Human Reproduction, *Fifth Annual Report*, Geneva: World Health Organization, 1976; Etkin N, Side effects: cultural constrictions

and reinterpretations of Western pharmaceuticals, *Medical Anthropology Quarterly*, 1992, 6(2):99–113; and Ranjit N et al., Contraceptive failure in the first two years of use: differences across socioeconomic subgroups, *Family Planning Perspectives*, 2001, 33(1):19–27.

17. Koo H et al., The context of acceptability of topical microbicides: sexual relationships, *Journal of Social Issues*, 2004 (forthcoming); Coggins C et al., Women's preferences regarding the formulation of over-the-counter vaginal spermicides, *AIDS*, 1998, 12(11):1389–1391; and Bentley M et al., Acceptability of a novel vaginal microbicide during a safety trial among low-risk women, *Family Planning Perspectives*, 2000, 32(4):184–188.

18. Severy LJ and Silver SE, Two reasonable people: joint decision-making in contraceptive choice and use, in: Severy LJ, ed., *Advances in Population: Psychosocial Perspectives*, Vol.1, London: Jessica Kingsley Publishers, 1994, pp. 207–227.

19. van de Wijgert J et al., Men's attitude toward vaginal microbicides and microbicide trials in Zimbabwe, *International Family Planning Perspectives*, 1999, 25(1):15–20; Baleta A, Concern voiced over "dry sex" practices in South Africa, *Lancet*, 1998, 352(9136):1292; and Civic D and Wilson D, Dry sex in Zimbabwe and implications for condom use, *Social Science & Medicine*, 1996, 42(1):91–98.

20. Green G et al., Female control of sexuality: illusion or reality? use of vaginal products in south west Uganda, *Social Science & Medicine*, 2001, 52(4):585–598; and Pool R et al., An acceptability study of female-controlled methods of protection against HIV and STDs in south-western Uganda, *International Journal of STD and AIDS*, 2000, 11(3):162–167.

21. Woodsong C and Koo H, Holistic view of acceptability among a multi-ethnic population of adult and teen women and men, paper presented at Microbicides 2002, Antwerp, Belgium, May 12–15, 2002, <<http://www.itg.be/micro2002>>.

22. Ramjee G et al., Challenges in the conduct of vaginal microbicide effectiveness trials in the developing world, *AIDS*, 2000, 14(16):2553–2557; and Foss A et al., Shifts in condom use following microbicide introduction: should we be concerned? *AIDS*, 2003, 17(8):1227–1237.

23. Amaro J, Love, sex and power: considering women's realities in HIV prevention, *American Psychologist*, 1995, 50(6):437–447; and de Zoysa I, Sweat M and Denison J, Faithful but fearful: reducing HIV transmission in stable relationships, *AIDS*, 1996, 10(Suppl. A):S197–S203.

24. Pulerwitz J, Gortmaker S and DeJong W, Measuring sexual relationship power in HIV/STD research, *Sex Roles*, 2000, 42(7/8):637–660; and Gómez C and Marin B, Gender, culture and power: barriers to HIV prevention strategies, *Journal of Sex Research*, 1996, 33(4):355–362.

25. Ulin P, African women and AIDS: negotiating behavioral change, *Social Science & Medicine*, 1992, 34(1):63–73.

26. Gollub E, 2000, op. cit. (see reference 4); and Beckman L and Harvey M, Current reproductive technologies: increased access and choice? *Journal of Social Issues*, 2004 (forthcoming).

27. Foreman M, ed., *AIDS and Men: Taking Risks or Taking Responsibility?* London: Panos Institute and Zed Books, 1998.

28. van de Wijgert J et al., 1999, op. cit. (see reference 19); and Pool R et al., 2000, op. cit. (see reference 20).

29. Pool R et al., 2000, op. cit. (see reference 20).

30. Green G et al., 2001, op. cit. (see reference 20).

31. Elias C and Coggins C, 2001, op. cit. (see reference 3); and Morrow K et al., The acceptability of an investigational vaginal microbicide, Pro 2000 Gel, among women in a phase I clinical trial, *Journal of Women's Health*, 2003, 12(7):655–666.

32. Bentley M et al., 2000, op. cit. (see reference 17).

33. Darroch J and Frost J, 1999, op. cit. (see reference 13).

34. Coggins C, Blanchard K and Friedland B, 2000, op. cit. (see reference 9); and Green G et al., 2001, op. cit. (see reference 20).

35. Koo H et al., 2004, op. cit. (see reference 17).

Author contact: woodsong@fhi.org