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Paving the Path: Preparing for Microbicide Introduction—Report of a Qualitative Study in South Africa [Executive Summary]

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PAVING THE PATH:

Preparing for Microbicide Introduction

Report of a Qualitative
Study in South Africa

EXECUTIVE SUMMARY

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EXECUTIVE SUMMARY

With recently accelerated support for the development of microbicides to prevent HIV transmission and the urgency of the global AIDS epidemic, it is important to begin to identify strategies for introducing a microbicide once it is proven safe and effective and is approved for use. This report presents results from a qualitative study that explored a range of issues likely to influence microbicide introduction—positively or negatively—at three levels: community, health service, and policy. The study identified critical issues to be addressed in building support for microbicides and facilitating smooth introduction.

Historically, technological innovations have had varying degrees of success in introduction; some have encountered significant obstacles that might have been avoided with more careful preparation. It is critically important to understand gender-related, social, economic, cultural, and structural contexts before any new innovation is introduced. This research aims to inform microbicide introduction strategies in an effort to avoid the delays and false starts that have hindered the introduction of new health technologies in the past.

The introduction of microbicides is likely to be complex for a number of contextual and product-related reasons. First, microbicides, especially the first generation of microbicial products, are likely to be *partially effective*, with lower effectiveness than condoms in preventing HIV transmission. Second, microbicides will be “*user-controlled*” *vaginal products* that require acknowledgement and discussion of sexuality and sexual practices, issues that policy makers, providers, and users can find difficult. Finally, by potentially providing women with more power and control over their sexual lives, microbicides may challenge traditional gender norms. Given this range of complex issues, targeted social-science research into the beliefs and attitudes that are likely to affect understanding, acceptance, and use could greatly facilitate the introduction of this new technology. Such research can be used for informing policy, identifying necessary adjustments in the service delivery context, and guiding message development and product imaging for communities and users.

The study was conducted between September 2002 and September 2003 in Langa, a peri-urban site in the Western Cape Province of South Africa, and at national and provincial levels. Through in-depth interviews and focus group discussions, this study explored and identified issues that could facilitate or undermine access to and use of microbicides. The study included a range of respondents from the three levels of inquiry. Respondents included community members, health care providers and managers, provincial- and national-level government officials, and representatives from national and provincial nongovernmental organizations and health professional bodies that influence policy.

KEY FINDINGS

The need for microbicides

Respondents at all three levels expressed support for microbicide introduction. The severe effect of the AIDS epidemic on people’s everyday lives and the urgent and desperate need for new approaches to help curtail the spread of HIV was the most powerful argument for microbicides to emerge from the data.

The respondents conveyed an understanding and acceptance of the reality of women’s social vulnerability to HIV infection and the limits on women’s ability to protect themselves, including the need for female-initiated prevention options due to widespread resistance to male condom use. Since microbicides are expected to be mostly female-initiated and controlled, participants felt that the products could provide an

important option in giving women the ability to protect themselves with or without their partners' support.

The “prevention equation”—the idea that a lower-efficacy product, like microbicides, used consistently could provide overall protection at the individual and population level better than a higher-efficacy product, like condoms, used less consistently—generated little reaction when raised by the interviewers. It is not certain whether this was due to the concept being unclear, or because respondents did not need additional evidence beyond the devastating effects of the epidemic to make the case for microbicides.

Partial effectiveness

Respondents at all levels were concerned about the partial effectiveness of the first generation of microbicides, presented as ranging from 40–70%. Despite apprehensions among a few providers and policy-makers about promoting a partially-effective method, most saw it as a trade-off to the high need and demand for such a product. They supported its introduction, pointing out that no method is “*one hundred percent*” effective, including condoms with typical use. Additionally, many providers and policy makers pointed out that the numerous barriers to condom use underscore the need for more acceptable prevention alternatives such as microbicides. The concept of a “hierarchy of methods” naturally emerged from the discussions. Some felt that microbicides should be positioned alongside male and female condoms either as a dual method or as stand-alone products to reduce risk where other, more effective prevention options are not feasible. The severity of the situation made women feel that it was preferable to take some action rather than to do nothing, even if microbicides were not 100 percent effective.

Covert or overt use

Women’s lack of power in sexual relationships was cited as both a barrier and an incentive to microbicide use. Both women and men strongly recommended partner involvement and open communication about microbicide use, and many believed that such communication would be feasible. Other participants, however, felt that in the context of certain relationships, covert use would be a necessary alternative where there was a lack of trust between partners, where women lacked the power to negotiate the method’s use, or where they feared repercussions, including violence, of raising microbicide use with partners. Community members, service providers, and policy makers alike questioned women’s ability to negotiate microbicide use and said that even covert use might be difficult or could result in negative repercussions if discovered.

Condom substitution

Opinions varied about the potential impact of microbicides on condom use, specifically whether people who successfully use condoms would be likely to use microbicides instead. Some policy-level respondents worried that microbicide introduction could undermine condom use, particularly among adolescents. Some male—and female—focus group participants indicated that they might, indeed, stop using condoms in favor of microbicides. In contrast, many respondents recognized that among many groups consistent condom use remains low, and felt that the introduction of microbicides would not decrease condom use. Instead, they felt that microbicides could potentially provide an important alternative for those who would not or could not use condoms.

Rape and unplanned sex

Respondents described several situations requiring a long-acting product that women could insert before leaving the house as a routine practice in case something unexpected or unplanned happened that would expose them to risk. Concerns about sexual violence were expressed strongly and discussed at length. In addition to their own fears, participants in community focus group discussions frequently raised the possibility of young children being raped. Respondents also felt microbicides would be useful when a

woman had unplanned, but consensual, sex, or for protection in case a man attempted to infect them intentionally. People assumed that the product would be long-acting and convenient enough to be used daily. None of these possibilities was asked about directly or probed for; participants spontaneously raised them in many focus groups and interviews, indicating that this could be a potentially important role for microbicides.

“Wetness” and lubrication

Concerns emerged among respondents at all levels about “wetness,” pertaining to the added moisture that a microbicide formulated as a gel or cream could provide during sexual intercourse. Wetness was discussed, for the most part, from three perspectives: a) a woman’s vaginal wetness implying infidelity (i.e. she had been with another man); b) the preference of men for a “not wet” or “dry” vagina for increased sexual pleasure; or c) the association of wetness with sexually transmitted infections (STIs). Men were concerned that it would be difficult to distinguish whether a woman was wet due to the microbicide or because she had sex previously with another man, and women were anxious about being accused of infidelity. Many referred to men’s preferences for the vagina to be dry or “not wet” (although this was not associated with the use of drying agents), indicating that wetness associated with microbicides could be perceived as negatively affecting sexual pleasure.

Intravaginal product use

Participants expressed wide-ranging and contradictory views about women’s experience and comfort with the use of vaginal products. Women in focus groups said they were familiar and comfortable with using vaginal products and were already using tampons and “vaginal creams for thrush.” Providers supported this view, although policy-level respondents gave mixed views, some expressing concern that women would be unfamiliar with or unwilling to use an intravaginal product.

Product characteristics

The aesthetic and physical characteristics of microbicides also were viewed as important intrinsic factors that could hinder or facilitate microbicide use. In terms of physical properties of the product itself, characteristics of concern included smell, messiness, stability at different temperatures without refrigeration, duration of effectiveness, and how well the product would adhere in relation to bodily functions (e.g., whether the microbicide would be washed away with urination). Respondents expressed discomfort with aspects of the sample applicator shown, and suggested alternative product forms.

Respondents at various levels of inquiry differed in their views on the preferred scope of protection against HIV, other STIs, and pregnancy. Women tended to prefer microbicides that would not prevent pregnancy, while more men favored products that also were contraceptives, although many presented contrasting views. Providers were keen on offering microbicides that could prevent a range of STIs in addition to HIV and were less interested in the product’s contraceptive properties, while several policy makers felt that a microbicide with dual protection (contraceptive and STI prevention) could facilitate use and be a beneficial addition to family planning programs.

Potential microbicide users

Respondents thought that a wide range of people, including very young girls, youth, married and unmarried women, older women, and men, could potentially use microbicides. Health care providers were generally more comfortable categorizing appropriate microbicide user groups according to risk, particularly those with a history of STIs, HIV-positive individuals, sex workers, and those unable to negotiate condom use. Community participants and some providers suggested that youth should be the main users and beneficiaries of a possible future microbicide, because they were the most sexually active, did not use condoms, and were the most vulnerable to unplanned, unprotected, and coercive sex.

However, some policy makers expressed reservations about targeting youth, citing in particular recent gains in condom use among this group.

Need for information

Policy makers, providers, and community participants all stated that they would need information about effectiveness, efficacy, safety, side effects, and contraindications before they would recommend microbicides to clients or support their introduction. Given that the first microbicides will not provide complete protection, both national and provincial level policy makers pointed out that clients must be fully aware of the implications of partial effectiveness. They emphasized a desire to have access to evidence from both animal and human clinical studies to determine whether microbicides were in fact safe and effective. Respondents' understanding of concepts such as safety, efficacy, and partial effectiveness were often erroneous; some policy makers highlighted the need to further examine the way in which information about these key concepts should be conveyed to potential users, policy makers, and providers, stressing the need for simple yet comprehensive information to facilitate informed choice.

Distribution and marketing

Participants across all three levels of inquiry also felt that microbicides should be distributed widely—not only in health clinics, such as family planning, well-baby, maternal health, and VCT centers, but also in places where women congregate and locations that are easily accessible in the community: chemists; supermarkets and shops where herbal medicines are obtained; local informal shops and bars; and community-based organizations. Despite a desire for widespread access, many respondents at all levels, concerned about safety and partial effectiveness, hesitated to endorse distribution of these products in venues where personal counseling is not available or quality control would be difficult to ensure. In community focus groups, men and women of all ages and socio-economic groups stressed the need for media campaigns and for community-based sources of information to be available at such places as churches, schools, libraries, and other community organizations.

Sustainability of supply and cost

Several policy-level respondents warned about the problems in creating demand for the product at the community level before supplies are sustainable. Citing some experience with the female condom, they underscored that a reliable and affordable supply needs to be in place before widespread marketing of microbicides begins. To address these concerns, and to allow users to become familiar with the products, some suggested a gradual introduction strategy. National and provincial policy makers, key policy informants, and providers all stressed that microbicides should be accessible to clients and provided at low cost or free. Some community and policy-level respondents supported the assertion of social marketers that products distributed in the public sector or free of charge are seen as inferior to other methods or products. Finally, a number of policy makers expressed concern about the cost to the health system, the lack of resources throughout all levels of the health system, and the difficult decisions that must be made among competing priorities.

DISCUSSION

A number of key results from this study—in areas such as product characteristics, condoms and condom substitution, partner involvement versus covert use, distribution strategies, and lubrication (“wetness”)—echo and expand upon findings of previous social science research and programmatic experience. However, several somewhat unexpected issues emerged quite strongly, such as the widespread understanding of women’s vulnerability and their need for alternatives like microbicides, and the broad assumptions about microbicide use for protection in case of unplanned sex or rape. Several of these

themes have direct implications for policy or further research related to product development and introduction.

Support for microbicides

Consistent with the growing recognition of the need for microbicides, respondents across the range of categories expressed strong support for product development and introduction. This interest derived from several related underlying issues that were described frankly and eloquently. First, participants exhibited widespread understanding and recognition of women’s vulnerability to HIV infection. Many spoke openly—and spontaneously—about the underlying social, economic, and political factors that contribute to women’s lack of control over sexual relations. Given the devastating impact of the HIV/AIDS epidemic in this setting, there was a real sense of desperation among community participants, providers, and policy makers for something that could help prevent HIV infection. Second, while respondents in all groups felt strongly that condoms must be promoted, there was widespread recognition of the limitations of condoms and their use. There was a strong sense that additional technologies and approaches are urgently needed, especially those that women can initiate, and a real frustration at the relatively long timeframe before an effective microbicide could potentially be made available.

Despite some concerns, the need and potential for microbicides resonated strongly with those interviewed for this study. This may be attributable largely to the impact of the HIV/AIDS epidemic and the vigorous public discourse on AIDS in South Africa; strategies for developing support for microbicides will clearly need to be tailored to other contexts. Even with the significant support among those interviewed for this study, participants expressed a number of concerns and uncertainties about microbicides, and an understandable need to know more about a specific product before they would approve, recommend, or use it. Therefore, while there seemed to be widespread general support for a product like a microbicide, a more specific case will need to be built based on the evidence from research and characteristics of a particular product.

Implications of introducing a partially effective product

As expected, the issue of partial effectiveness emerged as a major concern, particularly among providers and policy makers. Discussion underscored the challenges of accurately conveying complex messages about risk reduction and the options presented by a partially effective product. Initially, respondents across all three categories expressed some unease about the implications of introducing microbicides as “stand-alone” products, given that they will be less effective than condoms. Many were more comfortable with microbicides as a complement or addition to existing prevention options, and with including them as part of a hierarchy or method mix so that people would be able to choose from more options. A striking element of these interviews is how providers’ and policy makers’ concerns about partial effectiveness evolved from initial apprehension about practical and ethical implications to a more positive and affirmative view of the role microbicides could play in reducing individual risk and population-based incidence. This underscores some of the complexities of resistance to microbicides and suggests that some initial concerns and assumptions may be amenable to change.

Condom substitution

Policy and provider-level respondents expressed some concern about the possibility that introducing microbicides may lead people to switch from condoms to microbicides, undermining condom promotion and use. Some community members confirmed this possibility, indicating that they would welcome the availability of microbicides primarily because they would provide an alternative to condoms. Providers and policy makers reflexively positioned condoms as the “gold standard,” although on further reflection most acknowledged the condom’s limitations and that actual use among many groups is low. This suggests the importance of developing policy approaches and messages for introducing microbicides

that accurately reflect actual condom use and the impact of condoms in HIV risk-reduction, rather than a theoretical ideal. In addition, while acknowledging that condoms are unpopular, participants rarely discussed perceptions or assumptions about the particular circumstances and types of relationships in which condoms or microbicides would be used.

Given growing understanding about how relationships and other circumstances influence condom use, it would be useful to explicitly explore these themes with respect to microbicides. Finally, concerns about condom substitution will likely shift along with any changes in condom use that may occur: if condom use increases before microbicides are introduced, condom substitution may become more of a concern. Given the long timeframe for microbicide development and introduction, this issue will need to be continually revisited in light of any changes in patterns of condom use.

Rape and unplanned consensual sex

One of the primary unexpected findings was the degree to which respondents across levels—especially community members—assumed that an important application for microbicides would be use by women to provide protection in case of rape. Rape is widespread in South Africa and has been extensively discussed and debated in the public arena, contributing to an acute awareness of the problem and a perception that it constitutes an immediate risk in women’s daily lives. Women also discussed the utility of microbicides in the case of unplanned consensual sex. Both of these uses imply an assumption that women would be able to apply a microbicide as part of a daily routine. This would necessitate that a microbicide have a relatively long duration of action, and that it would be both affordable and convenient enough to be used daily. This has important implications for microbicide development and for how microbicides could be introduced or marketed.

Wetness, lubrication, and intravaginal practices

The issue of “wetness” resonated strongly with study participants as a serious concern. It has been an ongoing concern in the microbicide field that the lubricating properties of current gel formulations could compromise acceptability and widespread use of microbicides. Respondents across categories had different perceptions about how important added lubrication might be in hampering microbicide acceptability and use. Consistent with recent reviews of this issue, the extensive discussions and wide-ranging interpretations of lubrication in this study underscore the need to examine the actual meanings associated with wetness and lubrication in different settings, rather than relying on assumptions about practices and preferences. Similarly, the different perceptions of policy makers and community members with regard to women’s comfort with intravaginal product use point to the importance of examining actual experience rather than assumptions. Beliefs and assertions by policy makers or providers that “women won’t use them [microbicides]” because they are inserted vaginally could erroneously inhibit support for microbicides, even in settings where women regularly use vaginal products.

Positioning and distribution strategies

Findings from this study suggest that microbicides could be positioned for a wide range of potential users. While in other settings people often assume that “high risk groups,” particularly sex workers, would be the most likely and appropriate users, respondents in this study suggested a much wider range, including children (in the case of rape) and “older” married women. It was widely assumed that younger, unmarried women, including youth, would be important users of microbicides; however, while this assumption was strongly supported by providers and community members, policy makers were less supportive of targeting youth due to concerns about potentially undermining recent gains in condom use and thereby increasing risk. There was strikingly little stigma associated with microbicides or the people who might use them, and a real sense that microbicides would be “mainstream” products.

Suggested distribution strategies underscored the tension between making microbicides widely available in a range of clinical and non-clinical outlets and the challenges of conveying complex messages about risk reduction and partial effectiveness, which imply the need to control distribution to assure counseling and fully informed choice. Community members suggested a wide range of potential distribution points and strategies and cautioned against “medicalization” of the product. On the other hand, given that the first microbicides might be only partially effective, policy makers, providers, and community members hesitated to endorse widespread distribution without adequate counseling or information. There was some support for a compromise approach where products could be introduced first through a more formal clinical setting; then, once the public is familiar with the products’ attributes and has some experience using them, more widespread availability could be phased in over time. In general, there was a strong sense that the best approach to positioning and marketing microbicides would be to build on strong, affirmative messages that would associate the product with a healthy, dynamic, positive, and modern lifestyle.

RECOMMENDATIONS

The recommendations presented below have been selected to highlight some of the less expected findings and areas requiring careful analysis in other geographical, social, and epidemiological contexts.

Making the case for microbicides

- **“Make the case” for microbicides based on specific context:** Further research in other geographical and epidemiological settings is needed to determine the best approach to “making the case” for microbicides. In this study, there appeared to be little need to convince people of the necessity for a product like microbicides. The broad recognition of the need for microbicides found in this study may not carry over to other settings where such issues are more hushed or stigmatized, where women’s vulnerability is not as well recognized, where public discourse about AIDS and microbicides is less evident, and where cultural differences place greater restrictions on open discussion of sexual behaviors and practices.
- **Communicate the rationale:** Efforts to evaluate the acceptability of microbicides at the provider and policy levels will require dialogue and probing beyond immediate responses. Likewise, communicating the rationale behind microbicides will require more than simple messages. Despite broad support for microbicide introduction found in this study, initial responses were more mixed and muted. Opinions changed when people talked through the issues to arrive at their own conclusions, a finding that points to the value of qualitative research for in-depth exploration of issues. These findings also suggest the need for advocacy and introduction strategies to assure adequate dialogue.
- **Understand how the “prevention equation” can be used:** Further investigation will be needed to determine how the prevention equation is understood, and whether and how it could help to make the case for microbicides. It did not appear to be particularly important in convincing policy makers of the value of even partially effective microbicides in this context. However, this may differ in settings where the AIDS epidemic has not had as substantial an impact, and where microbicides may not be as readily accepted and supported.
- **Use information on intravaginal practices to counter erroneous assumptions:** Assertions that women will not use intravaginal products may not hold true, as shown in this study. Introduction

and advocacy efforts may benefit from local data about actual use of intravaginal products to counter erroneous assertions that could undermine introduction efforts.

Developing introduction strategies

- **Balance broad access with the need for counseling and informed choice:** The possibility of using distribution channels outside of the health sector, or outside of clinical service delivery, should be further explored in preparing for introduction. It will be important to balance interest in assuring broad access with the need for careful counseling, particularly given partial effectiveness and the attendant hierarchical approach.
- **Address provider information and training needs:** To assure support from providers and providers' participation in introducing microbicides, strategies must pay careful attention to providers' information and training needs. Providers, who could be pivotal in influencing microbicide use, will need in-depth information on issues such as side effects and results of clinical studies, and training in order to feel comfortable recommending microbicides. They also will need support in formulating comprehensive yet simple counseling messages that allow clients to make informed choices. Although most providers in this study would likely support microbicides given adequate information, providers in other contexts may not be as receptive.
- **Market for use with or without a partner's knowledge:** Marketing and introduction strategies should take into account the need for both covert and overt use of microbicides. This study clearly demonstrated the desire by both women and men to communicate about microbicide use; however, respondents also recognized that many circumstances would require use without a partner's knowledge, and they noted the benefits of having a method that could not be detected.
- **Consider youth as a potential target group for microbicides:** Youth need to be seriously considered in clinical studies, introduction strategies, and further research as a potential user group for microbicides. Young people were spontaneously and consistently identified by various study participants as among the primary potential users of microbicides. The results point to the need to develop strategies that actively facilitate access and use by youth in South Africa while addressing some policy-makers' concerns about targeting youth. In different settings, even with similar needs, young people's access to sexual and reproductive health services may be more constrained, and receptivity to them as a user group may differ.
- **Ensure a balance of supply and demand:** Reliable supply and delivery systems must be in place before demand is created for a product. This is particularly important during the critical and sensitive introduction and scale-up stages. Although in this study only a few respondents reflected a broad distrust of "the system," introducing a product and failing to meet demand could potentially exacerbate such distrust, which could slow or halt introduction efforts.
- **Enlist multisectoral support for introduction:** Given the complicated nature of microbicides and concerns around partial effectiveness, enlisting the support of broad segments of society is likely to be critical. Several policy makers, policy influentials, and community key informants in this study stressed the importance of enlisting the support of individuals and organizations inside and outside of the health sector. The support of community groups, churches, labor unions, and others may be essential to "counter the fear of the unknown" that may come with the introduction of a new product.

- **Address diverse needs:** It will be important to determine the possibilities for different microbicide products to meet varying needs and to continually reassess these as new methods with different characteristics become available. This research suggests interest in both free and low-cost products, the potential for use with or without a partner’s knowledge, and appeal to different user groups, including married or unmarried people, youth, and sex workers. It also suggests the need for use under varying circumstances, such as daily routine use in case of unanticipated sex, and use in specific situations or with specific partners. Product characteristics such as contraceptive properties and formulations (gel, suppository, film, etc) could affect the range of potential market segments and needs.

Further research

- **Use qualitative research to understand the complexities of perceptions about microbicides, and to allow new ideas to emerge:** Further targeted, qualitative research designed to allow emergence of new ideas would be valuable to inform introduction strategies and to better understand the potential facilitating factors and barriers to microbicide use. In this research, effort was made to identify critical issues up-front based on previous research, review of the literature, and evolving discourse in the microbicide field. Nevertheless, several important issues that had not been anticipated emerged from the research. For example, the prevalent notion of routine microbicide use as a response to the threat of rape or sexual coercion, the notion that microbicides would be useful to put in “before you go out” in case of unplanned sex, and the importance of youth as a primary user group all emerged quite strongly from the data.
- **Understand the meanings and implications of “wetness”:** Further research is needed to better understand how notions of vaginal “wetness” may impact the introduction of microbicides in this and other settings. “Wetness” emerged as a major concern, though respondents ascribed a variety of meanings to it (“wetness” signifies infidelity, reduces sexual pleasure, is symptomatic of an STI) and the research did not affirm a prevailing belief and concern among prevention and microbicide advocates that “dry sex” is idealized. Little is known about whether these same concerns would apply in other settings, and their implications for product development, marketing strategies, and education and counseling approaches.
- **Investigate potential stigma associated with microbicides:** The implications of stigma for microbicide introduction strategies in diverse settings is particularly important in considering distribution channels and marketing efforts. Although stigma against the product itself or against those who might need the product did not emerge in this research as a major issue, this may be quite different in other settings.
- **Develop and test approaches to explaining partial effectiveness:** Further research will be needed to determine approaches to explaining the meaning and implications of partial effectiveness. Partial effectiveness was clearly a major concern among all groups interviewed, and participants in this study varied widely in their understanding of the concept. Determining approaches to explaining concepts such as partial effectiveness for different audiences will be useful to ongoing research, advocacy, and ultimately, introduction efforts.
- **Investigate the effectiveness and implications of microbicide use by HIV+ women:** Given the growing population of HIV+ people in South Africa and elsewhere, further consideration needs to be given to the reproductive and other health needs of this group. This is particularly important in the context of more widespread availability of anti-retroviral treatment in South Africa and

elsewhere and in the light of possible interactions between other contraceptive methods such as hormonal contraceptives for women, for example.

The challenges facing microbicide introduction are complex, as the findings of this study demonstrate, and respondent views have clearly been influenced by the sense of urgency and desperation in face of the devastating impact of the HIV/AIDS epidemic in South Africa. This study aimed to gain some understanding of the barriers and facilitating factors to microbicide introduction in the South African context. For some issues, we have a better understanding of how they are perceived, and the nature of concerns around them. Other issues have newly emerged from this research. Many will require further investigation and consideration in other epidemiological and socio-cultural settings. Some will prove to be more broadly applicable, and others are more specific to the local or national context. Successful and rapid introduction of microbicides, once they are approved, will clearly require further research and careful preparation.

DEFINITIONS AND KEY TERMS

Microbicides: A generic term for agents that can block, kill, or immobilize dangerous pathogens. These products, which are still under development, may offer the possibility for women (and men) to protect themselves from vaginal and rectal transmission of HIV and, potentially, other STIs. Microbicides will be used intravaginally and may be available in several forms (e.g., as a gel, suppository or film. It is also possible that they will be used rectally.

Partial Effectiveness: Refers to estimates of effectiveness of first-generation products ranging from 40 to 70 percent. It is anticipated that the effectiveness of initial microbicide products will be considerably lower than the effectiveness of condoms with perfect use (98%).

Prevention Equation: Refers to the notion that a lower-efficacy product used consistently could have a greater impact on reducing infection at the individual and population level than a higher-efficacy product that is used less consistently. One of the premises for microbicide use has been that condoms, while highly effective when used “perfectly,” are often used incorrectly or not at all because they can be difficult to use and are perceived as reducing sexual pleasure. Microbicides may be used more consistently if they are easier to use, perceived as interfering less with sexual pleasure, and their use can be initiated by women.

Condom Substitution/Migration: Refers to the concern that people who successfully use condoms might use microbicides instead, which could lower their overall level of protection.

Hierarchy of Methods: Refers to the offer of a range of methods by level of effectiveness, the risks and benefits offered by each method clearly identified. For example, if partially-effective microbicides were introduced into an HIV prevention program, a message about prevention technologies would be: “Condoms and microbicides used together offer the best protection against HIV. If you can’t use both products, you should use male latex condoms every time you have sex. If you can’t use male condoms, female condoms offer the next-best protection. If you can’t use condoms, microbicides used alone could significantly reduce your risk of HIV infection.”

Method Mix: Refers to the range of HIV/STI and pregnancy prevention methods or products available within a given program or service delivery setting.

Dual Protection: Refers to the prevention of both pregnancy and HIV/STIs through any of the following: use of a single product that prevents both (e.g., condoms); use of two methods (dual-method use, one for contraception and one for disease prevention); mutual monogamy with an uninfected partner using a contraceptive method; the avoidance of risky sex; or a range of other risk-reduction strategies. Although this term sometimes refers to protection against both HIV and other STIs, it is not used that way in this report.

Dual Methods: Refers to the use of two methods simultaneously (e.g. condoms and pills, or condoms and microbicides) to prevent HIV and pregnancy or to increase the effectiveness of an HIV prevention or pregnancy prevention method.