

The term microbicide refers to a range of products that share one common characteristic: the ability to prevent the sexual transmission of HIV and other sexually transmitted infections (STI) when applied topically¹. A microbicide could be produced in many forms, including gels, creams, suppositories, films, or as a sponge or ring that releases the active ingredient over time. Microbicides are not currently on the market, yet there have been some developed and are currently being tested.

Violence and Microbicides

Women have a higher risk (biologically) of being infected with HIV than men. For example, the vagina is a large mucous membrane that provides a pathway for HIV to access to the bloodstream, whereas men have one small mucous membrane on the tip of the penis. Also, if a woman is in a situation where the sex is forced onto her there may not be any natural lubricant inside of the vagina, the friction could cause small cuts and tears inside the vagina which provides HIV access to the blood stream. Finally, semen carries more HIV than vaginal secretions, and vaginal membranes are exposed to infectious fluid for hours after sex.

Many women are also subject to more violence (and violence involving sex) than men. In many cultures women are not taught about their bodies and their body is in fact the property of their fathers, boyfriends or husbands. They may not know about condoms or where to get them. In other cases, they may not be affordable or it may not be culturally appropriate to ask for them. This is problematic when women know that their husbands have multiple partners but again, it is not safe for them to insist on condom use. Microbicides would be important for women who do not have the power or control in a relationship to negotiate safer sex. Microbicides would put the power of protection into women's hands. In relationships where the women risks violence or coerced sex she could simply apply a microbicide before she has intercourse, without her partner knowing, that way she would know she has protection from HIV and other STI's. Some microbicides in development will also allow for women to get pregnant with their use while still protecting from HIV. This is an important development for women where the pressures to have children is great but the risk for HIV is also high.

Condom use and Microbicides

It is important to note that the development of a microbicide would not eliminate the need for condoms. When condoms are used correctly they are likely to provide better protection against HIV than microbicides. When condoms can be used, they would be preferred, and microbicides would be just another option for people when condoms are not available. The Global Campaign for Microbicides states that *researchers developed a mathematical model that shows that if even a small proportion of women in lower income countries used a 60 percent efficacious microbicide in half the sexual encounters where condoms are not used, 2.5 million HIV infections could be averted over 3 years*¹.

Funding for Microbicides

The delay in microbicide developed stems primarily from a lack of funding. There needs to be an urgency and priority placed on the development of this tool. According to the Global Campaign for Microbicides, funding must come from the public sector – governments and philanthropic donors – because it is not in the economic self-interest of pharmaceutical companies¹. Microbicides will primarily begin to help women in developing countries, in places where money to pay for these tools is non-existent.

Rectal Microbicides

Although the majority of research is going into the development of vaginal microbicide the need for a rectal microbicide is evident and there is some research being done in the development of these. Having anal sex puts people at high risk for HIV, and according to the Global Campaign for Microbicides reports that 35 percent of heterosexual women reported having had anal intercourse at some time in their lives and 6.7 percent of heterosexual couples practice anal intercourse at least once a month. This tells us that the focus is shifting from the mentality that only men who have sex with men are engaging in anal sex. Therefore a development of a rectal microbicide is necessary for all populations. The big difference between the vaginal and rectal microbicides is that the vagina is a closed area and the rectum is an open-ended cavity. The rectum is also lined with tissues that are very thin and much different then the lining of a vagina.

References:

1. Foss, A., Vickerman, P., Heise, L., Watts, C. Shifts in Condom use Following Microbicide Introduction. *Global Campaign for Microbicides*. 2003. Available at http://www.global-campaign.org/more_microbicides.htm. Accessed October 11, 2007.
2. Industry not Investing: Why are Large Pharmaceuticals not Investing? *Global Campaign for Microbicides*. 2007. Available at: <http://www.global-campaign.org/bigpharma.htm>. Accessed October 11, 2007.

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