

Outlook

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The female condom: significant potential for STI and pregnancy prevention

Relatively few women worldwide have adopted the female condom, the only female-initiated contraceptive method currently available that can prevent pregnancy and sexually transmitted infections (STIs). Despite being on the market for more than a decade, female condoms are in short supply in developing countries, and use remains low. Research confirms the female condom's effectiveness in preventing pregnancy and some STIs. However, data on the long-term impact of female condom promotion and use on HIV/AIDS and other STIs in the context of large-scale programs are limited.

The potential for increased use of the female condom and its positive impact on health is substantial. This is especially important in the context of the well-established and growing feminization of the AIDS epidemic, limited choice of other effective infection-prevention methods, and the high cost and limited availability of AIDS treatment. Nonetheless, some stakeholders want more evidence of the impact of the female condom in order to justify scaling up investments in the environment of increasingly constrained budgets and rising HIV prevalence.

More than 100 experts from 15 countries gathered September 26–29, 2005, in Baltimore, Maryland, for the Global Consultation on the Female Condom (GCFC). The GCFC built on recommendations from previous meetings and developed a plan of action to garner support for the female condom worldwide.¹ The meeting was organized by PATH and funded by the United Nations Population Fund (UNFPA), the Bill & Melinda Gates Foundation, the United States Agency for International Development (USAID), the William and Flora Hewlett Foundation, and the UK Department for International Development (DFID).

This article provides new information about the female condom presented at the GCFC, including evidence on its effectiveness for prevention of STIs and pregnancy, issues related to expanding access and use, and gaps in the knowledge base.

Responding to the need

Of the more than 38 million adults around the world infected with HIV, women account for 46 percent—up from 35 percent in 1985 and 41 percent in 1997.² In sub-Saharan Africa, 57 percent of infected adults are women. This feminization of the AIDS epidemic is fueled by the fact that women are at greater risk of infection than men, with young women the most at risk. Half of all new HIV infections occur in young people (15 to 24 years old); in sub-Saharan Africa, 75 percent of the young people infected are women. Culturally and socially determined gender roles and inequalities, sexual norms, lack of education, and violence make women more likely to become infected and also force them to bear the burden of others' infections as caregivers and widows.³

Other STIs also take a toll worldwide. According to the most recent World Health Organization (WHO) estimates, 340 million new cases of curable STIs occur every year. Of all infectious and parasitic diseases, STIs (excluding HIV) are the most important cause of healthy years of life lost among women worldwide. A WHO study of the top ten risks to health worldwide found that unsafe sex is the second most important global health risk as measured by the burden of death, disability, and disease it causes.⁴

Amid these harsh realities, the female condom has been heralded by some as the first contraceptive method that women can use to protect their own health and survival. Since 1992, 100 million female condoms have been distributed in more than 90 countries. Twelve million female condoms are distributed annually today—less than one-half of one percent of the 6 to 9 billion male condoms distributed each year.⁵ In 1996, the US-based company now known as the Female Health Company became the sole manufacturer and marketer of the FC Female Condom®. It is the only female condom approved by the US Food and Drug Administration (USFDA) and purchased by major donor agencies. (References to the female condom throughout this article refer to the FC Female Condom, unless otherwise specified; see Table 2 for a description of all female condom products available or in development.)

What we know—the facts

Effectiveness for pregnancy prevention

Results from clinical trials show the female condom can be as effective as the male condom and other barrier methods in preventing pregnancy. Studies in the United Kingdom,⁶ the United States and Latin America,⁷ and Japan⁸ demonstrate unintended pregnancy rates for female condoms ranging from 1 to 9.5 percent if used correctly for every act of sexual intercourse (perfect use) and 3 to 22.2 percent in typical use. Using data from the trials in the United States and Latin America, researchers calculated the 12-month unintended pregnancy rates for the female condom at 5 percent for perfect use (compared with 2 percent for male condoms, 6 percent for diaphragms, and 18 percent for spermicides) and 21 percent for typical use (compared with 15 percent for male condoms, 16 percent for diaphragms, and 29 percent for spermicides).^{9,10}

Results from a WHO multi-site trial—the first comparative effectiveness study of male and female condoms—confirm that male and female condoms are substantially equivalent in preventing unwanted pregnancy.¹¹ Unintended

pregnancy rates at six months ranged from 2.4 to 5.9 percent for the female condom and from 3.6 to 8.5 percent for the male condom. (No statistical difference was detected between the unintended pregnancy rates for male and female condoms.)

Effectiveness for STI prevention

The characteristics of the female condom indicate it also should be very effective at preventing STIs. Polyurethane is a strong material that is less apt to break than latex,¹² and the design of the female condom provides better coverage of the external genitalia than do male condoms. Polyurethane is impermeable to viruses smaller than HIV, hepatitis B, and herpes, and it is not affected by changes in temperature and humidity or by oil-based lubricants.^{13,14}

A systematic review of studies on the STI-prevention effectiveness of female-initiated barrier methods concludes that female condoms confer as much protection from STIs as the male condom.¹⁵ In the United States, women who used the female condom consistently were completely protected from trichomoniasis reinfection (see Table 1).¹⁶ In Kenya, STIs declined by about the same amount among women provided with male condoms as among those provided with both male and female condoms.¹⁷ Similarly, commercial sex workers in Thailand who used female condoms when their clients refused use of male condoms were just as protected from STIs as those using male condoms. At one site in this study, the additional protection of female condoms resulted in a statistically significant decline in STIs compared to use of male condoms only.¹⁸ Recent data from Madagascar show STI prevalence declined by 13 percent among commercial sex workers 12 months after the female condom was added to the distribution of male condoms.¹⁹ Among female clients at an STI clinic in Pennsylvania in the United States, no statistical difference in STI incidence was found between women who were counseled only on male condom use and those counseled on female condom use.²⁰

Impact of use on protected sex acts

A key question is whether promoting and distributing the female condom leads to an increased proportion of protected sex acts. Early studies showing 36 to 96 percent acceptability of the female condom among male and female users were encouraging.^{14,21} Women are often willing to try the female condom as a novel method; however, use declines over time, and the long-term impact of female condom promotion has not always been clear. Nevertheless, a growing body of evidence shows use of the female condom does contribute to increased overall protection (see Table 1) and that female condoms have been used in situations where male condom use has been refused.

Self-reported male and female condom use in a Kenyan study increased from less than 15 percent to more than 60 percent of participants, and there was no clear evidence of substitution of female condoms for male condoms.²² In the Madagascar study, offering female condoms to commercial sex workers resulted in a 10 percent increase in protected sex acts.¹⁹ A study in Pennsylvania in the United States found that STI patients counseled to use male and/or female condoms roughly doubled their protected sex acts.²³ A year-long study of Zambian couples, in which at least one partner had an STI, found that adding female condoms to the method mix helped reduce unprotected sex from 42 percent to 10 percent among couples at high risk of HIV.²⁴ In the Thailand brothel study previously cited, the availability of the female condom resulted in a nonsignificant reduction in unprotected sex acts in the male and female condom group compared to the male condom-only group.¹⁸ The proportion of protected sex acts doubled among clients at STI clinics in Alabama in the United States after they received an intensive skills-oriented intervention on female and male condoms.^{25,26}

Results from the pilot phase of female condom introduction in South Africa found that nearly half of female condom users had used both male and female condoms in the month before the inter-

Table 1. Studies on effectiveness of female condom use in preventing STIs and in increasing proportion of protected sex acts

Study	Population and method	Results
Impact on STIs		
Soper et al. 1993 Cohort 45 days	104 women at risk for recurrent trichomoniasis at STI clinics in United States provided FC.	Consistent use of FC protects against recurrent trichomoniasis. Reinfection 0% among consistent FC users, 14.7% among inconsistent users, 14% among controls.
Feldblum et al. 2001 Cluster randomized 12 months	1,752 women at 6 matched pairs of agricultural plantations in Kenya provided FC and MC, or MC only.	25% decline in STIs in both groups.
Impact on STIs and protected sex acts		
Fontanet et al. 1998 Randomized by site 6 months	548 commercial sex workers at 71 brothels in 4 cities in Thailand used MC backed up by FC, or MC only.	24% reduction in STIs in MC/FC group (2.81 cases per 100 person weeks) compared to MC group (3.69). (p=.018; statistically significant at one site only.) 17% reduction in unprotected sex acts in MC/FC group (5.9) compared to MC group (7.1). (p=0.16; statistically significant at one site only.)
Hatzell Hoke 2005 Cohort 18 months	1,000 commercial sex workers in Madagascar received both FC and MC.	STI prevalence declined by 13% (53% to 40%) 12 months after addition of FC. Proportion of protected sex acts increased by 10% with addition of FC (78% to 88%).
French et al. 2003 Randomized 12 months	1,442 female patients at an STI clinic in Pennsylvania, US, randomly assigned to use MC or FC.	No statistically significant difference in STI prevalence between FC and MC groups.
Impact on protected sex acts		
Welsh et al. 2001 Cluster randomized 12 months	1,752 women at 6 matched pairs of agricultural plantations in Kenya provided with FC and MC, or MC only.	At 6 months, MC use increased from less than 15% to 60% or more of participants in both groups. FC use increased from 0% to 61% among intervention group. No evidence of FC substituting for MC. MC and FC use were affected by provider bias against condoms, local suspicion of study, and male partner objections.
Latka et al. 2000 Cohort 12 months	292 female patients at an STI clinic in Pennsylvania, US, received counseling in MC only, FC only, or hierarchy message promoting MC & FC as most effective.	Protected sex increased overall: among MC users, increased from 28% to 62%; among FC users, increased from 26% to 74%; and among hierarchy group, increased from 32% to 66% (some mixed use of FC and MC).
Musaba et al. 1998 Cohort 12 months	99 Zambian couples with STIs counseled to use spermicide and either MC or FC.	Fewer than 15% of sex acts unprotected at any time. Couples who reported relatively more FC and less MC use had fewer unprotected sex acts than those reporting less FC use.
Artz et al. 2000 Macaluso et al. 2000 Cohort 6 months	1,159 clients at STI clinics in Alabama, US, participated in intensive behavioral intervention promoting FC and MC.	79% used FC at least once, and 38% used FC throughout study. Proportion of protected sex acts doubled, from 38% to 76%. 75% of consistent condom users mixed use of FC and MC.
Adeokun et al. 2002 Cohort 22 months	Clients at 6 family planning clinics in Ibadan, Nigeria, were counseled on dual protection and provided FC.	Condom purchases (both MC and FC) increased from 2% of all FP visits to 9%.
Beksinska 2005 Cross-sectional 18 months	In-depth interviews with 198 FC users at family planning clinics in South Africa.	Pilot introduction of FC increased proportion of protected sex acts. 88% reported using protection more with availability of FC. 44% had used both FC and MC in month preceding interviews. 49% reported dual method use (FC or MC plus hormonal methods).

FC = female condom; MC = male condom

view. The majority said they were using both types of condoms more since the introduction of the female condom.²⁷ In Ibadan, Nigeria, purchases of male and female condoms increased more than four-fold after female condoms and dual protection counseling were integrated into family planning services, primarily from acceptance of the female condom used alone or in conjunction with another contraceptive.²⁸ These studies indicate that effective female condom interventions can increase the percentage of women who use the female condom, increase the proportion of protected sex acts, and decrease STI prevalence among high-risk women. There is compelling evidence that the female condom is not just a substitute for the male condom but is complementary and contributes to increased use of condoms overall. Evidence also suggests that when both types of condoms are available, consistent condom users tend to switch between use of female and male condoms.²⁹

Obstacles and advantages

While studies generally show high levels of acceptability, they also highlight some common barriers to use of the female condom. As with the male condom, some men are resistant to the idea of using a female condom, and although the female condom is a woman-initiated method, it almost always requires the cooperation of the male partner for use.^{7,30,31} Men need to be included in the education and programming for this method, both to encourage their participation and to prevent or overcome their resistance. Some men prefer the female condom to the male in terms of comfort—including its ability to transfer body heat—although couples have also complained of its large size, excessive movement, noise during sexual intercourse, and problems with discreet disposal. Advantages of the female condom for many couples include that, unlike the male condom, its use does not depend on an erect penis, it can be inserted up to eight hours prior to intercourse, and it does not need to be removed immediately after ejaculation.

The female condom also protects parts of the external female genitalia and may offer men some protection as well.

The attitudes and training of providers are important to the acceptance of the female condom. Programs have shown that the method is most likely to be used after clients receive comprehensive counseling and education that includes insertion practice and partner negotiation skills.²⁵ Correct use increases with practice, so ongoing provider support can also be important to adoption and continued effective use of the female condom.

Cost

One of the main obstacles to more widespread distribution of the female condom is the high cost of the currently marketed product, especially compared to the male condom. The Female Health Company (FHC) manufactures the only female condom approved for purchase and distribution by major donors. FHC has made the product available to donor programs at a subsidized cost of £.38 per unit (US\$.68)—27 times the cost of a male condom (\$.025 per unit).³²

FHC has recently developed a second-generation female condom, FC2, which is made of nitrile (synthetic latex) and enables price reductions with greater production volumes. As Table 2 shows, FHC expects manufacturing to begin outside the United States in 2006. When the FC2 becomes available, it is expected that FHC will negotiate a unit price for donor agencies based on the volume to be purchased. Nonetheless, to achieve even a modest price reduction, global sales and bulk purchasing will have to increase more than four-fold over total 2005 sales, which appears unrealistic in the near future.

Reuse

Some experts suggest that one way to address the high cost of the female condom is to promote its reuse. In 2000, WHO developed a draft protocol for reuse and commissioned research to test the safety and effectiveness of reused female condoms. In 2002, WHO issued a statement saying it does not recommend or promote reuse

of female condoms, but the final decision on whether to support reuse of the female condom must be taken locally.³³ Some studies have reported reuse. In Zimbabwe, 2.2 percent of users reported reusing the female condom for reasons of cost, inadequate supply, saving time, and mere experimentation.³⁴ It is unclear how much reuse currently takes place worldwide (and if there is any increased risk for the woman and/or her partner), but more research is needed on this option, especially given little hope of price reductions for the female condom in the immediate future. (Research is currently underway on the possible reuse of the new FC2 condom.)

New products

Although almost all of the published information currently available relates to the female condom manufactured by FHC, other designs may improve acceptability, lower cost, reduce failures, and increase choice and impact. Two other types of female condoms are currently marketed outside the United States, and at least three others are in various stages of development and regulatory approval (see Table 2).

The regulatory pathways these new products must follow can be costly and difficult, which presents serious challenges for small manufacturers and can keep viable new products from reaching users. Efforts to streamline the quality assurance and regulatory approval processes for female condoms, whether in the United States or elsewhere, can help bring innovative products more readily to market. New products have the potential to lower the cost of female condoms—whether through less expensive design and manufacturing or through competition—and they may better meet users' needs. Nonetheless, the product and its cost are only part of the investment needed to get the female condom to women who can use it. The female condom must be part of a program; without adequate programming, the product will have little effect—at any price. Program managers need assistance in developing strategic programs to appropriately position and market the female condom in their countries.³⁵

Successful programs

Experiences in several countries show that successful female condom programs include (1) an identified target audience, (2) training for providers, (3) face-to-face communication with potential users, (4) a broad reproductive health focus that integrates family planning with STI/HIV/AIDS prevention, (5) a consistent supply, and (6) a mix of private- and public-sector distribution.^{36,37}

National-level programming in South Africa

In South Africa, the female condom was introduced in 1998 through a national pilot program at family planning clinics and commercial sex worker sites and through a social-marketing program.²⁷ The program's success has been attributed to good coordination and site support, strong monitoring and control of the supply of female condoms, comprehensive training of providers on the female condom and dual protection, and regular quality assurance and supervision visits.

Procurement of female condoms in South Africa has grown from 1.3 million condoms in 2002 to 2.4 million in 2005. Now the second-largest purchaser/distributor of female condoms in the world, the South African program is working to keep pace with demand as well as stimulate greater participation from the private sector.

Reaching those at greatest risk in Brazil

Following a large-scale female condom acceptability study in 1999, the Brazilian government began services targeting those most vulnerable to HIV infection, including sex workers, HIV-positive women, female drug users, regular partners of these women, and women at risk from violence.³⁸ Social marketing of female condoms began in 1997 by DKT do Brasil under the Reality® brand name. In 2000–2001, almost 2 million female condoms were distributed at no or low cost through various public- and private-sector channels.

After five years, the female condom is a widely accepted and supported

STI/HIV prevention strategy in Brazil. General knowledge and acceptance are widespread, and distribution of the female condom has been highly effective in specific high-risk groups (for example, sex workers). The 4 million female condoms distributed in 2003–2004 reached 18 percent of HIV-positive women. Ministry of Health officials believe that to achieve a public health impact, distribution needs to increase five-fold.³⁸

Social marketing in Zimbabwe

Population Services International (PSI) launched the first socially marketed female condom brand in Zimbabwe, the Care contraceptive sheath, in 1997. Promoting the method to couples as a contraceptive method instead of an infection-prevention device made it more acceptable to men and easier for women to present to their partners. Since June 1997, more than 4 million female condoms have been sold under the Care brand name in Zimbabwe.³⁹

Concurrent with the PSI campaign, the Ministry of Health in Zimbabwe launched a parallel public-sector program to distribute female condoms in more rural communities. Using both private- and public-sector outlets and providing the female condom at very low cost has helped institutionalize the female condom in Zimbabwe. However, there is need to expand distribution, perhaps through places of employment, women's groups, social clubs, and support groups of people living with HIV/AIDS.

Commodity security








USAID funded female condom research and development in the 1980s and 1990s and added the method to its contraceptive commodity supply in 1998. In 2004, USAID purchased 2 million of the 12 million female condoms sold by FHC that year. UNFPA began procurement of female condoms in 1998 and purchased 2.3 million units in 2004. Other significant purchasers and distributors of the female condom include donors in the United Kingdom (DFID, which purchased 1.6 million units in

2004), Germany (KfW), and Denmark (DANIDA); governments, notably in Brazil, South Africa, Zimbabwe, France, and Kenya; and nongovernmental agencies, such as PSI, DKT International, International Planned Parenthood Federation, and Marie Stopes International.

To budget adequately, donors need comprehensive product and program cost data. Unfortunately, information on female condom programming costs is very limited. PSI has calculated that their 2005 cost for providing the female condom (product and program support minus income generated) through social marketing programs is US\$1.28 per unit (for male condoms it is US\$0.11 per unit).³⁹ Their estimated cost per couple-year of protection (CYP)—which is based on the cost of the product sold plus program costs, the number sold, and the amount of program income generated—is \$90.00 for the female condom and \$2.40 for the male condom. This large difference is based, in part, on the huge difference in numbers sold: in 2004, PSI's social marketing programs sold just under 2 million female condoms, compared with 867 million male condoms.⁴⁰ It is estimated that globally, for every dollar spent on procuring male condoms from all sources, donors spend about US\$.05 for female condoms.⁴¹

In evaluating the cost of female condom programs, it is important to consider cost-effectiveness related to impact (on STIs, pregnancy, and women's empowerment) and compared with other interventions. For example, the female condom helps to prevent far more expensive HIV/AIDS program inputs, such as antiretroviral therapy, which, at commercial prices, can cost US\$300 to \$1,200 per user per year in developing countries.⁴² A cost-simulation model estimated that distributing female condoms to 1,000 commercial sex workers with an HIV prevalence of 50.3 percent in South Africa at a cost of \$4,000 (including cost of product and promotion) would avert nearly 6 HIV cases, 38 syphilis cases, and 33 gonorrhea cases, even if female condoms are used in only 12 percent of sexual acts.

Table 2. Female condom products

Product name and material	Regulatory status/availability	Retail cost	Distribution
Female Health Company, Chicago, US		www.femalehealth.com	
 <p>FC Female Condom[®] (also called FC1, Reality, Dominique, Femy, Protectiv', Care) Polyurethane, two soft rings, prelubricated.</p>	<p>USFDA approved, 1993. Conformité Européenne (CE) Marking,* 1997. Available commercially.</p>	<p>US\$.68 public sector (UNAIDS-negotiated price is \$.38)</p>	<p>100 million units distributed since 1992; 12–14 million distributed annually. Available via public-sector agencies in more than 80 countries. Sold commercially in 11 countries.</p>
 <p>FC2 Nitrile (synthetic latex), prelubricated.</p>	<p>CE Marking. Under WHO recommendation review process; results expected in 2006. In discussions with USFDA regarding regulatory requirements. Will begin production outside US in 2006.</p>	<p>Expected costs according to scale of production: Potentially US\$.60 at <60 million units \$.38 at 60–120 million units \$.31 at 200 million units \$.22 at 200–300 million units \$ TBD at >300 million units</p>	—
Medtech Health Products, Chennai, India		www.medtechproducts.org	
 <p>V'Amour Female Condom (also called Reddy, VA-Feminine Condom) Polyurethane sponge and latex pouch in v-shaped frame, prelubricated.</p>	<p>Approved by Indian Drug Controller, 2003. CE Marking. USFDA Phase 1 clinical trials completed; Phase 2/3 clinical trials being planned. Under WHO review. Expect to begin distribution in 2006 to Brazil, China, India, and Russia, and in 2006/2007 to South America.</p>	<p>US\$.22–.23 at 35 million units Social marketing price: US\$.30–.40 Retail price: US\$1.00</p>	<p>Germany, South Africa, and Swaziland.</p>
PATH, Seattle, US		www.path.org	
 <p>Woman's Condom Polyurethane film, rings, and foam in a polyvinyl alcohol capsule; water-based lubricant applied at use.</p>	<p>Phase 1 clinical trials in US completed in 2005. Contraceptive effectiveness study planned for 2006/2007. Commercial availability expected in 2008.</p>	<p>Potentially US\$.30–.40 at 10 million units</p>	—
Natural Sensation Co., Colombia, working with Acme Condom Co., US		www.natural-sensation.com.co	
 <p>Natural Sensation Panty Condom[®] Polyethylene resin (AT-10), non- and pre-lubricated, with cotton or nylon panty.</p>	<p>CE Marking, 2003. In discussion with USFDA about regulatory requirements. Under review for regulatory approval to sell in Argentina, Australia, and Brazil.</p>	<p>Potential commercial private-sector price outside US: panty and 2 condoms US\$2.00; condom refill US\$0.28 each Expected price in US: panty and 2 condoms US\$5.00; 3 condom refills US\$3.75</p>	<p>Colombia, Costa Rica, Dominican Republic, England, Panama, Spain, and Venezuela.</p>
Silk Parasol Corp., Bodega, CA, US		www.silkparasol.com	
 <p>Silk Parasol Female Panty Condom[™] Latex condom.</p>	<p>Preliminary acceptability and use trials conducted. Phase 1 clinical trials planned for 2006.</p>	<p>Not yet known.</p>	—
MEDITEAM Sprl euro, Brussels, Belgium			
 <p>Belgian Female Condom Latex with thicker, flexible collar.</p>	<p>Acceptability studies in Belgium completed in 2003.</p>	<p>Potential social marketing price: €.30 Retail price: \$US1.00 or €1</p>	—

*CE Marking is applied to products sold in the European Community, indicating the manufacturer's declaration that the product complies with the essential requirements of the relevant European health, safety, and environmental protection legislations.

These modeling results indicate annual savings of more than \$12,000 in treatment costs averted for HIV/AIDS and nearly \$1,100 in treatment costs averted for syphilis and gonorrhea, for total net savings of more than \$9,000.⁴³

What we don't know—research gaps

For many donors, program managers, and policymakers, the research and program results already available on the female condom justify its continued and expanded programming for both STI and pregnancy prevention. GCFC participants recommended that these results be compiled and broadly distributed among stakeholders to facilitate decision-making. This information will enable researchers to determine specific knowledge gaps and allow donors to evaluate the expected benefits of their investments. Evidence from long-term studies and operations research would provide decision-makers with a stronger evidence base from which to make decisions about female condom introduction. Some important areas for further research identified by participants at the GCFC include:

- Clinical effectiveness of the female condom in preventing STIs and HIV in specific high- and lower-risk populations, in preventing genital ulcerative disease, and as a dual protection method.
- Use dynamics, including information on condom switching, impact of peer and provider knowledge on female condom use, characteristics of users who successfully negotiate female condom use with partners, reuse and effectiveness in population-based studies, and acceptability as an indicator for use of future female-initiated products.
- Male partners and how best to include them as advocates and the incidence of partner violence related to use of female condom.
- Women's empowerment and impact of the female condom as a vehicle to improve women's sex negotiation skills and other aspects of their lives and development of models, methods, and guidelines for

strengthening women's negotiation skills.

- Costs, especially of public programs, and cost-effectiveness compared to other STI/pregnancy prevention and treatment options.

Advocacy

One of the recommendations agreed upon by the GCFC group is the need to develop clear leadership, both internationally and nationally, to increase access to and use of the female condom in the coming months and years.¹ Donors in the private and public sectors, as well as health policymakers and program managers, need to hear from those who stand to benefit from use of the female condom. Both top-down and bottom-up advocacy approaches are necessary to make the case for female condoms. Young, married women are the fastest growing group of HIV-positive people, and it is urgent to reach them with preventive measures. Involving policymakers, program managers, service providers, community leaders, and local women's and youth groups in coordinated efforts to advocate for increased funding, support, and programming for the female condom will enable them to voice the need for protection.

Integrating female condom programming with other services—including family planning, reproductive health, HIV voluntary counseling and treatment, prevention of mother-to-child transmission of HIV, antiretroviral treatment programs, and antenatal care—can increase demand for the method among these potential users.⁴⁴ Internationally, a coalition of groups advocating for the female condom could help increase access to and availability of female condoms. South-to-South cooperation and transfer of technology and expertise in areas such as manufacturing can strengthen new programs and also promote the best use of resources.

The female condom can play an important role in paving the way for other female-initiated products and devices currently under testing and development. New female condom

designs, microbicides, diaphragms, and cervical caps may encounter some of the same obstacles as the female condom.⁴⁵ By addressing these now, stakeholders can use the female condom to prepare for the acceptance of new protective methods to come.

Much is known about the health and contraceptive benefits of the female condom as well as ways the method can be effectively distributed to different populations. Better sharing and dissemination of this information, along with additional approaches to effective programming, will increase commitment to the female condom and help decision-makers best meet the needs of women and their partners.

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