Integrating Female Condoms into HIV Prevention Programs

A case study of barriers, facilitators, and future opportunities in Kenya

FINAL REPORT

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Acronyms

AIDS Acquired immunodeficiency syndrome

FP Family planning

HIV Human immunodeficiency virus

MCH Maternal and child health

PEPFAR US President's Emergency Plan for AIDS Relief

PMTCT Prevention of mother-to-child transmission of HIV

RH Reproductive health

STI Sexually transmitted infection

VCT HIV voluntary counseling and testing

VMMC Voluntary medical male circumcision

WHO World Health Organization

Executive summary

Female condoms are an important option for dual protection from unintended pregnancy and HIV and other sexually transmitted infections, especially when male condoms cannot be used. Incorporating female condoms into other HIV prevention channels is a potential strategy to increase access for women and men in need of dual protection beyond male condoms. Policies recommend incorporating female condoms into two HIV prevention programs that have gained significant momentum and political support—prevention of mother-to-child transmission of HIV (PMTCT) and voluntary medical male circumcision (VMMC). However, there is a lack of clarity on how female condoms are being included at the programmatic level.

PATH undertook a qualitative assessment in Kenya to explore the opportunities and challenges to integrate female condoms in PMTCT and VMMC programs and identify strategies to help improve integration and access in future programming. PATH selected Kenya because it offers a plausible environment for integration, which includes established PMTCT and VMMC programs, supportive national policies and guidelines, some female condom distribution, and significant health needs.

PATH employed qualitative methods to collect and analyze data. Desk research was performed to understand the PMTCT and VMMC landscape in Kenya and to inform purposive sampling of stakeholders. Ethics approval was received from the Kenya National Commission for Science, Technology, and Innovation. PATH then conducted 17 face-to-face interviews with policymakers, international aid officials, service providers, and advocates in Nairobi and Nyanza areas. PATH had obtained each stakeholder's verbal consent to be interviewed during the scheduling process. Interviews were conducted in English and lasted approximately 60 minutes. For data analysis, PATH staff examined interview notes and performed manual coding for themes.

The stakeholder interviews confirmed that female condoms are not typically available for distribution at PMTCT and VMMC sites in Kenya. All stakeholders were familiar with the product, however, and most thought that it offered numerous advantages as a woman-initiated dual protection method. Integrating female condoms into PMTCT and VMMC programs was believed to be feasible because policies, training, and distribution systems that can support product inclusion are already in place. Stakeholders reported that female condoms are included in counselor training curriculums and that the supply chain is the same as for male condoms. The barriers to integration that were cited were similar to those facing female condom programming generally.

The foremost challenge is the absence of female condoms in public-sector health facilities or retail channels; integration cannot happen without the product itself. Many stakeholders pointed to the relatively high cost of female condom commodities to the national government—particularly when compared with male condoms—as a main driver of low availability in the public-sector. Stakeholders identified additional barriers at the individual, facility, and government levels that contribute to the lack of product availability. These barriers largely involve negative attitudes and misperceptions that stymie demand creation and discourage government officials from recognizing female condoms as a critical

commodity. Stakeholders offered many insights into how to address these barriers so that female condoms could be a valuable and viable offering in PMTCT and VMMC programs.

Barriers and recommended actions to improve female condom integration

Individual level

Barrier 1: Low awareness among women and men

Recommended action: Leverage VMMC programs as an untapped platform to reach men and their female family members with female condom promotion.

Barrier 2: Product misperceptions and resistance among men

Recommended action: Take advantage of the couples-counseling setting in PMTCT and VMMC programs to provide accurate information, dispel myths and misperceptions, and increase acceptability, especially among men.

Facility level

Barrier 3: Health provider bias against female condoms

Recommended action: Implement mechanisms that encourage PMTCT and VMMC counselors to promote female condoms regularly with their clients, such as sensitizing county/district management teams, implementing refresher trainings, providing continuing medical education slides, and equipping counselors with vaginal models to assist with product demonstrations.

Barrier 4: Difficulty in measuring uptake, which is needed to justify supply

Recommended action: Improve tracking and documentation of consumption/demand to help build adequate supply of female condoms at PMTCT and VMMC sites.

Government level

Barrier 5: Lack of political will to implement policies

Recommended action: Advocate with national and county government officials to implement policies and cultivate champions for female condoms and their integration into PMTCT and VMMC programs.

This assessment found that a supportive policy and systems environment for integrating female condoms into PMTCT and VMMC programs does not automatically translate into access on the ground. Barriers to integration centered on negative attitudes, misinformation, and biases at multiple interconnected levels: individuals tend to have low awareness or hold misperceptions about female condoms; health providers at the facility level often are not comfortable discussing female condoms with clients, reinforcing low awareness and consumption; and government officials do not champion female condoms as they do other HIV prevention interventions, in part because of perceived lack of interest or demand from consumers. Because female condoms have a higher unit cost than male condoms, this vicious circle weakens the case for decision-makers to invest in female condom procurement and distribution through HIV prevention programs, resulting in a perpetually limited supply.

These challenges, however, did not diminish stakeholders' optimism around female condoms as a protection option and their prospective role in PMTCT and VMMC programs. They believed that facilities are ready to program female condoms and that PMTCT and VMMC clients and their partners are good target audiences with expressed and latent demand. Government officials, program implementers, and advocates at the country level must work together to translate policies into practice and effect solutions that will expand access to options for lifesaving dual protection.

Background

The importance of integrating family planning (FP) and HIV prevention services in low-resource settings is becoming more prominent on the international public health agenda. Such attention is critical given the immense health need for contraception and HIV prevention. For example, 222 million women in developing countries who wish to avoid a pregnancy have an unmet need for contraceptives. In 2012, an estimated 35.3 million people were living with HIV, and 2.3 million people became newly infected—the majority through sexual transmission. HIV is the leading cause of death and disability among women of reproductive age globally.

Linking FP and HIV prevention at the policy, operational, and service-delivery levels has the potential to improve health outcomes and reduce costs. A systematic review of the literature on linking sexual and reproductive health with HIV prevention found such linkages were considered beneficial and feasible, especially in FP clinics, HIV counseling and testing centers, and HIV clinics. While the implementation of integrated programs varies across communities, the anticipated benefits are similar: improved access to and uptake of FP and HIV services, expanded coverage for underserved populations, and greater promotion of dual protection from unintended pregnancies and HIV and other sexually transmitted infections (STIs).⁵

Female condoms^a present a unique opportunity to link FP and HIV prevention for women and men at risk of HIV/STI infection and unintended pregnancy. Female condoms are the only technology currently available that provides woman-initiated dual protection, and they are an attractive method to couples for many reasons. Female condoms give women a tangible opportunity to negotiate for safer sex, which is particularly crucial when male partners cannot or will not use male condoms. They have features that may be more appealing than male condoms, like a looser fit that does not constrict the penis. They also do not contain hormones or have systemic side effects, which women with unmet need report are among the main reasons that they do not use a modern contraceptive method.⁶

Many global health strategies and frameworks encourage promotion of both male and female condoms as part of an evidence-based, comprehensive approach to HIV prevention. ⁷⁻⁹ Indeed, evidence suggests that including female condoms in well-planned prevention programs may contribute to benefits like cost-savings and improved sexual and reproductive health. Several models have shown the cost-effectiveness of female condoms when compared to the costs of HIV treatment, ¹⁰⁻¹³ and when male condom use is not possible. ¹⁴ Studies in several countries have found that levels of protected sex increase when female condoms are added to the method mix, potentially reducing the risk of HIV infection and unintended pregnancies. ¹⁵⁻²²

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^a In this report, "female condom" generally refers to the product manufactured by the Female Health Company (FHC). The "FC1" female condom was launched on the market in 1992. Production of the FC1 ceased in 2009 after the FHC's second-generation "FC2" female condom received US Food and Drug Administration approval. The FC2 female condom is the same design as the FC1, but is made with a different material that allows for lower manufacturing cost.

Yet in most HIV prevention programs being implemented at the country level, condom promotion and distribution focus largely on male condoms. Male condoms are widely available from a variety of publicand private-sector sources at no or low cost. They have been supported through behavior change strategies and mainstreamed into health facilities over the course of the AIDS epidemic. However, even with this supportive environment, male condom promotion and distribution have not been sufficient to reduce new HIV and STI infections, particularly among women, who make up nearly 60 percent of adults living with HIV in sub-Saharan Africa.²

Integrating female condom promotion and distribution into HIV-prevention programs would strengthen awareness and expand access for both women and men in need of dual protection methods beyond male condoms. In recent years, prevention of mother-to-child transmission of HIV (PMTCT) and voluntary medical male circumcision (VMMC) have gained significant momentum and political support as effective HIV-prevention programs with the capacity to deliver a broader set of FP/reproductive health (RH) and HIV services. PMTCT and VMMC programs provide a critical opportunity to examine the extent to which existing channels and resources are being leveraged to promote and distribute female condoms within HIV-prevention interventions at the programmatic level.

In 2013, PATH undertook a qualitative assessment in Kenya to explore the opportunities and challenges to integrate female condoms in PMTCT and VMMC programs and to identify strategies to help improve integration and access in future programming. This report examines the factors that have supported and hindered the inclusion of female condoms in these programs and offers potential actions to enhance integration.

PMTCT and VMMC: Platforms for female condom integration

PMTCT

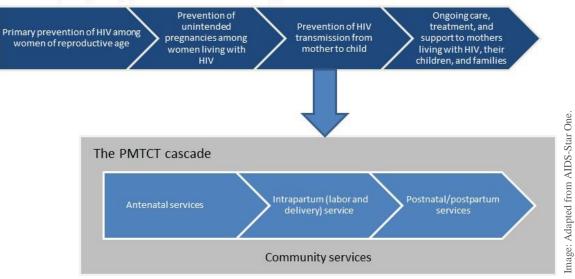
Although global scale-up of PMTCT has been an international priority for some years, attention was reinvigorated by the 2011 launch of the *Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive*, ²⁴ as well as the 2012 release of the *PEPFAR Blueprint: Creating an AIDS-free Generation*. ²⁵ PMTCT refers to a set of antenatal, intrapartum (labor and delivery), and postnatal/postpartum services that are typically incorporated into maternal and child health (MCH) care, which aim to prevent HIV infection among women, infants, and young children and to keep mothers alive. The traditional "PMTCT cascade" of services includes voluntary counseling and testing for HIV, antiretroviral prophylaxis to reduce the risk of mothers transmitting HIV to their infants, HIV testing of exposed infants, counseling on infant feeding, and linkages to HIV care and support. Historically, PMTCT programs have been conceptualized and implemented as the set of services in the PMTCT cascade (see Figure 1), rather than a broader set of prevention, treatment, and care services. ²⁶

Recent scale-up efforts focus on more comprehensive PMTCT services and espouse the four-pronged strategy developed by the World Health Organization shown below in Figure 1:

- Primary prevention of HIV among women of reproductive age.
- Prevention of unintended pregnancies among women living with HIV.
- Prevention of HIV transmission from mother to child.
- Ongoing care, treatment, and support to mothers living with HIV, their children, and families.

Figure 1. The four-pronged PMTCT strategy and the PMTCT cascade.

The four-pronged approach to PMTCT strategy



Global policies reflect that female condoms play an important role in comprehensive PMTCT programming, as demonstrated in Table 1.

Table 1. Female condoms in global PMTCT policies.

Policy/guidance document Language on PMTCT and female condoms Guidance on Global Scale-Up of the Prevention of Package of routine quality antenatal and postpartum care Mother-to-Child Transmission of HIV (WHO/UNICEF; for all women regardless of HIV status should include 2007)27 "provision and promotion of male and female condoms." Preventing HIV and Unintended Pregnancies: Prong 1 package of essential services includes "condom Strategic Framework 2011 - 2015 (male and female) promotion, provision and building skills (UNFPA; 2012)²⁸ for negotiation and use." Prong 2 package of essential services includes rights-based family planning counseling and services that promote "dual protection (female and male condoms) and lubricant."

Policy/guidance document

Language on PMTCT and female condoms

PEPFAR Blueprint: Creating an AIDS-Free Generation (PEPFAR; 2012)²⁵

• For Prong 1, the US President's Emergency Plan For AIDS Relief (PEPFAR) will support investment in high-impact, evidence-based strategies to prevent HIV infection among women of childbearing age, such as "condom provision and promotion, including **female condoms**, supported by risk reduction counseling and coaching on condom negotiation."

<u>VMMC</u>

Countries that have high rates of HIV and low rates of male circumcision have been rapidly scaling up VMMC services since results from three randomized controlled trials showed that VMMC reduces heterosexual HIV acquisition in men by up to 60 percent. VMMC refers to the surgical removal of all or part of the foreskin by a trained medical provider. This helps to prevent HIV acquisition since the inner aspect of the foreskin is highly susceptible to HIV infection. Initial scale-up has targeted adolescent and adult men through static, mobile, and outreach channels. VMMC is widely regarded to be an important part of a comprehensive approach to prevent HIV infection, as well as an opportunity to reach men with sexual and reproductive health information and services beyond the surgical procedure. This is important because the circumcision procedure is only partially protective against HIV, meaning that correct and consistent condom use is still needed.

As with PMTCT, global policies reflect the importance of female condom promotion within the VMMC setup, as shown in Table 2.

Table 2. Female condoms in global VMMC policies.

Policy/guidance document

Language on VMMC and female condoms

Minimum package for male circumcision services includes: Operational Guidance for Scaling up Male Circumcision Services for HIV Prevention (WHO, UNAIDS; 2008)³⁴ HIV testing and counseling Screening and treatment for STIs • Provision and promotion of male and female condoms Counseling on risk reduction and safer sex Male circumcision surgical procedure PEPFAR's Best Practices for Voluntary Medical Male • Checklist for pre-operative VMMC counseling includes Circumcision Site Operations (OGAC; 2013)³⁵ "demonstration of male and female condoms, unless client is too young." • Checklist for post-operative VMMC counseling includes distribution of "male and female condoms for use once [patient] re-engages in sexual activity in six weeks after the date of VMMC surgery."

Kenya: A case example to explore how policy meets program

Rationale for Kenya

The overall objectives of PATH's qualitative assessment were to explore the opportunities and challenges to integrate female condoms into PMTCT and VMMC programs for HIV prevention, and to identify strategies to help improve integration and access in future programming. PATH conducted field work in Kenya to determine to what extent female condom counseling and distribution are included in PMTCT and VMMC programs in practice, and to explore perspectives at the policy, program management, and frontline implementation levels to understand factors affecting access. PATH selected Kenya because it offers a plausible environment for integration, which includes established PMTCT and VMMC programs, supportive national policies and guidelines, some female condom distribution, and significant health need (Table 3).

Table 3. Kenya and female condom integration landscape at-a-glance.

Integration factors	Description
PMTCT program	 National program initiated in 2002, with substantial scale-up since then. Today more than 80% of all pregnant women receive PMTCT services at more than 5,000 PMTCT sites across the country.³⁶
VMMC program	 National program launched in 2008, now mainstreamed into annual MOH health planning.³⁷ Initial service delivery in Nyanza, Western, Rift Valley, and Nairobi provinces. By 2010, medical circumcision services were available at 268 facilities in the target provinces.³⁸ The proportion of men circumcised increased from 85% in 2007 to 91% in 2012, with the largest increase in Nyanza (48% to 66%).³⁹
Policies and guidelines supporting female condom integration	 PMTCT National PMTCT operational guidelines emphasize the need to strengthen linkages to FP services and condom access for dual protection, and explicitly call for counseling on female condoms.³⁶ National 10-day course for health care workers on PMTCT theory and practice includes female condoms as a strategy for dual protection in a unit on FP.⁴⁰ VMMC National VMMC strategy⁴¹ and communication strategy⁴² both state that VMMC needs to be integrated with sexual and reproductive health services, and call for provision and promotion of "condoms." hellV/AIDS Implementation plan for the Kenya National AIDS Strategic Plan 2009/10–2012/13 highlights "increased demand and use of female condoms" as a key output, and recommends that they be promoted among couples for dual protection.⁴³

b Whereas Kenya's PMTCT policies and guidelines explicitly support including female condoms, VMMC national policies only refer to "condoms."

Integration factors	<u>Description</u>
	Sexual and Reproductive Health-HIV integration • The 2009 National Reproductive Health and HIV and AIDS Integration Strategy contains objectives to strengthen the policy environment, ensure adequate financial resources, build capacity for service provision, and strengthen supply chain management systems for integrated RH and HIV services at all levels. The minimum RH-HIV package that guides implementers at all levels of care features "condoms" prominently throughout. ⁴⁴
Female condom distribution	 Female condoms are available through the public sector on a limited basis, targeted mainly to most-at-risk populations. From 2010–2013, 3.8 million female condoms were supplied by international donors to the government of Kenya for free distribution through the public sector.⁴⁵
Health need	 HIV infections In 2012, 5.6% of adults (1.192 million) aged 15 to 64 years were living with HIV, with a higher proportion of women (6.9%) affected than men.³⁹ Most new HIV infections occur in couples who engage in sexual intercourse within a union or regular partnership.⁴⁶ Unmet need for family planning Approximately 26% of women aged 15 to 49 years who are married or in a union have an unmet need for FP.⁴⁷

Methodology

PATH used qualitative methods to collect and analyze information. Through desk research, PATH explored the programmatic and policy landscape for PMTCT and VMMC in Kenya and identified the key individuals, organizations, agencies, and programs involved in delivering these services. We then conducted five telephone interviews with representatives from international nongovernmental organizations and agencies involved in policy and program implementation to validate preliminary findings from the desk research. Ethics approval for the qualitative assessment was received in September 2013 from the Kenya National Commission for Science, Technology, and Innovation.

In October 2013, PATH conducted an additional 17 face-to-face interviews with policymakers, international aid officials, service providers, and advocates in Nairobi and Nyanza (see Table 4). Four of these interviews took place at a health facility or involved a facility tour (one in Nairobi, three in Nyanza). Interviews were conducted in Nairobi and Nyanza because PMTCT and VMMC policymakers and program implementers are clustered there. Nairobi is the seat of the national government and home to the headquarter offices of many international health organizations involved in PMTCT and VMMC. Nyanza is a focus region for VMMC scale-up; it is cited as one of the few regions that has made significant progress in expanding VMMC services among the 13 countries engaged in VMMC scale-up. 14

Table 4. Breakdown of stakeholder interviews.

<u>Stakeholder group</u>	<u>Nairobi</u>	<u>Nyanza</u>	<u>Total</u>
National policymakers	1	-	1
Multilateral and bilateral aid agencies	2	1	3
Service providers	3	5	8
Reproductive health and HIV advocacy groups	4	1	5
Total	10	7	17

PATH developed interview guides for the different stakeholder groups to elicit opinions and generate discussion. Topics addressed included perceptions of the role of female condoms as an option for contraception and STI/HIV prevention; perceived need or value for clients accessing PMTCT/VMMC services to receive female condom counseling and supplies; feasibility, opportunities, and challenges of integrating female condom promotion and provision into PMTCT and VMMC programs; and potential strategies to improve integration. Interviews were scheduled for approximately 60 minutes and were conducted by PATH staff in English. PATH obtained verbal consent from each stakeholder to participate in the interview during the scheduling process, and verbal permission to audio record the discussion at the beginning of each interview. PATH staff analyzed the interview notes and performed manual coding for themes. Audio recordings were used to revisit and transcribe direct quotes that illustrated key themes.

Key findings

Stakeholder interviews confirmed PATH's preliminary findings from desk research and telephone interviews that female condoms are not regularly available for distribution at PMTCT and VMMC sites in Kenya. Only one out of the four facilities that PATH visited had female condoms available for distribution. Despite this lack of availability, all stakeholders were familiar with the product, and most believed it offered numerous advantages. They acknowledged the value of female condoms for STI/HIV prevention, family planning, dual protection, women's empowerment, and for instances when men do not or cannot wear male condoms. For example, according to an HIV/AIDS official at a bilateral aid agency:

The role of female condoms is very crucial. We know it helps in the prevention of STIs, including HIV, and also pregnancies. It comes in handy in special situations. For example, men who get drunk—it inhibits them from taking preventative measures such as [male] condoms. So when that situation arises, if a woman has a female condom, then that is very good to protect her.

—Nyanza bilateral 03

Stakeholders highlighted additional benefits of female condom use, particularly for pregnant women and sero-discordant couples. They stressed that using condoms during pregnancy would protect the mother

and fetus from STIs, and female condoms would offer women an additional tool to negotiate such protection. For HIV-positive pregnant women in sero-discordant relationships, the female condom could play a crucial role in preventing onward transmission of HIV to her partner. Several stakeholders, moreover, expressed the value of female condoms for pregnancy prevention. They stated that female condoms should be emphasized further in PMTCT postnatal counseling sessions.

Stakeholders believed that integrating female condoms into PMTCT and VMMC programs would be feasible and beneficial. They described an enabling policy environment and corroborated the fact that guidelines, training, and distribution systems that would support the inclusion of female condoms in PMTCT and VMMC programs are in place, though some policy gaps remain. Stakeholders reported that female condoms are included in counselor trainings and that female condoms share the same supply chain as male condoms; both commodities are furnished to public-sector health facilities by the Kenya Medical Supplies Agency, though many more male condoms are supplied than female condoms.

Adding female condom distribution to PMTCT and VMMC programs would not be difficult. A VMMC service provider explained:

There would be no big problem with distribution at the facilities. Even with the few consignments of female condoms that we've received, they've been distributed. ... Within a short time they are gone. I strongly believe [it would be beneficial] if we could make these female condoms available and channel them through the normal distribution channels of the ministry.

—Nyanza service provider 06

This sentiment was echoed by a not-for-profit provider in Nairobi:

It would be a good entry point [to have female condoms integrated into PMTCT and VMMC programs] because the stage is already set when you are doing the counseling and giving options. It is an add-on to the package.

— Nairobi service provider 03

In spite of this supportive environment, stakeholders identified numerous challenges to integration, all of which are the same as those faced in female condom programming in general. The foremost challenge is the absence of female condoms in public-sector health facilities or retail channels; integration cannot happen without the product itself. Stakeholders reported that in many facilities, female condoms are available "for demonstration only," meaning that the facility might have a couple of pieces for display but none for distribution. Many stakeholders pointed to the relatively high cost of female condom commodities to the national government—particularly when compared to male condoms—as a main driver of low availability in the public sector.

^c Some of Kenya's national policies on RH and HIV/AIDS integration and VMMC refer only to "condoms" rather than "male and female condoms." The term "condom" is often implicitly understood as meaning "male condoms."

Stakeholders explained that lack of product availability stems from additional barriers at the individual, facility, and government levels. These barriers largely involve negative attitudes and misperceptions that stymie demand creation and discourage government officials from recognizing female condoms as a critical commodity. The following section elaborates on these barriers and recommends actions at different levels that could help address these challenges, foster product availability, and more meaningfully integrate female condoms into HIV prevention programs (Figure 2).

Figure 2. Barriers and recommended actions to support female condom integration.

INDIVIDUAL **FACILITY GOVERNMENT BARRIER 1: LOW AWARENESS AMONG BARRIER 5: LACK OF POLITICAL WILL** BARRIER 3: HEALTH PROVIDER BIAS AGAINST **FEMALE CONDOMS** TO IMPLEMENT POLICIES Recommended action: Implement mechanisms Recommended action: Advocate with national and county government officials to implement policies and cultivate champions for female condoms and their integration into management teams, implementing refresher PMTCT and VMMC programs. slides, and equipping counselors with vaginal **BARRIER 4: DIFFICULTY MEASURING UPTAKE NEEDED TO JUSTIFY SUPPLY** Recommended action: Improve documentation of consumption/demand to help build adequate supply of female condoms at PMTCT and

Barriers and recommended actions to improve integration

Individual level

Barrier 1: Low awareness among women and men

Even though all stakeholders interviewed were familiar with female condoms, they remarked that the general population is still largely uninformed about female condoms. Several stakeholders mentioned that health facilities and marketers have not given out sufficient messaging and promotional materials.

Sensitization is needed for female condoms to be on the same level as male condoms, so that it is no longer this "mystical thing" [for women and couples].

-Nairobi bilateral 01

The information about female condoms is not out there yet. It is rare to find a young man discussing female condoms.

-Nairobi advocacy group 04

Recommended action: Leverage VMMC programs as an untapped platform to reach men and their female family members with female condom promotion.

Whereas Kenya's PMTCT policies and guidelines explicitly support including female condoms, VMMC national policies only refer to "condoms." Stakeholder interviews revealed that female condom integration into VMMC programs has not been fully explored or embraced; this represents an avenue through which to increase awareness of the method among target audiences.

Some stakeholders felt that integrating female condoms into VMMC programs would be a useful strategy to reach men, and many more thought that it would be a novel and effective opportunity to reach women. Both HIV-negative and HIV-positive men are turning out for VMMC—and many are sexually active—underscoring the importance of HIV prevention messaging and the role that female condoms could play in protecting them and their partners. A VMMC service provider predicted that female condoms would be well-received by men if adequate education and promotion were provided:

If health education on the importance of female condoms can be strengthened within the VMMC setup, then there would be increased uptake even among the males. If we can have a way in which males can be convinced and properly educated on the importance of female condoms, then yes, male and female condoms will be well-accepted at the same time.

-Nyanza service provider 08

A number of stakeholders saw female condom integration into VMMC programs as a great way to reach women. They described how women are adept at mobilizing their husbands, partners, and/or sons to get circumcised and often accompany them to the procedure. VMMC settings, therefore, provide a platform to sensitize women about female condoms.

There are a number of females who normally come with their partners for testing and VMMC services. So if we can station female condoms within the VMMC and counseling rooms, then that can also be one of the areas to target to get a number of females.

—Nyanza service provider 05

We need availability of female condoms within the VMMC setup. We are currently using females as mobilizers and peer educators. Most counselors in the VMMC setup are also females. Part of what these female peer educators and counselors do is convince the men to use condoms and to bring their wives to the procedure. At this point, we can get their wives and girlfriends and talk to them about the importance of female condoms.

-Nyanza service provider 08

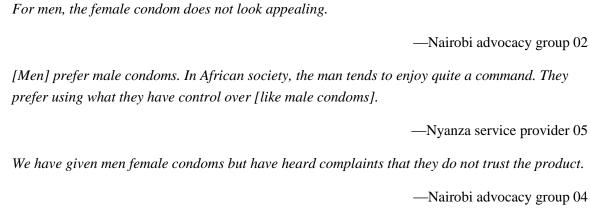
If a mother brought her boy, that would be a good opportunity to talk to her. Yes, the VMMC setting presents a good opportunity.

-Nyanza bilateral 03

None of the stakeholders interviewed spoke of existing efforts to target women attending VMMC with female condom promotion. VMMC settings present an untapped opportunity to explore.

Barrier 2: Product misperceptions and resistance among men

Myths and misperceptions about female condoms are common among women and men familiar with the product. Most stakeholders raised some combination of the following complaints from clients: female condoms make a lot of noise ("Sounds like a plastic bag"); the condom is too big ("When you bring out a female condom [your client] is like, 'Ah! That is too big!""); women are required to insert the female condom many hours before sex for it to work properly ("Women have to put it on hours before sex, while men use male condoms at the right time"). None of these are true of the product available in Kenya (the FC2), yet these concerns have become popular myths that have detracted from acceptability. Moreover, stakeholders said that men hold unfavorable views of the female condom and its use; this sometimes stems from myths and misperceptions.



Recommended action: Take advantage of the couples-counseling setting in PMTCT and VMMC programs to provide accurate information, dispel myths and misperceptions, and increase acceptability, especially among men.

PMTCT and VMMC programs emphasize partner involvement and encourage couples to attend counseling sessions. Stakeholders felt that program implementers should further capitalize on PMTCT and VMMC couples-counseling to improve knowledge and acceptability and contribute to increased levels of correct and consistent use. High-quality counseling, furthermore, can address the aforementioned myths and misperceptions about female condoms that may negatively affect an individual's willingness to try the product.

A PMTCT service provider underscored why it is important to counsel on female condoms in a setting with the couple present:

Women [seeking PMTCT services] sometimes come without their male partners for HIV testing. It is challenging to introduce a female condom [only] to a woman because she needs to go home and explain it to her male partner. Remember, male condoms are not properly used at home either...because male partners are a bit resistant to condom use. So when you introduce a female condom without a male counterpart, it brings out a [heated] discussion in the family. ... The women fear taking the female condom home.

—Nyanza service provider 07

Historically, male involvement in the PMTCT continuum of care has been low in Kenya. For example, less than 30 percent of pregnant women were tested for HIV together with their partners in 2009. However, many organizations are implementing innovative approaches to increase male participation, such as priority status and shorter wait times for couples. Providing counseling on female condoms in instances where couples turn out for PMTCT HIV testing and counseling can help facilitate condom use. According to a PMTCT mentor mother:

We like men to come on board because when they are tested together, it's more likely for this couple to be counseled together and use condoms effectively.

—Nairobi advocacy group 02

Couples counseling, furthermore, can help create a safe space for a woman to disclose her HIV-positive status to her husband or partner—a step considered by stakeholders to be fundamental to successful and sustained condom use.

Couples-counseling at VMMC sites was also viewed as a promising strategy for female condom promotion.

Quite a number of women attend those VMMC clinics. They come with their spouse, and it's a very good opportunity to counsel both of them on the use of the female condom.

—Nyanza service provider 04

Several stakeholders explicitly preferred discussing female condoms within a couples setting rather than an individual setting with men. They believed that the female condom is understood to be a "woman's product;" thus, a man might not be receptive to female condom counseling unless his partner is present. According to a VMMC national policymaker:

Whenever you talk about condoms, male or female, your client is basically the man. Unless you have a couple [with whom] you can talk about the female condom, it is hard to promote the female condom to men.

—Nairobi policymaker 01

A VMMC service provider in Nyanza confirmed that the VMMC initiatives that his program supports have a specially designed counseling protocol for couples that includes messages on why it is important to use male and female condoms as a couple—including for family planning. He also said that there is [male] condom uptake after these sessions (Nyanza service provider 06).

Decades of experience with female condom programming has shown that health care provider interaction and counseling play a critical role in influencing women and men to initiate and maintain use of the product.⁵⁰ Couples counseling may play a particularly important role in PMTCT and VMMC programs.

Facility level

Barrier 3: Health provider bias against female condoms

Although stakeholders reported that information about female condoms is included in trainings for PMTCT and VMMC counselors, and that couples counseling could potentially be a great avenue for increasing awareness and acceptability, they indicated that providers are sometimes reluctant to discuss the method. Providers' familiarity with male condoms, as well as their discomfort with/bias against female condoms, were common explanations.

When a client asks for a condom, the first thing that is the health worker's perception is [that the client is asking for] the male condom, not the female condom. It is easier for health workers to explain about the male condom rather than the female condom.

—Nairobi multilateral 02

A lot of [peer educators] are more comfortable demonstrating the male condom, because it is always in use, everybody talks about it, everybody sees it. But with the female condom there is a bit more restraint.

—Nairobi service provider 01

In the [health] facility, we need to change the way we clinicians perceive the female condoms. To me, I think we just mention them but we are not taking steps so they are demanded. We need to talk to the clinicians themselves to embrace the female condom and have [discussions about it] as a routine health talk.

—Nyanza service provider 05

Recommended action: Implement mechanisms that encourage PMTCT and VMMC counselors to promote female condoms with their clients regularly, such as sensitizing county/district management teams, implementing refresher trainings, providing continuing medical education slides, and equipping counselors with vaginal models.

Stakeholders identified several opportunities to address health provider bias and to strengthen the quality and consistency of female condom counseling in PMTCT and VMMC programs, and at the facility level more broadly:

Encourage health management teams at the county/district level to prioritize female condom
programming. Kenya's 2010 constitution initiated the devolution of health care to the county level.
County officials are now responsible for community and primary health care services, so their support
for female condoms would help set the tone at the facility level.

If a form of general education and capacity-building can be done with district health management and facility health management teams to understand the importance of female condoms, I'm very sure the uptake, acceptance, and requests for female condoms would also increase.

—Nyanza service provider 08

Another VMMC service provider affirmed this approach:

The best people to champion [the female condom] are at the district level.

—Nyanza service provider 06

- Implement female condom education initiatives. Stakeholders recommended female condom
 refresher trainings among providers and lay counselors. One PMTCT stakeholder suggested the
 preparation of continuing medical education slides to reinforce learning among medical professionals,
 as well as training of peer educators because they know the health care system and the right people to
 with whom to interact.
- Equip counselors with vaginal models so that both the counselor and client would be more confident in discussing use. A service provider at an MCH/HIV integrated facility in Nyanza explained:

We have models for male condom demonstrations that we use when we tell clients how to use the product. With female condoms, we don't. So that brings the question of how we pass the message to clients. At the end of the day, they don't believe in it. If we can have models for female condom demonstrations, it can become easier.

—Nyanza service provider 07

Barrier 4: Difficulty measuring uptake, which is needed to justify supply

Lack of reliable supply at the facility level is another reason that underlies PMTCT and VMMC providers' reluctance to promote female condoms. Several stakeholders were concerned about creating demand for a product that is often unavailable:

We are not comfortable discussing the female condom sometimes. Why? Before, we've created demand and then there were stock-outs. So after you create all the demand and the client needs it, you cannot supply it. And then you have raised all these expectations.

-Nairobi service provider 03

Stakeholders indicated that providers tend to deal with the female condom counseling/supply issue in one of three ways: They 1) skip female condom counseling altogether; 2) counsel about female condoms only

when they are in stock; or 3) adjust the counseling to raising awareness that the product exists, rather than creating expectations of regular access. These solutions sanction limited product availability as the norm. Recognizing this, some stakeholders suggested improving the tracking of female condom consumption to facilitate more consistency in the supply from the national government, as well as in access to female condoms.

Stakeholders reported that public-sector health facilities (in which PMTCT and VMMC services are typically embedded), as well as nonprofit organizations, receive their commodities from the Kenya Medical Supplies Agency. Here, a "pull system" is in place, meaning that the government will supply commodities based on actual consumption. This system tends to set up a stalemate pattern for female condom distribution: Providers are reluctant to counsel about female condoms, so the product sits on shelves. Because consumption is low, the government does not send many supplies to the facilities. This situation makes it difficult to have trend data on consumption that could be used for forecasting.

Another complicating factor for making female condoms consistently available through PMTCT and VMMC programs is that consumption is not systematically tracked at the service delivery outlet level.

The consumption of [female and male] condoms is just like other family planning commodities; it is not disaggregated. We only say, "We've used 10 million condoms in our health facilities." Whether you've used them in the PMTCT setup for family planning or just for STIs, it is not easy to know. We do not have that data. ... The tracking is an area that could be a gap.

—Nairobi multilateral 02

Recommended action: Improve tracking and documentation of consumption/demand to help build adequate supply of female condoms at PMTCT and VMMC sites.

While there is no silver bullet solution to the supply-demand conundrum that affects product integration into PMTCT and VMMC programs, there may be ways to improve tracking and communication with county and central government officials. A few stakeholders noted that when supply is available and counselors promote it, uptake is good.

Women are asking about female condoms through MCH/PMTCT sites. ... We've actually had a few consignments, and each time they land in the facility, they go like hot cakes. The demand is actually existent.

—Nairobi service provider 02

The issue is that this indication of demand does not appear to be communicated effectively to the relevant government officials with decision-making authority around procurement. A field coordinator with a women's HIV/AIDS group emphasized how difficult it is to document demand for advocacy purposes:

What fails us most as community workers is documentation. If you go and tell the government that I have many women who want female condoms, then they will ask me, "How many? Which

age group? What are their names? What is their locality?" If that is not documented, the government will turn you away. We are failing on documentation.

-Nairobi advocacy group 01

One approach for improving documentation would be for PMTCT and VMMC program managers, as well as advocates, to liaise with officials to discuss appropriate ways of documenting female condom consumption and demand—especially in the face of supply shortages. This can serve as a basis of discussion for future investment. Another strategy may be necessary in cases where it is unrealistic or burdensome to add female condom distribution indicators to PMTCT and VMMC data collection systems. One such strategy would be to analyze the consumption and demand forecasting processes for other new and underutilized family planning methods that have been integrated at the facility level successfully. Ultimately, stakeholders felt that systems are in place to receive and distribute female condoms and that the critical issue is to find mechanisms to ensure a sustainable supply.

Government level

Barrier 5: Lack of political will to implement policies

While stakeholders unanimously voiced that existing policies support female condom programming and integration into PMTCT and VMMC services, they pointed to a lack of political will among national government officials to fully implement these policies. Stakeholders believed that this weak commitment stemmed from the high unit cost of the female condom compared to male condoms ("The cost of the female condom is too high"); negative attitudes about the product ("Admittedly there are some biases against female condoms at the top"); and perceived lack of demand ("Nobody wants to use it"). A VMMC service provider described how the government has been a champion for a number of health interventions but not yet for female condoms:

[This] might be due to seeming lack of demand. If there is no demand, the government cannot procure something that would be at their loss. So the vicious circle goes round and round. We need to identify at which level we start—top or bottom?

—Nyanza service provider 05

Recommended action: Advocate with national and county government officials to implement policies and cultivate champions for female condom programming.

Many stakeholders thought that greater leadership from the national government, coupled with commitment from the county level, could galvanize female condom programming.

If we have the government, the Minster of Health, and the county level consistently speaking about female condoms, it cascades down. It's about giving it urgency. I believe it can work. We have not yet had a champion spearheading female condoms.

A VMMC service provider thought the female condom stakeholders could learn from the successful advocacy efforts that helped to catalyze VMMC scale-up in Kenya:

If the system that was used in implementing VMMC in the last five years could be used in implementing female condoms...that would be great. [For example], there must be a strong lobby from the implementing partners and from government. ... Those who lobbied the government went through parliament to adopt VMMC as one of the effective strategies of HIV prevention. The opinion leaders and community gatekeepers must have a good perception of female condoms.

—Nyanza service provider 08

Many stakeholders mentioned that Kenya's former Prime Minister Raila Odinga spoke publicly in favor of VMMC, which made a difference in persuading community leaders and gatekeepers to support scale-up efforts.

In addition to cultivating individual policy and political champions, stakeholders offered several ideas to increase attention on female condom programming and integration into PMTCT and VMMC:

- Host gender forums with a female condom component at the community level to reach women, men, and county officials.
- Advocate for greater female condom integration through technical working groups and papers, since many PMTCT and VMMC service provision organizations have linkages to these groups.
- Leverage quarterly meetings between civil society constituencies and the National AIDS Control Council to increase awareness about female condoms, disseminate information, and advocate for resource mobilization.
- Show the demand for female condoms through public demonstrations ("advocacy festivals"), and organize press conferences to disseminate the message.

Advocacy for female condom integration would be strengthened by increased coordination and communication among interested organizations in Kenya. Data from these interviews suggest that only a handful of groups are currently engaged in female condom advocacy. Stakeholders reported that these organizations often operate in isolation, so there is no clear advocacy agenda. It may be helpful for these groups to link with international organizations that are involved in female condom advocacy, and to receive technical assistance on constituency-building and advocacy strategy development, as well as potential funding support.

Conclusion

PATH's qualitative assessment in Kenya underscores that a supportive policy and systems environment for female condom integration into PMTCT and VMMC programs does not automatically translate into access on the ground. The barriers to integration that were uncovered by this assessment centered on negative attitudes, misinformation, and biases at multiple, interconnected levels: individuals tend not to have high awareness or accurate information about female condoms; health providers at the facility level often are not at ease discussing female condoms with clients, which reinforces low awareness and consumption; and government officials do not champion female condoms like they do other HIV prevention interventions, in part because of perceived lack of interest/demand from consumers. Because female condoms have a higher unit cost than male condoms, this vicious circle weakens the case for decision-makers to invest in female condom procurement and distribution through HIV prevention programs.

These female condom programming challenges are not new and have been previously documented in Kenya and other countries around the world. For example, the Population Council conducted a study on the feasibility and acceptability of female condom inclusion in HIV voluntary counseling and testing (VCT) centers, FP/RH sites, and workplace HIV/AIDS education programs in urban Kenya. It found that women and men in the study were largely unfamiliar with the female condom, some men were not comfortable with the product as a "woman-initiated" device, peer educators had persistent gaps in knowledge even after training, and ineffective logistics systems were common.⁵¹ Another study analyzing female condom promotion in VCT centers reported negative perceptions of the female condom among clients and counselors. VCT counselors said most of the individuals they counseled believed female condoms were "not as good" as male condoms, and the counselors themselves did not seem comfortable handling or discussing the female condom.⁵² Numerous global analyses of female condom programming point to bias and a lack of commitment from national governments and international donors and policymakers as the chief obstacles to acceptability at the individual level.⁵³⁻⁵⁵

These challenges, however, did not diminish stakeholders' optimism around female condoms as a protection option and their prospective role in PMTCT and VMMC programs. Stakeholders appreciated that female condoms give women and couples another option for dual protection. They underscored that many men are resistant to male condom use, so expanding access to female condoms could potentially protect sexual partners who would otherwise go unprotected. They believed that facilities are ready to program female condoms and that PMTCT and VMMC clients and their partners are good target audiences with expressed and latent demand. Stakeholders expressed hope that new female products coming to market might be lower-cost or more acceptable, which would help bolster availability and uptake.

Stakeholders largely felt that female condoms are "an opportunity yet to be tapped" and that the future is bright for their integration into HIV prevention programs. Acting to address the barriers highlighted in this report would help make strides toward greater availability; this could surmount acceptability issues

among individuals and providers and create the demand needed to make the case for national commitment. It is now up to government officials, program implementers, and advocates at the country level to work together to translate these positive perspectives and policies into practice.

Limitations

The qualitative assessment faced some limitations. Due to scheduling conflicts, only one interview with a national government official was conducted, so this perspective is underrepresented. However, because national government officials are charged with developing and executing policy and the policy environment for female condom integration in Kenya is already mostly supportive, this underrepresentation probably does not significantly affect our findings. In addition, no interviews with county-level government officials were conducted. It would be valuable to elicit their perspectives in the future given the ongoing devolution of health budgets and oversight. Finally, it is possible that some stakeholders expressed bias in favor of female condoms, given PATH's work to develop and introduce the Woman's Condom, a new female condom design, as well as to advocate for the entire class of the product. We addressed this potential bias by asking questions in a neutral manner and probing specifically on challenges associated with female condoms.

References

¹ Singh S, Darroch JE. *Adding It Up: Costs and Benefits of Contraceptive Services—Estimates for 2012*. New York: Guttmacher Institute, United Nations Population Fund (UNFPA); 2012. Available at: http://www.guttmacher.org/pubs/AIU-2012-estimates.pdf.

² Joint United Nations Programme on HIV/AIDS (UNAIDS). *Global Report: UNAIDS Report on the Global AIDS Epidemic 2013*. Geneva: UNAIDS; 2013. Available at: http://www.unaids.org/en/resources/publications/2013/name,85053,en.asp.

³ World Health Organization (WHO). *Women and Health: Today's Evidence Tomorrow's Agenda*. Geneva: WHO; 2009. Available at: http://www.who.int/gender/women_health_report/en.

⁴ WHO, UNFPA, International Planned Parenthood Federation, UNAIDS, University of California San Francisco. *Sexual & Reproductive Health and HIV. Linkages: Evidence Review and Recommendations*. Geneva: WHO; 2009. Available at: http://www.unfpa.org/webdav/site/global/shared/documents/publications/2009/linkages_evidence_2009.p df.

⁵ WHO, US Agency for International Development, Family Health International. *Strategic Considerations for Strengthening the Linkages between Family Planning and HIV/AIDS Policies, Programs, and Services*. Geneva: WHO; 2009. Available at: http://www.who.int/reproductivehealth/publications/linkages/fp_hiv/en.

⁶ Darroch JE, Sedgh G, Ball H. *Contraceptive Technologies: Responding to Women's Needs*. New York: Guttmacher Institute; 2011. Available at: http://www.guttmacher.org/pubs/Contraceptive-Technologies.pdf.

⁷ WHO. *Global Health Sector Strategy on HIV/AIDS 2011–2015*. Geneva: WHO; 2011. Available at: http://whqlibdoc.who.int/publications/2011/9789241501651 eng.pdf.

⁸ The US President's Emergency Plan for AIDS Relief (PEPFAR). *Guidance for the Prevention of Sexually Transmitted HIV Infections*. Washington, DC: PEPFAR; 2011. Available at: http://www.pepfar.gov/documents/organization/171303.pdf.

⁹ UNAIDS. *A New Investment Framework for the Global HIV Response*. Geneva: UNAIDS; 2011. Available at: http://icssupport.org/wp-content/uploads/2012/02/3-Investment-Framework-Summary-UNAIDS-Issues-Brief.pdf.

¹⁰ Dowdy DW, Sweat MD, Holtgrave DR. Country-wide distribution of the nitrile female condom (FC2) in Brazil and South Africa: a cost-effectiveness analysis. *AIDS*. 2006; 20(16):2091–2098.

¹¹ Marseille E, Kahn JG, Billinghurst K, Saba J. Cost-effectiveness of the female condom in preventing HIV and STDs in commercial sex workers in rural South Africa. *Social Science & Medicine*. 2001;52(1):135–148.

¹² Holtgrave DR, Maulsby C, Kharfen M, et al. Cost-utility analysis of a female condom promotion program in Washington, DC. *AIDS and Behavior*. 2012;16(5):1115–1120.

- ¹⁴ FSG Social Impact Advisors, Marseille E, Kahn JG. *Smarter Programming of the Female Condom: Increasing its Impact on HIV Prevention in the Developing World*. Boston: FSG; 2008. Available at: http://www.fsg.org/Portals/0/Uploads/Documents/PDF/Female_Condom_Impact.pdf?cpgn=WP%20DL%20-%20Female%20Condom%20Impact.
- ¹⁵ Hoke TH, Feldblum PJ, Van Damme K, et al. Temporal trends in sexually transmitted infection prevalence and condom use following introduction of the female condom to Madagascar sex workers. *International Journal of STD & AIDS*. 2007;18(7):461–466.
- ¹⁶ Latka M, Gollub E, French P, Stein Z. Male-condom and female-condom use among women after counseling in risk-reduction hierarchy for STD prevention. *Sexually Transmitted Diseases*. 2000;27(8):431–437.
- ¹⁷ Barbosa RM, Kalckmann S, Berquó ES. *Acceptability of the Female Condom in Different Social Contexts: Final Research Report*. Brasilia, Brazil: Ministry of Health, Secretariat for Health Policies, National STD and AIDS Coordinating Office; 1999. Available at: http://bvsms.saude.gov.br/bvs/publicacoes/128MinistryHealth.pdf.
- ¹⁸ Artz L, Macaluso M, Brill I, et al. Effectiveness of an intervention promoting the female condom to patients at sexually transmitted disease clinics. *American Journal of Public Health*. 2000;90(2):237–244.
- ¹⁹ Macaluso M, Demand M, Artz L, et al. Female condom use among women at high risk of sexually transmitted disease. *Family Planning Perspectives*. 2000;32(3):138–144.
- ²⁰ Musaba E, Morrison CS, Sunkutu MR, Wong EL. Long-term use of the female condom among couples at high risk of human immunodeficiency virus infection in Zambia. *Sexually Transmitted Diseases*. 1998;25(5):260–264.
- ²¹ Gollub EL, French P, Latka M, Rogers C, Stein Z. Achieving safer sex with choice: studying a woman's sexual risk reduction hierarchy in an STD clinic. *Journal of Women's Health & Gender-Based Medicine*. 2001;10(8):771–783.
- ²² Choi KH, Hoff C, Gregorich SE, Grinstead O, Gomez C, Hussey W. The efficacy of female condom skills training in HIV risk reduction among women: a randomized controlled trial. *American Journal of Public Health*. 2008;98(10):1841–1848.
- ²³ UNAIDS, WHO. *The Female Condom: A Guide for Planning and Programming*. Geneva: UNAIDS, WHO; 2000. Available at: http://data.unaids.org/publications/IRC-pub01/jc301-femcondguide_en.pdf.

¹³ Mvundura M, Nundy N, Kilbourne-Brook M, Coffey PS. Estimating the potential dual health impact and cost effectiveness of the Woman's Condom in selected sub-Saharan African countries. Presented at: International Conference on Family Planning, November 13, 2013; Addis Ababa [poster presentation].

http://www.malecircumcision.org/advocacy/documents/SA MMC women ready.pdf.

²⁴ UNAIDS. *Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive*. Geneva: UNAIDS; 2011. Available at: http://www.unaids.org/en/media/unaids/contentassets/documents/unaidspublication/2011/20110609_jc21 37_global-plan-elimination-hiv-children_en.pdf.

²⁵ Office of the Global AIDS Coordinator (OGAC). *PEPFAR Blueprint: Creating an AIDS-Free Generation*. Washington, DC: OGAC; 2012. Available at: http://www.pepfar.gov/documents/organization/201386.pdf.

²⁶ Wilcher R, Petruney T, Cates W. The role of family planning in elimination of new pediatric HIV infection. *Current Opinion in HIV and AIDS*. 2013;8(5):490–497.

²⁷ WHO, UNICEF. Guidance on Global Scale-Up of the Prevention of Mother-to-Child Transmission of HIV. Towards Universal Access for Women, Infants and Young Children and Eliminating HIV and AIDS Among Children. Geneva: WHO; 2007. Available at: http://www.unicef.org/spanish/aids/files/PMTCT_enWEBNov26.pdf.

²⁸ UNFPA. Preventing HIV and Unintended Pregnancies: Strategic Framework 2011–2015. In Support of the Global Plan Towards the Elimination of New HIV Infections Among Children by 2015 and Keeping Their Mothers Alive. New York: UNFPA; 2012. Available at: http://www.unfpa.org/public/home/publications/pid/10575.

²⁹ Curran K, Njeuhmeli E, Mirelman A, et al. Voluntary medical male circumcision: strategies for meeting the human resource needs of scale-up in Southern and Eastern Africa. *PLOS Medicine*. 2011;8(11): e1001129.

³⁰ Bertrand JT, Njeuhmeli E, Forsythe S, et al. Voluntary medical male circumcision: a qualitative study exploring the challenges of costing demand creation in Eastern and Southern Africa. *PLOS One*. 2011;6(11): e27562.

³¹ Page on voluntary medical male circumcision for HIV prevention. WHO website. Available at: http://www.who.int/hiv/topics/malecircumcision/fact_sheet/en. Accessed June 16, 2014.

³² WHO, UNAIDS, Jhpiego. *Manual for Male Circumcision Under Local Anesthesia*. Geneva: WHO, UNAIDS, Jhpiego; 2009. Available at: http://www.who.int/hiv/pub/malecircumcision/who-mc-local-anaesthesia.pdf.

³³ Arnott J, Kehler J. *Medical Male Circumcision for HIV Prevention: Are Women Ready?* Cape Town: AIDS Legal Network; 2010. Available at:

³⁴ WHO, UNAIDS. *Operational Guidance for Scaling Up Male Circumcision Services for HIV Prevention*. Geneva: WHO, UNAIDS; 2008. Available at: http://www.who.int/hiv/pub/malecircumcision/op_guidance/en.

 $\frac{http://nascop.or.ke/library/pmtct/Guidelines\%\,20 for\%\,20 PMTCT\%\,20 of\%\,20 HIVAIDS\%\,20 in\%\,20 Kenya-1.pdf.$

³⁷ WHO, UNAIDS. *Progress in Male Circumcision Scale-Up: Country Implementation and Research Update*. Geneva: WHO; 2010. Available at: http://www.who.int/hiv/pub/malecircumcision/mc_country_progress/en.

³⁸ Government of Kenya, Ministry of Public Health and Sanitation, National AIDS/STI Control Programme (NASCOP). *Progress Report on Kenya's Voluntary Medical Male Circumcision Programme, 2008-10*. Nairobi: Government of Kenya; 2012. Available at: http://www.malecircumcision.org/country_updates/documents/VMMC_2010_report_final.pdf.

³⁹ NASCOP, Ministry of Health, Kenya. *Kenya AIDS Indicator Survey (KAIS) 2012: Preliminary Report*. Nairobi: Government of Kenya; 2013. Available at: http://www.nacc.or.ke/attachments/article/366/KAIS_Preliminary_Report_2012.pdf.

- ⁴⁰ NASCOP, Ministry of Medical Services, Ministry of Public Health and Sanitation. *PMTCT Curriculum and Implementation Guide*. Nairobi: Government of Kenya; 2010. Available at: http://nascop.or.ke/library/pmtct/PMTCT%20FRONT%20MATTER%20PARTICIPANTS.pdf.
- ⁴¹ Republic of Kenya, Ministry of Public Health and Sanitation. *Kenya National Strategy for Voluntary Medical Male Circumcision*. Nairobi: Government of Kenya; 2009. Available at: http://nascop.or.ke/library/VMMC/VMMC%20Strategy.pdf.
- ⁴² Government of Kenya. *Communication Strategy for Voluntary Medical Male Circumcision in Kenya*. Nairobi: Government of Kenya; no date. Available at: http://www.malecircumcision.org/resources/documents/T11.Communication Strategy% 20for% 20VMM C% 20in% 20Kenya.pdf.
- ⁴³ National AIDS Control Council (NACC). *Kenya National AIDS Strategic Plan 2009/10 –2012/13: Supporting Documents for the Strategic Plan*. Nairobi: NACC; 2009. Available at: http://www.nacc.or.ke/attachments/article/112/CLICK%20HERE%20TO%20DOWNLOAD%20KNASP%20III%20SUPPORTING%20DOCUMENTS.pdf.
- ⁴⁴ Government of Kenya, Ministry of Public Health and Sanitation, and Ministry of Medical Services. *National Reproductive Health and HIV and AIDS Integration Strategy*. Nairobi: Government of Kenya; 2009. Available at: http://pdf.usaid.gov/pdf_docs/PNADX858.pdf.

³⁵ OGAC. PEPFAR's Best Practices for Voluntary Medical Male Circumcision Site Operations. A Service Guide for Site Operations. Washington, DC: OGAC; 2013. Available at: http://www.usaid.gov/sites/default/files/documents/1864/pepfar_best_practice_for_vmmc_site_operations_pdf.

³⁶ Republic of Kenya Ministry of Health (MOH). *Guidelines for Prevention of Mother to Child Transmission (PMTCT) of HIV/AIDS in Kenya*, 4th Edition, 2012. Nairobi: Government of Kenya; 2012. Available at:

⁴⁵ Reproductive Health Interchange database. Available at: http://www.myaccessrh.org. Accessed July 30, 2013.

- ⁴⁸ Government of Kenya, Ministry of Public Health and Sanitation and UNICEF. *Prevention of Mother-to-Child Transmission of HIV (PMTCT) and Paediatric HIV/AIDS Care and Treatment: Joint IATT Technical Review Mission Report.* Nairobi: Government of Kenya; 2010. Available at: http://nascop.or.ke/library/pmtct/JRM% 20report% 20final.pdf.
- ⁴⁹ Pathfinder International. Stre*ngthening Community and Health Systems for Quality PMTCT: Applications in Kenya, Nigeria, South Africa, and Ethiopia.* Watertown. MA: Pathfinder International;
 2013. Available at: http://www.pathfinder.org/publications-tools/pdfs/Strengthening-Systems-for-Quality-PMTCT May172013 FINAL.pdf?x=176&y=21.
- ⁵⁰ Mantell JE, West BS, Sue K, et al. Health care providers: a missing link in understanding acceptability of the female condom. *AIDS Education and Prevention*. 2011;23(1):65–77.
- ⁵¹ Population Council and Liverpool VCT, Care & Treatment. *Female-Initiated Prevention: Integrating Female Condoms into HIV-Risk Reduction Activities in Kenya*. Nairobi: Population Council; 2009. Available at: http://www.popcouncil.org/uploads/pdfs/PGY_FIPMReport.pdf.
- ⁵² Mung'ala L, Kilonzo N, Angala P, Theobald S, Taegtmeyer M. Promoting female condoms in HIV voluntary counselling and testing centres in Kenya. *Reproductive Health Matters*. 2006;14(28):99–103.
- ⁵³ Peters A, Jansen W, and van Driel F. The female condom: the international denial of a strong potential. *Reproductive Health Matters*. 2010;18(35):119–128.
- ⁵⁴ Center for Health and Gender Equity (CHANGE). *Female Condoms and U.S. Foreign Assistance: An Unfinished Imperative for Women's Health.* Washington, DC: CHANGE; 2011. Available at: http://www.genderhealth.org/files/uploads/change/publications/unfinishedimperative.pdf.
- ⁵⁵ Oxfam International, World Population Fund. *Failing Women, Withholding Protection: 15 Lost Years in Making the Female Condom Accessible*. Oxford: Oxfam International; 2008. Oxfam Briefing Paper, No. 115. Available at: https://oxfam.qc.ca/sites/oxfam.qc.ca/files/2008-08-06_Failing%20Women,%20Withholding%20Protection.pdf.

⁴⁶ NACC. *Kenya National AIDS Strategic Plan 2009/10–2012/13. Delivering on Universal Access to Services*. Nairobi: NACC; 2009. Available at: http://www.nacc.or.ke/attachments/article/112/CLICK%20HERE%20TO%20DOWNLOAD%20KNASP%20III%20DOCUMENT.pdf.

⁴⁷ WHO. *World Health Statistics 2013*. Geneva: WHO; 2013. Available at: http://www.who.int/gho/publications/world_health_statistics/2013/en/index.html.