

Chapter 8. Meeting the Sexual and Reproductive Health Needs of Women Living With HIV

Given that most HIV transmission occurs through sexual intercourse, it is critical to include a sexual and reproductive health lens in HIV programming. In fact, several European governments have recently revised their international policies, recognizing that HIV/AIDS is a sexual and reproductive health issue (Germain et al., 2009).

“All women have the right ‘to decide freely and responsibly on the number and spacing of their children and to have access to the information, education and means to enable them to exercise these rights’” (CEDAW, 1979), including those living with HIV (Wilcher and Cates, 2009: 833).

The evidence and interventions in this section focus on the sexual and reproductive health (SRH) of women living with HIV. SRH includes availability and access to services that support healthy sexuality and reproduction such as services and support to help women plan their families, including pre-conception support and/or access to contraception as well as attention to infertility and cervical cancer screening and treatment. [See also *Prevention for Women: Treating Sexually Transmitted Infections and Treatment: Staying Healthy and Reducing Transmission*] Many women living with HIV have an unmet need for contraception, counseling on pregnancy planning, addressing infertility and information about sexuality, among other needs (Church and Lewin, 2010). However, because so many women do not know their HIV status, many of the interventions in this section are appropriate for all women irrespective of serostatus. Full coverage of sexual and reproductive health interventions for all women is beyond the scope of this review.

There Are High Levels of Unintended Pregnancy and Unmet Need, Including Among Women Living with HIV

Globally, an estimated 80 million pregnancies each year are unintended (WHO et al., 2011b). Worldwide more than 215 million women say they would prefer to avoid a pregnancy, but are not using any form of contraception, or they are using traditional methods, which are less effective means of contraception (Singh et al., 2009b). Among these 215 million women with unmet need are women who may not know their HIV status. Countries with high burdens of HIV often also have high levels of unmet need for family planning (Wilcher et al., 2009). A study by the U.S. CDC in Uganda found that unwanted pregnancies may account for almost a quarter of all HIV-positive infants in Uganda (Hladik et al., 2008a).

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HIV Affects Fertility Intentions and These Change Over Time

Women living with HIV can have similar reproductive patterns as women without HIV (Hoffman et al., 2008; Rochat et al., 2006 cited in Reynolds et al., 2008). Studies of women living with HIV suggest that their levels of unintended pregnancies are as high as for all women regardless of HIV status (Hoffman et al., 2008; Rochat et al., 2006 cited in Reynolds et al., 2008). Some women living with HIV want to start or continue having children and others do not, which may affect contraceptive use and other choices related to fertility.

Although many women living with HIV may desire (additional) children, some studies suggest that HIV-positive women may have lower fertility intentions than their HIV-negative counterparts (Hoffman et al., 2008; Taalo et al., 2009; Makumbi et al., 2010). However, this is not universal, and additionally, reported fertility intentions do not always translate to increased contraceptive use or to lower fertility rates (Smee et al., 2011). The impact of HIV on fertility intentions may depend on other factors, for example, number of living children, fertility norms in her community, or fears of stigma against reproduction by individuals living with HIV. Furthermore, “fertility desires change over time, especially in relation to health status and antiretroviral therapy” (King et al., 2011: para 31; Todd et al., 2011b; Chen et al., 2001 cited in Myer et al., 2010), making regular access to contraceptive counseling and methods in integrated services important for women living with HIV. A cross-sectional study with 501 women living with HIV in Uganda found that although ART use was associated with increased fertility desire, it resulted in decreased odds of pregnancy and live birth (Maier et al., 2009). Studies assessing the desire for children by women living with HIV rarely stratify results by time of diagnosis. In addition, women’s choices may change over time irrespective of time elapsed since knowing their positive serostatus. The availability of drugs for prevention of mother-to-child transmission or regimens for long-term treatment may restore childbearing intentions among some HIV-positive women (Myer et al., 2007b; Maier et al., 2009; Cooper et al., 2009), but the evidence base remains mixed (Kaida et al., 2011; Kaida et al., 2010; Andia et al., 2009), and such associations may be contextually dependent.

HIV impacts fertility rates when women do want to conceive. Biologically, women living with HIV have lower rates of conception and higher rates of miscarriage and stillbirth (Linan et al., 2011; Desgrées-Du-Loû et al., 1999; Gray, 1998; Zaba and Gregson, 1998), particularly when viral load is high (Nguyen et al., 2006). However, when a woman does become pregnant, the use of HAART, along with high CD4 counts and/or undetectable or low viral loads provides the greatest likelihood to give birth to an HIV-negative infant. [*See Safe Motherhood and Prevention of Vertical Transmission*]

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Women Need Access to Both Condoms and a Range of Contraceptive Options, as well as Accurate Information on HIV and Contraception

Access to contraception is a key need for women living with HIV as it is for those who are HIV-negative. Because many people still do not know their HIV status, and because negotiating condom use is often not possible, expanding access to contraceptives for all women who need and want them through rights-based, voluntary services is an important component of HIV programming and is cost-effective (Adair, 2009; Halperin et al., 2009a; Bianco et al., 2010). [See *Strengthening the Enabling Environment: Transforming Gender Norms*] “Contraceptive use has also been linked to social and economic benefits for women and their families” (Polis et al., 2011: 125). The impact of an HIV infection and awareness of infection status on fertility intentions, frequency of sexual intercourse, contraceptive use, and fertility is complex, and may also depend on factors such as access to antiretroviral therapy.

However, “limited data are available on the access and uptake of family planning services among women living with HIV at the population level” (WHO et al., 2011b: 149). In Uganda, a recently published survey found significantly greater unmet need for family planning among women living with HIV—75%—compared to those who are not—34% (Jhangri et al., 2011 cited in WHO et al., 2011b). In other countries, unmet need for family planning is lower among women living with HIV than among HIV-negative women (WHO et al., 2011b).

Health services should affirm a woman’s ability to make decisions about when and whether she wants children and forbid coercion in making family planning and reproductive health decisions (Eckman and Hersted, 2006). Numerous studies have found that women are not offered contraceptive choices, but simply told to use condoms or worse yet, as one Chilean woman living with HIV stated: “My doctor told me: “You can’t have sex because you have AIDS or you have to make your husband use condoms” (cited in Marino and Alsina, 2011: 39).

Women with HIV often face challenges in accessing services and in the context of negative attitudes by providers (Hale and Vasquez, 2011). As a woman from the Argentinian Community of Women Living with HIV stated: “I don’t use the hospital or clinic services because every time that I have gone to ask for contraceptive pills, they interrogated me as if I were committing a crime” (Cited in Bianco et al., 2010: 20).

Many women living with HIV do not receive appropriate information from providers about contraceptive options, including dual protection, and lack access to contraceptives including emergency contraception (WHO, 2004a; Todd et al.,

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2011b). Clients should also know that while no method of contraception other than condoms has been proven to protect against STIs including HIV, condoms are not the most effective method to prevent pregnancy (WHO/RHR and CCP, 2007). Therefore dual method use – condoms plus additional contraceptive methods are the most effective in preventing HIV acquisition and transmission as well as preventing unintended pregnancies (Mark et al., 2007). The female condom also offers an important dual protection option for women (Welbourn, 2006). *[See also Prevention for Women and Safe Motherhood and Prevention of Vertical Transmission]* Women living with and without HIV report greater success in negotiating condom use if it is also presented to their partner as contraception *[See Prevention for Women: Male and Female Condom Use]*

It is also critical that providers and women have access to accurate information on the menstrual cycle as well as on side effects of contraceptive methods so that methods are not rejected for invalid reasons. Women living with HIV may be concerned that some methods, such as the IUD, can tear condoms, and may have different or particular concerns about contraceptive side effects (Laher et al., 2010). Little research exists on menstruation and HIV and women living with HIV may have particular concerns about higher HIV transmission during menstruation. (Laher et al., 2010; Royce et al., 1997). ICW, the International Community of Women with HIV/AIDS, has articulated the need for “better training and awareness raising for health workers to reduce the frequency of forced abortion and forced sterilization of HIV-positive women” (ICW, 2008: 2). Recognizing that women living with HIV are at particular risk of coerced sterilization (Nair, 2011; Vivo Positivo and Center for Reproductive Rights, 2010; de Bruyn, 2006a), the International Federation of Gynaecology and Obstetrics (FIGO) has stated that consent to sterilization must not “be made a condition of receipt of any other medical care, such as HIV/AIDS treatment (FIGO, 2011 cited in Arkin, 2011: 36). *[See also Structuring Health Services to Meet Women’s Needs]*

Providers and women globally need to have the up to date information on interactions antiretroviral treatment and contraceptive options for women of reproductive age (Stevens, 2008), as concerns have been raised about interactions between ARVs and contraceptives. Women of reproductive age need HAART regimens tailored to their contraceptive needs as well as guidelines need to be updated and disseminated on a continuing basis, as new emerging evidence becomes available. WHO guidelines are available at: <http://www.who.int/reproductive-health/publications/mec/mec.pdf> (WHO, 2010e).

Does Hormonal Contraceptive Use Increase HIV Acquisition?

Questions regarding hormonal contraceptive use and HIV acquisition have been the subject of research for many years, however, uncertainty remains. Some biological

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and epidemiological studies have suggested that hormonal contraceptive use could influence HIV acquisition, but other studies have not reported this association. No randomized trials of hormonal contraceptive use and HIV acquisition have been completed, and associations between different hormonal contraceptive methods and risk of HIV acquisition have been examined in observational studies. To date, fifteen analyses have been published on fourteen longitudinal datasets to examine the relationship between injectable contraception and HIV acquisition. These studies have varied tremendously in methodological quality, size, and other factors. Six published analyses found a significantly increased HIV risk associated with injectable contraception (Ungchusak et al., 1996; Kumwenda et al., 2008b; Wand and Ramjee, 2012; Heffron et al., 2012; Baeten et al., 2007b; and Morrison et al., 2007). Nine published analyses have not found an association between hormonal contraception and HIV acquisition (Morrison et al., 2012; Reid et al., 2010; Feldblum et al., 2010; Myer et al., 2007b; Kiddugavu et al., 2003; Kleinschmidt et al., 2007; Morrison et al., 2007; Kilmarx et al., 1998; Kapiga et al., 1998). Three published analyses of longitudinal data have found no significant relationship between norethisterone enanthate (Net-En) – another injectable progestin in addition to depot medroxyprogesterone acetate (DMPA) – and HIV (Myer et al., 2007b; Kleinschmidt et al., 2007; and Morrison et al., 2012). Two of sixteen prospective studies have found an increased risk of HIV acquisition associated with oral contraceptive use (Plummer et al., 1991 and Baeten et al., 2007b).

In addition to HIV acquisition for women, studies have also been conducted to assess the role of hormonal contraception in the rate of disease progression to AIDS or death, as well as the role of hormonal contraception in the risk of HIV transmission from an HIV-positive woman to an HIV-negative man. The majority of evidence suggests that HIV-positive women can use hormonal contraception without concerns about faster progression of their HIV disease to AIDS or death. Evidence on the effect of hormonal contraception on HIV transmission to men is limited. The only available study that looked directly at new HIV infections in men suggested that injectable contraception increases the risk of female-to-male transmission, while studies assessing the impact of hormonal contraception on proxy measurements of infectivity have been mixed. Specifically, studies on the relationship between hormonal contraception and genital viral shedding have generated inconsistent findings, while studies assessing the impact of hormonal contraception on plasma viral load generally indicate no increase, and further analysis is needed (see WHO, 2012a).

One of the above studies has received a great deal of attention due to its striking results demonstrating increased risk of HIV acquisition among injectable hormonal contraception users. This study promulgated a renewed review and clarification of international guidance on hormonal contraception and thus warrants a deeper look.

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The analysis by Heffron et al. (2011) regarding the role of hormonal contraception and transmission looked at both acquisition and transmission and found an increased risk for both. An observational analysis of 1,314 HIV-negative women in serodiscordant partnerships measuring HIV acquisition and subsequent viral load found an increased risk of HIV acquisition with use of hormonal contraception, particularly injectable progestin methods (Heffron et al., 2011). However, the study was not designed to examine hormonal contraceptives and HIV risk, but rather was a secondary analysis of an HIV prevention trial; contraceptive use and unprotected sex was not randomly assigned and was self-reported (Morrison and Nanda, 2011). Other study limitations included a lack of precision as to when HIV seroconversion occurred and the limited number of HIV seroconversions overall (Yacobsen, 2012). “Some studies suggest that women using progestogen-only injectable contraceptives may be at increased risk of HIV acquisition, other studies do not show this association” (WHO, 2012a). Myer et al. contend that “any true association is likely to be small...In the case of hormonal contraception and HIV infection, it is unclear whether more definitive evidence is likely to emerge from observational epidemiological studies...” (Meyer et al., 2007b: 173). Further, “little evidence is available on the potential relationship between HIV risks and other hormonal contraceptive methods such as implants, vaginal rings, patches or intrauterine devices” (WHO, 2012a: 3) but limited data suggest no increased risk of HIV among copper IUD users (Morrison et al., 2009). A randomized controlled trial is typically the gold standard to assess this type of risk, but randomizing women’s contraceptive choice could entail numerous methodological and ethical challenges.

Experts have proposed several biological mechanisms by which hormonal contraception could theoretically increase HIV risk, but it remains unknown which of these mechanisms, if any, play a role (Shelton, 2011; Morrison, 2012). Experts note that “care should be taken...to avoid inducing unwarranted concern about risks associated with contraceptive use” (Morrison et al., 2009: 280). Although the evidence on the relationship between pregnancy and various HIV-related risks is also mixed, some studies suggest that pregnancy may increase the risk of acquiring and/or transmitting HIV (Mugo et al., 2011; Gray et al., 2005; Reid et al., 2010; Morrison et al., 2007b). In addition, preventing unintended pregnancies with effective contraception is critical to reducing maternal and infant morbidity and mortality, and in reducing perinatal HIV. A modeling study that assumed an increased risk for HIV acquisition showed that if injectables were removed from use without 70%–100% of women switching to an IUD or a combined oral contraceptive, as many as nine additional maternal deaths would occur for every case of HIV avoided (Rodriguez et al., 2012). An analysis of data from Kenya, South Africa and Zimbabwe found that a shift from DMPA to an oral contraceptive or male condom by an individual could result in 600 additional unintended pregnancies; a shift from DMPA to no method could result in an additional 5,400 unintended

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pregnancies per 100 HIV infections averted. “At the macro level, [a] decision to withdraw DMPA from family planning programs in sub-Saharan Africa is not warranted” (Jain, 2012, Para 1). However, no calls have been raised to withdraw DMPA from family planning programs. Injectable contraception is the most commonly used method of hormonal contraception in sub-Saharan Africa and is an effective, easy-to-use method that women can use without the knowledge of their sexual partner, if necessary. The method involves an injection every few months, rather than a daily pill, and is considered easy for providers (Rees, 2012). For women who are HIV-positive and using antiretroviral therapy, injectables also offer a highly effective method of contraception that is not expected to cause adverse drug interactions with antiretroviral medications.

Advice for Women About the Known and Potential Risks and Benefits of Hormonal Contraception Must be Clear

Given the mixed evidence about the role of hormonal contraception and HIV risk, a statement by the International Community of Women Living with HIV/AIDS (ICW) noted that guidance about the potential risk of increased HIV acquisition by women using progestin-only injections for contraception should be “translated into clear, simple language that allows women to make genuinely informed decisions about family planning and HIV risk reduction. This means explaining what is known and unknown based on today’s data” (Mworenko, 2012). Women’s groups have also requested that women and their providers be given a range of contraceptive options with complete information as to potential risks or uncertainty regarding various contraceptive methods and their role in HIV acquisition and/or transmission.

In response to the conflicting evidence about the possible increase in HIV risk due to hormonal contraception, the WHO convened a technical consultation in late January 2012 to review the evidence and released a [technical statement](#) concluding that there should be no restriction on the use of any hormonal contraceptive method for women living with HIV or at high risk of acquiring HIV and noted: “Some studies suggest that women using progestogen-only injectable contraception may be at increased risk of HIV acquisition, other studies do not show this association...Because of the inconclusive nature of the body of evidence on possible increased risk of HIV acquisition, women using progestogen-only injectable contraception should be strongly advised to also always use condoms” (WHO, 2012a: 1). The U.S. Department of Health and Human Services (HHS) noted: “Further research is needed to definitively determine if hormonal contraceptive use is an independent risk factor for acquisition and transmission of HIV” (US HHS, 2011: 135). U.S. Centers for Disease Control and Prevention (CDC) issued guidance for women in the United States on this topic and stated: “...A clarification is added to the recommendation for women at high risk for HIV infection who use progestin-only injectables to acknowledge the inconclusive nature of the body of the evidence

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regarding association between progestin-only injectable use and HIV acquisition. The clarification also notes the importance of condom use and other HIV preventive measures, expansion of the variety of contraceptive methods available (i.e., contraceptive method mix) and the need for further research on these issues” (CDC, 2012: 449). USAID further noted that “All individuals, whether at risk of HIV or living with HIV, should take all possible precautions to prevent the acquisition and transmission of HIV, including correct and consistent condom use” (USAID, 2012), while continuing the commitment to “diversifying contraceptive method choice” (USAID, 2012). Others agree that expanding contraceptive choice is critical by broadening access to a wide range of contraceptive methods available (Rees, 2012; Abdool Karim, 2012; Welbourn, 2012). But it must be noted that many women have difficulty negotiating condom use. [*See Prevention for Women: Male and Female Condom Use and Strengthening the Enabling Environment: Transforming Gender Norms*]

Just as importantly, the mixed evidence on the relationship between progestin-only injectables and HIV acquisition and transmission presents a communications challenge. For women who are HIV-negative, there are challenges to countering the myths in many countries that perpetuate the idea that HIV is acquired from contraceptive programs promoted by the government (Peters et al., 2010b). Without clear explanations of the conflicting nature of the evidence, those myths may be further perpetuated and/or women may stop using hormonal contraception altogether. In addition, for women who are living with HIV, there is a danger that health personnel will discriminate against them, denying them access to effective hormonal contraception. Not providing women with effective contraception exposes them to high risk of pregnancy in addition to HIV and increases overall health risks for women.

Dr. Charles Morrison, long involved in research on this topic, summed up the dilemma: “Active promotion of DMPA in areas with high HIV incidence could be contributing to the HIV epidemic in sub-Saharan Africa, which would be tragic. Conversely, limiting one of the most highly used, effective methods of contraception in sub-Saharan Africa would probably contribute to increased maternal mortality and morbidity and more low birth weight babies and orphans – an equally tragic result. The time to provide a more definitive answer to this crucial public health question is now” (Morrison and Nanda, 2011: 2).

Integrating HIV and Comprehensive Sexual and Reproductive Health Services Can Meet the Needs of Women

Increasing access to family planning for women living with HIV can be achieved both by integrating family planning services and HIV services as well as strengthening existing vertical family planning programs, which will reduce the

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number of unintended pregnancies among the many HIV-positive women who do not know their serostatus (Wilcher and Cates, 2010). Integrating SRH, including provision of contraception, with other HIV services has the potential to increase contraceptive use and reduce unintended pregnancies (Duerr et al., 2005). A recent study in seven African countries shows why integration is important. The study found that within four years of initiating antiretroviral therapy, one-third of the women who initiated ARV therapy experienced a pregnancy. The treatment program did not include any contraceptive counseling or provision of contraceptives. "...[T]he design and operation of most HIV treatment services do not explicitly acknowledge the likelihood or the actual occurrence of pregnancy" (Myer et al., 2010).

ARV treatment programs should be part of a continuum of care that includes contraceptive and other integral health services from the onset (Shelton and Peterson, 2004; Farrell, 2007). Antiretroviral programs have regular contact with women living with HIV over long periods of time and as a result are a particularly important venue for meeting the reproductive health needs of women living with HIV (Myer et al., 2007a). Most clients would rather access contraceptive services at the same sites they receive HIV services (Asiimwe et al., 2005; Farrell and Rajani, 2007). Studies have shown that health care workers can provide counseling on sexuality, family planning, HIV/AIDS, and STIs, if they receive adequate training (IPPF/WHR, 2000). Yet integration is not always advantageous to women, particularly if additional services increase wait times and the quality of care. And many studies found the need to train providers not to discriminate against women living with HIV. [*See Gaps*]

Inclusion of contraceptive care in ARV treatment will take effort; in some cases, women living with HIV are denied information about safer sex because it is believed that they should not be having sex (Esplen, 2007). A growing amount of evidence exists on integrating sexual and reproductive health programs and services with HIV prevention, treatment and care, but more evaluation studies to demonstrate what works for women are needed (Wilcher and Cates, 2009; Spaulding et al., 2009). [*See Structuring Health Services to Meet Women's Needs*] Where HIV and contraceptive services are combined, women report greater use of both services. An analysis of VCT clients in Ethiopia suggests that various levels of service integration may attract different types of clients, including services provided in the same facility, the same room and by the same provider. More atypical family planning clients (younger women and males) were likely to increase use of HIV and SRH services provided in the same room. Facilities where counselors jointly offered HIV and family planning services and served many repeat family planning clients were most likely to serve older, married women who still had significant rates of HIV.

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Integrating VCT with family planning and vice versa is an effective strategy for expanding both services and reaching a wider range of clients (Bradley et al., 2008).

While there have been some successes in integration, including a more favorable policy environment both at the global and national levels, “widespread integration remains an unrealized goal” (Ringheim, 2009: 1). Largely separate funding for family planning and HIV/AIDS may be a key barrier to integrating contraception in HIV/AIDS programs (Petruney et al., 2010). In most countries, family planning and HIV/AIDS programs are run in parallel fashion by separate departments within ministries of health, each of which has its own policies, guidelines, training, monitoring and service delivery structures, with limited coordination (Wilcher and Cates, 2010; Bianco et al., 2011). In instances where programs have been integrated or linked, women have greatly increased access to testing, treatment and other sexual and reproductive health services, including increased condom and contraceptive use. *[See Structuring Services to Meet Women’s Health Needs]*

Sexual Health and Infertility for Women Living with HIV is Often Ignored

Most research on women’s sexual and reproductive health has had the objective of increasing condom use, reducing unintended pregnancies and assessing HIV transmission. “Issues related to other aspects of sexual health, including satisfaction with sexual relationships among women living with HIV infection, have received relatively little attention” (Wilson et al., 2010b: paragraph 1). The sexual health of women is an important component of SRH services, particularly for women living with HIV. Discussions of SRH services for women living with HIV often revolve around controlling fertility and ignore HIV-positive women’s needs for services that include attention to safe and healthy sexuality and a desire for children. Because women living with HIV are more vulnerable to rights abuses, for example forced contraception or coerced sterilization, ensuring that their sexual and reproductive health needs are met is critical (Wilcher and Cates, 2009).

HIV and AIDS can have specific impacts on sexuality. One study in Brazil found that women with HIV experienced a lack of sexual arousal and that men with AIDS, needed more time to ejaculate than they wished (Tubino Scavino and Abdo, 2010). These may become issues that both men and

“My HIV status does not take away my sexuality.”

—Grace Sedio, ICW Representative from Botswana, 2008b

women may want to discuss in reproductive health services. A U.S. study found that women with HIV reported greater sexual problems than did those without HIV (Wilson et al., 2010b). “Very little has been published on sexual dysfunction in women, and even less in the context of HIV infection” (Fakova et al., 2008: 697), although work is forthcoming (Welbourn, 2012). “Most women with HIV are

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sexually active following their diagnosis” (Wilson et al., 2010b: paragraph 1), yet many providers do not acknowledge the sexuality of women living with HIV (Sedio, 2008b; Bianco et al., 2010).

Estimates of infertility range from between 8% in high-income countries (Upton and Dolan, 2011) to 25% of ever-married women in low- and middle-income countries, excluding China (Hardee et al., 2012). Risk factors for infertility include HIV and STIs such as herpes simplex virus type 2 (HSV-2), bacterial vaginosis, syphilis and gonorrhea (Sneeringer and Logan, 2009), as well as chlamydia (Bianco, 2012). Especially in many countries in the Global South, “if a woman cannot produce a living child in a formal union with a man, she will often be told to leave and is isolated and stigmatized in the wider community” (Dhont et al, 2011;). A study of infertile men and women in Botswana found that “fears of sterility overshadow fears of HIV/AIDS...” (Upton and Dolan, 2011: 97).

“Many people have HIV, there are many treatments for HIV, there are educational programs for HIV, but none of that exists for infertility, so that [infertility] seems worse...there is no UN program for infertility treatment here, nobody cares like they do about AIDS...”

—Woman from Botswana, who described herself as struggling with infertility cited in Upton and Dolan, 2011: 101)

“[My husband] will chase me away...if I could not get pregnant”

—HIV-positive pregnant woman on ART in Kenya cited in Awiti Ujiji et al., 2010)

Numerous studies have reported the desire by both men and women living with HIV to have children, with the least risk possible to their sexual partner and their infant (Beyeza-Kashesya et al., 2010; Matthews et al., 2011). Yet, infertility receives insufficient attention in either reproductive health or safe motherhood programming (Hardee et al., 2012; Bianco, 2011) [*See also Safe Motherhood and Preventing Vertical Transmission: Pre-Conception*]

Women Living With HIV Also Need Screening and Treatment for Cervical Cancer

Cervical cancer is preventable and treatable (WHO, 2009c; Hale, 2009), yet in 2010, cervical cancer killed more than 200,000 women globally, of whom 85% live in low- or middle-income countries (Forouzanfar et al., 2011; Jeronimo, 2012). Women living with HIV are at a high risk for developing cervical cancer (Agaba et al., 2009; Chaturvedi et al., 2009; Singh et al., 2009a; Oliveira et al., 2010; Kuhn et al., 2010d; Anastos et al., 2010; Peedicayil et al., 2009; Zhang et al., 2011a; Adjorlolo-Johnson et al., 2010; Coelho Lima et al., 2009; Holmes et al., 2009; Kiatiyosnusorn et al., 2010) and it has been noted as an “AIDS-defining cancer” (Pantanowitz and Michelow, 2010: 66). Despite the fact that HIV increases the risk of cervical cancer as well as a range of vaginal and cervical infections (Levine, 2002; Cejtin, 2003

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cited in Myer et al., 2007a; Franceschi and Jaffe, 2007; Banura et al., 2008), “coverage of cervical cancer screening in developing countries is on average 19%, compared to 63% in developed countries, and ranges from 1% in Bangladesh to 73% in Brazil (Gakidou et al., 2008: 0863). Cervical cancer screening coverage in sub-Saharan Africa ranges from 2% to 20.2% in urban areas and 0.4% to 14% in rural areas, with only six countries with nationwide screening programs and the remaining countries with only research or pilot programs (Louie et al., 2009).

Much remains unclear when it comes to cervical cancer and HIV. Even in resource-rich settings, experts and guidelines disagree at what intervals to screen women with HIV for cervical cancer. “There is no simple, agreed upon guideline for cervical screening in HIV-positive women” (Pantanowitz and Michelow, 2010: 68). “In South Africa, current guidelines call for screening every ten years but a recent study suggested that screening at longer intervals than one year but shorter intervals than ten years is warranted, as “annual screening may...use scarce screening and colposcopic resources for the diagnosis of transient cervical abnormalities destined to resolve with time” (Omar et al., 2011:93). A study in Thailand concluded that more than two Pap smears per year may be warranted for HIV-positive women (Chalermchockcharoenkit et al., 2011). “Unfortunately, cervical cancer prevention in HIV-infected women is lagging behind even in the highest resource countries” (Franceschi and Ronco, 2010: 2579).

“We are getting HAART, but we still die of cervical cancer.”

—Grace Sedio, ICW Representative from Botswana, 2008b

The impact of antiretroviral therapy on cervical cancer is also unclear (Pantanowitz and Michelow, 2010; Kuhn et al., 2010d; Firnhaber et al., 2010; Massad et al., 2009; Massad et al., 2008; Asheber et al., 2007 cited in Stevens, 2008; de Vuyst et al., 2008; Bernal et al., 2008), but ARV therapy improves immunity and increases lifespan, which increases the length of time during which persistent human papillomavirus (HPV) may develop into cervical cancer. “No recommendations exist for the use of HPV testing for primary screening or triage in HIV-infected women” (Franceschi and Ronco, 2010: 2579). In 2011, PEPFAR committed additional funds to screening and treatment for cervical cancer for women living with HIV, along with the George W. Bush Institute. What works best to detect cervical cancer in women with HIV in places without sophisticated lab equipment is unclear and no test is optimal (Woo et al., 2012; Firnhaber et al., 2012a). PATH is currently testing different cervical cancer screening options for women living with HIV (Jeronimo, 2012) and has recently conducted a feasibility study of an E6 test which can detect a protein expressed only when pre-cancer changes occur. This may significantly reduce the numbers of women who need referral as this test can

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distinguish between HPV that does not yet need treatment and the development of cancerous lesions that do (Schweizer et al., 2010).

Greater Efforts Are Needed to Involve Men in Sexual and Reproductive Health

Further efforts are also needed to educate men in gender-equitable ways about contraception and the general safety of contraceptive methods. At the same time, it is critical for women to have autonomy over their bodies. In many cases, “women traditionally ask their husbands about family planning because if the man finds out that the woman has accessed contraception without consultation, he may conclude that the woman is unfaithful (Imbuki et al., 2010: 112). Some women living with HIV may need to use contraception covertly and this may influence method choice (Wayenze et al., 2011a). A recent review of 63 studies from 1995 to 2008, using experimental or quasi-experimental design found that making services available to couples in villages and homes was among the successful approaches to reducing unintended pregnancy. In addition, using mass media, peer-led, community-based, or instructor-led outreach as well as increased conditional cash transfers, access, quality of care and lower costs for users resulted in prevention of unintended pregnancies (Mwaikambo et al., 2011). However, use of cash transfers to encourage contraceptive use can raise ethical questions related to voluntarism.

Available Guidelines

A number of sexual and reproductive health guidelines are available to health program managers and policymakers. Guidance regarding which contraceptive options are best for women living with HIV is available from WHO, 2010e: http://www.who.int/reproductivehealth/publications/family_planning/9789241563888/en/ (see also the Technical Statement, above). Linkages between SRH and HIV are available at: [SRH & HIV Linkages Resource Pack](#) (2010). A counseling tool is also available at: <http://www.engenderhealth.org/pubs/hiv-aids-sti/srh-hiv-positive-women-girls.php>. Strategic considerations on linking family planning and HIV services can be found at: (PAHO, 2010); Strategic considerations for linking family planning and HIV (WHO et al., 2009) are available at: http://www.fhi.org/en/RH/Pubs/booksReports/FP-HIV_Strategic_Considerations.htm. EngenderHealth also has training guidelines for program managers and health workers to provide comprehensive SRH care for women and girls living with HIV: <http://www.engenderhealth.org/pubs/hiv-aids-sti/index.php>. Recent Global Fund guidelines have called for integration of the sexual and reproductive health needs of HIV-positive women into national AIDS plans, with successful examples of Global Fund proposals (Hardee et al. 2009a).

The following represents recent evidence as to what works in meeting the sexual and reproductive health needs of women living with HIV. [*See also Prevention for Women: Treating Sexually Transmitted Infections*]

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8. What Works—*Meeting the Sexual and Reproductive Health Needs of Women Living With HIV*

1. Promoting family planning counseling and *voluntary* contraceptive use as part of routine HIV services (and vice versa) can increase contraceptive use, including dual method use, thus averting unintended pregnancies and transmission of infection among women living with HIV.
2. A wide range of contraceptive method choices are safe and effective for women living with HIV, including hormonal contraception and IUDs. However, further research is awaited on hormonal contraception and HIV.
3. Providing information and skills-building support to people living with HIV can reduce self-reported unprotected sex.
4. Providing antiretroviral treatment to people living with HIV can increase HIV prevention behaviors, including condom use.

Promising Strategies:

5. Cervical cancer screening and treatment integrated into HIV care can reduce morbidity and mortality in women living with HIV.
6. Promoting condom use for contraception may make condom use more acceptable and easier to negotiate.
7. Early postpartum visits can result in increased condom use, contraceptive use, HIV testing and treatment.

8. Evidence

1. **Promoting family planning counseling and *voluntary* contraceptive use as part of routine HIV services (and vice versa) can increase contraceptive use, including dual method use, thus averting unintended pregnancies and transmission of infection among women living with HIV.** [*See also Structuring Health Services to Meet Women's Needs*]

- A systematic review of studies from 1990 to 2007 that linked sexual and reproductive health and HIV found positive effects for key outcomes, such as HIV incidence, STI incidence, condom use, contraceptive use, and uptake of HIV testing. Studies took place in **Africa, India, UK, Thailand, China and Haiti**. HIV interventions included prevention, education and condoms; testing; PMTCT; clinic care for people living with HIV and other service for HIV. SRH interventions included family planning, maternal/child health care; STIs prevention and management; gender-based violence prevention and management; management of cancer, fistula and menopause.”Overall,

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the majority of studies showed improvements in all outcomes measured. Linking SRH and HIV was considered beneficial” (Kennedy et al., 2010a: para 1). (Gray I) (*condoms, HIV testing, family planning, STIs, Africa, India, UK, Thailand, China and Haiti*)

- A three-armed randomized controlled trial at a VCT clinic in Lusaka, **Zambia** with 251 couples found a threefold higher contraceptive initiation rate where family planning education and offer of contraceptives were available on site rather than by referral to an outside clinic. All couples received a presentation on family planning methods and the advantages of dual method use, along with a free, unlimited supply of condoms. HIV discordant and concordant couples were advised to use condoms with every act of intercourse, with this information given during initial post-test counseling and repeated at each subsequent visit. Trained nurses helped couples overcome barriers to condom use. The control group was referred to the Lusaka Planned Parenthood Association of Zambia for family planning methods, with all fees paid by the research project. Women in the intervention group who desired Norplant or surgical sterilization were referred to University Teaching Hospital, with transport and service fees paid. Self-reported condom use was assessed. Approximately half of the couples eventually wanted to have children. Self-reported condom use remained consistent at between 58 to 63%. Improving access to non-barrier contraceptives among couples already using condoms for HIV prevention increased dual-method use. Within three months of the intervention, 156 out of 169 couples had initiated nonbarrier contraception if family planning was provided on site, but only 27 out of 82 couples initiated nonbarrier contraception if they had to travel to a different facility for contraception. The majority of couples (92%) were HIV discordant (Mark et al., 2007). (Gray II) (*HIV testing, family planning, contraception, condoms, Zambia*)
- A pre-post study from 2004 to 2008 of serodiscordant couples in **Kenya** found that a multiprong family planning intervention lead to high rates of both condom use and use of other contraceptives. Among 213 serodiscordant couples in the intervention group, nonbarrier contraceptive use increased from 31.5% to 64.7% among HIV-positive women and from 28.6% to 46.7% among HIV-negative women. At the intervention site, approximately 90% of sex acts were reported to be protected by condoms. At other Kenyan sites which did not have the intervention, which had a total of 1,216 couples, contraceptive use changes from 15.6% to 22.3% for HIV-positive women and decreased from 13.6% to 12.7% among HIV-negative women. Pregnancy incidence among HIV-positive women in the intervention site, which declined from 21.1 to 11 per 100 woman years was approximately half that at other Kenyan sites during the intervention period which increased from 16.8 to 21.9 women years. The intervention consisted of: training clinical and counseling staff on contraceptive methods with job aids to use with clients; provision of free contraceptive methods; appointment cards; ongoing training for staff; ongoing contraceptive supplies; discussions with couples on contraceptives; involving male partners in discussions on contraception; and discussions of unintended pregnancies (Ngure et al., 2009) *Note: It is possible that the outcome of this study may be due, in part, to the study design.* The authors state: “our clinical trial protocol required discontinuation of the study drug for HIV-1-seropositive women who became pregnant, which may have been an incentive for study staff to focus family planning messages more strongly towards HIV-1-seropositive women.” *While the study design may have been strong regarding the risk of teratogenesis with the study drugs, the need to ensure voluntarism of contraceptive use in studies is paramount and should be*

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included in study protocols and training of providers (Ngure et al., 2009: S94). (Gray IIIa) (*family planning, contraception, Kenya*)

- A study from 1999-2004 in **Haiti** with GHESKIO analyzed 348 HIV-positive mothers. Rapid HIV-testing and syphilis screening were performed on all pregnant women. After testing, all HIV-positive, pregnant women were informed of their status, counseled and referred to an ANC clinic. GHESKIO integrated VCT, STI screening, family planning services and tuberculosis screening and treatment into one central HIV clinic. At 18 months, 73.9% of mothers in the study were also using family planning services compared to 23% of women in the general population using contraceptives. “Although our clinic staff encouraged women to bring in their partners for testing, 86% were unable to do so due to power disparities and/or lack of interest or resistance from partners” (Deschamps et al., 2009: 26). The study also found limited participation due to fear of abandonment, violence and partners’ reaction (Deschamps et al., 2009). (Gray IIIb) (*family planning, treatment, Haiti*)
- A survey in **South Africa** of both 214 HIV-negative and 171 HIV-positive women found that when on-site, no-cost family planning services were made available to HIV-positive women accessing antiretroviral therapy, women were significantly more likely to use contraception. 80% of HAART users as compared to 69% of HIV-negative women reported contraceptive use (Kaida et al, 2010). (Gray IIIb) (*contraception, HAART, South Africa*)
- A cross sectional survey of 484 women who were HIV-positive and attending an HIV clinic in **Uganda**, 45% of whom were receiving HAART, found that women receiving HAART were more than twice as likely to use contraceptive methods and more than three times as likely to use barrier contraceptive methods than were women not receiving HAART. Of those 184 women who were sexually active and receiving HAART, 84% used barrier contraceptive methods, primarily the male condom. Almost 30% used hormonal contraceptive methods, with injections as the most common hormonal methods and 5% were sterilized. Women on HAART reported a high degree of dual contraception: 57% used hormonal contraceptive methods and barrier contraceptive methods. Among sexually active women, contraceptive use was 85%, a much higher contraceptive prevalence rate than in the general female population (23%). Clinic visits for those on HAART is monthly and for those HIV-positive patients not on HAART, every three months. Median HAART use was 15 months (Andia et al., 2009). (Gray IV) (*HAART, contraception, Uganda*)
- A study in 2005 of 227 women attending a hospital based antiretroviral program in **South Africa** found that one-third reported the combined use of a condom and a non-barrier contraceptive at last sexual intercourse. Women initiating ART are also counseled on effective contraception, provided through referral to a nearby primary care clinic. Of 227 women, 86% discussed condom use with their providers and 89% discussed contraceptive use (Myer et al., 2007a). (Gray V) (*condom use, contraception, South Africa*)
- A project in **India** offered provider-initiated family planning services during HIV counseling. In 2011, 2,892 female sex workers were screened for unmet contraceptive needs, of whom, 45% were identified as having an unmet contraceptive need. Of these,

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96% were provided counseling on a range of contraceptive choices and 84% chose condoms, 8% were referred for oral contraceptives; 1% for injectable, 3% for sterilization, and 3% for IUDs (Jadhav et al., 2011). (Abstract) (*contraception, counseling, India*)

2. A wide range of contraceptive method choices are safe and effective for women living with HIV, including hormonal contraception and IUDs. However, further research is awaited on hormonal contraception and HIV. [See Overview for the role of hormonal contraception in HIV acquisition and transmission]

- A study between 2001 and 2009 with 303 HIV-positive women with 1,408 person-years in **Uganda and Zimbabwe** found that hormonal contraceptive use was not associated with more rapid HIV disease progression. Beginning in 2003, HAART was offered to women with CD4 counts of less than 200 or WHO clinical stage 3 or 4. HIV testing, CD4 counts and clinical examinations were conducted every 12 weeks, with estimated infection date usually within a six-week window of actual infection. Of the 202 HIV-positive women, 37% developed AIDS. AIDS incidence was 6.6 per for those using DMPA; 9.3 for those using oral contraceptives and 8.8 per hundred person years for those not using hormonal contraception. No association was found between hormonal contraceptive use during the year before AIDS and HIV progression. No association was found between hormonal contraceptive use at the time HIV infection was acquired and subsequent disease progression. Women were followed from the time HIV was acquired to AIDS, up to nine years. Hormonal contraception was provided and documented. AIDS was defined as two successive CD4 counts under 200 cells or WHO advanced Stage 3 or 4 disease (Morrison et al., 2011). (Gray IIIb) (*contraception, Uganda, Zimbabwe*)
- A multi-country cohort analysis comparing the incidence of HIV disease progression among anti-retroviral therapy-naïve women with and without exposure to hormonal contraception at 13 sites in **Africa and Asia** found that neither implants, injectables or oral contraceptives were associated with disease progression. Between August 2002 and December 2007, the MTCT-Plus programs enrolled 7846 women of whom 4109 (52%) women met the eligibility criteria for this analysis and contributed 5911 person-years of follow-up. At baseline, 3064 (75%) women reported using either no contraception or a non-hormonal method, whereas 823 (20%) reported using implants/injectables and 222 (5%) reported using oral contraceptive pills. The disease progression outcome was met by 944 (29%) women (Stringer et al., 2009). (Gray IIIb) (*contraception, family planning, PMTCT*)
- A study with 13 years of follow-up in **Uganda**, assessing the association between hormonal contraceptive use and time from HIV seroconversion to death from 1994 to 2006 with 625 women found that hormonal contraception was not associated with faster progression to death in HIV-positive women (Polis et al., 2010). (Gray IIIb) A further analysis of 285 women in **Uganda** who seroconverted and reported using hormonal contraception before HIV seroconversion found that hormonal contraception before HIV seroconversion was not associated with elevated viral load setpoint. Higher viral load setpoints were associated with more rapid progression to death (Polis et al., 2011). (Gray IIIb) (*contraception, Uganda*)

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- A prospective study with 2,236 women from 7 countries in **Africa** living with HIV with baseline CD4 counts of more than 250 found that hormonal contraception did not accelerate disease progression and was instead associated with a reduced risk of HIV disease progression to death or a CD4 count of under 200 (Heffron et al., 2012b). (Abstract) (*contraception, Africa*)

3. Providing information and skills-building support to people living with HIV can reduce self-reported unprotected sex.

- A meta-analytic review based on electronic databases from 1988 to 2004, with twelve trials in the **United States** that used randomization, statistical analysis and assessment of HIV-related behavioral or biologic outcomes at least three months after the intervention found that interventions for people living with HIV are effective in reducing unprotected sex and acquisition of sexually transmitted diseases. Only one study was with HIV-positive women only. All the interventions provided information with nine interventions providing skill building through live demonstrations, role plays or practice, such as correct use of condoms, coping or interpersonal skills such as communication about safer sex or disclosing serostatus. Interventions were delivered by health care providers, counselors or trained HIV-positive peers. Effective interventions were delivered on a one-to-one basis by providers or counselors with at least ten intervention sessions for at least three months. Reduced rates of unprotected sex were reported at 12 months post-interventions. No studies which met the meta-analytic criteria were found for resource limited settings. “Although it is unclear the extent to which our meta-analytic findings (based on the experience in the US) can be generalized to resource-poor settings and other populations, the lessons learned may provide insights... As antiretroviral therapy programmes are expanded worldwide, effective prevention strategies should be integrated within routine medical care and services provided for PLWH” (Crepaz et al., 2006: 154). (Gray I) (*STIs, condom use, education, sex behavior, United States*)
- A meta-analysis of 14 articles with 3,234 people (the majority in the **United States**) found that sexual risk reduction strategies that included HIV-positive participants; used a randomized controlled design; and measured condom use reduced sexual risk by increasing condom use especially if interventions included skills-building and motivated participants. “Perhaps the most surprising finding of this work is that more than two decades into the epidemic, there have been so few intervention randomized controlled trials that focus on people living with HIV” (Johnson et al., 2006: 28). (Gray I) (*sex behavior, condom use, education, United States*)
- An intervention of four focus group sessions for 180 women in **Zambia** with skills training on HIV prevention and transmission, communication, conflict resolution and sexual negotiation resulted in female participants reporting increased condom use, with 94% of the women reporting using condoms all of the time. Sexual risk behavior was assessed at the start of the project and after 12 months. (Jones et al., 2005). (Gray V) (*education, sex behavior, condom use, Zambia*)
- A review of published research in the **United States** from 1998 to 2008 of “prevention for positives” found a few studies with interventions that increased condom use between HIV-positive people and their sexual partners. In one study, providers were trained to deliver a standardized intervention resulting in a significant decline in unprotected anal

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or vaginal intercourse from 42% to 23% at 12-month follow-up among 767 patients at HIV clinics (Gardner et al., 2008 cited in Gilliam and Straub, 2009). In another study, 15 ninety-minute individually delivered intervention sessions resulted in a significant 36% reduction in the number of unprotected sex acts among 794 patients, 68% male, 52% Black (Healthy Living Project Team, 2007 cited in Gilliam and Straub, 2009). Another randomized controlled study with 233 men and 99 women, 48% high school graduates provided five group sessions, gender and sexual orientation specific on disclosure and reduction in transmission risk behaviors resulted in significant reductions in unprotected vaginal and anal intercourse in the previous three months at six month follow-up (Kalichman et al., 2005 cited in Gilliam and Straub, 2009). A study with HIV-positive women who received four four-hour interactive group sessions and a social network intervention, compared to a health promotion intervention had significantly lower self-reported vaginal intercourse at 12-month follow-up (Wingood et al., 2004 cited in Gilliam and Straub, 2009). Increased frequency of counseling about safe sex in several studies was correlated with having specific written procedures. Addressing provider attitudes and providing training to providers is also critical (Gilliam and Straub, 2009). (Gray V) (*sexual partners, disclosure, condom use, providers, United States*)

4. **Providing antiretroviral treatment to people living with HIV can increase HIV prevention behaviors, including condom use.** [*See Treatment: Staying Healthy and Reducing Transmission*]

Promising Strategies:

5. **Cervical cancer screening and treatment integrated into HIV care reduces morbidity and mortality in women living with HIV.** [*See also Prevention for Young People for a discussion of access to the HPV vaccine for young women*]
 - A randomized trial in **South Africa** conducted with 6,553 women, of whom 956 were HIV positive, found that screening and treatment using HPV DNA testing significantly reduced high grade pre-cancerous cervical lesion cancer (cervical intraepithelial neoplasia grade 2 or higher) by 80% and this reduction was sustained by 36 months among both HIV-positive and HIV-negative women. The benefit of using visual inspection using acetic acid (VIA) only reached statistical significance in HIV-positive women. For every 100 women screened with DNA tested and treatment could prevent 11.9 high grade cervical cancer (CIN+2) in HIV positive women and 3.1 CIN2+ in HIV negative women. With VIA test and treat programs could prevent 7.4 cases in HIV-positive women and 1.1 cases in HIV-negative women. HIV-positive women were evenly distributed between those who had DNA testing, those who had VIA and those in the control. DNA testing and VIA requires less infrastructure and lab equipment than Pap smears. The screen and treat approach eliminates the requirement to confirm a diagnosis of cervical cancer prior to treatment, reducing the need for repeat visits 1 . Complications from cryotherapy were minor and did not differ between women who were HIV-positive and women who were HIV-negative. The control group had their evaluation or treatment delayed for six months. After six months, women received colposcopy and biopsy to determine if higher grade cervical cancer was present (CIN+2) by a physician blinded to the clinical information; a subset underwent additional

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colposcopy and biopsy at 12, 24 and 36 months. Biopsies were processed at Columbia University, NY, USA. There was one serious complication in one HIV-positive participant who needed a blood transfusion. Both HIV-positive and HIV-negative women reported similar symptoms from cryotherapy: vaginal discharge, abdominal pain and bleeding. (Kuhn et al., 2010d) (Gray II) (*cervical cancer, treatment, South Africa*)

- Modeling of a cohort of HIV-positive women in **Cameroon** found, based on data on prevalence, progression and regression of cervical cancer lesions, as well as mortality rates from HIV and cervical cancer, that compared to no HAART and no screening, an additional cervical cancer death would occur for every 47 women put on HAART when indicated but not screened for cervical cancer. Screening for cervical cancer once at HAART initiation would prevent one case of cancer for every 262 women screened. Screening once at age 35 was projected to prevent one cancer death per 202 women screened for cervical cancer. With an estimated 200,000 women in Cameroon who are living with HIV, screening women once at HAART initiation would prevent 763 deaths due to cervical cancer with screening for cervical cancer once at age 35 would prevent 990 deaths. “The ethical and practical complexities of potentially denying care to patients and following women for their lifetime respectively make it unfeasible to conduct a study” rather than modeling the data (Atashili et al., 2011: 5). (Gray IIIb) (*cervical cancer, treatment, HAART, Cameroon*)
- A program for cervical cancer for both HIV-positive and negative women in Lusaka, **Zambia** has screened over 20,000 women in 15 primary care clinics and has linked cervical cancer prevention services with HIV care and treatment services. Due to lack of resources to establish a patient recall system, emphasis was on high population coverage rather than frequency of exams. Cervical cancer using visual inspection with acetic acid (VIA) provided on-the-spot results, which was then linked with same visit cryotherapy. Community randomized trials have documented the safety, acceptability and effectiveness of single visit “see and treat” methodology based on VIA and same visit cryotherapy of eligible lesions (Sankaranarayanan et al., 2009; Goldie et al., 2005; Denny et al., 2005 cited in Mwanahamuntu et al., 2009). Peer educators as health promotion advocates and patient navigators reduced loss to follow-up. Community women were trained on conducting community-based cervical health promotion talk. Women who wanted more information were directed to the cervical cancer prevention clinics. Women who attended cervical cancer prevention clinics who had not been tested for HIV were counseled on HPV and HIV testing. HIV-positive women were escorted to nearby HIV care treatment clinics for further evaluation. To minimize stigma, screening clinics were co-located in government-operated public health clinics near to but not directly within the HIV clinic (Mwanahamuntu et al., 2009). (Gray V) (*cervical cancer, treatment, Zambia*)

6. Promoting condom use for contraception may make condom use more acceptable and easier to negotiate. [*See Prevention for Women: Male and Female Condom Use*]

7. Early postpartum visits can result in increased condom use, contraceptive use, HIV testing and treatment. [*See Safe Motherhood and Prevention of Vertical Transmission: Postpartum*]

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8. Gaps in Programming—Meeting the Sexual and Reproductive Health Needs of Women Living With HIV

1. Additional efforts are needed to provide information and more contraceptive options to women living with HIV (or whose serostatus is unknown) who do not desire to have a child or wish to space the next pregnancy. The 2012 WHO guidelines on hormonal contraceptives and HIV should be widely disseminated to programs and providers.
2. Providers need training on meeting the contraceptive needs of women and couples with HIV, including providing non-directive, informed choice counseling and reducing stigma and discrimination for women living with HIV.
3. Efforts are needed to capitalize on opportunities to integrate family planning and HIV services.
4. Programs must adhere to the longstanding international agreement to voluntarism, informed consent, and ensuring the right of individuals and couples to decide freely and responsibly the number and spacing of their children.
5. Interventions to increase dual protection and dual method use are needed.
6. Women living with HIV need information and access to services for emergency contraception and post-abortion care (PAC) services.
7. Policy guidelines, including in service delivery guidelines, need to specify how family planning should be addressed in HIV prevention, treatment and care.
8. Additional strategies are needed to address the cultural, gender and other contextual barriers that influence the behavior or decisions of people living with HIV to engage in unsafe sex.
9. Further interventions providing disclosure support are needed, particularly for women facing abandonment, violence, or other adverse events.
10. Further interventions are needed to ensure that women, especially women living with HIV, are screened and treated for cervical pre-cancer and cancer.
11. Improved screening technologies to distinguish transient HPV infections from longer duration cancer-inducing infections to improve HPV test-based screening is needed.
12. Interventions are needed to meet the contraceptive needs of different groups of women who are living with HIV, such as sex workers, migrants, young women, etc.
13. Additional programming, including access to antiretroviral therapy, is needed to reduce sexual transmission within stable heterosexual serodiscordant couples.
14. Policies that demonstrate prejudice to women living with HIV—such as those that initiate family planning only on the first day of a woman’s menstrual cycle and

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women with HIV are more likely to have amenorrhea—must be changed.

15. Adolescents who acquired HIV through perinatal transmission need information and treatment services through adolescent-friendly HIV and family planning services.
16. Screening and treating HIV-positive women and their partners for STIs may reduce HIV transmission and will improve health.
17. Services to provide sex workers with access to antiretroviral therapy in the same clinics that provide them with condoms, contraceptives, HIV testing and STI services are needed.
18. Women living with HIV need access to information and services to address infertility.
19. Greater efforts are needed to involve men in sexual and reproductive health.

1. **Additional efforts are needed to provide information and more contraceptive options for women living with HIV (or whose serostatus is unknown) who do not desire to have a child or wish to space the next pregnancy. The 2012 WHO guidelines on hormonal contraceptives and HIV should be widely disseminated to programs and providers.** Studies found that many HIV-positive women had significant numbers of unintended pregnancies and that preferred contraceptive methods were not available.

- Gap noted, for example, in **Kenya** (Kiarie et al., 2012; Imbuki et al., 2010); **South Africa, Brazil, and Kenya** (Todd et al., 2011b); **Kenya, Zambia, Tanzania, Uganda, Rwanda and Namibia** (Johnson, 2011); **South Africa** (Hoffman et al., 2010a; Cooper et al., 2009; Laher et al., 2009a); **Ukraine** (Saxton et al., 2010); **Tanzania** (Nielsen-Bobbit et al., 2011); **Uganda** (King et al., 2011; Wanyenze et al., 2011a; Makumbi et al., 2010; Homsy et al., 2009; Heys et al., 2009; Nakayiwa et al., 2006; Bunnell et al., 2008.); **Nigeria** (Iliyasu et al., 2009); **Kenya and Malawi** (Anand et al., 2009); **Argentina** (Gogna et al., 2009); **India** (Chakrapani et al., 2011a; Suryavanashi et al., 2009); **Botswana** (ICW, 2006); **Côte d'Ivoire** (Desgrées-Du-Loû et al., 2002 cited in de Bruyn, 2003); general (Hoffman et al., 2008; Rochat et al., 2006 cited in Reynolds et al., 2008). **Argentina, Brazil, Chile and Uruguay** (Bianco et al., 2010).

2. **Providers need training on meeting the contraceptive needs of women and couples with HIV, including providing non-directive, informed choice counseling and reducing stigma and discrimination for women living with HIV.** [See also *Strengthening the Enabling Environment: Reducing Stigma and Discrimination*] Studies found that HIV-positive women were required to wait in separate waiting rooms and that because provider bias limited contraceptive options, providers needed additional training on the full range of contraceptive options.

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Other studies showed that providers have inaccurate knowledge concerning HIV and contraception.

- Gap noted, for example, in **Uganda** (King et al., 2011; Asiimwe et al., 2005); **Namibia** (ICW, 2009); **Argentina, Mexico, Poland, Kenya, Lesotho, South Africa and Swaziland** (de Bruyn, 2004 cited in Delvaux and Nöstlinger, 2007); **Zambia** (Mark et al, 2007).

3. Efforts are needed to capitalize on opportunities to integrate family planning and HIV services. Studies found that both men and women wanted greater integration of services and also found high rates of unintended pregnancies among HIV-positive women. In one study, VCT clients report infrequent reproductive health counseling.

- Gap noted, for example, in **South Africa** (Bera et al., 2010; Myer et al., 2010) and **Ethiopia** (Bradley et al., 2010).

4. Programs must adhere to the longstanding international agreement to voluntarism, informed consent, and ensuring the right of individuals and couples to decide freely and responsibly the number and spacing of their children. Studies found that women living with HIV had been sterilized against their will, were pressured by providers to terminate a pregnancy, or were stigmatized for becoming pregnant. Studies also found that provision of antiretroviral therapy was conditional on using certain types of contraception. Litigation is currently being undertaken. A study found that HIV-positive women who accessed contraceptive services were not informed of the benefits of PMTCT programs in reducing vertical transmission.

- Gap noted, for example, in **Dominican Republic and Ethiopia** (IPPF et al., 2011); **Ukraine** (Finnerty et al., 2010); **Mozambique** (Hayford and Agadjanian, 2010); **Uganda** (Beyeza-Kashesya et al., 2009); **Namibia** (Orner et al., 2011b; Nair, 2011; Dumba, 2010; ICW, 2009); **Venezuela** (OSF, 2011); **Brazil** (Oliveira et al., 2007; Nobrega et al., 2007 cited in Oliveira et al., 2007, Knauth et al., 2003); **Chile** (Nair, 2011; Vivo Positivo and Center for Reproductive Rights, 2010); **Ukraine** (Yaremenko et al., 2004); **Argentina, Mexico, Peru, Poland, Botswana, Kenya, Lesotho, Namibia, Nigeria, South Africa and Swaziland** (de Bruyn, 2006a).

5. Interventions to increase dual protection and dual method use are needed. Studies found that couples are reluctant to use condoms in addition to other contraceptive methods because it may symbolize distrust of a partner, particularly among adolescents.

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- Gap noted, for example, in **Kenya** (Church, 2011); **Rwanda** (Elul et al., 2009); **Ghana** (Goparaju et al., 2003); general (Spieler, 2001 cited in Goparaju et al., 2003, Delvaux and Nöstlinger, 2007).

6. Women living with HIV need information and access to services for emergency contraception and post-abortion care (PAC) services. Studies found that women did not have adequate knowledge of emergency contraception, nor access to services for post-abortion care.

- Gap noted, for example, in **South Africa** (Orner et al., 2011a); **Brazil** (Friedman et al., 2011); **Uganda** (Kisakye et al., 2010); **Argentina, Mexico, Peru, Poland, Botswana, Kenya, Lesotho, Namibia, Nigeria, South Africa and Swaziland** (de Bruyn, 2006a); global literature review (de Bruyn, 2003); general (Delvaux and Nöstlinger, 2007); globally (Gutmacher Institute, 2006 cited in Esplen, 2007).

7. Policy guidelines, including service delivery guidelines, need to specify how contraception should be addressed in HIV prevention, treatment and care. Studies found that many guidelines did not explicitly address family planning in VCT and PMTCT guidelines and that providers and policymakers felt they had insufficient knowledge.

- Gap noted, for example, in **Argentina** (Bianco et al., 2010) and **South Africa** (Harries et al., 2007).

8. Additional strategies are needed to address the cultural, gender and other contextual barriers that influence the behavior or decisions of people living with HIV to engage in unsafe sex. [*See also Strengthening the Enabling Environment*] Studies found that factors such as difficulties negotiating condoms, partner refusal, high unemployment, alcohol use, financial dependency, expectations of childbearing, fear of disclosure, etc., influenced protective behavior.

- Gap noted, for example, in **South Africa** (Eisele et al., 2008); **Uganda** (King et al., 2009; Bakeera-Kitaka et al., 2008).

9. Further interventions providing HIV disclosure support are needed, particularly for women facing abandonment, violence, or other adverse events. [*See also Safe Motherhood and Prevention of Vertical Transmission: Testing and Counseling, HIV Testing and Counseling for Women and Strengthening the Enabling Environment: Reducing Stigma and Discrimination*] Studies found many women faced abuse and abandonment upon disclosing their HIV status.

- Gap noted, for example, in **Malawi** (Chinkonde et al., 2009); **South Africa, Malawi, Swaziland, Lesotho and Tanzania** (Greeff et al., 2008).

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10. Further interventions are needed to ensure that women, especially women living with HIV, are screened and treated for cervical pre-cancer and cancer. Studies found that women were not aware of and/or did not receive regular screening and treatment of cervical cancer, despite higher risk of developing cervical cancer.

- Gap noted, for example, in **Argentina** (Bianco et al., 2010); **Botswana** (Dryden-Peterson et al., 2012); **Bahamas** (Dames et al., 2009); **Brazil** (de Andrade et al., 2011); **Nigeria** (Dim et al., 2009); **South Africa** (Wake et al., 2009; Denny et al., 2008; Myer et al., 2007a; Gaym et al., 2007); **United States** (Massad et al., 2008); **Kenya** (Yamada et al., 2008); **Uganda** (Safaeian et al., 2008); **Tanzania** (Kahesa et al., 2008); **France** (Heard et al., 2006); general (Goldie et al., 1999).

11. Improved screening technologies to distinguish transient HPV infections from longer duration cancer-inducing infections to improve HPV test-based screening is needed.

- Gap noted globally (Franceschi and Ronco, 2010).

12. Interventions are needed to meet the contraceptive needs of different groups of women who are living with HIV, such as sex workers, migrants, young women, etc. A recent review of studies using experimental or quasi-experimental design to attribute program exposure to observed changes in fertility or family planning outcomes at the individual or population level, with 63 studies from 1995 to 2008, found that studies did not assess the differential impact of interventions across target audiences.

- Gap noted, for example, in **Namibia** and **Brazil** (Orner et al., 2011b); **Asia, Africa, the Americas, Eurasia and the Middle East** (Mwaikambo et al., 2011).

13. Additional programming, including access to antiretroviral therapy, is needed to reduce sexual transmission within stable heterosexual serodiscordant couples. Despite the majority of infections in some countries attributable to HIV transmissions between stable heterosexual serodiscordant couples, little programming had been directed toward this population.

- Gap noted, for example, in **Swaziland** and **Lesotho** (Hankins and de Zaluondo, 2010).

14. Policies that demonstrate prejudice to women living with HIV—such as those that initiate family planning only on the first day of a woman’s menstrual cycle and women with HIV are more likely to have amenorrhea—must be changed.

- Gap noted globally (Bekker et al., 2011; Torpey et al., 2010a).

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15. Adolescents living with HIV need information and treatment services through adolescent-friendly HIV and family planning services. [*See also Prevention for Young People: Increasing Access to Services*]

- Gap noted globally (Kancheva Landolt et al., 2011).

16. Screening and treating HIV-positive women and their partners for STIs may reduce HIV transmission and will improve health. [*See Prevention for Women: Treating Sexually Transmitted Infections*]

17. Services to provide sex workers with access to antiretroviral therapy in the same clinics that provide them with condoms, contraceptives, HIV testing and STI services are needed. A study found that sex workers, particularly HIV positive sex workers, wanted integrated comprehensive care to meet all their needs if they tested positive for HIV.

- Gap noted in **Mozambique** (Lafort et al., 2010).

18. Women living with HIV need access to information and services to address infertility.

- Gap noted globally (Church and Lewin, 2010).

19. Greater efforts are needed to involve men in sexual and reproductive health.

- Gap noted in **Kenya** (Imbuki et al., 2010) and **Tanzania** (Wayenze et al., 2011a).

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· Every effort has been made to ensure that all citations in this chapter are contained in this list and that this list is accurate. If something is missing or inaccurate, please see www.whatworksforwomen.org for a complete list. If missing or inaccurate there, please contact us.

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