



WHAT WORKS FOR WOMEN AND GIRLS

Evidence for
HIV/AIDS
Interventions

- ▶ Women and girls are uniquely affected by HIV and AIDS.
- ▶ Addressing HIV/AIDS in women and girls requires evidence of successful interventions.

That evidence is in one place ▶ www.whatworksforwomen.org

HIV Treatment for Women and Girls: A Summary of Issues, Interventions, and Evidence

Treatment has transformed HIV and AIDS, but women have particular treatment needs

HIV and AIDS treatment has improved significantly in recent years. However, structural factors, traditional gender norms, and gender differences can jeopardize treatment for both women and men. Certain interventions have been found to work best for women in terms of treatment provision and access, adherence and support, and staying healthy and reducing transmission.

Gender norms can impact treatment provision and access

Antiretroviral therapy (ART) has rendered HIV infection a treatable condition and results in improved quality of life, reduced mortality, and reduced chance of passing the virus on to others, but more effort must be made to ensure treatment is equitably available and accessible to all in medical need. Gender roles and norms affect treatment access and can cause many barriers. Globally, treatment coverage for eligible women is higher (73%) than for men (57%) (UNAIDS, 2013); however, a study in Zimbabwe found that many women felt unable to disclose their serostatus, forcing them to take their antiretroviral medication in secret and without support from their partner, thus affecting adherence. Traditional gender norms can also negatively affect men, who may see HIV as a threat to their manhood. As seen in the Zimbabwe study, men's lack of participation in HIV services, along with multiple partnerships, left women vulnerable to HIV acquisition. Women in this study also reported that their husbands were stealing their medication (Skovdal et al., 2011).

In other situations, fear of stigma and discrimination associated with HIV and AIDS may deter women living with HIV from seeking treatment (Hong et al., 2004). Cost is another major barrier to treatment and may predominantly affect women, due to their limited access to resources. Equity in funding for treatment is crucial, and providing treatment at no cost may substantially increase access.

Women are under-represented in clinical trials (Heidari et al., 2012b), and few studies analyze sex differences in treatment. Women's reproductive health needs must also be considered with regard to treatment, as most women living with HIV are of reproductive age and will need either contraception and/or discussions on how best to safely become pregnant, as well as information about how to reduce the risk of vertical transmission. Women's human rights must be respected in their treatment options. Coercing women to accept contraception in order to access treatment violates women's rights to make their own fertility choices. Similarly, requiring people living with HIV to disclose their serostatus to sexual partners and/or community members in order to receive treatment, care, or support is a human rights violation. Adolescents face additional barriers in treatment access, and youth-friendly services must be accessible.



Women have particular needs for treatment adherence and support

Adults in resource-poor settings have achieved good adherence to antiretroviral therapy, with results similar to those achieved in resource-rich countries; but problems remain. Despite the documented efficacy of ART in both men and women, there may be slight differences in the efficacy of different antiretroviral drugs for men and women. For instance, two recent studies that enrolled significant numbers of women found higher rates of virologic failure and switching of medicines due to toxicity among certain ART regimens (Campbell et al., 2012; Wester et al., 2012). These findings may be due to a combination of factors, including differences in drug metabolism and influences from natural hormones (Clark, 2005). Additionally—and perhaps more importantly—there are multiple social, cultural, economic, and environmental factors that can influence the success of HIV treatment for women. Women may need family support, including redistribution of household responsibilities, to enable them to adhere to treatment. Even if drugs are free or subsidized, women may not be able to afford the time or money required to travel to a clinic. Restrictive diets and side effects can also deter women from adhering to treatment plans. Some medications cause a redistribution of body fat, resulting, for example, in a large belly, a collection of fat at the base of the neck, or a loss of fat from the cheeks. These changes can negatively impact body image. Traditional gender norms mean that men may also face particular challenges in accessing and adhering to HIV treatment, as men’s sense of masculinity may be threatened by “disclosing their HIV status and seeking treatment in fear that they would be perceived as failing sons, husbands, or breadwinners” (Skovdal et al., 2011).

Other factors can contribute to reduced adherence and subsequent treatment failure. A study in Botswana found that nondisclosure of a positive HIV status to a sexual partner was predictive of poor adherence rates (Do et al., 2010). A woman may not disclose her status to her husband for fear of violence. A review for the U.S. Institute of Medicine based on studies between 1998 and 2007 found that “violence or fear of violence from an intimate partner is an impediment (to) or a consequence of HIV testing” (Campbell et al., 2008b: 2). Adolescents living with HIV face additional barriers, including discrimination from schools, health services, and families (Thupayagale-Tshweneagae, 2010). Adolescents also face barriers to accessing a diagnosis, including “vulnerability following parental illness and death, the need to be accompanied by a guardian able to provide consent, and a lack of appropriate health information” (Ferrand et al., 2011).

Improving treatment adherence requires care and support to overcome barriers. Support groups, counseling, and targeted follow-up from nurses or adherence support workers may be beneficial for both women and men (Iweya et al., 2010; Charurat et al., 2010; Braitstein et al., 2012). In countries that have not yet adopted a one-pill-per-day regimen, the use of pill boxes and other low-technology empowerment tools may help improve adherence (Peterson et al., 2007). Mobile phone technologies are also useful for improving adherence (Lester et al., 2010; Kunutsor et al., 2010; Crankshaw et al., 2010). Further research is needed on the best ways to overcome other treatment adherence barriers specific to women, such as fear of disclosure, stigma, violence, and body image issues related to medication side effects, among others.

Critical questions remain regarding treatment for pregnant women in the context of safe motherhood and prevention of vertical transmission

HIV treatment for pregnant women must be integrated with other services, so that women can access healthcare services and, at the same time, be evaluated for the use of ART. In addition, youth-friendly services are needed to address the needs of adolescent girls. Every year, 16 million girls between the ages of 15 and 19 years give birth. Of these, 95 percent give birth in the developing world (WHO, 2012).

The WHO released guidelines in 2013 that represent the current consensus on best international practices for the use of antiretrovirals in pregnant women—related to both the maintenance of the woman’s own health and the prevention of mother-to-child transmission of HIV (WHO, 2013). The new recommendations encourage the initiation of treatment in adults living with HIV when their CD4 cell count falls to 500 cells/mm³ or below. The recommendations also include providing antiretroviral therapy—irrespective of their CD4 count—to all pregnant and breastfeeding women with HIV at least for the duration of the risk of vertical transmission, with consideration of continuing lifelong treatment (sometimes called “Option B+”) (WHO, 2013). A woman’s willingness and ability to adhere to treatment once initiated is critical, and this may be more challenging for patients with higher CD4 counts, such as pregnant women. While it is clear that those who go on ART for their own health should not interrupt treatment (Fauci, 2009a), the risks and benefits of treatment interruption for pregnant women with high CD4 counts who are on highly-active antiretroviral therapy (HAART) purely to prevent perinatal transmission rather than for their own health needs has never been evaluated. The PROMISE (Promoting Maternal-Infant Survival Everywhere) study, funded by the National Institutes of Health, is a multi-national



clinical trial in 18 countries being conducted to answer these questions. Further research is needed, including on the impact that antiretroviral medications have on infants and through breastfeeding.

Treatment alone is not enough

Treatment can substantially increase the ability of those living with HIV to stay healthy. Treatment can be a successful strategy to reduce transmission, but treatment alone is not sufficient. Stigma, for example, can make efforts to reduce transmission difficult for women. Interventions within and outside the health sector—for example, those that transform norms, reduce violence against women, and promote legal rights—also need to be implemented to support safer sexual behavior once someone knows his or her positive serostatus. In a study in Uganda, for instance, “the need to provide for children was a particularly strong motivation for women to avoid disclosure,” (Allen et al., 2011) as men abandoned or abused partners who disclosed or requested condom use.

The HPTN 052 study showed that early initiation of ART (when CD4 counts were between 350 and 550) for the seropositive partner in a discordant relationship resulted in a 96 percent relative risk reduction of HIV transmission to the seronegative sexual partner (Cohen, 2011a). Additionally, higher rates of ART coverage have been linked to declines in HIV transmission rates in provinces of South Africa (Tanser et al., 2013). These studies have led many to recommend the expansion of HIV treatment programs as a way to enhance HIV prevention efforts (sometimes called “treatment as prevention”). However, there are challenges to successfully utilizing this approach for both women and men. For instance, getting all HIV-positive people to know their serostatus in the early stages will be difficult (Overs and Hawkins, 2011). In addition, expanding eligibility of HIV treatment to more HIV-positive individuals may be challenging in settings where just over 60 percent of those already medically eligible are receiving ART (UNAIDS, 2013) and there are ethical concerns around the expansion of HIV treatment to those who are asymptomatic. Some believe this approach may violate the rights of people living with HIV by rolling out treatment based on a public health benefit to reduce transmission, rather than on the individual’s readiness to adhere to ARVs. When to start antiretroviral therapy is the subject of much debate (Lundgren et al., 2013; Franco and Saag, 2013); however, it remains true that HIV treatment can be an incredibly effective tool to reduce HIV morbidity and mortality in women and reduce onward transmission. Continued research is needed on the optimal implementation approaches to achieve these goals.

The following interventions have been successful in improving treatment for women. See www.whatworksforwomen.org for additional promising strategies.

Interventions and Supporting Evidence to Improve Treatment for Women and Girls	
WHAT WORKS	NUMBER OF STUDIES AND COUNTRIES
Provision and Access	
Antiretroviral therapy (ART) has been successfully administered with good adherence, patient retention, and clinical outcomes in resource-poor settings with increased patient survival; results have been similar to those achieved in resource-rich countries.	2 systematic reviews and 9 studies across 45 countries.
Early initiation of antiretroviral therapy results in improved quality of life and reduced mortality.	1 systematic review and 5 studies across 36 countries.
Antiretroviral therapy initiated at CD4 counts between 350 and 550 can result in fewer serious HIV-1-related clinical events or death.	6 studies across 49 countries.
Integration of HIV/AIDS services into primary care increases access to testing and treatment services.	4 studies across 4 countries.
Adherence and Support	
Counseling improves adherence.	1 meta-analysis and 2 studies across 6 countries.
Mobile phone text messages from health providers may improve adherence by providing patient support.	4 studies across 3 countries.
Staying Healthy and Reducing Transmission	
ARV therapy can reduce (but does not eliminate) the risk of HIV transmission and is an additional prevention strategy.	1 systematic review and 3 studies across 15 countries.
Providing antiretroviral treatment to people living with HIV can	1 systematic review and 10 studies across



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increase HIV prevention behaviors, including condom use.	10 countries.
Providing information and skills-building support to people living with HIV can reduce unprotected sex.	2 meta-analyses, 1 review, and 2 studies across 4 countries.
Preventing Vertical Transmission	
Triple ART regimens are efficacious for pregnant women living with HIV to improve the health of the mother when used as treatment.	3 systematic reviews and 4 studies across 26 countries.
Triple ART regimens are efficacious to reduce vertical transmission of HIV when used as prophylaxis (though questions remain about the affect of termination on future drug resistance for both mother and infant).	1 systematic review, 1 meta-analysis, and 15 studies across 26 countries.
Early initiation of HAART in HIV-positive pregnant women results in reduced vertical transmission.	7 studies across 6 countries.
For women who are pregnant and cannot access HAART either for their own health or for prevention of vertical transmission, short-course duo ART reduces the risk of vertical transmission and can reduce nevirapine resistance for both mothers and infants.	5 studies across 5 countries.
Extending an HIV-positive woman's life increases the long-term survival of her infant.	2 studies across 7 countries.
National scale-up of HAART in pregnancy improves maternal and infant outcomes.	5 studies across 5 countries.
Integrating ART into antenatal care, rather than referring women separately for HIV treatment, may reduce time to treatment initiation for pregnant women living with HIV.	6 studies across 5 countries.
Efavirenz may be safe to use for HIV-positive women who become pregnant, with little difference in the incidence of birth defects compared with other treatment options.	1 meta-analysis and 3 studies across 16 countries.

For more information on treatment for women, a detailed description of the methodology, and full references for the citations, see www.whatworksforwomen.org.

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