

Multipurpose Prevention Technologies:

Addressing multiple sexual and reproductive health needs in one product

HIV and maternal mortality, and their frequent intersection, are among the greatest obstacles to women's health and development. Together, they constitute the two leading causes of death among women of reproductive age. New products are urgently needed to address these issues together.

- **Women are disproportionately affected by HIV /AIDS due to biology, gender inequality and cultural norms.** In sub-Saharan Africa — where the epidemic has hit the hardest and its main driver is unprotected heterosexual sex — women carry nearly 60 percent of the HIV burden. Young women in sub-Saharan Africa are twice as likely to be infected with HIV as young men.ⁱ
- **In developing countries, a lack of access to modern contraceptive methods is a major contributor to global maternal deaths,** stemming largely from complications during pregnancy and childbirth. Worldwide, 40 percent of all pregnancies are unintendedⁱⁱ. An estimated 222 million women of reproductive age have an unmet need for contraceptives that would allow them to space their pregnancies, and lead to better health, education and economic outcomes for women and families.ⁱⁱⁱ
- **Overlapping risks:** Women in areas with high rates of HIV often have the greatest unmet need for contraception and family planning, imposing dual risks for women in developing countries.^{iv}

The Promise of MPTs

New products called multipurpose prevention technologies (MPTs) are now being developed to protect women from HIV and unintended pregnancy. Additional types of MPTs in development may prevent HIV along with other sexually transmitted infections, like HSV.

While existing MPTs such as male and female condoms are extremely effective at preventing both HIV and unintended pregnancy, many women cannot negotiate condom use with their partners. MPTs now being developed, including vaginal gels and rings, and new types of barrier devices, could expand women's options with discreet methods they could use on their own.

As is the case with contraceptives, no one MPT product will suit all women. Instead, an array of safe and effective options will be needed to meet women's needs and preferences.

IPM's MPT Ring: Long-acting protection against HIV and pregnancy

Leveraging our experience in developing a long-acting microbicide ring to prevent HIV, IPM is currently developing a 90-day MPT vaginal ring that would protect women from HIV and unintended pregnancy. Currently in preclinical stages, the ring would slowly release the ARV drug dapivirine and the contraceptive hormone levonorgestrel. The ring's long-acting duration may help ensure the product is

There is an urgent need for new, long-acting MPTs that meet women's overlapping sexual and reproductive health risks

used consistently. In addition, because women's perceived risk of HIV is low compared to their perceived risk for pregnancy, combined technologies may also be widely used. IPM is planning to launch a clinical trial of the product in 2015.

Integrated Solutions Make Sense

While still several years away, integrated solutions like MPTs could result in significant health gains for women by addressing their sexual and reproductive health needs comprehensively, which includes reducing the rates of HIV infection as well as maternal and newborn death associated with unintended pregnancies.

MPTs may also help promote increased efficiency in health care delivery, encourage healthy behaviors, minimize clinic visits by addressing related issues in one appointment and reduce the stigma associated with receiving HIV-related services. At the global level, integration could advance progress toward multiple global development goals related to health, poverty and gender equality — and give women and girls a chance to reach their full potential.

Women's sexual and reproductive health needs do not exist in isolation but are an integral part of their overall health. The development of new long-acting, female-initiated MPTs could help give women a powerful new way to protect their health, and in turn, promote healthy families and communities.

Potential benefits of IPM's MPT ring:

- *Female-initiated solution to HIV and unintended pregnancy*
- *Convenient, easy-to-use*
- *Long-acting duration for 3 months could help ensure consistent use*
- *Discreet*

ⁱ UNAIDS. Fact sheet: Adolescents, young people and HIV. 2012. Accessed on 9 May 2013.

http://www.unaids.org/en/media/unaids/contentassets/documents/factsheet/2012/20120417_FS_adolescentsyoungpeoplehiv_en.pdf; UNAIDS. Sub-Saharan Africa – AIDS epidemic facts and figures. 2012. Accessed 9 May 2013.

http://www.unaids.org/en/media/unaids/contentassets/documents/epidemiology/2012/gr2012/2012_FS_regional_ssa_en.pdf

ⁱⁱ Sedgh, G., Singh, S. and Hussain, R. Intended and Unintended Pregnancies Worldwide in 2012 and Recent Trends. *Studies in Family Planning* 2014; 45: 301–314. Accessed on: 17 September 2014. <http://onlinelibrary.wiley.com/doi/10.1111/j.1728-4465.2014.00393.x/pdf>

ⁱⁱⁱ Guttmacher Institute. Adding It Up: Costs and Benefits of Investing in Contraceptive Services June 2012; Accessed on: 9 May 2013. <http://www.guttmacher.org/pubs/FB-Costs-Benefits-Contraceptives.html>; UNFPA. By Choice, Not By Chance. 2012. Accessed on 9 May 2013. http://www.unfpa.org/webdav/site/global/shared/swp/2012/EN_SWOP2012_Report.pdf

^{iv} Cohen S. Hiding in Plain Sight: The Role of Contraception in Preventing HIV. *Guttmacher Policy Review* 2008; 11: 2–5. Accessed on: 15 October 2012. <http://www.guttmacher.org/pubs/gpr/11/1/gpr110102.html>