

how do HIV, STD and unintended pregnancy prevention work together?

why is it important?

HIV is a sexually transmitted disease (STD). HIV, other STDs (such as gonorrhea, syphilis, herpes, chlamydia and trichomoniasis), and unintended pregnancy are all adverse consequences of sexual behavior. If someone is at risk for unintended pregnancy or common STDs, that means they are engaging in an activity that could also put them at risk for HIV. In addition, these STDs may increase the likelihood of HIV acquisition.

STDs are the most frequently reported diseases in the US. Every year in the US, about 12 million new cases of STDs occur; 3 million of them among teenagers.¹

In 1996, for the first time in the US, the number of AIDS deaths decreased. However, new cases continue to occur, and the largest proportionate increase in AIDS incidence in 1996 occurred among men and women who acquired AIDS through heterosexual contact (28% increase for men, 23% for women).²

Over half of the 6.4 million pregnancies in the US in 1988 were unintended (56%). As many of those pregnancies ended in abortion (44%) as in birth (43%).³ In 1996, over half a million young women under age 20 gave birth, and two-thirds of those were unintended.⁴ Unintended pregnancy has great personal and social consequences.

do STDs affect HIV?

Absolutely. First, an HIV- person who has an STD is 2- to 5-times more susceptible to HIV acquisition because the lesions and immune response associated with STDs make it easier for HIV to enter the body. Second, an HIV+ person who has an STD can be more infectious and more easily transmit HIV to an uninfected partner. Third, an HIV+ person may be more likely to acquire other STDs. This "epidemiological synergy" may be responsible for the explosive growth of HIV in some populations.⁵

Many research studies have shown the connection between HIV and STDs. A study in Malawi found that HIV+ men with gonorrhea had concentrations of HIV in their semen eight times higher than HIV+ men who did not have another STD. After treatment for the STD, HIV concentration in semen decreased to levels not significantly different from pre-STD levels. This suggests that STDs increase the infectiousness of HIV, and that detecting and treating STDs in HIV+ persons may help prevent HIV transmission.⁶

Clients at urban STD clinics in Miami, FL who had at least two HIV tests were found to have high rates of HIV and syphilis. Among clients tested twice, 10% acquired syphilis and 4% HIV in the interval. African-Americans accounted for 77% of HIV seroconversions and the rate was highest in women, especially 15-19 year olds. The majority of HIV infections were acquired heterosexually. A total of 18% of all seroconversions were associated with syphilis acquired between two HIV tests.⁷

are STD and HIV prevention connected?

Yes and no. While the epidemics of STD and HIV have grown in parallel, prevention efforts to combat the adverse consequences of sexual behavior have not always worked in tandem. In the US HIV epidemic, heterosexual transmission is an increasing cause of infection, and people of color and younger people are increasingly infected. This is also true of STDs in the Southeast and selected large cities across the US, where syphilis, gonorrhea and HIV epidemics clearly overlap, especially among young African-American women.⁸

HIV prevention efforts may be more effective among certain populations if condom use and HIV are addressed together with STD or pregnancy prevention. Young people are much more likely to know someone who has had an STD or an unintended pregnancy than they are to know someone with HIV. HIV prevention programs, as well as family planning and STD clinics, might create a more effective and realistic message by putting all three together—HIV, STDs and unintended pregnancy—and saying condoms can protect against all three.^{9,10}

Says who?

1. Eng TR, Butler WT, eds. *The Hidden Epidemic: Confronting Sexually Transmitted Diseases*. Washington, DC: National Academy Press; 1997.

2. Centers for Disease Control and Prevention. Update: trends in AIDS incidence—United States, 1996. *Morbidity and Mortality Weekly Report*. 1997;46:861-867.

3. Forrest JD. Epidemiology of unintended pregnancy and contraceptive use. *American Journal of Obstetrics and Gynecology*. 1994;170:1485-1489.

4. Centers for Disease Control and Prevention. State-specific birth rates for teenagers—United States, 1990-1996. *Morbidity and Mortality Weekly Report*. 1997;46:837-842.

5. Wasserheit JN. Epidemiological synergy. Interrelationships between human immunodeficiency virus infection and other sexually transmitted diseases. *Sexually Transmitted Diseases*. 1992;19:61-77.

6. Cohen MS, Hoffman IF, Royce RA, et al. Reduction of concentration of HIV-1 in semen after treatment of urethritis: implications for prevention of sexual transmission of HIV-1. *The Lancet*. 1997;349:1868-1873.

7. Otten MW, Zaidi AA, Peterman TA, et al. High rate of seroconversion among patients attending urban sexually transmitted disease clinics. *AIDS*. 1994;8:549-553.

what's working?

In rural Tanzania, a community-level program focused on improving diagnosis and treatment of STDs as means to prevent HIV infection. The program included training existing health center staff in STD management, ensuring availability of effective antibiotics for STDs, and providing periodic outreach to educate on STDs and increase health care use. Individuals in the intervention communities had lower HIV incidence (by about 40%) compared to persons in non-intervention communities.¹¹

*Project RESPECT was a randomized HIV counseling and testing program conducted at STD clinics in five cities in the US with high HIV seroprevalence. The program evaluated whether interactive counseling is more effective than informational messages in reducing risk behaviors and preventing HIV and other STD transmission. The program found relatively little difference between 4-session and 2-session interactive counseling interventions, but found lower rates of new STDs, including HIV, among those groups compared to groups that only received information. Reported condom use increased across all groups. Project RESPECT demonstrated that brief risk-reduction counseling strategies can be effectively conducted in busy public clinic settings, and that counseling interventions can change STD rates in high-risk populations.*¹²

An HIV prevention program was implemented at an STD clinic in the South Bronx, NY, due to the clinic's access to large numbers of high-risk men and women. The program was designed to have minimal disruption on clinical services while providing culturally-appropriate counseling. Patients had access to either a video on condom use in English or Spanish, or both the video and an interactive group session. Patients were given coupons for free condoms at a pharmacy several blocks from the clinic. Clients who saw the video were more likely to redeem coupons than those who did not, and clients who saw the video and participated in group sessions were even more likely to redeem coupons.¹³

*People of Color Against AIDS Network (POCAAN) in Seattle, WA found that because of the stigma of HIV, prevention educators were not always successful at reaching at-risk populations, especially young African-American and Latino males ages 13-35. In 1990 POCAAN decided to educate about STDs and sexual health since these messages were more acceptable to the target population. The program uses street outreach and presentations in various settings such as juvenile facilities, middle and high schools, ESL classes and drug treatment centers. They offer referral vouchers that ensures clients will be seen at an STD clinic and that it will be free. In addition, POCAAN continually updates and educates its staff about STDs and works hard to integrate STD prevention messages into all its HIV-related activities.*¹⁴

what still needs to be done?

It is time to further integrate STD, HIV and unintended pregnancy efforts, both on a programmatic and a research level. Wherever and whenever feasible, HIV prevention behavior change programs, STD clinics, family planning clinics and primary care facilities need to incorporate all three—HIV, STDs and unintended pregnancy—in their education, testing, counseling and treatment services.¹⁰ Research on HIV, both clinical and behavioral, needs to include the effects of STD and pregnancy.

Although funding for HIV, STDs and family planning have traditionally been separate, government agencies and foundations need to provide funds for improved coordination or integration. Workers in STD, HIV and family planning should be cross-trained. Community Planning Groups should consider STD and unintended pregnancy prevention plans as well in areas where the epidemiology warrants. A comprehensive HIV prevention strategy uses many elements to protect as many people at risk for HIV as possible. As funding for social services grow more scarce, it is important to not pit STDs and unintended pregnancy against HIV in the fight for money, but to adopt new approaches to fight these overlapping epidemics.

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8. St. Louis ME, Wasserheit JN, Gayle HD. Editorial: Janus considers the HIV pandemic—harnessing recent advances to enhance AIDS prevention. *American Journal of Public Health*. 1997;87:10-12.

9. Cates W. Sexually transmitted diseases and family planning. Strange or natural bedfellows, revisited. *Sexually Transmitted Diseases*. 1993;20:174-178.

10. Stein Z. Family planning, sexually transmitted diseases, and the prevention of AIDS—divided we fail? *American Journal of Public Health*. 1996;86:783-784.

11. Grosskurth H, Mosha F, Todd J, et al. Impact of improved treatment of sexually transmitted diseases on HIV infection in rural Tanzania: randomized controlled trial. *The Lancet*. 1995;346:530-536.

12. Kamb ML, Bolan G, Zenilman J, et al. Does HIV/STD prevention counseling work? Results from a multicenter randomized trial. Presented at 12th Meeting of the International Society of Sexually Transmitted Diseases Research, Seville, Spain. 1997. Contact: Mary Kamb (404) 639-2080.

13. O'Donnell LN, San Doval A, Duran R, et al. Video-based sexually transmitted disease patient education: its impact on condom acquisition. *American Journal of Public Health*. 1995;85:817-822 Contact: Lydia O'Donnell, Education Development Center, (617) 969-7100 X2368.

14. US Conference of Mayors. Sexual Health and STDs: an avenue to HIV prevention services. *AIDS Information Exchange*. 1995;12:6-8. Contact: Kevin Harris (206) 322-7061 x233.