

Does HIV Prevention Work?

Can prevention make a difference?

The unequivocal answer is yes. In San Francisco, CA, new HIV infections reached an estimated high of 8,000 in 1982. Ten years later, that dropped to 1,000 new infections a year, and now new infections are estimated at less than 500 a year. The reason for this decline is believed to be a sharp decrease in unprotected anal intercourse as a result of comprehensive community-based HIV prevention programs for gay and bisexual men. [1](#) HIV infections among injection drug users in San Francisco have also remained stable or decreased since late 1980 thanks to a comprehensive program of education and outreach, needle exchange, HIV testing and counseling and drug treatment. [2](#)

Combination prevention efforts addressing multiple levels have turned around HIV epidemics in Uganda and Thailand, and averted an epidemic in Senegal. These countries have effectively used widespread education programs as well as targeted efforts in populations most in need of prevention, such as sex workers and injection drug users. Political, public health, religious and activist leaders can work together to ensure a rapid and comprehensive response to the HIV epidemic. [3](#)

HIV transmission, like many health problems, is the product of factors operating at multiple levels. In addition to personal behavior, relationships with family and friends, community norms, access to health care, and local laws can affect HIV infection rates. For HIV prevention to make the biggest difference, programs are needed that address all levels of risk: individual, dyadic/familial, community, medical and legal.

Individual level

Many prevention programs address the needs of individuals in helping change risky behavior. Project LIGHT, a seven-session HIV prevention intervention, was tested in a randomized, controlled trial in 37 sexually transmitted disease (STD) or primary care clinics involving 3706 people across the US. The intervention focused on attitudes about safer sex, skills building and risk reduction strategies. Compared to participants who attended only a one-hour AIDS education session, clients who participated in the seven-session intervention reported less unprotected sex, increased condom use and were more likely to use condoms consistently over a one-year period. [4](#)

Project RESPECT was a randomized HIV counseling trial 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 STDs. The program found relatively little difference between 4- and 2-session interactive counseling interventions, but found lower rates of new STDs, including HIV, among the interactive counseling groups compared to groups that only received information. Reported condom use increased in all groups,

with significantly greater protection among those in interactive counseling. [5](#)

Dyadic/familial level

Friends, partners and family members often play a great role in influencing behaviors. One program addresses the role of mothers in helping teens delay sexual intercourse. The Keepin' it REAL! Program recruited mothers and young adolescents aged 11-14 for seven 2-hour evening sessions. The sessions promote delay and abstinence of sexual activity through enhancing self-efficacy, decision-making, stress reduction and mother-teen communication. The program was well received and also helped in making positive changes at home. [6](#)

Interventions that promote HIV counseling and testing for both members of a couple can also be important. The California Partner Study provided couples counseling in combination with social support to serodiscordant heterosexual couples where one partner is HIV positive and the other HIV negative. Condom use increased and no new HIV infections were reported among the couples. [7](#) Programs providing HIV testing and counseling for couples have also been effective in Tanzania, Kenya and Trinidad. [8](#)

Community level

Community-level programs can reach large numbers of people and can therefore be cost-effective. The MPowerment Project promoted a norm of safer sex among young gay men through a variety of social, outreach and small group activities designed and run by young men themselves. They found that young men engaging in unsafe sex who were unlikely to attend workshops were more likely to be reached through outreach activities such as dances, movie nights, picnics, gay rap groups, and volleyball games. Rates of unprotected anal intercourse fell from 40% to 31% after the intervention. [9](#)

Recruiting women as community leaders was the basis for an effective HIV prevention program among low-income urban women living in housing developments. Female opinion leaders were trained to lead risk-reduction workshops, provide HIV educational materials and condoms, and conduct HIV education through community events. The women effectively mobilized their residential community through tailored prevention messages and activities. [10](#)

Medical level

Improving diagnosis and treatment of STDs can be a way to prevent HIV infection. In rural Tanzania, a community-level program trained existing health center staff in STD management, ensured availability of effective antibiotics for STDs, and provided periodic outreach to educate about STDs and increase attendance at health clinics. Individuals in the intervention communities had lower HIV incidence (by about 40%) compared to persons in non-intervention communities. [11](#)

In the US, perinatal transmission of HIV has been significantly reduced due to HIV counseling and voluntary testing of pregnant women, combined with treating HIV+ pregnant women with AZT. Clinical trials showed that treating women with AZT during pregnancy and delivery, and treating the infant with

AZT after birth cut rates of perinatal transmission by two-thirds. [12](#) Long term side effects associated with AZT and other drugs used to prevent perinatal transmission have not been determined.

Policy/legal level

HIV infection is closely linked to and often fueled by structural factors such as poverty, discrimination, and lack of power for women. In Harare, Zimbabwe, an agency created employment strategies to help people with AIDS break the chain of poverty and take control of their lives and health. The program applied for loans and grants to form cooperatives to make clothes and run canteens. [13](#) Economic development programs can be effective HIV prevention by providing alternatives to sex work for women and helping families afford healthcare and treatment for HIV+ persons.

Political and legislative factors can also hamper HIV prevention. For example, there is currently a ban on federal funding for needle exchange programs in the US. Connecticut addressed the problem of access to clean needles through a program that cost the state nothing and was highly effective. A partial repeal of needle prescription and drug paraphernalia laws resulted in dramatic reductions in needle sharing, and increases in pharmacy purchase of syringes by IDUs. Needle sharing dropped from 52% before the new laws to 31% after implementation, street purchase fell from 74% to 28%, and pharmacy purchase rose from 19% to 78%. [14](#)

What kinds of programs work best?

A comprehensive HIV prevention strategy addresses multiple levels to protect as many people at risk for HIV as possible. We should learn from and promote the effectiveness of HIV prevention programs already in place, as well as continue to evaluate these programs. We know that HIV prevention works, and what programs work; now we need to put them into practice, fund, sustain and refine them.

Says who?

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