

# we know what works in HIV prevention—why aren't we doing more of it?

## what have we learned?

Fifteen years ago, the first AIDS cases were diagnosed among 5 gay men in Los Angeles, CA. Since then, AIDS has spread to over half a million people in the US and is the leading cause of death for all Americans aged 25-44. Fifteen years have also seen great leaps in understanding how to prevent the spread of HIV. But these fifteen years have not seen the widespread implementation of effective HIV prevention programs in the US. If we know what works, why aren't we doing more of it?

HIV prevention does not have to be perfect to be effective. Epidemiological models have shown that simply cutting rates of risky behavior in half can halt the epidemic. The programs listed below are some of the interventions that have shown signs of success and should be replicated, even without 100% reduction in risk behavior.

# what has shown signs of working?

The majority of the estimated 41,000 annual new HIV infections in the US are occurring among injection drug users (IDUs), their sexual partners, and their offspring.<sup>2</sup> We know what works to prevent the spread of HIV among IDUs: starting HIV prevention efforts when rates of HIV are still low, providing sterile injecting equipment through needle exchange programs and over-the-counter pharmacy sales, conducting community outreach to IDUs, and providing drug treatment on demand.<sup>3</sup>

In Tacoma, WA, where prevention efforts for IDUs began in 1988, the prevalence of HIV among IDUs has remained steady at 3-4%. In New York City, NY, where prevention efforts for IDUs met with early opposition, HIV among IDUs increased from 10% to more than 50% in five years.<sup>3</sup>

Connecticut implemented the ideal HIV prevention program: it 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. Sharing dropped from 52% to 31% after the new laws, pharmacy purchase rose from 19% to 78%, and street purchase fell from 74% to 28%.4

Gay and bisexual men account for a majority of total current HIV infections, and 25% of annual new infections in the US.<sup>2</sup> We know what intervention strategies work for gay and bisexual men: small group counseling and skills training, peer outreach, counseling and testing, hot lines, media programs, and community interventions.

One effective program in several medium-sized towns trained the most popular people in social settings to deliver AIDS risk-reduction messages to friends and acquaintances in gay bars. As a result, fewer gay men practiced unprotected sex.<sup>5</sup> Another successful program promoted a norm for safer sex among young gay men through a variety of social, outreach and small group activities such as dances, picnics, and volleyball games. As a result, rates of unprotected intercourse dropped from 40% to 31%.<sup>6</sup>

One fourth of all new HIV infections in the US occur in young people under the age of 22. We know what works for adolescents: effective sex education programs in schools. Although the popular belief is that teaching kids about sex will lead to promiscuity, in fact, the opposite is true. A comprehensive review of 23 school-based programs found that teens who received specific AIDS education were less likely to engage in sex, and those who did were more likely to have sex less often and use contraception.<sup>7</sup>

Sex education is most effective when it is begun before students have initiated sexual activity. A program in Oakland, CA, used peer educators to teach seventh graders about sexuality and HIV/AIDS. After one year, students in the program were less likely to initiate activities such as deep kissing, genital touching, and sexual intercourse.<sup>8</sup>

Voluntary HIV testing and treatment with AZT for HIV-positive pregnant women reduced the risk of maternal-fetal HIV transmission by two-thirds in clinical trials. Long-term effects on mother and child have yet to be determined.

# Says who?

- 1. Blower SM, McLean AR. Prophylactic vaccines, risk behavior change, and the probability of eradicating HIV in San Francisco. *Science*. 1994;265:1451-1454.
- 2. Holmberg SD. The estimated prevalence and incidence of HIV in 96 large US metropolitan areas. *American Journal of Public Health*. 1996;86:642-654.
- 3. Des Jarlais DC, Hagan H, Friedman SR, et al. Maintaining low HIV seroprevalence in populations of injecting drug users. *Journal of the American Medical Association*. 1995;274:1226-1231. Contact: Don Des Jarlais 212/387-3870 X3808.
- 4. Groseclose SL, Weinstein B, Jones TS, et al. Impact of increased legal access to needles and syringes on practices of injecting-drug users and police officers—Connecticut, 1992-1993. Journal of Acquired Immune Deficiency Syndromes. 1995;10:82-89. Contact: Beth Weinstein 203/509-7800.
- 5. Kelly JA, St. Lawrence JS, Stevenson LY, et al. Community AIDS/HIV risk reduction: the effects of endorsements by popular people in three cities. *American Journal of Public Health*. 1992;82:1483-1489. Contact: Jeff Kelly 414/287-4680.
- 6. Kegeles SM, Hays RB, Coates TJ. The Mpowerment project: a community-level HIV prevention intervention for young gay and bisexual men. *American Journal of Public Health*. 1996;86:1-8. Contact: Susan Kegeles 415/597-9159.





## how is prevention being held back?

The US government still bans the use of federal funds for needle exchange programs, even though six government-sponsored reports have shown that those programs help stop the spread of HIV and do not lead to increased drug use. Similarly, ten states and the District of Columbia still have laws requiring a doctor's prescription to buy a syringe, even though four government-sponsored studies have recommended repealing those laws. Meanwhile, drug treatment centers frequently have long waiting lists, and fewer than 15% of IDUs in the US are in treatment at any given time. In

In recent years, many states have passed laws that restrict sex education. For example, eight states require or recommend teaching that homosexuality is not an acceptable lifestyle, even though gay teens are at highest risk for HIV and most in need of education. Twenty-six states require abstinence instruction, even though a review of abstinence programs showed no proof of effectiveness in delaying the onset of intercourse. Only 14 of the 26 states also require sex education curricula to include information on contraception, sexually transmitted diseases and HIV. 12

Funding for HIV prevention has not always flowed where it is most needed. For example, in California in 1991, gay and bisexual men accounted for 88% of all AIDS cases, yet received only 5% of total state spending on prevention.<sup>13</sup>

Success preventing maternal-fetal transmission has prompted the federal government to recommend universal counseling and voluntary HIV testing to all pregnant women. However, getting tested does not guarantee treatment if a women should test positive. A study of publicly funded HIV test sites found that almost half of all clients had no health insurance, and racial minorities were more likely to be uninsured. <sup>14</sup> Lack of insurance may block many women from preventive services such as prenatal care.

Prevention programs that have been evaluated and shown to be effective are sometimes perceived as too complicated or expensive to work "in the field." Researchers and service providers can collaborate to better understand how to adapt effective programs to different populations, and to determine the cost-effectiveness of programs.

# what can we do?

The federal government needs to repeal the ban on funding for needle exchange programs. State governments need to repeal needle prescription and paraphernalia laws. Federal and state governments need to dramatically increase methadone maintenance programs, as well as drug treatment programs for cocaine and crack.

State governments should pass laws requiring all children to receive explicit and ageappropriate sexuality, drug, and HIV/AIDS education in schools that includes discussions of homosexuality and contraception.

State health departments and their Community Planning groups need to prioritize funding for prevention programs that more accurately reflect the epidemiology of HIV in their communities. Highest priority should be given to programs for populations with the greatest need: IDUs in and out of treatment; gay and bisexual men who are young, substance users, and men of color; female partners of IDUs; and high-risk youth.

The federal government needs to ensure early access to care and treatment for those who test positive. New medications and therapies can be prohibitively expensive for those without health insurance. Recent advances in HIV treatment can dramatically lower the amount of HIV virus during early phases of infection, which may reduce the risk of transmission. In the future, good HIV treatment may be key for HIV prevention.

A comprehensive HIV prevention strategy uses many elements to protect as many people at risk for HIV as possible. Prevention does not have to be perfect to make a difference. We know what works in HIV prevention. We need to apply that knowledge more completely, more fairly, and more consistently.

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- 7. Kirby D, Short L, Collins J, et al. School-based programs to reduce sexual risk behaviors: a review of effectiveness. *Public Health Reports*. 1994;109:339-360.
- 8. Ekstrand ML, Siegel D, Nido V, et al. Peer-led AIDS prevention delays initiation of sexual behaviors among US junior high school students. Presented at 11th International Conference on AIDS, Vancouver, BC. 1996. Contact: Maria Ekstrand 415/597-9160.
- 9. Connor EM, Sperling RS, Gelber R, et al. Reduction of maternal-infant transmission of human immunodeficiency virus type 1 with zidovudine treatment. New England Journal of Medicine. 1994;331:1173-1180.
- 10. Lurie P, Drucker E. An opportunity lost: estimating the number of HIV infections due to the US failure to adopt a national needle exchange policy. Presented at 11th International Conference on AIDS, Vancouver, BC. 1996.
- 11. Wiley J, Samuel M. Prevalence of HIV infection in the USA. *AIDS*. 1989;3(Suppl. 1):71-78.
- 12. Sexuality Education in America: A State-by-State Review. Report prepared by the NARAL Foundation. Washington, DC: 1995.
- 13. Lee PR, Franks P, Haynes-Sanstad K, et al. HIV Prevention in California: HIV Education and Prevention Evaluation. Report prepared for the Office of AIDS, California Department of Health Services, 1993.
- 14. Valdiserri RO, Gerber AR, Dillon BA, et al. Clients without health insurance at publicly funded HIV counseling and testing sites: implications for early intervention. *Public Health Reports.* 1995;110:47-52.

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