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Editorial: Casual Sex and HIV Transmission

Efforts to encourage safer sexual practices have focused on risk reduction, in acknowledgment that not everyone will attempt or succeed in "risk elimination" through mutual monogamy or celibacy. Safer sex methods have included reducing the number of sexual partners, selecting lower risk partners, using condoms, using female-controlled barriers (e.g., female condoms, spermicides), avoiding physical trauma with sex, choosing low-risk activities (e.g., mutual masturbation), and promptly recognizing and treating sexually transmitted diseases.

A destructive feature of the politics of human immunodeficiency virus (HIV) infection and acquired immunodeficiency syndrome (AIDS) is the polarization of viewpoints among HIV prevention advocates. Many persons of good will urge risk elimination through mutual monogamy (assuming an HIV-seronegative, non–drug-using partner) or celibacy, while others advocate risk reduction through more selective choice in sexual relations and the use of barriers. This strategic difference is epitomized by the recurrent debates about school-based sexual education and preventive health services for adolescents. Reliance on "just say no" campaigns is deemed the only moral option by some while being seen as ineffectual—and therefore immoral—by others. The provision of public health services, including condom distribution, is seen as encouraging promiscuity by some and as saving young lives by others. Thus, one of our time's greatest public health battles is fraught with dissension among the combatants in the same army, namely all of us concerned about HIV prevention among our friends, our children, ourselves, and our world neighbors. What can the important studies in this issue of the Journal contribute to HIV prevention strategic debates?

Levin and colleagues' 1988 to 1991 study identified risk factors for HIV seroconversion among 128 young men in the US Army.[1] The study is well designed and thoughtfully interpreted. Among the seroconverters, a 41% prevalence of male-to-male sexual contact was noted, with no such contact reported among their matched control subjects. Among the 70 matched pairs who reported only heterosexual activity, casual sex as evidenced by multiple partners, sex with virtual strangers, or sex with nonsteady partners was strongly associated with HIV seroconversion.

This study is unrelenting in its documentation of casual sex as a dangerous pastime for men in the US Army. Consistent condom use was so rare as to be untestable as a risk-related variable, while condom use per se was associated with seroconversion, most likely as a marker of high risk behavior. Never-married status was almost twice as prevalent among the seroconverters as among control subjects matched for age, military rank, years in service, and race/ethnicity. Conclusions were straightforward: male-to-male sex and casual sex among heterosexual men were the identified risk factors.

Using data from the National AIDS Behavioral Survey, Catania and colleagues studied the HIV risk behaviors of heterosexuals aged 18 through 49, 3728 subjects from 23 cities with high HIV prevalence and 1062 from a national sample.[2] The subjects were interviewed in 1990 or 1991 and again in 1992. In the 1-year interval between the interviews, 7% to 11% reported the onset of high-risk sexual activity, while only 6% to 8% reported having taken risk reduction measures. Ten percent to 13% had ongoing, higher risk at both time points, while 69% to 78% had low risk at both time points. This dynamism in sexual risk activity over a short period of time was notable.

In the study, male gender, high school education compared with college (there were no differences with the "less than high school" education group), and unmarried status were associated with high-risk sexual behavior. Married subjects did not differ by race or ethnicity in risk, although unmarried subjects did. Compared with unmarried Whites, unmarried African Americans reported significantly more risk, and Hispanics showed a nonsignificant trend towards more risk. The modest increase in condom use among some subjects was notable only for sexual contacts with secondary partners and highlights the importance of distinguishing primary from secondary sexual partners in research and educational programs.

Condom use was infrequent in both the Levin et al. and Catania et al. studies. Our society's failure to encourage and even to permit aggressive, widespread marketing of condoms in the national media, particularly television, surely will be judged a public health tragedy by succeeding generations. Cigarettes are abundantly available in vending machines and are openly advertised in sporting events (and thereby indirectly on television) and in the print media. In contrast, condom advertising remains furtive and constrained. Vending machines for condoms remain the exception in the average convenience-store or public access rest room. Rising condom-use statistics are encouraging but still small in magnitude. Highest-risk single males and the smaller group of high-risk females need to be targeted further for the encouragement of condom use.

Both the Levin et al. and Catania et al. studies suggest just how entrenched high-risk sexual activity is among single males. In those segments of society at highest risk for HIV infection, risk reduc-

Editor's Note. See related articles by Levin et al. (p 1500) and Catania et al. (p 1492) in this issue.

tion training may be the most realistic option, although abstinence and mutual monogamy messages are important when suitably targeted. To judge by the many persons who continue low-risk behaviors or who have reduced risky behaviors over time, there is a large segment of the population practicing, or, trying to practice, safer sexual behaviors.

Delay in the onset of sexual activity among sexually uninitiated adolescents is a highly desirable goal. Among sexually active adolescents or young adults, educational messages about condom use, partner reduction, and partner selection are likely to be more relevant than messages of abstinence.[3,4] Both educational approaches should be highlighted while taking into account the population being targeted and community risks and norms.

Both the US Army and National AIDS Behavioral Survey studies suggest that changing human sexual behavior is not easy; novel prevention approaches are needed. The development and testing of female-controlled barrier methods are among the highest priorities in the search for compliments to existing condom technologies.[5,6] Assessment of the impact of sexually transmitted disease control on reducing HIV transmission is a high priority for both industrialized and developing nations.[7,8] For optimal control of sexually transmitted diseases, rapid and cheap diagnostics, low-cost broad-spectrum antibiotics effective in single-dose regimens, and vaccines are needed.[9]

Many doubt whether worldwide HIV control can be achieved without an HIV vaccine, yet the availability of an effective, safe, and affordable HIV vaccine may require decades of sustained scientific effort.[10,11] Creativity in behavioral interventions must be emphasized.[12] Model affordable programs must be developed, replicated, and sustained.[13,14] Drug-abuse and risk reduction among drug users remain among the highest priorities for HIV prevention.[15] Successful prevention programs should include needle exchanges for those unable or unwilling to enter drug treatment programs.[16] The degree of our success in reducing perinatal HIV transmission will depend on the extent to which we succeed in encouraging pregnant women to take HIV tests and, for those women who are HIV seropositive, to choose antiretroviral chemoprophylaxis.[17] Affordable alternatives are needed still for countries that cannot afford current antiretroviral medicines. Optimal health care may reduce the infectiousness of an HIV-infected person, which gives countries added incentive to broaden health services.[18]

The stark statistics in the Levin et al. and Catania et al. papers give us pause. Public health practitioners will need to use a variety of health educational messages for highly diverse populations. While existing education and control measures are being applied, new HIV prevention technologies must be developed and evaluated. The HIV research and control efforts to date have been heavily weighted towards individual counseling, testing, and therapeutics and will not alter substantially the course of the adult HIV pandemic. Although such strategies cannot be expected to have a serious impact on sexual or parenteral transmission,[19] they will be a mainstay of perinatal transmission reduction. Our public health agencies, our foundations, and our research communities should direct research and application toward the primary prevention of HIV.[20] □

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