

Linked Epidemics: Drug Abuse and HIV/AIDS – October 2005

A Research Update from the National Institute on Drug Abuse

Drug abuse is a significant risk factor for HIV/AIDS in the U.S.

- An estimated 1 million people in the U.S. are living with HIV/AIDS; about one-third of these cases are linked directly or indirectly to injection drug use.
- In 2003, more than one quarter (11,326) of the 43,171 AIDS cases reported in the U.S. involved injection drug use.

Some populations are at greater risk.

While anyone can be affected by HIV, some populations are at increased risk due to a number of complex biological, social, and economic factors. For example, while African Americans make up approximately 12 percent of the U.S. population, they accounted for half of the total AIDS cases diagnosed in 2003. Moreover, African-American women accounted for 69 percent of female HIV diagnoses during 2000-2003. In 2001, HIV infection was the leading cause of death for African-American women, aged 25-34, African-American men of all ages, and Hispanic women, aged 35-44. To address these disparities, NIDA is encouraging research to look at the relationship between drug abuse and the incidence/prevalence of HIV/AIDS and AIDS-related morbidity and mortality among these populations. The goal is to identify effective prevention and intervention approaches.

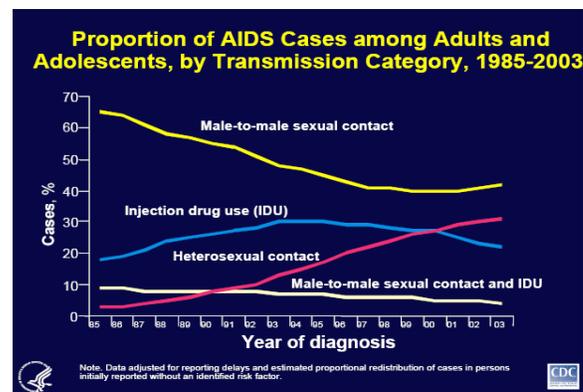
Linkages between drug abuse and HIV/AIDS

Early in the epidemic, it became apparent that the HIV virus was being spread, not only through sexual contact with infected people, but also through the sharing of injection equipment and drug solutions by injection drug users (IDUs). With such a significant number of HIV cases acquired through injection drug use, effective prevention interventions were needed. NIDA's research showed that comprehensive HIV prevention--including drug addiction treatment and community-based outreach, in combination with testing and counseling for HIV and other infections--is an effective approach. Such an approach continues to be important in reducing HIV infection risk and preventing the spread of HIV and other blood-borne infections in drug-abusing populations.

In addition to injection drug use, drug abuse plays other, less recognized, roles in HIV transmission. First, drug intoxication affects users' mental status and judgment, which, in turn, can increase the likelihood that they will engage in high-risk sexual behavior. Further, addiction to drugs, as documented for crack cocaine, can further increase users' exposure to unprotected sex as a means to obtain drugs. Finally, physiological consequences of drug abuse may alter susceptibility to infection and interact with HIV treatment drugs.



Approximately 4 out of 10 U.S. AIDS deaths are related to drug abuse.



Note: Data adjusted for reporting delays and estimated proportional redistribution of cases in persons initially reported without an identified risk factor.

CDC

NIDA-supported HIV/AIDS research

In fiscal year 2004, nearly one-third of NIDA's budget was directed to research related to HIV/AIDS and drug abuse. This significant investment of resources has yielded a number of promising results. For example, recently, two multi-center research teams, supported in part by NIDA, independently determined through mathematical modeling that routine HIV-screening of populations with a prevalence rate as low as 1% can provide important health and survival benefits. The studies also suggest that screening that leads to a diagnosis of HIV infection may further lower health care costs by preventing high-risk practices and decreasing virus transmission. These studies demonstrated that HIV screening is as cost effective as screening for conditions, such as breast cancer and high blood pressure.

Over the years, NIDA's HIV/AIDS research has shown that: (1) addressing co-occurring disorders, such as Hepatitis C, can improve outcomes; (2) effective HIV-prevention interventions can be tailored to high risk populations, and (3) drug abuse treatment is a primary means of preventing HIV/AIDS in drug abusers.

Drug abuse, HIV, Hepatitis C

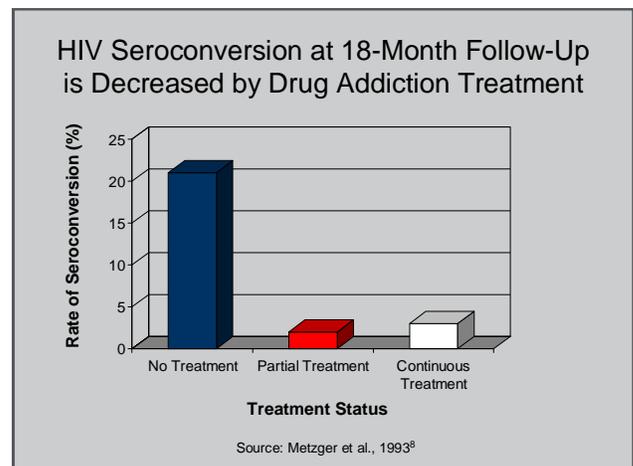
HIV is not the only disease that impacts injection drug users. Another virus, Hepatitis C (HCV), often co-occurs with HIV in IDUs. Approximately 400,000 individuals in the United States are co-infected with HCV and HIV. As many as 85-to-90% of HIV-infected IDUs may also be co-infected with HCV. Chronic HCV and HIV co-infection results in a net increase in the severity of HCV-associated medical consequences, as well as an accelerated progression to end-stage liver disease and death, as compared to individuals with HCV infection alone. HIV infection enhances the risk of severe liver disease, especially among drug addicts co-infected with HCV.

Drug abuse prevention effective for specific populations

NIDA's research has shown that tailoring prevention intervention programs for specific populations can reduce HIV risk behaviors. For example, research shows that school/community-based prevention programs designed for inner-city African American boys can be effective in reducing high-risk behaviors, including drug abuse and risky sexual practices that can lead to HIV infection.

Drug abuse treatment is HIV prevention

NIDA-supported research shows that drug abuse treatment programs can reduce the risk of HIV transmission by promoting abstinence from drug use and reducing HIV-related risk behaviors. For example, the reduction in crack cocaine use after behavioral treatment was accompanied by a significant drop in HIV risk, mainly as a result of fewer sexual partners and less unprotected sex. Similarly, numerous studies show that conventional opioid agonist therapy (i.e., methadone treatment) for IDUs is an effective strategy for decreasing HIV transmission. There is also evidence suggesting that buprenorphine, a new partial opioid agonist, could curb the spread of HIV.



For further information please visit NIDA on the web at www.drugabuse.gov or contact:

Public Information and Liaison Branch
Office of Science Policy and Communications
Phone 301-443-1124/Fax 301-443-7397
information@nida.nih.gov