



Injecting Drug Use Remains a Significant Risk for HIV Infection in the U.S. and Globally

- 17% (5573) of reported cases of new HIV infection in the U.S. in 2003 were attributed to injection drug use and/or sex with an injection drug user. (Based on reports from 41 areas with confidential name-based HIV infection reporting.)
- 23% (10,285) of new AIDS cases reported in the U.S. in 2003 alone were attributed to injection drug use and/or sex with an injection drug user.
- 51% (4813) of U.S. children under age 13 at the time of their HIV diagnosis have mothers who were either injection drug users or reported having had sex with an injection drug user.
- Shared needles accounted for 21% (156,575) of cumulative AIDS cases reported among males in the U.S. through 2003.
- 43% (105,874) of all AIDS cases among black men in the U.S. diagnosed through 2003 reported injection drug use and/or sex with an injection drug user as mode of transmission.
- 53% (85,769) of AIDS cases among women in the U.S. diagnosed through 2003 were attributed to shared needles, or sex with an injection drug user. More than half of these cases occurred among black women.¹
- 10% of all HIV/AIDS cases worldwide are attributed to injecting drug use, specifically, the use of contaminated injection drug equipment.
- Over 5 million people worldwide have been infected with HIV from injecting drug use.
- In Russia, more than 90% of the estimated one million people living with HIV were infected through injection drug use.
- In north-eastern India, HIV infection levels of 60-75% have been found among drug users.
- Two-thirds of HIV infections in Vietnam and in Iran are attributable to injection drug use.²

¹ All domestic figures from: Centers for Disease Control and Prevention. *HIV/AIDS Surveillance Report, 2003* (Vol. 15). Atlanta: U.S. Department of Health and Human Services, CDC 2004.

² All global figures from: *2004 Report on the Global AIDS Epidemic*, UNAIDS. 2004.

Harm Reduction and HIV Prevention

The term “harm reduction” has various meanings, but it generally refers to methods of reducing risks to health, where elimination of risk may not be possible.

In the context of HIV prevention, harm reduction includes syringe exchange programs (SEPs), but it also includes drug addiction treatment, such as methadone maintenance.

Syringe Exchange Programs Reduce HIV Infection

SEPs increase the availability of sterile syringes and other injection equipment, and this decreases the fraction of needles in circulation that are contaminated. This lower fraction of contaminated needles reduces the chance of injection with a contaminated needle and lowers the risk of HIV transmission.

In addition to decreasing HIV infected needles in circulation, most SEPs are part of a comprehensive HIV prevention effort that includes education on risk reduction, HIV testing, referral to drug addiction treatment, and referral to other medical and social services that in turn increase the effectiveness of SEPs.

Research in the U.S. and internationally has shown that SEPs, when implemented as part of a comprehensive HIV/AIDS prevention strategy, are an effective public health approach to reducing the spread of HIV and other blood borne pathogens in the community.

Research has demonstrated that SEPs are associated with reductions in the incidence of HIV, hepatitis B, and hepatitis C in the drug-using population, and, by extension, their families and communities.

Research has furthermore demonstrated that the presence of SEPs does not increase drug use among participants or surrounding community members.

Some examples of the efficacy of SEPs include:

New York City has the nation’s largest population of injecting drug users—an estimated 150,000 to 175,000 people, or twice as many as that of the next largest population. In 1992, SEPs received legal authorization and public funding from New York State to help control the HIV epidemic among IDUs and their partners and families. As a result, the incidence of new HIV infections fell from 4% per year in 1990-1992 to 1% per year in 1999-2002³ and the percentage of drug injectors in the city who were infected with HIV

³ Des Jarlais DC, Perlis T, Arasteh K, *et al.* HIV incidence among injecting drug users in New York City, 1999-2002: Use of STARHS to assess expansion of HIV prevention services. *Am J Public Health*, in press.

fell from 50% to 15%.⁴ This decline in HIV rates corresponds to approximately 30,000 fewer persons infected with HIV in the city.

A review of data from 81 cities across Europe, Asia, and North America with and without SEPs found that, on average, HIV seroprevalence increased by 5.9 percent per year in the 52 cities without SEPs and decreased by 5.8 percent per year in the 29 cities with SEPs. The average annual change in seroprevalence was 11 percent lower in cities with SEPs. In short, in cities with SEPs, HIV prevalence among IDUs decreased on average, but in cities without SEPs, HIV prevalence increased, suggesting that SEPs led to a reduction in HIV incidence among IDUs.⁵

A study commissioned by the Commonwealth Department of Health in Australia showed that by 2000, SEPs prevented 25,000 HIV infections and 21,000 hepatitis C infections, and by 2001, prevented 4,500 AIDS deaths.⁶

Reviews of SEPs by preeminent public health officials, research organizations, and governmental agencies listed below have all concluded that these programs are effective, safe, and cost effective. These include:

- General Accounting Office, G.A. *Needle Exchange Programs: Research Suggests Promise as an AIDS Prevention Strategy.* 1993. US Government Printing Office: Washington DC.
- National Commission on AIDS. *The Twin Epidemics of Substance Use and HIV.* 1991: Washington DC.
- Lurie P and Reingold AL (Eds.) *The public health impact of needle exchange programs in the United States and abroad*, vol. 1. 1993. Centers for Disease Control and Prevention: Atlanta.
- Office of Technology Policy Assessment of the US Congress. *The Effectiveness of AIDS Prevention Efforts.* 1995. US Government Printing Office: Washington DC.
- National Institutes of Health Consensus Panel. *Interventions to prevent HIV risk behaviors.* 1997. NIH: Bethesda MD.
- Satcher D. Surgeon General. *Evidence-based findings on the efficacy of syringe exchange programs: an analysis of the scientific research completed since April 1998.* 2000. US Department of Health and Human Services: Washington DC.

⁴ Des Jarlais DC, Perlis T, Arasteh K, *et al.* “Informed altruism” and “partner restriction” in the reduction of HIV infection in injecting drug users entering detoxification treatment in New York City, 1990-2001. *J AcquirImmune Defic Syndr* 2004,35:158-166.

⁵ Hurley S, Jolly DJ, Kaldor JM. Effectiveness of needle-exchange programmes for prevention of HIV infection. *The Lancet* 1997, 349:1797-1800.

⁶ Drummond M. *Return on Investment in Needle and Syringe Programs in Australia.* 2002. Commonwealth Department of Health and Ageing: Canberra.

- Institute of Medicine, National Academy of Science. *No Time to Lose: Getting More from HIV Prevention*. 2002. National Academy Press: Washington DC.

Drug Addiction Treatment—Methadone Maintenance—Effective in Reducing HIV Infection

Numerous studies, primarily focused on methadone maintenance treatment, have demonstrated that substance abuse treatment programs can have a dramatic effect on HIV transmission among opiate injectors.

Addiction treatment works because it helps IDUs decrease the number of injections or stop injecting altogether. Less drug use leads to fewer drug-use-related risk behaviors and, thus, less exposure to HIV.

Drug treatment/methadone maintenance programs also provide up-to-date information on HIV/AIDS, hepatitis, and other STDs, counseling and testing services for these infections, and referrals to medical and social services.

A study in Philadelphia showed that only 3.5% of methadone patients who had been in treatment continuously for 18 months became infected with HIV, compared to 22% of out-of-treatment IDUs.⁷

Another study showed that at 36 months, 8% of IDUs in treatment had become HIV infected, as compared with 30% of IDUs not in treatment.⁸

Unfortunately, the majority of those needing addiction treatment are not currently in a program, because of the shortage of available treatment slots throughout the country.

Harm Reduction Approaches are Endorsed by Major Medical and Legal Organizations and Public Officials

Harm reduction, including syringe exchange programs, is supported by the American Medical Association, American Pharmaceutical Association, Association of State and Territorial Health Officials, National Association of State and Territorial AIDS Directors, National Association of Boards of Pharmacy, National Academy of Sciences, American Academy of Pediatrics, American Bar Association, and US Conference of Mayors, as well as UNICEF, the World Bank, and International Red Cross-Red Crescent Society.

In March 2000, the U.S. Surgeon General conducted a review of all recent scientific research for the Secretary of HHS, and concluded: “After reviewing all of the research to

⁷ Metzger DS, Woody GE, McLellan AT, et al. Human immunodeficiency virus seroconversion among intravenous drug users in-and out-of-treatment: an 18-month prospective follow-up. *J AcquirImmunDefic Syndr* 1993, 6:1049-1056.

⁸ McLellan AT, Metzger DS, Alterman AI, et al. Evaluating the effectiveness of addiction treatment: Reasonable expectations, appropriate comparisons. *Milbank Quarterly* 1996, 74:51-85.

date, the senior scientists of the Department and I have unanimously agreed that there is conclusive scientific evidence that syringe exchange programs (SEP programs), as part of a comprehensive HIV prevention strategy, are an effective public health intervention that reduces the transmission of HIV and does not encourage the use of illegal drugs.”

Other federal public health officials who have voiced support for local needle exchange programs include former Surgeon General C. Everett Koop and former Health and Human Services Secretary Louis Sullivan.

The District of Columbia’s Chief of Police, Charles Ramsey, who has been tough on illegal drug use, supports the District’s needle exchange program as a way to reduce the spread of HIV.

At the 2002 International AIDS Conference in Barcelona, Dr. Anthony Fauci, Director of the National Institute of Allergy and Infectious Diseases, stated that after examining all the existing scientific data, “From a scientific standpoint...it [needle exchange] does prevent the spread of HIV infection and does not promote drug use.” He also stated that based on the scientific data “we should seriously, definitely implement needle exchange programs.”

New York City Mayor Michael Bloomberg in a March 2003 AIDS Policy speech said he “will continue the practice of exchanging syringes. These programs have been operating in New York City for over ten years. The sky has not fallen. Drug use and drug-related crime have not gone up. In fact, they've gone down. And HIV infections among injection drug users, their spouses and their children have also gone down. A 2002 study by the State Department of Health evaluated 13 syringe exchange programs, nine of which are in New York City, and found that these programs are responsible for at least a 50% reduction, and possibly as much as a 75% reduction in the rate of new infection for injection drug users.”

In a June 9, 2002 column, conservative writer George Will wrote, “Nationwide the current rate of infection has been reduced from 100,000 people a year to 40,000, largely because of safer sex habits and needle exchange programs.”

On October 13, 2004, California Governor Arnold Schwarzenegger signed Senate Bill 1159 enacting a pilot program that authorizes pharmacists to sell or furnish a limited number of sterile needles and syringes without a prescription. The Governor stated: “My Administration supports this measure because it will prevent the spread of HIV, hepatitis, and other blood-borne diseases among injection drug users, their sexual partners, and their children. For these reasons I am signing this bill.”

Harm Reduction is a Well Established Approach in Public Health and Safety

Harm reduction strategies have been used in areas other than HIV and drugs, such as speed limits, seat-belt laws, motorcycle helmet laws, and minimum age of alcohol consumption.

In traffic safety, reduced speed limits and seat-belt laws have reduced the likelihood of crashes and the severity of injuries sustained in those crashes.⁹

Research in the alcohol field has shown that auto crashes and injuries have been reduced by raising the drinking age, reducing the allowable blood alcohol concentration for drivers, and enacting zero tolerance laws for younger drivers.¹⁰

Harm reduction is now the mainstream approach to drug abuse and HIV prevention in many countries of the world, including nearly all in Western Europe.

⁹ Transportation Research Board, National Research Council, Committee for Guidance on Setting and Enforcing Speed Limits. *Managing Speed: Review of Current Practice for Setting and Enforcing Speed Limits*. Special Report #254. 1998. National Academy Press: Washington DC; Reviews of Evidence Regarding Interventions to Increase the Use of Safety Belts. *American Journal of Preventive Medicine* 2001, 21:4S:48-65.

¹⁰ Shults, RA, Elder RW, Sleet DA, et al. Reviews of evidence regarding interventions to reduce alcohol-impaired driving. *American Journal of Preventive Medicine* 2001, 21:66-88; Wagenaar AC, Toomey TL. Effects of minimum drinking age laws: Review and analysis of the literature from 1960 to 2000. *Journal of Studies on Alcohol* 2002, 14(Supplement): 206-225; Jonah B, Mann R, Macdonald S. The effects of lowering legal blood alcohol limits: A review. In *Proceedings of the 15th International Conference on Alcohol, Drugs and Traffic Safety*, Stockholm, Sweden, 2001; Hingson R, Heeren T, Winter M. Lower legal blood alcohol limits for young drivers. *Public Health Reports* 1994, 109:738-744; Wagenaar AC, O'Malley PM, LaFond C. Lowered legal blood alcohol limits for young drivers: Effects on drinking, driving and driving after drinking behaviors in 30 states. *American Journal of Public Health* 2001, 91:801-804.

