

SYRINGE EXCHANGE PROGRAMS

Syringe exchange programs provide a way for those IDUs who continue to inject to safely dispose of used syringes and to obtain sterile syringes at no cost.

Injection drug use is linked to almost one-third of all AIDS cases and one-half of hepatitis C cases. Injection drug users (IDUs) become infected and transmit the viruses to others through sharing contaminated syringes and other drug injection equipment and through high-risk sexual behaviors. Women who become infected with HIV through sharing needles or having sex with an infected IDU can also transmit the virus to their babies before or during birth or through breastfeeding.

To succeed in effectively reducing the transmission of HIV and other blood-borne infections, programs must consider a comprehensive approach to working with IDUs. Such an approach incorporates a range of pragmatic strategies that address both drug use and sexual risk behaviors. One of the most important of these strategies is ensuring that IDUs who cannot or will not stop injecting drugs have access to sterile syringes. (See the related fact sheet "Access to Sterile Syringes.") This strategy supports the "one-time-only use of sterile syringes" recommendation of several institutions and governmental bodies, including the U.S. Public Health Service.¹

What Are Syringe Exchange Programs?

It is estimated that an individual IDU injects about 1,000 times a year.² Even in a moderate-size city, this adds up to millions of injections, creating an enormous need for reliable sources of sterile syringes. Syringe exchange programs provide a way for those IDUs who continue to inject to safely dispose of used syringes and to obtain sterile syringes at no cost. (See the related fact sheets "Syringe Disposal" and "Pharmacy Sales of Sterile Syringes.")

The first organized SEPs in the U.S. were established in the late 1980s in Tacoma, Washington; Portland, Oregon; San Francisco; and New York City. By 1997, there were 113 programs in more than 30 states, the District of Columbia, and Puerto Rico, which exchanged more than 17 million syringes.³

In addition to exchanging syringes, many SEPs provide a range of related prevention and care services that are vital to helping IDUs reduce their risks of acquiring and transmitting blood-borne viruses as well as maintain and improve their overall health. These services may include:

- HIV/AIDS education and counseling;
- condom distribution to prevent sexual transmission of HIV and other sexually transmitted diseases;
- referrals to substance abuse treatment and other medical and social services;
- distribution of alcohol swabs to help prevent abscesses and other bacterial infections;
- on-site HIV testing and counseling and crisis intervention;
- screening for tuberculosis (TB), hepatitis B, hepatitis C, and other infections; and
- primary medical services.

SEPs operate in a variety of settings, including storefronts, vans, sidewalk tables, health clinics, and places where IDUs gather. They vary in their hours of operation, with some open for 2-hour street-based sessions several times a week, and others open continuously. They also vary in the number of syringes allowed for exchange. Many also conduct outreach efforts in the neighborhoods where IDUs live.³

What is the Public Health Impact of SEPs?

SEPs have been shown to be an effective way to link some hard-to-reach IDUs with important public health services, including TB and STD treatment. Through their referrals to substance abuse treatment, SEPs can help IDUs stop using drugs.⁴ Studies also show that SEPs do not encourage drug use among SEP participants or the recruitment of first-time drug users. In addition, a number of studies have shown that IDUs will use sterile syringes if they can obtain them.⁵ SEPs provide IDUs with an opportunity to use sterile syringes and share less often.⁴

The results of this research, and the clear dangers of syringe sharing, led the National Institutes of Health Consensus Panel on HIV Prevention to declare that⁶

"An impressive body of evidence suggests powerful effects from needle exchange programs...Can the opposition to needle exchange programs in the United States be justified on scientific grounds? Our answer is a simple and emphatic no. Studies show reduction in risk behavior as high as 80%, with estimates of a 30% or greater reduction of HIV in IDUs."

Economic studies have concluded that SEPs are also cost effective. At an average cost of \$0.97 per syringe distributed, SEPs can save money in all IDU populations where the annual HIV seroincidence exceeds 2.1 per 100 person years.⁷ The cost per HIV infection prevented by SEPs has been calculated at \$4,000 to \$12,000, considerably less than the estimated \$190,000 medical costs of treating a person infected with HIV.⁸

What are the Challenges for SEPs?

SEPs face a variety of challenges to their operation. One of the most substantial is coverage. For example, Montreal – a city that has active and well-supported SEPs, allows sales of syringes without prescription, and encourages pharmacy sales – was able to meet less than 5 percent of the need for sterile syringes in 1994.¹⁴ Of the 100 SEPs participating in a 1997 survey, the 10 largest exchanged over half of the 17.5 million syringes exchanged. Most of the remaining SEPs exchanged much smaller numbers (the 24 smallest volume SEPs exchanged fewer than 10,000 syringes each).¹⁵

SEPs also face significant legal and regulatory restrictions. For example, 47 states have drug paraphernalia laws that establish criminal penalties for the distribution and possession of syringes. Eight states and one territory have laws that prohibit dispensing or possessing syringes without a valid medical prescription. (See the related fact sheet “Policy Efforts to Increase IDUs’ Access to Sterile Syringes.”) Congress has also prohibited the use of federal funds for SEPs. The 1997 survey concluded that only 52 SEPs operating in 1997 are technically legal. Sixteen were classified as “illegal-tolerated,” and 32 as “illegal-underground.” Public health authorities in communities have employed a number of strategies to ensure the legal provision of SEP services, including declaring public health emergencies.¹⁶

Local community opposition also can be a barrier to establishing a SEP. Residents voice concerns that the programs will encourage drug use and drug traffic and increase the number of used discarded syringes in their neighborhoods. Studies have found no evidence of increases in discarded syringes around SEPs.¹⁷

Finally, some IDUs avoid SEPs because they fear that using a program that serves IDUs will identify them as IDUs. For others, the fear of arrest, fines, and possible incarceration if caught carrying syringes to or from the SEP is a potent deterrent.¹⁸

What Can Be Done to Support Access to Sterile Syringes through SEPs?

Possible activities include:

- Supporting community-based discussions of the role that SEPs can play in comprehensive HIV and viral hepatitis prevention and care programs, in particular in getting SEP users into substance abuse treatment programs.
- Educating policy makers about the facts of injection-related transmission of blood-borne pathogens and the public health benefits of providing access to sterile syringes as part of a comprehensive public health approach.
- Encouraging collaborative review of the public health impact of repealing drug paraphernalia laws that penalize the possession or carrying of syringes.

For More Information

Get *Preventing Blood-borne Infections in Injection Drug Users: A Comprehensive Approach* which provides extensive background information on HIV and viral hepatitis infection in IDUs and on the legal, social, and policy environment. It also describes strategies and principles for addressing these issues. Hard copies of this document and the fact sheets mentioned here can be obtained from the Centers for Disease Control and Prevention’s (CDC) website at www.cdc.gov/hiv/projects/idu-ta or from www.healthstrategies.org/Publications/publications.html, a website of the Academy for Educational Development.

Sources

1. U.S. Department of Health and Human Services, Public Health Service. HIV prevention bulletin: Medical advice for persons who inject illicit drugs. www.cdc.gov/nchsip/hiv_lit_aids/pubs/hiv_prevstat.
2. Lurie P, Jones TS, Foley J. A sterile syringe for every drug use injection: how many injections take place annually and how might pharmacists contribute to syringe distribution? *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1998; 18(Suppl 1):S45-S51.
3. Centers for Disease Control and Prevention (CDC). Update: syringe exchange programs – United States, 1997. *Morbidity and Mortality Weekly Report* 1998; 47(31): 652-655. www.cdc.gov/mmwr/mmwr/previes/mmwrhtml/00054731a.htm.
4. Vlahov D, Jungs B. The role of needle exchange programs in HIV prevention. *Public Health Reports* 1998; 113(Suppl 1):75-80.
5. Deo Arlen DC, Friedman SR, Sathian JL, Weston J, Marmer M, Yacovitz SR, Frank R, Beatrice S, Mikhson D. Continuity and change within an HIV epidemic: injecting drug users in New York City, 1984-1992. *JAMA* 1994; 271:121-127.
6. Heimer R, Krasnodor K, Bagg D, Geyrhoth J, Jungs B. Syringe use and reuse: effects of needle exchange programs in three cities. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1998; 18(Suppl 1):S37-S44.
7. National Institutes of Health, Consensus Development Statement. Interventions to prevent HIV risk behaviors, February 11-13, 1997:7-8. www.od.nih.gov/consensus.
8. Lurie P, Gorey R, Jones TS, Shompson L. An economic analysis of needle exchange and pharmacy-based programs to increase sterile syringe availability for injection drug users. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1998; 18(Suppl 1):S128-S132.
9. Holtgrave Dr, Friedman SD. Updates of cost of illness and quality of life estimates for use in economic evaluations of HIV prevention programs. *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1997; 16:54-62.
10. Rimm RS, Branson J, Hankins CA. Enough sterile syringes to prevent HIV transmission among injection drug users in Montreal? *Journal of Acquired Immune Deficiency Syndromes and Human Retrovirology* 1998; 18 (Suppl 1):S57-S59.
11. Barris S, Finecane D, Gallagher H, Grace J. The legal strategies used in operating syringe exchange programs in the United States. *American Journal of Public Health* 1996; 86(8 Pt 1):1161-1166.
12. Doherty MC, Garfin RS, Vlahov D, Jungs B, Rathouz PJ, Galat N, Anthony JC, Beifenson P. Discarded needles do not increase soon after the opening of a needle exchange program. *American Journal of Epidemiology* 1997; 145(8):730-737.
13. Springer KW, Steak CE, Jones TS, Friedman L. Syringe disposal options for injection drug users: a community-based perspective. *Substance Use and Misuse* 1999; 34(13):1917-1924.