



The Impact of Syringe Exchange Programs in Communities

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The sharing of syringes is a public health threat:

- **blood-borne diseases such as hepatitis B and C, and HIV spread through shared syringes**
- **contamination may in turn spread blood-borne pathogens to public safety (e.g., police) and health workers (e.g., EMTs) through needle sticks and to their sexual partners and children**

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Estimated 11,500 people in Colorado (around 4,900 in Denver) injection drug users (IDUs) who are at risk of sharing syringes. CDC reports drug-related sharing of syringes is most common route of transmission for hepatitis C.

- **estimated 11.5 million non-medical injections occurred in Colorado last year**

Estimated 76,000 Coloradoans have been infected with hepatitis C

- **70-85% have chronic lifelong infections**

Study among injection drug users in Denver found that 76% of those tested had been infected with hepatitis C.

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The Cost of the Problem:

- **A single case of HIV infection can cost up to \$618,900 over a lifetime.**
- **For those requiring treatment, a single month's supply of hepatitis B medication may cost more than \$2,400; between \$2,400-2,700 for hepatitis C.**
- **Hepatitis C is the most common cause for liver transplant in the US—costs are up to \$520,000.**

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Syringe Exchange Programs (SEP):

- **Provide IDUs with clean injection equipment and aim to reduce overall harm to their health and health of sexual partners and families by providing education and resources to other services.**
- **Aside from reducing infections, main goal of SEPs is to engage participants in substance abuse treatment.**
- **As of November 2007, there were 185 SEPs in 36 US states, with 1 in D.C. and 1 in Puerto Rico.**
- **Notable cities include Seattle, Albuquerque/Santa Fe, New York, Chicago, and Baltimore.**

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Model programs require two years to implement:

- **1st year to establish location and business operations, recruit/train staff, develop operating policies, begin to recruit participants, etc.**
- **2nd year to continue participant recruitment, provide participant services including one for one exchange packs, multi-faceted education, participant cards, screening for blood-borne diseases, and opportunities for treatment.**

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Impact of SEPs:

Most studies show SEPs are effective in reducing risk behavior among IDUs, reducing HIV and HCV transmission, engaging IDUs in treatment, while not encouraging drug use (selected studies below).

- **Risk behaviors:**
 - **Waters, et al 1994 San Francisco IDU showed SEP use a strong predictor of not sharing needles with decline in daily injections among SEP users; also showed SEPs did not stimulate increased drug abuse.**
 - **Heimer, et al 1998 New Haven, San Francisco, Baltimore and Chicago large sample self-reported reuse of injection equipment declined by at least half in three of four cities.**

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HIV transmission:

- **Hurley, et al 1997 81 city worldwide study (53% in North America) found HIV seropositivity increased 5.9% in cities without SEPs vs. 5.8% decline in cities with SEPs.**
- **Des Jarlais, et al 1996 New York study found HIV incidence among continuing exchangers was 1.58 per 100 person years at risk vs. 6.23 per 100 person years at risk among non-users of the exchange.**

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HCV transmission:

Hagan, Des Jarlais et al 1995 New York study comparison of pre-SEP vs. post-SEP HCV prevalence among new injectors 1990-91 (pre) 80% vs. 2000-01 (post) 38%.

Enrollment in treatment:

Kuo et al 2003 Baltimore study found that 70% of referrals at SEP entered treatment and 84% were retained more than 90 days.

Hagan et al 2000 Seattle study found that SEP users were 5 times more likely to enter treatment than non-users; also, SEP users were more likely to reduce or stop injecting.

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Cost effectiveness:

In a 1997 study Lurie and Drucker estimated the number of HIV infections that could have been prevented in the US had SEPs been implemented during the early stages of HIV/AIDS epidemic was between 4,394 and 9,666, with the cost saving \$244 to \$538 million.

Denver Drug Strategy Commission is examining potential outcomes for a pilot program intended to be recommended to Mayor Hickenlooper for consideration of implementation.

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Common Barriers to Effective SEPs

- State or local laws, ban on some funding streams
- Poor communication and working relationship with law enforcement
- Lack of effective outreach and recruitment
- Inefficient worker and volunteer training

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Questions?

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