



This State of the Knowledge paper has been produced by the Kaiser Foundation for the BC Partners for Mental Health and Addiction Information, with funding from the Ministry of Health Services.

It is one of a series describing the knowledge currently available on various key topics. We have collected the most current and accurate evidence available, and distilled it into an easily-digestible format designed to inform from a balanced perspective.

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Needle Exchange Programs

What is a Needle Exchange Program?

Needle exchange programs (NEPs) were first established in Europe in the mid-1980's, and have since become a relatively common and popular health strategy around the world. In Canada, exchanges were open in the late 1980's – Toronto unofficially in 1987 and Vancouver officially in 1989. The Canadian experience with NEPs has been dramatically different from that in the US. As early as 1989, the Canadian federal government offered to co-fund comprehensive pilot injection drug user (IDU) programs that included NEPs. By February 1993, a total of 28 Canadian cities had active NEPs.⁴ Based on current estimates, there are over 100 NEPs operating across Canada today, many of which receive federal or provincial funding. Most NEPs are attached to health units.

The primary function of a NEP is to provide injection drug users with clean needles and syringes and other supplies necessary for the safe injection of drugs. The premise is that syringe provision reduces unsafe injection practices such as needle sharing, curtails transmission of HIV/AIDS and Hepatitis, increases safe disposal of used syringes, and helps injecting drug users obtain drug information, treatment, detoxification, social services and primary health care.⁸

In addition to providing the above benefits, NEPs often provide:

- bleach kits (packages containing small bottles of bleach for cleaning needles, and sterile water for rinsing, an alcohol swap for sterilizing the injection site) or their components;

- other material that can help make injecting safer (like clean bottle caps for use as cookers, filters, tourniquets);
- education (instructions on cleaning practices, how to inject more safely, how to use a condom properly) and counselling.

NEPs are typically provided in one of two formats. Some programs operate as fixed sites where clients can go to access services. The alternative format is through community/street outreach, in which workers bring supplies and services to injection drug users in their environment either on foot or in mobile vans.

Expected Benefits

1. A reduction in public nuisance (including inappropriately discarded injecting equipment).

In 2000 Vancouver Needle Exchange distributed nearly 3.5 million needles. This service has had a 101% needle return rate, which means that millions of used needles have been disposed of safely, when otherwise they may have been discarded inappropriately.

2. A reduction in blood-borne disease transmissions.

It is known that many cases of blood-borne disease (BBD) transmission result from unsafe injecting practices, such as sharing needles. NEPs are designed to minimize risky behaviours that contribute to BBD transmission.

A recent study in the US revealed that drug users with access to controversial needle-exchange programs are up to six times less likely to risk HIV infection than other injected-drug abusers.²

Needle exchange programs are an example of what are known as “low-threshold” programs.

This means that there are few requirements for admittance to the program.

Most commonly, this term describes programs that do not require abstinence.

Over the past decade the number of needles distributed by the Vancouver Needle Exchange has increased tenfold. During the past 5 years, the annual number of newly identified HIV infections in Vancouver has decreased from 310 to 163.

3. Improved access to health and other welfare services.

Contact with services provided through contact with the injection facilities has contributed to a stabilization or improvement in general health and social functioning of clients.⁹

Issues of Legality

Two primary areas of legal concern are relevant to the establishment and operation

of needle exchange programs: human rights obligations, and drug-control obligations. The international treaties that Canada has signed, and the legal framework of Canada’s federal and provincial laws interact in complex ways.

Human Rights Obligations

Canada is a member of three international treaties pertinent to human rights that can have impact on the operation of NEPs: the Charter of the United Nations, the International Covenant on Civil and Political Rights (ICCPR), and the International Covenant on Economic, Social and Cultural Rights (ICESCR). These covenants establish parameters restricting discriminatory practices, as well as outlining State obligations to provide services that meet the needs and

International Experiences of Needle Exchange Programs

There are critical links between epidemics of human immunodeficiency virus (HIV) and problem substance use. HIV infection among injecting drug users (IDUs) may be readily transmitted to sexual partners and children. Unless these phenomena are fully appreciated, the public health significance of HIV infection among IDUs cannot be fully comprehended, and the impact of measures to prevent HIV infection in this group will be underestimated.⁴

In the late 1980s, Switzerland experienced a significant increase in public drug use, resulting in large open scenes similar to the current environment in Vancouver’s Downtown Eastside. The Swiss, over the past 15 years, have developed a comprehensive strategy based on the four pillars of prevention, treatment, enforcement and harm reduction. A key component to this approach is the development of low-threshold services to access more drug users, including needle exchange. Switzerland has experienced the following results from this intervention approach:

Between 1985 and 1991, the number of addicts entering long-term care facilities increased by 67%.

From 1988-1998:

- 65% of drug users are in some form of treatment
- 50% of the estimated 30,000 drug users in Switzerland are in methadone treatment and 15% are in abstinence-based programs
- Many of the remaining 35% are in regular contact with harm reduction programs
- Public consumption of drugs is no longer a major problem⁶

Similar results have been reported by Frankfurt, Germany, after implementing similar low-threshold treatment strategies.

The Merseyside region of England (which encompasses Liverpool) developed a slightly different approach to the issue of harm reduction with injection drug users. Merseyside has the second highest drug use rate in England, yet has managed to minimize the harms of injection drug use. The strategy in Merseyside has been to focus on the harm associated with HIV, rather than focusing primarily on the drug use. Services were similar to those in other European cities, including the implementation of decentralized needle exchange programs in several neighborhoods. The success of their program has been remarkable, with a mere 37 injection drug users contracting AIDS, out of a population of injection drug users topping 7,000.⁷

The key then, to a public health impact of NEPs appears to be access of NEPs for injection drug users. The overall public health impact of NEPs will be strongly related to the proportion of injection drug users who use them. Studies from abroad indicate that NEPs, if adequately funded, have the capacity to reach significant proportions of the local IDU population. By 1988, over 50% of IDUs attending methadone or sexually transmitted diseases clinics in Amsterdam were using the local NEPs as their sole source of syringes. Thirty-four percent of opiate injectors in Manchester, England use NEPs regularly.⁴

Even in the United States, which has been slower to embrace NEPs due in part to federal laws prohibiting the distribution of needles, the benefits of NEPs as a harm reduction strategy have been recognized. A recent study in the US revealed that drug users with access to controversial needle-exchange programs are up to six times less likely to risk HIV infection than other injected-drug abusers.²

rights of citizens party to these covenants.

Canadian parameters include the Canadian Charter of Rights and Freedoms, and the Canadian Human Rights Act. These charters establish injection drug users as a class of people protected against discrimination, and establish their right to be provided with reasonable personal safety. These rights mirror those rights outlined in the international ICCPR and ICESCR treaties identified above. British Columbia's Health Act outlines specific duties of the Minister of Health, including making recommendations around the prevention or limitation of the spread of disease.

It could be argued that under these human rights principles, we ought to be providing NEPs since there are citizens requiring these services to enhance their personal safety. Failure to provide required services for this population could be seen as discriminatory. Provision of such services can also be seen as obligatory from a disease control perspective. However these human rights obligations conflict with legal constraints relative to drug control.

Drug Control Obligations

Over the last 80 years, a worldwide system for control of drugs of abuse has developed gradually through the adoption of a series of international treaties. The important multi-lateral conventions currently in force are the Single Convention on Narcotic Drugs (1961 Convention), as amended by the 1972 Protocol; the Convention on Psychotropic Substances (1971 Convention), and the United Nations Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances (1988 Convention). Each successive treaty brought complementary regulations and advances in international law. From the beginning, the basic aim of the international drug control treaties has been to limit the use of drugs to medical and scientific purposes only. Canada is a party to all three of these international treaties.

Additionally, laws within Canada govern the illegality of conduct associated with illicit drugs. These laws could have impact on both the clients who use needle exchange programs, as well as the staff who provide

services to the clients. The Controlled Drugs and Substances Act (CDSA), enacted in May 1997, consolidated several previous drug statutes.¹ This act criminalizes conduct related to trafficking, importing, exporting, or production of numerous prohibited substances, including anything that is designed for introducing the substance into the human body. The criminal code of Canada outlines the parameters for possession, as well as the parameters for criminal negligence.

Where NEPs operate, working agreements have been established between the police and those operating and using these services. Such agreements essentially protect service providers and clients from legal consequence regarding their activities with the NEP. Successful implementation of such programs must involve this minimum requirement.

Needle Exchange Programs in BC

While there are no precise figures available, the number of injection drug users living in Vancouver's Downtown Eastside has been estimated at 4,700, and the number in the Greater Vancouver region at 12,000.⁹ Drug use, particularly cocaine use, has been the most common reported cause of new HIV infections in British Columbia since 1994. These problems have spread to other areas by those who come to the Downtown Eastside to access and use drugs, and by the 'johns' who access the sex trade. HIV incidence rates among injection drug users peaked at 18% in 1997. In fact, Vancouver's HIV infection rates in the mid-1990's were reported as the highest in any developed nation.³

As a result of these figures, a Public Health Emergency was declared, and the City, police, and health authority started developing an evidence-based approach, which became the Four Pillars Approach.⁷ Federally a national task force on injection drug use was developed, resulting in the tri-level intergovernmental Vancouver Agreement.

Through this agreement, a variety of service enhancements were established including a significant impact on NEPS. Needle and syringe exchange has been expanded, decentralized, and made more accessible.

Harm reduction is a public health philosophy, whose core principle is that it is beneficial to prevent and reduce the harm that can be associated with risky behaviours.

Interventions such as supervised injection sites and needle exchange programs aim to reduce the harm to both the user and the wider community, by reducing the spread of disease, the incidence of overdose deaths, and improving access to services for drug users.

However, it is important to know that these are just some examples of interventions that are guided by the principle of reducing harm.

Policies have changed to increase the output, penetration, and relevance of the programs.³

The number of needles exchanged through NEPs in Vancouver has multiplied 10-fold over a decade. In 1990, Vancouver Needle Exchange distributed 343,995 (on average 942 needles per day). By 2000 this figure has increased to 3,449,539 (on average 9,451 needles each day). The total needle distribution across British Columbia in 2000 was 6,311,278 (averaging 17,291 needles per day).

This has been accompanied by some significant health improvements. For example, data from the Vancouver Injection Drug Users Survey (VIDUS) and the BC Centre for Disease Control (BCCDC) shows that the rate of new HIV infection in BC has decreased, possibly in response to a range of harm reduction strategies, including needle exchange. The annual number of newly identified HIV infections among Vancouver residents alone decreased from 310 to 163 over the last 5 years.⁵

Sources

- (1) Elliott, R., Malkin, I., and Gold, J. 2002. *Establishing Safe Injection Facilities in Canada: Legal and Ethical Issues*. Canadian HIV/AIDS Legal Network.
- (2) Gibson, David R., et al. 2002. Two- to Sixfold Decreased Odds of HIV Risk Behavior Associated With Use of Syringe Exchange. *Journal of Acquired Immune Deficiency Syndromes* 31(2): 237-242.
- (3) Kendall, P. 2002. *Health Perspective*. Keeping the Door Open: A Four Pillar Approach Presentation.
- (4) Lurie P., Reingold A.L., Bowser B., et al. 1993. *The Public Health Impact of Needle Exchange Programs in the United States and Abroad*. Vol I. San Francisco, California: University of California.

It is recognized, however, that despite the improvements that have been made, Vancouver continues to lag far behind similar sized cities in Europe in the provision of treatment, harm reduction, and support services. There still remains an open drug scene, which is a significant public health issue. Ambulance calls to the downtown eastside in 2002 increased by 4%, numbering nearly 30,000. Treatment capacity continues to fall substantially short of need. A significant number of injections continue to occur with shared needles, and the overdose death rate remains the highest in Canada.

While Vancouver has actively engaged in interventions such as needle exchange programs, Lower Mainland municipalities outside Vancouver have to date been more reluctant to adopt these promising practices.³ However many municipalities across BC have NEPs, including Campbell River, Chilliwack, Gibsons, Kamloops, Kelowna, Nanaimo, Nelson, Powell River, Prince George, Prince Rupert, Quesnel, Vernon, and Victoria.

(5) McLean, M.E. 2002. *Vancouver Drug Use Epidemiology — 2001*: Vancouver and BC Site report for the Canadian Community Epidemiology Network on Drug Use.

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(9) Schechter, M. & O'Shaughnessy, M. 2000. Distribution of Injection Drug Users in the Lower Mainland. *British Columbia Medical Journal* 42(2).

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