

Executive Summary

Background

The Saskatchewan Ministry of Health commissioned an independent review of the province's provincially funded needle exchange programs in June 2008. The terms of reference are described below in the section titled "What this review found".

Injection drug use in Saskatchewan

Saskatchewan has an estimated 5,000 injection drug users, concentrated in the poorest neighbourhoods of the three largest cities. Powdered cocaine and morphine currently are the most commonly used injection drugs. Injection drug users report they can use 20 or more needles per day for short periods. Yearly, the average user uses 1,000 or more needles. Injection drug users use insulin needles -- the same needles used by diabetics. These are widely and legally available in bulk in grocery and drug stores.

Injection drug users are mostly marginalized people who use drugs to escape their bleak reality. As one needle exchange program staff member put it, "the needle in the arm is the symptom of many other issues." Addiction to injection drugs takes root in conditions of poverty, childhood sexual abuse and neglect, lack of education and employment and racism.

Injection drug use is high-risk behaviour for transmission of blood-borne infections. HIV and Hepatitis C are the most serious. For the most part they cannot be cured, are very expensive to treat, and shorten life.

Treatment options

Injection drug addiction is difficult to treat. Users often remain addicted for many years or go through many cycles of treatment and relapse. Success rates for treatment are low. They are almost nil if the user is not motivated to stop using and does not have strong social support.

Because of the low success rate of addiction treatment, two decades ago public health departments introduced harm reduction approaches to injection drug addiction. The purpose was to add to addiction treatment by reducing the harm of drug use before addicts were ready to stop using drugs. Harm reduction programs support and encourage the addict to take small steps to control his or her addiction and its effects. Progress is measured by reduction in the harm to self and others caused by addiction. One such harm reduction strategy is to provide clean needles to addicts to reduce the risk of blood-borne infections.

In Saskatchewan, public health departments in seven health regions now operate harm reduction programs for injection drug users that include clean needle distribution and exchange. Many of these include community outreach through community workers, partnerships with community organizations, and mobile vans. Needle exchange is often offered along with a range of services, such as counselling, health assessment and basic health care, health education, referrals for infection and addiction treatment, transportation, food, and clothing.

Needle exchange

To reduce as far as possible the discarding of used needles in the community, needle exchange programs exchange clean needles for used. They provide plastic boxes (sharps containers) to transport needles. They work with other organizations in the community to set up needle drop boxes in high use locations.

The challenges: climbing infection rates of HIV and handling used needles

Saskatchewan has been very fortunate in keeping the spread of HIV due to injection drug use low compared to the rest of Canada. In the past several years, however, new infections have climbed. This suggests Saskatchewan needs to redouble its efforts to stop the spread of this disease.

At the same time, there has been public concern about discarded needles in the community. This review surveyed the evidence on what works to stop the spread of blood-borne infections, what Saskatchewan could do to improve its efforts and how public safety can best be ensured.

What this review found

The terms of reference for this review are summed up in the following six questions. These are the answers we found to those questions.

1. Research evidence: What works to reduce the spread of blood diseases from injection drug use?

The overwhelming scientific consensus is that needle exchange reduces needle sharing that leads to blood-borne infections among injection drug users, especially HIV. Cost analyses show that distributing needles actually reduces total costs for health care, because HIV is so expensive to treat. The best estimate is that needle exchange programs reduce the transmission of HIV by one-third and provide a return on investment of four thousand dollars in health care costs saved for each thousand dollars spent. In Saskatchewan, this means an estimated annual savings in health care costs of four million dollars.

Best practices in reducing the spread of HIV include integrating needle exchange with other services, outreach services, and peer distribution (all of which Saskatchewan has), and peer educators, and prison needle exchange (Saskatchewan uses peer educators on a limited basis, and does not do any prison needle exchange). Recent research also shows that aggressive contact testing, contact tracing, and education of HIV positive injection drug users can reduce spread of HIV.

2. Cross-Canada comparison: How do Saskatchewan programs compare to other programs in Canada?

Saskatchewan's pattern of high-frequency injection of cocaine is, for reasons that are not clear, different from many other provinces. Our two neighbouring provinces have shifted towards use of crack cocaine, which is usually smoked. As a result, they distribute many fewer needles for their population than we do in Saskatchewan. If crack cocaine use spreads into Saskatchewan, the frequency of injection and so the demand for needles may well decline here as well.

Programs in Alberta and Manitoba offer drug users safer crack kits -- equipment for smoking cocaine -- because of the use of crack cocaine in those provinces. Saskatchewan does not currently offer such kits. Programs in other major prairie cities encourage needle return, but do not require one-to-one exchange.

3. Public safety: What can we do to reduce the risks of discarded needles?

Used needles that appear in the community -- on the ground, or elsewhere -- are a public concern. Discarded needles especially raise public concern when they appear where children can find them and when they appear in business districts where business owners do not like the image they present.

The issue of discarded needles is complex.

Needle exchange programs receive back about 90 per cent of the needles they distribute. Many of the needles that are not returned likely go to rural communities when drug users come to the city to get needles. Needle exchanges are torn between what they know is most effective in reducing the risk of infection – distributing as many clean needles as asked for – and public concern about discarded needles.

Needle exchanges are not the only source of needles. The needles injection drug users use are the same as the needles diabetics use for insulin injections. These can be and are bought in bulk in drug and grocery stores. It is very likely that many or most needles discarded in the community do not come from needle exchanges.

A further issue is that many users are reluctant to carry needles back to exchange, as they usually travel on foot and do not want to be hassled by the police for being found with them. A needle drop box in areas where there is high use of needles is an option. However, there are few needle drop boxes in some communities, and not enough to provide safe, easy to use disposal across our cities. Despite these difficulties, injection drug users return most of the needles they use to needle exchange programs.

A final factor is where injection occurs. Most injection drug users inject in their own home or that of a friend or relative. Transient or homeless users do not have this option and so seek public places, such as washrooms, to inject. Increasing homelessness and campaigns to drive injection drug use out of public washrooms spread injection drug use into parks and alleys, where used needles are more likely to be discarded on the ground.

The broader challenge is what to do with biohazard waste, to make it as easy as possible to dispose of needles used for whatever purpose. Other cities have concentrated on making needle drop boxes as widely available as possible, and educating injection drug users to use them, rather than enforcing strict needle exchange requirements.

Further reassuring research evidence is that despite the theoretical risk of infection from an accidental needle stick, the risk of infection from being stuck by a needle point is extremely low where the needle is not fresh and where no injection from the syringe occurs. Australia was unable to identify a single case of blood infection from a community needle stick in the entire country, ever, despite distributing 30 million needles a year. In Canada, of 274 needle sticks of children treated at two Montreal hospitals over an 18-year period, not one resulted in infection. In Saskatchewan, we were able to identify at most a handful of needle sticks that occur per year in the community or to public service workers (outside health care) from handling needles. We were not able to identify any such needle sticks in Saskatchewan, ever, that had resulted in infection.

4. Needle distribution and return: Do we distribute an appropriate number of needles, and do we get as many returned as possible?

Saskatchewan does a good job in providing injection drug use with clean needles for each injection -- as good or better a job as anyone else in the world. Saskatchewan programs now distribute about 4 million needles per year. We estimate that this results in close to full coverage of clean needles for all injections in Regina and Prince Albert, and about 60 per cent coverage in Saskatoon.

The 90 per cent rate of return of needles province-wide can probably be improved a little more. Regina, for example, has achieved a 94 percent return rate. But the real issue is to make it as easy as possible to dispose of used needles by having needle drop boxes in public areas and sharps disposal containers in washrooms throughout Saskatchewan cities.

5. Oversight: Is there appropriate oversight to ensure program policies are followed?

Needle exchange programs are well administered, with well developed policies, staffed by professional public health nurses and community workers with many years of experience. Medical and policy oversight is provided by Medical Health Officers, physicians with specialized public health training.

What could be strengthened is overall provincial strategic and technical support for programs, such as standardized injection drug user registration, standardized reporting, statistical analysis, staff training, sharing of best practices and setting of program standards. Different programs have developed some different approaches; these should be shared and evaluated, and the best of each implemented across the province.

The main controversy about policy and oversight is around one-for-one-exchange. Saskatchewan needle exchange programs achieve a return rate of 90 per cent. While they generally follow a one-for-one exchange principle, this is relaxed on a case-by-case basis. The overall return record of the user may be considered, or the reason why they do not have returns, such as having lost them in a move, or that they are taking needles back to a rural community for a group of people.

The problem with insisting on one-for-one exchange is that research shows that this can restrict access to clean needles and therefore increase infection rates. It also does nothing to address safe disposal of needles purchased for injecting illicit drugs or other uses, such as insulin injection. Programs in Alberta and Manitoba do not insist on one-for-one exchange; instead they educate users about safe disposal and support a system of needle drop boxes in the community.

6. Acceptability: What are community concerns and how can we better address them?

Most informants in Saskatchewan we interviewed support or are neutral about harm reduction and needle exchange. What they worry about is discarded needles, particularly around children. They want fewer discarded needles and more information and education about how to deal with them.

While we could not locate any public opinion surveys on needle exchange in Canada, opinion surveys in Australia and the United States show that the majority of the public supports needle exchange (although not drug use), and that opposition lessens when people are given more information about such programs.

Public concerns can be addressed in several ways: by more public education about what to do when finding needles, including safe needle disposal, and by organized clean-up campaigns, especially following the spring thaw, when many needles appear. Other strategies include exchange programs bolstering their return rates through education, education aimed at service workers about harm reduction and safe needle handling, and, peer-to-peer education to injection drug users about safe needle disposal.

What next?

The challenges

Until recently, Saskatchewan has kept its rates of HIV infection from injection drug use much lower than the rest of Canada. Because of this, many Saskatchewan residents, injection drug users and those who might be infected by them (mainly through sexual contact), are spared a deadly disease. As a bonus, Saskatchewan taxpayers save an

estimated at four million dollars per year in health care costs for HIV treatment because of the investment in an effective needle exchange program.

Despite this success, Saskatchewan faces two challenges:

1. In the last few years, Saskatchewan's HIV epidemic, under control for two decades, has climbed to approach the rates of other large Canadian cities. Harm reduction and infection control programs must step up to the next level to keep the spread of HIV contained.
2. Discarded needles in the community concern the public in general and parents in particular. Although the risk is low, the concern is there. These needles come from many sources, not only needle exchange programs. Saskatchewan must address the broader issue of easy, safe disposal of biohazards such as needles.

The response

This review recommends two main policy initiatives to address the challenges we have identified.

1. A more aggressive and integrated approach to harm reduction among injection drug users.

Key features of this approach include to:

- Extend existing best practices across the province, such as tracking users in a registry and partnering with community organizations for service delivery close to where injection drug users live. The goal of tracking users is to be able to "case manage" progress with clients so that every contact has a purpose in reducing the harm of injection drug use and so the overall progress of the blood-borne infection epidemic and of its management can be monitored.
 - Aggressively reach out to test, identify, counsel, contact trace, educate and follow up every HIV-positive injection drug user.
 - Provide a broad range of health care and social services to injection drug users on the street and in the communities where they live. This means integrating primary health care, infection control, addictions, social supports, and public health services around the needs of injection drug users. The goal of this integrated service approach will be to extend and deepen the approach to harm reduction to better limit harm and to provide a door to hope that is easier to open for users.
 - Strengthen provincial strategic support in data collection, analysis and best practice development and staff training.
 - Expand injection drug user registration programs to all consenting users, using of a common electronic database, such as that developed by Saskatoon Health Region.
2. A community-based, province-wide approach to biohazard waste collection and disposal to address all biohazard wastes.

This will require:

- Waste collection systems that provide readily available access wherever needles and other biohazards are used;
- Public and user education on safe disposal and handling of biohazards;
- Waste pickup and disposal systems.

Both of these policy initiatives will require provincial leadership and a funding plan. The benefits will be worth it. HIV control is one of those rare health programs where investments in prevention pay off in actual savings in health care costs.