



Harm reduction behind bars: Prison-based needle and syringe programs

[By Emily van der Meulen and Sandra Ka Hon Chu](#)

HIV and hepatitis C are serious public health issues in Canadian prisons. Rates of these infections in federal institutions are considerably higher than in the general population.

The Correctional Service of Canada (CSC) currently provides prisoners with condoms, methadone maintenance treatment, and bleach to reduce the spread of HIV and hepatitis C. However, CSC has yet to permit the introduction of prison-based needle and syringe programs (PNSPs). Needle and syringe distribution programs have been deemed a successful harm reduction measure and are considered best practice in the wider non-prison community.

In this article, we review current international PNSP best practices, different models and approaches, and suggest ways that service providers and others can support the introduction of PNSPs in Canada.

How many prisoners in Canada have HIV or hepatitis C?

Rates of HIV in Canadian federal prisons are at least 10 times higher than in the general population, while rates of hepatitis C are at least 30 times higher.^{1,2,3} More concerning is that these rates are even greater among incarcerated Indigenous peoples and people who inject drugs. More than one in 10 of the Indigenous women in federal institutions, for example, are reported to be living with HIV and almost one in two is living with hepatitis C.⁴ Among people who inject drugs, almost three times as many are living with HIV relative to other prisoners upon admission to federal prisons.⁵

There is evidence to support that HIV and hepatitis C transmission is occurring within federal prisons and not just before incarceration.^{4,6} Research suggests that prisoners who use injection drugs are at an increased risk for transmission.⁷

How often do prisoners participate in behaviours that can lead to HIV and hepatitis C transmission?

Despite security procedures to block the flow of drugs into prison, drugs can still enter institutions. One study of federal prisoners found that in the previous six months, 34% of men and 25% of women had used non-injection drugs (snorting, sniffing, smoking or swallowing) and 17% of men and 14% of women had injected drugs while they were incarcerated.⁴

A lack of sterile needles/syringes and injecting equipment means that people who inject drugs while incarcerated often share injecting equipment.⁴ In a study of federal prisoners, 55% of men and 41% of women who injected

drugs while incarcerated reported using someone else's needle in the previous six months.⁴ Moreover, 38% of men and 29% of women who had injected drugs while incarcerated reported sharing a needle with someone with HIV, hepatitis C or unknown status in the previous six months.⁴

There is also evidence that some prisoners participate in sexual practices that can increase the risk of HIV transmission. Seventeen percent of men and 31% of women reported having oral, vaginal, or anal sex in the previous six months while incarcerated.⁴ Among them, 99% of men and 100% of women reported having at least one instance of condomless oral, anal or vaginal sex.⁴

Harm reduction in Canadian prisons

CSC currently provides methadone maintenance treatment to prisoners for opioid dependency. People on methadone maintenance treatment receive daily doses of the synthetic agent methadone as an alternative for heroin or other opiates. Methadone has been shown to reduce the negative consequences of opioid use and reduce injection behaviours that can lead to infections with HIV and hepatitis C.

Bleach, when accessible, is also provided for cleaning injection and tattooing supplies to reduce the likelihood of HIV and hepatitis C transmission when these supplies are shared. While the provision of bleach might seem to be a step in the right direction, it is not a recommended best practice and has been found to have limited effectiveness in preventing the spread of HIV and is not an effective way to kill the hepatitis C virus.^{8,9}

Needle and syringe distribution programs have been deemed a successful harm reduction measure and are considered best practice in the wider non-prison community.¹⁰ CSC, however, has not permitted the introduction of PNSPs, despite calls from health, human rights and other bodies across Canada.

International prison-based needle and syringe programs

Prison needle and syringe programs aim to reduce the spread of infections such as HIV and hepatitis C among people who inject drugs. Such programs may include the provision of sterile injecting equipment, education on how to reduce drug use, health information, and referral to health care and drug dependency treatment services.

The first PNSP was started in Switzerland in 1992. Such programs have now expanded to more than 60 prisons in several countries including Spain, Moldova, Romania, Germany, Luxembourg, Tajikistan and Kyrgyzstan. Programs operate in a variety of institutions (men's and women's prisons, and those of differing security levels) and use several methods of needle distribution.

Some of the programs began with pilot studies and were evaluated over one- or two-year periods. As with the overwhelmingly positive evaluations of community-based needle and syringe programs,^{11,12,13,14,15} PNSP evaluations are consistently positive and have shown PNSPs to be effective at reducing behaviours that contribute to HIV and hepatitis C transmission, such as the sharing of injection equipment.^{16,17,18,19}

Evaluations have also demonstrated that such programs do not contribute to increased injection drug use, and instead lead to significant decreases in overdoses and abscesses as well as increased referrals to programs for drug dependency treatment.^{1,20} Perhaps most significantly, no prison with a PNSP to date has recorded a case of HIV or hepatitis C infection due to injection drug use since the implementation of the program,^{17,21} nor have there been any recorded instances of prisoners using needles as weapons.²⁰

Despite such strong evidence, many Canadian prison officials and correctional officers are resistant to PNSPs. Commonly raised arguments against these programs include the notion that they lead to increased drug use and violence within institutions, neither of which have materialized in prisons where PNSPs exist, as mentioned above.²² This is noteworthy considering that PNSPs have been operating for over 20 years in some countries.

Different PNSP models and approaches

There are typically four PNSP models or approaches, with some prisons employing a combination. Each has been shown to be effective in different contexts, and each has its own set of pros and cons:¹

Syringe dispensing machines: Automated machines that dispense new syringes when a used syringe is inserted into the machine.

Advantages to this model include a high degree of accessibility and anonymity (can be placed in more discrete areas of the prison), high acceptance among prisoners, and strict one-to-one exchange (the latter being an advantage viewed from the perspective of correctional security, although it is not in line with current best practice recommendations).

Disadvantages include the possibility that the machine could be tampered with, unreliability due to technical problems, lack of discrete areas to place the machines, and no opportunity for counselling.

Hand-to-hand distribution by prison healthcare staff: Advantages include the opportunity for personal contact and counselling, the facilitation of outreach, and a high degree of control over access to syringes.

Disadvantages include a lack of anonymity and confidentiality that could limit participation, and the fact that access is limited to staff availability (on week days, during work hours).

Hand-to-hand distribution by non-governmental organizations (NGOs) or other external personnel:

This model has similar advantages and disadvantages to the hand-to-hand model by prison staff; although accessibility may be even more limited depending on how often NGOs are able to conduct prison in-reach. Added advantages are that confidentiality may be better protected if a prisoner's identity is known only to the NGO, and the facilitation of connections with a local health organization that can be vital post-release.

Peer worker distribution: Distribution by prisoners trained as peer outreach workers.

This model provides the greatest access to harm reduction material and advice, particularly if peer workers are trained in the delivery of comprehensive harm reduction education and counselling.

Disadvantages include no direct or formal monitoring system, the possibility that prisoner control may lead to abuse (blackmail or the selling of syringes, for example), and lack of continuity in institutions where there is a high turnover of prisoners.

Ontario Superior Court Challenge

A lawsuit was launched against the Government of Canada in September 2012 over its failure to make sterile injection equipment available to federal prisoners. The case is based on sections 7 and 15 of the *Canadian Charter of Rights and Freedoms*, which protect the right to life, liberty, and security of the person and the right to equality before and under the law, respectively.

The lawsuit will be progressing through the Ontario court system, and possibly to the Supreme Court of Canada, over the next three to five years (see www.prisonhealthnow.ca for more information). Thus, there is a pressing need to both develop PNSP guidelines and to share international research- and practice-based evidence about PNSPs as an effective HIV and hepatitis C intervention within this unique and time-limited window.

Developing PNSP guidelines in Canada

To develop comprehensive PNSP implementation guidelines for Canadian federal prisons, a networking and partnership-building meeting of Canadian and international experts, funded by the Canadian Institutes for Health Research, was held in January 2014. Following an [opening public panel](#), which can be viewed online, meeting attendees collectively identified the necessary criteria and framework for the implementation of PNSPs in Canada.

A 12-month research project is now underway, funded by the Ontario HIV Treatment Network, which includes broad consultation with current and former prisoners and prison healthcare staff. This type of consultation on PNSP guidelines is unprecedented but essential to ensure input from those most directly impacted by PNSPs as well as to ensure the ultimate success of such programs in federal prisons. The suggestions and recommendations compiled from the research process will be used to modify the preliminary PNSP best practice framework developed in January 2014.

Conclusion

Needle and syringe programs are a critical public health and HIV and hepatitis C prevention intervention, particularly in the prison setting where HIV and hepatitis C rates are significantly higher than in the community. There are several things that service providers and others can do to support the development of PNSPs in Canada:

- learn more about the different approaches to PNSPs that have been used successfully in other countries;
- advocate for such programs in your community and the institutions where you work;
- reach out to allies within the prison system, including infectious disease nurses and doctors, who are critical to the successful implementation and operation of PNSPs;
- educate correctional officers in prisons in your area about the ways that PNSPs can promote occupational safety; and
- help to disseminate the PNSP guidelines once they are published.

Mobilizing communities to learn about the value of such programs is essential to counter myths about harm reduction in prison and to build broader support for prison health.

Resources

[Under the Skin: A People's Case for Prison Needle and Syringe Programs](#) – Canadian HIV/AIDS Legal Network

[Hard Time: Promoting HIV and Hepatitis C Prevention Programming for Prisoners in Canada](#) – Canadian HIV/AIDS Legal Network/Prisoners' HIV/AIDS Support Network (PASAN)

[Clean Switch](#) – Canadian HIV/AIDS Legal Network

References

1. [a. b. c.](#) Lines R, Jürgens R, Betteridge G, et al. *Prison needle exchange: Lessons from a comprehensive review of international Evidence and Experience*, Second edition. Toronto, ON: Canadian HIV/AIDS Legal Network; 2006. Available at: <http://www.aidslaw.ca/site/prison-needle-exchange-lessons-from-a-comprehensive-review-of-international-evidence-and-experience-second-edition-2006/>
2. *HIV and Hepatitis C in Prisons: The facts*. Canadian HIV/AIDS Legal Network; 2008 Available at: <http://www.aidslaw.ca/site/hiv-and-hepatitis-c-in-prisons/>.
3. Remis RS. *Estimating the number of blood transfusion recipients infected by hepatitis C virus in Canada, 1960–85 and 1990–92*. Report to Health Canada; 1998.
4. [a. b. c. d. e. f. g. h.](#) Zakaria D, Thompson JM, Jarvis A, Borgatta F. *Summary of emerging findings from the 2007 National Inmate Infectious Diseases and Risk-Behaviours Survey*. Ottawa, ON: Correctional Service of Canada; 2010. Available at: <http://www.csc-scc.gc.ca/research/005008-0211-01-eng.shtml>
5. Smith J, Lajeunesse B. Factors associated with BBSTI among new admissions to federal penitentiaries in Canada. *Correctional Service of Canada Infectious Diseases Newsletter* 2008 Fall;6(1):8-11. Available at: http://www.csc-scc.gc.ca/text/pbict/hsbulletin/2008/no1/vol6_no1-2008-eng.pdf.
6. Ford PM, Pearson M, Sankar-Mistry P, et al. HIV, hepatitis C and risk behaviour in a Canadian medium-security federal penitentiary. *Quarterly Journal of Medicine*. 2000;92:113–19.
7. Hagan H. The relevance of attributable risk measures to HIV prevention planning. *AIDS*. 2003;17(6):911–13.
8. Public Health Agency of Canada. *The effectiveness of bleach in the prevention of Hepatitis C transmission. Final Report*. Ottawa: Public Health Agency of Canada, 2004.
9. World Health Organization. *Policy brief: Provision of sterile injecting equipment to reduce HIV Transmission*. World Health Organization, 2004. Available at: <http://www.unodc.org/documents/hiv-aids/provision%20of%20sterile%20injecting%20equipment.pdf>
10. Strike C, Hopkins S, Watson TM, et al. *Best Practice Recommendations for Canadian Harm Reduction Programs that Provide Service to People Who Use Drugs and are at Risk for HIV, HCV, and Other Harms: Part 1*. Toronto, ON: Working Group on Best Practice for Harm Reduction Programs in Canada, 2013.
11. Hurley SF, Jolley DJ, Kaldor JM. Effectiveness of needle-exchange programmes for prevention of HIV infection. *Lancet*. 1997;349:1797–1800.
12. Macdonald M, Law M, Kaldor J, et al. Effectiveness of needle and syringe programmes for preventing HIV transmission. *International Journal of Drug Policy*. 2003;14:353–7.
13. Gibson D, Flynn N, Perales D. Effectiveness of syringe exchange programs in reducing HIV risk behaviour and HIV seroconversion among injecting drug users. *AIDS*. 2001; 15(11): 1329–41.
14. Ksobiech K. A meta-analysis of needle sharing, lending and borrowing behaviours of needle exchange program attendees. *AIDS Education and Prevention*. 2003;15(3):257–68.
15. Wodak A, Cooney A. Effectiveness of sterile needle and syringe programmes. *International Journal of Drug Policy*. 2005;16S:S31–S344.
16. Dolan K, Rutter S, Wodak A. Prison-based syringe exchange programmes: A review of international research and development. *Addiction*. 2003;98(2):153–8.
17. [a. b.](#) Jacob J, Stöver H. The transfer of harm-reduction strategies into prisons: Needle exchange programmes in two German prisons.

International Journal of Drug Policy. 2000;11:325-335.

18. Nelles J, Fuhrer A, Hirsbrunner HP, Harding T.W. Provision of syringes: The cutting edge of harm reduction in prison? *British Medical Journal*. 1998;317:270-3.
19. Nelles J, et al. Provision of syringes and prescription of heroin in prison: The Swiss experience in the prisons of Hindelbank and Oberschöngrün. In: Nelles J, Fuhrer A (eds.). *Harm reduction in prison: Strategies against drugs, AIDS, and risk behaviour*. Bern, Switzerland: Peter Lang; 1997. pp. 239-262.
20. [a.](#) [b.](#) Jürgens R. *Interventions to address HIV in prisons: Needle and syringe programmes and decontamination strategies*. Geneva: World Health Organization, United Nations Office on Drugs and Crime, and UNAIDS, 2007.
21. Hoover J, Jürgens R. *Harm reduction in prison: The Moldova model*. New York, NY: Open Society Institute, 2009.
22. Stöver H, Nelles J. Ten years of experience with needle and syringe exchange programmes in European prisons. *International Journal of Drug Policy*. 2003;14(5):437-44.

About the author(s)

Emily van der Meulen is an Assistant Professor in the Department of Criminology at Ryerson University. Her research interests include prison health and harm reduction, the criminalization of sexual labour, and gender and surveillance. She recently co-edited an anthology of writing by sex workers, allies, and academics entitled [Selling Sex: Experience, Advocacy, and Research on Sex Work in Canada](#) (UBC Press, 2013).

Sandra Ka Hon Chu is the Co-director of Research and Advocacy at the Canadian HIV/AIDS Legal Network, where she works on HIV-related human rights issues concerning prisons, harm reduction, sex work, women and immigration. She has authored numerous publications, including a compendium of affidavits describing prisoners' experiences with injection drug use behind bars. Sandra has also led the Legal Network's involvement in lawsuits challenging the Canadian government's failure to provide sterile injection equipment in prison, criminal laws governing sex work, and Malawi's laws governing marital property.

Produced By:



Canada's source for
HIV and hepatitis C
information

555 Richmond Street West, Suite 505, Box 1104
Toronto, Ontario M5V 3B1 Canada
Phone: 416.203.7122
Toll-free: 1.800.263.1638
Fax: 416.203.8284
www.catie.ca
Charitable registration number: 13225 8740 RR

Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

CATIE provides information resources to help people living with HIV and/or hepatitis C who wish to manage their own health care in partnership with their care providers. Information accessed through or published or provided by CATIE, however, is not to be considered medical advice. We do not recommend or advocate particular treatments and we urge users to consult as broad a range of sources as possible. We strongly urge users to consult with a qualified medical practitioner prior to undertaking any decision, use or action of a medical nature.

CATIE endeavours to provide the most up-to-date and accurate information at the time of publication. However, information changes and users are encouraged to ensure they have the most current information. Users relying solely on this information do so entirely at their own risk. Neither CATIE nor any of its partners or funders, nor any of their employees, directors, officers or volunteers may be held liable for damages of any kind that may result from the use or misuse of any such information. Any opinions expressed herein or in any article or publication accessed or published or provided by CATIE may not reflect the policies or opinions of CATIE or any partners or funders.

Information on safer drug use is presented as a public health service to help people make healthier choices to reduce the spread of HIV, viral hepatitis and other infections. It is not intended to encourage or promote the use or possession of illegal drugs.

Permission to Reproduce

This document is copyrighted. It may be reprinted and distributed in its entirety for non-commercial purposes without prior permission, but permission must be obtained to edit its content. The following credit must appear on any reprint: *This information was provided by CATIE (the Canadian AIDS Treatment Information Exchange). For more information, contact CATIE at 1.800.263.1638.*

© CATIE

Production of this content has been made possible through a financial contribution from the Public Health Agency of Canada.

Available online at:

<https://www.catie.ca/en/pif/spring-2015/harm-reduction-behind-bars-prison-based-needle-and-syringe-programs>