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Safer Crack Cocaine Smoking Equipment Distribution: Comprehensive Best Practice Guidelines

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People who smoke crack cocaine are at risk of acquiring HIV, hepatitis C and hepatitis B from the physical injuries caused by smoking crack, and also through condomless sex.^{1,2,3,4} While needle and syringe programs (NSPs) are well established as HIV and hepatitis C prevention programs across Canada, programs that distribute safer crack cocaine smoking equipment are fewer in number; some parts of the country lack these programs altogether.

In this article, we address the new evidence-based recommendations for distribution of safer crack cocaine smoking equipment.

What is crack cocaine?

Crack cocaine is a stimulant that has been converted from powder cocaine into a rock crystal. When the rock crystal is heated to a high temperature, it melts and quickly vapourizes, and can be inhaled ("smoked"). It produces a short but intense high. Crack is also ranked highly in terms of the harms (physical, dependence and social) associated with its use.⁵

How many people who smoke crack cocaine have HIV, hepatitis C or hepatitis B in Canada?

Studies across Canada show elevated rates (compared to the general population) of HIV among people who smoke crack cocaine. Prevalence rates of HIV reported among people who smoke crack cocaine in Canadian settings range from 19% in Vancouver to 6% in Toronto to 11% in Ottawa.^{6,7,8} These rates are all substantially higher than among the general Canadian population (0.2%).⁹ However, numbers from Toronto included some people who used to inject drugs, although no one had injected in the previous 6 months.

While HIV transmission risk remains higher through sharing injection equipment compared to smoking crack cocaine, research has not determined the cause of infection for people who have histories of both injecting drugs and smoking crack cocaine. Possible causes of infection are the sharing of injecting or smoking equipment and unsafe sexual practices. There is a need for more research to better understand the specific HIV transmission risk of smoking crack cocaine.

In terms of hepatitis C, a study was able to isolate hepatitis C genetic material (RNA) on a used crack pipe;² other studies have found that hepatitis C can survive on a variety of surfaces from seven to 28 days.^{10,11} Therefore, we know there is potential for crack pipes to spread hepatitis C. Studies across Canada show elevated rates of hepatitis C among people who smoke crack cocaine. Prevalence rates of hepatitis C among people who smoke crack cocaine in Canadian settings range from 37% in Ottawa to 43% in Vancouver to 29% in Toronto.^{6,7,8} These rates are all substantially higher than among the general Canadian population (0.7%).¹²

Although the evidence is limited, there is also potential for the transmission of hepatitis B, other sexually transmitted infections, tuberculosis, and pneumonia among people who smoke crack cocaine.^{13,14,15,16,17,18,19,20,21,22,23,24,25,26}

What is the link between pipes and HIV and hepatitis C transmission?

Pipes for smoking crack cocaine can be crudely constructed from items such as glass bottles, soft drink cans, plastic bottles, car aerosols or metal pipes. When makeshift pipes are used to smoke crack cocaine, the hot, jagged surface can cause injuries to the hands and mouth, including oral inflammation, cuts, burns and sores. Blood from these injuries may end up on the pipe. HIV or hepatitis C virus contained in the blood can then be passed along to the next person using the pipe. It is hypothesized that through this mechanism, people who smoke crack cocaine are at an elevated risk of acquiring HIV and hepatitis C. [1,2,8,27](#)

Sharing of pipes

Evaluations of safer smoking supply distribution programs across Canada have documented sharing of crack cocaine smoking equipment. [28,29,30,31,32,33](#) Pipe sharing has also been reported in other Canadian studies of people who smoke crack cocaine. [34,35,36,37](#)

Many factors can influence pipe sharing, including smoking in small groups and intimate partner relationships. In addition, allowing others to use a pipe means that the owner can collect the “resin” or residue that collects on the inside of a pipe and smoke it. [38](#) People who smoke crack cocaine who have difficulty accessing pipes are also more likely to share. [30,39](#) Crack cocaine is sold as small “rocks,” making it difficult to divide into smaller pieces; this may contribute to sharing of smoking equipment among people who pool their money to purchase drugs.

Several Canadian studies report high frequency of smoking episodes (for example, one to 70 episodes per day). [1,20,33,34](#) Impaired memory, lack of restraint and poor risk assessment due to heavy use may also lead to the sharing of drug use equipment and risky sexual practices. [4](#)

Can we reduce the harms of crack smoking?

While NSPs are well-established programs for HIV and hepatitis C prevention across Canada, programs that distribute safer crack cocaine smoking equipment are fewer in number and some parts of the country lack these programs altogether. Many safer crack cocaine smoking equipment distribution programs struggle to sustain funding and some have been subject to intense community opposition. [35,40,41](#)

Moving forward

New evidence-based recommendations for safer crack cocaine smoking equipment distribution have been developed by a multi-stakeholder team, the Working Group on Best Practice for Harm Reduction Programs in Canada, as part of *Best Practice Recommendations for Canadian Harm Reduction Programs that Provide Service to People who Use Drugs and are at Risk of HIV, HCV and Other Harms: Part 1*. [42](#) In a previous *Prevention in Focus* article, we discussed the Best Practice Recommendations project and the evidence that supports the [recommendations for needle distribution](#).

Recommendations for safer smoking equipment to smoke crack cocaine

The Working Group recommends that programs distribute safer crack cocaine smoking equipment including:

1. a borosilicate glass (Pyrex) stem that acts as the pipe due to its high heat resistance and lack of toxic coatings;
2. a mouthpiece, placed at one end of a pipe to help protect the lips from heat and chipped or cracked edges;
3. push sticks, which help position screens in the pipe; and
4. screens composed of steel or brass to help prevent heated or melting drug(s) from being inhaled.

Each piece of equipment plays a role in safer crack cocaine smoking and the Working Group recommends that programs distribute all items in pre-packaged kits and as individual pieces of equipment.

Across Canada, some harm reduction programs distribute other supplies for safer smoking purposes (for example, alcohol swabs, moist towelettes, lighters/matches, lip balm, chewing gum and bandages). Since there have been no evaluation studies supporting their inclusion, the Working Group offers no recommendations for their distribution.

Recommendations for replacing safer smoking equipment

Unlike needles that should be disposed of after each use, crack cocaine smoking equipment can be reused until it is unsafe. The Working Group recommends that **safer smoking equipment be considered unsafe and in need of replacement when:**

- the pipe and/or the mouthpiece have been used by anyone else
- the pipe is scratched, chipped or cracked
- the mouthpiece is burnt
- the screen shrinks and is loose in the stem

Many of the potential harms associated with crack cocaine smoking are also due to risky sexual behaviours. Therefore, the Working Group also recommends that programs **provide other harm reduction supplies, such as condoms and lubricant, in the quantities requested by clients with no limit on the number provided.**

Recommendations for distribution of safer crack cocaine smoking equipment

In light of the potential harms of crack cocaine smoking, the Working Group recommends that NSPs **integrate distribution of safer smoking equipment into their existing services** and that all harm reduction programs **provide safer smoking equipment in the quantities requested by clients without requiring return of used equipment.** Providing safer smoking equipment in quantities that meet client needs may help reduce sharing of pipes and other pieces of equipment. The Working Group also recommends that programs **educate clients about the safer use of equipment, safer smoking practices, the risks of sharing smoking supplies, and safer sex.**

Lastly, the Working Group recommends that programs **provide safe disposal options, including personal sharps containers, and encourage clients to return and/or properly dispose of used or broken pipes, educate clients about the proper disposal of used smoking equipment, and provide multiple, convenient locations for proper disposal of used equipment.**

What comes next?

We have highlighted one set of the Working Group's recommendations here, but we also point you towards the recommendations regarding safer drug use education and other aspects of harm reduction programming: needle and syringe distribution, other injection equipment distribution, disposal and handling of used drug use equipment, and naloxone distribution for opioid overdose prevention. In the latter part of 2014, the Working Group plans to launch Part 2 of the *Best Practice Recommendations* which focusses on program models, preventative health care, referrals and counselling, and relationships with law enforcement and other organizations.

Acknowledgements

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Resources

[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](#)

[HepCInfo on Newsprint - Issue 3](#)

[The Hep C Handbook: The goods on Hep C, safer drug use, tattooing and piercing](#) – Youth CO

[Harm Reduction from A-Z Cards: Information for Young Gay and Bisexual Men](#) – AIDS Committee of Toronto (ACT)

[Safer Smoking Demo](#)

[HIV in Canada: A primer for service providers](#)

References

1. [a. b. c.](#) Macías J, Palacios RB, Claro E, et al. High prevalence of hepatitis C virus infection among noninjecting drug users: association with sharing the inhalation implements of crack. *Liver International* . 2008;28(6):781-6.
2. [a. b. c.](#) Fischer B, Powis J, Firestone Cruz M, et al. Hepatitis C virus transmission among oral crack users: viral detection on crack paraphernalia. *European Journal of Gastroenterology and Hepatology* . 2008;20(1):29-32.
3. Neaigus A, Gyarmathy VA, Zhao M, et al. Sexual and other noninjection risks for HBV and HCV seroconversions among noninjecting heroin users. *Journal of Infectious Disease* . 2007;195(7):1052-61.
4. [a. b.](#) DeBeck K, Kerr T, Li K, et al. Smoking of crack cocaine as a risk factor for HIV infection among people who use injection drugs.

5. Nutt D, King LA, Saulsbury W, Blakemore C. Development of a rational scale to assess the harm of drugs of potential misuse. *Lancet*. 2007 Mar 24;369(9566):1047-53.
6. [a. b.](#) Bayoumi AM, Strike C, Jairam J, et al. Report of the Toronto and Ottawa Supervised Consumption Assessment Study. Toronto, Ontario: St. Michael's Hospital and the Dalla Lana School of Public Health, University of Toronto; 2012. Accessed May 2013 from: <http://www.catie.ca/sites/default/files/TOSCA%20report%202012.pdf>
7. [a. b.](#) Leonard L. Improving services for people in Ottawa who smoke crack: Ottawa's Safer Inhalation Program - Final Evaluation Report; 2010. Accessed December 2012 from: www.medicine.uottawa.ca/epid/assets/documents/Improving%20Services%20for%20People%20in%20Ottawa%20who%20smoke%20crack.pdf
8. [a. b. c.](#) Shannon K, Rusch M, Morgan R, et al. HIV and HCV prevalence and gender-specific risk profiles of crack cocaine smokers and dual users of injection drugs. *Substance Use and Misuse* . 2008;43(3-4):521-34.
9. Public Health Agency of Canada [PHAC]. *Summary: estimates of HIV prevalence and incidence in Canada, 2011* . Ottawa: Surveillance and Epidemiology Division, Professional Guidelines and Public Health Practice Division, Centre for Communicable Diseases and Infection Control, PHAC; 2012. Available from: <http://www.catie.ca/sites/default/files/Estimates-of-HIV-Prevalence-and-Incidence-in-Canada-2011.pdf>
10. Ciesek S, Friesland M, Steinmann J, et al. How stable is the hepatitis C virus (HCV)? Environmental stability of HCV and its susceptibility to chemical biocides. *Journal of Infectious Disease* . 2010 Jun 15;201(12):1859-66.
11. Doerrbecker J, Friesland M, Ciesek S, et al. Inactivation and survival of hepatitis C virus on inanimate surfaces. *Journal of Infectious Disease* . 2011 Dec;204(12):1830-1838.
12. Public Health Agency of Canada. Epidemiology of Acute Hepatitis C Infection in Canada Results from the Enhanced Hepatitis Strain Surveillance System (EHSSS); 2009. Accessed December 2012: from: http://publications.gc.ca/collections/collection_2011/aspc-phac/HP40-41-2010-eng.pdf
13. Bauwens JE, Orlander H, Gomez MP, et al. Epidemic Lymphogranuloma venereum during epidemics of crack cocaine use and HIV infection in the Bahamas. *Sexually Transmitted Disease* . 2002;29(5):253-8.
14. Cu-Uvin S, Hyejin K, Jamieson DJ, et al. Prevalence, incidence, and persistence or recurrence of Trichomoniasis among Human Immunodeficiency Virus (HIV)-positive women and among HIV-negative women at high risk for HIV infection. *Clinical Infectious Diseases* . 2002;34(10):1406-11.
15. DeHovitz JA, Kelly P, Feldman J, et al. Sexually transmitted diseases, sexual behavior, and cocaine use in inner-city women. *American Journal of Epidemiology* . 1994;140(12):1125-34.
16. Des Jarlais DC, Arasteh K, McKnight C, et al. Gender and age patterns in HSV-2 and HIV infection among non-injecting drug users in New York City. *Sexually Transmitted Disease* . 2010;37(10):637-43.
17. Gardy JL, Johnston JC, Ho Sui S, et al. Whole-genome sequencing and social-network analysis of a tuberculosis outbreak. *New England Journal of Medicine* . 2011;364(8):730-9.
18. Gollub EL, Armstrong K, Boney T, et al. Correlates of trichomonas prevalence among street-recruited, drug-using women enrolled in a randomized trial. *Substance Use and Misuse* . 2010;45(13):2203-20.
19. Kramer A, Schwebke, Kampf G. How long do nosocomial pathogens persist on inanimate surfaces? A systematic review, *BMC Infectious Diseases* . 2006;6:130-8.
20. [a. b.](#) Leece P, Rajaram N, Woolhouse S, Millson M. Acute and chronic respiratory symptoms among primary care patients who smoke crack cocaine. *Journal of Urban Health* . 2013;90(3):542-52.
21. McElroy PD, Rothenberg RB, Varghese R, et al. A network-informed approach to investigating a tuberculosis outbreak: implications for enhancing contact investigations. *The International Journal of Tuberculosis and Lung Disease* . 2003;7(12):S486-93.
22. Miller M, Liao Y, Wagner M, Korves C. HIV, the clustering of sexually transmitted infections, and sex risk among African American women who use drugs. *Sexually Transmitted Diseases* . 2008;35(7):696-702.
23. Minkoff H, Zhong Y, Strickler HD, et al. The relationship between cocaine use and human papillomavirus infections in HIV-seropositive and HIV-seronegative women. *Infectious Diseases in Obstetrics and Gynecology* . 2008;587082.
24. Ross MW, Risser J, Peters RJ, Johnson RJ. Cocaine use and syphilis trends: Findings from the Arrestee Drug Abuse Monitoring (ADAM) program and syphilis epidemiology in Houston. *American Journal on Addictions* . 2006;15(6):473-7.
25. Seña AC, Muth SQ, Heffelfinger JD, et al. P. Factors and the sociosexual network associated with a syphilis outbreak in rural North Carolina. *Sexually Transmitted Diseases* . 2007;34(5):280-7.
26. Sorvillo F, Kovacs A, Kerndt P, et al. Risk factors for trichomoniasis among women with human immunodeficiency virus (HIV) infection at a public clinic in Los Angeles County, California: implications for HIV prevention. *American Journal of Tropical Medicine and Hygiene* . 1998;58(4):495-500.
27. Hagan H, Perlman DC, Des Jarlais DC. Sexual risk and HIV infection among drug users in New York City: a pilot study. *Substance Use and Misuse* . 2011;46(2-3):201-7.
28. Backe H, Heywood D, Bailey K, Plourde P. SCUK Distribution in the Winnipeg Health Region; 2011. (unpublished)
29. Barnaby L, Penn R, Erickson P. Drugs, Homelessness & Health: Homeless Youth Speak Out About Harm Reduction. *The Shout Clinic Harm Reduction Report* . 2010. Accessed December 2012 from: http://www.wellesleyinstitute.com/wp-content/uploads/2010/02/homelessyouthspeakout_shoutclinic2010_v2.pdf
30. [a. b.](#) Benjamin K. Safeworks Safer Crack Use Kits; 2011. (unpublished) Made available by D Nielson, from SafeWorks Calgary
31. Goodman D. (2005) Toronto crack users perspectives: Inside, Outside, Upside Down. The Safer Crack Use Coalition; 2005. The Wellesley Central Health Corporation. Accessed December 2012 from: www.wellesleyinstitute.com/wp-content/uploads/2011/11/e-2004-11-005.pdf
32. Leonard L, DeRubeis E, Germain A, et al. Ontario Harm Reduction Distribution Program: Provincial report Outcome Evaluation Wave One - Baseline. 2007. Accessed December 2012 from: <http://www.med.uottawa.ca/epid/assets/documents/PROVINCIAL%20HRDP%20Wave%201%20Evaluation%20Report%20FINAL%28with%20reference%29.pdf>
33. [a. b.](#) Leonard L, Germain A. Ontario Harm Reduction Distribution Program: Final Outcome Evaluation; 2009. Accessed December 2012 from: www.medicine.uottawa.ca/epid/assets/documents/PROVINCIAL%20HRDP%20Final%20Evaluation%20Report.pdf
34. [a. b.](#) Fischer B, Rudzinski K, Ivins A, et al. Social, health and drug use characteristics of primary crack users in three mid-sized communities in British Columbia, Canada. *Drugs: Education, Prevention & Policy* . 2010;17(4):333-53.
35. [a. b.](#) Ivins A, Roth E, Nakamura N, et al. Uptake, benefits of and barriers to safer crack use kit (SCUK) distribution programmes in Victoria, Canada--a qualitative exploration. *International Journal of Drug Policy* . 2011;22(4):292-300.
36. Leonard L, DeRubeis E, Pelude L, et al. I inject less as I have easier access to pipes. *International Journal of Drug Policy* . 2008;19(3):255-64.
37. Malchy L, Bungay V, Johnson J. Documenting practices and perceptions of 'safer' crack use: a Canadian pilot study. *International Journal of Drug Policy* . 2008 Aug;19(4):339-41.
38. Boyd S, Johnson JL, Moffat B. Opportunities to learn and barriers to change: crack cocaine use in the Downtown Eastside of Vancouver. *Harm Reduction Journal* . 2008;5(1):34.

39. Ti L, Buxton J, Wood E, et al. Difficulty accessing crack pipes and crack pipe sharing among people who use drugs in Vancouver, Canada. *Substance Abuse Treatment, Prevention & Policy* . 2011;6(1):34.
40. Canadian HIV/AIDS Legal Network. Distributing Safer Crack Kits in Canada; Sept. 2008. Accessed December 2012 from: www.aidslaw.ca/publications/interfaces/downloadFile.php?ref=1390
41. Strike C, Watson TM, Lavigne P, et al. Guidelines for better harm reduction: evaluating implementation of best practice recommendations for needle and syringe programs (NSPs). *International Journal of Drug Policy* . 2011 Jan;22(1):34-40.
42. 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.

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