



British Columbia  
Centre for Excellence  
in HIV/AIDS



Findings from the evaluation of  
**Vancouver's Pilot Medically Supervised  
Safer Injecting Facility – Insite**

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# Findings from the Evaluation of Vancouver's Pilot Medically Supervised Safer Injection Facility – Insite

Report prepared by the  
Urban Health Research Initiative of the  
British Columbia Centre for Excellence in HIV/AIDS

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## Executive Summary

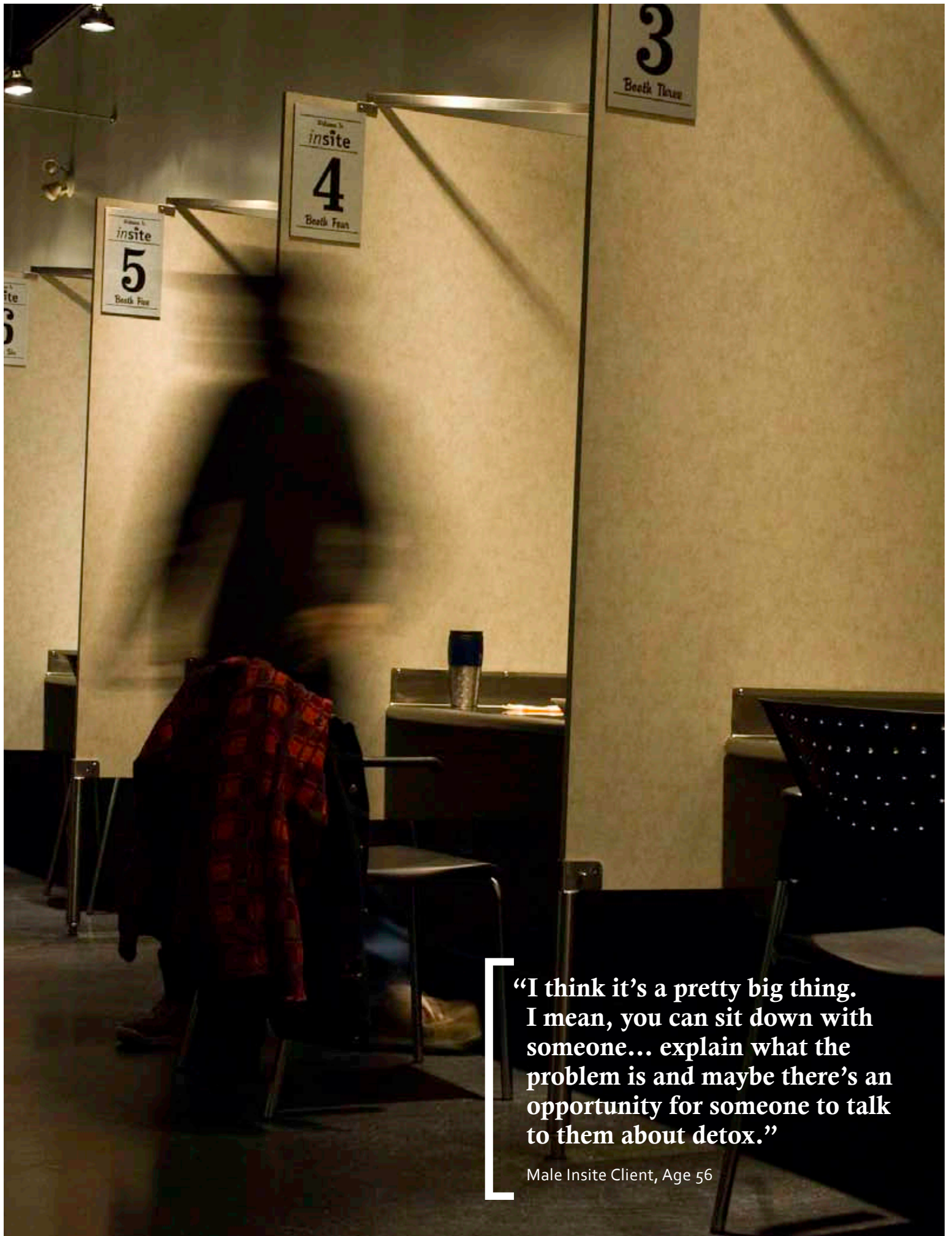
In 2003, the regional health authority in Vancouver, Canada successfully applied to the federal government for a legal operating exemption to pilot North America's first medically supervised injection facility (SIF) – Insite. The exemption was granted on the condition the program undergo rigorous scientific evaluation. Given the controversial nature of SIFs, as will be described in this report, the Insite evaluation was designed to stand up to the highest level of scientific scrutiny.

The first several years of evaluation have yielded an array of scientific outputs, including more than 30 peer-reviewed studies describing the program's impacts. These publications indicate that Insite provides a range of benefits to its clients and the greater community, including a reduction in public injecting, lower levels of HIV risk behaviours (e.g., syringe sharing), and an increase in uptake of addiction treatment among the facility's clients. Furthermore, studies seeking to identify potential harms of the facility found no evidence of negative impacts. Studies were independently peer-reviewed and published in top scientific periodicals, including the *New England Journal of Medicine*, *The Lancet* and the *British Medical Journal*.

It is recognized that the lack of understanding among key stakeholders regarding the results of Insite's evaluation reflect, in part, a failure to appropriately translate and share findings related

to the initiative. Specifically, it has become increasingly clear in scientific circles that academic publications are not sufficiently accessible to politicians and the general public.

The following report addresses this concern by providing a lay person's description of the scientific evaluation of Insite, as well as summaries of the research findings related to its impact. It is hoped that by making this information more accessible to the general public, the federal government, and the media, this report will offer clarity to all Canadians on the issue of supervised injecting facilities such as Insite.



**“I think it’s a pretty big thing. I mean, you can sit down with someone... explain what the problem is and maybe there’s an opportunity for someone to talk to them about detox.”**

Male Insite Client, Age 56

## Introduction

Through the application of evidence-based research, health policies are increasingly being driven by the best available scientific evidence.<sup>1</sup> However, there remain critical areas in public health where the gap between best evidence and public policy persists, and few areas suffer from this concern more than the response to the illicit drug problem.<sup>2,3</sup> This is problematic given that effectively responding to the serious problems associated with illicit drug use, such as HIV transmission, fatal drug overdoses and crime, will require the development of government policies guided by the best available scientific evidence.<sup>2</sup>

In 2003, the regional health authority in Vancouver, Canada successfully applied to the federal government for a legal operating exemption to pilot North America's first medically supervised injection facility (SIF).<sup>4</sup> Supervised injection facilities are sanctioned environments where injection drug users can inject pre-obtained drugs under the supervision

of health care professionals. This exemption was granted following the release of feasibility data which suggested that a SIF had the potential to reduce public drug use, overdose deaths, and public disorder.<sup>5,6</sup> The SIF was also established following prior experience of SIFs in a number of international settings, and corresponding research that suggested that such initiatives may have unique potential to reduce public illicit drug use while promoting the use of sterile syringes and providing emergency care in the event of overdose.<sup>7,8,9,10</sup> With consideration of issues related to Canada's compliance with international drug treaties,<sup>11</sup> the SIF's legal exemption was granted on the condition that the program be

1 Kohatsu ND, Robinson JG, Torner JC. Evidence-based public health: An evolving concept. *Am J Prev Med*, 2004; 27: 417-421.

2 Des Jarlais DC, Friedman SR. Fifteen years of research on preventing HIV infection among injecting drug users: What we have learned, what we have not learned, what we have done, what we have not done. *Public Health Rep*, 1998; 113: 182-188.

3 Drucker E. Drug prohibition and public health: 25 years of evidence. *Public Health Rep*, 1999; 114: 14-29.

4 Wood E, Kerr T, Montaner JS, et al. Rationale for evaluating North America's first medically supervised safer-injecting facility. *Lancet Infect Dis*, 2004; 4: 301-306.

5 Wood E, Kerr T, Spittal PM, et al. The potential public health and community impacts of safer injecting facilities: Evidence from a cohort of injection drug users. *J Acquir Immune Defic Syndr*, 2003; 32: 2-8.

6 Kerr T, Wood E, Small D, et al. Potential use of safer injecting facilities among injection drug users in Vancouver's Downtown Eastside. *CMAJ*, 2003; 169: 759-763.

7 Freeman K, Jones CG, Weatherburn DJ, et al. The impact of the Sydney medically supervised injecting centre (MSIC) on crime. *Drug Alcohol Rev*, 2005; 24: 173-184.

8 de Jong W, Wever U. The professional acceptance of drug use: A closer look at drug consumption rooms in the Netherlands, Germany, and Switzerland. *Int J Drug Policy*, 1999; 10: 99-108.

9 Kimber J, Dolan K, van Beek I, et al. Drug consumption facilities: An update since 2000. *Drug Alcohol Rev*, 2003; 22: 227-233.

10 Ronco C, Spuhler G, Coda P, et al. Evaluation for alley-rooms I, II, and III in Basel. *Soc Prev Med*, 1996; 41: S58-68.

11 Malkin I, Elliot R, McRae R. Supervised injection facilities and international law. *J Drug Issues*, 2003; 33: 539.

subjected to a rigorous scientific evaluation.<sup>12</sup> A competition was initiated to fund researchers to conduct the evaluation and this grant was awarded to scientists at the University of British Columbia's Department of Medicine and the BC Centre for Excellence in HIV/AIDS.

### THE SCIENTIFIC SIF EVALUATION FRAMEWORK

The Vancouver SIF has 12 injection stalls where injection drug users (IDUs) inject pre-obtained illicit drugs under the supervision of nurses. Nurses respond to overdoses and address other health needs such as treating injection site abscesses. The facility also has an addiction counsellor and support staff who seek to meet the needs of IDUs or refer them to appropriate community resources such as housing, addiction treatment, etc.<sup>13</sup>

While this may seem like a practical approach to addressing the problems of injection drug use, SIFs remain controversial because of North America's long history of applying criminal sanctions to illicit drug users.

The federal exemption for the legal operation of the Vancouver SIF was granted subject to a

12 Health Canada news release, June 24, 2003: Health Canada approves Vancouver supervised injection site pilot research project.

13 Vancouver Coastal Health. Insite—Supervised Injection Site: Frequent Questions. <http://www.vch.ca/sis/faq.htm>

full scientific evaluation. This was consistent with a Canadian government federal task force recommendation that SIF research be prioritized.<sup>14</sup> Accordingly, Health Canada sought to fund the research component of the initial three-year evaluation that began in September 2003. This funding allowed scientists to follow a large group of SIF users over time. This group is known as the Scientific Evaluation of Supervised Injecting (SEOSI) cohort, which includes approximately 1,000 individuals.<sup>15</sup>

Given the challenges associated with drug use and HIV/AIDS research described above,<sup>16, 17, 18</sup> and the controversial nature of SIFs,<sup>19</sup> the Vancouver SIF evaluation was designed to stand up to the highest level of scientific scrutiny. Specifically, a number of safeguards were put in place. First, a regional SIF oversight committee was

14 Health Canada report, 2001: Reducing the harm associated with injection drug use in Canada.

15 Wood E, Kerr T, Lloyd-Smith E, et al. Methodology for evaluating Insite: Canada's first medically supervised safer injection facility for injection drug users. *Harm Reduct J*, 2004; 1: 9.

16 Vlahov D. The role of epidemiology in needle exchange programs. *Am J Public Health*, 2000; 90: 1390-1392.

17 Wood E, Tyndall MW, Spittal PM, et al. Factors associated with persistent high-risk syringe sharing in the presence of an established needle exchange programme. *AIDS*, 2002; 16: 941-943.

18 Schechter M, Bruneau J. The politics of needles and AIDS. *New York Times*, April 9, 1998, p. A27.

19 Gandey A. US slams Canada over Vancouver's new drug injection site. *CMAJ*, 2003; 169: 1063.



developed that included senior members of all stakeholders groups, including the Chief of the Vancouver Police Department and the Provincial Medical Health Officer. Second, in accordance with the Transparent Reporting of Evaluations with Nonrandomized Designs (TREND) criteria for observational research,<sup>20</sup> the methodology for the evaluation was subjected to external peer review to ensure scientific rigour, as well as publication to ensure scientific openness.<sup>15</sup> Finally, it was required that all findings of the evaluation be subject to external scientific peer review and publication prior to dissemination.<sup>20</sup> Scientific peer review involves submitting individual studies to scientific journals so that the research can be anonymously assessed by experts in the field of addiction and HIV/AIDS. Only research that is favourably reviewed is chosen for publication.

20 Des Jarlais DC, Lyles C, Crepaz N. Improving the reporting quality of nonrandomized evaluations of behavioral and public health interventions: The TREND statement. *Am J Pub Health*, 2004; 94: 361-366.

## Methodology

The framework for the Vancouver supervised injection facility (SIF) evaluation was designed prior to the SIF's opening. As described above, it involved a variety of methodological approaches and was externally reviewed and published.

The SIF research proposed to study several health and social outcomes, including those related to public health and public order. In addition to using surveys and collecting blood to measure HIV infection rates, data from SEOSI were also linked to various health records. These data sources are described below. As well, a database was created at the SIF to allow researchers to track all activity at the facility.

### PROCESS MEASURES

A primary purpose of the evaluation is to measure process indicators related to service uptake within the SIF, and this is enabled through the Insite database. The database tracks the drugs participants consume on site (e.g., heroin, cocaine,) and the services, such as nursing care and counselling, that each client accesses. For instance, in the month of May 2004, more than 1,300 unique visits were logged into the database. Data from the SIF database are collected in a way that fully protects the privacy of SEOSI participants.

### RISK BEHAVIOUR & HEALTH SERVICE USE

The primary focus of the evaluation was HIV and overdose risk behaviour, and health service use among injection drug users. The Vancouver SIF evaluation is unique because of the availability of a number of pre-existing data sources. These data sources include the Vancouver Injection Drug Users Study (VIDUS), a cohort study of injection drug users that began in 1996. In addition, as mentioned above, a cohort of more than 1,000 Insite users (SEOSI) has been followed since the SIF opened. The SEOSI questionnaire deals with items that are particularly relevant to Insite, such as risk behaviours, public drug use, satisfaction with Insite, and access to medical care and addiction treatment services. All SEOSI participants provide informed consent to allow researchers to link to the Insite database so that SIF use can be tracked, and to access administrative health record databases (e.g., detox program records) in the community.

The ongoing evaluation has yielded an array of scientific outputs, including more than 30 peer-reviewed studies describing the program's impacts. These publications, which are summarized in this report, indicate a range of benefits of the SIF, including but not limited to reduced public injecting and HIV risk behaviour and increased uptake of addiction treatment. Furthermore, studies investigating specific potential harms of the SIF have found no evidence of negative impacts.

Each investigation of Insite's impacts was in the form of an individual published study. What follows are summaries of each of these scientific publications about Insite. These summaries are presented in a format designed to be accessible to a general audience. It is hoped that presenting research findings in this manner will help Canadians make informed decisions about the best way forward on this controversial topic.

The evaluation of Insite is ongoing. Information about new research is available at <http://uhri.cfenet.ubc.ca>.

“It’s hard for, especially for street people and junkies, to find somebody who will be sympathetic, and not be judged by just the fact that you’re doing drugs.”

Male Insite Client, Age 56

**NO DUMPING**  
**UNDER SURVEILLANCE**



## SUMMARIES OF PUBLISHED STUDIES

### Evaluating Insite: Why and How

#### REASONS FOR EVALUATING INSITE

Wood E, Kerr T, Montaner JS, Strathdee SA, Wodak A, Hankins C, Schechter MT, Tyndall MW. ***Rationale for evaluating North America's first medically supervised safer-injecting facility.*** *Lancet Infectious Diseases*, 2004; 4(5): 301-306.



Prior to the opening of the Vancouver SIF, it was recognized that this intervention would become one of the most controversial public health interventions in North America. To address this controversy, the evaluators prepared a systematic review of the existing evidence regarding the impacts of SIFs in other settings. These findings suggest that SIFs may have a unique ability to address several outstanding public health and public order concerns related to injection drug use. In addition, the evaluators described the rationale for the Canadian SIF pilot study. This rationale involves the recognition of the limitations of conventional drug control efforts and current public health approaches to reducing infectious diseases and overdose rates among injection drug users.

## HOW INSITE IS STUDIED

Wood E, Kerr T, Lloyd-Smith E, Buchner C, March DC, Montaner JSG, Tyndall MW. **Methodology for evaluating Insite: Canada's first medically supervised safer injection facility for injection drug users.** Harm Reduction Journal, 2004; 1(1): 9.



Because of the controversial nature of supervised injection facilities in North America, the evaluators of Insite sought to employ a scientific evaluation protocol that would stand up to the highest level of scientific scrutiny. As part of this protocol, the methodology for evaluating Insite was reviewed by independent scientists and published in an open-access peer-reviewed scientific journal to ensure full transparency.

This article outlined the methodology used to evaluate Insite. Specifically, the evaluation would investigate how the facility affects injection drug users (IDUs) who use the facility. It would also look at risk behaviours (syringe sharing, for example), risk for overdose, and health service use among IDUs who visit Insite. This would be done by recruiting IDUs into prospective cohort studies, including a cohort of those who use Insite and a cohort of those who do not use the facility. Finally, the data would be statistically analyzed to determine whether Insite is responsible for any changes to the drug-using practices of these groups. The primary cohort used to evaluate Insite is known as the Scientific Evaluation of Supervised Injecting (SEOSI) cohort, and was based on a random sample of IDUs recruited from within Insite.

## Early Results

### ATTENDANCE, DRUG USE PATTERNS AND REFERRALS

Tyndall MW, Kerr T, Zhang R, King E, Montaner JG, Wood E. *Attendance, drug use patterns, and referrals made from North America's first supervised injection facility*. Drug and Alcohol Dependence, 2006; 83(3): 193-198.



After Insite had been in operation for a year and a half, a study was conducted to describe attendance at the facility, the demographic characteristics of the people who were using Insite, drug use patterns at the centre, and any referrals that were being made to addiction treatment and other services.

During the period from March 10, 2004 to April 30, 2005, 4,764 individuals registered to use the facility, 23% of whom were women and 18% of whom were Aboriginal. Heroin was used in nearly half of all injections, and cocaine was injected 37% of the time. There were 273 witnessed overdoses, none of which resulted in a fatality. There were also 2,171 referrals to addiction counselling and other support services.

These early results indicated that Insite was being successfully integrated into the community. The facility was attracting a wide cross-section of injection drug users, and staff were successfully intervening in overdose events on site and actively referring drug users to addiction treatment and other services.



**“I think it’s better for everybody, actually — not only for the people who are using the place, but for the community.”**

Male Insite Client, Age 42



## Who Uses Insite?

### CHARACTERISTICS OF INSITE USERS

Wood E, Tyndall MW, Li K, Lloyd-Smith E, Small W, Montaner JSG, Kerr T. *Do supervised injecting facilities attract higher-risk injection drug users?* American Journal of Preventive Medicine, 2005; 29(2): 126-130.



Past scientific research has identified specific characteristics that place injection drug users (IDUs) at higher risk for overdose and HIV infection. One key measure of Insite's success in reducing harm related to injection drug use is its ability to attract IDUs who exhibit these higher-risk characteristics.

In this study, researchers used data from the Vancouver Injection Drug Users Study (VIDUS). Shortly after Insite opened, VIDUS participants who had used the facility were identified. The researchers then looked at the various characteristics and behaviours of these individuals.

Among 400 VIDUS participants who were surveyed prior to the opening of Insite, 178 (45%) began using the SIF. These Insite users were more likely to be younger, to inject in public, to be homeless or to live in unstable housing, to be daily heroin or cocaine users, and to have recently had a non-fatal overdose.

Based on previous research in Vancouver, it is known that IDUs with these characteristics are at higher risk of overdosing and becoming infected with HIV or other blood-borne diseases. The findings suggest that Insite attracts drug users who are at a particularly high risk of health problems and who were previously public drug users.

## FREQUENT INSITE USERS

Wood E, Tyndall MW, Qui Z, Zhang R, Montaner JSG, Kerr T. *Service uptake and characteristics of injection drug users utilizing North America's first medically supervised safer injecting facility.* American Journal of Public Health, 2006; 96(5): 770-773.



Insite evaluators had learned which characteristics of injection drug users predicted that they would use Insite. Now they wanted to know which traits or behaviours would predict frequent use of the facility.

The resulting study found that frequent Insite users tend to be high-intensity heroin and cocaine injectors who inject either heroin or cocaine on a daily basis. Frequent Insite users are also more likely to be homeless. Those IDUs who used Insite less often were more likely to already be on methadone, a treatment for heroin addiction.

This study demonstrates that frequent users of Insite are most likely to be those individuals who are also at highest risk of HIV and overdose as a result of their high-intensity injection practices. It also shows that homeless individuals, a group known to contribute most to public drug use, tend to be more likely to use the SIF on a daily basis.

“I like it. I like it 'cause ... it's safe there and women – working girls – don't get ripped off, robbed in other ways... by the guys. Now, try and touch us.”

Female Insite Client, Age 43

## HEPATITIS C INFECTION AMONG INSITE USERS

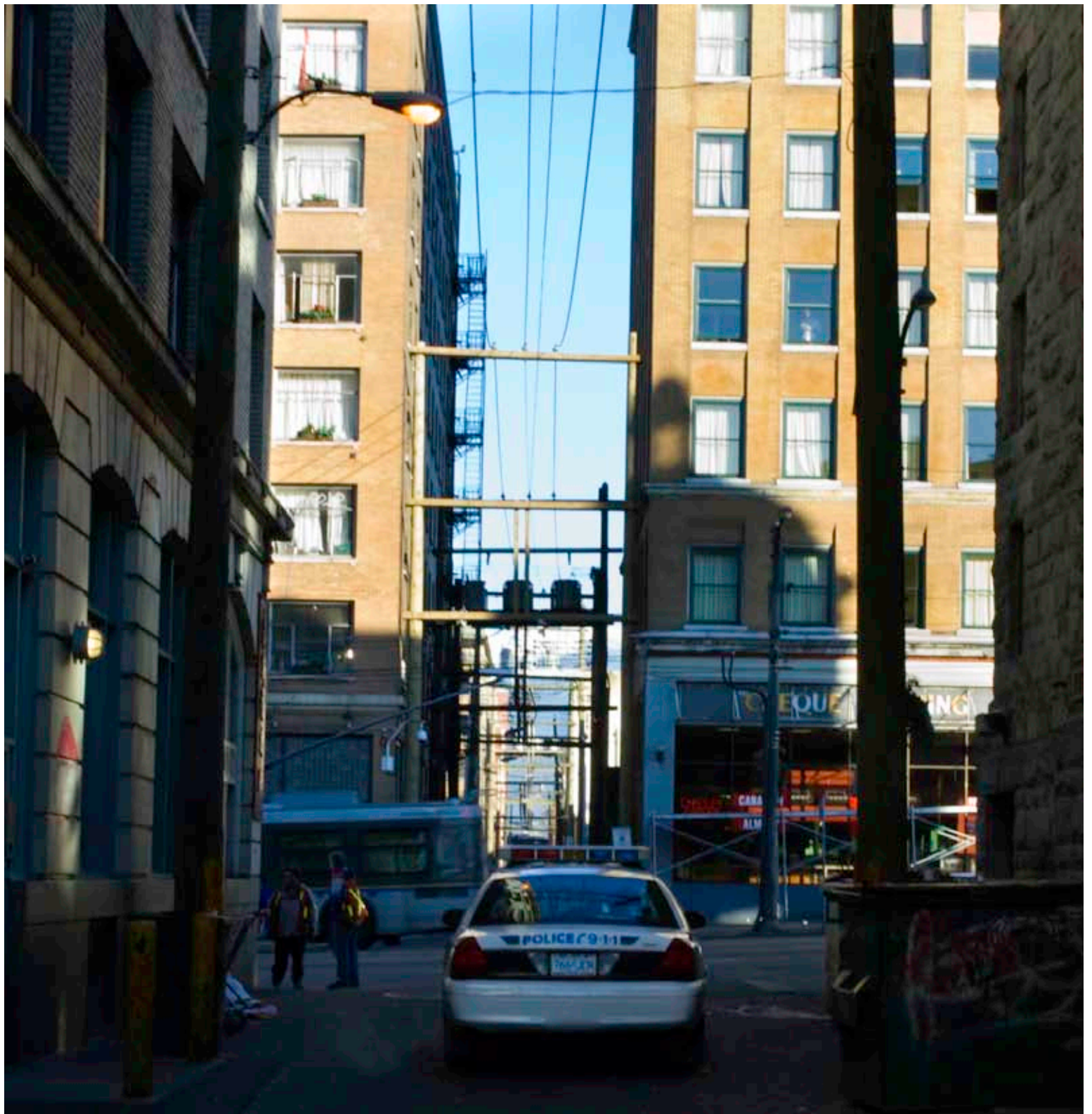
Wood E, Kerr T, Stoltz J, Qui Z, Zhang R, Montaner JSG, Tyndall MW. *Prevalence and correlates of hepatitis C infection among users of North America's first medically supervised safer injection facility*. Public Health, 2005; 119(12): 1111-1115.



The hepatitis C virus (HCV) is one of the most virulent blood-borne diseases, and commonly infects injection drug users (IDUs), placing a large strain on the healthcare system. By attracting HCV-positive IDUs and providing these individuals with a place to inject where there is no risk of syringe sharing, Insite should theoretically help reduce disease transmission. This study examined whether Insite attracted HCV-positive individuals and also looked at the factors associated with baseline HCV infection among Insite users.

Between December 2003 and June 2004, 691 Insite users were randomly enrolled in the Scientific Evaluation of Supervised Injecting (SEOSI) study. Among this group, 605 (87.6%) were HCV-positive. The researchers then compared SEOSI participants who were HCV-positive to those who were HCV-negative.

The researchers found that HCV-positive individuals were 3.7 times more likely to be involved in the sex trade, 1.8 times more likely to have a history of borrowing syringes, and 2.6 times more likely to have a history of being incarcerated. Insite users who were HCV-negative were 1.6 times less likely to be daily heroin users. This study shows that Insite is used by IDUs with a high burden of HCV infection, as well as a substantial number of uninfected individuals, and therefore has the potential to help reduce risk of disease transmission.



**“I’ve started practising a lot safer and cleaner... for sure. Now I stop and think, right? It’s like, ‘Well, I don’t have to rush.’... In the alley, you just don’t have time to do that.”**

Male Insite Client, Age 56

## HIV PREVALENCE AMONG INSITE USERS

Tyndall MW, Wood E, Zhang R, Lai C, Montaner JSG, Kerr T. *HIV seroprevalence among participants at a supervised injection facility in Vancouver, Canada: Implications for prevention, care and treatment*. Harm Reduction Journal, 2006; 3(1): 36.



High rates of HIV infection mark Vancouver's injection drug using population. One key rationale for the establishment of a supervised injection facility in Vancouver was that such a facility might attract injection drug users (IDUs) at high risk of transmitting HIV who are hard to reach through existing public health programs. This study sought to evaluate factors associated with baseline HIV infection among Insite's users.

Among 1,007 IDUs in the Scientific Evaluation of Supervised Injecting (SEOSI) study, HIV infection was detected in 170, or 17%, when they first enrolled in the study. When these individuals were observed over a period of 18 months, the study's researchers found that HIV-positive IDUs who visited Insite were most likely to be Aboriginal, to have a history of sharing used needles, to have been previously incarcerated, and to inject cocaine daily.

These findings suggest that Insite has attracted a large number of hard-to-reach IDUs and that the existence of the facility presents an excellent opportunity to enhance HIV prevention through education, the provision of clean injecting equipment, and the availability of a supervised and sterile environment to self-inject. Finally, the facility is also an important point of contact for HIV-positive individuals who may not yet be participating in HIV care and treatment.

## YOUNGER INSITE USERS

Stoltz JA, Wood E, Miller C, Small W, Li K, Tyndall MW, Montaner J, Kerr T. *Characteristics of young illicit drug injectors who use North America's first medically supervised safer injecting facility*. *Addiction Research & Theory*, 2007; 15(1): 63-69.



One key measure of Insite's success in reducing the various harms related to injection drug use is whether it is able to attract IDUs who are at highest risk of experiencing those harms. While other studies established that Insite generally attracts high-risk IDUs, this study specifically examined whether Insite was attracting high-risk IDUs under the age of 30.

In this study, researchers identified IDUs under the age of 30 who started using the SIF when it opened, and compared their characteristics to those of IDUs under 30 who did not use Insite.

Among 135 IDUs who were under the age of 30 and surveyed prior to the opening of Insite, 77 (57%) later reported having injected at Insite. These younger Insite users were more likely to use heroin daily, to have experienced a drug overdose, to engage in binge drug use, to have lent used needles, to have been in jail, and to have been homeless in the six months prior to the opening of Insite. These findings suggest that Insite has succeeded in attracting young high-risk injection drug users.

“I can't really compare it [Insite] to anything else, 'cause I've never really gotten any help anywhere else, other than there.”

Transgender Insite Client, Age 23

## Does Insite Promote Drug Use?

### A BEFORE AND AFTER STUDY

Kerr T, Stoltz JA, Tyndall M, Li K, Zhang R, Montaner J, Wood E. *Impact of a medically supervised safer injection facility on community drug use patterns: A before and after study*. British Medical Journal, 2006; 332(7535): 220-222.



One concern prior to the opening of Insite was whether the facility would encourage injection drug use by making drug injection easier and more comfortable for IDUs. Therefore, in this study the key task for the evaluators of Insite was to observe whether the opening of the facility was accompanied by a worsening of community drug use patterns.

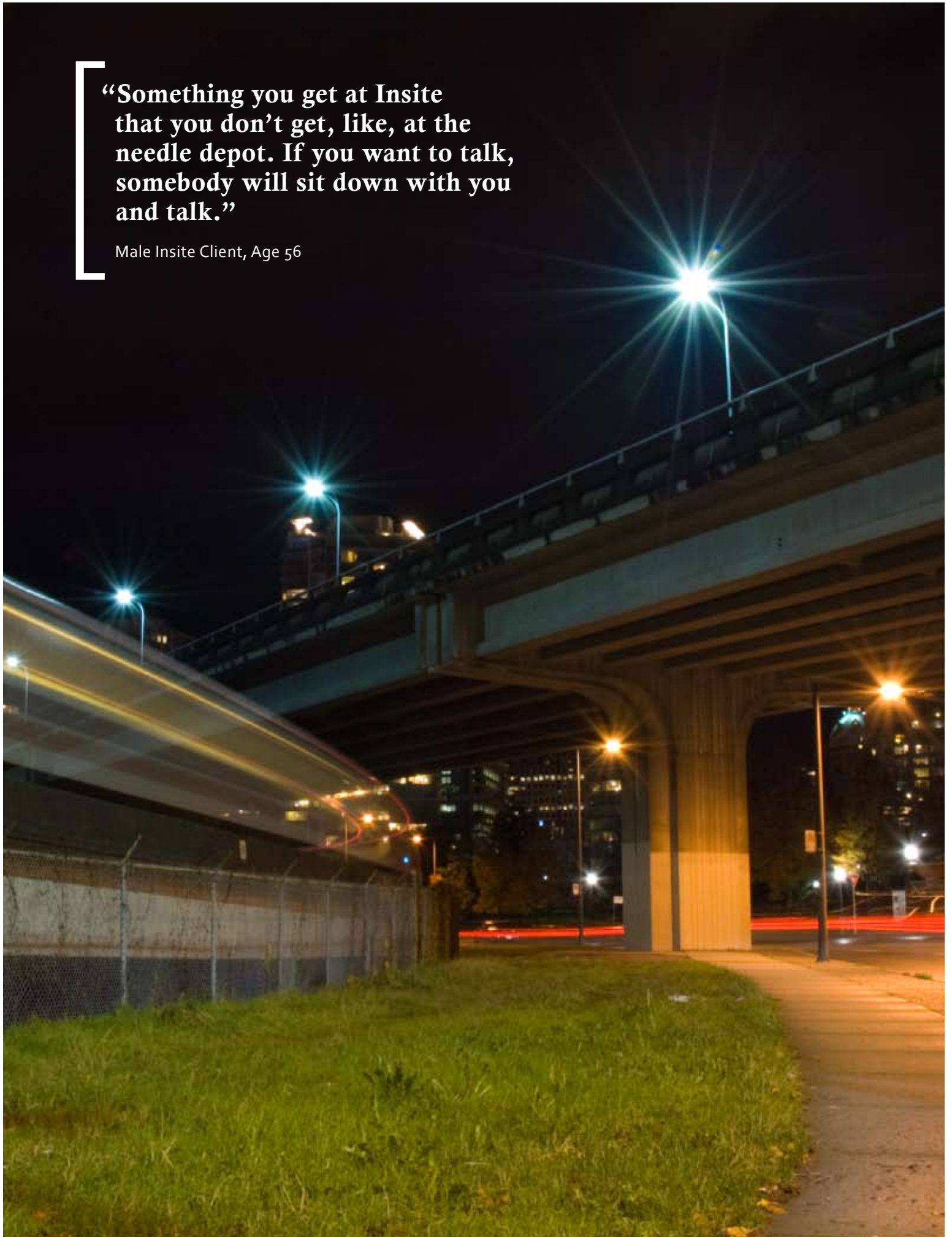
The drug use behaviours of 871 IDUs were observed in the one-year period before the opening of Insite and in the one-year period after. The drug use behaviours studied included the rates of relapse into injection drug use among former users and the cessation of injection drug use among current users.

The study found that after Insite opened there was no substantial increase in the rate of relapse into injection drug use among former users (the rate of relapse was 17% prior to the opening and 20% after). There was also no substantial decrease in the rate of injection drug use cessation among current users (the rate was 17% prior to Insite's opening and 15% after).

This research shows that the benefits of Insite on reducing the high-risk behaviours of IDUs and on increasing public order have not been offset by negative effects on drug use patterns among Vancouver's IDU population.

**“Something you get at Insite that you don’t get, like, at the needle depot. If you want to talk, somebody will sit down with you and talk.”**

Male Insite Client, Age 56





## INSITE AND INITIATION OF INJECTION DRUG USE

Kerr T, Tyndall M, Zhang R, Lai C, Montaner J, Wood E. *Circumstances of first injection among illicit drug users accessing a medically supervised safer injection facility*. American Journal of Public Health, 2007; 97(7): 1228-1230.



With all public health efforts, it is important to examine potential unintended harms as well as benefits. One concern regarding Insite that has been voiced by the Royal Canadian Mounted Police (RCMP) has been that the presence of such a facility presents the wrong message about the safety of illicit drug injection and may thereby contribute to an increase in drug use.

To investigate this concern, researchers interviewed Insite clients enrolled in the Scientific Evaluation of Supervised Injecting (SEOSI) study from December 2003 to October 2005. Specific questions were asked concerning the length of time they had been injecting, their drug use behaviour, and the circumstances surrounding their first time injecting.

The study found that the average Insite user had been injecting for 16 years. Only one person out of 1,065 reported performing their first injection at Insite. This strongly suggests that Insite has not promoted illicit drug injecting, but rather that it has attracted individuals with long histories of injection drug use.

## Insite and Addiction Treatment

### INSITE USERS AND DETOX

Wood E, Tyndall MW, Zhang R, Stoltz J, Lai C, Montaner JSG, Kerr T. **Attendance at supervised injecting facilities and use of detoxification services.** *New England Journal of Medicine*, 2006; 354(23): 2512-2514.



Critics have suggested that the availability of a supervised injection facility might discourage drug users from seeking treatment for their addiction. This study was conducted to examine the effect of Insite on the use of detoxification services, which is the entry point into the addiction treatment continuum in Vancouver.

The study followed more than 1,000 Insite users between December 1, 2003 and March 1, 2005. Of this group, 185 (18%) began a detoxification program at some point during the study period. Individuals who used Insite at least weekly were 1.7 times more likely to enroll in a detox program than those who visited the centre less frequently. The study also found that contact with Insite's addictions counsellor significantly increased a person's chances of enrolling in detox.

Contrary to fears that Insite might be deterring drug users from seeking treatment, these findings strongly suggest that Insite is facilitating entry into detoxification services among its clients.

## DETOX BEFORE AND AFTER INSITE


Wood E, Tyndall MW, Zhang R, Montaner JS, Kerr T. *Rate of detoxification service use and its impact among a cohort of supervised injecting facility users*. *Addiction*, 2007; 102(6): 916-919.



In this study, researchers sought to measure the effect of Insite on the use of detoxification services by comparing rates of detox service use among injection drug users (IDUs) in Vancouver in the year before Insite opened and in the year after it opened. The researchers also investigated whether those individuals who attended Insite and enrolled in detox were subsequently more likely to enroll in methadone maintenance or other drug treatment programs.

What the researchers learned was that, in the year after Insite opened, there was a 33% increase in detoxification service use, compared to the year prior to the opening of the facility. The study also showed that Insite clients who entered detox were 1.6 times more likely to enroll in methadone treatment and 3.7 times more likely to enroll in other forms of addiction treatment. As well, individuals who entered detox visited Insite less frequently in the month after enrolling in detox services than in the month prior to enrolment.

This research indicates that Insite encourages IDUs to enter detox. It also suggests that drug users who enroll in detox are more likely to remain in subsequent treatment programs and reduce their use of Insite.



**“There’s less paraphernalia  
on the streets. It makes this  
neighbourhood a little cleaner.”**

Female Insite Client, Age 26

## Impact on Crime and Public Disorder

### INSITE'S IMPACT ON DRUG-RELATED CRIME

Wood E, Tyndall MW, Lai C, Montaner JSG, Kerr T. *Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime*. Substance Abuse Treatment, Prevention, and Policy, 2006; 1(1): 13.



One concern regarding the opening of Insite was its potential to spark the migration of injection drug users into the neighbourhood where the facility is located, and thereby increase drug-related crime. This study examined whether Insite had an impact on levels of drug-related crime in the neighbourhoods surrounding the facility, including the Downtown Eastside, Victory Square, Chinatown, Gastown and Strathcona.

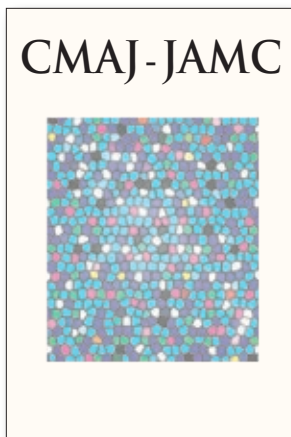
Crime rates in the year before Insite opened (October 1, 2003 to September 30, 2004) were compared with crime rates in the year after the facility opened (October 1, 2004, to September 30, 2005). The study's authors used data from the Vancouver Police Department on drug trafficking, assaults, robberies, vehicle break-ins, and thefts.

After comparing the data from the two periods, the researchers found no statistically significant changes in rates of drug trafficking (124 incidents in the year before Insite opened vs. 116 incidents after) or assaults and robberies (147 incidents before vs. 180 incidents after). Because these changes lack statistical significance, they are most likely due to chance and therefore cannot be attributed to Insite's opening. However, there was a statistically significant drop in vehicle break-ins and vehicle thefts (302 incidents vs. 227 incidents).

The results of this study provide evidence that Insite has not contributed to an increase in drug-related crime in surrounding neighbourhoods.

## INSITE'S IMPACT ON PUBLIC ORDER

Wood E, Kerr T, Small W, Li K, Marsh D, Montaner JS, Tyndall MW. *Changes in public order after the opening of a medically supervised safer injecting facility for illicit injection drug users*. Canadian Medical Association Journal, 2004; 171(7): 731-734.



Like many urban centres worldwide, Vancouver's Downtown Eastside faces high levels of public drug use. Unsafe disposal of syringes, as a result of public drug use, is a significant community concern.

This study explored whether the opening of Insite affected levels of public order. This was evaluated by comparing levels of public drug use and publicly discarded syringes and injection-related litter in the area around Insite before and after the facility opened. Specifically, the investigators measured injection-related public order problems during the six weeks prior to the opening of the SIF and the 12 weeks after its opening, and tested for changes in the number of public drug users, discarded syringes, and injection-related litter.

The study found that, after Insite opened, public order in the area around the facility improved. There were significant decreases in numbers of publicly discarded syringes, injection-related litter such as syringe wrappers, and people injecting in the area around Insite.

After accounting for seasonal weather variations, police presence and other factors, the study's authors were able to conclude that the improvement in public order was a result of the presence of Insite. Independent measures of public order, including the number of used needles discarded in public disposal boxes, provided further confirmation of these study findings.

## Insite and Overdose Prevention

### DRUG OVERDOSES AT INSITE

Kerr T, Tyndall MW, Lai C, Montaner JSG, Wood E. *Drug-related overdoses within a medically supervised safer injection facility*. International Journal of Drug Policy, 2006; 17(5): 436-441.

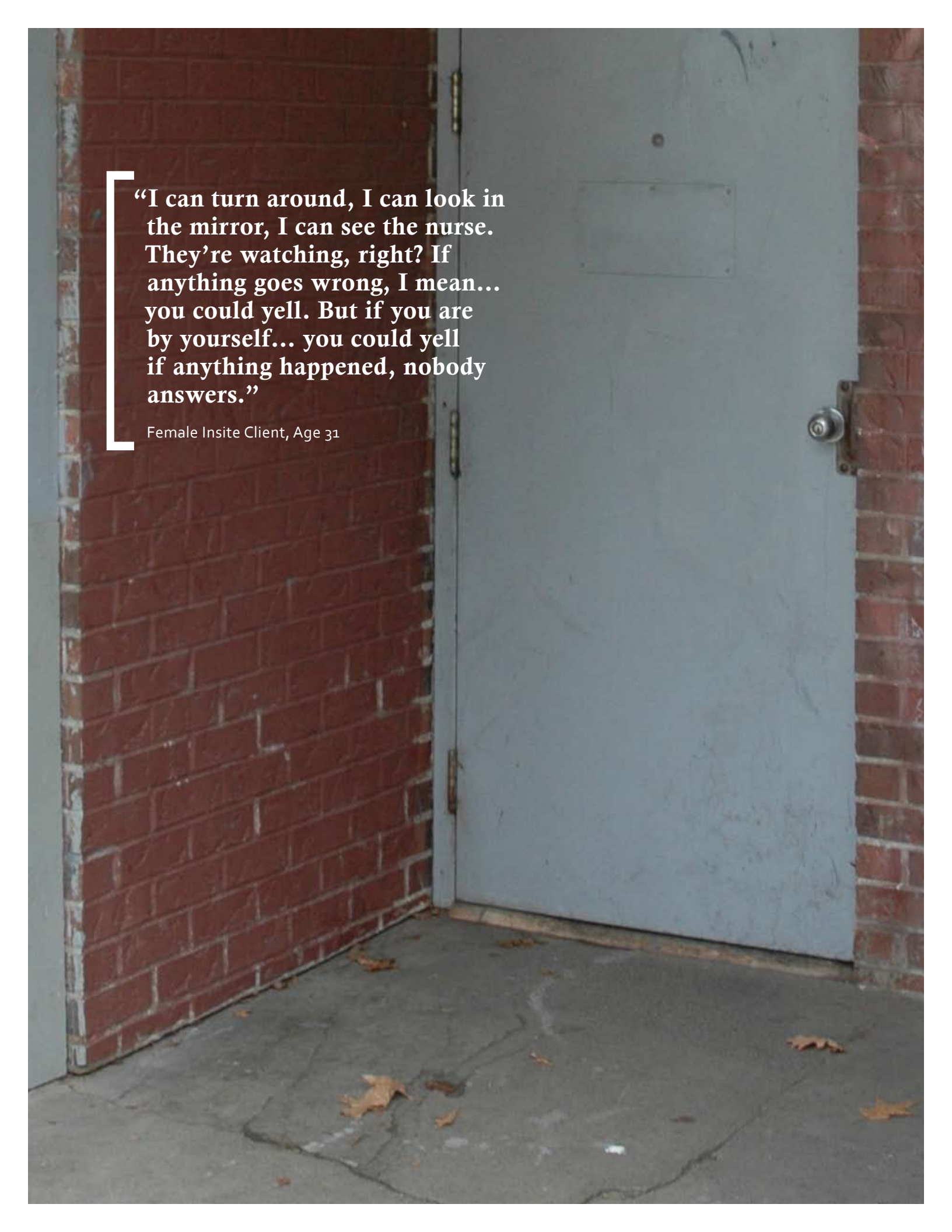


Overdose is a leading cause of death for injection drug users (IDUs) worldwide. Unfortunately, there are few interventions that effectively address the risks associated with overdose. This study investigated the prevalence of overdose events at Insite and the nature of overdose response within the facility over a period of 18 months.

The study authors examined data from the Scientific Evaluation of Supervised Injecting (SEOSI) cohort. As well, data from Insite's medical records were used to investigate how staff and emergency services responded to overdoses.

Over the 18-month study period (March 2004 to August 2005), 336 overdoses were reported at Insite – none of them fatal. The study revealed that IDUs who overdosed at the facility were most likely to be less experienced injectors, daily heroin users, or individuals who had overdosed previously. In most cases (87%), IDUs who overdosed were treated with oxygen.

This study suggests that Insite successfully plays a role in managing overdoses among IDUs. It is also likely, given these findings, that Insite reduces the burden on emergency services (ambulances and emergency rooms) that traditionally respond to overdose events.



**“I can turn around, I can look in the mirror, I can see the nurse. They’re watching, right? If anything goes wrong, I mean... you could yell. But if you are by yourself... you could yell if anything happened, nobody answers.”**

Female Insite Client, Age 31



## ARE THERE MORE OVERDOSES NOW BECAUSE OF INSITE?

Milloy M-JS, Kerr T, Mathias R, Zhang R, Montaner JS, Tyndall Mark, Wood E. ***Non-fatal overdose among a cohort of active injection drug users recruited from a supervised injection facility.*** American Journal of Drug and Alcohol Abuse, 2008; 34(4): 499-509.



The sharp rise in the number of overdose deaths in Vancouver's Downtown Eastside in the mid-1990s was one of the reasons why Insite was opened in 2003. Although the number of fatal and non-fatal overdoses has dropped since the late 1990s, non-fatal overdoses are still common. Not only do they cause substantial suffering, but they also place a large burden on local emergency response and health-care systems.

Although no overdose at Insite has resulted in death, non-fatal overdose is a fairly common occurrence there (roughly 13 for every 10,000 injections). Some people have suggested that Insite may actually lead to more overdoses by giving local drug users a safe place to inject and perhaps thereby encouraging them to use higher doses of drugs.

Insite evaluators tested this idea by examining data from surveys of more than 1,000 Insite users over a two-year period. Their research shows that, while about one in 10 clients of Insite suffers a non-fatal overdose every six months, drug users who use Insite for 75% or more of their injections are not more likely to overdose than drug users who use Insite less often.

This study also found that people who use heroin at least daily are more likely to report overdose, as are those who use drugs in public, need help injecting, or are involved in the sex trade. A significant finding was that drug users being treated with methadone are less likely to overdose than those not receiving the treatment.

## INSITE'S IMPACT ON OVERDOSE RISK

Kerr T, Small W, Moore D, Wood E. ***A micro-environmental intervention to reduce the harms associated with drug-related overdose: Evidence from the evaluation of Vancouver's safer injection facility.*** *International Journal of Drug Policy*, 2007; 18(1): 37-45.



Traditional strategies to prevent overdose are often criticized for failing to take into account the many factors – social, cultural and structural – that influence drug injecting practices and compromise the ability of individuals to reduce the risk of overdose. Because of this, public health experts have called for interventions such as Insite to reduce this risk by changing the environment in which people inject drugs. This study was conducted to explore the impact of Insite on overdose risk among injection drug users (IDUs) in Vancouver.

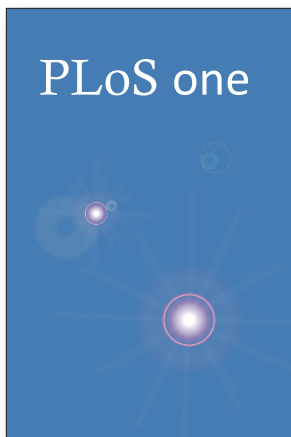
The research consisted of in-depth qualitative interviews with 50 IDUs who use Insite and participate in the Scientific Evaluation of Supervised Injecting (SEOSI) study. These interviews revealed that Insite addresses many of the environmental factors that drive the high rate of overdose among IDUs. By making it possible for IDUs to inject under medical supervision, with time to carefully and safely inject drugs without feeling rushed, in a safe environment with no risk of assault, robbery, or confrontations with police, Insite plays an important role in reducing overdose risk and in safely managing those overdoses that do occur.

“I feel safe in there... I don't feel rushed, I don't feel threatened or insecure.”

Male Insite Client, Age 52

## OVERDOSE DEATHS PREVENTED BY INSITE

Milloy M-J, Kerr T, Tyndall M, Montaner J, Wood E. *Estimated drug overdose deaths averted by North America's first medically-supervised safer injection facility*. PLoS ONE, 2008; 3(10): e3351.



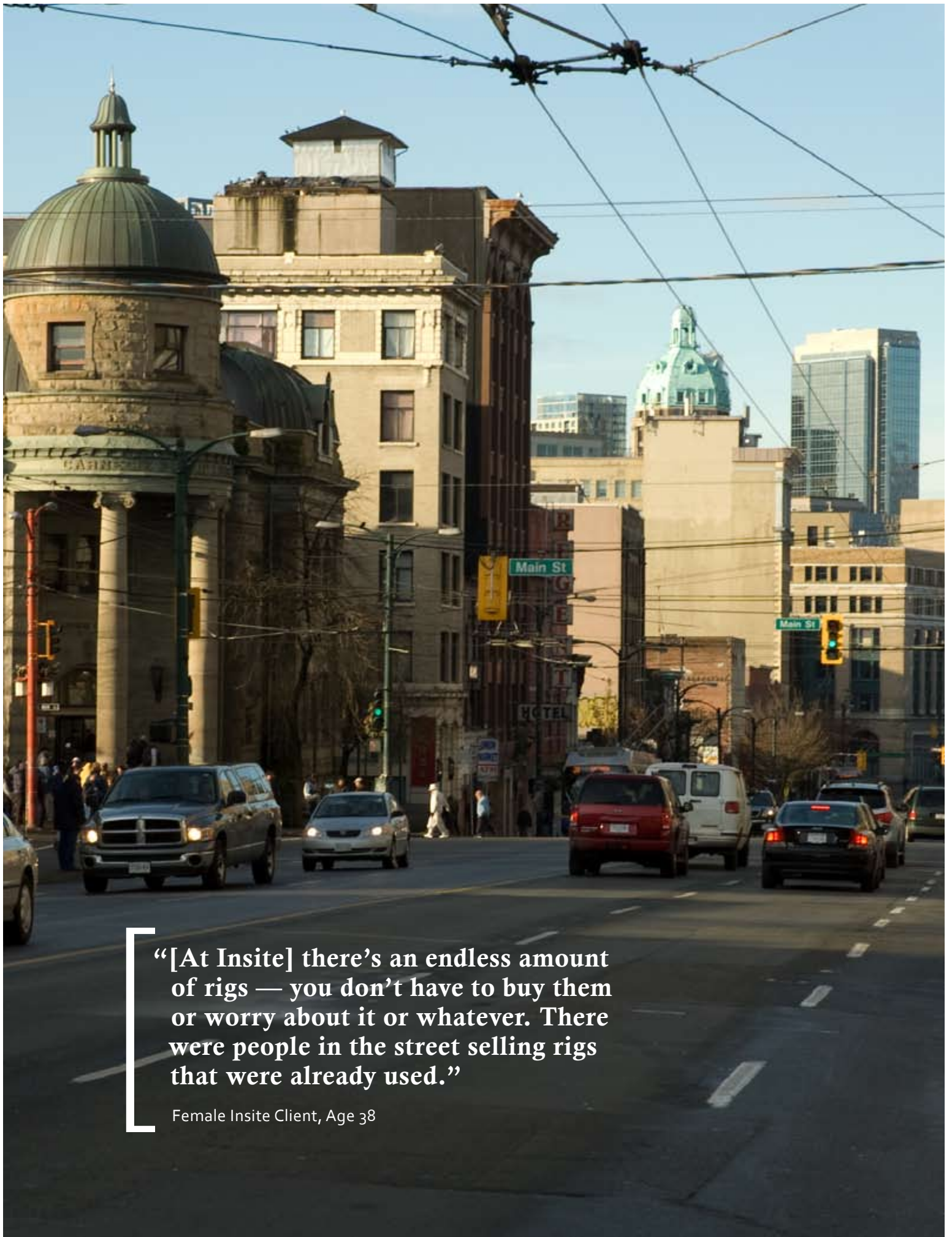
Prompt medical attention at Insite prevented as many as 12 overdose deaths per year over a recent four-year period, according to this study.

Based on data from Insite and the scientific literature, the study estimates how many non-fatal overdoses at Insite would have been fatal had they happened in the community. Using mathematical modelling, the study's authors calculated that between eight and 51 deaths were averted between March 1, 2004 and July 1, 2008.

The number of deaths prevented represents a large proportion of the overdose deaths occurring in Vancouver's Downtown Eastside each year. These findings show that the care provided in the facility reduces the risk of death and improves public health in the DTES.

The study's authors observed that overdose was a common occurrence at Insite, with more than 1,000 events over the study period. In 68% of the ODs, heroin was the primary substance used; cocaine was second at 17%. Over the study period, 453 ODs were serious enough to require a 9-1-1 call, an ambulance, or the administration of naloxone, a powerful anti-overdose medication.

Overdose is the cause of a substantial amount of death and disability among injection drug users in Vancouver and around the world. Efforts to lower the risk of death from overdose are central to attempts to reduce the harm from using injection drugs. After peaking at more than 200 in Vancouver in 1998, the number of overdose deaths in the Downtown Eastside has averaged about 35 over the past five years. Along with the goals of reducing risks for HIV infection and increasing use of addiction treatment, Insite was established to lower the likelihood of death from overdose.



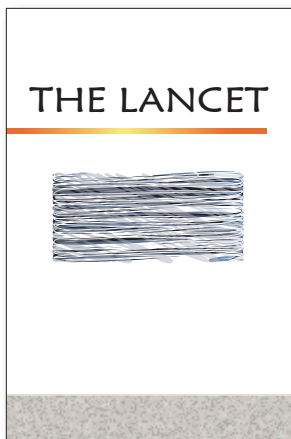
**“[At Insite] there’s an endless amount of rigs — you don’t have to buy them or worry about it or whatever. There were people in the street selling rigs that were already used.”**

Female Insite Client, Age 38

## Impact on High-Risk Behaviour

### INSITE'S EFFECT ON SYRINGE SHARING

Kerr T, Tyndall M, Li K, Montaner J, Wood E. *Safer injection facility use and syringe sharing in injection drug users*. *Lancet*, 2005; 366(9482): 316-318.



Used syringe sharing is the primary way HIV and other blood-borne diseases are transmitted among injection drug users (IDUs), and has been the primary driver of Vancouver's HIV epidemic. This study sought to evaluate the impact of Insite on rates of syringe sharing among IDUs in the community in order to determine whether the facility promotes lower levels of syringe sharing among its clients.

Between December 2003 and June 2004, researchers interviewed 431 active IDUs enrolled in the Vancouver Injection Drug Users Study (VIDUS), some of whom used Insite and some of whom did not. Among all 431 IDUs, 49 (11.4%) reported sharing syringes in the past six months.

This study found that IDUs who use Insite to inject drugs are 70% less likely to share syringes than IDUs who do not use the facility. An important finding was that IDUs who use Insite were as likely as those who do not use Insite to share syringes before Insite opened. In other words, the reductions in syringe sharing observed among Insite users only occurred after Insite opened, suggesting that Insite may have been responsible for this important behavioural change.

## CHARACTERISTICS OF INSITE USERS WHO SHARE SYRINGES

Wood E, Tyndall MW, Stoltz JA, Small W, Lloyd-Smith E, Zhang R, Montaner JSG, Kerr T. **Factors associated with syringe sharing among users of a medically supervised safer injecting facility.** American Journal of Infectious Diseases, 2005; 1(1): 50-54.



After comparing syringe sharing among IDUs who use Insite and those who don't, Insite evaluators next wanted to learn why certain individuals who use Insite continue to share syringes. This study was undertaken to investigate why this high-risk behaviour continues among certain Insite users. Data from this study came from participants in the Scientific Evaluation of Supervised Injecting (SEOSI) study. Overall, 582 IDUs (including 479 HIV-negative and 103 HIV-positive individuals) participated in this study.

Among the 479 HIV-negative study participants, 48 (10%) reported borrowing a used syringe in the prior six months. Individuals who borrowed syringes were 7 times more likely to inject drugs in public and 2.5 times more likely to require help injecting drugs than those individuals who did not borrow syringes. However, those IDUs who used Insite exclusively to inject drugs were 7 times less likely to share syringes.

Among the 103 HIV-positive study participants, 17 (16.5%) reported lending syringes. Those who lent syringes were 3.4 times more likely to be daily cocaine injectors and 6 times more likely to inject in shooting galleries (locations such as abandoned buildings that are used by IDUs to inject drugs illegally). There were no instances of used syringe lending among HIV-positive individuals who reported exclusive use of Insite.

These findings support earlier results suggesting that Insite appears to be helping to reduce syringe sharing, the key risk factor for HIV transmission in the Downtown Eastside.

## REDUCED SYRINGE SHARING AND HIV PREVENTION

Milloy M-J, Wood E. *Emerging role of supervised injecting facilities in human immunodeficiency virus prevention*. *Addiction*, 2009; 104(4): 620-621.



Evidence from scientific studies of medically supervised injection facilities in other parts of the world is consistent with Insite studies in showing a reduction in syringe sharing among IDUs who use the facilities regularly.

Combining data from a study of SIFs in Spain with data from the scientific evaluation of Insite, the authors of this study concluded that regular SIF users have reduced their likelihood of sharing syringes by 69%.

As the practice of sharing syringes among users of illicit injection drugs is the cause of a significant proportion of new HIV infections around the world, interventions that are effective in reducing syringe sharing may help slow the spread of HIV.

“People are being safer and everything too, eh? It’s, y’know, as I say, heroin addicts especially are creatures of habit. They go in there [Insite], they get the habit formed of being safe.”

Male Insite Client, Age 48

## INSITE'S EFFECT ON CONDOM USE

Marshall B, Wood E, Zhang R, Tyndall M, Montaner JS, Kerr T. ***Condom use among injection drug users accessing a supervised injecting facility.*** *Sexually Transmitted Infections*, 2009; 85(2): 121-126.



Injection drug users are at an increased risk for becoming infected with sexually transmitted infections such as syphilis and HIV. Since condoms are an effective way to reduce the risk of these diseases, programs that promote their use may be effective at preventing future outbreaks among injection drug users.

A study published in the journal *Sexually Transmitted Infections* shows that injection drug users who use Insite have increased their use of condoms. By providing condoms along with clean injection equipment to users of the facility, Insite may be reducing the spread of HIV and other sexually transmitted infections in the community.

From 2003 to 2005, more than 1,000 injection drug users who used Insite were asked how often they used condoms with their sex partners. While consistent condom use was low at the beginning of 2003, by the end of 2005 it had increased by 30% among those with regular partners and by 13% among those who were single or casually dating. Clients who accessed medical care from nurses at Insite were also more likely to use condoms as compared to those who did not.

This study also found that the majority of Insite clients who are HIV-positive used condoms with their sex partners. This finding suggests that HIV-positive injection drug users appear to be taking important steps to reduce their risk of transmitting HIV, as well as other sexually transmitted infections, to others. This study was the first in North America to show that supervised injecting facilities such as Insite can support safer sex practices by providing condoms to their clients.



## SAFER INJECTING EDUCATION AT INSITE

Wood E, Tyndall MW, Stoltz J, Small W, Zhang R, O'Connell J, Montaner JSG, Kerr T. *Safer injecting education for HIV prevention within a medical supervised safer injecting facility*. International Journal of Drug Policy, 2005; 16(4): 281-284.

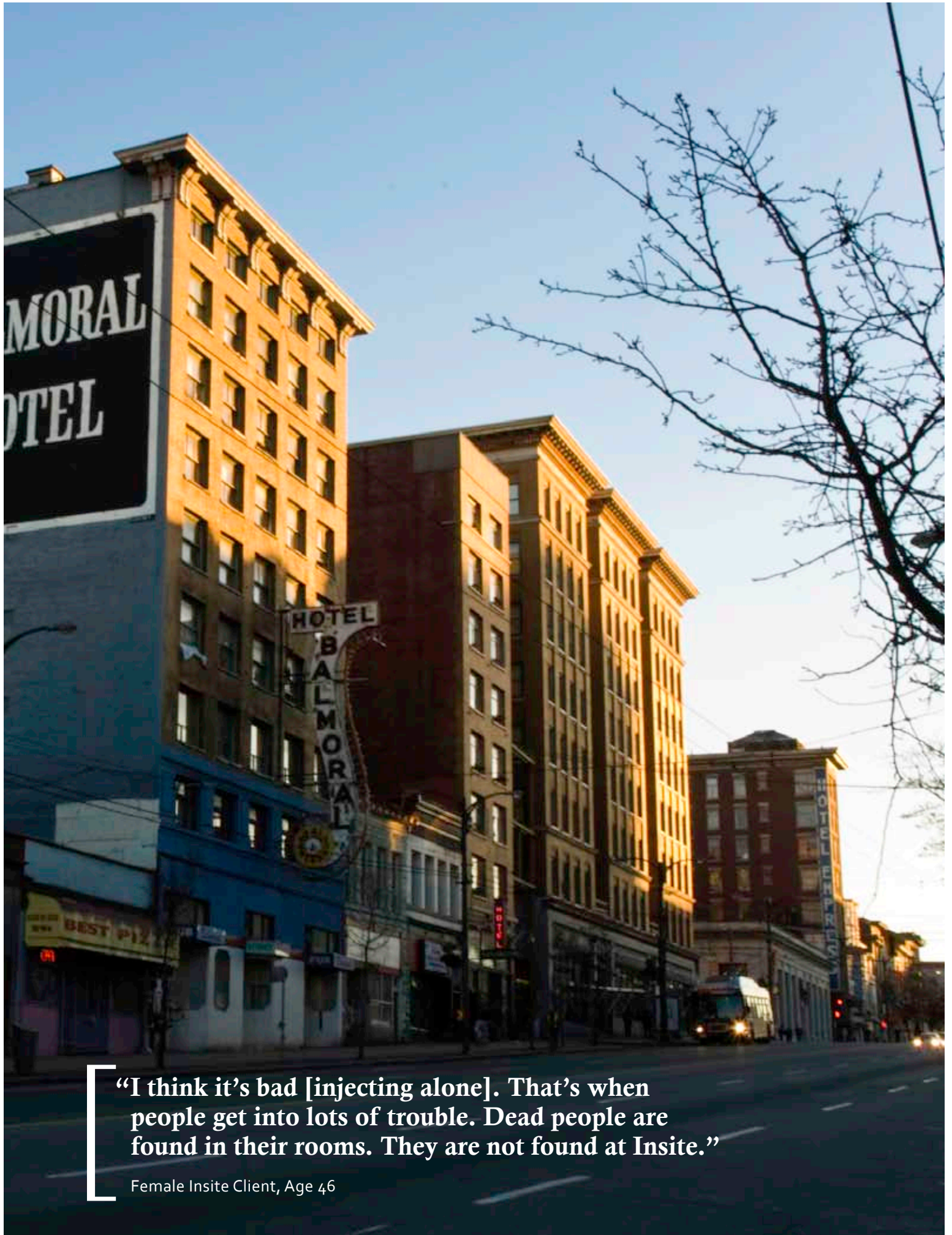


Past research has shown that injection drug users (IDUs) in Vancouver who require help from others to inject drugs are more likely to share syringes and be infected with HIV. Research has also demonstrated that requiring help injecting is often due to a lack of education among IDUs about safer injecting practices. This study investigated whether Insite was helping to reduce unsafe injecting by providing safer injecting education.

Between May 2003 and October 2004, researchers recruited 874 Insite users into the Scientific Evaluation of Supervised Injecting (SEOSI) study. Of this group, 293 (33.5%) received safer injecting education at Insite. This education included demonstrations and information on how to find a vein and how to insert a syringe properly. A key part of this education included strategies for the prevention of HIV transmission or acquisition.

This study demonstrated that those Insite users who received safer injecting education at Insite were more likely to have been injecting for fewer years, to be male, to require help with injections, to report bingeing on drugs and to report being involved in the sex trade.

Since past research has shown that IDUs who require help injecting are also at higher risk of becoming infected with or transmitting HIV, this study was useful in demonstrating that those individuals who require help injecting were among those most likely to receive safer injecting education within the facility.



**“I think it’s bad [injecting alone]. That’s when people get into lots of trouble. Dead people are found in their rooms. They are not found at Insite.”**

Female Insite Client, Age 46

## INSITE'S EFFECT ON SAFER INJECTING PRACTICES

Stoltz JA, Wood E, Small W, Li K, Tyndall MW, Montaner JSG, Kerr T. *Changes in injecting practices associated with the use of a medically supervised safer injection facility*. Journal of Public Health, 2007; 29(1): 35-39.



While injection drug use puts individuals at higher risk for a host of serious health complications, many of the harms of injecting arise from unsafe injecting practices that can be averted or reduced. This study examined whether use of Insite promoted positive changes in injecting practices among injection drug users (IDUs).

Participants in the Scientific Evaluation of Supervised Injecting (SEOSI) cohort were included in this study. Over a period of a year (July 2004 to June 2005), injecting practices were compared between SEOSI participants who consistently visited Insite (for 25% or more of their injections) and those who used the facility inconsistently (less than 25% of their injections).

The study authors found that, compared with those IDUs who used Insite inconsistently, consistent Insite users were almost 3 times more likely to use sterile water, 2.8 times more likely to swab injection sites, more than twice as likely to dispose of syringes safely, and 2.8 times more likely to cook or filter their drugs. They were also 2.8 times more likely not to rush during injections and more than twice as likely not to share syringes. In short, this study suggests that Insite is helping to reduce some of the health risks associated with unsafe injecting.

## WOMEN BENEFITTING FROM SAFER INJECTING EDUCATION AT INSITE

Wood RA, Wood E, Lai C, Tyndall, MW, Montaner JSG, Kerr T. ***Nurse-delivered safer injection education among a cohort of injection drug users: Evidence from the evaluation of Vancouver's supervised injection facility.*** International Journal of Drug Policy, 2008; 19(3): 183-188.



Past research shows that injection drug users (IDUs) in Vancouver who require help from others to inject drugs are more likely to share syringes, be infected with HIV, and be female. Research has also demonstrated that a lack of education among IDUs about safer injecting practices is often the reason why help is required when injecting. Given the importance of education around safer injection practices, this study sought to investigate whether nurses at Insite were continuing to reach high-risk IDUs and help reduce unsafe injecting by providing safer injecting education.

Between March 2004 and March 2005, researchers recruited 1,087 Insite users into the Scientific Evaluation of Supervised Injecting (SEOSI) study. Of this group, 48% reported having received safer injecting education at Insite. The study also found that women were more than one and a half times more likely than men to receive safer injection education at Insite. Other characteristics associated with a greater likelihood of receiving safer injection education at Insite included: experiencing difficulty in accessing clean syringes; needing help to inject; engaging in binge drug use; frequent use of Insite; and injecting in public. Older Insite users were found to be less likely than younger users to receive safer injection education.

This research supports previous studies showing that nurses at Insite are reaching the high-risk injectors, particularly female injection drug users.

## INSITE USERS' PERSPECTIVES ON SAFER INJECTING EDUCATION AT INSITE

Fast D, Small W, Wood E, Kerr T. *The perspectives of injection drug users regarding safer injecting education delivered through a supervised injecting facility*. Harm Reduction Journal, 2008; 5(1): 32.



People who inject illicit drugs are often unaware of steps they can take when injecting to reduce the risk of bacterial and viral infections and other injection-related harms.

This study was based on interviews of 50 Insite clients about safer injecting education provided at the facility. Before they started using Insite, many of these drug users did not know about the benefits of cleaning the skin with an alcohol swab prior to injecting, inserting the syringe bevel-side up, or other measures they could be taking to minimize health risks. Regular Insite users learned about these practices from nurses in a safe and supportive environment, where they could be shown what to do in an unhurried manner. They appreciated being able to ask the nurses for help when they had a question or were having trouble injecting. Importantly, study participants told researchers that the overall environment at the facility encouraged them to adopt the safer practices and to make a habit of using them both within and outside of the facility.

A small number of research participants did report that they had not received safer injecting education at the facility. This tells us that Insite may not be meeting the educational needs of everyone who injects drugs there. Those people who use the facility often are more likely to interact regularly with nurses and receive educational messages that help protect health.

This research illustrates one of the ways Insite is helping to reduce some of the risks associated with injection drug use — by providing a safe environment in which people who inject drugs are able to learn about and adopt practices that will help them to avoid serious injection-related harms.

## Impact on Medical Treatment and Health Care

### INSITE USERS AND ACCESS TO MEDICAL TREATMENT

Small W, Wood E, Lloyd-Smith E, Tyndall M, Kerr T. **Accessing care for injection-related infections through a medically supervised injecting facility: A qualitative study.** *Drug and Alcohol Dependence*, 2008; 98(1-2): 159-162.



Injection drug users often have difficulty obtaining medical care for injection-related infections, such as abscesses, which can become life-threatening if not treated properly. These types of infections are the leading reason for emergency room visits and hospitalizations among drug users in Vancouver. This study sought to examine how using Insite influences injection drug users' ability to access care for injection-related infections.

Researchers conducted in-depth qualitative interviews with 50 IDUs who use Insite and participate in the Scientific Evaluation of Supervised Injecting (SEOSI) study. It found that nurses at Insite regularly provide care for injection-related infections and frequently connect drug users with off-site medical treatment by supplying referrals and arranging transportation. Based on the accounts of interviewees, obtaining care for infections at Insite is sometimes easier than seeking treatment at conventional care settings (such as clinics) because Insite nurses are experienced in working with drug users and because the facility is open late at night.

These findings are important as they indicate that Insite may help to address barriers which normally make it difficult for injection drug users to access medical services. Additionally, increasing access to care for injection-related infections through Insite has the potential to reduce emergency room use and hospitalization among local injection drug users. This suggests that further benefits may be gained by increasing the volume of nursing care provided through Insite, as well as expanding the SIF so that it can serve a greater number of local drug users.

## MEDICAL TREATMENT OF SKIN INFECTIONS

Lloyd-Smith E, Wood E, Zhang R, Tyndall MW, Montaner JSG, Kerr T. *Risk factors for developing a cutaneous injection-related infection among injection drug users: A cohort study*. BMC Public Health, 2008; 8(1): 405.



Skin infections such as abscesses and cellulitis are a common and preventable health problem for many injection drug users. These infections can be very serious – even life-threatening – and they are often the reason why injection drug users seek medical attention at hospital emergency departments.

According to this two-year study of more than 1,000 Insite clients, certain injection drug users are more likely than others to acquire skin infections. Study participants who had skin infections were more likely to be women, to be without adequate housing, to borrow syringes, to need help injecting, or to inject cocaine at least daily.

At any given time during the study period, between 6% and 10% of the participants had skin infections. Previous studies in other parts of the world have shown that the rate of skin infections among injection drug users is typically between 10% and 30%. The participants in this study were all Insite clients, and the lower rate of skin infections among this group could be a result of the medical care and treatment that Insite provides.

Expanding existing community services to include care for wounds and skin infections, especially for those most at risk, might be a feasible, cost-effective way to improve health and reduce the strain on hospital emergency departments.

## POLICE REFERRALS TO INSITE

DeBeck K, Wood E, Zhang R, Tyndall M, Montaner J, Kerr T. ***Police and public health partnerships: Evidence from the evaluation of Vancouver's supervised injection facility.*** Substance Abuse Treatment, Prevention, and Policy, 2008; 3(1): 11.



Although certain law enforcement practices have been found to undermine some HIV prevention efforts, little was known about the effects of local policing on the operation of Insite. This study sought to determine whether local police had an effect on the use of Insite.

In this study, 1,090 randomly selected Insite clients were asked if they had ever been referred to Insite by local police while injecting in public. In total, 182 individuals (17% of the sample) reported that they had been.

In addition, the individuals the local police were referring to Insite were more likely to be engaged in sex work, to be frequent cocaine injectors, and to report discarding used syringes in public. By referring high-risk injection drug users, including those engaged in sex work, to this health facility, local police appear to be helping to reduce health-related harms. Furthermore, by referring drug users who report discarding used syringes in public, the local police are also helping to reduce the public order impacts of public injecting. This suggests that Insite is providing an opportunity to coordinate policing and public health efforts. In other words, by referring people who inject drugs in public to Insite, police are helping to meet both public health and public order objectives.

This study demonstrates that local police are playing an important role in supporting Vancouver's supervised injection site and indicates a disconnect between the views of local police officers working in direct proximity to Insite and those of external law enforcement organizations who remain vocally opposed to the facility.



## Using Insite: Barriers & Facilitators

### WHY SOME INSITE USERS CONTINUE TO INJECT IN PUBLIC

McKnight I, Maas B, Wood E, Tyndall MW, Small W, Lai C, Montaner JS, Kerr T. *Factors associated with public injecting among users of Vancouver's supervised injection facility*. American Journal of Drug and Alcohol Abuse, 2007; 33(2): 319-325.



Studies have shown that Insite reduces the rate of unsafe drug injection practices, such as public injecting, among its clientele. However, some injection drug users (IDUs) who visit Insite continue to publicly inject drugs. This study investigated why some IDUs inject in public when a supervised injection facility is available.

The study included participants enrolled in the Scientific Evaluation of Supervised Injecting (SEOSI) study and evaluated drug-using practices and use of Insite from June 2004 to July 2005.

The study results show that Insite users who continue to inject in public are more than 3 times more likely to be homeless, 1.7 times more likely to have been recently incarcerated, more than 5 times more likely to lend used syringes, and 1.6 times more likely to require help injecting (a practice that is not permitted at Insite), as compared with other Insite users. The study also found that IDUs who continue to inject in public say that the waiting time at Insite limits their use of the facility.

These findings suggest that improving the access and availability of supervised injection through a program expansion may further help to reduce persistent risk behaviours among IDUs. An expansion of services might also address community concerns about ongoing levels of public drug use. The results of the study also indicate that the restriction against assisting with injections at Insite may pose a barrier to facility use by some IDUs.

“I mean, like, the safe site was more than just an injection thing, 'cause it was the only thing that was open, right? I'd get scared and go down there and, y'know... I think a lot of the women use it for that purpose, too. ... I'd hazard a guess to say that they have more women there at night than usual. 'Cause there's no place for women to go at night. Yeah, a personal safety thing, you bet.”

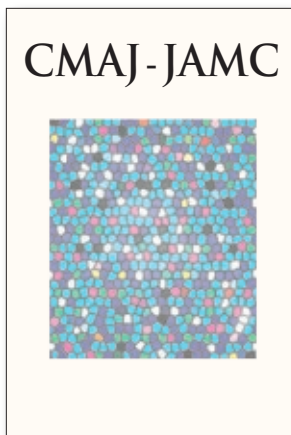
Female Insite Client, Age 43



## Summary of Research Results: The First 3 Years

### EVALUATION OF INSITE: 2003 – 2006

Wood E, Tyndall MW, Montaner JS, Kerr T. *Summary of findings from the evaluation of a pilot medically supervised safer injecting facility*. Canadian Medical Association Journal, 2006; 175(11): 1399-1404.



This publication was the first summary of the research findings from the evaluation of Insite. It was externally peer-reviewed and published in the Canadian Medical Association Journal in 2006. In this review paper, researchers reported on the first three years of Insite evaluation findings.

This paper reported a number of findings, including the fact that the facility attracted IDUs who were hard to reach through conventional public health programs. As well, the opening of Insite coincided with a significant reduction of public injection drug use and publicly discarded syringes, suggesting that the facility may have contributed to an increase in public order. Among its clientele, Insite also significantly reduced the rate of syringe sharing, a practice that has been identified as a primary mode of HIV transmission. Individuals who used Insite were also significantly more likely to enter into addiction treatment services. Finally, the opening of Insite was not associated with an increase in levels of drug-dealing or other drug-related crime in the area in which the facility is located.

The paper concluded that Insite was associated with an array of community and public health benefits and, despite rigorous evaluation, no identified adverse impacts. These findings should be useful to other cities considering opening supervised injecting facilities, and to governments considering regulating their use.

## What Insite Users Say

### INSITE USERS' PERSPECTIVES

Petrar S, Kerr T, Tyndall MW, Zhang R, Montaner JS, Wood E. *Injection drug users' perceptions regarding use of a medically supervised safer injecting facility*. Addictive Behaviors, 2006; 32(5): 1088-1093.



This study was undertaken to learn directly from Insite users what effects the facility was having on their injecting behaviour, and how the facility could be improved.

Of 1,082 Insite users surveyed, 809 (75%) said that they injected more safely as a result of visiting Insite. Of those individuals reporting safer injecting, 80% reported rushing less during injecting, 71% reported less outdoor injecting, and 56% reported less unsafe syringe disposal.

When asked to list any obstacles or barriers to using Insite, study participants most commonly reported travel time to Insite, the facility's limited operating hours, and the waiting time to use the facility. When asked in what ways Insite might be improved, the three most common suggestions were longer hours of operation, the addition of a washroom, and reduced wait times.

“I think that it’s been a benefit to my health, definitely. Like, being more self-aware on safety issues, like using an alcohol swab, and capping your needle right away. And not re-using your own rig, and cooking it.”

Female Insite Client, Age 57

## A REFUGE FOR WOMEN WHO INJECT DRUGS

Fairbairn N, Small W, Shannon K, Wood E, Kerr T. *Seeking refuge from violence in street-based drug scenes: Women's experiences in North America's first supervised injection facility*. *Social Science & Medicine*, 2008; 67(5): 817-823.



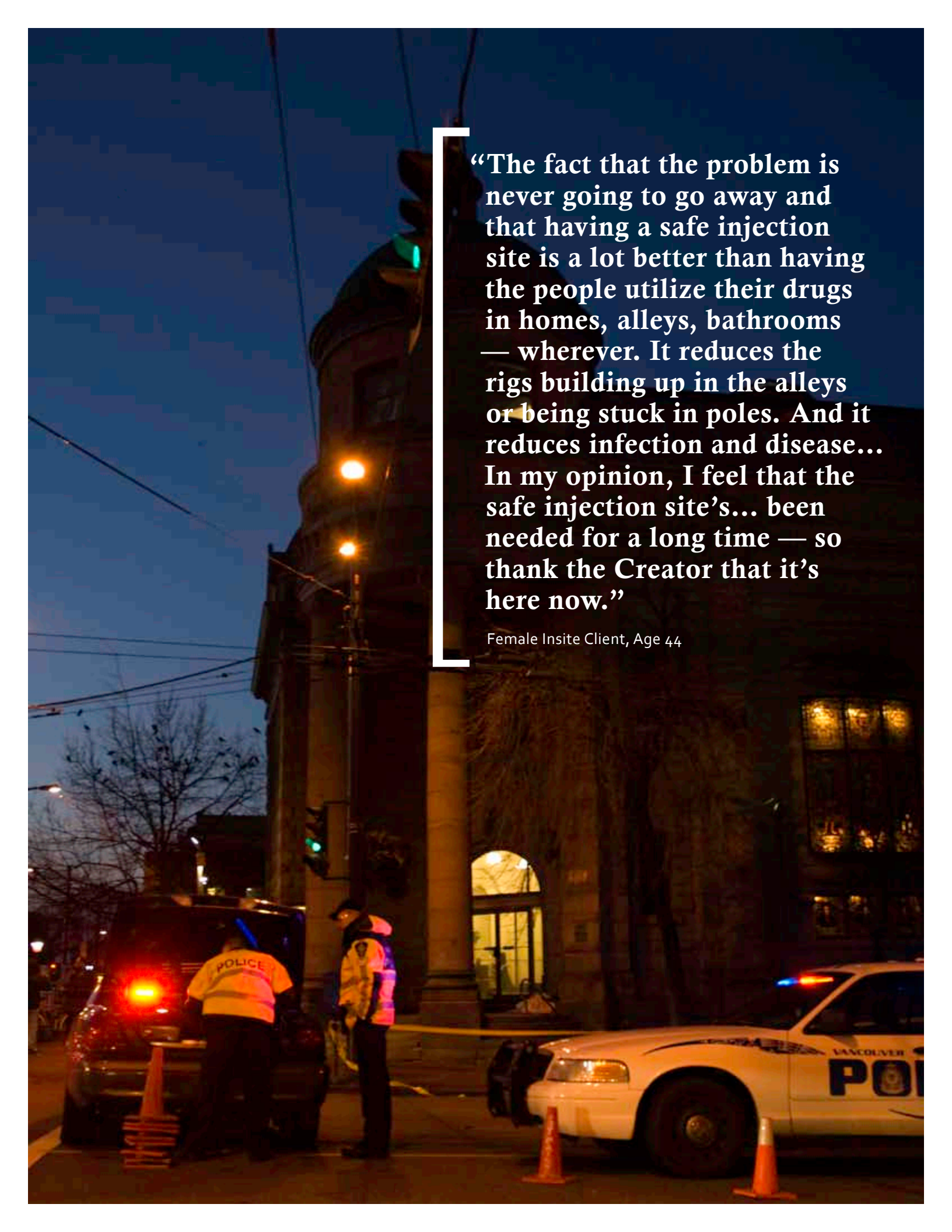
Violence is common within open drug scenes. This is especially true for the women who spend time in such environments. There is often a sense of danger on the streets, and women who inject illegal drugs live with the constant threat of arrest, robbery, physical abuse, sexual assault, partner violence and even murder. Struggling to avoid these dangers, women are less able to exercise choice in protecting themselves against other threats such as HIV and hepatitis C.

Insite researchers talked with women who use Insite, conducting in-depth interviews with 25 women from November 2005 to March 2007. What the researchers found was that, for these women, Insite provided temporary refuge from the dangers of the street-based drug scene. Women told the researchers that at Insite they feel safe:

- "I don't feel rushed, I don't feel threatened or insecure by any means."
- "You don't have to pay off somebody to watch your back."
- "You're comfortable because you know there's people around watching, and everybody there respects each other's space."
- "I like it 'cause it's safe there and women don't get ripped off."

At Insite, women also learn the correct way to perform an injection. In many cases, the first time a woman uses an injection drug, someone else—usually an older male drug user—injects the drug for her. By learning how to inject themselves, women rely less on men and gain more control over the circumstances of their own drug use. They are then more likely to practise safer habits when injecting, such as using clean needles. This, in turn, reduces their risk of becoming infected with HIV or hepatitis C.

The purpose of supervised injection facilities is to reduce the various harms that are associated with injection drug use. This research demonstrates one of the ways Vancouver's Insite is meeting this goal—by providing a safe space, away from the dangers of the street-based drug scene, for women who inject drugs.

A nighttime street scene featuring a Vancouver Police car on the right and two police officers in high-visibility vests on the left. The background shows a building with a large arched window and a traffic light pole with a green light. The scene is illuminated by streetlights and the car's lights.

**“The fact that the problem is never going to go away and that having a safe injection site is a lot better than having the people utilize their drugs in homes, alleys, bathrooms — wherever. It reduces the rigs building up in the alleys or being stuck in poles. And it reduces infection and disease... In my opinion, I feel that the safe injection site’s... been needed for a long time — so thank the Creator that it’s here now.”**

Female Insite Client, Age 44

## Limitations

It is important to note that, like all research, the work described in this report has limitations. While the format of this report precludes a description of all the benefits of Insite, it also precludes a full description of the research's limitations. For those who are interested, the limitations of each individual study are described in detail in these published papers. However, it is also important to stress that the various evaluations of Insite have benefited from a number of unique methodological features that may have served to reduce instances where incorrect conclusions could be drawn. Finally, it should be noted that there are approximately 5,000 injection drug users in the Downtown Eastside,<sup>1</sup> whereas only about 500 injections can be accommodated within the SIF on any given day, and line-ups at the SIF are a key determinant of injecting in

public. Obviously, the SIF was initiated as a pilot program aimed at evaluating feasibility and preliminary impacts, rather than as an intervention that could accommodate more than 500 injections per day.

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<sup>1</sup> Remis RS, Strathdee SA, Millson M, et al. Consortium to characterize injection drug users in Montreal, Toronto and Vancouver, Canada. Health Canada, March 1998.

## Research Team

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**Mark Tyndall, MD, ScD, FRCPC** is an infectious diseases physician/epidemiologist at the BC Centre



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This report is dedicated to all citizens of Vancouver.

For well over a decade, the city has been under siege from drug-related disease and crime, and many have awoken to the reality that conventional responses, which have repeatedly proven ineffective elsewhere, will not be successful in Vancouver. Effectively responding to the drug problem will require the development of comprehensive health and social policies based on sound evidence, and governments with the courage to implement them.