

Needs Assessment for a Safer Injecting Facility in Ottawa, Canada

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The views in this document are those of the authors and do not necessarily reflect those of the funders of this research.

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EXECUTIVE SUMMARY

INTRODUCTION

Despite a long-standing and comprehensive harm reduction program for people who inject drugs, which includes a needle exchange, the City of Ottawa has observed unacceptably high levels of HIV (21%) and hepatitis C virus (HCV) infection (76%) among women and men who inject drugs. Ottawa also observes a high prevalence of HIV- and HCV-related injection practices including the shared use of previously-used needles, the shared use of previously used drug preparation and injection preparation equipment and the injection of drugs in public areas. Safer injecting facilities (SIFs) provide a user with a safe and sterile place in which to inject pre-obtained drugs. Close to 65 SIFs have been established worldwide and emerging evidence from evaluations of these SIFs indicates several positive outcomes. This study recognises the potential impact of a trial SIF in Ottawa to address elevated levels of HIV and HCV infection and engagement in HIV- and HCV-related risk practices and behaviours among the city's estimated 3,000 to 5,000 people who inject drugs.

The objective of this study was to characterize attitudes of Ottawa injection drug users (IDUs) towards operational policies and services in an attempt to optimize uptake by and benefits for both women and men who inject drugs.

METHODS

Between August and September 2005, 250 women and men IDUs completed confidential and anonymous personal interviews. To be eligible for inclusion in this study, injection drug users had to be capable of informed consent and to have injected drugs in the six months preceding their interview. A structured questionnaire was administered which collected information on socio-demographic background; drug use and injection practices; experiences of overdose and HIV and HCV testing; drug treatment history; knowledge of and attitudes towards SIFs; location and service design preferences; and community impact. A gender-based analysis was undertaken.

RESULTS HIGHLIGHTS

1. Profile of Participants

Demographic characteristics

Women IDUs were significantly younger than the men IDUs in the study (average age; 32 and 39, respectively). The majority of both women and men (56%) identified as being of Canadian ethnicity. The majority of participants (58%) had not completed high school. Women were more likely to report lower income levels in comparison to men and women were more likely to report trading sex for money, drugs or something else.

Housing

In terms of recent living arrangements, 56% of all participants reported that they had lived in unstable housing conditions, as their main type of accommodation, in the six months preceding their interview. However, women were more likely to report living on the street or at no fixed address. Men were more likely to report living in a shelter or welfare residence or in a rooming or boarding house. Among this population, drug use has had a negative impact on both acquiring and maintaining stable housing; 34% of participants reported that they were denied housing or a place to stay because of their drug use, and 62% reported losing their housing because of drug use.

Geography – live, inject, overdose

The participants in this study were well established residents of Ottawa. The majority of participants (69%) reported living in the Downtown Core, however approximately two-thirds (31%) of all participants lived outside this area. The top three areas where participants injected drugs were the Downtown Core, Ottawa East, and Ottawa West. In terms of location of last overdose, the top three areas where participants overdosed were the Downtown Core, Ottawa East and Ottawa West. No significant differences existed between women and men with respect to the areas where they lived or injected, however, more women reported that their last overdose occurred in Ottawa South or Ottawa West.

Drug use patterns

The top three drugs injected, at least once, by both women and men in the six months prior to their interview were cocaine, crack cocaine and morphine. In terms of the reported frequency of injecting in the six months preceding the interview, over one-quarter (27%) reported injecting every day.

Injecting practices

Women initiated drug use at a significantly younger age in comparison to men (median age; 17 and 19 years, respectively). In terms of the social context of injecting, more women reported never injecting alone. Additionally, significantly more women (61%) than men (39%) reported that they had needed help to inject drugs and a high proportion of both men (54%) and women (67%) reported that they would be willing to learn how to inject themselves.

Public injecting

Public injecting was reported by nearly two-thirds of all participants; one-fifth of all IDUs reported that they only injected in public places. In addition, nearly one-quarter of participants reported using non-sterile water for drug preparation or to rinse their needles.

Access to and use of new injecting equipment

A large proportion of participants reported that they had acquired new injecting equipment from the NEP in Ottawa, a pharmacy, or from a member of their social network. Despite these findings, over one-quarter reported that they had drugs and wanted to inject but didn't know where to get a clean needle. Participants also reported having troubles collecting enough needles from the NEP, or pharmacy. These barriers may influence an individual's shared use or re-use of injection equipment. One-fifth of all participants reported that they had shot up with previously-used needles in the six months prior to their interview. However, significantly more women (39%) in comparison to men (24%) reported that they had injected with previously-used other equipment in the six months prior to their interview.

Crack smoking

Nearly all participants (94%) reported smoking crack at least once in their lifetime. Similar to initiation of injection, women first smoked crack at a significantly younger age in comparison to men. Among both women and men who smoked crack in the six months prior to their interview, 34% reported smoking crack on a daily basis. Of concern, two-thirds of recent crack-smokers reported sharing previously-used pipes.

2. Experiences of Overdose, Health and HIV & HCV Testing

Reports of overdose were marginally higher among women than men; however there were significant differences in the response to overdosing. A significantly greater proportion of men received care - ambulance called or taken to emergency - for their overdose in comparison to women. In terms of police involvement during an overdose episode, 46% of participants reported a fear of being arrested when they or someone else overdosed. Additionally, 56% of participants reported police involvement after an ambulance was called.

Health problems related to injection drug use were quite commonly reported; 45% reported having had an abscess at least once in their lifetime. Other health problems reported by over 45% of participants were: depression, withdrawal symptoms, scarring and/or bruising, and liver problems or hepatitis. Less than 51% of participants reporting each condition had received treatment.

Eight percent of participants had never had a blood test for HIV; while 10% had never had a blood test for HCV.

3. Drug Treatment

Twenty-two percent of all participants reported that they had tried but had not been able to get into any drug treatment program in the six months prior to their interview.

4. Knowledge of and Willingness to Use a Potential SIF

Knowledge

Nearly three-quarters of participants had some level of knowledge surrounding pre-existing SIFs. In addition, 13 participants had used the services offered by a SIF, including accessing drug counselors, needle exchange or distribution, and obtaining literature or safer injecting teaching.

Willingness

The majority of participants (64%) reported that they would be willing to use a potential SIF if one were opened in Ottawa; while another 14% reported that they *might* use such a place. Of the 58 women who were willing or would consider using a SIF if one were opened in Ottawa, the top three reasons for willingness to use a SIF were the ability to get clean sterile injection equipment (47%), ability to inject in private, and not in a public space (34%) and that they would be safe from being seen by police (29%). Among the

137 men who were willing or would consider using a SIF, the top three reasons for willingness to use were the ability to inject in private, and not in a public space (47%), the ability to get clean sterile injection equipment (44%) and that they would be safe from being seen by police (37%). Interestingly, a greater proportion of women (19%) in comparison to men (10%) reported overdose treatment as a reason for willingness to use a SIF.

For those who were not considering using a SIF, the top three reasons for non-use reported by women were that they would not use a SIF as they did not want to be seen using a SIF (67%), they already had a place to inject (25%), and they did not want people to know that they were a drug user (17%). The top three reported reasons for non-use among men were that they did not want to be seen using a SIF (23%), they always inject alone (23%), and that they have a place to inject (19%).

Univariate statistical tests were used to determine characteristics associated with uptake and characteristics significantly associated with uptake were having injected in a public place in the six months prior to their interview, using unclean water for injection in the six months prior to their interview, having drugs and wanting to inject but not knowing where to get a clean needle in the six months prior to their interview, experiencing a non-fatal overdose, and self-report of a positive HIV test. Characteristics marginally associated with uptake were injecting every day in the six months prior to their interview, using Ottawa's needle exchange program in the six months prior to their interview, and most frequently injecting cocaine in the six months prior to their interview. All previously listed characteristics were included in the multivariate analysis on the basis of statistical and/or epidemiological importance. One characteristic remained independently associated with willingness to use a potential SIF in multivariate analysis, having drugs and wanting to inject but not knowing where to get a clean needle in the six months prior to their interview (AOR = 3.6, 95% CI: 1.3, 9.8).

In contrast to willingness to use a potential SIF, an even greater proportion of participants (86%) reported that they would use the SIF if it was established in a *convenient* location. Among these participants, in terms of the frequency of using such a location, the highest proportion of women (45%) and men (32%) reported that they would *always* use a SIF to inject.

5. Need For and Willingness to Use a Potential Safer Inhalation Room

The majority of participants (68%) reported that a safer inhalation room should be included in a SIF and 63% of participants would be willing to use such a room. Reasons for a safer inhalation room included: identifying crack smokers as different from injectors, and the need for a safe place to smoke with access to clean equipment and knowledgeable staff. Reasons why there *should not* be a safer inhalation room included that smoking may lead to undesired behaviours, and that a SIF is for injecting not smoking. Among crack-smoking IDUs, 70% indicated that they would be willing to use such a room.

Among crack-smoking IDUs, 70% of both women and men were willing to use a safer inhalation room. Statistical methods were used to identify and measure demographic and drug use characteristics associated with the potential uptake of such a room. We compared crack-smoking IDUs who reported that they would likely use the facility ($n = 147$) versus those who were not considering using the facility ($n = 61$) (Table 9). Univariate statistical tests were used to determine the characteristics associated with uptake. The characteristics significantly associated with uptake were having lived in unstable housing in the six months prior to their interview ($p < 0.01$), always injecting alone in the six months prior to their interview ($p = 0.04$), smoking crack every day in the six months prior to their interview ($p = 0.01$), and smoking crack in the month prior to the interview ($p < 0.01$). These characteristics were included in the multivariate analysis on the basis of statistical and/or epidemiological importance. Two characteristic remained independently associated with willingness to use a potential safer inhalation room in multivariate analysis, having lived in unstable housing in the six months prior to their interview (AOR = 4.0, 95% CI: 2.1, 7.8) and smoking crack in the month prior to the interview (AOR = 6.7, 95% CI: 2.3, 19.6) (Table 10).

6. Policy Acceptability

Policies such as injections being supervised by a trained staff member who could respond to overdoses, a 30 minute time limit for injections, and having to hang around after injecting for monitoring of a user's health were considered either acceptable or very acceptable by the majority of participants. However, a few policies were considered unacceptable: requirement that clients would need to live in the neighbourhood of the SIF, show identification in order to use a SIF, and the presence of video surveillance

cameras for protection of clients. Additionally, significantly fewer women were in favour of not allowing assisted injections or not allowing sharing of dope in comparison to men.

7. Service Preferences

Services such as receipt of help and care from overdosing, HIV and HCV testing, needle exchange, injection equipment distribution, nursing staff for medical care and safer injecting teaching, and referrals to drug treatment, rehab and other services were considered important or very important by participants. No significant gender differences existed with respect to the listed services.

8. Perspectives on Preferred Location and Service Designs

Location and willingness to walk or bus to a SIF

An equal proportion of both women and men (58%) indicated they would use a SIF if it was located in a pre-existing service, for example a community health centre, clinic or social service agency. A significantly greater proportion of women (93%) in comparison to men (82%) reported that they would use a SIF if it were in a separate, stand alone building.

The majority of participants would be willing to walk (88%) or bus (66%) to a SIF. The majority of women were willing to walk for 10 minutes to get to a SIF, while the greatest proportion of men were willing to walk 40 minutes or more. In comparison to walking, a greater proportion of participants reported longer acceptable travel times on the bus.

Service time preferences

Day-time hours (8.00 am to 4.00 pm) were the preferred time for personal use. However, over 19% of participants indicated that they preferred evening (4.00 pm to midnight) or overnight (midnight to 8.00 am) hours. No significant gender differences existed with respect to service time preferences.

Age restrictions

Significantly more men (66%) in comparison to women (51%) indicated that an age restriction should be put in place. The average of the reported minimum age was 18 years.

Service design

The greatest proportion of participants reported that they would prefer private cubicles for injecting drugs; while the second highest proportion preferred a combination of private cubicles and open space. No significant gender differences existed with respect to service design.

Peer involvement

One-half of all participants reported that peers should be involved in the running of a potential SIF. A significantly greater proportion of women reported that peers should be involved. Participants indicated that peers could be involved in all aspects of the operation of a SIF.

9. Community Impact

The perceived community impacts of a potential SIF were both negative and positive. Positive impacts included a reduction in the number of people injecting in public, a reduction in street violence; a reduction in the number of used syringes on the street; a reduction in the multi-person use of needles; a reduction in the number of overdoses; and an increased uptake of knowledge surrounding drug treatment. Negative impacts were that users would visit or move to the area, and that drug dealers would be attracted to the area.

1.0 INTRODUCTION

1.1 The Local Context

Ottawa, the capital city of Canada, has a population of approximately 870,000 people (City of Ottawa, 2007). In 2003, it was estimated that there were approximately 3,000 to 5,000 men and women injection drug users (IDUs) in Ottawa (Remis, 2004). The City of Ottawa's needle exchange program (NEP) is well established, and has been in operation since 1991, providing harm reduction services from a fixed and mobile site. Since 1998, satellite needle exchanges have been offered through partner agencies, including community health centers and shelters.

However, Ottawa has observed unacceptable levels of HIV and hepatitis C virus (HCV) infection among women and men in Ottawa who inject drugs. Among 1,061 active IDUs who were NEP users and who were recruited into the longitudinal cohort SurVIDU Study from 1996 to 2003, over one-fifth (21%) had prevalent HIV infection (95% CI: 18, 23) (Leonard, Navarro, & Birkett, 2004). In 2003, three-quarters (76%) of 252 baseline participants from the SurVIDU study had antibodies to HCV (95% CI: 70, 81) (Leonard et al., 2004). In a more recent study among 506 people who inject drugs in Ottawa, the POINT Project, the baseline HIV prevalence rate was 12% (95% CI: 9, 15) and that of HCV was 58% (95% CI: 54, 63) (Millson, Leonard, Remis, Strike, & Challacombe, 2005). The incidence rate of new HIV infections among women and men in Ottawa who inject drugs is among the highest in Canada (Hankins et al., 2002). In the SurVIDU Study the overall HIV incidence was 6 per 100 person-years (95% CI: 4, 8) (Millson et al., 2005). Among 97 POINT participants who returned for follow-up interviews, the incidence of HCV infection was extremely high at 25 per 100 person-years (95% CI: 13, 37) (Millson et al., 2005).

Despite a long-standing, well established NEP and opportunities for accessing needle exchange and other preventive interventions through partner agencies, IDUs continue to use previously-used needles and other injecting equipment. Among Ottawa IDUs, the level of engagement in this unsafe injecting practice is high: 37% of women IDUs and 31% of men IDUs participating in the SurVIDU study reported injecting with used needles in the six months prior to their baseline interview (Leonard et al., 2004). Similarly, among POINT participants over one-quarter (27%) of women and 19% of men IDUs reported needle sharing in the six months prior to their baseline interviews (Leonard, Navarro, Birkett, & Remis, 2005). Among this subset of study participants,

24% reported that their main reason for injecting with used needles was that new needles were “hard to get”, 13% said the NEP was closed at the time they needed new needles or that the NEP van couldn’t reach them in time and 6% said it was difficult to get to a NEP. This indicates that the availability and accessibility of sterile needles continues to be a serious issue among this population.

There are several negative community impacts surrounding injection drug use, one of which is public drug use. Public drug use also harms those who inject drugs – resulting in unsafe injecting practices and an increased risk of fatal overdose. In terms of the local context, the majority of POINT Project participants (65%) reported injecting at least once in any public space in the six months prior to their baseline interview. More specifically, 41% of participants reported injecting in a public washroom or toilet and 34% reported injecting in a parking lot, street or alley. In a multivariate analysis many HIV- and HCV-related risk practices, including sharing previously used needles, injecting with a large number of different individuals and commercial sex trade work were independently associated with public injecting (Navarro & Leonard, 2004).

Overdose and other drug-related health problems continue to plague this population. In Ottawa between 1995 and 1999, there were on average 31 fatal drug overdoses per year (Provincial Health Planning Database, 2004). However, it should be noted that these reports do not include information pertaining to circumstances of the overdose. In terms of non-fatal overdoses, nearly one-fifth (17%) of younger (16 to 30 years of age) active IDUs participating in the POINT C Project reported that they had overdosed, defined as turning blue, having severe chest pain or losing consciousness, in the six months preceding their baseline interview (Leonard, 2007). Among these participants, the number of times that they had overdosed ranged from one to 18 times among men IDUs and one to eight times among women IDUs. In terms of their most recent overdose experience, a large proportion of these participants were taken to the hospital by paramedics or friends and were subsequently admitted to the hospital for at least one night.

1.2 Supervised Injecting Facilities (SIFs) – Theoretical and Empirical Evidence

Supervised injecting facilities (SIFs) are controlled health care settings in which IDUs are able to inject pre-obtained drugs under medical supervision, obtain sterile injecting equipment, and access needle exchange services. Service users can also receive primary health assessment and care, emergency care to manage overdoses, health education, and referrals to drug treatment and other health and social services. Since the late 1980s, close to 65 supervised injecting facilities have been established in several countries (Independent Working Group on Drug Consumption Rooms, 2006). Emerging evidence from Europe, Australia and Canada indicates that SIFs can be a critical component of a comprehensive strategy for reducing the harms related to injection drug use (Independent Working Group on Drug Consumption Rooms, 2006; Wood, Tyndall, Montaner, & Kerr, 2006). Data from the evaluations of these sites suggests that SIFs provide a cost-effective means of engaging the most marginalized and at-risk drug users and reported benefits have included improved health and social functioning of clients, reductions in public disorder, reductions in overdoses and reductions in risk behaviours for disease transmission (Independent Working Group on Drug Consumption Rooms, 2006; Wood et al., 2006).

Given the documented elevated levels of HIV and HCV infection among Ottawa IDUs and the alarming rate at which new infections are occurring, the widespread engagement in the HIV- and HCV-related high risk practices of needle sharing and public injecting, and the excess costs associated with injection drug use in the city, a SIF has the potential to address several of the underlying contributing factors to this worrisome situation among Ottawa IDUs. The provision of a conveniently located, clean and sterile facility offering privacy, safety, and access to primary and emergency care, addiction, health and social services could potentially offer immediate benefits for both IDUs and the wider community. In order to respond to these concerns, the need for a SIF in the local context, from the perspectives of IDUs and community members of Ottawa, was assessed.

1.3 Gender-Based Analysis

The nature of risk factors and the impact of risk conditions may vary as a function of gender. For example, in Ottawa, most women IDUs experience their drug use in a different social context than that of men IDUs. Women IDUs experience their drug use

and engagement in shared use of needles and injection equipment in the context of their intimate relationship with their sexual partner or partners. Conversely, men IDUs experience their drug use within the context of a wider group of close friends and family with whom they share needles and other injecting equipment, likely in the preparation of a collectively purchased amount of drug (Leonard et al., 2005). Gender differences with respect to HIV- and HCV-related risk behaviours and practices have been frequently reported in other populations of IDUs. In Vancouver, women IDUs recruited into the Vancouver Injection Drug Users Study (VIDUS) were more likely to report being injected by another IDU (Wood et al., 2001). In another study among this cohort, being injected by another IDU was an independent predictor of HIV seroconversion (O'Connell et al., 2005). In terms of infection levels, evidence suggests that women IDUs experience higher rates of infection in comparison to men IDUs (Tyndall et al., 2002; Strathdee & Sherman, 2003b). In Vancouver, women participating in the VIDUS cohort between 1996 and 2002 were reported to have mortality rates approximately 50 times that of women in the general population (Spittal et al., 2006).

Health Canada states that gender-based analysis is “a framework that recognizes that women and men are not all the same”...“It challenges the assumption that everyone is affected in the same way by policies, programs, and legislation, or that health issues such as causes, effects and service delivery are unaffected by gender” (Health Canada, 2003). However, women IDUs’ experiences of injection drug use and HIV- and HCV-related risk behaviours are often overlooked in the design of harm reduction programs. As such, it is important to consider women’s experiences from the outset; during an initial needs assessment through to the design, delivery and evaluation of harm reduction programs. Meaningful incorporation of gender differences may directly impact the effectiveness of harm reduction programs in terms of addressing the needs of both men and women.

2.0 STUDY OBJECTIVES

The overall objective of this study was to assess the need for a safer injecting facility (SIF) in Ottawa. The specific objectives were:

1. To determine prevailing attitudes towards a SIF among active injection drug users in Ottawa;
2. To document how patterns of drug use, demographic characteristics, health status and previous overdose experience may influence the willingness to use a SIF by Ottawa injection drug users; and
3. To identify preferences among Ottawa injection drug users for the design, location, and ancillary services that would optimize uptake and benefits of a SIF.

2.0 STUDY METHODS

2.1 Interviews with Women and Men in Ottawa who Inject Drugs

2.1.1 Sample size

A sample of 250 active IDUs was determined to be a feasible sample size to allow a sufficient level of precision and, in most cases, the bound on error of estimation would be within $\pm 6\%$ for binary outcomes.

2.1.2 Criteria for inclusion in the study

IDUs had to meet the following two criteria in order to complete an interview:

- to be capable of informed consent; and
- to have injected drugs in the previous six months (i.e., an active user).

2.1.3 Recruitment process

Consistent with our study objectives and the nature of our participant sample, non-probability sampling was used. However, steps were taken to reduce the bias of our sample in a manner described by Henry (Henry, 1990). A convenience sample of self-selected IDUs was recruited through the Site Needle Exchange Program (NEP) and from participating Needle Exchange Partner agencies, including agencies that deliver social or health services in the Ottawa area to a variety of individuals, but in particular, focus their services towards women and men who inject drugs. The study was advertised through distinctive posters displayed at these diverse organizations. The study posters informed prospective participants of the purpose of the interview and the locations and times of upcoming interviews, and provided a phone number for a central line which they could call to obtain information about the study. Recruitment commenced on August 22, 2005 and continued until the target of 250 interviews with IDUs was reached on September 12, 2005.

2.1.4 Interview process

Participants were given the choice of either official language for the interview and gender of interviewer. The majority of interviews were completed at the Site's fixed office throughout the day. Interviews were also completed on the Site's mobile van for approximately one week, beginning on August 23 and ending on August 29, and again on September 12. Near the end of recruitment, interviews were conducted at Somerset West Community Health Centre, a centre to the west of the city, in an attempt to reach IDUs who do not frequent the core downtown area.

Interviews were conducted on a first come, first served basis. Participants met with one of eight trained interviewers, all with extensive experience working with IDUs. Interviews were conducted in a private location. A consent form was read to each participant at the commencement of the interview, emphasizing the confidential nature of the interview. After providing informed consent, participants completed the personal, structured interviews.

The interview process took, on average, 30 minutes and participating IDUs were compensated \$15 for their time away from other commitments.

2.1.5 Study instrument

The interview questionnaire was a modification of one used successfully in a similar study in Vancouver (Kerr, Wood, Small, Palepu, & Tyndall, 2003). The Principal Investigator of the Ottawa Study had the permission of the Vancouver research team to modify this instrument for use among IDUs in Ottawa. In addition, items successfully used in previous research work among IDUs in Ottawa were incorporated into the questionnaire. Study instruments and reports from Montreal and Australia were also consulted, and feedback from the research team in Vancouver was considered.

The questionnaire consisted of seven sections with questions focusing on socio-demographic background information; drug use and injection practices; knowledge of and attitudes towards SIFs; location and service design preferences; community impact; experiences of overdose and HIV and HCV testing; and drug treatment history.

The questionnaire was piloted with nine IDUs in order to assess clarity and content and to determine additional issues to be examined. The questionnaire was revised based on feedback from both the participants and the interviewers.

Non-response, interviewer and instrumentation bias were controlled using a variety of techniques. First, non-response was minimized by providing an incentive as well as on-the-spot and easily arranged interviews at convenient locations and times (Vlahov et al., 1991). Second, interviewer and instrumentation bias was minimized by training interviewers using a detailed protocol and briefing participants to provide accurate and honest responses. Additionally, interviewers regularly inter-changed shifts and interview locations. This strategy worked not only to reduce interviewer bias, but also reduced the possibility of the same participant completing more than one interview.

2.1.6 Statistical analysis

Specific procedures were followed to ensure the integrity of the data entered into SPSS 12.0. These included the use of a data coding manual and verification of coding and data input through comparing a 10% random sample of questionnaire responses with the entered data. Cleaning and validation of the data included: the performance of range checks to ensure all values for each variable fell within the expected range; consistency edits to ensure that responses to questions were consistent with those to other questions; and examination of missing data. For open-ended questions, categories were determined post-hoc.

Statistical analysis of the collected data comprised computing descriptive statistics. To determine if significant differences existed between women and men IDUs, chi-square tests were completed for categorical variables. Fisher's exact test was used to detect significant associations in tables where more than 20% of cells had an expected count of less than five. For continuous variables, assuming normal population distributions, a two-sample *t* test was completed. For variables where a normal distribution could not be assumed, the Mann-Whitney U test, a non-parametric test, was completed.

Statistical methods were used to identify and measure demographic and drug use characteristics associated with the potential uptake of a safer injecting and safer inhalation facility. We compared those participants who reported that they would likely use the facility versus those who were not considering using the facility. The analysis determined the characteristics associated with uptake such as gender, age, living situation, and patterns of drug use. Associations were first examined using descriptive analytic techniques and univariate statistical tests such as chi-square tests for discrete variables and *t*-tests or Wilcoxon rank-sum tests for continuous variables. Multivariate regression analysis was then used to simultaneously model the effects of several predictor variables as they relate to potential uptake of a SIF.

2.1.7 Ethics

The study received ethical approval from the Ottawa Hospital Research Ethics Board and the City of Ottawa Public Health Research Ethics Board.

4.0 RESULTS

4.1 Demographic Profile of Participants

The majority of participants were men (72%); one participant identified as transgender. The average age of the population was 37 years; the youngest participant was 16 years and the oldest was 62 (Table 1). However, women were significantly younger than men (average age: 32 and 39, respectively) ($p < 0.001$). In terms of ethnicity, the majority of participants (56%) identified as being of Canadian ethnicity, 13% self-identified as Aboriginal. Comparing these data with the ethnic breakdown for the City of Ottawa (Census 2001), where Aboriginal people represented approximately one percent of the population, Aboriginal people were over-represented in this study population (Statistics Canada, 2007).

Education has been shown to be an important factor that affects a person's ability to enjoy good health. In this study, the majority (58%) of women and men IDUs had not completed high school and only 21% of participants had completed some college or university. Higher incomes determine living conditions such as safe housing and the ability to buy sufficient food. The level of reported income through legal and illegal sources in the year preceding the interview was quite low. The greatest proportion of participants (42%) reported receiving less than \$10,000 from all sources in the year prior to interview. The second highest proportion of participants (20%) reported receiving between \$10,000 and \$14,999. Men were more likely to report higher income levels in comparison to women. Specifically, a greater proportion of women (53%) reported receiving less than \$10,000 from all sources in the year preceding their interview in comparison to men (37%) and a greater proportion of men (24%) compared to women (10%) reported an income in excess of \$30,000 in the year prior to interview. These gender differences were not significant.

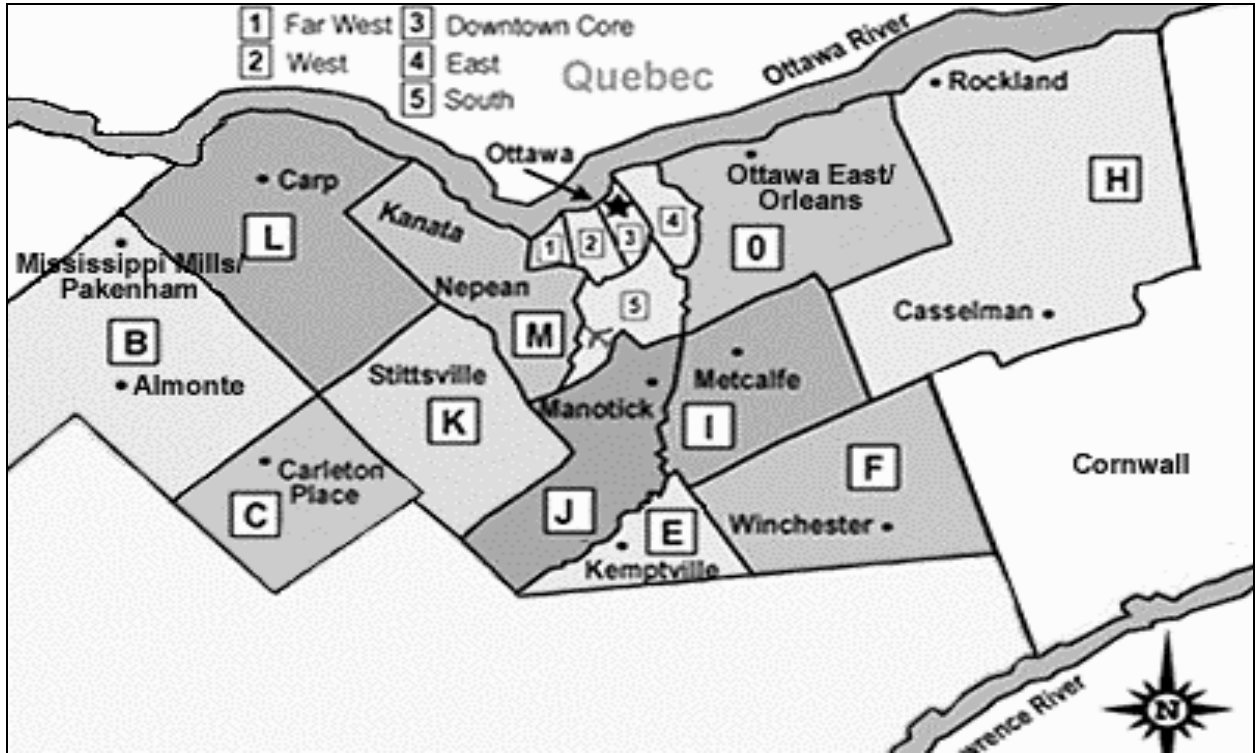
Trading sex for money, drugs or something else (including a place to stay), defined as survival sex, has been documented to be associated with increased risk of acquiring HIV (Kral et al., 2001; Strathdee & Sherman, 2003a). In this study, 18% of participants reported receiving money for sex, 18% reported receiving drugs for sex and 12% reported receiving something else or a place to stay in exchange for sex. Women IDUs were significantly more likely to report receiving money ($p < 0.001$) or drugs for sex ($p < 0.001$). Specifically, 39% of women had received money for sex and 41% had received drugs for sex, in comparison to 9% of men for both receipt of money for sex and receipt

of drugs for sex. Although not significant ($p = 0.08$), a higher proportion of women (17%) in comparison to men (9%) reported receiving something else or a place to stay in exchange for sex.

Participants in this study were well established residents of Ottawa; the average number of years of Ottawa living was 16 years with a range of 14 days to 60 years. In order to determine where in Ottawa IDUs live, all participants were asked in which neighbourhood, city or region they usually lived. Responses were grouped into distinct areas as shown in Figure 1. The majority of participants (69%) reported that they usually lived in the *Downtown Core*, an area encompassing neighbourhoods such as the Market, Centre and Lower Town, the Glebe, and Sandy Hill. The second highest proportion (12%) of participants reported that they usually lived in *East Ottawa*, which takes in neighbourhoods such as Vanier and Overbrook. Five participants were not living in Ottawa at the time of their interview; however they frequently came to Ottawa to visit friends and family (100%), for employment (33%), to buy or use drugs (33%), and to access the needle exchange program (33%).

Figure 1 Map of Area Where Participants Usually Lived.

Areas defined in the Multiple Listing Service® for Ottawa and surrounding area (The Canadian Real Estate Association, 2007).



The ability to access stable housing is an important influence on an IDU's health. Participants were asked to indicate all forms of unstable housing that they had ever lived in. Unstable housing was defined as living in a shelter or welfare residence, in a rooming or boarding house, on the street, at no fixed address, in a hotel or motel room, in a crack house, or at the YMCA / YWCA. Nearly all of the participants (98%) reported being unstably housed at some point in their lifetime. In terms of specific unstable housing situations, the greatest proportion of respondents (82%) reported that they had lived in a shelter or welfare residence at one point in their lifetime. The second and third most commonly reported unstable accommodations were living in a rooming or boarding house (77%) or on the street (73%). Gender differences existed with respect to the type of unstable accommodation ever lived in. Specifically, significantly more women (59%) reported having lived at the YWCA in their lifetime, in comparison to men having lived at the YMCA (28%) ($p < 0.001$).

In terms of recent living arrangements, the majority of participants (56%) reported that they had most often lived in unstable housing conditions in the six months preceding their interview. Again, significant gender differences existed in terms of most common type of accommodation ($p = 0.03$). Men who injected drugs most frequently reported living in their own or their sexual partner's house or apartment (35%), in a shelter or welfare residence (27%), in a rooming or boarding house (11%) or on the street (10%); whereas women who injected drugs most frequently reported living in their own or their sexual partner's house or apartment (36%), on the street (23%), in a shelter or welfare residence (16%), or at no fixed address (11%).

To further characterize living arrangements, participants were asked if they were currently living with an injection drug user. Nearly one-third (31%) of participants reported that they were currently living with another IDU. Although not statistically significant, a greater proportion of women (39%) in comparison to men (28%) reported currently living with another IDU. Among the 77 participants who reported that they were currently living with a person who injects drugs, the highest proportion (40%) reported living with a sexual partner who injects drugs. Currently living with a close friend who injects drugs was reported by nearly one-third of these participants (30%). Significantly more men (20%) than women (0%) reported living with an IDU who they did not know at all ($p < 0.01$).

Among this population, drug use had had a negative impact on both acquiring and maintaining stable housing. Over one-third (34%) of all participants reported that they were denied housing or a place to stay because of their drug use and 62% reported losing their housing because of drug use.

4.2 Patterns of Drug Use

4.2.1 Drugs injected in the six months prior to interview

Prevalent HCV infection has been shown to be associated with the type of drug injected most frequently. Our previous research in Ottawa indicated that men who injected cocaine most often were more likely to be infected with HCV while women who injected cocaine or morphine most often were more likely to be positive for HCV (Navarro et al., 2004). The top five drugs injected, at least once, by both women and men in the six months prior to their interview were cocaine (71%), crack/rock cocaine (55%), morphine (52%), other opiates including Oxycontin, Oxycodone, MS Contin, Eslon, Kadian (33%) and Dilaudid (30%) (Table 2). No significant differences in the patterns of drugs injected

in the six months prior to the interview existed between women and men. In terms of the drug injected most often in the six months prior to the interview, the top five reported drugs were cocaine (32%), morphine (26%), crack/rock cocaine (21%), other opiates (7%) and heroin (6%). This distribution differed slightly among women where the top five drugs injected most often by women were morphine (31%), crack/rock cocaine (27%), cocaine (20%), heroin (7%) and other opiates (6%).

4.2.2 Frequency of drug use in the six months prior to interview

The frequency of injecting specific drugs was quite varied. The greatest proportion of participants who reported injecting prescribed methadone, morphine or other opiates reported injecting these drugs every day or most days in the six months prior to the interview; while the greatest proportion of individuals who injected cocaine injected this drug two to three times per week. The highest proportion of respondents who had injected steroids, non-prescribed methadone, dilaudid, speedballs or percocet at least once in the six months prior to the interview injected these drugs two to three times per month; while the highest proportion of respondents who had injected tranquilizers or heroin injected only once a month. Among the 13 participants who reported injecting PCP, the majority reported only injecting this drug once in the six months prior to the interview. The greatest proportion of crack injectors reported shooting up with this drug two to three times per week or two to three times per month. For those who injected methamphetamines, the greatest proportion reported injecting every day or most days or once in the six months prior to the interview (Table 2).

4.3 Injection Practices

4.3.1 Age of injection initiation

As shown in Table 3, participants reported that they were quite young when they began injecting drugs. The majority of all participants (58%) reported initiating drug use between 10 and 19 years of age with the overall average age at first injection 22 years with a range from 11 to 60 years. However, women initiated drug use at a significantly younger age in comparison to men (average age: 20 and 23 years, respectively) ($p = 0.01$). IDUs reporting longer injecting careers may have greater cumulative exposure to potentially contaminated needles and other injecting equipment, heightening their risk of HIV and HCV infection. Overall, the reported duration of injecting drugs was quite long. Specifically, the average number of years injecting was 15 years. However, significant

gender differences existed; men reported injecting for a longer duration (average = 16 years) in comparison to women (average = 9 years) ($p = 0.02$).

4.3.2 Frequency of injection

We have previously documented that in Ottawa, heavy drug use, defined as injecting at least six times a day, was found to be associated with prevalent HIV infection; while injecting on a daily basis was associated with prevalent HCV infection (Millson et al., 2005). In terms of the reported frequency of injecting in the six months preceding the interview, the greatest proportion of both men (42%) and women (39%) reported injecting *once in a while, but not every week*. However, the second highest proportion of both men (26%) and women (30%) reported injecting *every day*.

In the month preceding the interview, nearly one-fifth of participants (17%) had not injected drugs. The greatest proportion of all participants (32%) reported injecting *once in a while, but not every week* in the month prior to the interview; while 24% reported injecting *every day* in the month prior to the interview. Among those who reported injecting in the month preceding the interview, the average number of injections carried out during this one month period was 45, ranging from one injection to 1,000 injections in the past month. On a day when participants injected, an average of five injections was completed by men with a range of one to 25 and an average of six injections was completed by women with a range of one to 50 injections (Table 3).

4.3.3 Locations where drugs were injected

For outreach service delivery and the potential placement of a SIF it was important to establish where residents of Ottawa inject drugs. Responses were grouped into distinct areas. The majority of participants (84%) reported that they had injected drugs, at least once, in the six months preceding their interview in the *Downtown Core* area. The second-ranked location was the area referred to as *Ottawa West*, reported by 18% of participants. The third-ranked location for injecting drugs was *Ottawa East*, with 14% of participants reporting that they had injected drugs at least once in this area. The pattern of the area used *most often* to inject drugs in the six months prior to the interview was similar to the pattern of all areas used to inject drugs. Specifically, the majority of participants (77%) reported that they had injected in the *Downtown Core* most often in the six months prior to the interview. *Ottawa West* was the second most frequently reported area (11%) and *Ottawa East* was the third most frequently reported area (7%) (Table 3).

Concordance between main neighbourhood of residence and neighbourhood most frequently used to inject was assessed. Some incongruence was observed; 30% of all participants reported that they did not live and inject in the same area (Data not shown).

4.3.4 Places where drugs injected

More details were asked about the places where IDUs had injected drugs, at least once, in the six months preceding their interview. Overall, the majority of participants (61%) reported they had injected in their own place at least once in the six months prior to their interview. The second-ranked location was at a relative or friend's place (48%), the third-ranked location was in a public washroom or toilet (43%), the fourth-ranked location was in a parking lot, street or alley (43%), and the fifth-ranked location was in a park (41%). Although the ranking of the top five injection locations differed between men and women; there were no significant differences between genders for all places used to inject drugs.

Participants' self-report of the place used most frequently to inject drugs in the six months preceding their interview was similar to overall locations used to inject. The top three places used to inject were their own place (46%), a relative or friend's place (12%), and in a parking lot, street or alley (9%). Marginal differences existed between men and women IDUs ($p = 0.06$). Women were more likely than men to report that they had injected in a parking lot, street or alley (13% vs. 7%) and at their sexual partner's place (12% vs. 4%). Men were more likely than women to report injecting at their own place (48% vs. 42%), at a relative or friend's place (12% vs. 10%) or in a park (8% vs. 3%) (Table 3).

4.3.5 The social experience of injecting

The social experience of injecting may increase a person's risk of acquiring or transmitting HIV and HCV. In this population of IDUs, a high proportion of participants reported injecting with other IDUs at most locations. Specifically, among participants who reported injecting at a location where they buy their drugs, 92% reported injecting with other IDUs. Similarly, IDUs who reported injecting at a place where they pay or exchange drugs to inject at this location (88%) or at their sexual partner's or a relative's or friend's place (85%) reported injecting with other IDUs. Of concern, three-quarters of IDUs (76%) reporting that they had injected at a stranger's place reported injecting with other IDUs. Similarly, a large proportion of participants (25 – 77%) who reported injecting in public locations also injected with other IDUs. Significant differences existed between men and women in terms of the social experience of injecting. Specifically, women who

reported injecting in a stairwell or doorway of a building were significantly more likely to inject with other IDUs in comparison to men, 89% and 62%, respectively ($p = 0.01$). Women were also more likely to inject with other IDUs in other public locations in comparison to men. Eighty-three percent of women reported injecting with other IDUs in a park in comparison to 63% of men, while 82% of women injected with other IDUs in a parking lot, street or alley in comparison to 64% of men (Table 3).

Participants reported the reasons a specific location was used to inject drugs. The main reason cited for the majority of locations was convenience. For example, among the participants who reported injecting at their sexual partner's place, 33% reported that they did so because it was convenient. However, the highest proportion of participants reported that they injected at their own place as it was safe (data not shown).

4.3.6 Public injecting and use of non-sterile water

Results from a previous study among Ottawa IDUs, the POINT Project, indicated that public injecting was significantly associated with many HIV- and HCV-related risk practices, including sharing previously used needles, injecting with a large number of different individuals, and commercial sex trade work (Navarro et al., 2004). Public injecting was defined as injecting in an abandoned building, a parking lot, street or alley, a park or school yard, a stairwell or doorway of a building, a car, a public washroom or any other outdoor area. In order to characterize the prevalence of public injecting, participants were asked to report on the frequency of injecting in public or semi-public areas. The majority (64%) reported injecting in a public area in the six months prior to their interview. In terms of the frequency of using such areas, one-fifth of all IDUs reported that they only injected in public spaces. No significant differences in the reported frequency of injecting in public areas existed between women and men, although a greater proportion of women (21%) compared to men (19%) only injected in public spaces.

Using dirty water to prepare drugs or rinse needles has been associated with serious health problems in IDUs (Ross & Shamsuddin, 2004). In this study, nearly one-quarter (24%) of both women and men reported using water from a puddle, public fountain or other outside source for drug preparation or to rinse their needles in the six months prior to the interview (Table 4).

4.3.7 Injecting alone and assisted injections

Similar to the data previously reported on the social experience of injecting, 78% of all participants reported that they had injected alone in the six months prior to the interview. More women (31%) in comparison to men (18%) reported never injecting alone, however this difference was not significant ($p = 0.07$). The distribution in the reported frequency of injecting alone was quite varied. At one extreme, one-fifth (21%) of all participants reported always injecting alone, while 21% reported occasionally injecting alone. Differences existed between men and women with respect to the reported frequency of injecting alone; more men (49%) than women (33%) reported injecting alone greater than seventy-five percent of the time in the six months prior to their interview.

Assisted injection, or needing help when injecting, is a high-risk behaviour which is commonly reported by IDUs. In this study, nearly one-half (46%) of participants reported that they had, at least once in their lifetime, required help injecting. However, significantly more women (61%) than men (39%) reported that they had needed help to inject drugs ($p = 0.01$). Among the 90 participants who reported that they needed help injecting, the frequency with which they needed help varied from all of the time to never. More specifically, one-third (33%) of those requiring help injecting reported that they needed help all of the time while 18% needed help occasionally or less than twenty-five percent of the time. The distribution in the frequency of requiring help in injecting did not differ significantly between men and women. However, the majority of women (54%) reported that they always needed or usually needed help compared with 42% of men reporting this frequency.

Participants were asked about the reasons they needed help in injecting. The greatest proportion of participants (36%) reported that they needed help injecting because they could not find a vein on their own. The second greatest proportion of participants (16%) reported that they needed help because they did not know how to inject themselves. Marginal differences existed between women and men ($p = 0.09$). Specifically, a greater proportion of women (47%) reported that they needed help because they couldn't find a vein on their own; this reason was reported by 30% of men. Conversely, a larger proportion of men reported additional problems, including unsteadiness and trembling. Despite the high proportion reporting that they needed help injecting, the majority of both women and men (67% and 55%, respectively) reported that they would be willing to

learn how to inject themselves – an educational piece which is provided in many currently operating SIFs (Table 4).

4.4 Access to Sterile Needles

Access to sterile needles and other injecting equipment is a key factor in reducing the transmission of HIV and HCV. Ottawa's needle exchange program (NEP) the Site, has been in operation since 1991 and offers its services through a fixed office and a mobile van. Needle exchange services are also offered through partner agencies, including community health centers and shelters. In terms of the study's population's use of needle exchange services in Ottawa, the majority of participants (81%) had exchanged or collected needles at the Site or one of its partner agencies in the six months prior to their interview. Pharmacies were also frequently used by IDUs to obtain sterile needles. In this population of IDUs, nearly one-half (43%) had purchased needles at a pharmacy in the six months prior to their interview. IDUs also obtained syringes through personal contacts or other acquaintances in the six months prior to their interview. Specifically, 48% of men and 54% of women had obtained sterile needles from a friend; while close to one-fifth of all participants (19%) reported that they had received sterile needles from their dealer or someone on the street.

Despite the large proportion of participants reporting that they had recently used a needle exchange program or a pharmacy to obtain syringes or that they had received them via members of their social network, over one-quarter (26%) reported that they had drugs and wanted to inject but didn't know where to get a clean needle in the six months prior to their interview. Other barriers to the collection of clean needles were reported. Specifically, approximately one-tenth of participants reported that they had trouble getting enough needles from the NEP to meet their needs (11%) or that the NEP limited the number of needles given to them in the six months prior to their interview (9%).

Participants also reported obstacles when trying to purchase needles from a pharmacy; nearly one-fifth of all participants (19%) reported that they had had trouble in the six months prior to their interview in getting enough new needles to meet their needs and one-third (32%) reported that a pharmacy had refused to sell them needles (Table 4).

4.5 HIV- and HCV-related injection practices in the past six months

The experience of these barriers to the collection of sterile needles may influence an individual's shared use or re-use of needles. In this population, one-fifth (20%) of all

participants reported that they had shot up with needles that had already been used, or were being used by someone else in the six months prior to their interview. Of concern, over one-tenth (12%) of participants reported that they had used needles without knowing if they had been used by someone before them. There were no significant gender differences in this practice.

Preparing drugs for injection with equipment, e.g., cottons, filters, spoons or cookers, that has already been used by someone else is associated with the transmission of HIV and HCV. Over one-quarter of participants (28%) reported this high-risk behaviour in the six months prior to their interview. Significantly more women IDUs (39%) in comparison to men (24%) reported that they had used other equipment that had already been used by, or was being used by someone else ($p = 0.03$).

Backloading and frontloading is a practice whereby IDUs fill their syringe from another syringe that has already been used or is being used by someone else. In this population, over one-tenth (12%) of IDUs reported engaging in this high-risk behaviour in the six months prior to their interview with no differences in this practice between genders (Table 5).

4.6 Engagement in Crack Smoking

4.6.1 Age at initiation of smoking crack

Injection drug users who also smoke crack may engage in additional HIV- and HCV-related risk behaviours, as results of recent research studies indicate that it may be possible to acquire these infections through the shared use of devices used to smoke crack (McMahon & Tortu, 2003; Tortu, McMahon, Pouget, & Hamid, 2004). As shown in Table 6, among this study population of IDUs, crack smoking was a common and frequent practice. Nearly all participants (94%) reported that they had smoked crack at least once in their lifetime with the age of commencement of smoking crack ranging from seven to 54 years. However, the average age at which participants reported first smoking crack differed significantly between women and men ($p < 0.001$). Women first smoked crack at a younger age (average = 22 years) in comparison to men (average = 27 years); 49% of women were less than 18 years of age the first time they smoked crack while 19% of men were less than 18 years of age.

4.6.2 Prevalence and frequency of smoking crack

Among all participants who had smoked crack at least once in their lifetime, nearly all reported smoking crack in the six months prior to their interview; 92% of men and 88% of women. The frequency of smoking crack during this time period was quite high, with the largest proportion of both men and women reporting smoking crack on a daily basis, 30% of men and 44% of women. Among those who reported smoking crack in the six months prior to the interview, 83% reported this behaviour in the past month. The frequency of smoking crack in the month prior to their interview did not diminish, as the greatest proportion of both women (41%) and men (28%) reported smoking every day (Table 6).

4.6.3 Multi-person use of crack pipes

Sharing crack-smoking devices has been associated with an increased risk of HCV transmission (McMahon et al., 2003; Tortu et al., 2004). Of concern, two-thirds (66%) of crack-smoking participants reported sharing pipes that had already been used or were being used by someone else in the six months prior to their interview. Slightly more men reported the shared use of pipes (68%) in comparison to women (62%). This high-risk behaviour continued in the month prior to their interview, with nearly two-thirds (61%) of participants reporting sharing crack-smoking implements. Again, more men (62%) in comparison to women (58%) reported recently sharing crack-smoking implements, but the difference was not significant (Table 6).

4.7 Experiences of Overdose, Health Problems and HIV & Hepatitis C Infection

4.7.1 Experiences of overdose

By providing medical supervision, on-site resuscitation, and prompt emergency response, SIFs can reduce the risks associated with drug-related overdose. As such, participants were asked about their experiences of overdose. As different people have different ideas about what an overdose is, overdosing was explained to participants as, “turning blue, having severe chest pain or loss of consciousness”.

In terms of lifetime experience of overdosing, 43% of participants reported that they had overdosed (Table 7). Participants were also asked to report the number of times that they had overdosed in their lifetime; the average was 4 times, ranging from 1 to 30 times. Among the 108 participants who reported *ever* overdosing, 23% had overdosed in

the six months prior to their interview. There were no significant gender differences with respect to prevalence or frequency of overdosing.

Participants were asked a series of questions related to the experience of their last overdose. Almost one-half (43%) of participant's last overdose occurred in the two years preceding their interview. Participants were asked in which neighbourhood, city or region they had last overdosed. Responses were grouped into distinct areas. The greatest proportion of participants (40%) reported that they last overdosed in the *Downtown Core*, an area encompassing neighbourhoods such as Centretown, the Glebe, the Market, Lower Town and Sandy Hill. Twelve percent of participants reported that they had last overdosed in both *East Ottawa* and *West Ottawa*. Over one-third of participant's last overdose occurred outside of these areas, with nearly one-third (31%) occurring outside of Ottawa in Montreal, Hamilton, Sault Ste. Marie, Oshawa, Hawkesbury, Stittsville, London, North Bay, Brantford, Cornwall, Peterborough, Guelph, and in British Columbia. Marginal differences existed between women and men ($p = 0.07$). Specifically more women (26%) reported that their last overdose occurred in the *South End* or in the *West End* in comparison to men (9%).

Participants were further asked to identify the specific place where they last overdosed, i.e., park, their house, friend's house, alley, crack house. Nearly one-quarter (22%) of participants reported that they had last overdosed in a public location, including a car, crack house, park, public washroom, stairwell, street or other outdoor location. However, the two most commonly reported places were in their own place (32%) or at a relative or friend's place (28%).

The use of specific drugs or substances is associated with greater risk of non-fatal overdose (Kerr et al., 2007). At the time of their last overdose, the greatest proportion of participants (43%) reported that they had injected cocaine; the second and third highest proportion of participants reported that they had injected heroin (17%) or morphine (15%). Injecting alone has its own risks; more than one-quarter (28%) of participants were *not* with other people at the time of their last overdose.

Supervised injection facilities help take the strain off emergency response services and provide a safer venue in which ambulance personnel can work. Regardless of whether the participants were alone or with other people, an ambulance was called for only 43 individuals (40%). Significantly more men (48%) in comparison to women (23%) had an ambulance called for them ($p = 0.02$). For eight (19%) of these overdoses, the

participant did not know who had called the ambulance. However, when a participant could recollect who had called an ambulance, the greatest proportion (37%) reported that it was a friend or acquaintance. Other individuals who called an ambulance included strangers (16%), themselves (7%), partner or spouse (5%). Again, men and women differed significantly with respect to who called the ambulance ($p = 0.05$). Specifically, no men reported that their partner or spouse called an ambulance; while two women reported that their partner or spouse called an ambulance. For women, ambulances were not called by themselves or by strangers. One deterrent to calling an ambulance is the fear of police being involved. In this population, nearly one-half (46%) of all participants reported that they had been afraid of being arrested when they or someone else overdosed. Additionally, after the ambulance was called, 56% of participants reported that the police arrived. Among all participants who reported ever overdosing, nearly half (46%) reported that they were taken to an emergency room or hospital; with significantly more men (52%) than women (31%) reporting this outcome ($p = 0.05$) (Table 7).

4.7.2 Health problems associated with injecting

There are additional cost benefits associated with the operation of SIFs, including potential savings associated with reduced use of emergency and acute medical services. IDUs are at increased risk of health problems related to their drug use. As such, all participants were asked about specific health problems that they had experienced in the six months prior to their interview, and if they had received treatment for these problems. As shown in Table 8, health problems were quite common among this population and, of concern, treatment was rarely received. Abscesses are a common health problem related to injection drug use. In our study population, 45% of participants had ever had an abscess; and among these 112 participants, 35% had an abscess in the six months prior to their interview. Forty-five percent of all participants reported that they had had liver problems or hepatitis in the six months prior to their interview. Among those reporting liver problems or hepatitis, only 45% had received treatment. Approximately one-third (34%) had experienced circulation problems, including endocarditis or thrombosis, with only one-quarter receiving treatment for these problems. Septicaemia or blood infection was reported by 11% of participants, and among the 28 who reported such a condition, only 44% had received treatment. Withdrawal symptoms were commonly reported by participants. Overall 55% of men and women reported this health problem, with only 25% receiving medical treatment.

Significantly, more women (36%) reported receiving treatment for withdrawal symptoms in comparison to men (21%).

There were significant differences in health problems reported by women and men, and in some instances, there were further differences with respect to the receipt of treatment. Specifically, significantly more women (44%) in comparison to men (25%) reported experiencing swelling of the hands and/or feet ($p = 0.00$); however men (36%) were more likely than women (24%) to have received treatment for this health condition. Similarly, significantly more women (54%) had experienced problems with their lungs including bronchitis in comparison to men (35%) ($p = 0.01$); but in this case, significantly more women (70%) had received treatment for this condition in comparison to men (39%) ($p = 0.003$). Stomach or gastrointestinal problems were reported by significantly more women (46%) in comparison to men (23%) ($p = 0.001$) and among these IDUs reporting stomach problems, 39% of men and 40% of women had received treatment. Again significantly more women than men reported having a cold or influenza in the six months prior to the interview (47% and 26%, respectively) ($p = 0.001$) with approximately one-third of both women (38%) and men (33%) experiencing this health condition receiving treatment. Depression was reported by a significantly greater proportion of women (80%) compared with men (63%) ($p = 0.01$); with significantly more women (59%) receiving treatment in comparison to men (36%) ($p = 0.004$). Scarring and bruising was also reported by significantly more women (77%) in comparison to men (46%) ($p < 0.001$) with 15% of women and 10% of men reporting treatment for these injuries (Table 8).

4.7.3 HIV and HCV infection

The rates of HIV infection among IDUs in Ottawa are the highest in Ontario (Remis et al., 2002) and among the highest in Canada (Hankins et al., 2002); while the population is nearly saturated with HCV. Participants were asked questions about blood tests for HIV and HCV. These questions did not refer to testing that a participant may have had while undergoing treatment for HIV or HCV. Of concern, 10% of men and 4% of women had never undergone a blood test for HIV. Among the 214 participants in the survey who had received the results of their last blood test for HIV, 13% reported that their last HIV blood test was positive. Among 152 men, 15% reported that their last HIV blood test was positive and among 62 women, 10% reported that their last HIV blood test was positive.

Among the 215 participants in the survey who had received the results of their last blood test for HCV, 51% reported that their last HCV blood test was positive. Among 154 men, 51% reported that their last HCV blood test was positive and among 61 women, 49% reported that their last HCV blood test was positive. No significant difference existed between women and men with respect to the result of their most recent HIV or HCV blood test (Table 8).

4.8 Drug Treatment

Through the provision of a secure supervised setting where IDUs can inject, staff are optimally positioned to engage IDUs in a help-seeking relationship. For example, in Frankfurt hundreds of clients are referred directly from safer injecting facilities to drug treatment each year (Macpherson, 1999). Participants in this study were asked about any drug treatment they had undertaken and their attempts to seek drug treatment. Seventy-two percent of participants had been in a drug treatment or detox program at least once in their lifetime. Among the 179 individuals who had ever been in treatment or detox, 37% had been in such a program in the six months prior to their interview. The highest ranked treatment or program was a detox program with no drugs (13%). Methadone maintenance program was second-ranked (7%). Men and women differed with respect to the ranking of the type of drug treatment that they had been in. For men, the first- and second-ranked types were a detox program with no drugs and a methadone maintenance program, for women it was a methadone maintenance program and a detox program with no drugs. Additionally, a significantly greater proportion of women reported that they had been in a self-help group for their drug use ($p = 0.02$). Of concern, 22% of all participants reported that they had tried but had not been able to get into any treatment program in the six months prior to the interview (Table 9).

4.9 Safer Injection Facilities

4.9.1 Knowledge of Safer Injection Facilities (SIFs) and previous use of SIFs

The overall objective of this study was to assess the need for a safer injection facility (SIF) in Ottawa. As such, it was important to determine prevailing attitudes and expectations in regards to SIFs among women and men in Ottawa who inject drugs. Participants were asked about their knowledge of safer injection facilities; nearly three-quarters of both women (71%) and men IDUs (74%) indicated that they had heard of SIFs (Table 10). Differences existed between women and men with respect to their reported knowledge of such places. The greatest proportion of women reported that

injecting processes were supervised by trained staff (34%), that clean injecting equipment and syringes could be obtained at a SIF (30%), and that SIFs provided a clean and sterile environment for injecting (26%). The greatest proportion of men reported that SIFs provided a clean and sterile environment for injecting (41%), SIFs were safe and secure (36%), and that injecting processes were supervised by trained staff (36%).

In addition to having some level of familiarity with SIFs, 13 participants (7%) reported that they had been to *Insite*, Vancouver's supervised injection facility. Among these participants, 10 reported going there to inject drugs. A variety of other services provided by the Vancouver SIF had also been accessed by these participants including: drug counsellors, needle exchange, injection equipment distribution, literature resources, nursing staff for medical care and/or safer injecting teaching, or referrals to drug treatment, rehabilitation and other services.

4.9.2 Willingness to use a potential SIF

Independent of the extent of their SIF knowledge, all participants were asked if they would use a SIF if one was opened in Ottawa. To ensure that all participants were referring to the same type of place, a standard explanation was given to all participants. A SIF was described as a legally operated indoor facility where people come to inject their own drugs under the supervision of medically trained workers. It was explained that people can inject there under safe and sterile conditions and have access to all sterile injecting equipment (cotton, cooker, water, etc.) and receive basic medical care and/or be referred to appropriate health or social services. Based on this explanation, nearly two-thirds of participants (64%) reported that they would be willing to use such a place, 14% reported that they might use such a place. No difference between women and men IDUs existed with respect to the propensity to use a SIF.

As shown in Table 11, of the 58 women who were willing or would consider using a SIF if one were opened in Ottawa, the top three reasons for willingness to use a SIF were the ability to get clean sterile injection equipment (47%), the ability to inject in private, and not in a public space (35%) and safety from being seen by police (29%). Among the 137 men who were willing or would consider using a SIF, the top three reasons for willingness to use were the ability to inject in private, and not in a public space (47%), the ability to get clean sterile injection equipment (45%) and safety from being seen by police (37%). Interestingly, a greater proportion of women (19%) in comparison to men

(10%) reported the availability of overdose treatment as a reason for willingness to use a SIF.

Fifty-five participants (43 men, 12 women) reported that they would not use a SIF if one were opened in Ottawa. Women differed from men with respect to the ranking of reported reasons for not using a SIF. Specifically, women indicated that they would not use a SIF as they did not want to be seen using one (67%), they had a place to inject (25%), and they did not want people to know that they were a drug user (17%). Men IDUs reported that they did not want to be seen using a SIF (23%), that they always inject alone (23%), and that they have a place to inject (19%). Significantly more women (67%) than men (23%) reported that they would not use a SIF as they did not want to be seen accessing a SIF ($p = 0.01$) (Table 11).

Statistical methods were used to identify and measure demographic and drug use characteristics associated with the potential uptake of a SIF (Table 12). We compared those participants who reported that they would likely use the facility ($n = 160$) versus those who were not considering using the facility ($n = 55$). Univariate statistical tests were used to determine the characteristics associated with uptake. The characteristics significantly associated with uptake were: having injected in a public place in the six months prior to their interview ($p = 0.001$), using unclean water for injection in the six months prior to their interview ($p = 0.01$), having drugs and wanting to inject but not knowing where to get a clean needle in the six months prior to their interview ($p = 0.001$), and experiencing a non-fatal overdose ($p = 0.03$). IDUs reporting a positive HIV test were significantly more likely to report to be unwilling to use a SIF ($p = 0.04$). Characteristics marginally associated with uptake were injecting every day in the six months prior to their interview ($p = 0.09$), using Ottawa's needle exchange program in the six months prior to their interview ($p = 0.06$), and most frequently injecting cocaine in the six months prior to their interview ($p = 0.07$).

All previously listed characteristics were included in the multivariate analysis on the basis of statistical and/or epidemiological importance. One characteristic remained independently associated with willingness to use a potential SIF in multivariate analysis, having drugs and wanting to inject but not knowing where to get a clean needle in the six months prior to their interview (AOR = 3.6, 95% CI: 1.3, 9.8) (Table 13).

4.9.3 Need for and willingness to use a separate room for smoking crack

Crack smoking is a common and frequent practice among women and men in Ottawa who inject drugs. Additionally, the use of public places to smoke crack is a widespread practice (Leonard, DeRubeis, & Birkett, 2006). To prevent the harms associated with crack smoking, several European cities have established safer inhalation rooms. As such, participants were asked if there should be a separate room for smoking crack at the prospective SIF. Interestingly, over two-thirds (68%) of all participants reported that a safer inhalation room should be included in a SIF; and 63% of participants reported that they would be willing to use such a room. No gender differences were observed with respect to the need for or use of a separate room for smoking crack (Table 14).

Among the 49 women reporting that there should be a separate room for smoking crack, the greatest proportion (37%) identified crack smokers as different from injectors; more specifically, there is a reported clash in drug cultures or a hierarchy in terms of drug of choice. The explanation reported by the second greatest proportion of women (27%) was that crack smokers needed a safe place to smoke where they would have access to safer crack-smoking supplies and access to knowledgeable staff for overdose prevention, treatment and safer crack-smoking counseling. This safe place was deemed necessary due to the high prevalence of crack smoking and the high proportion of drug users smoking in public locations. Additionally, 6% of women reported that a separate room for crack smoking was considered necessary to avoid exposing non-smokers to this form of drug consumption. Among the 119 men who reported that there should be a separate room for smoking crack an equal proportion (25%) identified crack smokers as different from injectors, and that a safe place was needed. The second greatest proportion of men (12%) reported that they did not want to expose others to smoking.

Participants were asked to explain why they thought that there should or should not be a separate room for smoking crack at a SIF. Among the 21 women who thought that there should *not* be a separate room for smoking crack, the main reason reported was that smoking crack can lead to erratic, bizarre and in some instances, violent behaviour (38%). The second and third most commonly reported reasons explaining why there should *not* be a separate safer inhalation room were that IDUs perceived there to be less health risks associated with smoking crack (24%), and as the name states, a safer injecting facility is for injecting not smoking (14%). Among the 57 men who thought that there should *not* be a separate room, the main reason reported was that smoking crack

can lead to erratic, bizarre and in some instances, violent behaviour (19%). The second and third most commonly reported reasons explaining why there should *not* be a separate room were that as the name states, a safer injecting facility is for injecting not smoking (8%), and IDUs perceived there to be less health risks associated with smoking crack (12%) (data not shown).

Among crack-smoking IDUs, 71% of women and 70% of men were willing to use a safer inhalation room. As shown in Table 15, statistical methods were used to identify and measure demographic and drug use characteristics associated with the potential uptake of a safer inhalation room among this group. We compared crack-smoking IDUs who reported that they would likely use the facility ($n = 146$) versus those who were not considering using the facility ($n = 61$). Univariate statistical tests were used to determine the characteristics associated with uptake. The characteristics significantly associated with uptake were having lived in unstable housing in the six months prior to their interview ($p < 0.01$), smoking crack every day in the six months prior to their interview ($p = 0.01$), and smoking crack in the month prior to the interview ($p < 0.01$). Crack-smoking IDUs who always injected alone in the six months prior to their interview were significantly less willing to use a safer inhalation room ($p = 0.04$). These characteristics were included in the multivariate analysis on the basis of statistical and/or epidemiological importance. Two characteristics remained independently associated with willingness to use a potential safer inhalation room in multivariate analysis, having lived in unstable housing in the six months prior to their interview (AOR = 4.0, 95% CI: 2.1, 7.8) and smoking crack in the month prior to the interview (AOR = 6.7, 95% CI: 2.3, 19.6) (Table 16).

4.10 Policy Acceptability and Service Preferences

If a SIF were to be opened in Ottawa, a number of policies would need to be considered. As such, it was important to characterize the attitudes towards such policies among women and men who inject drugs in Ottawa. Almost all participants (95%) reported that it would be very acceptable or acceptable if injections were supervised by a trained staff member who could respond to overdoses (Table 17). Similarly, over 80% of participants reported that it was very acceptable or acceptable to have a thirty minute time limit for injections or that they would be willing to wait for ten to fifteen minutes after injecting so that their health could be monitored. Other policies which were considered to be very acceptable or acceptable included the possibility of sitting and waiting until space was

available for the client to inject (76%), having to register each time a client used the SIF (74%), not allowing assisted injections or sharing of drugs (66%), and disallowing crack smoking (60%).

Although most policies were thought to be acceptable, a few policies were considered unacceptable. These policies were the requirement that clients would have to live in the neighbourhood (86%); clients would have to show identification in order to use the SIF (72%), and the presence of video surveillance cameras for protection of users (62%). Gender differences existed with respect to the acceptability of some policies. A greater proportion of women (44%) reported that not allowing assisted injections was unacceptable in comparison to men (30%). However, significantly more women in comparison to men reported that it would be unacceptable if clients were not allowed to share drugs (46% and 29%, respectively) ($p = 0.04$) (Table 17).

To identify preferences among Ottawa injection drug users for services that would optimize uptake and benefits of a SIF, questions were posed which determined the personal importance of various services being considered. As shown in Table 18, a wider range of services were considered very important or important by participants. Nearly all women and men reported the following services as very important or important: needle exchange (100%); receipt of help and care from overdosing (99%); HIV and HCV testing (99%); injection equipment distribution (98%); nursing staff for medical care and safer injecting teaching (97%); availability of washrooms (95%); referrals to drug treatment, rehab and other services when ready to use them (94%); and a “chill out” room for after injecting (93%). Additionally, approximately three-quarters of participants indicated that services such as, drug counsellors (86%), access to morphine or methadone prescribed by a doctor (77%), availability of social work support (77%), availability of peer support (76%), availability of food (75%), aboriginal staff (74%) and access to showers (73%) were very important or important. Fifty-three percent of all participants indicated that special times for women or a woman-only SIF was important. No significant differences existed between women and men with respect to the personal importance of these services (Table 18).

4.11 Perspectives on Preferred Location and Service Designs

4.11.1 Location and willingness to walk or bus to a SIF

To identify preferences for the features necessary for maximum accessibility and effective utilization of a prospective SIF, Ottawa IDUs were asked their preference about

the location and design of services. Willingness to use a SIF varied with respect to its possible location. If a SIF were to be located at a community health centre, hospital, family doctor's clinic, or social service agency that the participant already used, the majority of both women (59%) and men (58%) reported that they would use such a place (Table 19). However, if the SIF were to be located in a separate, stand alone building potential use would be greater. Significantly more women (93%) than men (82%) reported that they would use such a place ($p = 0.03$).

As previously reported, the main reason cited for injecting in the majority of locations, both public and private, was convenience. For example, among the participants who reported injecting at their sexual partner's place, 33% reported that they did so because it was convenient. As such, it was important to determine participant's willingness to walk or bus to a SIF, and the length of time that would be acceptable to travel to a SIF. In terms of accessing the SIF, 91% of women and 87% of men were willing to walk to a SIF. Men and women differed significantly with respect to the longest time they would be willing to walk ($p < 0.01$). The greatest proportion of men (29%) reported that they would be willing to walk forty minutes or more; while the greatest proportion of women (50%) reported that they would walk only ten minutes to get to a SIF (Table 19).

In comparison to walking, a lower proportion of participants reported that they would be willing to take a bus to a SIF; 68% of men and 59% of women. However, in comparison to walking, a greater proportion of participants reported longer acceptable times to travel via bus to a SIF. The greatest proportion of both women and men (31%) reported that they would be willing to travel 20 minutes on a bus; while the second highest proportion of both women (27%) and men (30%) indicated that they would be willing to travel 40 minutes or more. This is important, considering the geographic dispersion of participants.

As previously reported, nearly two-thirds of participants (64%) reported that they would be willing to use a SIF if it were opened in Ottawa. However, if the SIF was located in a *convenient* location for the participants, 85% of women and 89% of men reported that they would use it to inject. In terms of the frequency of using such a location, the highest proportion of women (40%) and men (27%) reported that they would *always* use a SIF to inject.

4.11.2. Hours of operation

The hours of operation of existing SIFs vary from eight to 24 hours a day. For example, the Vancouver supervised injection site, *Insite*, is open from 10.00 am to 4.00 am, seven days a week. To establish the time of day IDUs would prefer to use a SIF, participants were asked which time period, day-time, evening or overnight, was their first and second choice for personal use. In terms of their first choice, the greatest proportion of participants (43%) indicated preference for day-time hours (8.00 am to 4.00 pm). The second highest proportion of participants (39%) reported that they would use a SIF during the evening hours (4.00 pm to midnight); while 19% indicated that they would prefer to use a SIF overnight (midnight to 8.00 am). In terms of their second choice, 46%, 36% and 17% indicated evening, overnight and day-time, respectively. Interestingly, although the option was not given, nearly one-tenth of all participants (9%) reported that they would prefer the prospective SIF to be open 24 hours a day. No gender differences were observed with respect to hours of operation (Table 19).

4.11.3 Age restrictions

Instituting age restrictions has been a common feature in implementing a SIF. However, limiting clients based on age is of some concern as new initiates into injection drug use and younger IDUs may be especially vulnerable to HCV seroconversion (Garfein, Vlahov, Galai, Doherty, & Nelson, 1996). Among this population of IDUs, participants were quite young when they began injecting drugs; the average age of initiation was 22 years among all applicants with women initiating drug use at a significantly younger age (20 years) in comparison to men (23 years). In this study, nearly two-thirds of participants (62%) reported that SIFs should be limited to users of a certain age. Interestingly, significantly more men (66%) in comparison to women (51%) reported that an age restriction should be put in place ($p = 0.03$). Among the 153 participants who would like a SIF to be restricted to users of a certain age, the average of the reported minimum age was 18 years with a range of 10 to 30 years (Table 19).

4.11.4 Service design

Several possibilities exist in terms of the set-up for injecting spaces in SIFs. These include private cubicles, an open plan or a combination of the two (Figure 2). The majority of participants (66%) reported that the best set-up for injecting spaces in a SIF was private cubicles. In terms of other setups, 19% indicated the best design would be a combination of private cubicles and open space; 8% reported that they would prefer an

open plan with tables and chairs; while 4% reported preferring an open plan with benches at one large table or counter. No gender differences were observed with respect to set-up for injecting spaces in SIFs.



Figure 2 Pictures of Safer Injecting Facilities

4.11.5 Peer-involvement in a prospective SIF

Previous research has documented that peer-involvement in harm reduction programs has been successful. In terms of SIFs, peers have been involved in activities such as registering and orienting clients, and counseling. In this study, as shown in Table 19, peer involvement in the implementation of a SIF was deemed appropriate by approximately one-half of all participants; 59% of women and 46% of men. Although not included as a formal question, 32 of the participants independently reported that users who would potentially be involved in running a prospective SIF should be ex-users and not current users.

Among the 83 men who reported that users should be involved in running a prospective SIF, the main reason reported was that a peer's experience or knowledge of drug use would be invaluable (66%). Additionally, 10% of men thought that peer-involvement in running a SIF would be beneficial for the peer; participants reported that it would benefit the peer as they would be involved in something positive, they would have the ability to give back to the community, and it would give the peer a sense of accomplishment. Men also thought that the drug-using community would be more likely to support the SIF if peers were involved (8%). Greater community support would be obtained as involvement of peers would evoke more trust and users would understand that this is a place is safe. Among 40 women, the main reason in support of peer-involvement was experience (72%); the second greatest proportion of women reported that a SIF is for

users, so peers should be involved in running the SIF or that the drug-using community would be more likely to support a SIF if peers were involved (7%).

The top two areas of potential involvement reported by both women and men were that users could be involved in aspects such as: counseling on safer injecting, addictions, treatment and/or harm reduction (27%); advising staff and/or board of directors on guidelines, policies, rules or design (10%). However, a greater proportion of women (10%) reported that users could be involved in facility management in comparison to men (2%); while a greater proportion of men (7%) reported that users could make basic contact with clients in comparison to women (5%). Other areas of possible involvement included, monitoring clients, administration, public education / promotion, equipment distribution, cleaning, and security.

For the 124 participants who reported that users should *not* be involved in running a SIF, explanations included: trust (28%), not a good idea to involve active users (23%), jeopardize successful implementation (8%), and safety (8%). The top reasons reported by women were: trust (34%), not a good idea (24%), and, jeopardize successful implementation, judgment and risk (7%). The top reasons reported by men were trust (27%), not a good idea (21%), and safety (10%) (data not shown).

4.12 Community Impact

If a SIF were to open in Ottawa, it is likely that a number of issues impacting the community would be encountered. As such, it was important to determine the prevailing attitudes among IDUs about the possible impacts a SIF would have on the community. For example, is it “very likely”, “likely” or “very unlikely” that the number of people injecting in public would be reduced if such a place were to open in Ottawa. If a SIF were to open in the Ottawa area, 92% of participants thought it would be very likely or likely that public injecting would be reduced. Similarly, nearly all participants (95%) believed that it was very likely or likely that the number of used syringes on the street would be reduced (Table 20).

Previous studies have indicated that establishment of SIFs have had no impact on crime (Independent Working Group on Drug Consumption Rooms, 2006). In this study, 50% of all participants believed that overall crime would be reduced around the area and 61% of participants believed that street violence would be reduced.

As SIFs do not provide the drugs that service users will inject, potential concentrations of drug transactions around the facility and other drug-related crimes may be of concern. In terms of users concentrating in the community around the SIF, 98% of participants believed it was very likely or likely that users would visit the area; while 59% thought it was very likely or likely that users would move to the area. Additionally, over three-quarters (77%) of participants reported that it would be very likely or likely that drug dealers would be attracted to the area. There were no significant gender differences with respect to community impact.

In terms of impacts on the Ottawa community of injection drug users, nearly all participants (95%) thought that it would be very likely or likely that IDUs would learn about drug treatment if a SIF were opened. Non-fatal overdoses are commonly reported among women and men in Ottawa who inject drugs; as previously described, 43% of study participants had experienced an overdose at least once on their lifetime. Additionally, non-fatal overdoses have been associated with early morbidity among a population of Vancouver IDUs. In this study, 92% of participants thought that it would be very likely or likely that overdoses would be reduced if a SIF were to open in this community. As a component of a SIF would be the basic provision of clean injection equipment, including needles/syringes, cookers, tourniquets, water and acidifiers; 91% of participants believed that injection with used needles would be reduced.

5.0 DISCUSSION AND RECOMMENDATIONS

5.1 Need for a SIF

5.1.1 Housing Instability

The majority (56%) of participants reported that they had lived in unstable housing conditions as their main type of accommodation in the six months prior to their interview; while many participants reported that they had had trouble maintaining or acquiring stable housing because of their drug use. Housing instability was one of the primary reasons for considering using a SIF – the ability to inject in private and not in a public space. Conversely, one-fifth of participants indicated that they would *not* use a SIF as they had a place to inject.

5.1.2 HIV- and HCV-related injecting practices

This population of IDUs engaged in several HIV and HCV risk-related injection practices, including the shared use of previously-used needles and other injecting equipment. The prevalence of injecting in a public space was also high – with two-thirds of participants

reporting injecting in public spaces. Access to a secure SIF where sterile injection equipment is distributed could potentially respond to these practices documented to be significantly associated with HIV and HCV infection. Additionally, over 39% of both women and men reported needing help to inject drugs, with significantly more women reporting needing help. However, over two-thirds of women reported a willingness to learn how to inject themselves – a teaching component that could be provided in a SIF.

5.1.3 Access to and use of sterile injecting equipment

Eighty-one percent of participants had exchanged and/or obtained needles at the Site or other needle exchange in the six months prior to their interview. Despite these findings, barriers to use of new injecting equipment existed. Specifically, over one-quarter of participants reported that they had drugs and wanted to inject but didn't know where to get a clean needle. Additionally, participants also reported that they had trouble getting enough needles from a NEP to meet their needs and had experience of a NEP limiting the number of needles given out. Also, despite this high use of the NEP, almost one-quarter of participants reported using non-sterile water for drug preparation or to rinse their needles. This behaviour has been documented to be associated with abscesses and other injection-related health problems. Access to a SIF could potentially alleviate some of these barriers experienced by this population.

5.1.4 Experiences of overdose, health problems and HIV & HCV testing

Twenty-three percent of participants reported at least one non-fatal overdose in the six months prior to their interview. Twenty-four participants reported that their last overdose occurred in a public place, for example in a park, stairwell, or public washroom. Additionally, although reports of overdose were only slightly higher among women than men, there were significant differences in the response to overdosing. A significantly greater proportion of men received care - ambulance called or taken to emergency - for their overdose in comparison to women. Additionally, the fear of police involvement during an overdose episode was common; and nearly 56% of participants reported police involvement after an ambulance was called. By providing medical supervision, on-site resuscitation, and prompt emergency response, SIFs can reduce the risks associated with drug-related overdose and alleviate emergency health care costs.

A range of significant health problems were commonly reported among this population, with only one-half of participants reporting receipt of care. Of concern, 8% and 10% of participants had never had a blood test for HIV or HCV, respectively. Congruent with

these experiences, nearly all participants considered receipt of help and care from overdosing and HIV and HCV testing to be very important or important services to be provided by a potential SIF. A SIF would have the potential to alleviate the burden on hospital systems, specifically emergency services, by providing a safe setting where health concerns can be addressed.

5.1.5 Drug treatment

Nearly one-quarter of participants (22%) reported that they had tried but had not been able to get into any drug treatment program in the six months prior to the interview. Additionally, 28% had never been in a drug treatment or detox programme, suggesting that a potential SIF may be well positioned to facilitate this process. The need for a SIF was also re-iterated when participants were asked about the importance of services. Referrals to drug treatment / other services, access to drug counsellors, and access to prescribed morphine or methadone were deemed very important or important by over 75% of all participants.

5.2 Willingness to Use a Potential SIF

Overall, participants were interested in a potential SIF with associated harm reduction initiatives. Participants were open and responsive to NEPs, as a large proportion reported that they had acquired new injection equipment from a needle exchange. Thirteen participants had used the services offered by a SIF. In addition to acquiring sterile equipment these participants had received referrals to drug treatment, rehab and other services, had accessed drug counsellors and had obtained literature or safer injecting teaching. Of most interest, nearly two-thirds of participants (64%) reported that they would be willing to use a potential SIF if one were opened in Ottawa; while an additional 14% were considering using such a place. The top reason for use of a SIF was that participants would have the ability to get clean sterile injection equipment. This is not surprising considering the barriers these participants have experienced surrounding access to new supplies. The reason reported by the second greatest proportion of participants (43%) was that they would be able to inject in private and not in a public space – which corresponds to the high amount of housing instability reported among this population. Interestingly, a greater proportion of women in comparison to men reported availability of overdose treatment as a reason for willingness to use a SIF. This is probably driven by the fact that women were less likely to report receiving care - ambulance called or taken to emergency - for their overdose.

While no difference was detected between women and men IDUs with respect to the propensity to use a SIF, women and men differed with respect to reasons for non-use. A significantly greater proportion of women (67%) compared with men (23%) indicated that they would not use a SIF as they did not want to be seen – potentially due to issues surrounding safety and anonymity ($p = 0.01$). Other reasons for non-use included: that they had a place to inject reported by 20% of participants, they did not want people to know that they were a drug user (15%) and that they always inject alone (20%) – one of the top reasons reported by men IDUs. All reasons are not surprising, as typically homeless users have been documented as primary users of established SIFs. With regards to anonymity concerns, service designs would need to be considered, for example, use of a separate stand alone building, or a private entrance.

5.3 Potential SIF Policies

Participants were asked about a range of policies a potential SIF could enact. Over three-quarters of all participants reported the following policies to be either very acceptable or acceptable; injections being supervised by a trained staff member who could respond to overdoses (95%); monitoring a user's health after injecting (83%); a 30 minute time limit for injections (81%) and the possibility of having to sit and wait for space (75%). Other policies considered very acceptable or acceptable by approximately two-thirds of all participants included: registering each time a client uses the SIF (74%); not allowing assisted injections (66%); not allowing sharing of dope (66%); and not allowing crack smoking (60%).

Significantly more women (44%) than men (30%) considered the policy of not allowing assisted injections to be unacceptable ($p = 0.08$) and significantly more women (46%) than men (29%) considered the policy of not allowing the sharing of drugs to be unacceptable ($p = 0.04$). When we consider the statistic presented earlier - that significantly less women reported always injecting alone - it is not surprising that women were not keen on a policy restricting assisted injections and drug sharing. However, over two-thirds of women reported a willingness to learn how to inject themselves – a teaching component that could be provided in a SIF. The majority of participants found three additional policies to be unacceptable. The requirement of living in the neighborhood was considered unacceptable by the vast majority of participants (86%); 72% reported that a requirement to show an ID card was unacceptable; and 62%

considered video surveillance cameras on site to protect users to be unacceptable. The potential implications of implementing such policies would need to be considered.

5.4 Potential SIF Design

5.4.1 Location

Although the majority of participants reported that they both lived and injected in the Downtown Core, nearly one-third of participants resided outside this area, for example in Ottawa West and Ottawa East. This may impact the potential placement of a SIF, and the potential need for more than one facility as participants were seldom in favour of walking or taking the bus for an extended period. Further analysis would need to look at the impact of place of residence and willingness to travel certain amounts of time. Furthermore, the location would need to be accessible via bus – or on a major bus route.

Whereas an equal proportion of women and men indicated they would use a SIF if it was located in a pre-existing service, for example a community health centre, clinic or social service agency; a significantly greater proportion of women reported that they would use a SIF if it were in a separate, stand alone building. These findings speak to anonymity concerns.

5.4.2 Service Hours

Over one-quarter of participants reported injecting every day. As such, service hours would need to be accessible for daily users. Daytime hours were preferred, however due to findings indicating barriers to access of new injecting supplies – hours of operation would need to be carefully considered.

5.4.3 Age Restriction

Overall, participants reported that they were quite young when they began injecting drugs and smoking crack. However, women initiated both forms of drug use at a significantly younger age in comparison to men. Despite these findings, the majority of all participants including women indicated that an age restriction should be put in place. Previous research has suggested that younger and new IDUs may be at higher risk of seroconversion because older, more experienced IDUs who remain HCV negative may have well-established prevention practices (Miller et al., 2004; Hahn et al., 2002). As such, limiting the facility to users of a certain age would need more consideration. However, these findings indicate that education regarding the harms of drugs should be inserted into educational curricula at an early stage.

5.4.4 Gender differences

Data from previous projects in Ottawa document that most women IDUs experience their drug use in a different social context than that of men IDUs. In this study, significantly more women reported that they needed help injecting drugs and significantly more women reported the shared use of previously-used injecting equipment. Additionally, more women reported never injecting alone. These factors may impact the potential use of a SIF. However, gender did not seem to impact willingness to use a SIF if one were opened in Ottawa. Based on this evidence, in order to maximize utilization of a potential SIF or other harm reduction services, it is important to characterize gender-specific attitudes and preferences towards these important services. It is important to incorporate gender experiences into the design and implementation of all phases of harm reduction programming. Resources and funding often hamper our ability to design programs that respond to population-specific needs. As such, there is a need for further research to better understand the distinct needs of women.

5.5 Community Impact

The perceived community impacts of a potential SIF were both negative and positive. Positive impacts were: a reduction in the number of people injecting outdoors; a reduction in street violence; a reduction in the number of used syringes on the street; a reduction in injection with used needles; a reduction in the number of overdoses; and an increased uptake of knowledge surrounding drug treatment. Negative impacts included the concern that users would visit or move to the area, and that drug dealers would be attracted to the area. However, emerging evidence from evaluations of established SIFs suggest that these sites have had a positive community impact - documenting reductions in public disorder, overdoses and risk behaviours for disease (Health Canada, 2008; Wood, 2006).

5.6 Need for a Safer Inhalation Room

Among women and men in Ottawa who inject drugs, crack-smoking is a common and frequent behaviour. Previous research among this population has documented a high prevalence of crack smoking in public places. In this study, nearly all participants reported smoking crack at least once in their lifetime. Among those who smoked crack in the six months prior to their interview, approximately one out of four participants reported smoking on a daily basis; while two out of three reported sharing previously-used pipes. As such, it is not surprising that 68% of participants reported that a safer inhalation room

should be included in a SIF. Moreover, 63% of participants would be willing to use such a room. However, some participants were not in favour of such a room, the primary reported reason was that smoking may lead to undesired behaviours. Additionally, acceptability of the policy to not allow crack smoking was moderate.

5.7 Limitations

Generalization of these results must be done with caution since the study population comprised a convenience sample: the extent to which these findings may be generalisable to other populations of people who inject drugs cannot be established. However, diversification of the sample was heightened by the range of times and locations at which the interviews were conducted within different areas of Ottawa. The possibility that the results are limited by recall bias cannot be discounted; events may not always be remembered with accuracy. The inherent difficulties with self-reported behaviours must also be acknowledged as a further limitation, although it is generally understood that people who inject drugs are able to report most drug use behaviours with reasonable accuracy and reliability (Darke, 1998; Latkin et al., 1993; Goldstein et al., 1995).

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7.0 Appendix – Tables

Table 1 Demographic Profile

Characteristics	Total (N=250) N (%)			χ^2	ρ
Gender					
Male	180 (72.0)			48.40	0.000
Female	69 (27.6)				
Transgender	1 (0.4)				
Characteristics	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Age	N=249	N=179	N=70		
Mean	36.8	38.7	31.9	23.28	0.000
Range	16 to 62	17 to 62	16 to 50		
By Group:					
10 to 19	9 (3.6)	2 (1.1)	7 (10.0)		
20 to 29	59 (23.7)	36 (20.1)	23 (32.9)		
30 to 39	73 (29.3)	51 (28.5)	22 (31.4)		
40 to 49	80 (32.1)	64 (35.8)	16 (22.9)		
Over 50	28 (11.2)	26 (14.5)	2 (2.9)		
Ethnicity	N=249	N=179	N=70		
Canadian	140 (56.2)	102 (57.0)	38 (54.3)	**	0.600
Aboriginal	32 (12.9)	21 (11.7)	11 (15.7)		
French-Canadian	30 (12.0)	23 (12.8)	7 (10.0)		
Caucasian	26 (10.4)	17 (9.5)	9 (12.9)		
European	12 (4.8)	9 (5.0)	3 (4.3)		
African	4 (1.6)	4 (2.2)	0		
Other	2 (0.8)	1 (0.6)	1 (1.4)		
No ethnic group in particular	2 (0.8)	2 (1.1)	0		
Asian	1 (0.4)	0	1 (1.4)		
Highest level of education	N=250	N=180	N=70		
High school not completed	144 (57.6)	101 (56.1)	43 (61.4)	2.004	0.367
High school graduate	54 (21.6)	43 (23.9)	11 (15.7)		
Any college or university	52 (20.8)	36 (20.0)	16 (22.9)		
Level of income from all sources last year	N=242	N=174	N=68		
Under \$10,000	101 (41.7)	65 (37.4)	36 (52.9)	9.482	0.148
\$10,000 to 14,999	49 (20.2)	35 (20.1)	14 (20.6)		
\$15,000 to 19,999	20 (8.3)	13 (7.5)	7 (10.3)		
\$20,000 to 29,999	23 (9.5)	19 (10.9)	4 (5.9)		
\$30,000 to 39,999	14 (5.8)	12 (6.9)	2 (2.9)		
\$40,000 to 49,999	10 (4.1)	8 (4.6)	2 (2.9)		
\$50,000 or more	25 (10.3)	22 (12.6)	3 (4.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Characteristics	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Length of time living in Ottawa (years)	N=245	N=176	N=69		
Mean	15.6	15.3	16.5		
Range	14 days to 60	14 days to 60	14 days to 45		
Less than 1 year	35 (14.3)	28 (15.9)	7 (10.1)	3.05	0.549
1 to 5 years	56 (22.9)	40 (22.7)	16 (23.2)		
6 to 10 years	33 (13.5)	26 (14.8)	7 (10.1)		
11 to 20 years	44 (18.0)	29 (16.5)	15 (21.7)		
Over 20 years	77 (31.4)	53 (30.1)	24 (34.8)		
Neighborhood/city/region usually lived in	N=242	N=174	N=68		
Downtown Core	166 (68.6)	121 (69.5)	45 (66.2)	**	0.634
Ottawa East	30 (12.4)	22 (12.6)	8 (11.8)		
Ottawa West	24 (9.9)	17 (9.8)	7 (10.3)		
Ottawa South	10 (4.1)	6 (3.4)	4 (5.9)		
Kanata/Nepean	5 (2.1)	4 (2.3)	1 (1.5)		
Ottawa Far East, Orleans, Cumberland	4 (1.7)	3 (1.7)	1 (1.5)		
Gatineau/Hull	1 (0.4)	0	1 (1.5)		
No Specific Neighbourhood	1 (0.4)	1 (0.6)	0		
Other	1 (0.4)	0	1 (1.5)		
<i>If participant has not been living in Ottawa N=5</i>					
Ever lived in Ottawa	N=2				
Yes	2 (100)				
No	0				
Frequency visit Ottawa	N=3				
Every day	1 (33.3)				
2 to 3 times per week	1 (33.3)				
Once a month	1 (33.3)				
Reason visited Ottawa (check all)	N=3				
Visit friends/family	3 (100)				
Work	1 (33.3)				
Buy/use drugs	1 (33.3)				
Use a health service	0				
Methadone	0				
Attend a support group	0				
Shop	0				
Visit a NEP	1 (33.3)				
EVER in lifetime lived in	N=250	N=180	N=70		
Shelter or welfare residence	206 (82.4)	149 (82.8)	57 (81.4)	0.063	0.801
Rooming or boarding house	193 (77.2)	144 (80.0)	49 (70.0)	2.863	0.091
On the street	182 (72.8)	129 (71.7)	53 (75.7)	0.417	0.518
No fixed address	165 (66.0)	116 (64.4)	49 (70.0)	0.693	0.405
Hotel/motel room	159 (63.6)	115 (63.9)	44 (62.9)	0.023	0.879
Crack house	133 (53.2)	96 (53.3)	37 (52.9)	0.005	0.946
YMCA/YWCA	92 (36.8)	51 (28.3)	41 (58.6)	19.814	0.000
None of above	5 (2.0)	3 (1.7)	2 (2.9)	**	0.621

* Includes one transgender individual.

** Fisher's exact test was computed.

Characteristics	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
EVER unstably housed	N=250	N=180	N=70		
Yes	245 (98.0)	177 (98.3)	68 (97.1)	**	0.621
No	5 (2.0)	3 (1.7)	2 (2.9)		
Main accommodation in past 6 months	N=250	N=180	N=70		
House or apartment (my own or partner's)	88 (35.2)	63 (35.0)	25 (35.7)		
Shelter or welfare residence	59 (23.6)	48 (26.7)	11 (15.7)		
On the street	34 (13.6)	18 (10.0)	16 (22.9)		
Rooming or boarding house	21 (8.4)	19 (10.6)	2 (2.9)		
No fixed address	17 (6.8)	9 (5.0)	8 (11.4)		
House or apartment (someone else's)	16 (6.4)	11 (6.1)	5 (7.1)	**	0.029
Crack house	6 (2.4)	4 (2.2)	2 (2.9)		
Prison/jail/detention centre	4 (1.6)	4 (2.2)	0		
YMCA/YWCA	2 (0.8)	1 (0.6)	1 (1.4)		
Other	2 (0.8)	2 (1.1)	0		
Rehab	1 (0.4)	1 (0.6)	0		
Unstably housed in past 6 months	N=250	N=180	N=70		
Yes	139 (55.6)	99 (55.0)	40 (57.1)	0.094	0.759
No	111 (44.4)	81 (45.0)	30 (42.9)		
Denied housing due to drug use	N=247	N=177	N=70		
Yes	85 (34.4)	58 (32.8)	27 (38.6)	0.748	0.387
No	162 (65.6)	119 (67.2)	43 (61.4)		
Lost housing due to drug use	N=249	N=179	N=70		
Yes	154 (61.8)	109 (60.9)	45 (64.3)	0.245	0.620
No	95 (38.2)	70 (39.1)	25 (35.7)		
Currently living with an IDU	N=247	N=177	N=70		
Yes	77 (31.2)	50 (28.2)	27 (38.6)	2.491	0.114
No	170 (68.8)	127 (71.8)	43 (61.4)		
Other IDU living with currently (check all)	N=77	N=50	N=27		
Sexual partner	31 (40.3)	17 (34.0)	14 (51.9)	2.323	0.127
Close friend	23 (29.9)	14 (28.0)	9 (33.3)	0.238	0.626
Someone you don't know well	12 (15.6)	9 (18.0)	3 (11.1)	**	0.524
Someone you don't know at all	10 (13.0)	10 (20.0)	0	**	0.012
Somebody else I haven't mentioned	2 (2.6)	1 (2.0)	1 (3.7)	**	1.000
Family member	1 (1.3)	1 (2.0)	0	**	1.000
Received money for sex (past 6 months)	N=250	N=180	N=70		
Yes	44 (17.6)	17 (9.4)	27 (38.6)	29.484	0.000
No	206 (82.4)	163 (90.6)	43 (61.4)		
Received drugs for sex (past 6 months)	N=250	N=180	N=70		
Yes	46 (18.4)	17 (9.4)	29 (41.4)	34.339	0.000
No	204 (81.6)	163 (90.6)	41 (58.6)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Characteristics	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Received something else or place to stay in exchange for sex (past 6 months)	N=249	N=180	N=69		
Yes	29 (11.6)	17 (9.4)	12 (17.4)	3.061	0.080
No	220 (88.4)	163 (90.6)	57 (82.6)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 2 Patterns of Drug Use

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Drugs used in last 6 months (check all)					
Heroin (N=250)	68 (27.2)	46 (25.6)	22 (31.4)	0.878	0.349
Cocaine (N=250)	177 (70.8)	131 (72.8)	46 (65.7)	1.216	0.270
Crack/rock cocaine (N=249)	136 (54.6)	96 (53.3)	40 (58.0)	0.433	0.511
Speedball (N=248)	28 (11.3)	19 (10.7)	9 (12.9)	0.239	0.625
Methadone (prescribed) (N=246)	7 (2.8)	6 (3.4)	1 (1.5)	**	0.677
Methadone (not prescribed) (N=247)	19 (7.7)	13 (7.2)	6 (9.0)	0.207	0.650
Morphine (N=250)	129 (51.6)	91 (50.6)	38 (54.3)	0.281	0.596
Dilaudid (N=250)	75 (30.0)	51 (28.3)	24 (34.3)	0.850	0.356
Percocet (N=245)	17 (6.9)	13 (7.3)	4 (5.9)	**	0.786
Other opiates (Oxycontin, oxycodone, MS Contin, Eslon, Kadian) (N=249)	82 (32.9)	60 (33.3)	22 (31.9)	0.047	0.828
Methamphetamines (N=250)	34 (13.6)	22 (12.2)	12 (17.1)	1.039	0.308
PCP (N=250)	15 (6.0)	10 (5.6)	5 (7.1)	**	0.767
Tranquilizers (N=248)	11 (4.4)	8 (4.5)	3 (4.3)	**	1.000
Steroids (N=249)	5 (2.0)	4 (2.2)	1 (1.4)	**	1.000
Other (N=250)	12 (4.8)	7 (77.8)	5 (83.3)	-	-
Drug injected most often (last 6 months)	N=248	N=178	N=70		
Heroin	15 (6.0)	10 (5.6)	5 (7.1)		
Cocaine	80 (32.3)	66 (37.1)	14 (20.0)		
Crack/rock cocaine	52 (21.0)	33 (18.5)	19 (27.1)		
Speedball	0	0	0		
Methadone (prescribed)	1 (0.4)	1 (0.6)	0		
Methadone (not prescribed)	0	0	0		
Morphine	64 (25.8)	42 (23.6)	22 (31.4)		
Dilaudid	3 (1.2)	2 (1.1)	1 (1.4)	**	0.358
Percocet	0	0	0		
Other opiates	16 (6.5)	12 (6.7)	4 (5.7)		
Methamphetamines	10 (4.0)	7 (3.9)	3 (4.3)		
PCP	1 (0.4)	1 (0.6)	0		
Tranquilizers	0	0	0		
Steroids	0	0	0		
Other	2 (0.8)	1 (0.6)	1 (1.4)		
2 or more drugs equally	4 (1.6)	3 (1.7)	1 (1.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Heroin	N=68	N=46	N=22		
Every day/most days	8 (11.8)	5 (10.9)	3 (13.6)		
2-3 times/week	10 (14.7)	8 (17.4)	2 (9.1)		
2-3 times/month	13 (19.1)	9 (19.6)	4 (18.2)	**	0.937
Once a month	23 (33.8)	15 (32.6)	8 (36.4)		
Once	14 (20.6)	9 (19.6)	5 (22.7)		
Cocaine	N=175	N=130	N=45		
Every day/most days	32 (18.3)	25 (19.2)	7 (15.6)		
2-3 times/week	51 (29.1)	39 (30.0)	12 (26.7)		
2-3 times/month	50 (28.6)	38 (29.2)	12 (26.7)	2.033	0.730
Once a month	32 (18.3)	22 (16.9)	10 (22.2)		
Once	10 (5.7)	6 (4.6)	4 (8.9)		
Crack	N=135	N=96	N=39		
Every day/most days	31 (23.0)	21 (21.9)	10 (25.6)		
2-3 times/week	38 (28.1)	32 (33.3)	6 (15.4)		
2-3 times/month	38 (28.1)	25 (26.0)	13 (33.3)	**	0.237
Once a month	14 (10.4)	8 (8.3)	6 (15.4)		
Once	14 (10.4)	10 (10.4)	4 (10.3)		
Speedball	N=28	N=19	N=9		
Every day/most days	1 (3.6)	1 (5.3)	0		
2-3 times/week	7 (25.0)	4 (21.1)	3 (33.3)		
2-3 times/month	11 (39.3)	9 (47.4)	2 (22.2)	**	0.681
Once a month	5 (17.9)	3 (15.8)	2 (22.2)		
Once	4 (14.3)	2 (10.5)	2 (22.2)		
Methadone (prescribed)	N=7	N=6	N=1		
Every day/most days	3 (42.9)	3 (50.0)	0		
2-3 times/week	1 (14.3)	1 (16.7)	0		
2-3 times/month	1 (14.3)	1 (16.7)	0	**	0.571
Once a month	1 (14.3)	0	1 (100)		
Once	1 (14.3)	1 (16.7)	0		
Methadone (not prescribed)	N=19	N=13	N=6		
Every day/most days	0	0	0		
2-3 times/week	2 (10.5)	2 (15.4)	0		
2-3 times/month	8 (42.1)	6 (46.2)	2 (33.3)	**	0.297
Once a month	5 (26.3)	4 (30.8)	1 (16.7)		
Once	4 (21.1)	1 (7.7)	3 (50.0)		
Morphine	N=129	N=91	N=38		
Every day/most days	45 (34.9)	30 (33.0)	15 (39.5)		
2-3 times/week	30 (23.3)	22 (24.2)	8 (21.1)		
2-3 times/month	25 (19.4)	18 (19.8)	7 (18.4)	0.513	0.972
Once a month	11 (8.5)	8 (8.8)	3 (7.9)		
Once	18 (14.0)	13 (14.3)	5 (13.2)		
Dilaudid	N=74	N=51	N=23		
Every day/most days	11 (14.9)	8 (15.7)	3 (13.0)		
2-3 times/week	17 (23.0)	13 (25.5)	4 (17.4)		
2-3 times/month	24 (32.4)	14 (27.5)	10 (43.5)	**	0.536
Once a month	12 (16.2)	10 (19.6)	2 (8.7)		
Once	10 (13.5)	6 (11.8)	4 (17.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Percocet	N=16	N=13	N=3		
Every day/most days	3 (18.8)	3 (23.1)	0		
2-3 times/week	1 (6.3)	1 (7.7)	0		
2-3 times/month	5 (31.3)	4 (30.8)	1 (33.3)	**	1.000
Once a month	3 (18.8)	2 (15.4)	1 (33.3)		
Once	4 (25.0)	3 (23.1)	1 (33.3)		
Other opiates	N=80	N=59	N=21		
Every day/most days	21 (26.3)	14 (23.7)	7 (33.3)		
2-3 times/week	18 (22.5)	14 (23.7)	4 (19.0)		
2-3 times/month	20 (25.0)	17 (28.8)	3 (14.3)	**	0.597
Once a month	13 (16.3)	9 (15.3)	4 (19.0)		
Once	8 (10.0)	5 (8.5)	3 (14.3)		
Methamphetamine	N=33	N=22	N=11		
Every day/most days	9 (27.3)	6 (27.3)	3 (27.3)		
2-3 times/week	4 (12.1)	2 (9.1)	2 (18.2)		
2-3 times/month	4 (12.1)	2 (9.1)	2 (18.2)	**	0.756
Once a month	7 (21.2)	6 (27.3)	1 (9.1)		
Once	9 (27.3)	6 (27.3)	3 (27.3)		
PCP	N=13	N=10	N=3		
Every day/most days	2 (15.4)	1 (10.0)	1 (33.3)		
2-3 times/week	0	0	0		
2-3 times/month	3 (23.1)	2 (20.0)	1 (33.3)	**	0.843
Once a month	3 (23.1)	3 (30.0)	0		
Once	5 (38.5)	4 (40.0)	1 (33.3)		
Tranquilizers	N=10	N=8	N=1		
Every day/most days	0	0	0		
2-3 times/week	1 (10.0)	1 (12.5)	0		
2-3 times/month	2 (20.0)	2 (25.0)	0	-	-
Once a month	4 (40.0)	4 (50.0)	0		
Once	3 (30.0)	1 (12.5)	2 (100)		
Steroids	N=4	N=4	N=0		
Every day/most days	0	0	0		
2-3 times/week	0	0	0		
2-3 times/month	3 (75.0)	3 (75.0)	0	-	-
Once a month	1 (25.0)	1 (25.0)	0		
Once	0	0	0		
Other substances	N=12	N=7	N=5		
Every day/most days	1 (8.3)	1 (14.3)	0		
2-3 times/week	2 (16.7)	1 (14.3)	1 (20.0)		
2-3 times/month	3 (25.0)	2 (28.6)	1 (20.0)	-	-
Once a month	2 (16.7)	1 (14.3)	1 (20.0)		
Once	4 (33.3)	2 (28.6)	2 (40.0)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 3 Injection Practices

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Age of first injection	N				
Mean	22.2	23.0	20.1	-2.711	0.007
Median	18	19	17		
Range	11 to 60	11 to 60	13 to 49		
By Group:				**	0.139
10 to 19	144 (57.6)	95 (52.8)	49 (70.0)		
20 to 29	52 (20.8)	42 (23.3)	10 (14.3)		
30 to 39	36 (14.4)	27 (15.0)	9 (12.9)		
40 to 49	15 (6.0)	13 (7.2)	2 (2.9)		
Over 50	3 (1.2)	3 (1.7)	0		
Duration of drug use	N=249	N=179	N=70		
Mean	14.6	15.6	11.9	-2.417	0.016
Median	13	14	9		
Range	0 to 40	0 to 40	0 to 36		
Frequency injected (last 6 months)	N=249	N=179	N=70		
Once in a while, not every week	102 (41.0)	75 (41.9)	27 (38.6)	1.382	0.710
Once or twice a week	43 (17.3)	33 (18.4)	10 (14.3)		
3 or more times a week (not every day)	36 (14.5)	24 (13.4)	12 (17.1)		
Every day	68 (27.3)	47 (26.3)	21 (30.0)		
Frequency injected (last month)	N=250	N=180	N=70		
Not at all	42 (16.8)	31 (17.2)	11 (15.7)	1.713	0.788
Once in a while, not every week	80 (32.0)	51 (31.7)	23 (32.9)		
Once or twice a week	39 (15.6)	31 (17.2)	8 (11.4)		
3 or more times a week (not every day)	28 (11.2)	19 (10.6)	9 (12.9)		
Every day	61 (24.4)	42 (23.3)	19 (27.1)		
Number of times injected in last month	N=202	N=146	N=56		
Mean	45.2	46.2	42.5	-0.875	0.382 ¹
Median	15	20	15		
Range	1 to 1000	1 to 1000	1 to 240		
By group:				3.326	0.650
1 to 5 times/month	60 (29.7)	46 (31.5)	14 (25.0)		
6 to 10 times/month	24 (11.9)	17 (11.6)	7 (12.5)		
11 to 20 times/month	35 (17.3)	26 (17.8)	9 (16.1)		
21 to 50 times/month	34 (16.8)	22 (15.1)	12 (21.4)		
51 to 100 times/month	28 (13.9)	22 (15.1)	6 (10.7)		
> 100 times/month	21 (10.4)	13 (8.9)	8 (14.3)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Average daily number of injections	N=246	N=178	N=68		
Mean	5.1	4.9	5.6	-0.376	0.707
Median	3.0	3.0	3.0		
Range	1 to 50	1 to 25	1 to 50		
By group: 1 time/day	42 (17.1)	34 (19.1)	8 (11.8)		
2 to 5 times/day	149 (60.6)	103 (57.9)	46 (67.6)	**	0.417
6 to 10 times/day	30 (12.2)	23 (12.9)	7 (10.3)		
11 to 20 times/day	21 (8.5)	16 (9.0)	5 (7.4)		
> 20 times/day	4 (1.6)	2 (1.1)	2 (2.9)		
Neighborhood(s) injected in last 6 months (check all)	N=250	N=180	N=70		
Downtown Core	210 (84.0)	148 (82.2)	62 (88.6)	1.512	0.219
Ottawa East	35 (14.0)	25 (13.9)	10 (14.3)	0.007	0.935
Ottawa West	45 (18.0)	34 (18.9)	11 (15.7)	0.344	0.557
Ottawa South	7 (2.8)	4 (2.2)	3 (4.3)	**	0.404
Kanata/Nepean	2 (0.8)	1 (0.6)	1 (1.4)	**	0.482
Ottawa Far East, Orleans, Cumberland	3 (1.2)	2 (1.1)	1 (1.4)	**	1.000
Gatineau/Hull	2 (0.8)	1 (0.6)	1 (1.4)	**	0.482
No Specific Neighbourhood	1 (0.4)	1 (0.6)	0	**	1.000
Other	12 (4.8)	10 (5.6)	2 (2.9)	**	0.519
Neighborhood injected in most often in last 6 months	N=248	N=179	N=69		
Downtown Core	191 (77.0)	133 (74.3)	58 (84.1)		
Ottawa East	17 (6.9)	12 (6.7)	5 (7.2)		
Ottawa West	26 (10.5)	22 (12.3)	4 (5.8)		
Ottawa South	4 (1.6)	2 (1.1)	2 (2.9)		
Kanata/Nepean	0	0	0	**	0.171
Ottawa Far East, Orleans, Cumberland	2 (0.8)	2 (1.1)	0		
Gatineau/Hull	0	0	0		
No Specific Neighbourhood	0	0	0		
Other	8 (3.2)	8 (4.5)	0		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Places where injected in last 6 months (check all)					
Your sexual partner's place (N=249)	60 (24.1)	40 (22.3)	20 (28.6)	1.066	0.302
Your own place (N=248)	152 (61.0)	114 (63.7)	38 (54.3)	1.870	0.171
A relative or friend's place (N=250)	120 (48.0)	85 (47.2)	35 (50.0)	0.156	0.693
A stranger's place (N=248)	63 (25.3)	42 (23.5)	21 (30.0)	1.138	0.286
A place which you pay or exchange drugs to use (N=248)	59 (23.7)	45 (25.1)	14 (20.0)	0.735	0.391
An abandoned building (N=248)	74 (29.8)	53 (29.8)	21 (30.0)	0.001	0.972
A parking lot/street or alley (N=248)	106 (42.6)	72 (40.2)	34 (48.6)	1.434	0.231
A park (N=248)	101 (40.6)	76 (42.5)	25 (35.7)	0.949	0.330
A school yard (N=246)	11 (4.5)	10 (5.7)	1 (1.4)	**	0.187
In a stairwell/doorway (N=248)	90 (36.1)	63 (35.2)	27 (38.6)	0.248	0.618
A car (N=248)	52 (20.9)	39 (21.8)	13 (18.6)	0.315	0.575
A public washroom or toilet (N=248)	107 (43.0)	76 (42.5)	31 (44.3)	0.069	0.793
A place where you buy drugs (N=248)	38 (15.3)	29 (16.2)	9 (12.9)	0.435	0.509
Other place (N=215)	13 (6.0)	12 (7.9)	1 (1.6)	**	0.114
Injected with other IDUs at...					
Your sexual partner's place (N=60)	51 (85.0)	34 (85.0)	17 (85.0)	**	1.000
Your own place (N=151)	88 (58.3)	65 (57.0)	23 (62.2)	0.304	0.581
A relative of friend's place (N=119)	101 (84.9)	74 (88.1)	27 (77.1)	2.308	0.129
A stranger's place (N=63)	48 (76.2)	34 (81.0)	14 (66.7)	1.575	0.209
A place which you pay or exchange drugs to use (N=55)	52 (88.1)	40 (93.0)	12 (100.0)	**	1.000
An abandoned building (N=70)	46 (62.2)	31 (62.0)	15 (75.0)	1.072	0.301
A parking lot/street or alley (N=100)	70 (70.0)	43 (64.2)	27 (81.8)	3.276	0.070
A park (N=97)	66 (68.0)	46 (63.0)	20 (83.3)	3.430	0.064
A school yard (N=10)	7 (70.0)	6 (66.7)	1 (100.0)	**	1.000
In a stairwell/doorway (N=89)	62 (69.7)	39 (61.9)	23 (88.5)	6.142	0.013
A car (N=51)	39 (76.5)	29 (74.4)	10 (83.3)	**	0.706
A public washroom or toilet (N=100)	25 (25.0)	18 (25.4)	7 (24.1)	0.016	0.899
A place where you buy drugs (N=36)	33 (91.7)	26 (92.9)	7 (87.5)	**	0.541
Other place (N=13)	5 (38.5)	5 (41.7)	0	**	1.000

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Place injected most often in last 6 months	N=245	N=178	N=67		
Your sexual partner's place	15 (6.1)	7 (3.9)	8 (11.9)		
Your own place	113 (46.1)	85 (47.8)	28 (41.8)		
A relative or friend's place	29 (11.8)	22 (12.4)	7 (10.4)		
A stranger's place	2 (0.8)	0	2 (3.0)		
A place which you pay to use or exchange drugs to use	6 (2.4)	5 (2.8)	1 (1.5)		
An abandoned building	2 (0.8)	2 (1.1)	0		
A parking lot/street or alley	21 (8.6)	12 (6.7)	9 (13.4)	**	0.059
A park	16 (6.5)	14 (7.9)	2 (3.0)		
A school yard	0	0	0		
In a stairwell/doorway	11 (4.5)	7 (3.9)	4 (6.0)		
A car	3 (1.2)	3 (1.7)	0		
A public washroom or toilet	17 (6.9)	13 (7.3)	4 (6.0)		
A place where you buy drugs	1 (0.4)	0	1 (1.5)		
Other place	9 (3.7)	8 (4.5)	1 (1.5)		
Frequency inject in public or semi-public area in last 6 months	N=248	N=180	N=68		
Always (100% of the time)	49 (19.8)	35 (19.4)	14 (20.6)	2.108	0.716
Usually (over 75%)	24 (9.7)	19 (10.6)	5 (7.4)		
Sometimes (26 – 74%)	38 (15.3)	27 (15.0)	11 (16.2)		
Occasionally (<25%)	47 (19.0)	37 (20.6)	10 (14.7)		
Never	90 (36.3)	62 (34.4)	28 (41.2)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 4 Access to Sterile Needles

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Used water from puddle, public fountain or other outside source to prepare drugs or rinse needles (past 6 months)					
Yes	N=250 61 (24.4)	N=180 44 (24.4)	N=70 17 (24.3)	0.001	0.979
No	189 (75.6)	136 (75.6)	53 (75.7)		
Frequency of injecting alone (past 6 months)	N=250	N=180	N=70	8.750	0.068
Always (100% of the time)	53 (21.2)	40 (22.2)	13 (18.6)		
Usually (over 75%)	59 (23.6)	49 (27.2)	10 (14.3)		
Sometimes (26 – 74%)	31 (12.4)	23 (12.8)	8 (11.4)		
Occasionally (<25%)	53 (21.2)	36 (20.0)	17 (24.3)		
Never	54 (21.6)	32 (17.8)	22 (31.4)		
Ever need help injecting	N=197	N=140	N=57	7.986	0.005
Yes	90 (45.7)	55 (39.3)	35 (61.4)		
No	107 (54.3)	85 (60.7)	22 (38.6)		
Frequency need help injecting	N=90	N=55	N=35	2.779	0.630
Always (100% of the time)	30 (33.3)	17 (30.9)	13 (37.1)		
Usually (over 75%)	12 (13.3)	6 (10.9)	6 (17.1)		
Sometimes (26 – 74%)	31 (34.4)	19 (34.5)	12 (34.3)		
Occasionally (<25%)	16 (17.8)	12 (21.8)	4 (11.4)		
Never	1 (1.1)	1 (1.8)	0		
Reason need help injecting	N=88	N=54	N=34	**	0.091
I don't know how	14 (15.9)	8 (14.8)	6 (17.6)		
I don't like injecting myself	7 (8.0)	5 (9.3)	2 (5.9)		
I can't find a vein on my own	32 (36.4)	16 (29.6)	16 (47.1)		
I prefer someone else to inject	5 (5.7)	2 (3.7)	3 (8.8)		
My partner prefers to inject me	1 (1.1)	0	1 (2.9)		
Other	29 (33.0)	23 (42.6)	6 (17.6)		
Willing to learn how to inject yourself	N=74	N=44	N=30	1.087	0.297
Yes	44 (59.5)	24 (54.5)	20 (66.7)		
No	30 (40.5)	20 (45.5)	10 (33.3)		
Exchanged/obtained needles at Site or other needle exchange (past 6 months)	N=250	N=180	N=70	0.265	0.607
Yes	202 (80.8)	144 (80.0)	58 (82.9)		
No	48 (19.2)	36 (20.0)	12 (17.1)		
Purchased needles at a pharmacy (past 6 months)	N=249	N=179	N=70	0.769	0.380
Yes	107 (43.0)	80 (44.7)	27 (38.6)		
No	142 (57.0)	99 (55.3)	43 (61.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Got new sterile needles from a friend (past 6 months)					
Yes	N=249 124 (49.8)	N=179 86 (48.0)	N=70 38 (54.3)	0.784	0.376
No	125 (50.2)	93 (52.0)	32 (45.7)		
Got new sterile needles from a dealer or someone on the street (past 6 months)					
Yes	N=249 46 (18.5)	N=179 31 (17.3)	N=70 15 (21.4)	0.564	0.452
No	203 (81.5)	148 (82.7)	55 (78.6)		
Had drugs and wanted to inject but didn't know where to get a clean needle (past 6 months)					
Yes	N=248 65 (26.2)	N=178 43 (24.2)	N=70 22 (31.4)	1.373	0.241
No	183 (73.8)	135 (75.8)	48 (68.6)		
Had trouble getting enough needles from the NEP to meet your needs (past 6 months)					
Yes	N=222 24 (10.8)	N=159 17 (10.7)	N=63 7 (11.1)	0.008	0.928
No	198 (89.2)	142 (89.3)	56 (88.9)		
Had a NEP limit the number of needles they would give to you (past 6 months)					
Yes	N=220 20 (9.1)	N=157 15 (9.6)	N=63 5 (7.9)	0.142	0.706
No	200 (90.9)	142 (90.4)	58 (92.1)		
Had trouble getting enough new needles from the pharmacy to meet your needs (past 6 months)					
Yes	N=155 30 (19.4)	N=114 21 (18.4)	N=41 9 (22.0)	0.241	0.624
No	1245 (80.6)	93 (81.6)	32 (78.0)		
Had a pharmacy refuse to sell you needles (past 6 months)					
Yes	N=157 50 (31.8)	N=116 38 (32.8)	N=41 12 (29.3)	0.170	0.680
No	107 (68.2)	78 (67.2)	29 (70.7)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 5 HIV- and HCV-related Injection Practices in Past 6 Months

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Shot up with needles that had already been used or being used by someone else (past 6 months)					
Yes	N=250 49 (19.6)	N=180 34 (18.9)	N=70 15 (21.4)	0.206	0.650
No	201 (80.4)	146 (81.1)	55 (78.6)		
Shot up with needles without knowing if they had been used by someone else (past 6 months)					
Yes	N=250 29 (11.6)	N=180 21 (11.7)	N=70 8 (11.4)	0.003	0.958
No	221 (88.4)	159 (88.3)	62 (88.6)		
Used other injecting equipment that had already been used or was being used (past 6 months)					
Yes	N=250 71 (28.4)	N=180 44 (24.4)	N=70 27 (38.6)	4.947	0.026
No	179 (71.6)	136 (75.6)	43 (61.4)		
Used other injecting equipment without knowing if it had been used by someone (past 6 months)					
Yes	N=249 43 (17.3)	N=179 28 (15.6)	N=70 15 (21.4)	1.179	0.278
No	206 (82.7)	151 (84.4)	55 (78.6)		
Filled syringe from another syringe that had already been used or was being used by someone else (past 6 months)					
Yes	N=250 30 (12.0)	N=180 20 (11.1)	N=70 10 (14.3)	0.481	0.488
No	220 (88.0)	160 (88.9)	60 (85.7)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 6 Engagement in Crack Smoking

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Ever smoked crack	N=250	N=180	N=70		
Yes	235 (94.0)	169 (93.9)	66 (94.3)	**	1.000
No	15 (6.0)	11 (6.1)	4 (5.7)		
Age first smoked crack (years)	N=234	N=168	N=66		
Mean	25.8	27.2	22.2	-3.674	0.000
Range	7 to 54	8 to 54	7 to 44		
By Group: ≤17	63 (26.9)	31 (18.5)	32 (48.5)	24.527	0.000
18 to 25	77 (32.9)	62 (36.9)	15 (22.7)		
26 to 34	40 (17.1)	31 (18.5)	9 (13.6)		
35 to 44	42 (17.9)	32 (19.0)	10 (15.2)		
≥45	12 (5.1)	12 (7.1)	0		
Frequency of smoking crack (last 6 months)	N=234	N=168	N=66		
Once in a while, not every week	54 (23.1)	45 (26.8)	9 (13.6)	8.343	0.080
Once or twice a week	31 (13.2)	25 (14.9)	6 (9.1)		
3 or more times a week but not every day	48 (20.5)	34 (20.2)	14 (21.2)		
Every day	80 (34.2)	51 (30.4)	29 (43.9)		
Not at all	21 (9.0)	13 (7.7)	8 (12.1)		
Frequency of smoking crack (last month)	N=235	N=169	N=66		
Once in a while, not every week	45 (19.1)	37 (21.9)	8 (12.1)	5.245	0.263
Once or twice a week	31 (13.2)	24 (14.2)	7 (10.6)		
3 or more times a week but not every day	44 (18.7)	32 (18.9)	12 (18.2)		
Every day	75 (31.9)	48 (28.4)	27 (40.9)		
Not at all	40 (17.0)	28 (16.6)	12 (18.2)		
Frequency of sharing used pipes (last 6 months)	N=234	N=168	N=66		
Once in a while, not every week	57 (24.4)	48 (28.6)	9 (13.6)	9.129	0.058
Once or twice a week	21 (9.0)	15 (8.9)	6 (9.1)		
3 or more times a week but not every day	34 (14.5)	26 (15.5)	8 (12.1)		
Every day	43 (18.4)	25 (14.9)	18 (27.3)		
Never shared pipes	79 (33.8)	54 (32.1)	25 (37.9)		
Frequency of sharing used pipes (last month)	N=235	N=169	N=66		
Once in a while, not every week	47 (20.0)	39 (23.1)	8 (12.1)	7.879	0.096
Once or twice a week	21 (8.9)	16 (9.5)	5 (7.6)		
3 or more times a week but not every day	35 (14.9)	27 (16.0)	8 (12.1)		
Every day	40 (17.0)	23 (13.6)	17 (25.8)		
Never shared pipes	92 (39.1)	64 (37.9)	28 (42.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 7 Experiences of Overdose

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
EVER been afraid of being arrested when you or someone else overdosed	N=250	N=180	N=70		
Yes	115 (46.0)	82 (45.6)	33 (47.1)	<i>0.051</i>	<i>0.821</i>
No	135 (54.0)	98 (54.4)	37 (52.9)		
EVER overdosed					
Yes	108 (43.2)	76 (42.2)	32 (45.7)	<i>0.250</i>	<i>0.617</i>
No	142 (56.8)	104 (57.8)	38 (54.3)		
Overdosed in past 6 months	N=108	N=76	N=32		
Yes	25 (23.1)	17 (22.4)	8 (25.0)	<i>0.088</i>	<i>0.767</i>
No	83 (76.9)	59 (77.6)	24 (75.0)		
Number of times overdosed in lifetime	N=106	N=76	N=30	Z	P
Mean	4.1	3.8	4.6	<i>-0.156</i>	<i>0.876</i>
Median	2.0	2.0	2.0		
Range	1 to 30	1 to 30	1 to 30		
Last time overdosed	N=104	N=74	N=30		
1970 to 1979	2 (1.9)	2 (2.7)	0	<i>**</i>	<i>0.138</i>
1980 to 1989	7 (6.7)	4 (5.4)	3 (10.0)		
1990 to 1999	24 (23.1)	18 (24.3)	6 (20.0)		
2000	5 (4.8)	4 (5.4)	1 (3.3)		
2001	6 (5.8)	5 (6.8)	1 (3.3)		
2002	5 (4.8)	5 (6.8)	0		
2003	10 (9.6)	9 (12.2)	1 (3.3)		
2004	22 (21.2)	10 (13.5)	12 (40.0)		
2005	23 (22.1)	17 (23.0)	6 (20.0)		
Neighbourhood of LAST overdose	N=107	N=76	N=31		
Downtown Core	43 (40.2)	30 (39.5)	13 (41.9)	<i>**</i>	<i>0.069</i>
Ottawa East	13 (12.1)	9 (11.8)	4 (12.9)		
Ottawa South	2 (1.9)	0	2 (6.5)		
Ottawa West	13 (12.1)	7 (9.2)	6 (19.4)		
Ottawa Far East, Orleans	1 (0.9)	1 (1.3)	0		
Gatineau / Hull	2 (1.9)	1 (1.3)	1 (3.2)		
Other	33 (30.8)	28 (26.8)	5 (16.1)		

Location of LAST	N=107	N=76	N=31		
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* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
overdose					
Car	2 (1.9)	2 (2.6)	0		
Crack house	2 (1.9)	1 (1.3)	1 (3.2)		
Hotel/motel	4 (3.7)	4 (5.3)	0		
No specific location	8 (7.5)	8 (10.5)	0		
Other	3 (2.8)	1 (1.3)	2 (6.5)		
Other outdoor area	4 (3.7)	3 (3.9)	1 (3.2)		
Own place	34 (31.8)	21 (27.6)	13 (41.9)		
Park	4 (3.7)	4 (5.3)	0	**	0.457
Prison	1 (0.9)	1 (1.3)	0		
Public washroom	4 (3.7)	3 (3.9)	1 (3.2)		
Relative/friend's place	30 (28.0)	20 (26.3)	10 (32.3)		
Rooming house	1 (0.9)	1 (1.3)	0		
Sexual partner's place	1 (0.9)	1 (1.3)	0		
Shelter	1 (0.9)	0	1 (3.2)		
Stairwell	2 (1.9)	1 (1.3)	1 (3.2)		
Street	6 (5.6)	5 (6.6)	1 (3.2)		
Last time overdosed, drugs or substances involved (<i>check all</i>)	N=108	N=76	N=32		
Injection cocaine	46 (42.6)	35 (46.1)	11 (34.4)	1.256	0.262
Injection crack	13 (12.0)	9 (11.8)	4 (12.5)	**	1.000
Injection dilaudid	1 (0.9)	1 (1.3)	0	**	1.000
Injection heroin	18 (16.8)	13 (17.3)	5 (15.6)	0.047	0.829
Injection morphine	16 (14.8)	13 (17.1)	3 (9.4)	**	0.384
Injection PCP	2 (1.9)	1 (1.3)	1 (3.1)	**	0.507
Alcohol	5 (4.6)	5 (6.6)	0	**	0.319
Dilaudid	1 (0.9)	1 (1.3)	0	**	1.000
Pot	1 (0.9)	1 (1.3)	0	**	1.000
Valium	0	0	0	-	-
Other	26 (24.1)	16 (21.1)	10 (31.3)	1.281	0.258
Last time overdosed, with other people	N=108	N=76	N=32		
Yes	78 (72.2)	54 (71.1)	24 (75.0)		
No	30 (27.8)	22 (28.9)	8 (25.0)	0.175	0.676
Last time overdosed, ambulance called	N=106	N=75	N=31		
Yes	43 (39.8)	36 (48.0)	7 (22.6)		
No	63 (58.3)	39 (52.0)	24 (77.4)	5.878	0.015
Don't know/unsure	2 (1.9)				
If yes, ambulance called, who called ambulance	N=43	N=29	N=6		
Partner or spouse	2 (4.7)	0	2 (33.3)		
Friend or acquaintance	16 (37.2)	13 (44.8)	3 (50.0)		
Stranger	7 (16.3)	7 (24.1)	0	**	0.059
Myself	3 (7.0)	3 (10.3)	0		
Other	7 (16.3)	6 (20.7)	1 (16.7)		
Don't know/unsure	8 (18.6)				

| If yes, ambulance called, did |

N=43

N=27

N=7

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
<i>police show up</i>					
Yes	24 (55.8)	18 (66.7)	6 (85.7)	**	0.644
No	10 (23.3)	9 (33.3)	1 (14.3)		
Don't know/unsure	9 (20.9)				
Last time overdosed, taken to an emergency room/hospital	N=104	N=75	N=29		
Yes	48 (46.2)	39 (52.0)	9 (31.0)	3.699	0.054
No	56 (53.8)	36 (48.0)	20 (69.0)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 8 Experiences of Health Problems

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
EVER had an abscess	N=250	N=180	N=70		
Yes	112 (44.8)	76 (42.2)	36 (51.4)	1.727	0.189
No	138 (55.2)	104 (57.8)	34 (48.6)		
Had an abscess in last 6 months	N=112	N=76	N=36		
Yes	39 (34.8)	24 (31.6)	15 (41.7)	1.095	0.295
No	73 (65.2)	52 (68.4)	21 (58.3)		
In the past 6 months, had one of the following health problems...	N=250	N=180	N=70		
Liver problems/hepatitis	113 (45.2)	80 (44.4)	33 (47.1)	0.148	0.700
Received treatment (N=111)	50 (45.0)	39 (50.0)	11 (33.3)	2.602	0.107
Circulation problems	84 (33.6)	56 (31.1)	28 (40.0)	1.785	0.182
Received treatment (N=81)	20 (24.7)	13 (24.1)	7 (25.9)	0.033	0.855
Septicaemia	28 (11.2)	18 (10.0)	10 (14.3)	0.931	0.335
Received treatment (N=27)	12 (44.4)	9 (50.0)	3 (33.3)	**	0.683
Swelling hands/feet	76 (30.4)	45 (25.0)	31 (44.3)	8.860	0.003
Received treatment (N=74)	23 (31.1)	16 (35.6)	7 (24.1)	1.073	0.300
Lungs/bronchitis problem	101 (40.4)	63 (35.0)	38 (54.3)	7.785	0.005
Received treatment (N=98)	50 (51.0)	24 (39.3)	26 (70.3)	8.814	0.003
Stomach/gastrointestinal problems	74 (29.6)	42 (23.3)	32 (45.7)	12.115	0.001
Received treatment (N=71)	28 (39.4)	16 (39.0)	12 (40.0)	0.007	0.934
Cold/influenza	79 (31.6)	46 (25.6)	33 (47.1)	10.866	0.001
Received treatment (N=77)	27 (35.1)	15 (33.3)	12 (37.5)	0.143	0.706
Depression	170 (68.0)	114 (63.3)	56 (80.0)	6.434	0.011
Received treatment (N=168)	73 (43.5)	41 (36.0)	32 (59.3)	8.092	0.004
Withdrawal symptoms	138 (55.2)	97 (53.9)	41 (58.6)	0.447	0.504
Received treatment (N=134)	34 (25.4)	20 (21.1)	14 (35.9)	3.218	0.073
Scarring/bruising	137 (54.8)	83 (46.1)	54 (77.1)	19.594	0.000
Received treatment (N=135)	16 (11.9)	8 (9.8)	8 (15.1)	0.878	0.349
Result of LAST HIV blood test	N=250	N=180	N=70		
Never had a blood test for HIV	21 (8.4)	18 (10.0)	3 (4.3)	**	0.438
Positive	28 (11.2)	22 (12.2)	6 (8.6)		
Negative	186 (74.4)	130 (72.2)	56 (80.0)		
Didn't go back for results	7 (2.8)	4 (2.2)	3 (4.3)		
Waiting for results	8 (3.2)	6 (3.3)	2 (2.9)		
Result of LAST HCV blood test	N=250	N=180	N=70		
Never had a blood test for HCV	24 (9.6)	18 (10.0)	6 (8.6)	**	0.921
Positive	109 (43.6)	79 (43.9)	30 (42.9)		
Negative	106 (42.4)	75 (41.7)	31 (44.3)		
Didn't go back for results	5 (2.0)	3 (1.7)	2 (2.9)		
Waiting for results	6 (2.4)	5 (2.8)	1 (1.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 9 Drug Treatment

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	<i>p</i>
EVER in your lifetime been in a drug treatment or detox program	N=250	N=180	N=70		
Yes	179 (71.6)	133 (73.9)	46 (65.7)	1.656	0.198
No	71 (28.4)	47 (26.1)	24 (34.3)		
In the LAST 6 MONTHS, have been in a ...	N=178	N=132	N=46		
Detox program with methadone	5 (2.8)	3 (2.3)	2 (4.3)	**	0.605
Detox program with other prescribed drugs	4 (2.2)	4 (3.0)	0	**	0.574
Detox program with no drugs	23 (12.9)	19 (14.4)	4 (8.7)	0.984	0.321
Methadone maintenance program	13 (7.3)	8 (6.1)	5 (10.9)	**	0.325
Drug-free counseling (out-patient)	5 (2.8)	4 (3.0)	1 (2.2)	**	1.000
Self-help group for your drug use	3 (1.7)	0	3 (6.5)	**	0.016
Drug treatment with a residential 28-day program	2 (1.1)	1 (0.8)	1 (2.2)	**	0.451
Another treatment program	8 (4.5)	8 (6.1)	0	**	0.115
Other treatment	10 (5.6)	6 (4.5)	4 (8.7)	**	0.285
None of the above	N=177 111 (62.7)	N=131 82 (62.6)	N=46 29 (63.0)	0.003	0.957
During the PAST 6 MONTHS, have ever tried but been unable to get in to any of the above treatment programs	N=249	N=179	N=70		
Yes	54 (21.7)	39 (21.8)	15 (21.4)	0.004	0.951
No	195 (78.3)	140 (78.2)	55 (78.6)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 10 Safer Injection Facilities: Knowledge of SIFs

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Knowledge of SIFs	N=250	N=180	N=70		
Yes	184 (73.6)	134 (74.4)	50 (71.4)		
No	66 (26.4)	46 (25.6)	20 (28.6)	0.236	0.627
Explanation of participant's knowledge of SIFs (check all)					
Absence of police (N=183)	30 (16.4)	24 (18.0)	6 (12.0)	0.969	0.325
Supervision of injecting process by trained staff (N=183)	65 (35.5)	48 (36.1)	17 (34.0)	0.069	0.792
Assistance from staff if overdose occurs in the SIF (N=183)	38 (20.8)	28 (21.1)	10 (20.0)	0.024	0.876
Safety and security (N=183)	59 (32.2)	48 (36.1)	11 (22.0)	3.302	0.069
Clean and sterile environment for injecting (N=183)	67 (36.6)	54 (40.6)	13 (26.0)	3.338	0.068
Provision of clean injecting equipment and syringes (N=183)	53 (29.0)	38 (28.6)	15 (30.0)	0.036	0.849
Safe disposal of used injecting equipment (N=183)	19 (10.4)	16 (12.0)	3 (6.0)	1.420	0.233
Other	84 (45.7)	65 (48.5)	19 (38.0)	1.212	0.271
Ever been to a SIF	N=184	N=134	N=50		
Yes	13 (7.1)	9 (6.7)	4 (8.0)	**	0.752
No	171 (92.9)	125 (93.3)	46 (92.0)		
<i>If yes, frequency of injecting at SIF</i>	N=13				
Never	3 (23.1)				
Rarely	5 (38.5)				
Sometimes	4 (30.8)				
Once a week	0				
Once a day	1 (7.7)				
More than once a day	0				
<i>Other services accessed (check all)</i>	N=12				
Drug counselors	1 (8.3)				
Food	1 (8.3)				
Needle exchange	2 (16.7)				
Injection equipment distribution	2 (16.7)				
Literature	1 (8.3)				
Nursing staff for medical care and safer injecting teaching	2 (7.7)				
Referrals to drug treatment, rehab and other services	2 (16.7)				
A chill out room	2 (16.7)				
No other services accessed	5 (41.7)				

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 11 Safer Injection Facilities: Willingness to Use a SIF

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Willingness to use a SIF if it were opened in Ottawa	N=250	N=180	N=70		
Yes	160 (64.0)	115 (63.9)	45 (64.3)	2.495	0.287
Maybe	35 (14.0)	22 (12.2)	13 (18.6)		
No	55 (22.0)	43 (23.9)	12 (17.1)		
<i>If yes or maybe, reasons for using a SIF (check all)</i>	N=195	N=137	N=58		
Ability to get clean sterile injection equipment	88 (45.1)	61 (44.5)	27 (46.6)	0.068	0.795
Safer from crime	55 (28.2)	43 (31.4)	12 (20.7)	2.303	0.129
Inject in private not in public space	84 (43.1)	64 (46.7)	20 (34.5)	3.077	0.115
Safe from being seen by police	68 (34.9)	51 (37.2)	17 (29.3)	1.124	0.289
Ability to see health professionals	51 (26.2)	36 (26.3)	15 (25.9)	0.004	0.952
Ability to get a referral for services	19 (9.7)	13 (9.5)	6 (10.3)	0.034	0.854
Overdoses can be prevented	32 (16.4)	20 (14.6)	12 (20.7)	1.102	0.294
Overdoses can be treated	25 (12.8)	14 (10.2)	11 (19.0)	2.789	0.095
Injecting responsibly	19 (9.8)	14 (10.3)	5 (8.6)	0.129	0.720
Other	81 (41.5)	58 (42.3)	23 (39.7)	0.121	0.728
<i>If no, reasons for NOT using a SIF (check all)</i>	N=55	N=43	N=12		
I don't want to be seen	18 (32.7)	10 (23.3)	8 (66.7)	**	0.012
I don't want people to know I am a drug user	8 (14.5)	6 (14.0)	2 (16.7)	**	1.000
I would rather inject with my friends	3 (5.5)	2 (4.7)	1 (8.3)	**	0.530
I always inject alone	11 (20.0)	10 (23.3)	1 (8.3)	**	0.422
I feel it is not convenient	0	0	0	-	-
Fear being caught with drugs by police	2 (3.6)	1 (2.3)	1 (8.3)	**	0.392
Concerned about the possibility of police around the facility	5 (9.1)	4 (9.3)	1 (8.3)	**	1.000
Don't trust safe injection facilities	1 (1.8)	1 (2.3)	0	**	1.000
Can get clean needles anywhere else	0	0	0	-	-
I have a place to inject	11 (20.0)	8 (18.6)	3 (25.0)	**	0.689
I feel there are too many rules and restrictions associated with using a safer injection facility	1 (1.8)	1 (2.3)	0	**	1.000
Need to avoid other people that would use the SIF	2 (3.6)	2 (4.7)	0	**	1.000
In too much of a hurry to wait to use the injecting room	0	0	0	-	-
Other(s)	26 (47.3)	25 (58.1)	1 (8.3)	9.337	0.002

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 12 Demographic and Drug Use Characteristics Associated with Willingness to Use a SIF in Ottawa among Injection Drug Users*

		Willingness to use a SIF		ρ	OR (95% CI)
		No (N = 55) N (%)	Yes (N = 160) N (%)		
Age	30 or older	41 (74)	113 (71)	0.62	0.84 (0.42, 1.68)
Gender	Men (reference)	43 (80)	115 (72)	0.26	1.53 (0.72, 3.23)
	Women	11 (20)	45 (28)		
Aboriginal ethnicity		8 (14)	21 (13)	0.79	0.89 (0.37, 2.14)
Lived in unstable housing ^{a, b}		26 (47)	89 (56)	0.28	1.40 (0.76, 2.58)
High school not completed		32 (58)	96 (60)	0.81	1.08 (0.58, 2.01)
Received money, drugs or something else for sex		12 (22)	40 (25)	0.63	1.19 (0.57, 2.49)
Injected every day ^a		11 (20)	51 (32)	0.10	
Injected in public place ^{a, c}		26 (47)	115 (72)	<0.01	2.85 (1.52, 5.36)
Always inject alone ^a		15 (27)	33 (21)	0.31	0.69 (0.34, 1.40)
Used unclean water for injection ^a		7 (13)	48 (30)	0.01	2.94 (1.24, 6.96)
Used Ottawa NEP		41 (74)	137 (86)	0.06	2.03 (0.96, 4.31)
Shot up with used needles		8 (14)	35 (22)	0.24	1.65 (0.71, 3.80)
Used other injecting equipment		13 (24)	46 (29)	0.46	1.30 (0.64, 2.65)
Backloading / frontloading		9 (16)	18 (11)	0.33	0.65 (0.27, 1.54)
Didn't know where to get clean needles		5 (9)	51 (32)	<0.01	4.77 (1.79, 12.67)
Injected morphine most often ^a		13 (24)	47 (29)	0.41	1.34 (0.66, 2.73)
Injected cocaine most often ^a		34 (62)	76 (47)	0.07	0.56 (0.30, 1.04)
Non-fatal overdose ^{a, e}		1 (2)	19 (12)	0.05	7.28 (0.95, 55.69)
HIV positive (self-report)		10 (18)	13 (8)	0.04	0.40 (0.16, 0.97)
HCV positive (self-report)		27 (49)	69 (43)	0.44	0.79 (0.42, 1.45)
Ever had an abscess		24 (44)	72 (45)	0.86	1.06 (0.57, 1.96)
Unable to get into treatment ^a		9 (17)	37 (23)	0.20	1.53 (0.79, 2.96)

* Excluded women and men who injected drugs who indicated that they 'might' use a SIF

a Recall period, six months prior to the interview.

b Unstable housing was defined as living in a: crack house; hotel/motel room rented on a daily/weekly basis; no fixed address; on the street; rooming or boarding house; shelter or welfare residence; the YWCA/YWMCA (Note: overall 98% of all participants indicated that they had EVER lived in unstable housing, no test of association was conducted for this variable).

c Public injected was defined as injecting in: an abandoned building; a parking lot/street/alley; a park/school yard; a stairwell/doorway of building; a car; a public washroom; other outdoor area.

d Sometimes includes response categories: usually (over 75%); sometimes (26-74%); occasionally (less than 25%)

e Data missing for 2 participants.

Table 13 Independent Predictors for Willingness to Use a SIF in Ottawa among Injection Drug Users*

Characteristic	Adjusted odds ratio (95%CI)	ρ
Injected in public place in six months prior to interview	1.917 (0.968, 3.799)	0.062
Didn't know where to get clean needles	3.599 (1.319, 9.818)	0.012
Injected with unclean water in six months prior to interview	1.850 (0.729, 4.696)	0.195

* Excluded women and men who injected drugs who indicated that they 'might' use a SIF

Table 14 Safer Inhalation Rooms: Need for and Willingness to Use

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
There should be a separate room for smoking crack	N=246	N=176	N=70		
Yes	168 (68.3)	119 (67.6)	49 (70.0)	0.132	0.717
No	78 (31.7)	57 (32.4)	21 (30.0)		
Willingness to use a separate room for smoking crack	N=245	N=177	N=68		
Yes	154 (62.9)	112 (63.3)	42 (61.8)	0.048	0.826
No	91 (37.1)	65 (36.7)	26 (38.2)		
Willingness to use a separate room for smoking crack, restricted to crack-smoking IDUs	N=207	N=152	N=55		
Yes	146 (70)	107 (70)	39 (71)	0.005	0.943
No	61 (29)	45 (30)	16 (29)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 15 Demographic and Drug Use Characteristics Associated with Willingness to use a Safer Inhalation Room in Ottawa among Injection Drug Users who also Smoke Crack

		Willingness to use		ρ	OR (95% CI)
		No (N = 61) N (%)	Yes (N = 147) N (%)		
Age ^a	30 years or older	45 (74)	113 (77)	0.58	1.22 (0.61, 2.43)
Gender ^a	Men	45 (74)	107 (73)	0.94	1.02 (0.52, 2.02)
	Women	16 (26)	39 (27)		
Aboriginal ethnicity		5 (8)	25 (17)	0.11	2.29 (0.83, 6.31)
Lived in unstable housing ^{b, c}		21 (34)	99 (67)	<0.01	3.93 (2.09, 7.38)
High school not completed		32 (52)	89 (60)	0.28	1.39 (0.76, 2.54)
Received money, drugs or something else for sex		12 (20)	40 (27)	0.25	1.53 (0.74, 3.16)
Injected every day ^b		18 (29)	38 (26)	0.588	0.83 (0.43, 1.62)
Always Inject alone ^b		18 (29)	25 (17)	0.04	0.49 (0.24, 0.98)
Used Ottawa NEP ^b		48 (79)	120 (82)	0.62	1.20 (0.57, 2.53)
Shot up with used needles ^b		14 (23)	30 (20)	0.68	0.86 (0.42, 1.77)
Used other injecting equipment ^b		20 (33)	40 (27)	0.42	0.77 (0.40, 1.46)
HIV positive (self-report)		8 (13)	17 (12)	0.75	0.87 (0.35, 2.13)
HCV positive (self-report)		32 (52)	63 (43)	0.21	0.68 (0.37, 1.24)
Ever in drug treatment / detox		49 (80)	103 (70)	0.13	0.57 (0.28, 1.18)
Smoked crack every day ^b		15 (25)	64 (43)	0.01	2.36 (1.21, 4.61)
Smoked crack in past month		48 (79)	141 (96)	<0.01	6.36 (2.29, 17.67)
Used previously-used pipe ^b		46 (75)	105 (71)	0.56	0.81 (0.41, 1.61)

a Recall period, six months prior to the interview.

b Unstable housing was defined as living in a: crack house; hotel/motel room rented on a daily/weekly basis; no fixed address; on the street; rooming or boarding house; shelter or welfare residence; the YWCA/YWMCA.

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 16 Independent Predictors for Willingness to Use a Safer Inhalation Room in Ottawa among Injection Drug Users who also Smoke Crack

Characteristic	Adjusted odds ratio (95%CI)	ρ
Lived in unstable housing in past six months	4.02 (2.08, 7.77)	0.000
Smoked crack in past month	6.66 (2.26, 19.61)	0.001

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 17 Safer Injection Facilities: Policy Acceptability

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Acceptability of proposed SIF policies...					
<i>Injections supervised by trained staff member</i>	N=250	N=180	N=70		
Very acceptable	102 (40.8)	75 (41.7)	27 (38.6)	1.194	0.550
Acceptable	136 (54.4)	95 (52.8)	41 (58.6)		
Unacceptable	12 (4.8)	10 (5.6)	2 (2.9)		
<i>30 minute time limit for injections</i>	N=250	N=180	N=70		
Very acceptable	35 (14.0)	30 (16.7)	5 (7.1)	4.092	0.129
Acceptable	167 (66.8)	118 (65.6)	49 (70.0)		
Unacceptable	48 (19.2)	32 (17.8)	16 (22.9)		
<i>Have to register each time</i>	N=250	N=180	N=70		
Very acceptable	29 (11.6)	19 (10.6)	10 (14.3)	0.774	0.679
Acceptable	155 (62.0)	112 (62.2)	43 (61.4)		
Unacceptable	66 (26.4)	49 (27.2)	17 (24.3)		
<i>Required to show ID card</i>	N=250	N=180	N=70		
Very acceptable	12 (4.8)	6 (3.3)	6 (8.6)	3.039	0.219
Acceptable	57 (22.8)	42 (23.3)	15 (21.4)		
Unacceptable	181 (72.4)	132 (73.3)	49 (70.0)		
<i>Have to live in the neighbourhood</i>	N=249	N=180	N=69		
Very acceptable	2 (0.8)	1 (0.6)	1 (1.4)	**	0.693
Acceptable	34 (13.7)	25 (13.9)	9 (13.0)		
Unacceptable	213 (85.5)	154 (85.6)	59 (85.5)		
<i>Video surveillance cameras on site for protection of users</i>	N=248	N=179	N=69		
Very acceptable	11 (4.4)	7 (3.9)	4 (5.8)	2.307	0.315
Acceptable	82 (33.1)	55 (30.7)	27 (39.1)		
Unacceptable	155 (62.0)	117 (65.4)	38 (55.1)		
<i>Not allowed to smoke crack</i>	N=244	N=176	N=68		
Very acceptable	24 (9.8)	15 (8.5)	9 (13.2)	1.590	0.452
Acceptable	123 (50.4)	92 (52.3)	31 (45.6)		
Unacceptable	97 (39.8)	69 (39.2)	28 (41.2)		
<i>Not allowed to assist each other with injections</i>	N=249	N=179	N=70		
Very acceptable	38 (15.3)	27 (15.1)	11 (15.7)	5.114	0.078
Acceptable	126 (50.6)	98 (54.7)	28 (40.0)		
Unacceptable	85 (34.1)	54 (30.2)	31 (44.3)		
<i>Not allowed to share dope</i>	N=250	N=180	N=70		
Very acceptable	28 (11.2)	20 (11.1)	8 (11.4)	6.459	0.040
Acceptable	137 (54.8)	107 (59.4)	30 (42.9)		
Unacceptable	85 (34.0)	53 (29.4)	32 (45.7)		
<i>May have to sit and wait for space</i>	N=250	N=180	N=70		
Very acceptable	12 (4.8)	8 (4.4)	4 (5.7)	4.005	0.135
Acceptable	177 (70.8)	122 (67.8)	55 (78.6)		
Unacceptable	61 (24.4)	50 (27.8)	11 (15.7)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
<i>Wait for 10-15 minutes after injecting for health monitoring</i>	N=250	N=180	N=70		
Very acceptable	52 (20.8)	37 (20.6)	15 (21.4)	0.290	0.865
Acceptable	156 (62.4)	114 (63.3)	42 (60.0)		
Unacceptable	42 (16.8)	29 (16.1)	13 (18.6)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 18 Safer Injection Facilities: Preferred Services

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
Importance of services considered for SIFs...					
<i>Nursing staff (care and teaching)</i>					
Very important	124 (49.6)	84 (46.7)	40 (57.1)	3.547	0.170
Important	119 (47.6)	92 (51.1)	27 (38.6)		
Not that important	7 (2.8)	4 (2.2)	3 (4.3)		
<i>Washrooms</i>					
Very important	84 (33.6)	58 (32.2)	26 (37.1)	0.629	0.730
Important	153 (61.2)	112 (62.2)	41 (58.6)		
Not that important	13 (5.2)	10 (5.6)	3 (4.3)		
<i>Showers</i>					
Very important	46 (18.4)	29 (16.1)	17 (24.3)	3.523	0.172
Important	137 (54.8)	98 (54.4)	39 (55.7)		
Not that important	67 (26.8)	53 (29.4)	14 (20.0)		
<i>Social workers</i>					
Very important	56 (22.4)	35 (19.4)	21 (30.0)	4.087	0.130
Important	136 (54.4)	99 (55.0)	37 (52.9)		
Not that important	58 (23.2)	46 (25.6)	12 (17.1)		
<i>Drug counsellors</i>					
Very important	82 (32.8)	55 (30.6)	27 (38.6)	1.634	0.442
Important	133 (53.2)	98 (54.4)	35 (50.0)		
Not that important	35 (14.0)	27 (15.0)	8 (11.4)		
<i>Aboriginal staff</i>					
Very important	38 (15.3)	24 (13.4)	14 (20.0)	3.454	0.178
Important	147 (59.0)	104 (58.1)	43 (61.4)		
Not that important	64 (25.7)	51 (28.5)	13 (18.6)		
<i>Food</i>					
Very important	57 (22.8)	39 (21.7)	18 (25.7)	0.812	0.666
Important	131 (52.4)	94 (52.2)	37 (52.9)		
Not that important	62 (24.8)	47 (26.1)	15 (21.4)		
<i>Peer support</i>					
Very important	59 (23.7)	38 (21.2)	21 (30.0)	3.805	0.149
Important	129 (51.8)	92 (51.4)	37 (52.9)		
Not that important	61 (24.5)	49 (27.4)	12 (17.1)		
<i>Access to morphine or methadone prescribed by a doctor</i>					
Very important	76 (30.6)	48 (27.0)	28 (40.0)	4.125	0.127
Important	115 (46.4)	86 (48.3)	29 (41.4)		
Not that important	57 (23.0)	44 (24.7)	13 (18.6)		
<i>Needle exchange</i>					
Very important	175 (70.0)	122 (67.8)	53 (75.7)	**	0.441
Important	72 (28.8)	55 (30.6)	17 (24.3)		
Not that important	3 (1.2)	3 (1.7)	0 (0.0)		
<i>Injection equipment distribution</i>					
Very important	171 (68.4)	121 (67.2)	50 (71.4)	**	0.850
Important	75 (30.0)	56 (31.1)	19 (27.1)		
Not that important	4 (1.6)	3 (1.7)	1 (1.4)		

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	ρ
HIV and HCV testing	N=250	N=180	N=70		
Very important	157 (62.8)	113 (62.8)	44 (62.9)	**	1.000
Important	91 (36.4)	65 (36.1)	26 (37.1)		
Not that important	2 (0.8)	2 (1.1)	0 (0.0)		
Special times for women or women's only SIF	N=249	N=179	N=70		
Very important	41 (16.5)	25 (14.0)	16 (22.9)	3.989	0.136
Important	90 (36.1)	70 (39.1)	20 (28.6)		
Not that important	118 (47.4)	84 (46.9)	34 (48.6)		
Referrals to drug treatment, rehab and other services when ready to use them	N=250	N=180	N=70		
Very important	99 (39.6)	69 (38.3)	30 (42.9)	0.627	0.731
Important	137 (54.8)	100 (55.6)	37 (52.9)		
Not that important	14 (5.6)	11 (6.1)	3 (4.3)		
A "chill out" room for after injecting	N=250	N=180	N=70		
Very important	106 (42.4)	80 (44.4)	26 (37.1)	1.113	0.573
Important	127 (50.8)	88 (48.9)	39 (55.7)		
Not that important	17 (6.8)	12 (6.7)	5 (7.1)		
Help and care from overdosing	N=250	N=180	N=70		
Very important	186 (74.4)	132 (73.3)	54 (77.1)	**	0.733
Important	63 (25.2)	47 (26.1)	16 (22.9)		
Not that important	1 (0.4)	1 (0.6)	0 (0.0)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 19 Safer Injection Facilities: Location and Design

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	p
Use a SIF if it was in a CHC, hospital, clinic, or social service agency	N=250	N=180	N=70		
Yes	146 (58.4)	105 (58.3)	41 (58.6)	0.001	0.973
No	104 (41.6)	75 (41.7)	29 (41.4)		
Use a SIF if it was in a separate building	N=250	N=180	N=70		
Yes	213 (85.2)	148 (82.2)	65 (92.9)	4.521	0.033
No	37 (14.8)	32 (17.8)	5 (7.1)		
Willing to walk to a SIF	N=249	N=179	N=70		
Yes	219 (88.0)	155 (86.6)	64 (91.4)	1.111	0.292
No	30 (12.0)	24 (13.4)	6 (8.6)		
Longest time willing to walk to SIF	N=219	N=155	N=64		
10 minutes	74 (33.8)	42 (27.1)	32 (50.0)	11.41	0.010
20 minutes	54 (24.7)	40 (25.8)	14 (21.9)		
30 minutes	36 (16.4)	28 (18.1)	8 (12.5)		
40 minutes or more	55 (25.1)	45 (29.0)	10 (15.6)		
Willing to take bus to SIF	N=249	N=179	N=70		
Yes	163 (65.5)	122 (68.2)	41 (58.6)	2.045	0.153
No	86 (34.5)	57 (31.8)	29 (41.4)		
Longest time willing to bus to SIF	N=163	N=122	N=41		
10 minutes	32 (19.6)	21 (17.2)	11 (26.8)	3.418	0.332
20 minutes	51 (31.3)	37 (30.3)	14 (34.1)		
30 minutes	33 (20.2)	28 (23.0)	5 (12.2)		
40 minutes or more	47 (28.8)	36 (29.5)	11 (26.8)		
If SIF established at convenient location in Ottawa, how often would you use it	N=248	N=178	N=70		
Always (100% of the time)	77 (31.0)	49 (27.5)	28 (40.0)	3.958	0.412
Usually (over 75% of the time)	47 (19.0)	36 (20.2)	11 (15.7)		
Sometimes (26 to 74%)	43 (17.3)	33 (18.5)	10 (14.3)		
Occasionally (<25%)	47 (19.0)	34 (19.1)	13 (18.6)		
Never	34 (13.7)	26 (14.6)	8 (11.4)		
Preferred time to use a SIF (first choice)	N=219	N=155	N=64		
Day time (8 am – 4 pm)	93 (42.5)	65 (41.9)	28 (43.8)	1.349	0.509
Evening (4pm – midnight)	85 (38.8)	58 (37.4)	27 (42.2)		
Overnight (midnight - 8 am)	41 (18.7)	32 (20.6)	9 (14.1)		
Preferred time to use a SIF (second choice)	N=209	N=145	N=64		
Day time (8 am – 4 pm)	36 (17.2)	23 (15.9)	13 (20.3)	0.656	0.720
Evening (4pm – midnight)	97 (46.4)	69 (47.6)	28 (43.8)		
Overnight (midnight - 8 am)	76 (36.4)	53 (36.6)	23 (35.9)		
Preferred time to use a SIF - '24 hours'					
Yes	22 (8.8)	17 (9.4)	5 (7.2)	0.299	0.584

* Includes one transgender individual.

** Fisher's exact test was computed.

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	<i>p</i>
SIFs limited to users of a certain age	N=249	N=180	N=69		
Yes	154 (61.8)	119 (66.1)	35 (50.7)	5.004	0.025
No	95 (38.2)	61 (33.9)	34 (49.3)		
<i>If YES, minimum age (years)¹</i>	N=153	N=119	N=34		
Mean (standard deviation)	18.2 (2.7)	18.3 (2.9)	17.7 (1.4)	1796.0	0.304
Median (range)	18 (10-30)	18 (10-30)	18 (15-21)		
Best set-up for injecting spaces in SIFs	N=250	N=180	N=70		
Private cubicles	166 (66.4)	123 (68.3)	43 (61.4)	**	0.264
An open plan with tables and chairs	19 (7.6)	16 (8.9)	3 (4.3)		
Open plan with benches at one large table or counter	11 (4.4)	7 (3.9)	4 (5.7)		
Combination of the above	48 (19.2)	31 (17.2)	17 (24.3)		
Unsure/don't know	6 (2.4)	3 (1.7)	3 (4.3)		
Users involved in the running of a SIF	N=250	N=179	N=68		
Yes	123 (49.8)	83 (46.4)	40 (58.8)	3.058	0.080
No	124 (50.2)	96 (53.6)	28 (41.2)		

* Includes one transgender individual.

** Fisher's exact test was computed.

Table 20 Safer Injection Facilities: Community Impact

	Total (N=250) N (%)	Men (N=180) N (%)	Women* (N=70) N (%)	χ^2	<i>p</i>
If a SIF were to open in the Ottawa area...					
<i>Number of people injecting outdoors would be reduced</i>	N=249	N=180	N=69		
Very likely	116 (46.6)	82 (45.6)	34 (49.3)	3.406	0.182
Likely	113 (45.4)	80 (44.4)	33 (47.8)		
Very unlikely	20 (8.0)	18 (10.0)	2 (2.9)		
<i>Number of used syringes on the street would be reduced</i>	N=250	N=180	N=70		
Very likely	110 (44.0)	81 (45.0)	29 (41.4)	0.535	0.765
Likely	127 (50.8)	89 (49.4)	38 (54.3)		
Very unlikely	13 (5.2)	10 (5.6)	3 (4.3)		
<i>Injection with used needles would be reduced</i>	N=249	N=179	N=70		
Very likely	108 (43.4)	79 (44.1)	29 (41.4)	0.192	0.908
Likely	119 (47.8)	84 (46.9)	35 (50.0)		
Very unlikely	22 (8.8)	16 (8.9)	6 (8.6)		
<i>People would learn about drug treatment</i>	N=250	N=180	N=70		
Very likely	87 (34.8)	60 (33.3)	27 (38.6)	1.457	0.483
Likely	150 (60.0)	109 (60.6)	41 (58.6)		
Very unlikely	13 (5.2)	11 (6.1)	2 (2.9)		
<i>Overdoses would be reduced</i>	N=250	N=177	N=70		
Very likely	116 (47.0)	84 (47.5)	32 (45.7)	0.394	0.821
Likely	110 (44.5)	77 (43.5)	33 (47.1)		
Very unlikely	21 (8.5)	16 (9.0)	5 (7.1)		
<i>Street violence would be reduced</i>	N=250	N=178	N=70		
Very likely	58 (23.4)	39 (21.9)	19 (27.1)	4.465	0.107
Likely	93 (37.5)	74 (41.6)	19 (27.1)		
Very unlikely	97 (39.1)	65 (36.5)	32 (45.7)		
<i>Crime would be reduced in the area</i>	N=246	N=176	N=70		
Very likely	53 (21.5)	35 (19.9)	18 (25.7)	2.435	0.296
Likely	69 (28.0)	54 (30.7)	15 (21.4)		
Very unlikely	124 (50.4)	87 (49.4)	37 (52.9)		
<i>Users would visit the area</i>	N=249	N=179	N=70		
Very likely	80 (32.1)	60 (33.5)	20 (28.6)	**	0.645
Likely	163 (65.5)	114 (63.7)	49 (70.0)		
Very unlikely	6 (2.4)	5 (2.8)	1 (1.4)		
<i>Users would move to the area</i>	N=243	N=173	N=70		
Very likely	34 (14.0)	26 (15.0)	8 (11.4)	0.574	0.750
Likely	110 (45.3)	78 (45.1)	32 (45.7)		
Very unlikely	99 (39.6)	69 (39.9)	30 (42.9)		
<i>Drug dealers would be attracted to the area</i>	N=250	N=178	N=70		
Very likely	93 (37.5)	69 (38.8)	24 (34.3)	0.436	0.804
Likely	97 (39.1)	68 (38.2)	29 (41.4)		
Very unlikely	58 (23.4)	41 (23.0)	17 (24.3)		

* Includes one transgender individual.

** Fisher's exact test was computed.