**My Place, Your Place, or a Safer Place**

The Intention Among Montréal Injecting Drug Users to Use Supervised Injecting Facilities

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**ABSTRACT**

**Background:** Supervised injection facilities (SIF), a harm reduction intervention, may reduce several risks of public injection drug use. The prospect of conducting a scientific, multi-site pilot project of these facilities is being explored at federal and local levels in Canada. Experiences with SIF in Europe and Australia indicate that successful outcomes for the community ultimately hinge upon the responsiveness and relevance of the facilities to the needs of their primary target group; people who inject drugs in public places. Consideration of the factors and conditions found to influence a potential user’s uptake of SIF, therefore, is imperative. This study sought to assess the acceptability of SIF and to determine factors associated with willingness of injecting drug users (IDU) to use SIF in a city considering their establishment.

**Methods:** From April 2001 to February 2002, following key informant interviews, a cross-sectional study was conducted among publicly injecting IDU participating in an ongoing HIV surveillance study in Montréal. Univariate and bivariate analyses preceded logistic regression.

**Results:** Participants were 11 key informants and 251 publicly injecting IDU. Key informants generated the Montréal-specific SIF model subsequently presented to IDU. 76% of IDU were willing to use at least one of three proposed SIF sites. Exploratory multivariable models indicated drug-use characteristics and SIF attributes as determinants of outcome: predominant cocaine injection, history of overdose, knowing about SIF, relieving and empowering feelings toward using SIF, and comfort with disclosure of one’s injecting drug use.

**Conclusion:** User consultations are essential to assess relevance and plan SIF acceptable to IDU.

La traduction du résumé se trouve à la fin de l’article.

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This study sought to determine the acceptability of SIF and to identify IDU characteristics and SIF features associated with the intention of IDU to use SIF in a city considering their establishment.

METHODS

Key informant interviews
Since SIF do not yet exist in Canada, description of a realistic model was sought through key informant interviews. Informants were identified through contacts with the Montréal Regional Public Health Department, through an IDU-HIV surveillance study, and by using snowball techniques. Eligibility criteria included: current professional contact with IDU, knowledge of services in Montréal available to IDU, and interest in contributing to the study. Using a standardized guide, interviews were conducted in English (by TCG) or French with a translator (DP) and audio-taped by permission. The interviews were analyzed for consensus, with specific elements used to inform subsequent questionnaire development.

Quantitative data collection
IDU who had injected recently in public or semi-public spaces were recruited for this component. Public spaces included parks, parking lots, public toilets, bus stations, and alleys, whereas restaurants, malls, laundry rooms, cars, stairwells, disused buildings, and shooting galleries were considered semi-public. Eligible IDU were identified, recruited, and interviewed through the SurvUDI Study, a province-wide HIV surveillance study, and by using snowball techniques. Eligibility criteria included: current professional contact with IDU, knowledge of services in Montréal available to IDU, and interest in contributing to the study. Using a standardized guide, interviews were conducted in English (by TCG) or French with a translator (DP) and audio-taped by permission. The interviews were analyzed for consensus, with specific elements used to inform subsequent questionnaire development.

Analyses
Descriptive statistics are reported as proportions (%) for categorical and nominal data, and as means for continuous data. The outcome, intention to use SIF, was measured on a 5-point Likert scale from very unwilling (1) to very willing (5) to attend any proposed SIF, and was dichotomized to unwilling (1-3) and willing (4-5) based on the distribution of the first 50 responses. Chi-square or Fisher’s exact tests were performed for bivariate differences between IDU who had injected recently in public or semi-public places (N = 251). The majority (10 of 11) agreed that SIF should be incorporated into one or more existing NEP. Three different NEP sites were suggested in areas of Montréal with public injecting problems. Situated at these sites, SIF could provide nearly 24-hour access under existing opening hours. Operational aspects and SIF rules, including the management of cocaine injecting on-site, that achieved questionable consensus were left out of the model and instead raised separately with IDU in the questionnaire.

RESULTS

From April to May 2001, 11 key informant interviews were conducted with public health workers, IDU service providers, outreach workers, former and current IDU, and a shooting gallery operator. Consensus was reached on most elements of the SIF model (detailed elsewhere), and the majority (10 of 11) agreed that SIF should be incorporated into one or more existing NEP. Three different NEP sites were suggested in areas of Montréal with public injecting problems. Situated at these sites, SIF could provide nearly 24-hour access under existing opening hours. Operational aspects and SIF rules, including the management of cocaine injecting on-site, that achieved questionable consensus were left out of the model and instead raised separately with IDU in the questionnaire.

For the cross-sectional study of IDU participating in the SurvUDI Study from June 2001 to February 2002, 368 (57%) were eligible and, of these, 251 IDU answered the SIF questionnaire (68% response rate). Recruitment was accomplished primarily at CACTUS Montréal, the NEP located downtown (93.6%; N=235). Non-participants and participants were similar in most respects, but participants were more likely to be Francophone (85% vs. 71%, p < 0.005), Caucasian (90% vs. 77%, p < 0.005), and to report recent unstable housing (i.e., lived mostly in the street, in a shelter, etc. in the past 6 months) (49% vs. 35%, p < 0.01). Table I notes the study sample characteristics.

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>SIF Study Participants, N=251</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male sex</td>
<td>205 (82)</td>
</tr>
<tr>
<td>Mean age (standard deviation, range)</td>
<td>32.0 (9.1, 16-54)</td>
</tr>
<tr>
<td>Francophone</td>
<td>212 (85)</td>
</tr>
<tr>
<td>Caucasian</td>
<td>224 (90)</td>
</tr>
<tr>
<td>Unstable source of income‡</td>
<td>178 (71)</td>
</tr>
<tr>
<td>Unstable living situation‡</td>
<td>122 (49)</td>
</tr>
<tr>
<td>Cocaine as drug most frequently injected*</td>
<td>192 (78)</td>
</tr>
<tr>
<td>Frequency of injections &gt; once per week*</td>
<td>189 (75)</td>
</tr>
<tr>
<td>NEP use &gt; once per week*</td>
<td>128 (51)</td>
</tr>
<tr>
<td>Sought help to stop drug use*</td>
<td>110 (44)</td>
</tr>
<tr>
<td>Used needles already used by another IDU*</td>
<td>108 (43)</td>
</tr>
<tr>
<td>Used injecting equipment already used by another IDU*</td>
<td>124 (49)</td>
</tr>
<tr>
<td>Public/semi-public place most frequent injecting location</td>
<td>163 (65)</td>
</tr>
<tr>
<td>Would prefer a private place to inject</td>
<td>147 (59)</td>
</tr>
<tr>
<td>HIV positive status (result from SurvUDI Study saliva test)</td>
<td>178 (71)</td>
</tr>
<tr>
<td>History of overdose (cocaine or heroin)</td>
<td>100 (40)</td>
</tr>
<tr>
<td>History of abscess</td>
<td>60 (27)</td>
</tr>
</tbody>
</table>

* In the last 6 months
† Income derived mainly from sex work, unemployment, illegal activities, etc. in the past 6 months
‡ Lived mostly in the street, in a shelter, etc. in the past 6 months
Overall, 94% of IDU surveyed favoured SIF as a harm reduction tool. Reasons included concerns about personal safety (33%, e.g., fear of police, safer and cleaner place to inject, confidentiality), health (30%, e.g., care in the case of cocaine or heroin overdose, less stress, prevention of infections), and community (22%, e.g., fewer needles in the environment, protection of citizens).

SIF acceptability was high: 76% of respondents were willing to use one or more proposed SIF. Generally, willingness to use SIF was similarly strong across all socio-demographic and drug-use variables, however, public injectors with histories of cocaine or heroin overdose and IDU who injected drugs at least weekly were significantly more likely to be willing to use SIF (Table II).

Table II also exhibits certain attributes of SIF significantly associated with the outcome of interest. Since many SIF attributes were highly correlated, the variables selected represent those of statistical and substantive importance.

Table III presents multivariable logistic regression models. In constructing the base model, multicollinearity was detected among several key variables, manifesting itself in poor precision and warranting exclusion of redundant variables. The base model consists of the remaining significant variables and those that augmented model fit and precision; it acted as an intermediary step in exploring relationships in the data.

Finally, through inspection of the data and additional trivariate analyses by age group, the effect of several factors appeared to be modified depending on an IDU’s age. The sample was divided at age 25 because Montréal has a sizeable drug-injecting street youth population that is defined as 25 and younger. Two distinct trends in intentions and associations among these subpopulations were apparent. For example, younger IDU who injected most of the time in public places were significantly more willing to use SIF than younger IDU who injected mostly in private locations (87.8% public vs. 62.5% private, OR 4.3 [1.41-13.1]). However, among IDU aged 25 and older, quite the opposite was found: older IDU who injected mostly in private locations were more willing to use SIF than their counterparts who injected most of the time in public (85.7% private vs. 70.2% public, OR 3.69 [2.7-11.79]). Hence exploratory logistic regression models by age group were constructed (Table III).

**DISCUSSION**

We found high degrees of SIF acceptability, consistent with other studies conducted in cities considering SIF establishment.23-25 IDU were concerned about health and safety problems related to public injecting drug use not only for themselves, but also for the community. The Montréal-specific SIF model generated through consensus of 11 key informants was endorsed by a majority of public injectors.

Since injection of drugs in Montréal is cocaine-centred, it is not surprising that predominant cocaine injection was highly associated with use SIF. Most SIF opened and continue to operate in
TABLE III
Factors Associated with the Willingness of Publicly Injecting Drug Users in Montréal to Use SIF: Multivariable Logistic Regression Results

<table>
<thead>
<tr>
<th>Variable</th>
<th>Base Model Adjusted OR* [95% CI]</th>
<th>Age &lt;25 Years Adjusted OR* [95% CI]</th>
<th>Age &gt;25 Years Adjusted OR* [95% CI]</th>
</tr>
</thead>
<tbody>
<tr>
<td>Drug most frequently injected (cocaïne vs. other drug)</td>
<td>3.08 [1.24, 7.63]</td>
<td>11.45 [2.14, 61.20]</td>
<td>0.28 [0.09, 0.89]</td>
</tr>
<tr>
<td>Most frequent injecting location (public/semi-public vs. private)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Feelings about use of SIF (relieving vs. stressful)</td>
<td>5.06 [2.27, 11.28]</td>
<td>11.33 [2.34, 54.79]</td>
<td>3.37 [1.23, 9.18]</td>
</tr>
<tr>
<td>Ov erdoses experienced (ever vs. never)</td>
<td>4.01 [1.79, 9.85]</td>
<td>-</td>
<td>4.57 [1.57, 13.32]</td>
</tr>
<tr>
<td>Have heard of SIF (yes vs. no)</td>
<td>2.49 [1.07, 5.80]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Frequency of injections per week (once vs. &lt;once)</td>
<td>2.43 [1.02, 5.79]</td>
<td>4.60 [1.08, 19.61]</td>
<td>2.88 [1.1, 8.17]</td>
</tr>
<tr>
<td>Nurses on staff (easy vs. difficult to use SIF)</td>
<td>3.27 [0.95, 11.20]</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>IDU’s views on the importance of SIF entry criteria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Age restriction of 14 years and older (important vs. unimportant/doesn’t matter)</td>
<td>2.41 [0.92, 6.29]</td>
<td>3.57 [1.05, 12.11]</td>
<td>-</td>
</tr>
<tr>
<td>Rules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People can split their drugs but must self-inject (acceptable vs. unacceptable)</td>
<td>2.70 [0.97, 7.51]</td>
<td>5.52 [1.40, 21.72]</td>
<td>-</td>
</tr>
<tr>
<td>Situations that may be barriers to an IDU’s use of SIF:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>People knowing that you are a drug user (yes, would be a barrier vs. no, would not be a barrier)</td>
<td>0.33 [0.14, 0.77]</td>
<td>0.20 [0.04, 0.91]</td>
<td>0.29 [0.10, 0.86]</td>
</tr>
<tr>
<td>Being in too much of a hurry (yes, would be a barrier vs. no, would not be a barrier)</td>
<td>-</td>
<td>0.21 [0.05, 0.87]</td>
<td>-</td>
</tr>
<tr>
<td>Location of SIF (yes, would be a barrier vs. no, would not be a barrier)</td>
<td>0.47 [0.20, 1.13]</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

* Adjusted for the variables listed in the respective model
† Predominant drug injected and place of injection were highly collinear (i.e., almost perfectly confounded by one another) among younger IDU.
‡ The odds ratios less than 1.00 for these variables suggest that IDU who indicated that certain situations would not be barriers to their using SIF (i.e., ‘No, not a barrier’) were more willing to use SIF.

Age differentiates publicly injecting IDU. Compared to other characterizations in the literature, the majority of older IDU in this study were male, and 90% reported injecting cocaine both predominantly and frequently, whereas younger users were 39% female and reported significantly more heroin use (48%). The age-specific findings suggest that Montréal public health planners might consider incorporating SIF into existing points of service for street youth, in addition to the proposed SIF needle exchange sites, to address differences in needs and potential uptake of SIF services.

This study has several strengths. No previous study of SIF acceptability has exclusively consulted public injectors, nor sought to determine factors related to willingness of IDU to use SIF by multivariable methods. Key informant interviews created the description of the tailored, realistic SIF model, which was presented to IDU resulting in an action-oriented proposal to public health and political representatives. Prior SIF acceptability studies provided either a limited or no definition of SIF to study participants, which calls their findings into question. Acceptability once people actually experience SIF may differ from acceptability based on theoretical concepts. This study made a concerted attempt to mitigate problems of hypothetical acceptability by using a standardized SIF definition, visual aids, and a Montréal-specific model based on services known to participants. Study recruitment was facilitated by remunerating participants building upon the rapport of the SurvUDI Study with the affected community, with its network of study sites and established interviewers who are trusted by IDU and on-site intervention workers, to gain access to IDU; and launching the study at a politically desirable time of increasing public debate over SIF. Feedback from IDU involved in this study was overwhelmingly positive: whether willing to use SIF or not, IDU expressed strong appreciation for being sought out to share ‘expert’ views on and need for SIF.

There are also limitations to this study. The illegality of drug use and hidden nature of IDU populations make for challenging research. It is neither possible to assess the representativeness of the study sample nor to conclude the extent of generalizability of the results; even with precautions taken such as multi-site recruitment. The high proportion of subjects recruited from NCP may suggest further limitations on generalizability, though, alternatively, this figure could reflect the distribution of public injecting in the city (i.e., the presence of an ‘open scene’ downtown). The key informant-created SIF proposal was viewed as an initial, harm-reducing, and politically viable model; however, IDU other than public injectors may seek out future SIF, especially if additional services are made available there (e.g., voluntary counselling and HIV testing). The use of monetary incentives to solicit participants may create selection

MARCH - APRIL 2004 CANADIAN JOURNAL OF PUBLIC HEALTH 113
This study contributes to the growing research on SIF and IDU and to public health planning of SIF. The next step in establishing pilot SIF should survey relevant parties such as the police and community around proposed SIF sites. By identifying a set of predictors of willingness to use SIF, other cities in North America considering establishing SIF may find guidance in these results and initiate city-specific feasibility studies. Initial user consultations are integral to assessing relevance and to designing SIF that are meaningful, acceptable, and most likely to be used by IDU.

REFERENCES

20. Green TC. My place, your place, or a safer place: The intention among Montréal injecting drug users to use supervised injecting facilities. M aster’s Thesis. McGill University, 2002.

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RéSUMÉ

Contexte: Les piqueries supervisées, une mesure de réduction des méfaits, peuvent réduire plusieurs des risques liés à l’utilisation de drogues injectables en public. Au Canada, on étudie aux paliers fédéral et local la possibilité de mener un projet pilote scientifique dans plusieurs installations à la fois. L’expérience des piqueries supervisées a été tentée en Europe et en Australie et semble indiquer que des résultats favorables à la collectivité dépendent en bout de ligne de la polyvalence des installations et de leur adaptation aux besoins de leur principal groupe cible: les personnes qui s’injettent des drogues dans des lieux publics. Il est donc impératif de prendre en considération les facteurs et les conditions connus pour influencer la bonne réception de cette clientèle à ces installations. La présente étude visait à évaluer l’acceptabilité des piqueries supervisées et à déterminer les facteurs associés à la volonté des utilisateurs de drogues injectables (UDI) d’y recourir dans une ville qui songe à établir de telles installations.


Résultats: Onze informateurs clés et 251 UDI s’injettant dans des lieux publics ont participé à notre étude. Les informateurs clés ont produit le modèle montréalais des piqueries supervisées, que nous avons ensuite présenté aux UDI. Soixante-seize p. cent des UDI étaient disposés à utiliser au moins des trois piqueries supervisées qui leur étaient proposées. Des modèles multivariées préliminaires ont mis au jour des profils de consommation de drogues et des attributs des piqueries supervisées qui pourraient avoir un effet déterminant sur les résultats, à savoir: l’injection prédominante de cocaïne; les antécédents de surdose; le fait d’avoir entendu parler des piqueries supervisées; les sentiments de soulagement et de renforcement de l’autonomie liés à l’utilisation des piqueries supervisées; et la facilité à divulguer sa propre consommation de drogues injectables.

Conclusion: La consultation des utilisateurs est un élément essentiel lorsqu’on veut évaluer la pertinence des piqueries supervisées et planifier des installations acceptables aux yeux des UDI.