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Acceptability of a Safer Injection Facility among Injection Drug Users in San Francisco

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Abstract

Objective—Research has shown that safer injection facilities (SIFs) are successful at reducing public nuisance and enhancing public health. Since 2007 support for implementation of a SIF in San Francisco has been building. The objective of this study is to assess the acceptability of a SIF among injection drug users (IDUs) in San Francisco.

Methods—IDUs were recruited in San Francisco using targeted sampling and interviewed using a quantitative survey (N=602). We assessed the prevalence of willingness to use a SIF as well as correlates of willingness among this group.

Results—Eighty-five percent of IDUs reported that they would use a SIF, three quarters of whom would use it at least three days per week. In multivariate analysis, having injected in public and having injected speedballs were associated with intent to use a SIF. The majority of IDUs reported acceptability of many potential rules and regulations of a pilot SIF, except video surveillance, and being required to show identification.

Conclusions—Building on the success of SIFs in various international settings, IDUs in San Francisco appear interested in using a SIF should one be implemented.

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CONTRIBUTORS

Authors Kral, Wenger, Wood, Kerr, and Bourgois designed the study. Authors Kral, Wenger, Wood, and Kerr managed the literature searches and summaries of previous related work. Authors Kral, Carpenter, and Wenger undertook the statistical analysis, and authors Kral and Wenger wrote the first draft of the manuscript. All authors contributed to and have approved the final manuscript.

CONFLICTS OF INTEREST

None of the authors have any conflicts of interest in regards to any actual or potential conflict of interest including any financial, personal or other relationships with other people or organizations within three (3) years of beginning the work submitted that could inappropriately influence, or be perceived to influence, their work.

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Keywords

IDU; Safer injection facility; acceptability; HIV; epidemiology; policy

1.0 INTRODUCTION

Injection drug use continues to be associated with a number of significant health and social consequences including HIV (Des Jarlais et al., 1985; Kral et al., 2001; van den Hoek et al., 1988; Vlahov et al., 2004), hepatitis C virus (HCV)(Alter, 1997; Lorvick et al., 2001), soft tissue infections (Binswanger et al., 2000), and overdose (Coffin et al., 2003; Sherman et al., 2007). In an attempt to address both public health and public nuisance concerns associated with injection drug use, 90 safer injection facilities (SIFs) have been opened in over 40 cities in 8 countries (Australia, Canada, Germany, Luxembourg, The Netherlands, Norway, Spain, and Switzerland) (Hedrich et al., In Press.; Kerr et al., 2007; Reynolds, 2007); (Broadhead et al., 2002; Reynolds, 2007). Within a SIF, injection drug users (IDUs) are provided sterile injection equipment to inject previously obtained illicit drugs under the supervision of trained healthcare staff (Broadhead et al., 2002). In addition to the supervision of injection drug use by healthcare personnel, drug users are also often offered health care, counseling, risk reduction education, overdose prevention training and referrals to other health and social services, including drug treatment (Anoro et al., 2003; Broadhead et al., 2002; Hunt, 2006; Kimber et al., 2005; Petrar et al., 2007). As of February 2010, there are no SIFs in the United States. (McFarland, 2006)

North America's first government sanctioned SIF opened as a pilot program in September 2003 in Vancouver, Canada (Wood et al., 2004a). It has been rigorously evaluated and shown to be independently associated with reduced syringe sharing (Kerr et al., 2005), improved access to medical care and addiction treatment services (Wood et al., 2007), declines in risk-taking related overdose (Kerr et al., 2007; Milloy et al., 2008), and effective in transmitting educational messages targeting unsafe and unhygienic injection practices to IDUs (Fast et al., 2008). It has also significantly reduced public nuisance including drug use in public venues (Wood et al., 2006) and the number of improperly discarded syringes and other injection-related litter in the area surrounding the SIF (Wood et al., 2004b).

Although there are distinct differences in SIF service delivery models (Kimber et al., 2005), most programs that have been described in the literature have established rules such as mandatory registration, proof of local residency, limitations on smoking within facilities, maximum time limits, limitations on drug sharing, and refusal of entry to heavily intoxicated clients (Anoro et al., 2003; Dolan et al., 2000; Kimber et al., 2005). Acceptance of these rules among IDUs is likely to vary in different regions depending upon cultural and political factors, and is important to assess prior to implementation of SIFs (Fry, 2002).

The prevalence of HIV (15% in 2002), HCV (91% in 2000), HBV (81% in 2000), and soft tissue infections (32% in 1997) is high among IDUs in San Francisco (Bluthenthal et al 2007; Binswanger et al 2000; Tseng et al 2008). Public drug use is a perennial topic in local elections and the press. In October 2007, the San Francisco Department of Public Health cosponsored a one-day symposium that explored the idea of opening a legal SIF in San Francisco (Drug Policy Alliance, 2009). In order to assess whether an SIF would be acceptable to IDUs in San Francisco, and what types of rules and regulations might be acceptable, we conducted a cross-sectional quantitative study of IDUs in San Francisco.

2.0 METHODS

To examine acceptability of using a SIF among IDUs in San Francisco, we conducted a quantitative survey of 602 local IDUs. This represents roughly 3.5% of all IDUs in San Francisco, where there are an estimated 16,789 IDUs (McFarland, 2006). These quantitative interviews were part of a study that screened IDUs for entry into a longitudinal, qualitative study of drug use patterns. Study participants were recruited in community settings in San Francisco in 2008 using targeted sampling methods (Bluthenthal and Watters, 1995; Watters and Biernacki, 1989). Three field sites were utilized to conduct the interviews, the locations of which were chosen based upon close proximity to large populations of IDUs per ethnography. Eligibility criteria were: (1) injection of illicit drugs within the past 30 days, as verified by checking for signs of recent venipuncture; (2) age 18 years or older; and (3) ability to provide informed consent. After providing informed consent, participants were interviewed face-to-face by trained interviewers who read questions and entered answers directly into a computer-assisted personal interviewing program on a computer which was programmed using Blaise 4.0 (Westat, 2009). The survey included items related to demographic characteristics, self-reported HIV status, drug use in the past 30 days, injection practices, location of injection episodes, and questions about SIF, including the acceptability of various proposed rules and programmatic features. Study participants received \$15 for completing the anonymous survey. The study protocol was approved by the Institutional Review Board at RTI International.

2.1 Main Variables and Statistical Analysis

We provided the following brief description of SIFs before asking questions:

“For the purpose of this interview, we want to define a SIF as follows: A SIF is a legally operated indoor facility where people come to inject their own drugs under the supervision of medically trained workers. People can inject there under safe and sterile conditions and have access to all sterile injection equipment (cotton, cooker, water, etc.) and receive basic medical care and/or be referred to appropriate health or social services.”

The majority of variables were dichotomous yes/no answers to various potential rules and programmatic features of a SIF. We were also interested in current locations of injection episodes which were dichotomized by whether they were considered public (street, alley, park, etc) or private (someone’s home, an abandoned building, etc). To describe factors associated with a stated interest in using a SIF, we examined bivariate and multivariate associations with sociodemographic characteristics, self-report of HIV status, types of drugs used, and injection locations.

We used Mantel-Haenszel chi-square statistics to determine statistical significance in bivariate analysis and logistic regression for multivariate analysis using Statistical Analysis System software (SAS), release 9.13 (SAS Institute Inc., 2002–2003). All variables associated with outcome variables in bivariate analysis ($p < .10$) were considered for inclusion in multivariate analysis. Only statistically significant variables ($p < .05$) were retained in the multivariate models. We tested for effect modification of main effects through the use of interaction terms which also were only retained if they were statistically significant ($p < .05$).

3.0 RESULTS

The majority of study participants was male, at least 40 years old, and considered themselves to be homeless (Table 1). Fifteen percent reported that they had received an HIV positive test result. Seventy-one percent reported having injected in public places at some point over the past 6 months.

Eighty-five percent (513/602) said that they would use a SIF should it be convenient for them. Of those who reported that they would use a SIF, 50% reported that they expected to use it every day, 26% would use it 3–6 days per week, 13% 1–2 days per week, and 11% would use it less than weekly. In logistic regression analysis, the only variables statistically significantly associated with reporting that they would use a SIF were having injected in a public place in the past 6 months (adjusted odds ratio=2.6; 95% confidence interval=1.6, 4.1) and having injected speedballs (adjusted odds ratio=2.5; 95% confidence interval=1.4, 4.5).

Study participants who reported that they would use a SIF (n=513) were asked if various potential rules and regulations would be acceptable (Table 2). Over two-thirds of IDUs felt that most of the potential rules would be acceptable. However, less than half would find it acceptable if they were required to show identification, have to live in the neighborhood to use the SIF, or if there was video surveillance onsite.

Several programmatic features of a potential SIF were also considered among those who reported that they would use an SIF (Table 2). Only 28% would attend a SIF if it took more than 20 minutes to walk there. Almost everyone reported wanting private cubicles or a combination of private cubicles and an open table as the best way to set up injection spaces.

4.0 DISCUSSION

This study represents the first step in assessing the feasibility of a SIF in San Francisco, by first asking IDUs whether such a facility should be opened and what would be its optimal programmatic features. If a SIF were established in a convenient place in San Francisco, the vast majority of our sample of IDUs indicated that they would use it, with three quarters reporting intentions to use it at least 3 times per week. While it is clear that IDUs would like to use a SIF in San Francisco, the next steps towards implementation of such a service would need to involve a discussion with the larger community, including community members, key stakeholders, the Department of Public Health, and the City Attorney.

This study found that nearly three-quarters of our sample of impoverished IDUs in San Francisco reported injecting while in public settings such as streets, alleys, doorways, parks, and public bathrooms. This represents a significant nuisance to the community, and public injecting has been shown to be associated with an array of health risks for IDU, including elevated risk for overdose and infections resulting from unsafe injecting (Latkin et al., 1994; Rhodes et al., 2006). Implementation of the pilot SIF in Vancouver led to a significant decrease in public consumption of illegal drugs (Wood et al., 2004b), suggesting that similar reductions may be feasible in San Francisco through this novel intervention.

If a pilot SIF is to be implemented in San Francisco, our study provides useful information regarding its programmatic design. Over two-thirds of our sample found rules and regulations that exist in the Vancouver SIF to be acceptable. We also learned that SIFs need to be placed in close proximity to many IDUs, as most IDUs are not likely to travel more than 20 minutes to access the facility. This is consistent with research derived from the Vancouver SIF evaluation, which showed that IDUs who use the SIF on a frequent basis were more likely to live in very close proximity to the facility (Tyndall et al., 2006).

There are several important limitations that need to be considered when interpreting the findings of this epidemiological study. First, as with all studies of IDUs, it is not feasible to obtain a random sample due to the hidden, stigmatized, and illegal nature of the eligibility criteria—namely injection drug use. This limits our ability to generalize our findings to the overall IDU population in San Francisco. Specifically, our sample is likely more impoverished than a representative sample would be. While this means we may be overestimating the true prevalence of IDUs in San Francisco who would intend to use an SIF, by interviewing a sample

that is most likely to be engaged in the riskiest and most public injection practices, our study was able to obtain very useful data related to desired programmatic features of such a facility by the very people for whom it would be designed to use it. Second, we cannot draw causal inference due to the cross-sectional nature of the study design. Third, self-reported data about hypothetical services may not reflect actual behaviors once a pilot intervention is implemented. However, we use the same basic epidemiological methods and questionnaire as was used in Vancouver prior to the implementation of the pilot SIF there (Kerr et al., 2003). Similar prevalence of IDUs in Vancouver indicated that they would use a SIF (92% compared to 85% in San Francisco), and uptake of their pilot SIF was highly successful immediately.

The data in this acceptability study indicate that from the perspective of IDUs, it is worth starting to have a dialogue regarding the difficult political and legal issues that would be involved in conducting a pilot SIF in San Francisco. Should a pilot SIF be implemented, it would be important that it be evaluated with the most rigorous epidemiological scientific methods possible.

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Table 1

Demographic Characteristics and Drug Injection among Injection Drug Users in San Francisco, 2008 (N=602).

Characteristic	Percent
Biological Sex	
Male	73
Female	26
Intersexed	<1
Race/Ethnicity	
White	44
Black	37
Latino	10
Native American	4
Other	5
Asian/Pacific Islander	<1
Age	
≤39	24
40–49	41
>50	35
Considers Self Homeless	69
HIV positive (self report)	15
Drugs Injected Past 30 days	
Heroin	78
Methamphetamine	38
Speedball (Heroin & Cocaine)	38
Powder Cocaine	16
Crack Cocaine (Injected)	14
Goofball (Heroin & Speed)	14
Injection locations past 6 months:	
<i>Public Locations</i>	
Street, alley or doorway	63
Public Bathroom	60
Park	42
Any of the above public locations	71
<i>Private Locations:</i>	
Another person's house, apartment or hotel room	64
Their house, apartment or hotel room	56
Squat or abandoned building	33
Shooting gallery	17

Table 2

Programmatic Preferences and Acceptance of Potential Rules of Safer Injection Facilities as Reported by IDUs, San Francisco, 2008 (N=513)*

Programmatic Feature	Percent
Longest time willing to walk to get to a SIF	
1–5 minutes	17
6–10 minutes	22
11–20 minutes	33
21–30 minutes	16
More than 30 minutes	12
Willing to take bus to SIF	82
Preferred open times	
Day time 8am to 4pm	62
Evening 4pm to 10pm	22
Over night 10pm to 8am	16
Best way to set up the injecting space	
Private cubicles	49
Open table	6
Combination of both	46
Drug users should be involved in running SIF	58
Would use a separate room for smoking crack	54
Potential Rule/Regulation for SIF	Percent who reported rule is “acceptable”
All injections supervised	84
30 minute limit for injection	82
Have to hang out for 10–15 minutes post-injection	81
Not allowed to smoke crack cocaine	78
Required to register at front desk	77
Not allowed to share drugs	67
Required to show identification	42
Have to live in neighborhood	34
Onsite video surveillance camera	32

* Among the 513/602 who indicated that they would use a safer injection facility in San Francisco.