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Injection Drug Users' Access to a Supervised Injection Facility in Vancouver, Canada: The Influence of Operating Policies and Local Drug Culture

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Abstract

North America's first supervised injection facility (SIF) was established in Vancouver, Canada, in 2003. Although evaluation research has documented reductions in risk behavior among SIF users, there has been limited examination of the influence of operational features on injection drug users' access to these facilities. We conducted an ethnographic study that included observational research within the SIF, 50 in-depth individual interviews with SIF users, and analysis of the regulatory frameworks governing the SIF. The government-granted exemption allowing the facility to operate legally imposes key operating regulations, as well as a cap on capacity, which results in significant wait times to enter the injecting room. Regulations that prohibit practices that are common in the local drug culture also negatively affect SIF utilization. Restructuring policies that shape the operation of the SIF could enhance access to the facility and permit SIF services to better accommodate local drug use practices.

Keywords

addiction / substance use; ethnography; HIV/AIDS prevention; interviews, semistructured

In response to health and social harms of illicit injection drug use (Aceijas & Rhodes, 2007; Aceijas, Stimson, Hickman, & Rhodes, 2004), a growing number of supervised injection facilities (SIFs) have been established in various countries (Broadhead, Kerr, Grund, & Altice, 2002; Hedrich, 2004). SIFs are legally sanctioned, purpose-built venues where injection drug users (IDUs) can inject pre-obtained drugs under the supervision of health care staff (Hedrich; Kimber, Dolan, van Beek, Hedrich, & Zurhold, 2003). These facilities seek to reduce drug-related overdose deaths and transmission of viral and bacterial infections, increase uptake of health services, and reduce problems associated with drug injecting in public spaces (Broadhead et al.; Kimber et al., 2003). Within SIFs, safer injecting is facilitated through the provision of sterile syringes and ancillary injecting equipment, education regarding safer injection techniques, as well as amenities such as adequate lighting, clean working surfaces, and syringe disposal services (Rhodes et al., 2006). SIFs provide immediate emergency response to drug-related overdose (Broadhead et al.) and eliminate distractions that can disrupt hygienic injecting practices, including encounters with police (Rhodes, Singer, Bourgois, Friedman, & Strathdee, 2005).

A government-sanctioned SIF, named Insite, opened in Vancouver, Canada, in September, 2003 (Wood et al, 2004). To date, positive outcomes attributed to Insite include reduced levels of public injecting in its immediate vicinity (Wood et al., 2004), reductions in syringe sharing (Kerr, Tyndall, Li, Montaner, & Wood, 2005), and increased uptake of addiction treatment programs (Wood, Tyndall, Zhang, et al., 2006). Insite has also successfully managed more than 1,000 overdoses since opening, with no fatalities (Milloy, Kerr, Tyndall, Montaner, & Wood, 2008).

There has been growing concern regarding poor access to and a lack of coverage of existing HIV-prevention and

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harm-reduction programs for IDUs (Mathers et al., 2010), such as needle exchange and drug-substitution programs. There now exists substantial research suggesting that these problems are, in part, driven by a range of contextual forces, including regulatory and operating policies of programs, as well as the unique features of and practices within local drug scenes (Rhodes, 2002; Rhodes et al., 2005). Previous ethnographic investigations have revealed how restrictive policies of needle exchange and methadone programs too often fail to consider the day-to-day realities and practices of IDUs (Bourgois, 2000; Bourgois & Bruneau, 2000), noting how overregulation can impede access to HIV prevention materials. The emphasis on individual behavior change within public health programs can divert attention from how social and structural factors can constrain access to and the effectiveness of harm-reduction programs (Rhodes, 2002). To maximize the impact of SIFs, facility operations must be tailored to the characteristics of the local drug scene and accommodate local drug use practices (Broadhead et al., 2002; van der Poel, Bargendregt, & van de Mheen, 2003). Identifying relevant forces affecting access to SIFs and addressing those through service redesign and policy reform is therefore an important area of research.

Insite is generally well accepted by IDUs in Vancouver (Wood, Tyndall, Li, et al., 2005; Wood, Tyndall, Zhengou, et al., 2006), although emerging evidence suggests that it is operating under conditions that restrict its ability to fully meet the needs of its target population (McKnight et al., 2007; Petrar et al., 2007). However, to date, there has been no in-depth systematic investigation of how macro-level contextual influences affect the operation of SIFs and how they shape access to and coverage of such facilities. Ethnographic research techniques can provide insight into how IDUs' use of SIFs is shaped by policies and regulations, as well as wider social, economic, and cultural contexts (Moore, 2004, 2005). A contextualized understanding of the operation of Insite could therefore provide crucial information for optimizing the effectiveness of SIFs in Canada and elsewhere.

Study Context

Policies and Legislation: The Regulatory Framework Governing Supervised Injection in Canada

Although the operation of SIFs is technically illegal in Canada, per the federal Controlled Drugs and Substances Act (CDSA; Minister of Justice, 1996), a number of policies have been employed to minimize the criminal liability related to operating Insite, including legal and administrative agreements (involving health, government, and law enforcement agencies). Section 56 of the Act allows the federal Minister of Health to grant an exemption from all or some of the provisions of the CDSA, if necessary for medical or scientific purposes, or if it is otherwise in the public interest (Elliott, Malkin & Gold, 2002; Health Canada, 2002). In 2002, the government of Canada employed a Section 56 exemption for the scientific purpose of generating knowledge regarding SIFs, thus allowing the legal operation of Insite. This 3-year exemption protected Insite staff and registered users from being charged with offences related to the possession of drugs under the CDSA, provided that Insite was subjected to a rigorous scientific evaluation of the facility's health and social impacts (Health Canada). The Ministerial exemption places its operation under strict government control, and determines many aspects of Insite's design and operation (Health Canada).

Features of the Local Drug Scene in the Downtown Eastside of Vancouver

Within the City of Vancouver, injection drug use activity is highly concentrated in the Downtown Eastside (DTES) neighborhood, where an epidemic of HIV among IDUs was identified in 1997 (Strathdee et al., 1997), and where large numbers of IDUs died of drug overdoses during the 1990s (Tyndall et al., 2001). The neighborhood is home to a large, open drug scene; a large homeless population; deteriorating housing, including dozens of single-room-occupancy (SRO) hotels; and an active sex trade (Wood & Kerr, 2006). It has been estimated that approximately 5,000 IDUs live in the DTES, and that thousands of additional IDUs visit the neighborhood regularly to purchase and consume drugs (Wood & Kerr). Approximately 17% of the IDU population in the DTES are HIV positive (Tyndall, Wood, et al., 2006), and more than 80% are infected with the hepatitis C virus (HCV). Both heroin and cocaine are commonly injected by local IDUs, and cocaine injection has been linked to the rapid escalation in HIV infection in the community (Tyndall et al., 2003). Furthermore, it is estimated that approximately 40% of local IDUs regularly require assistance with injections (O'Connell et al., 2005), and this practice has been linked to an elevated pattern of drug-related harm (Kerr, Fairbairn, et al., 2007). Public injecting is practiced widely in the DTES, and is concentrated in alleyways in close proximity to the open drug market (DeBeck et al., 2008; Small, Rhodes, Wood, & Kerr, 2007). In Vancouver, all recipients of monthly social assistance benefits receive their checks on the last Wednesday in the calendar month (known locally as "Check Day"), and increased levels of injecting activity are evident at this time (O'Shaughnessy, Hogg, Strathdee, & Montaner, 2009).

Operational Context Within Insite

Insite is located in the DTES and operates 18 hours per day (10:00 a.m. to 4:00 a.m.). The facility is open 7 days a week, 365 days a year. The facility includes (a) a reception area and waiting room; (b) an injecting room (IR) featuring 12 individual "booths" for injection, a nurse's station, and a private room for the provision of nursing care and treatment; and (c) a postinjection "chill-out lounge," where clients can rest prior to exiting to the street. The staffing complement includes at least one responsible person in charge (RPIC), two nurses, five program support workers, and two peer support workers (former/active drug users). Nurses supervise injections, respond to overdoses, and provide nursing care onsite. Insite also offers education on safer injecting practices, needle exchange services, counseling, and referrals to a range of health and social services, including addiction treatment.

Statement of Study Purpose

Insite seeks to engage street-based IDUs by providing services in a low-threshold or barrier-free manner. However, little is known about the ways IDUs' access to Insite is simultaneously influenced by (a) policies and legislation that govern supervised injecting in Canada; (b) features of the local drug scene, including characteristics and injecting behaviors of the drug user population; and (c) the operating environment within Insite, including operational procedures, site regulations, and the client code of conduct. Accordingly, the purpose of this article is to explore how Insite's operating features and the character of the local drug scene affect IDUs' access to and utilization of the facility.

Methods

For this study we drew on data generated through ethnographic methods, including 12 months of naturalistic observation at Insite and 50 in-depth individual interviews with SIF users, as well as analysis of documentation regarding the establishment of the facility, the regulatory framework governing SIFs in Canada, and operating procedures specific to Insite.

Naturalistic Observation

The first author (Will Small) generated data regarding the operation of the facility by regularly visiting Insite and spending more than 150 hours observing activity within the facility. Observational work within Insite began in August, 2006. Preliminary fieldwork involved occasional visits to the facility, and the majority of site visits were conducted between September 1, 2008, and August 31, 2009. Field notes were used to document observational data regarding the utilization patterns, physical layout, traffic flow, and management of prohibited behavior within the SIF, as well as interactions between clients and staff. Observational work also entailed extensive discussions with staff and drug users at the facility regarding Insite's operation, regulations, and patterns of utilization. During observational work, Small identified himself as a researcher, clearly indicating that he was not an Insite staff member. Field notes were complemented by an examination of the Insite database, in which is recorded information regarding all client visits, including the number of injections, suspensions, overdoses, nursing treatments, and referrals. Information regarding the local drug scene was generated through previous ethnographic fieldwork in the DTES neighborhood (Small et al., 2007).

In-Depth Interviews With Insite Clients

Fifty in-depth, individual interviews were conducted with Insite clients. Study participants were recruited from the Scientific Evaluation of Supervised Injecting (SEOSI) cohort, which is composed of more than 1,000 randomly selected Insite clients, and is representative of the broader Insite clientele (Wood, Tyndall, Zhengou et al., 2006). Between November, 2005, and February, 2006, a subsample ($n = 50$) of SEOSI cohort members participated in in-depth, open-ended interviews to discuss utilization of Insite, barriers to access, reasons for using Insite, its design and operation, and service interactions within the facility. Interviews lasted 40 to 80 minutes, were audio-recorded, and transcribed verbatim. All interviewees received $20 CAD for their participation.

Analysis began early in the data collection process and continued as the subsequent interviews were completed. Thus, emergent analysis of early interviews served to inform the focus of subsequent interviews, as well as the ongoing analyses of the ways in which clients engage with Insite. The coding framework employed made use of a priori codes derived from the topics used to structure the interview guide, and emergent codes that were developed based on the content of the interviews. The primary codes were used to identify text related to participant perspectives regarding the facility's rules and regulations, the operation of the facility, conventional drug use practices outside of the SIF, as well as any barriers to attendance or utilization. Qualitative analysis software was not used, and the interview data was labeled and coded within a word processing computer program. Numerous memos were authored to summarize the content and

themes present within particular interview segments. All content related to each individual code was compiled, and the coded text segments were analyzed thematically to develop the interpretation regarding how various aspects of the service influenced IDUs' access and utilization of Insite.

Document Analysis

A document analysis was also conducted to assess how legal frameworks structure Insite operating policies and regulations, and how these institutional features shape the experiences of SIF users. The analysis included documents related to legal frameworks surrounding SIFs in Canada, the details of the exemption granted to Insite, as well as the protocols, policies, and procedures specific to operations within Insite. The following documents were reviewed: Health Canada's guidelines for "Application for an Exemption under Section 56 of the Controlled Drugs and Substances Act for a Scientific Purpose for a Pilot Supervised Injection Site"; the application for an exemption submitted to Health Canada by Vancouver Coastal Health and the Portland Hotel Society[1] in 2003; the letter from the Assistant Deputy Minister of Health Canada to the site operators, which constitutes the "Approval of the Application for an Exemption"; and Insite operational manuals detailing service protocols, site regulations, and the client code of conduct.

Ethics

Approval to conduct the interviews and naturalistic observation within Insite was granted by the Providence Health Care/University of British Columbia Research Ethics Board. All interview participants provided written informed consent, and verbal consent to undertake observational work was obtained from individual drug users and staff within the SIF.

Results

This analysis illustrates how regulatory frameworks, SIF operating procedures, and features of the local drug scene intersect to shape IDUs' utilization of Insite. In the section below, a brief description of the facility's operation is provided to set the stage, although the primary goal of this article is not to provide an in-depth description of the facility's day-to-day operation or drug user behavior within the facility.

Utilization

Utilization statistics indicate that Insite is a high-volume SIF in comparison to many facilities operating in other countries (Broadhead et al., 2002; van der Poel et al., 2003). From September 1, 2008, to August 31, 2009, there were 274,141 visits to the facility, with an average of more than 22,000 visits per month. During this period, 175,980 visits to the injecting room occurred, with a monthly average of 14,665 injections. Within this 12-month period, the facility received an average of 751.3 visits per day, and an average of 482.1 injections took place each day. Not all site visits result in injections, because clients can attend the facility to access onsite services other than the injecting room, or referrals to off-site health and social services (Tyndall, Kerr, et al., 2006).

Regulations and Code of Conduct

On their first visit to Insite, IDUs are required to register and select a unique identifier which is used to record all subsequent visits, referrals, nursing treatments, overdoses, and temporary access suspensions within the computerized database. Registration also requires clients, who must have a history of injection drug use and be more than 16 years of age, to sign a waiver committing them to adhere to all site regulations and the code of conduct, which is explained during the first visit.

Site regulations strictly prohibit selling drugs within the facility, as well as the passing of drugs between clients. Preparation or injection of drugs outside the injecting room is also prohibited. Self-administration of drugs is required, although staff can provide education regarding injection techniques and guidance with venous access; assisted injections (i.e., injections administered by another individual) are not permitted. Injecting into the jugular vein is permitted, as is groin injecting, and no bodily injection sites are proscribed by facility regulations. There is no official limit on the amount of time an individual can spend in an injecting booth.

Clients are required to follow the directions of staff members, and are expected to occupy the injecting booth to which they are assigned and stay out of the booths of others. Clients are also asked to limit their stay in the injecting room to the amount of time needed to inject and then proceed to the chill-out lounge. Clients who violate the site regulations or the code of conduct can be temporarily suspended from Insite.

The most common form of access suspension involves a 24-hour temporary prohibition, which expires automatically, and is commonly issued to deal with disruptive behavior or failure to comply with the code of conduct. The only types of suspensions that endure for more than 24 hours are those issued to address serious disruptions, threats, and violence. These suspensions require the client to discuss the incident with one or more Insite coordinators, and negotiate the terms of their reentry before regaining access. Individuals will also be denied access if they have

a medical condition requiring emergency attention, have children with them, or fail to provide an Insite identifier. Insite protocols do not prohibit intoxicated clients, and operating policies state that clients have the right to access Insite even when under the influence of alcohol or other drugs.

The exemption to the CDSA granted to Insite limits the facility's capacity to 12 injecting booths and requires that all injections be self-administered, prohibiting assisted injection (Health Canada, 2002). The exemption protects staff and clients from charges of drug possession, but does not extend to activities related to trafficking; therefore, the sharing or division of drugs between clients is prohibited. These regulations are legally binding and cannot be altered by Insite operators.

Waiting to Access the Injecting Room

Ethnographic data indicate that when IDUs possess drugs and have arrived at Insite, they typically want to inject as quickly as possible. There is great demand for the injecting room (IR), and a queuing system is used to organize access to the injecting booths, based on order of arrival. The number of injection booths is very small compared to the large number of individuals who seek admittance to the IR. The IR occasionally can be accessed immediately upon arrival, but most clients wait 5 to 10 minutes to enter the IR, and it is commonplace to see a group of clients queuing in the waiting area. At busy times, waits can exceed 15 minutes, and some clients will wait as long as 30 minutes to access an injection booth. Long wait times often result in individuals leaving Insite before they access the IR, opting to inject elsewhere (usually in nearby alleyways). Many clients expressed the view that a queue of more than 3 people on the wait list is "too many," or that "15 minutes is too long" to wait. The ability of IDUs to wait in the queue is reduced in situations in which they experience opiate withdrawal, because even a moderate wait "feels like an eternity." The need to alleviate withdrawal symptoms provides a powerful motivation to inject immediately, even outside the SIF. For other clients, the anticipation of injecting cocaine, which often involves a desire to inject immediately, motivates users to inject in other settings in light of waits to access the IR.

Analysis of data from the Insite database shows that during the 12-month study period, on average, 8.6% of Insite clients (range 5.0% to 11.8%) left before they could use the IR because of wait times. With an average of almost 500 visits to the IR per day, this could mean that approximately 30 to 40 clients leave the facility without accessing the IR each day. In addition, numerous clients were observed entering Insite and, upon seeing the queue in the waiting room, leaving without asking to be put on the wait list.

Time Spent Within the Injecting Room

Although the average length of a visit to the injecting room is approximately 20 minutes (Tyndall, Kerr, et al., 2006), many visits to the IR were observed to last an hour or longer, which impedes the turnover of booths and exacerbates problems related to wait times. Some lengthy IR visits result from problems with the injection process, including situations in which clients have difficulty locating a viable vein. After clients have completed their injection, there also might be delays before individuals vacate their booths. The character of these delays is often related to the drugs injected. Subsequent to injecting heroin, clients often enter a drowsy state, commonly referred to as a "nod," and this can delay individuals in leaving their booth. Subsequent to injecting cocaine, many clients engage in "tweaking" behaviors, brought on by the stimulant effects of cocaine, which can include repetitive actions (which might appear to be compulsive or obsessive) as well as rare cases of cocaine-induced psychosis (Kerr, Wood, Palepu, Wilson, et al., 2003). Although Insite staff members are skilled in encouraging cocaine injectors to leave the IR and enter the chill-out lounge, postinjection tweaking frequently distracts these clients from vacating their booth in a timely manner. Assisting clients who are having trouble exiting to the postinjection chill-out lounge because of the sleep deprivation and exhaustion that is common among street-based injectors is also important to maintaining client flow through the IR.

Clients who spend "too long" within the IR are sometimes suspended. Staff members employ access suspensions when a client has established a pattern of staying too long, or when Insite is extremely busy and the wait to enter the IR is lengthy. Although these types of suspensions are issued judiciously, they compose a significant proportion of all suspensions issued. For example, in March, 2009, when 86 suspensions occurred, a total of 14 (16.2%) suspensions were issued in relation to IR visits that exceeded 120 minutes. Notably, the number of suspensions issued in relation to long stays in the IR increases around Check Day, when the number of visits to the facility is greatest.

Regulations Prohibiting Sharing or Splitting Drugs

Although Insite's operating regulations prohibit clients from sharing, dividing, or passing drugs within the facility, IDUs frequently engage in these practices outside Insite (Small et al., 2007). Clients argued that the prohibition on sharing drugs fails to accommodate an everyday practice, regularly employed by many IDUs. Pooling money to purchase drugs, obligations to give drugs to other drug users to pay debts or reciprocate previous "gifts," as well

as social norms which encourage "helping out" friends and associates by providing a small amount of drugs, were described as representing important reasons why IDUs frequently share drugs. The regulation prohibiting sharing drugs within Insite was described as a barrier to its use, especially when IDUs are "obliged" to share drugs for financial and/or social reasons.

Many clients recounted occasions when they divided drugs outside prior to injecting at Insite. They described these situations as being hazardous (e.g., they might encounter the police, lose or spill drugs during the process of division, or be robbed of their drugs). Some clients reported that when they had found a relatively secluded location to divide their drugs, they would simply inject at this location, rather than returning to Insite (and possibly waiting to enter the IR). Clients discussed how the regulation prohibiting splitting drugs disproportionately affects injectors who have jointly purchased drugs that are sold in pill form (e.g., morphine, hydro-morphone, dilaudid, and oxycodone), and which are commonly used by SIF clients (Tyndall, Kerr, et al., 2006). These pills must be prepared in a liquid solution before they can be divided; therefore IDUs tend to opt to inject at the location where they prepare the drug, rather than returning to Insite.

Regulations Prohibiting Assisted Injection

Ethnographic data indicates that SIF regulations prohibiting assisted injections might discourage use by some subgroups of IDUs who experience difficulty in self-administering injections. This difficulty can be precipitated by low levels of knowledge regarding injection techniques, vascular problems (e.g., damaged veins), physical disabilities, as well as situations in which IDUs are sleep deprived, intoxicated, or experiencing withdrawal (Wood et al., 2003). When Insite clients have trouble with venous access, they frequently call on nursing staff for guidance and advice, but nurses are not permitted to physically assist with the injections. When advice is not sufficient to manage problems with the injection process, clients typically leave Insite to receive assistance with their injections from other drug users, which is how local IDUs customarily navigate inability to self-inject (Fairbairn et al., 2006; O'Connell et al., 2005). Interviewees reported that it would be beneficial if a nurse could help them, which might reduce or eliminate injections in dangerous environments (e.g., public injection settings in local alleys).

Assisted injecting appears to be a particularly important issue among women Insite clients. As one woman explained, she injects outside of the SIF when she needs "somebody to do it for me," especially when she is experiencing heroin withdrawal. A small number of interviewees (primarily women) recounted instances when, after repeated attempts to self-inject, they left the IR to seek manual assistance, often in public injection settings. Men who were interviewed who regularly serve as "doctors" (i.e., individuals who administer injections to other drug users) described instances when they had been approached within the SIF by women injectors who were having difficulty self-administering their injection, and were seeking to arrange an assisted injection outside of the SIF.

Frequent Visits by Cocaine Injectors and the Impact of Synchronized Welfare Payments

The high prevalence of cocaine injection among Insite clients, and the fact that welfare payments are issued to all recipients at one point in each month, pose operational challenges for Insite. Because cocaine injectors need to inject frequently (e.g., some perform more than 20 injections per day), many of these individuals make numerous daily visits to Insite. Observation of IDUs' usage of Insite indicates that cocaine injectors might make more than 10 visits per day, quickly returning to the queue in the waiting area after completing their injection (in comparison, heroin injectors usually inject 2 to 4 times per day). The frequent injections of cocaine users contribute heavily to the demand for the IR in the context of restricted capacity.

The length of the queue to enter the IR and wait times are the longest on Check Day (and for 2 days following it) because of the increased levels of drug use and the elevated level of activity within the local open drug scene during the time when social assistance benefits are paid. During these days of peak traffic, the proportion of clients who leave Insite because of the wait times increases to a level far above the monthly average, up to 15% to 20% of those seeking to use the IR.

Ensuring Compliance

Insite staff are required to monitor client behavior within the facility to ensure compliance with the conditions of the exemption from the CDSA. Consequently, staff members issue suspensions and remove clients from Insite when they attempt to inject within the waiting room or the chill-out lounge (injecting in these areas is prohibited). Clients reported that they might attempt to inject within the waiting room or the chill-out lounge when the site is busy, to avoid the long wait to enter the IR. During March, 2009, when 86 access suspensions were issued, a total of 20 (23.2%) were issued for injecting or attempting to inject in areas other than the IR.

The prohibition on dividing or passing drugs also requires that staff monitor participants to ensure that these behaviors are not occurring within the facility. Clients explained that

they might attempt to divide and pass drugs within the facility because of the difficulty and hazards entailed in partitioning drugs at other locations, in particular outdoor venues. This behavior is most strictly monitored within the IR, where clients are required to stay within their own injection booth and are prohibited from entering the booths of others, in part to prevent attempts to pass drugs. When staff members observe clients attempting to pass drugs, the clients will receive a 24-hour temporary suspension. During March, 2009, approximately 20% of the suspensions issued were in relation to attempts to pass drugs.

Ensuring compliance with the Insite code of conduct and site regulations sometimes results in serious conflicts between staff and SIF clients. When informed of their suspension, some clients become agitated, and might threaten staff or refuse to leave the facility, which results in longer suspensions and necessitates a meeting with one or more site coordinators before client access is reinstated. Clearly, the need to enforce regulations is important to Insite's functioning, although suspensions also limit access to the facility, especially for clients who receive multiple suspensions during a single month.

Discussion

This analysis illustrates how macro-level forces (e.g., the parameters of the legal exemption which permits the site to operate) shape the operation of Insite through regulation and legal controls. As well, this examination demonstrates how these specific operational characteristics of Insite interact with features of the local drug scene (e.g., the large population of injectors, the frequent visits of cocaine injectors, synchronized welfare payments) to shape access to Insite, and in turn, the impacts of this unique program. Insite staff work to minimize barriers to service access but major challenges continue to affect its operation.

Capacity vs. Demand for Insite

The capacity of Insite is limited to the number of clients who can be accommodated by the 12 legally sanctioned injecting booths. Observations and data from the electronic SIF database regarding wait times provide evidence that the demand for Insite's services exceeds its current capacity. Partially because of the established culture of public injecting within the local environment, which often involves injecting immediately after drugs are obtained (Small et al., 2007), there is a relatively low threshold for waiting to access the supervised injection setting among local injectors. Insite clients who reported wait times as a barrier to their utilization of the SIF are three times more likely to inject in public, when compared to those who did not report wait times to be a barrier (McKnight et al., 2007). However, it is important to recognize that the barriers to access posed by wait times result from the restrictive regulatory framework which limits the capacity of the IR, and the overwhelming demand for the IR among the large population of local injectors.

The synchronized payment of social assistance benefits precipitates increased levels of drug use within the local drug scene and exacerbates the gap between the capacity of Insite and the demand for its services. Coincidentally, the number of hospital admissions for nonfatal drug-related overdose increases around Check Day (Riddell & Riddell, 2006). IDUs who cannot wait to inject within Insite (where no overdose deaths have occurred) instead inject at other venues, where there is an elevated risk of overdose and reduced potential for assistance. Coroner records indicate that from the beginning of 2004 until the end of 2007, 232 deaths in the Vancouver area resulted from an illicit drug overdose (Ministry of Public Safety and Solicitor General, 2008).

Governing Access and Use

SIFs worldwide have similar basic logistical arrangements and "house rules" (Broadhead et al., 2002) to those in place at Insite, which ensure hygienic injection and create a controlled environment. However, there are several features of Insite that distinguish it from other SIFs (e.g., permitting jugular injections), although some of the activities prohibited within Insite are allowed in other SIFs (Kimber et al., 2003). For example, not all SIFs prohibit clients from sharing or splitting drugs (Broadhead et al., 2002; Kimber et al., 2003). The clinical SIF in Sydney, Australia, for example, permits clients to share drugs if they arrive at the facility together (van Beek, 2003), and an unsanctioned, peer-run SIF in Vancouver, which operated without a government exemption prior to the establishment of Insite, allowed clients to share and divide drugs while prohibiting the sharing of injection equipment (Kerr, Oleson, Tyndall, Montaner, & Wood, 2005). Drug sharing represents a survival strategy among street-based IDUs who have limited access to financial resources and engage in precarious, and often dangerous, income-generation strategies (Bourgois, 1998; Grund et al., 1996). Insite currently does not accommodate this important everyday practice under its existing regulations. This limits the ability of the facility to promote risk-reduction strategies (e.g., the use of sterile materials to prepare drugs) in relation to the collective preparation of drugs among IDUs, which continues to occur in unregulated and unhygienic settings.

Drug sharing practices are common among IDUs in many different locales (Grund et al., 1996; Higgs, Yohannes,

Hellard, & Maher, 2009; Koester, Glanz, & Baron, 2005; Needle et al., 1998), and when multiple individuals reuse injection paraphernalia (e.g., cookers, filters, water), this creates opportunities for blood-borne virus transmission. In particular, collective preparation can increase risk for hepatitis C transmission when previously utilized syringes are employed to prepare or divide drug solutions (Koester, Booth, & Zhang, 1996; Koester et al., 2005). The health risks related to drug-sharing behaviors should be given greater consideration within the design of SIFs and other forms of HIV prevention, because of the prevalence of drug-sharing practices and the important role they play in perpetuating blood-borne virus transmission among injectors. This could entail efforts to encourage injectors to avoid reuse of injection paraphernalia and transferring drug solution using nonsterile syringes, as well as modifying SIF regulations to accommodate the sharing or division of drugs by clients (Koester et al., 2005; Needle et al., 1998).

The federal regulations governing Insite prohibit assisted injection and require that all injections within the facility be self-administered (Health Canada, 2002). Although injecting within Insite has been documented to facilitate capacity for self-injection and reduce reliance upon assisted injection (Wood, Tyndall, Stoltz et al., 2005), findings from the current study indicate that many Insite clients continue to receive assisted injections outside the SIF, often within public injection settings. Local IDUs who receive assisted injections are twice as likely to become HIV positive when compared to IDUs who do not require help injecting (O'Connell et al., 2005), and are at increased risk for nonfatal overdose (Kerr, Fairbairn, et al., 2007). Although regulations that prohibit assisted injection reduce willingness to use an SIF among IDUs (Fry, 2002), it appears that this particular regulation disproportionately affects women injectors (Kerr, Wood, Palepu, Small, & Tyndall, 2003). In the Vancouver setting, women injectors are known to be twice as likely to require help injecting (Wood et al., 2003), and are more likely to become HIV positive when compared to drug-injecting men (Spittal et al, 2002). Some of the HIV risks experienced by women injectors are shaped by gender dynamics within intimate partnerships, where women are often "second on the needle," receiving assisted injections from male partners with previously used syringes (Bourgois, Prince, & Moss, 2004). Some SIFs in European countries permit peer-to-peer assisted injections (Kimber, Dolan, & Wodak, 2005), as did the unsanctioned SIF that operated in Vancouver prior to the opening of Insite (Kerr, Oleson, et al., 2005). By ensuring the use of sterile syringes when assisted injections were delivered, Vancouver's unsanctioned SIF demonstrated that it is possible to accommodate assisted injections within the supervised environment, which reduces the risks associated with this practice (Kerr, Oleson, et al.).

The harms stemming from assisted injections in the Vancouver context are evident, and the practice of receiving injections from other drug users is common among large numbers of injectors in many settings internationally (Carlson, 2000; Kral, Bluthenthal, Erringer, Lorvick, & Edlin, 1999; Murphy & Waldorf, 1991; Pearshouse & Elliott, 2007; Rhodes et al., 2005). Assisted injection represents an important drug use practice that merits greater consideration within the design of SIFs, as well as other public health interventions (Lloyd-Smith et al., 2010), because of the multiple forms of risk associated with this behavior. In settings in which SIFs are unfeasible or not currently viable because of legal barriers, interventions should target individuals who provide assisted injections to enhance injection safety and foster capacity for self-injection among those who have difficulty injecting.

Implementing the "Rules"

Previous research has demonstrated that the implementation of some SIF rules can constrain the successful functioning of these facilities (Fry, 2003). Our findings illustrate that IDUs adapt to those operating features that they find problematic by selectively utilizing the facility (e.g., injecting elsewhere when wait times are long) and by attempting to violate site regulations to accommodate their needs (e.g., attempting to pass drugs within Insite). Consequently, clients are temporarily suspended, and during the suspension they are not permitted to access Insite, which might prompt them to inject in other, less safe environments. Additionally, the management of prohibited behaviors places Insite staff in a problematic dual role, in which they act as caregivers but are also compelled to enforce site regulations.

Clearly, the safety of staff and other clients at Insite is a priority, but the need to enforce site regulations that do not fit with some practices of IDUs creates an extremely complex operating environment and can foster "everyday acts of resistance" by drug users within service settings (Moore, 2009). In addition, the enforcement of rules might inadvertently (re)produce a set of social relations (e.g., confrontational dynamics between drug users and authority figures such as the police) that serve to perpetuate the stigma and marginalization experienced by people who inject drugs (Simmonds & Coomber, 2009). Even though these issues affect operations within the SIF, it must be recognized that the number of suspensions is relatively small when the overall number of site visits is taken into consideration (approximately 4 suspensions per 1,000 visits).

Structural Forces Shaping SIF Operation in Canada

Although most public health programs are affected by the political and legal context in which they operate (Blankenship, Bray, & Merson, 2000), this analysis indicates that the particular approach adopted by the government of Canada to permit the legal operation of Insite has important implications for the delivery and operation of these services. Utilizing a Ministerial exemption for scientific purposes represents one strategy to permit legal operation of SIFs under the CDSA, but the way this mechanism has been employed severely restricts the establishment of SIFs to a single pilot facility, operating as part of a scientific evaluation (as opposed to a broader-scale, public health intervention). Canada's Minister of Health stated in 2006 that the federal government would not grant additional exemptions to the CDSA, which prevented the establishment of any additional SIFs in Canada, despite positive findings emerging from the research evaluating Insite (Wood, Kerr, Tyndall, & Montaner, 2008).

The federal government's approach to regulating SIFs has been criticized for placing undue restrictions on this form of intervention and impeding the establishment of additional SIFs (Wood et al., 2008). Some critics have suggested that the specifics of the exemption place greater emphasis on reducing risks to institutions and their staff than on reducing risks to the vulnerable population the SIF is designed to serve (Fischer, Turnbull, Poland, & Haydon, 2004). Unfortunately, the current guidelines prohibiting assisted injections within SIFs persist, despite the documented harms stemming from this practice and the existence of alternative strategies to address criminal and civil liability stemming from assisted injections occurring within SIFs (Pearshouse & Elliott, 2007).

Optimizing the operation of SIFs in Canada will require modifications to public policies beyond the health sector, including amendments to current legal frameworks. For example, it has been recommended that assisted injection be permitted within Canadian SIFs (Pearshouse & Elliott, 2007), which would require amendments to the current regulatory framework governing supervised injection as well as modifications to Canadian criminal and civil law to address legal liability related to providing assisted injections. Modifying SIF regulations to permit the division of drugs and assisted injections would also entail complex amendments to Canadian legislation regarding controlled substances, but represents an important step toward realigning the operation of SIFs to accommodate the everyday practices of many IDUs. The barriers posed by the delays in accessing the injecting room also could be addressed in part through increasing the number of injection spaces available, as well as the establishment of additional SIFs (Broadhead et al., 2002).

Although there is limited opportunity to initiate changes to any of these facets of Insite's operation under the existing Health Canada exemption, recent legal developments could restructure the regulatory framework governing SIFs in Canada. Legal experts have observed that because SIFs represent a health care program targeting addicted individuals, the federal government might be constitutionally required to eliminate legal barriers to the operation of SIFs under the Canadian Charter of Rights and Freedoms (Elliott et al., 2002). A recent legal case in the Supreme Court of British Columbia (BC) challenged the authority of the federal government to restrict the operation of Canadian SIFs, arguing that access to an SIF as a health care program is ensured under the Charter. The judge in this case decided that the CDSA cannot take precedence over the Charter, granted Insite a constitutional exemption to the relevant sections of the CDSA, and gave the federal government one year to modify the CDSA to accommodate the operation of Insite (Pitfield, 2008; Small, 2008). Since the announcement of that decision, the federal government filed an action to appeal this legal decision, and the BC Court of Appeal subsequently dismissed that appeal (Hall, 2010). Although another appeal by the federal government is anticipated to occur in the Supreme Court of Canada (Hall), the operators of Insite recently announced plans to establish a second SIF in the DTES area (Howell, 2009) to better accommodate the overwhelming demand for these services.

It is clear that the nexus of the regulatory context and local drug scene restricts Insite's capacity to promote risk reduction and reduce drug-related harms. Needle-exchange and methadone programs are often subject to similar forms of governmental regulation (Burris et al., 2004; Neale, 1999), and these restrictive policies frequently impede the establishment or operation of such programs. Globally, there is inadequate coverage of key interventions, including needle exchange and methadone treatment, in many regions where injection drug use is prevalent (Mathers et al., 2010). Governmental responses to HIV among IDUs in many countries have been marked by overreliance on criminal justice approaches (Jürgens, Csete, Amon, Baral, & Beyrer, 2010; Wood, Kerr, & Montaner, 2007), because policymakers have often adopted law enforcement as the cornerstone of national responses to illicit drug use, while at the same time neglecting evidence-based public health strategies (Wood et al., 2010). Indifference to the suffering of those who inject drugs and ideological opposition to harm-reduction measures on the part of political leaders represents a major obstacle to implementing effective HIV prevention for IDUs (Wood, Kerr, & Montaner, 2007), and experts are increasingly calling for drug policy

to be reoriented toward public health approaches at the international level, as well as within national strategies (Jürgens et al., 2010; Wood et al., 2010).

Potential Complementary Interventions

Even if many of the aforementioned barriers to the service were removed, it is important to recognize that a proportion of IDUs might remain unwilling or unable to use Insite (Fry, 2002; Kerr, Wood, Palepu, Small, et al., 2003). In light of the limitations of SIFs, there is a need to develop new interventions (and expand existing programs) to reduce injection-related risk and maximize injection safety within locations where IDUs customarily inject drugs, including public injection settings and private residences. These efforts could involve increasing access to sterile injection equipment, enhancing personal safety within injection settings, and providing overdose management, potentially through the prophylactic distribution of naloxone (a drug that counters the effects of opioid overdose) to IDUs.

Although these pragmatic efforts have potential to reduce injection-related risk within existing injection settings by fostering injection safety and improving responses to overdose (Rhodes et al., 2006), there also is a need for policy reforms that can address the structural factors that fuel injection-related risk. For example, increasing access to housing in the DTES could simultaneously help to mediate the high burden of drug-related harm among homeless IDUs (Corneil et al., 2006), reduce the volume of public injecting locally, and in turn, potentially reduce some of the excess demand for Insite. Similarly, modifying disbursement schedules for social assistance (e.g., staggering payments of benefits) also represents an important strategy to address a structural factor shaping the potential for overdose in the local context (Riddell & Riddell, 2006), and reduce the impact of Check Day at Insite and other service sites (e.g., medically managed detoxification; Li, Sun, Marsh, & Anis, 2007).

This study has limitations that should be noted. Although all SIFs must be considered as existing at the intersection of broad regulatory policy and local drug scenes, this examination of Insite (one SIF in the Canadian context) might not be generalizable to the operations of SIFs in other settings. Furthermore, although a number of operational issues that influenced access to Insite were identified, we did not seek to quantify the impact of all of these barriers on utilization rates. Additional research would be required to more precisely measure the number of visits and clients affected by specific programmatic features.

In summary, this analysis describes how macro-level forces shape the operation of Insite through various regulatory mechanisms, and how specific operational characteristics of Insite interact with features of the local drug scene to influence access to Insite. Maximizing the benefits of this innovative service requires policy amendments that both increase access and better accommodate the local drug-using culture.

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Note

1. These organizations are responsible for the operation of Insite.

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