Research on Supervised Injection Facilities: A Review of the Literature

What is a supervised injection facility?
A supervised injection facility (SIF) is a formal venue intended for injection drug users to self-inject using pre-obtained drugs in a hygienic environment under the supervision of trained medical staff. SIFs are public health interventions that aim to reduce drug-related harm among people PWIDs and the communities in which they live. SIFs are also referred to as Drug Consumption Rooms (DCRs) and Medically Supervised Injection Sites (MSIS). The primary objectives of this intervention are to reduce drug overdose deaths, soft-tissue infections, the transmission of blood-borne pathogens, and public injection drug use. Currently, there are 98 SIFs operating in 66 cities in ten countries around the world.[1] In a review of over 75 relevant research articles, SIFs have been demonstrated to be effective in preventing drug-related harm and in providing a larger societal benefit.[2]

SIFs can...

- **Decrease fatal overdose.** Since the opening of the first and only SIF in North America, InSite (Vancouver, Canada) has significantly reduced opioid overdose mortality. [3] Studies in Europe and Australia similarly found an overall decrease in overdose deaths after the opening of a SIF. [4, 5]

- **Prevent HIV and hepatitis C transmission.** With access to sterile syringes, injection equipment and medical oversight, SIFs have effectively prevented new HIV and hepatitis C infection and reinfection of hepatitis C.[6, 7]

- **Prevent abscesses and bacterial infections.** Unsafe injection practices can lead to unsanitary, high risk and/or missed injections and cause abscesses and bacterial infections. SIFs reduce the likelihood of abscesses, prevent bacterial infections, and provide medical care, avoiding costly medical interventions.[8, 9]

- **Reduce public injection drug use and improperly discarded syringes in communities.** Public drug use overwhelmingly decreases after opening a SIF . [10, 11]

- **Increase access to drug treatment.** Weekly use of a SIF is positively associated with admission into drug detoxification services; over one third of referrals at InSite are for addiction counseling. [12]

- **Decrease crime and public disorder in communities where they exist.** SIFs have been shown to reduce public nuisance in the form of noise and perception of loitering, threatening language, public cursing with no significant reported increases in property crime or drug dealing.[13]
✓ **Be cost effective.** After accounting for program operation costs, analyses have estimated InSite has saved approximately $6 million per year in averted HIV cases alone. [14] Additional cities have conducted similar analyses and demonstrated the potential cost savings of opening one or more SIFs as part of a broader strategy to reduce new HIV and hepatitis C cases and hepatitis re-infection.[15, 16]

“As a former nurse and injection drug user, I know public injection is a problem. In my own experience, I’ve had staph and MRSA infections because I didn’t have a safe, clean place to inject. People injecting in public are forced into isolated areas, and when people finally do find a "safe" space everyone goes, shares equipment, it’s outside of mainstream society... People would use [safer injection facilities] and word would spread quickly. We need them and people who care.” - Patty, NYC syringe exchange program participant

**What is Harm Reduction?**
Supervised injection facilities operate using a harm reduction model. Harm reduction is defined as a set of practical strategies aimed to reduce negative consequences associated with drug use. The concept of harm reduction is grounded first and foremost in the acknowledgement that non-medical drug use exists and will continue to exist in society.[17] People who use drugs have a higher rate of morbidity and mortality compared to the general population. [18] According to the Harm Reduction Coalition, “harm reduction incorporates a spectrum of strategies from safer use, to managed use, to abstinence to meet drug users where they’re at, addressing the conditions of use along with the use itself.”[19] Harm reduction extends beyond public health and examines drug policies and their impact on the health and well-being of individuals and society as a whole.[20-22] In New York City, there are 14 harm reduction programs that operate syringe exchange programs (SEPs) which aim to reduce drug-related harms. SEPs provide services in variety of venues, including drop-in centers, mobile-units, and street-based outreach. Beyond syringe exchange, programs offer services ranging from education and counseling, case management, medical services, overdose prevention and training programs, peer education and development, support groups and access to basic living supplies. The programs vary in size and scope of services, including the settings in which services are offered; street-based outreach, venue-based outreach, mobile-based services and/or drop-in center services.

**What does public injection drug use look like in New York City?**
The Injection Drug Users Health Alliance (IDUHA) collaborated with 14 SEPs to complete a city-wide cross-sectional survey. The participants were recruited from sites in all five boroughs of New York City.

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<th>Reported Locations of Injection Drug Use by Type in the Past 3 Months (n=440)</th>
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<td><strong>Public Location</strong></td>
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In June 2014, a total of 1,340 participants were recruited by trained field interviewers to participate in the survey and over one third of respondents (n=447) reported injection drug use in the past three months. The most frequently reported location of injection drug use was a residential setting, including an individual’s own home (n=219, 49%) or home of a friend, family or partner (n=62, 13.9%). However, the third most frequent location was in a public bathroom (n=61, 13.6%), with nearly half of the entire sample having reported injecting in a public bathroom at some time over the past month (n=223, 49.9%). Over one third had reported injecting in a street or park location (n=159, 35.6%).

**Public:** street, park, subway/bus/train, stairwell, telephone booth

**Semi-Public:** abandoned building, public bathroom, shooting gallery, car/other vehicle, SEP bathroom, hospital, methadone clinic, shelter

**Private:** own place, friend or family’s place, hotel room
Implications of Public Injection Drug Use

- Participants who inject drugs were more likely to report being street-homeless; those who were street-homeless were 9.2 times more likely to report injecting drugs in a street or park and 8.2 times more likely to inject in a public bathroom.
- More than a quarter (27%) of injection drug users reported reuse of at least one type of drug preparation paraphernalia in the past 3 months (syringes, cookers, cotton); public injectors were 4.1 times more likely to report reuse of drug paraphernalia, which is implicated in HCV and bacterial infections.
- Participants who use heroin were 2.5 times more likely to report injecting in a non-residential location compared to other types of drug use.
- Public and semipublic injectors are twice as likely to have overdosed in the past year compared to those who inject in only in private residences; participants who had reported injecting in a public location such as a street or park were 62% more likely to have witnessed an overdose in the past year.

![Reported Locations of Injection Drug Use in the Past 3 Months by Housing Status (n=440)](chart)

Street-homelessness was significantly (p<.001) associated with injecting in a public or semi-public space. Individuals who are street-homeless are over 7 times as likely to inject in a street/park or public bathroom, over 4 times as likely to inject in a bus/subway/train, and over 4 times as likely to report injecting in an abandoned building. Injecting drugs in a public or semipublic environment bears significant individual health and social risks, in addition to community-level implications of visible injection drug use and improperly discarded syringes. In addition to disease transmission and overdose risk, injection drug use in a public space promotes rushing injection to avoid arrest or public exposure.[28] In New York City, communities with a syringe exchange program have higher arrest rates, which may lead to improperly discarded syringes in the community.[29, 30] Police presence may discourage PWIDs to engage in safer injection practices including carrying sterile injection equipment.[29] Furthermore, displacement of public injectors due to increased police presence may further complicate efforts of harm reduction providers to engage with high-risk individuals.[27] Understanding the implications of public injection drug use by type of location in New York City are critical to addressing the continued HIV and emerging hepatitis C and overdose epidemics.

The Drug Users Needs Assessment (DUNA) project recruited and interviewed a sample of 309 IDUs from the South Bronx in August 2013 to document, describe and analyze the attitudes, orientations and experiences that
injection drug users (IDUs) in the South Bronx have with regard to health, law enforcement, and their practices and needs surrounding injecting drugs. Slightly more than one third of the sample said that they injected in “private,” but far more IDUs mentioned places like “restaurant bathrooms,” “vacant buildings,” “stairwells,” “roofs,” “alleys,” and the “street” as among the places where they most frequently inject. Few, if any, of these public injection locales offer conditions that are conducive to safe injection practices. More than half of the sample said that they felt “rushed” to complete injecting themselves before they are discovered by passersby or the police. Nearly half said that they were often “interrupted” and about one third said that “unsanitary” conditions were among the biggest problems that they had with using public venues to inject drugs. The vast majority (86%) said that they inject themselves rather than seeking assistance, and slightly more than half of them (55%) said that they had a difficult time injecting themselves. Despite the lack of locations in the South Bronx where IDUs can find others to inject with, most of the IDUs in the sample said that they have injection partners some of the time. Only 29% said that they “injected alone” (all the time) while everyone else had at least one partner over the previous year.

It is clear from the results from the IDUHA and DUNA projects on public injection that there are significant barriers to safe injection spaces and in turn health and social consequences. And there is support to demonstrate that SIFs may impact the broader community, including local businesses.

Public Injection Drug Use & the Community
Public injection drug use has implications for the community. The most recent National Behavioral Health Surveillance Study suggests that public bathrooms are one of the most frequently used public injection locations in New York City [31]. In effort to better understand how businesses were impacted by public injection drug use, a survey was designed to explore public bathroom drug use in high customer turnover businesses (i.e. fast food, coffee shops, laundromats, etc.) from the perspective of business managers. A total of 86 local businesses were surveyed between March and June of 2015. Encounters were recorded in all five boroughs with the most occurring in East Harlem and South Bronx; neighborhoods with some of the highest drug overdose death rates in the city [32]. The data suggests that more than half of the managers encounter drug use in their customer bathrooms and nearly half of all businesses receive customer complaints about drug use occurring in their bathrooms. Managers have reported finding discarded paraphernalia contaminated with blood in their bathrooms, putting both employees and customers at risk for needlestick injury and blood borne infections.

The study found that 58% of managers interviewed have encountered people using drugs in their customer bathroom in the past 6 months; 44% of which also received customer complaints about drug use occurring in their bathrooms

- 34% of managers have encountered syringes in their bathrooms; 23% of drug paraphernalia discovered was contaminated with blood
- 25% of managers have called 911 due to drug use in their customer bathrooms in the past 6 months
- 14% of 911 calls were made because someone was unresponsive in the customer bathrooms
- Only 8% of managers encountering drug use in their bathrooms have received overdose reversal training though 64% believe overdose reversal training would be useful for them and their employees

**Dark Brown Markers:** businesses that have encountered drug use in their customer bathrooms within the past 6 months

**Tan Markers:** businesses that have not encountered drug use in their customer bathrooms within the past 6 months
Supervised injection facilities have a significant impact on individual and community health and wellbeing. Beyond offering a supervised venue for PWIDs to learn and adopt safer injection behaviors, SIFs provide an opportunity to re-engage a marginalized community to achieve their own wellness goals. In New York City, the consequences of public injection drug use on PWIDs and the communities in which they live are similar to other major cities around the world prior to the implementation of SIFs. In order to effectively curb HIV and hepatitis C transmission, overdose, costly emergency room visits and further disengagement, New York City must adopt and support SIFs as part of the spectrum of routine substance use services.

References


