

Safe Consumption Facilities: Evidence and Models

DAN OTTER, RN, MPH STUDENT

Introduction

Safe consumption facilities are “professionally supervised healthcare facilities where drug use can use drugs in safer and more hygienic conditions.”¹ The terminology to describe these facilities varies; terms used include “supervised/safe injection facilities,” “supervised/safe consumption facilities,” “supervised consumption sites.” In Europe they are generally called “drug consumption rooms.” For the purpose of this report, I will use the term “safe consumption facility” (SCF), unless referring to a specific facility that employs a different term. This report will give an overview of the history and goals of SCFs, basic facility model and staffing considerations, and a review of relevant published evidence. Lastly, I will discuss some important equity and social justice topics that should be considered.

History of Safe Consumption Facilities

The first successful sanctioned drug consumption room (DCR) was established in Berne, Switzerland in 1988, though unofficial facilities had been operating across Europe since the 1970’s. DCR’s were established in several European countries throughout the 1990’s. In 2001 a medically supervised injecting center (MSIC) was opened in Sydney, Australia. In 2003, InSite, North America’s only supervised injection facility (SIF) opened in Vancouver, BC. As of 2014, there were approximately 90 official safe consumption facilities (SCFs) in Europe, Australia, and Canada.²

Goals of Safe Consumption Facilities

The stated goals of SCFs vary somewhat across the literature and between facilities, but generally fit into three aims and objectives described by Hedrich et al.:

- Provide an environment for safer drug use
- Improve health status of target group
- Reduce public disorder¹

Evaluation of SCFs is based on the degree these goals are being met.

Discussion of Evidence Base

The majority of English-language peer-reviewed literature is based on data from Vancouver’s InSite and, to a lesser degree, Sydney’s MSIC. While there are a handful of published English-language reviews of European studies and data, there is an unfortunate dearth of accessible primary source information.

Dozens of studies have been published in well regarded peer-reviewed journals showing that SCFs meet their aims and objectives. Studies on SCFs face multiple limitations including establishing

causality and methodological challenges due to limited and variable data collected by facilities. Nonetheless, the published scientific evidence is overwhelmingly positive.

Impact on Morbidity and Mortality

Reducing drug-overdose mortality is a major goal realized of SCFs by providing supervision and medical intervention in case of an overdose. Following the opening of InSite in Vancouver, drug-related overdose deaths in the vicinity of InSite fell 35%, compared to only 9.3% citywide.³ It is estimated the SIF averts between 1.9 and 11.7 deaths annually.⁴ In Sydney, ambulance calls for opioid-related overdoses decreased 68% during the times the MSIC was open.⁵ Most overdoses at the Vancouver and Sydney facilities were successfully treated with oxygen, 87% and 70% of cases respectively. Naloxone was administered in 27% and 25% of cases.

Perhaps most notably, despite millions of supervised injections over the years, the literature only references one fatality at a SCF. This occurred at a German facility in 2002 and was due to anaphylactic shock.²

Several studies from Vancouver looked at blood borne viral transmission but did not find a direct impact of SCFs on the reduction of viral transmission.⁶ This was largely due to methodological challenges. A review of European studies claims reductions in HIV and HCV incidence found by several facilities, but evidence supporting the claims is not cited.

SCF use has been associated with safer injection practices that would theoretically reduce the likelihood of viral transmission. SCFs promote safer injection practices by providing education to drug users, providing clean supplies, and creating a clean, unhurried environment to inject without fear of interaction with police. A meta-analysis estimates a 69% reduction in the likelihood of syringe sharing among SCF users.⁷ Another study found an association between SCF use and a decrease in syringe reuse, a decrease of injecting in public, taking the time needed, safe disposal of syringes and other safe injection practices.⁸ SIS use was also associated with an 8% increase in condom use during intercourse.⁹ SCFs also can offer or facilitate testing for blood borne infections such as HIV and hepatitis B and C viruses, provide risk reduction counseling, and link infected persons to care.

Cost-effectiveness

Four studies have looked at the cost-effectiveness of Vancouver's InSite based on estimated HIV, HCV, and overdose deaths prevented by the SIF. One model estimated a cost savings of \$14 million and 920 years of life over a ten-year period.¹⁰ Another study estimated a yearly \$17.6 million cost medical cost offset compared to InSite's yearly \$3 million operating cost.¹¹

The validity of these studies should be called into question, however. The studies are largely based on estimations of prevention of HIV infections, yet there is no solid evidence showing that SCFs decrease HIV infection rates. This is an area that requires and deserves more rigorous study.

Impact on Substance Use

A common concern regarding SCFs is that they may appear to be condoning drug use and lead to an increase in substance use. Two studies in Vancouver found that 25 months after the opening of InSite, there was no significant increase in local people who inject drugs (PWID), no significant decrease in those who started methadone therapy, and no significant increase in relapse rates.^{12,13}

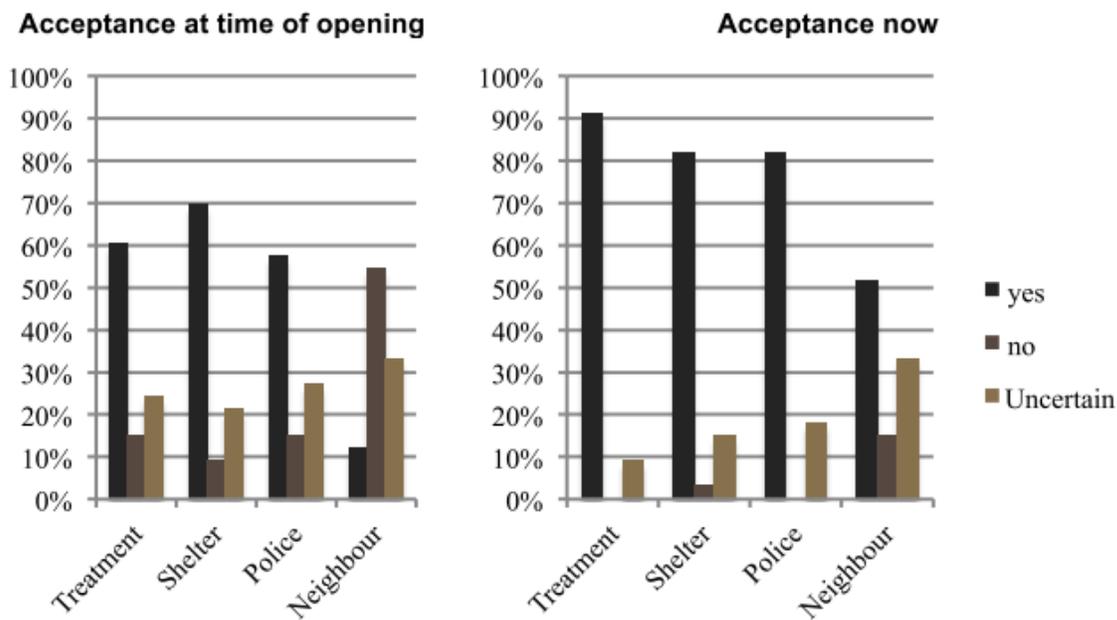
At the same time, there was no significant reduction in the number of PWID.¹⁰ The concern that the establishment of a SCF would increase drug use appears to be unfounded.

Impact on Public Nuisance and Crime

Another common concern about SCFs is that they may increase public nuisance and crime in the surrounding neighborhood. Studies in both Vancouver and Australia found no increase in crime, violence, or drug trafficking in the immediate vicinity of SCFs after opening.¹⁴¹⁵ Similarly, studies in the Netherlands and Switzerland found no observed increase in acquisitive crime after the opening of SCFs.¹ Most European reports have similar results, though a few studies show an increase drug dealing, aggressive incidents, and petty crime around facilities.¹

A study counting dropped syringes in the vicinity of InSite found a decrease in syringes and injection related litter following the opening of the SCF. Several studies have found fewer people injecting in public spaces following the opening of the SCF, based on local observations and self-reports of facility visitors. (Wood, 2004, Salmon, 2007).

Public perception and opinion of SCFs tend to improve in the time following the opening of facilities in Europe. A survey of SCF managers in Europe showed a perceived increase in acceptance among treatment facilities, shelters, police, and neighbors.¹⁶



Graphic 1. Survey results of 33 drug consumption room managers in Europe asking about acceptance of facility by treatment facilities, shelters, police, and neighbors. Source: Wood, 2014

Critiques

Many critiques of SCFs exist outside of mainstream peer reviewed publications. The most credible papers critical of SCFs appear to be published primarily in *The Journal of Global Drug Policy and Practice*. This journal is controversial, and has been criticized as being “driven more by political agenda than by science.”¹⁷ Furthermore, the journal does not return any search results in PubMed.

Nonetheless, an extensive article critiquing many studies on InSite was published in 2007. The author writes “serious problems are noted in the evaluations reporting and interpretation of findings” and goes on to offer critiques of the harm reduction approach in general, as well as 13 articles published about Vancouver’s InSite.¹⁸ The critiques tend to be focused on methodological weaknesses.

An extensive keyword search of PubMed revealed no articles claiming that negative consequences outweigh the positive effects of SCFs.

Service Delivery Models

SCFs vary considerably in size, organization, and staffing models. There does not seem to be one best-practice when designing and implementing an SCF. Characteristics of SCFs and staffing models employed reflect the unique situation of the areas where they are located.

The three basic models of consumption facilities are Integrated; Specialized; and Mobile. A description and some of the key advantages and disadvantages are discussed below.

Integrated

Integrated SCFs are the most common type. The SCF is part of a broader and interlinked network of services housed in the same facility. Examples of services offered include: drop-in center with showers and laundry facilities, counseling and testing for blood borne viral infections, needle and syringe exchange, psychosocial care, employment programs, medical services, wound care, medication-assisted treatment.

- Advantages: “One-stop-shop” offers convenient access to other important health and social services; consistent with current emphasis on offering integrated and coordinated care for persons with complex medical conditions;
- Disadvantages: Integrating a drug consumption space with medication-assisted treatment (MAT) places a burden on individuals picking up their medication. These individuals may be trying to stay away from areas of active drug use; complexity, cost.

Specialized

Specialized SCFs focus on providing a safe place for hygienic consumption of drugs in a non-judgmental environment, while providing referrals to other services. The SCF is usually located in close proximity to other services and near an open-air drug market.

- Advantages: Single focus requires less operational complexity. Referrals to other services are available, just not in house; less expensive to site and operate than more comprehensive models.
- Disadvantages: Access to additional services is not as convenient as an integrated model, creating a potential barrier to accessing services.

Mobile

Mobile SCFs are specially outfitted vans that provide space for 1-3 injection booths inside. They offer a limited range of other services such as syringe and needle exchange and blood borne virus testing and are able to provide referrals to other services not available directly on the van.

- Advantages: Able to reach populations outside the service range of stationary SCFs.

- Disadvantages: Low throughput capacity, limited services offered.

Female-only

Female-only SCFs are focused on addressing needs and care of women who use drugs and also may work as sex-workers. This model offers services to, and is staffed exclusively by, females. An alternative option is to provide female-only hours. In a female-only SCF survey, 80% of respondents reported feeling more comfortable and safe among women only compared to mixed gender SCF.¹⁹ 90% said they could speak more openly about their problems and trusted staff more readily, which made it easier to accept offers of help.¹⁹

Staffing

A survey of European SCFs showed most were staffed by case managers (97%), nurses (87%), and managers (58%). Some utilized students (42%), guards (29%), and people who formerly used drugs (23%). Most offered office hours for a physician (60%) or nurse (84%).¹⁶ Staff numbers ranged between 8 and 71, where high staffing numbers were due to use of part time employees. No data was given regarding staff per shift.

Vancouver's InSite hosts 13 injection booths and is staffed by 9-10 staff per shift; 5 social workers, 2-3 peer staff (most of whom are active users), and 2 RNs.

Conclusion

Safe consumption facilities have existed in Europe for nearly three decades and published studies from Vancouver, BC and Sydney, Australia support their effectiveness and absence of significant harms. There has been one documented fatality at an SCF, despite millions of injections. Very little credible literature critiquing SCFs exists. A variety of service delivery and staffing models have been documented.

World overview of drug consumption rooms

| Country | DCR | Eligibility and services | Client profiles | Results |
|-------------------|--|---|--|--|
| Australia | <p>Location 1 in Sydney</p> <p>Staff 1 in injecting room Training: At least 1 nurse, 3 officers with health training</p> | <p>Eligibility 18 years and over Already drug dependent Not pregnant nor with child Not intoxicated No dealing of drugs on premises</p> <p>Services Stage 1: Waiting room/assessment area Stage 2: Injecting room with 8 booths Stage 3: After care room Resuscitation room Links to health, legal, housing, welfare services</p> | <p>12,050 clients between May 2001 and April 2010 3 new clients a day on average 74% men / 26% women 33 years of age on average 13 years of average time injecting</p> <p>Principal substances used Drop in heroin use (40% in 2005) Increase in other opioid use (60% in 2012) Decline in cocaine use (15% in 2012) 10% methamphetamines 1-2% buprenorphine</p> | <p>Cost-effective Contacts vulnerable groups – 9,500 referrals to health and social welfare services 4,400 overdose interventions (no fatalities) Reduced risk of blood-borne virus transmission Reduced public injecting and injection-related litter No adverse impact on local community (e.g. increase in drug-related crime in area)</p> |
| Canada | <p>Location 1 in Vancouver called 'Insite'</p> <p>Staff 9 staff Training: nurses, programme workers (PHS), peer support workers</p> | <p>Eligibility No admission criteria</p> <p>Services Low-threshold, anonymous service with 12 drug consumption booths Supply of clean injection equipment and safer use counselling Primary healthcare services Voluntary detox (Onsite) Links to longer-term drug dependence treatment programmes Links to housing and community support</p> | <p>1.8 million visitors since 2003 Between 1st Jan 2010- 31st Dec 2010: 312,214 visits by 12,236 clients 855 average daily visits 587 average daily injections 74% men / 26% women 17% identified as Aboriginal</p> <p>Principal substances used 36% heroin 32% cocaine 12% morphine</p> | <p>221 overdose interventions (no fatalities) 3,383 clinical treatment interventions 5,268 referrals to other social and health services 458 admissions to Onsite detox programme (completion rate in 2010: 43%) Reduced risk of blood-borne virus transmission Reduced public injecting and injection-related litter No adverse impact on local community</p> |
| Germany | <p>Location 26 in 17 cities country-wide</p> <p>Staff Number of staff variable according to size of DCR and financial constraints Training: Doctors, nurses, educators, qualified student assistants and freelancers</p> | <p>Eligibility Age eligibility varies according to state regulation Already drug dependent Not under OST (except in Hamburg) Not intoxicated</p> <p>Services DCRs integrated with harm reduction facilities Open between 3.5 and 12 hours a day 3 to 20 drug consumption booths Links to medical and social services</p> | <p>In Frankfurt⁹ from 2003 to 2009: Up to 4,700 visitors per year 26-35 years of age on average 85% men / 15% women</p> <p>Principal substances used 82% heroin 36% crack¹⁰</p> | <p>Since 1994, no drug-related deaths recorded in Germany Increased client awareness of safer use techniques Less drug-related health problems (e.g. fewer abscesses)</p> <p>Data from North Rhine Westphalia (2001-2009): 3,271 drug emergency cases 710 CPRs</p> |
| Luxembourg | <p>Location 1 in the City of Luxembourg called 'Abrigado'</p> <p>Staff 23 multilingual staff Training: Medical staff, psychologists social workers, educators, sociologists</p> | <p>Eligibility 18 years and over Already drug dependent Not under OST Not pregnant or with child Not intoxicated No dealing of drugs on premises Sign a 'terms of use' contract</p> <p>Services Integrated in low-threshold centre with 7 injection booths Pilot project 'Blow room' with 3 inhalation booths Open 6 days a week, 6h a day) Night shelter (42 beds) and nursery Drop-in centre (Kontakt Café) with primary medical care On-site HIV/hepatitis C testing Needle exchange programme Safer use counselling</p> | <p>170,000 supervised drug consumptions (since 2005) 26,929 visits to DCR in 2011 207 average visitors per day (Kontakt Café) 96 average visitors per day (DCR) 25-34 years of age on average 80% men / 20% women</p> <p>Principal substances used 87% heroin 8% cocaine 5% mixtures</p> | <p>1,025 overdoses successfully managed (no fatalities) General decrease in overdose deaths and proportion of people who inject drugs in newly diagnosed HIV infection cases since the opening of the DCR Citizens hotline established to encourage public acceptance of DCR A few complaints from neighbouring communities recorded</p> |

| Country | DCR | Eligibility and services | Client profiles | Results |
|------------------------|---|---|---|---|
| The Netherlands | <p>Location 37 in 25 cities country-wide</p> <p>Staff 3 staff members Training: Medical staff, social workers, former drug users, security staff</p> | <p>Eligibility Registered in city where DCR is located Sign a 'terms of use' contract No dealing of drugs on premises Different admission criteria according to each DCR</p> <p>Services 5 'stand-alone' DCRs, others are integrated within low-threshold services Separate rooms for injectors and smokers 15 booths for smokers, 5 for injectors Medical and safer use counselling</p> | <p>24 clients per day on average 90% clients are non-injectors 45 years of age on average¹¹ 90% men / 10% women¹²</p> <p>Principal Substances used¹³ Heroin Crack/coke base</p> | <p>Decrease in needle sharing Only 4% of new diagnoses of HIV, Hepatitis B and C among people who use drugs HIV incidence rates among people who inject drugs dropped from 8.6% in 1986 to 0% in 2000 94 acute drug-related deaths in 2010 with 20 non-municipal registered people Significant decrease in public disturbance High acceptance of DCRs (80%) by social/health providers, neighbourhoods and police</p> |
| Norway | <p>Location 1 in Oslo</p> <p>Staff Minimum of 5 staff on duty during opening hours, including at least 1 nurse. Training: Nurses, auxiliary nurses and social workers</p> | <p>Eligibility Heroin only substance allowed 18 years and over Sign a 'terms of use' contract Long term history of injecting heroin</p> <p>Services Limited to one dose of heroin per client per visit Integrated with harm reduction services Links with social and health services Links to drug dependence treatment programmes</p> | <p>2,480 registered clients since 2005 1,500 clients per year 109 clients per day on average (2011) 37 years of age on average 70% men / 30% women</p> <p>Principal substances used Heroin is the only substance allowed to be used in the DCR</p> | <p>Reduced perception of social exclusion among the user group Increased access to professional assistance in overdose situations Increased access to health and social services</p> |
| Spain | <p>Location 7 in 4 cities country-wide, including 1 mobile DCR</p> <p>Staff Number of staff variable according to each DCR Training: multidisciplinary, with at least 1 nurse</p> | <p>Eligibility 18 years and over Sign a 'terms of use' contract (in the Barcelona DCRs)</p> <p>Services 3 DCRs allow smoking Links to social and health services Links to drug dependence treatment programmes In Barcelona: HIV testing and counselling, health care and social, psychological and legal support</p> | <p>105,804 visits from 5,063 clients (2009) 34 years of age on average 80% men / 20% women</p> <p>Principal substances used Cocaine most popular (except in Bilbao and Sala Balaurd in Barcelona, 2009) Heroin most popular (Barcelona, 2011) Speedball most popular (Madrid, 2011)</p> | <p>Decrease in overdose deaths from 1,833 in 1991 to 773 in 2008 Decrease in new HIV infections among clients from 19.9% in 2004 to 8.2% in 2008 High acceptance and demand for DCRs Reduced injection-related litter in public spaces Community awareness about DCRs as a public health strategy Development of common guidelines on harm reduction and DCRs</p> |
| Switzerland | <p>Location 13 in 8 cities country-wide</p> <p>Staff No country-wide data In Berne: Training: nurses and social workers.</p> | <p>Eligibility 18 years and over Already drug dependent Have official documentation No dealing of drugs on premises No consumption tolerated outside the DCR itself (e.g. cafeteria, toilets)</p> <p>Services Booths for intravenous use, smoking and sniffing (numbers vary according to the DCR) Cafeteria with food and non-alcoholic beverages Medical treatment Consultations for social problems Hygiene services (showers, provision of clothes) NSP Links to drug dependence treatment programmes and clinics</p> | <p>No country-wide data</p> <p>In Berne: 38 years of age on average 992 registered clients a year 200 clients a day 74.1% men / 25.9% women</p> <p>Principal Substances No country-wide data</p> <p>In Berne: Heroin Cocaine Benzodiazepines Cannabis Substitutes Alcohol</p> | <p>Decrease in drug-related deaths Increased client awareness of safer use techniques Reduces risk of blood-borne virus transmission</p> |

Source: IDPC Briefing, 2012

References

1. Hedrich D, Kerr T, Dubois-arber F. Drug consumption facilities in Europe and beyond. *Harm Reduct Evidence, Impacts Challenges*. 2010;305-331. doi:10.2810/29497.
2. Hedrich D. European report on drug consumption rooms. 2004;(June):1-92.
3. Marshall BD, Milloy MJ, Wood E, Montaner JS, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: A retrospective population-based study. *Lancet*. 2011;377(9775):1429-1437. doi:10.1016/S0140-6736(10)62353-7.
4. Milloy MJS, Kerr T, Tyndall M, Montaner J, Wood E. Estimated drug overdose deaths averted by North America's first medically-supervised safer injection facility. *PLoS One*. 2008;3(10):1-6. doi:10.1371/journal.pone.0003351.
5. Salmon AM, Van Beek I, Amin J, Kaldor J, Maher L. The impact of a supervised injecting facility on ambulance call-outs in Sydney, Australia. *Addiction*. 2010;105(4):676-683. doi:10.1111/j.1360-0443.2009.02837.x.
6. Potier C, Lapr v te V, Dubois-Arber F, Cottencin O, Rolland B. Supervised injection services: What has been demonstrated? A systematic literature review. *Drug Alcohol Depend*. 2014;145:48-68. doi:10.1016/j.drugalcdep.2014.10.012.
7. Milloy M-J, Wood E. Emergin Role of Supervised Injecting Facilities in Human Immunodeficiency Virus Prevention. *Addiction*. 2009;104:620-621. doi:10.1136/sti.2008.032524.
8. Stoltz JA, Wood E, Small W, et al. Changes in injecting practices associated with the use of a medically supervised safer injection facility. *J Public Health (Bangkok)*. 2007;29(1):35-39. doi:10.1093/jpubhealth/fdl090.
9. Marshall BDL, Wood E, Zhang R, Tyndall MW, Montaner JSG, Kerr T. Condom use among injection drug users accessing a supervised injecting facility. *Sex Transm Infect*. 2009;85(2):121-126. doi:10.1136/sti.2008.032524.
10. Bayoumi AM, Zaric GS. The cost-effectiveness of Vancouver's supervised injection facility. *CMAJ*. 2008;179(11):1143-1151. doi:10.1503/cmaj.080808.
11. Pinkerton SD. Is Vancouver Canada's supervised injection facility cost-saving? *Addiction*. 2010;105:1429-1436. doi:10.1111/j.1360-0443.2010.02977.x.
12. Kerr T, Stoltz J, Tyndall M, et al. Impact of a medically supervised safer injection facility on community drug use patterns: a before and after study. *BMJ*. 2006;332(7535):220-222. doi:10.1136/bmj.332.7535.220.
13. Kerr T, Tyndall MW, Zhang R, Lai C, Montaner JSG, Wood E. Circumstances of first injection among illicit drug users accessing a medically supervised safer injection facility. *Am J Public Health*. 2007;97(7):1228-1230. doi:10.2105/AJPH.2006.086256.
14. Evan Wood, Mark W Tyndall, Calvin LAi, Julio Montaner TK. Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime. *Subst Abuse Treat Prev Policy*. 2006;4(1):34. doi:10.1186/1747-597X-1-Received.
15. Donnelly N, Mahoney N. Trends in property and illicit drug crime around the Medically Supervised Injecting Centre in Kings Cross : An update. 2016;(90):3-5.
16. Woods S. Drug Consumption Rooms in Europe: Organisational Overview. 2014.
17. Collier R. Medical journal or marketing device? *Can Med Assoc J*. 2009;181(5):E83-E84. doi:10.1503/cmaj.091326.
18. Mangham C. A Critique of Canada's INSITE Injection Site and its Parent Philosophy: Implications and Recommendations for Policy Planning. *J Glob Drug Policy Pract*. 2007. doi:10.1016/S0022-3913(12)00134-5.
19. Sch ffner D, St over H, Weichert L. Drug consumption rooms in Europe: Models , best practice and challenges. 2014:18.
20. BECKETT K. *RACE AND DRUG LAW ENFORCEMENT IN SEATTLE*. Seattle; 2008.
21. Kingston S, Banta-green C. Results from the 2 Washington State Drug Injector Health Survey Results from the 2015 Washington State Drug Injector Health Survey. 2015:1-10.