



Research Paper

The implementation of overdose prevention sites as a novel and nimble response during an illegal drug overdose public health emergency



Bruce Wallace*, Flora Pagan, Bernadette (Bernie) Pauly

Canadian Institute for Substance Use Research, University of Victoria, Box 1700 STN CSC, Victoria, BC, Canada

ARTICLE INFO

Keywords:

Overdose
Supervised injection sites
Harm reduction
Implementation science
Drug consumption rooms
Overdose prevention sites

ABSTRACT

Background: Drug-related overdoses were declared a public health emergency in British Columbia, Canada in April, 2016 facilitating the scale-up of responses including rapid sanctioning and implementation of overdose prevention sites (OPSS). OPSS are a health service providing supervised injection and immediate overdose response. In BC, OPSS were operational within weeks of sanctioning. In the first year of operation over 20 OPSS were established with approximately 550,000 visits and no overdose deaths at any site. In this paper, we examine the implementation of OPSS as a novel and nimble response to prevent overdose deaths as a result of injection drug use.

Methods: A multiple case study design was used with the Consolidated Framework for Implementation (CFIR) informing the analysis. Three sites in a single city were included with each site constituting a case. In this paper, we focus on qualitative interviews with 15 staff and their perceptions of the implementation of the OPSS as well as provincial and local documents.

Results: The legislative process to implement OPSS was unprecedented as it sanctioned supervised injection services as an extraordinary measure under a declared public health emergency. Innovative and inclusionary practices were possible within state-sanctioned OPSS, as the sites were government-directed yet community-developed, with PWUD centred in service design, implementation and delivery. OPSS lack permanency and may be limited to the duration of the public health emergency.

Conclusion: The rapid implementation of OPSS provides an international example of an alternative to lengthy and often onerous sanctioning processes for supervised consumption services (SCSs). Overdose prevention sites provide an example of a novel service design and nimble implementation process that combines the benefits of state-sanctioned injection services with community-driven implementation. Such evidence questions the continued acceptability of governments' restrictive sanctioning processes, which have limited expansion of SCSs internationally and the implementation of services that are not necessarily aligned with the needs of PWUD.

Introduction

Overdose deaths and non-fatal overdoses largely attributed to the presence of fentanyl have increased significantly in recent years across Canada and the United States (Ciccarone, 2017; Ciccarone, Ondocsin, & Mars, 2017; Fischer, Murphy, Rudzinski, & MacPherson, 2016; Rudd, Aleshire, Zibbell, & Gladden, 2016). The crisis levels of illegal drug overdose in many North American jurisdictions has prompted calls for expanded responses including implementation and expansion of supervised consumption services (SCSs) (Ciccarone, 2017; Fairbairn, Coffin, & Walley, 2017; Kerr, Mitra, Kennedy, & McNeil, 2017). Supervised consumption services refers to supervision of injecting and/or smoking of illegally obtained substances. In some jurisdictions, SCSs are

also referred to as 'drug consumption rooms' and in many North American jurisdictions, SCSs are limited to injection services only and known as safer or supervised injection services.

Researchers conducting systematic reviews have found consistent evidence of SCSs effectiveness in meeting objectives of reducing harms associated with drug use including prevention of blood borne diseases, mitigating overdose risks and harms, improving the health of people who use drugs (PWUD), increasing referrals to other health and social services, reductions in public drug use and publicly discarded syringes (Kennedy, Karamouzian, & Kerr, 2017; Potier, Laprévotte, Dubois-Arber, Cottencin, & Rolland, 2014), with little evidence to confirm fears such as increasing drug use or drug trafficking (Freeman et al., 2005; Kimber, Dolan, & Wodak, 2005; Wood, Tyndall, Lai, Montaner, & Kerr,

* Corresponding author.

E-mail addresses: barclay@uvic.ca (B. Wallace), fpagan@uvic.ca (F. Pagan), bpaul@uvic.ca (B.B. Pauly).<https://doi.org/10.1016/j.drugpo.2019.01.017>

2006).

There are over one hundred SCSs estimated to be operating in at least 11 countries with increasing recognition of SCSs as an integral component of a continuum of harm reduction responses that reduce drug-related harms (Kerr et al., 2017; McCann & Temenos, 2015). Despite evidence of effectiveness, SCSs remain underutilized with implementation of SCSs remaining controversial and heavily regulated (Hyshka, Bubela, & Wild, 2013; Kennedy et al., 2017; Kerr et al., 2017; Wood, Kerr, Tyndall, & Montaner, 2008).

The province of British Columbia (BC) has experienced the highest rate of overdose in Canada, prompting the need for innovative public health and harm reduction responses. In April 2016, BC's provincial health officer declared drug-related overdoses to be a public health emergency (BC Ministry of Health, 2016b). By year end, the BC Coroner confirmed approximately 930 overdose deaths in 2016 (BC Coroners Service, 2017), a rate of 20.7 deaths per 100,000 persons. In 2017, the rate of overdose deaths would increase to 31.3 per 100,000 with an average of about four people dying each day that year and approximately 1400 overdose deaths recorded at the end of 2017 by the coroner. BC's current overdose crisis has been named a 'fentanyl crisis' with fentanyl detected in 72% of illicit drugs, according to post-mortem toxicology tests (BC Coroners Service, 2017). There was an immediate call for scale up of SCSs and subsequent increase in number of applications submitted for federal approval following accepted processes of community consultation and lengthy applications.

Frustrated by the perceived lack of emergency responses and specifically the lack of sanctioned SCSs, community activists (including drug-user groups) established "pop up" unsanctioned injection sites in a few major cities in BC in 2016. Initially pop-up SCSs were organized as actions to raise awareness of the need and feasibility for supervising injections to prevent overdoses and typically were not intended to be an ongoing service (Lupick, 2016). Building on these actions, the Overdose Prevention Society in Vancouver was established to provide an ongoing service under a tent in an alley in Vancouver's Downtown Eastside stating "...we don't have to wait for red tape and bureaucratic anything. We can just do this and save lives" (Brend, 2016). This history is similar to that preceding the establishment of other harm reduction services by peers in the Downtown Eastside including needle exchange, supervised injection and assisted injection (Kerr, Oleson, & Wood, 2004; McNeil, Small, Lampkin, Shannon, & Kerr, 2014; Wood et al., 2003).

In response to the growing number of overdose deaths and emergence of unsanctioned "overdose prevention sites" (OPSS) the province's Minister of Health moved to enact a Ministerial Order as part of the declared public health emergency to rapidly sanction overdose prevention sites as "an extraordinary measure to respond to the overdose crisis" in December 2016 (BC Ministry of Health, 2016a). By issuing the order, all BC regional health authorities were directed to set up and fund overdose prevention services as ancillary health services for the purpose of monitoring persons who are at risk of overdose, and providing rapid intervention as necessary.

Overdose prevention sites provide a space for people to inject their previously-obtained illegal substances with sterile equipment in a setting where staff (often peers) can observe and intervene to prevent overdoses. The sites were not implemented as an alternative to federally-sanctioned SCSs. Rather, the province described the response as a temporary measure that would save lives without breaching the *Controlled Drugs and Substances Act* (federal laws criminalizing substances across the country) while waiting for federal approval of SCSs. Rapid implementation of OPSS sites meant that within a few days to a few months approximately 20 sites were implemented across the province. Thus, OPSS moved from unsanctioned and unsupported 'pop ups' to become a significant part of the overdose response across BC by the beginning of 2017. Within a year, there were approximately 550,000 visits, 2500 non-fatal overdoses, and no overdose deaths recorded at OPSS in British Columbia (BCCDC, 2018). Acknowledging the unprecedented and increasing illegal drug overdose deaths in Canada and

the emergence of OPSSs, the federal government amended legislation to enable a more pragmatic sanctioning process for SCSs, resulting in over 25 new sites being approved in Canada by the end of 2017 (Health Canada, 2017). However, there is very little research related to implementation of SCSs and implementation research regarding OPSSs is nascent (Hunt, Lloyd, Kimber, & Tompkins, 2007; Krüsi, Small, Wood, & Kerr, 2009; McNeil, Dilley, Guirguis-Younger, Hwang, & Small, 2014; O'Shea, 2007; Small, Moore, Shoveller, Wood, & Kerr, 2012; Strike, Watson, Kolla, Penn, & Bayoumi, 2015; Watson et al., 2012; Watson, Strike, Kolla, Penn, & Bayoumi, 2015; Wenger, Arreola, & Kral, 2011).

The overall purpose of this research project was to investigate the implementation and impact of OPSSs during a public health emergency, in a single city significantly impacted by overdose with limited harm reduction services and challenges in implementing harm reduction programs. Victoria, BC is one of the top three townships in the province impacted by overdose deaths and a community that has historically faced challenges in establishing and maintaining harm reduction services (BC Coroners Service, 2017; MacNeil & Pauly, 2010). In this paper, drawing on qualitative interviews from three OPSSs in Victoria, BC, we critically examine the implementation of OPSSs as a novel and nimble response to harms and risks related to illegal drug use, notably to prevent overdose deaths as a result of injection drug use.

We explore the configuration of the sites and key issues related to implementation including the barriers and facilitators in establishing these services. Our analysis explores the rapid implementation of OPSSs as a temporary response to a public health emergency and how sanctioned OPSSs introduced a new option in the context of sanctioned and unsanctioned SCS responses. Considering the lengthy SCSs' implementation processes, we suggest that knowledge generated from the implementation of OPSSs provides useful evidence to inform future development and implementation of SCSs including the importance of community-driven approaches.

Methods

Conceptual framework

This research was guided by the Consolidated Framework for Implementation (CFIR) (Damschroder et al., 2009). The CFIR is a synthesis of other implementation constructs and theories that provides a pragmatic framework for research that seeks to include the context in which innovation and implementation takes place. As one approach to implementation research, the CFIR aids investigation of the complexity of implementation processes by exploring the influences of five factors, or domains – intervention characteristics, outer setting, inner setting, characteristics of the individuals involved, and the process of implementation. While CFIR provides a theory-informed approach to implementation research, the framework facilitates theory-building and inductive analysis with theory providing a framework for inquiry (Damschroder & Lowery, 2013). Implementation research can occur at different points in the timeline of implementation. Our study occurred during the implementation process (rather than pre- or post-implementation). Given the urgent need to establish OPSSs, we employed a case study design guided by CFIR to assess implementation of these programs. We utilized the CFIR framework primarily to inform and construct the interview guides as well as the use of the five domains as an analytical tool.

Study design

The lead researchers (BW & BP) are recognized locally as community-engaged researchers and were already collaborating with the community agencies establishing these sites as well as the drug-user union, the local health authority and provincial public health leaders. Prior collaborations had revealed challenges in the implementation of harm reduction services (Pauly, Wallace, & Barber, 2017; Wallace et al.,

2016; Wallace, Barber, & Pauly, 2018) and we had already been contacted by several individuals soliciting information and advice about how to implement OPSs. Knowing this, we contacted the community agencies initiating the sites to gauge interest in collaborating on research and to confirm relevance of the research questions. With their support, we proceeded with the research as a collaborative inquiry, recognizing that the shared priority for a quick turnaround of findings would not allow for a fully collaborative and participatory approach (Wallace, Pauly, Perkin, & Ranfft, 2015). So, while we consulted on the research questions with our community partners, they did not participate in the process of conducting the research but reviewed the findings prior to presentation and publication.

A multiple case study design was used to examine similarities and differences in relation to implementation and impact of services with each OPS constituting a case (Stake, 2013). Case study designs examine an identified phenomenon within the local context. The phenomenon in this research was the implementation of OPSs during a declared overdose emergency. Stake has identified that at least three cases are needed for strong cross case comparisons and we undertook this research with three sites (2013). A multiple case study design fit well with our use of the CFIR framework as both incorporate an analysis of contextual factors in the research design. Findings related to implementation and impacts were examined for each case as well as across these cases examining the variations and differences between the cases and commonalities descriptive of the overall phenomenon. In this paper, we report on the findings related to implementation. Impacts are reported elsewhere.

Ethical approval for this study was obtained from the University of Victoria Human Research Ethics Office (17-032).

Recruitment

Four potential OPSs were contacted and three agreed to participate while the fourth was unable to respond to the research invite at the time although they later expressed support. In addition, the local drug-user organization was included due to their involvement in setting up and advising on sites as well as providing peer workers for one of the research sites.

While we interviewed 27 participants from four agencies including both staff and service users, in this paper, we focus on interviews with 15 staff, including peer staff, and their shared experiences and perspectives with the implementation and operations of the OPSs. We purposively sought to include: an ‘implementer’, a person identified by the agency as most involved in the implementation of the service; a staff person working within the service as a harm reduction worker; and a person working in the service identified by the agency as ‘experiential’, or a peer worker. Interviews were conducted in a confidential space outside the overdose prevention unit.

Data collection

Data collection was conducted within the initial two to three months of operations of services with qualitative interviews conducted by the two primary investigators (BW & BP) over five weeks from March to April 2017. The CFIR framework informed the development of the interview guide and we specifically developed questions related to the major domains – the intervention, inner and outer setting, the individuals involved, and the implementation process (Damschroder et al., 2009). For example, we asked questions about the site and context such as: “How did the site initially get started here?” and “How did you and others react to the idea of setting up this service here?” Questions about the implementation process included: “Can you tell me about the experience of getting this site implemented?”, “What were the barriers?” and “What were some facilitators?”. Interviews ranged between 30 to 60 min in length.

All interviews were recorded and transcribed verbatim. Staff at each

agency were asked to provide any relevant policy and procedure documents as well as program statistics from implementation date to March 31, 2017. The researchers also visited the sites outside of operating hours and took photos of the sites without individuals present in the images.

Data analysis

Initial transcripts were reviewed by all the authors and individually coded, looking for broad, salient themes which were then discussed as a group to develop initial coding categories. The eventual coding framework was utilized by one member of the research team (FP) to do subsequent coding. Once this was completed, a second, similar process was conducted with all the authors further refining the coding categories. With the assistance of NVivo software FP continued with a process of coding and re-analysis. With all data coded and themes refined for each case we utilized a cross-case comparison (Yin, 2009) with each OPS defined as a unique case. Using this multiple case design, we compared themes related to implementation across the cases to explore the similarities, variations and develop cross-case conclusions about the implementation of OPSs with the CFIR informing the analysis.

Results

Interview data from staff provide an in-depth understanding of their views on the implementation of their OPS. Of the fifteen staff interviewed, the average age of staff was 38.7 years with a range from early twenties to late fifties. Sixty percent identified as female and 40% as male. Two-thirds of staff reported attending or completing college or university and a third reported attending some high school with one completing high school (Fig. 1).

We begin with a brief description of the three OPSs or cases. Four fundamental themes emerged from our analysis of the data across the three cases. These themes related to implementation included:

- Government-directed yet community-driven
- Rapid implementation
- Shifting restrictive policies during early implementation
- Stop gap measures: OPSs and SCSs

Table 1 summarizes the barriers and facilitators for each CFIR construct which are described within these themes.

Description of the cases

The general mandate of all OPSs is to provide access to supervised injection services and overdose responses, harm reduction supplies, and



Fig. 1. The harm reduction service's OPS, with two injection stations showing.

Table 1

Consolidated Framework for Implementation (CFIR) domains: Barriers and facilitators to early implementation of sanctioned overdose prevention services (OPS).

Intervention characteristics	
<i>Barriers</i>	Required rapid implementation within existing sites and limited as a temporary, emergency service.
<i>Facilitators</i>	Community defined with inclusion of people who use drugs in design or later in removing policy barriers once implemented
Outer setting	
<i>Barriers</i>	A stop-gap measure within continued criminalization and stigmatization of substance use and service users.
<i>Facilitators</i>	Ministerial Order enabled rapid implementation and funding as a sanctioned public health emergency measure.
Inner setting	
<i>Barriers</i>	Some OPS implemented in settings that privilege abstinence and where substance use was generally prohibited.
<i>Facilitators</i>	Sites were in services accessed by people who use drugs and agencies were welcoming of OPS as a response to prevalent substance use in washrooms and overdose.
Characteristics of individuals	
<i>Barriers</i>	Some sites had limited familiarity with harm reduction services beyond distribution of supplies.
<i>Facilitators</i>	People who use drugs central to services.
Process of implementation	
<i>Barriers</i>	A lack of health and safety protocols and initially adopting Insite and federal sanctioning policies.
<i>Facilitators</i>	Rapid implementation without formal neighbourhood consultation requirements and redefining of policies (such as assisted injections).

referrals to broader health and social services. All three OPSs were integrated into existing services but with differences in service models, staffing frameworks and physical spaces.

The first site opened its OPS in a large room adjacent to its drop-in harm reduction program and high-volume needle distribution service, thereby extending existing harm reduction services to include supervised injections. The room initially housed three injection stations, later increased to four. The harm reduction program includes staff hired specifically for their lived experience of drug use. The initial funding limited operating hours to 3:00pm to 9:00pm daily (Fig. 2).



Fig. 2. Two of the three injection stations at the drop-in centre's OPS, set up for two people to use next to one another.



Fig. 3. The inner room of the shelter's OPS.

The second OPS at a drop-in centre opened in a half-size shipping container located outdoors in its courtyard. There are three injection stations along a single long table. The drop-in centre contracted a peer-run drug-user agency to develop and deliver the OPS. Staffing included one paramedic hired by the drop-in centre providing emergency care and one peer staff providing overall support services including injection and overdose supports. The site was open 7 days a week between 6:30a.m. and 8:30p.m.

The third site opened its OPS on the main floor of an emergency shelter adjacent to its large drop-in space. The room was originally a medical room with an attached outer waiting room. Staff can monitor service users for overdose through a window while being able to provide them with some privacy. The inner room has three injecting stations, and service users are encouraged to spend time in the “chill-out” area next to the staff desk in the outer room. Staffing includes one harm reduction worker and one peer worker. The room was open 7 days a week from 7:00am to 9:00pm. This OPS also provides a designated safer smoking area, located in the shelter's outdoor courtyard and protected by a pop-up awning, monitored by the staff person through a window in the OPS (Fig. 3).

Government-directed yet community-driven

The federal application processes for a sanctioned SCS were described by participants as “onerous”, limiting agencies from responding quickly to the rapid increases in overdoses. However, the introduction of the provincial Ministerial Order sanctioning supervised injections ensured staff and agency were protected from criminal charges, dramatically shifting and enabling the establishment of harm reduction services (Fig. 4).

We had been wanting to set something like this up for a long time, because the situation with our bathrooms here is that we have people using in our bathrooms all the time...but it was hard to figure out how we could legitimately offer those services, like an [OPS] and be fairly public about it without getting flak ... So, when the Minister of Health made the Ministerial Order around allowing health authorities to implement emergency [OPSs], that sort of opened the door for us to implement. [OPS 1:01]

Participants establishing the OPSs voiced that the provincial Order was essential to the implementation of injection services. The provincial sanctioning provided the legal foundation for supervised injection to be funded as ancillary health services, for community agencies to provide the services without risk of reprisal, and for staff to be paid and able to work within any professional regulatory guidelines. While the Ministerial Order facilitated the implementation of OPSs as a provincial solution in the face of federal legislation criminalizing substance use



Fig. 4. The safer smoking area outside the shelter's OPS, viewed through the window from the service's outer waiting room.

and possession, one participant pointed out that it took the fentanyl crisis and the deaths of 1000 people to provide what has long been understood by drug-users, harm reduction activists, and academics as a necessary and life-saving service, stating “we’re allowed to open that room because of the overdose crisis. Not because it was needed” [OPS 1:06].

While the provincial government mandated the establishment of OPSs, initially they did not provide specific standards, policies, or practices to guide implementation. Consequently, agencies were able to define their services based on community needs. Thus, the outer setting provided a context facilitating implementation through the establishment of the Ministerial order which provided support but not direction for establishment of OPSs. As a result, differences in implementation were often a result of the inner setting and characteristics of the implementors rather than of intervention characteristics. In particular, agency experience with harm reduction was an important organizational characteristic that facilitated implementation. One organization with a pre-existing harm reduction philosophy described its OPS as essentially an extension of existing services for PWUD, with a harm reduction worker stating “there’s all kinds of policies and procedures that are already out there...if there’s a good foundation of offering services to [PWUD], this is really just an extension of that, and it doesn’t have to be complicated, it is actually quite basic” [OPS 1:01].

Another site without previous experience with harm reduction services started by consulting experienced harm reduction providers, explaining “we invited as many people as we could to the table to say, you know, ‘What are things we are going to need to pay attention to?’ That was also huge. We needed that, because we learned a lot from that” [OPS 2:15]. As described by another participant however, offering harm reduction services meant shifting from prohibition to a focus on health and safety:

At first the clients were like terrified. You know, these people kicked them out of bathrooms and barr[ed] them for weeks and months on end because of drug use and that kind of thing. Now, suddenly they’re allowed to sit in this room, use drugs openly in front of the people that actually chastised them for years, you know? So it was pretty tricky, it’s been really tricky trying to get them used to the idea that it’s okay, and it’s safe to be there, and it’s allowed to be there because it’s actually the safest way to go. And that they actually, [the agency] wants them to be there and doing it this way because it’s safer. And so it’s taken quite a while for them to get used to this idea. [OPS 2:08]

Engagement and flexibility were components of the process of successful implementation in all sites. A manager at one agency described the process of consulting those workers who would be staffing the site as to how day-to-day operations would work. According to the peer workers these engagement processes facilitated the development of a relevant OPS, stating “So for the most part, it was really well thought

out and worked around. We all had input. And so it was fairly well put together” [OPS 2:08]. Agency staff attributed the successful implementation of this site to ongoing flexibility in decision making, stating “This is what we need in the moment. Let’s try to work toward it’... Like it’s very much on the fly. And then like, something comes up, and then we’ll work towards that. And then, you know, it’s all kind of like a work in progress” [OPS 2:12].

At another site, operating services were modified based on ongoing input from service users, peer workers, and other staff. A manager described the flexible implementation process, saying: “it’s all new and nobody knew, there was no one telling us how we should be doing things, so there was a lot of just ‘I guess we’ll try this and see how it goes’” [OPS 3:23].

Agency staff also describe “non-stop” input from service users regarding service design:

...we got a lot of feedback from users cause it was new for us and new for them, and they knew it was new for us and just told, gave us feedback pretty non stop... When they came in, users would point out what wasn’t working...users knew it was a new project, that there would be bumps in the road...and those using the room are the experts, know what makes them feel uncomfortable... there was some trial and error. We originally had [more] tables even though only three people were allowed to use, for example, we had two tables with backs to each other, which made people really uncomfortable, so just little things like that. [OPS 3:16]

This real-time feedback resulted in ongoing modifications. While other agencies had engaged users at the front end of service design, the unionized environment of one agency initially limited such opportunities. However, the agency later engaged service users and peer workers in the ongoing development with modifications being made based on their feedback.

Rapid implementation

Participants described the process of OPSs’ implementation as rapid compared to protracted and drawn-out processes for implementing federally-sanctioned SCSs. In spite of Insite (the federally-sanctioned and well-established SCS in Vancouver) operating since 2003 and with extensive evidence as to its effectiveness, no SCSs were established outside of Vancouver. Locally, over fifteen years of feasibility studies, strategic plans and lobbying had been undertaken identifying the need for enhanced harm reduction responses, including the establishment of multiple SCSs (2005, [City of Victoria, 2007](#); [City of Victoria, 2003](#); [Fischer, Kendall, & Allard, 2008](#); [Stajduhar, Poffenroth, & Wong, 2000](#)). In contrast, OPSs sites opened within weeks as opposed to years as a result of the Ministerial Order. The Ministerial Order ([BC Ministry of Health, 2016a](#)) removed legal barriers to supervised injections, a major barrier to implementation previously identified. Participants described the practical implementation issues of establishing a space (space, staffing, health and safety protocols, etc.) as straightforward. One harm reduction worker explained, “I think these services can be set up quite easily, I mean we basically had ours set up in less than a month ... it doesn’t have to be complicated, it is actually quite basic” (OPS 1:01). A peer worker described the fairly simple process in designing and implementing the service stating “There wasn’t any rocket science involved” [OPS 2:08]. A worker at another agency explained how the site doesn’t “need too many bells and whistles” [OPS 3:18] adding, “the biggest hurdle of setting up the room was ventilation” as minimal evidence exists to inform health and safety protocols for staff in enclosed areas when illegal drugs are being cooked. As well, this issue acted as a barrier to implementation of safer smoking areas. While supervised injections was a relatively simple intervention to implement, providing smoking services was thus viewed as more challenging. In addition, the supervision of intra-nasal and oral drug use (snorting or swallowing) was not incorporated in the original implementation of OPSs.

The government directive to establish OPSs as an immediate response to a public health emergency did not require neighbourhood

consultation requirements or formal opportunities for public engagement such as that required for federal SCS applications (Island Health, 2016). Overall, there was a lack of neighbourhood opposition to establishing the sites and all sites had existing neighbourhood engagement processes or agreements. Each site reported informal consultations with their immediate neighbour groups. Notably, OPSs' staff described how prior community concerns about public injection and discarded needles had shifted since the dramatic increase and devastation of overdose deaths. Neighbors, who had previously voiced strong opposition to services, did not speak up. A harm reduction worker at one agency explained, "I don't think anybody wants people to die....and so when they hear that it's saving lives that, that makes a huge difference" [OPS 2:15]. Another stated:

I think because of the nature of the current overdose crisis, there has been a bit of a shift, publically, where I think maybe a couple of years ago, had we attempted to open a service like this without too much warning or prior announcement to the immediate neighborhood around where we operate, the people may have been more in opposition. But there is so many people who have died that I think people who sort of have a NIMBY stance sort of in the immediate neighborhood have maybe backed off a little bit because they understand that it is literally a horrific life, life or death situation. So, yeah I was pleasantly surprised at the lack of NIMBY barriers that we've seen in past years around implementing harm reduction services, and unfortunately it's taken a horrible death count, I think, to get to that point, where people have either silenced their opposition a bit more, or backed off, or maybe they're changing their hearts and minds a bit. [OPS 1:01]

However, one site did initially employ extra security as part of OPS implementation, which was positively received by some vocal neighbours: "I've heard fair amount of positive [feedback], and mainly because we also hired security to be in the area at the same time as we did the OPS" [OPS 2:15].

Shifting restrictive policies during early implementation

Initially, the OPSs policies and procedures were aligned with Insite policies and procedures and inner settings were heavily influenced by Insite which was developed in a different outer context and time period. However, in the early implementation phase, participants, based on feedback from clients questioned restrictive policies and practices that did not meet service user needs. Participants described how they re-interpreted and revised original guidelines to better meet service user needs. Namely, OPSs staff shifted policies and practices to allow PWUD assisted injections, "jugging" (injections in the jugular vein), and the sharing or splitting of pre-obtained drugs to make services more accessible to their clients. One participant describes the initial transition to allow assisted injecting:

...we still do have to have rules...at this point in time, people can't inject one another, which is a barrier. Lots of, even people who are quite often able to inject themselves, have times when they're, because they're too tired, because they are too sleep dep[ri]ved or have been up, or have been using too much so they're unable to inject themselves, and they need someone else to do it. [OPS 3:16]

One site manager responded to similar concerns about the barriers created by prohibiting assisted injection by asking for advice from the health authority, stating:

...so we know that other places, they're okay with the buddy system [referring to assisted injection in OPSs]. We've talked to [the Health Authority] and they said they'd have to talk to their risk management team and get back to us, but said that will be a process, so right now there's no, you have to be self-injecting. Someone, the peer volunteer, the staff, can kind of guide you through it, so, but I would hope that we would move forward, cause that's one of the barriers that we hear from

people is that "I need someone to help me". [OPS 3:27]

The tensions of being a sanctioned injection service while also striving to be community-driven and responsive to service user needs were expressed by staff in the initial weeks of service delivery. One harm reduction worker relayed how permitting the splitting or sharing of drugs was necessary for many drug-users but initially prohibited due to legal definitions of trafficking, stating "that's something that we can't allow in the room and that's a little bit of a, kinda push back on that too, because we want to be welcoming and want to be open, and it's really, it's not trafficking.... it's something we should be able to manage" [OPS 1:06]. Prohibiting drug splitting and sharing was expressed as inconsistent with drug-user culture and the need to share purchased drugs due to limited resources. To restrict such practices would limit people from accessing the site and increase risk of overdose.

Concerns were raised that the current policies related to 'jugging' limited access to the OPSs. One participant stated that if "people aren't allowed to be jugging in there, they're not allowed to help each other inject and like, that's been like, that will deter a lot of our most vulnerable clients" [OPS 3:23]. One worker described the challenge of implementing the original "no helping, no jugging" policy, recalling:

That was such a huge complaint in the first couple of weeks, people are like "I can only jug I don't have any veins here I can use", and I was "sorry you're not allowed to use here", and they're like "cool I'll go use outside and die thanks", like they would, that's exactly what they would say and you're like "oh", like you feel so bad right. [OPS staff 3:18]

Some participants described how they now review the risks and limitations of "jugging" with service users prior to injection, instead of prohibiting it. The focus on policies related to assisting injection, splitting and sharing of drugs and jugging highlight areas of tension related to barriers to services challenging long-held policies at what was once North America's only SCS. In spite of these tensions, challenging these policies was possible as these sites were being developed during an overdose emergency, were identified as not meeting service users' needs and were being developed and informed by community experiences and processes.

Stop gap measures: OPSs and SCSs

Across all sites, participants did not see meaningful distinctions between OPSs and SCSs, voicing that they were exactly the same, or different in name only, with the use of a different name as a "loophole" to get around a federal law at a provincial level:

See I don't think it's different at all....It's just the wording that they used... I guess the loophole that they found to kind of make this okay in this space was calling it an [OPS] or a harm reduction site instead of...a safe injection site. [OPS 1:12]

However, staff at all sites also voiced the limits of OPSs as a temporary, emergency service compared to SCSs. Overdose prevention sites were established in reclaimed spaces such as the medical room in the emergency shelter, a converted office space, and in temporary structures such as the shipping container. This use of reclaimed space highlights the flexibility of spaces that can accommodate supervised injection as well as the possibility of ease of set up. Supervised consumption sites were described by participants as able to provide more fulsome services in a bigger space, due to their larger budgets, permanent and stand-alone nature, as one participant said "You can call it whatever you like ... of course the permanent sites are more flushed out with proper staffing ..." [OPS 2:13].

Staff discussed the presence of medical or nursing staff at SCSs, which they believed was needed and would facilitate an expanded scope of services compared to OPSs, while also improving access to primary care, detox services, and opioid agonist treatments. At the same time, we heard a preferential distinction between community-driven

OPs and more clinical SCSs:

But it feels more community here, and it feels like it's going to be more clinical [at the proposed SCS]....So I think there's something really important about the communal feel....And, where certain people will feel more welcome. [OPS 2:15]

Participants described the limitations of OPs as linked to the emergency context within which OPs were opened. Within an emergency context, there are no fixed timelines, little guidance, and limited funding for service provision. In an ongoing and stable context, agencies would be able to marry the provision of welcoming and community-driven services with opportunities for additional supports, services and referrals. In fact, participants readily identified the needs for better access to primary care and other types of health and social services that would be facilitated by connections with other outreach and nursing staff.

Finally, while participants were extremely supportive of OPs as a rapid emergency response to overdose, we heard ongoing commentary of the limits of supervised injection services within an ongoing context of criminalization:

These are all like such small pieces of such a big puzzle. They're important, because ... overdose prevention rooms are ways that we can break down stigma and just another way that we can reinforce to people that their lives matter and that ... they have the right to ... be able to easily access basic health care, and be treated like human beings. And, that's not insignificant, but it's a really a small part of the larger puzzle, and, so, it really does feel like a crisis response to a crisis situation and not a comprehensive response to a really big problem which, is ultimately drug policy, both federally and globally. [OPS 1:01]

Many participants voiced how OPs in their current form are a stop gap measure that are immediately lifesaving but that wider systemic changes in health care systems and drug policy are needed to stem the tide of overdose deaths. The shift from providing injection supplies to now providing spaces for injecting was incredibly significant, however, decriminalizing and providing safe substances is also vital.

Discussion

The legislative process to implement OPs in British Columbia was unprecedented as it sanctioned injection services to be implemented widely as an extraordinary measure under the provincial Health Minister's declared public health emergency. The declaration of a public health emergency related to overdose deaths allowed the authorization of a Ministerial Order to rapidly establish OPs with more than 20 OPs operational within weeks. This emergency response was enacted by a provincial authority, within the context of protracted federal processes for implementing sanctioned SCSs and the federal criminalization of drugs, which stalled implementation of a SCS in the city for more than a decade. Drug user and harm reduction activism preceded the government response in BC as unsanctioned sites were implemented as acts of civil disobedience to raise awareness of the need as well as defining the emerging services. The sanctioning of OPs provincially was a significant external policy shift in the outer setting that emerged within the context of a public health emergency influencing the rapid implementation of services for people who inject drugs.

The rapid implementation of OPs in the province of British Columbia, Canada during a public health emergency provides an international example of an alternative to lengthy and cumbersome sanctioning processes for SCSs. Internationally, state-sanctioning rather than community processes have defined SCSs implementation processes limiting their responsiveness, adaptation and innovation (Hyshka et al., 2013; Kerr et al., 2017). Such evidence questions the continued acceptability of governments' restrictive and onerous sanctioning processes, which have limited expansion of SCSs internationally and are

not necessarily aligned with the needs of PWUD. Government demands for public consultations, collaborations with law enforcement and resource-intensive application processes are highly questionable in the context of lethal drug poisonings and evidence-based alternatives such as OPs.

Unsanctioned SCSs are frequently recognized as providing evidence of the need for the establishment of SCSs that more fully enact low-threshold service design and are inclusive and responsive to PWUD (Davidson, Lopez, & Kral, 2018; Kennedy et al., 2017; Kerr et al., 2017; McNeil, Dilley et al., 2014; McNeil, Kerr, Lampkin, & Small, 2015). Just as SCS originated from the organizing of PWUD and harm reduction activists (Hyshka et al., 2013; Kerr et al., 2017; McCann & Temenos, 2015) so did OPs in Canada. Overdose prevention sites, originating as unsanctioned "pop-up" sites established by activists and drug-user groups, drove subsequent government responses and initiated a context of innovation similar to those processes Lancaster, Treloar, and Ritter, (2017) identified as re-problematisation and resistance. When state-approved harm reduction lacks key harm reduction principles (Hyshka et al., 2017), fails to challenge moralizing, stigmatizing and criminalizing structural forces (Pauly et al., 2017; Treloar, Mao, & Wilson, 2016), or avoids the inclusion of any interventions that may risk political repercussion (Wild et al., 2017) resistance will include unsanctioned alternatives. It is clear that these actions played a key role in shifting the outer setting towards implementation but such actions combined with a public health crises are only partially captured in CFIR framework.

We found innovative and inclusionary practices were possible within state-sanctioned OPs, as the sites were developed and defined in community, centering PWUD in service design, implementation and delivery. Consistent with the research on unsanctioned injection sites (Davidson et al., 2018; McNeil, Dilley et al., 2014), we found that rules discounting drug-user culture limit access and effectiveness. Most significantly, permitting assisted injections and allowing the splitting and sharing of drugs was determined to be in the best interests of service users and the mandate of OPs as a response to illegal drug overdose deaths. Research from Insite in Vancouver, BC Canada has documented how regulations that prohibit sharing drugs and assisted injections contribute to barriers to using the services (Small, Ainsworth, Wood, & Kerr, 2011) notably impacting youth and women (Cheng et al., 2016). Within blocks of the state-sanctioned SCS Insite, Vancouver's drug-user group VANDU successfully implemented an unsanctioned SCS in which trained peer volunteers provided assisted injections for service users until shut down by authorities, demonstrating the limits of sanctioned SCSs' policy for more systemically vulnerable communities of drug-users (McNeil, Dilley et al., 2014). Multiple intervention characteristics including the ability to internally develop the intervention, existing evidence base for the intervention, the ability to tailor the intervention to the needs of users as well as the relative low cost were all features of the intervention facilitating rapid implementation.

Our research locates OPs as a service design located between the sanctioned and unsanctioned divide. Overdose prevention sites in our study and throughout the province are sanctioned sites under the Public Health Emergency Act while still community-defined and reportedly more reflective of immediate service user and agency needs and contexts. There are many similarities between our findings of OPs to Davidson et al. (2018) recent research of an unsanctioned injection site in the US. They describe the unsanctioned site as "a rapid and user-driven response to urgent public health needs" with the "ability to shape rules and procedures around user need rather than to meet political concerns" (p. 37). However, OPs as sanctioned sites are not subject to the same risks, challenges and limits faced by unsanctioned sites. Most evident is that the removal of potential legal consequences for staff and service users and the receipt of health funding, limitations identified by Davidson et al. (2018) in the unsanctioned site in the US.

McNeil, Small et al. (2014) research at an unsanctioned site in Vancouver illustrates how particular harm reduction policies – those

imposed through current SCSs sanctioning processes – act as a tool of neoliberal governmentality. In describing the benefits of providing assisted injection services, and the specific benefits for particularly vulnerable communities such as women and people with disabilities using drugs, McNeil et al. highlight how state enforced practices not only limit public health goals but further regulate and control drug-users' bodies, responsabilizing individual drug-users while ignoring the contexts in which they live and thus reinforcing governmentality. Kerr et al. (2017) also decry the lack of innovation within SCSs and cite the need to integrate assisted injecting (as well as safer smoking interventions) to address barriers knowingly associated with gender, disability, and other structural vulnerabilities, along with an overall de-medicalizing of SCSs to be more inclusive of peer-based models. Such commentaries support the vital need to scale-up OPSs as sites of innovation and inclusion to fulfil mandates of harm reduction and health equity on a permanent and ongoing basis. Thus, OPSs as an intervention that are peer driven provide an opportunity for implementation of services that are more responsive to users as compared to clinically driven SCS.

While a strength of this study was the initiation of the study by community-engaged researchers at the time when OPSs were first implemented, the data is also limited to this time and place. As implementation research, our study occurred during the early implementation process of the OPSs. The programs continued to develop and change following this study and these modifications are not fully captured in this paper. Secondly, the research was limited to a single city and does not reflect the known diversity of OPSs implementation processes and service designs that emerged throughout the approximately twenty sites established in BC in early 2017. As a qualitative study, the strength is that it provides a view of the perspectives of participants involved in implementation that is unique to these sites and more research is needed to confirm and/or expand understanding of implementation in other sites. Finally, the research was limited in its collection of financial and statistical data as a result of the research occurring so early in program implementation and data being too preliminary or not yet available. Nonetheless, the study presents a unique capturing of the rapid implementation of an international and pioneering harm reduction response within a context of a public health overdose emergency.

Conclusion

The rapid implementation of OPSs in the province of British Columbia, Canada during a public health emergency provides an international example of an alternative to drawn-out, cumbersome sanctioning processes for SCSs. Unsanctioned SCSs provide alternative evidence to inform the implementation of SCSs that are more inclusive and responsive to PWUD. Our research adds to this evidence. In particular, we found evidence that shifts in the outer context facilitated rapid implementation of a more user focused and driven intervention. We found innovation and inclusionary practices that typically define unsanctioned sites were possible within state-sanctioned OPSs. Community-driven processes of implementation involve centering PWUD in service design, implementation and delivery. Overdose prevention sites provide an example of a novel service design and nimble implementation process that combines the benefits of state-sanctioned service and community-driven implementation. As described by those individuals implementing the services, OPSs effectively provide supervised injection services and overdose responses while addressing many of the documented limitations of existing sanctioned SCSs implementation processes and resultant service designs. However, OPSs lack permanency and ongoing funding due to enactment under a Ministerial Order that is limited to the duration of the public health emergency. Specific attention needs to be paid to the development maintenance of OPSs as primary points of contact and entry into the health system and as part of an ongoing system of substance use services.

Acknowledgement

We acknowledge Bernie Pauly's support as the Island Health Scholar in Residence in this project. The funding body had no role in the study design or preparation of the manuscript. The authors report no conflicts of interest to declare.

References

- BC Coroners Service (2017). *Illicit Drug Overdose Deaths in BC, January 1, 2007 to December 31, 2017*. Retrieved from Burnaby <http://www2.gov.bc.ca/assets/gov/public-safety-and-emergency-services/death-investigation/statistical/illicit-drug.pdf>.
- BC Ministry of Health (2016a). *Ministerial order supports urgent overdose response action* [Press release]. Retrieved from <https://news.gov.bc.ca/releases/2016HLTH0094-002737>.
- BC Ministry of Health (2016b). *Provincial health officer declares public health emergency* [Press release]. Retrieved from <https://news.gov.bc.ca/10694>.
- BCCDC (2018). *Provincial overdose data* Retrieved from www.bccdc.ca/health-professionals/clinical-resources/harm-reduction/overdose-data-reports.
- Brend, Y. (2016). *Activists bring more pop-up injections sites to Vancouver's overdose 'battle zone'*. November 21, 2016, Retrieved from CBC News <http://www.cbc.ca/news/canada/british-columbia/drug-overdose-vancouver-bc-pop-up-battle-zone-insite-injection-blue-hue-1.3860193>.
- Cheng, T., Kerr, T., Small, W., Dong, H., Montaner, J., Wood, E., ... DeBeck, K. (2016). *High Prevalence of Assisted Injection Among Street-Involved Youth in a Canadian Setting. AIDS and Behavior, 20(2)*, 377–384.
- Ciccarone, D. (2017). Fentanyl in the US heroin supply: A rapidly changing risk environment. *International Journal of Drug Policy*, 46, 107–111. <https://doi.org/10.1016/j.drugpo.2017.06.010>.
- Ciccarone, D., Ondocsin, J., & Mars, S. G. (2017). Heroin uncertainties: Exploring users' perceptions of fentanyl-adulterated and -substituted 'heroin'. *International Journal of Drug Policy*, 46, 146–155. <https://doi.org/10.1016/j.drugpo.2017.06.004>.
- City of Victoria (2003). *Downtown action plan announced* [press release].
- City of Victoria (2005). *Fitting the pieces together: Towards an integrated harm reduction response to illicit drug use in Victoria, B.C.* Retrieved from Victoria, BC.
- City of Victoria (2007). *Mayor's task force on breaking the cycle of mental illness, addictions and homelessness: A Victoria model*. Retrieved from Victoria, BC <http://www.victoria.ca/EN/main/city/mayor-council-committees/task-forces/homelessness.html>.
- Damschroder, L. J., & Lowery, J. C. (2013). Evaluation of a large-scale weight management program using the consolidated framework for implementation research (CFIR). *Implementation Science*, 8(1), 51.
- Damschroder, L. J., Aron, D. C., Keith, R. E., Kirsh, S. R., Alexander, J. A., & Lowery, J. C. (2009). Fostering implementation of health services research findings into practice: A consolidated framework for advancing implementation science. *Implementation Science*, 4(1), 50.
- Davidson, P. J., Lopez, A. M., & Kral, A. H. (2018). Using drugs in un/safe spaces: Impact of perceived illegality on an underground supervised injecting facility in the United States. *International Journal of Drug Policy*, 53, 37–44.
- Fairbairn, N., Coffin, P. O., & Walley, A. Y. (2017). Naloxone for heroin, prescription opioid, and illicitly made fentanyl overdoses: Challenges and innovations responding to a dynamic epidemic. *International Journal of Drug Policy*, 46, 172–179.
- Fischer, B., Kendall, P., & Allard, C. (2008). The case for a supervised drug consumption site trial in Victoria, British Columbia. *British Columbia Medical Journal*, 50(3), 130–131.
- Fischer, B., Murphy, Y., Rudzinski, K., & MacPherson, D. (2016). Illicit drug use and harms, and related interventions and policy in Canada: A narrative review of select key indicators and developments since 2000. *International Journal of Drug Policy*, 27, 23–35.
- Freeman, K., Jones, C. G. A., Weatherburn, D. J., Rutter, S., Spooner, C. J., & Donnelly, N. (2005). The impact of the Sydney medically supervised injecting centre (MSIC) on crime. *Drug and Alcohol Review*, 24(2), 173–184. <https://doi.org/10.1080/09595230500167460>.
- Health Canada (2017). *Government of Canada actions on opioids: 2016 and 2017*. Retrieved from <https://www.canada.ca/en/health-canada/services/publications/healthy-living/actions-opioids-2016-2017.html>.
- Hunt, N., Lloyd, C., Kimber, J., & Tompkins, C. (2007). Public injecting and willingness to use a drug consumption room among needle exchange programme attendees in the UK. *International Journal of Drug Policy*, 18(1), 62–65.
- Hyshka, E., Anderson-Baron, J., Karekezi, K., Belle-Isle, L., Elliott, R., Pauly, B., ... Wild, T. C. (2017). Harm reduction in name, but not substance: A comparative analysis of current Canadian provincial and territorial policy frameworks. *Harm Reduction Journal*, 14(1), 50. <https://doi.org/10.1186/s12954-017-0177-7>.
- Hyshka, E., Bubela, T., & Wild, T. C. (2013). Prospects for scaling up supervised injection facilities in Canada: The role of evidence in legal and political decision-making. *Addiction*, 108, 468–476. <https://doi.org/10.1111/add.12064>.
- Island Health (2016). *Supervised consumption services – Service benefits and service development history in Victoria*. Retrieved from <http://www.viha.ca/NR/rdonlyres/DE78AD27-CE64-494B-8C39-7CD7E902EE3B/0/scsbenefitsandoverdosesstats.pdf>.
- Kennedy, M. C., Karamouzian, M., & Kerr, T. (2017). Public health and public order outcomes associated with supervised drug consumption facilities: A systematic review. *Current HIV/AIDS Reports*, 14(5), 161–183. <https://doi-org.ezproxy.library.uvic.ca/10.1007/s11904-017-0363-y>.
- Kerr, T., Mitra, S., Kennedy, M. C., & McNeil, R. (2017). Supervised injection facilities in

- Canada: Past, present, and future. *Harm Reduction Journal*, 14(28), <https://doi.org/10.1186/s12954-017-0154-1>.
- Kerr, T., Oleson, M., & Wood, E. (2004). Harm-reduction activism: A case study of an unsanctioned user-run safe injection site. *Canadian HIV/AIDS Policy and Law Review*, 9(2), 13–19.
- Kimber, J., Dolan, K., & Wodak, A. (2005). Survey of drug consumption rooms: Service delivery and perceived public health and amenity impact. *Drug and Alcohol Review*, 24(1), 21–24.
- Krüsi, A., Small, W., Wood, E., & Kerr, T. (2009). An integrated supervised injection program within a care facility for HIV-positive individuals: A qualitative evaluation. *AIDS Care*, 21(5), 638–644. <https://doi.org/10.1080/09540120802385645>.
- Lancaster, K., Treloar, C., & Ritter, A. (2017). 'Naloxone works': The politics of knowledge in 'evidence-based' drug policy. *Health: An Interdisciplinary Journal for the Study of Health Illness and Medicine*, 21(3), 278–294.
- Lupick, T. (2016). *Unsanctioned supervised-injection site set up in Surrey draws attention to drug-overdose deaths*. July 27, 2016, Retrieved from The Georgia Straight <http://www.straight.com/news/745196/unsanctioned-supervised-injection-site-set-surrey-draws-attention-drug-overdose-deaths>.
- MacNeil, J., & Pauly, B. (2010). Impact: A case study examining the closure of a large urban fixed site needle exchange in Canada. *Harm Reduction Journal*, 7(1), 11. <https://doi.org/10.1186/1477-7517-7-11>.
- McCann, E., & Temenos, C. (2015). Mobilizing drug consumption rooms: Inter-place networks and harm reduction drug policy. *Health & Place*, 31, 216–223.
- McNeil, R., Kerr, T., Lampkin, H., & Small, W. (2015). "We need somewhere to smoke crack": An ethnographic study of an unsanctioned safer smoking room in Vancouver, Canada. *International Journal of Drug Policy*, 26(7), 645–652.
- McNeil, R., Dilley, L. B., Guirguis-Younger, M., Hwang, S. W., & Small, W. (2014). Impact of supervised drug consumption services on access to and engagement with care at a palliative and supportive care facility for people living with HIV/AIDS: A qualitative study. *Journal of the International AIDS Society*, 17, 188855. <https://doi.org/10.7448/IAS.17.1.188855>.
- McNeil, R., Small, W., Lampkin, H., Shannon, K., & Kerr, T. (2014). "People knew they could come here to get help": An ethnographic study of assisted injection practices at a peer-run 'unsanctioned' supervised drug consumption room in a Canadian setting. *AIDS and Behavior*, 18(3), 473–485.
- O'Shea, M. (2007). Introducing safer injecting facilities (SIFs) in the Republic of Ireland: 'chipping away' at policy change. *Drugs Education Prevention & Policy*, 14(1), 75–88. <https://doi.org/10.1080/09687630600911684>.
- Pauly, B., Wallace, B., & Barber, K. (2017). Turning a blind eye: Implementation of harm reduction in a transitional programme setting. *Drugs Education Prevention & Policy*, 25(1), 21–30. <https://doi.org/10.1080/09687637.2017.1337081>.
- Potier, C., Laprévote, V., Dubois-Arber, F., Cottencin, O., & Rolland, B. (2014). Supervised injection services: What has been demonstrated? A systematic literature review. *Drug and Alcohol Dependence*, 145, 48–68.
- Rudd, R. A., Aleshire, N., Zibbell, J. E., & Gladden, R. M. (2016). Increases in drug and opioid overdose deaths—United States, 2000–2014. *American Journal of Transplantation*, 16(4), 1378–1382. <https://doi.org/10.1111/ajt.13776>.
- Small, W., Ainsworth, L., Wood, E., & Kerr, T. (2011). IDU Perspectives on the design and operation of North America's first medically supervised injection facility. *Substance Use & Misuse*, 46(5), 561–568. <https://doi.org/10.3109/10826084.2010.517714>.
- Small, W., Moore, D., Shoveller, J., Wood, E., & Kerr, T. (2012). Perceptions of risk and safety within injection settings: Injection drug users' reasons for attending a supervised injecting facility in Vancouver, Canada. *Health Risk & Society*, 14(4), 307–324. <https://doi.org/10.1080/13698575.2012.680950>.
- Stajduhar, K. I., Poffenroth, L., & Wong, E. (2000). *Missed opportunities: Putting a face on injection drug use and HIV/AIDS in the Capital Health Region*. Retrieved from <http://www.cheos.ubc.ca/monographs/Monograph10.pdf>.
- Stake, R. E. (2013). *Multiple case study analysis*. Guilford Press.
- Strike, C., Watson, T. M., Kolla, G., Penn, R., & Bayoumi, A. M. (2015). Ambivalence about supervised injection facilities among community stakeholders. *Harm Reduction Journal*, 12(26), <https://doi.org/10.1186/s12954-015-0060-3>.
- Treloar, C., Mao, L., & Wilson, H. (2016). Beyond equipment distribution in Needle and Syringe Programmes: An exploratory analysis of blood-borne virus risk and other measures of client need. *Harm Reduction Journal*, 13(1), 18.
- Wallace, B., Barber, K., & Pauly, B. B. (2018). Sheltering risks: Implementation of harm reduction in homeless shelters during an overdose emergency. *International Journal of Drug Policy*, 53, 83–89. <https://doi.org/10.1016/j.drugpo.2017.12.011>.
- Wallace, B., Pauly, B., Barber, K., Vallance, K., Patterson, J., & Stockwell, T. (2016). *Every Washroom: De facto consumption sites in the epicenter of an overdose public health emergency*. Retrieved from Victoria, BC www.uvic.ca/research/centres/carbc/assets/docs/bulletin-15-every-washroom-overdose-emergency.pdf.
- Wallace, B., Pauly, B., Perkin, K., & Ranfft, M. (2015). Shifting the evaluative gaze: Community-based program evaluation in the homeless sector. *Gateways: International Journal of Community Research and Engagement*, 8(1), 43–58. <https://doi.org/10.5130/ijcre.v8i1.3936>.
- Watson, T. M., Bayoumi, A., Kolla, G., Penn, R., Fischer, B., Luce, J., ... Strike, C. (2012). Police perceptions of supervised consumption sites (SCSs): A qualitative study. *Substance Use & Misuse*, 47(4), 364–374. <https://doi.org/10.3109/10826084.2011.645104>.
- Watson, T. M., Strike, C., Kolla, G., Penn, R., & Bayoumi, A. M. (2015). "Drugs don't have age limits": The challenge of setting age restrictions for supervised injection facilities. *Drugs Education Prevention & Policy*, 22(4), 370–379. <https://doi.org/10.3109/09687637.2015.1034239>.
- Wenger, L. D., Arreola, S. G., & Kral, A. H. (2011). The prospect of implementing a safer Injection Facility in San Francisco: Perspectives of community stakeholders. *The International Journal of Drug Policy*, 22(3), 239–241. <https://doi.org/10.1016/j.drugpo.2011.01.001>.
- Wild, T. C., Pauly, B., Belle-Isle, L., Cavalieri, W., Elliott, R., Strike, C., & Hyshka, E. (2017). Canadian harm reduction policies: A comparative content analysis of provincial and territorial documents, 2000–2015. *International Journal of Drug Policy*, 45, 9–17. <https://doi.org/10.1016/j.drugpo.2017.03.014>.
- Wood, E., Kerr, T., Spittal, P. M., Small, W., Tyndall, M. W., O'shaughnessy, M. V., ... Schechter, M. T. (2003). An external evaluation of a peer-run "unsanctioned" syringe exchange program. *Journal of Urban Health*, 80(3), 455–464.
- Wood, E., Kerr, T., Tyndall, M. W., & Montaner, J. S. G. (2008). The Canadian government's treatment of scientific process and evidence: Inside the evaluation of North America's first supervised injecting facility. *International Journal of Drug Policy*, 19(3), 220–225. <https://doi.org/10.1016/j.drugpo.2007.11.001>.
- Wood, E., Tyndall, M. W., Lai, C., Montaner, J. S. G., & Kerr, T. (2006). Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime. *Substance Abuse Treatment Prevention and Policy*, 1(1), 13. <https://doi.org/10.1186/1747-597X-1-13>.
- Yin, R. K. (2009). *Case study research: Design and methods* (4th ed.). London: Sage.