Crime in Calgary Before and After the Opening of the Safeworks Supervised Consumptions Site

Prepared by

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Summary

- The Safeworks SCS opened in Calgary's Beltline community on October 30, 2017.
- Prior to the opening of the Safeworks SCS, Beltline had experienced steady increases in the police-reported crime rate from 2012 to 2017. In fact, the crime rate was increasing in Calgary and Alberta during that time.
- The crime rate in Beltline continued to increase in the 2 years after the SCS opened, as it did for many other communities in Calgary without a SCS.
- The crime rate in Beltline decreased 34% from 2019 to 2020, as it did in communities throughout Calgary.
- Police-reported disorder in Beltline peaked in 2015.
- The opening and presence of the Safeworks SCS cannot explain the steady growth in the crime rate in Beltline from 2012 to 2017, the increase in police-reported disorder from 2012 to 2015, or the increases in crime rates in other communities without SCSs throughout Calgary from 2018 to 2019.
- Credible evaluations of SCSs must take into account broader and longer-term trends in crime.

Background

Calgary's Safeworks Supervised Consumption Site (SCS) is located in a community called Beltline, which is indicated in red below.[1] In terms of resident count, Beltline is one of Calgary's largest communities with around 25,000 residents in 2020.

Much discussion about the Safeworks SCS in Calgary has revolved around crime, with two controversial reports suggesting that the opening of the Safeworks SCS in the Sheldon M. Chumir Health Centre (on October 30, 2017) contributed to an increase in crime and disorder in that neighbourhood.[2,3]

The claims made, and conclusions reached, in these reports are questionable, given the magnitude of methodological limitations with respect to the mishandling of police service call data.[4] These limitations include: (a) not excluding non-criminal service calls, (b) absence of statistical analysis, (c) not standardizing data by total population, (d) failure to examine disaggregated data (e.g., by crime type, or by month), (e) short period of analysis (1-year pre-post), (f) comparing the SCS neighbourhood to larger geographic areas (e.g., entire city), and (g) not controlling confounding variables.

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[1] The Safeworks SCS is located near the middle of the Beltline catchment area. From the Safeworks SCS, the Beltline boundary is approximately 300 metres north, 350 metres south, 2 kms east, and 1.6 kms west

[2] https://www.660citynews.com/wp-content/blogs.dir/sites/8/2019/05/29/411838969-Crime-Disorder-Near-the-Sheldon-M-Chumir-Health-Centres-Supervised-Consumption-Services-SCS-Facility-Q1.pdf

[3] https://open.alberta.ca/publications/9781460147054

[4] https://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-020-00456-2

Both reports failed to make use of open datasets that contain police service call data for Calgary from 2012 to 2021. These datasets shed light on the broader context and longer-term trends in crime in Calgary.

Method

Data pertaining to crime in Calgary from 2012 to 2020 was retrieved from two open data portals.[5,6] The data is updated monthly by the Calgary Police Service. The police-reported data is broken down by type of crime, community, and month and year. The datasets also have resident counts for each community that are drawn from the latest census. The datasets include violent and non-violent crimes.[7] Although one of the datasets included non-criminal disorder-related calls, it was removed from the calculation of crime rates.

To standardize the data into crime rates per 1,000 population, the number of police-reported crimes and resident counts were analyzed for 103 communities in Calgary with greater than 5,000 residents.[8]

Some key limitations of the current analysis include: (a) its accuracy depends entirely on the data contained within the open datasets, (b) Beltline's irregular shape poses problems for proximity analysis, (c) unable to identify and control for confounding variables between communities, and (d) isolating the effects of the Safeworks SCS on the 2018-20 crime rates was not possible with the available information.

[5] https://data.calgary.ca/Health-and-Safety/Community-Crime-Statistics/78gh-n26t

[6] https://data.calgary.ca/Health-and-Safety/Community-Crime-and-Disorder-Statistics-to-be-arch/848s-4m4z

[7] Includes Break & enter (commercial, dwelling, other), theft of vehicle, theft from vehicle, assault, violence other, and robbery (commercial, street)

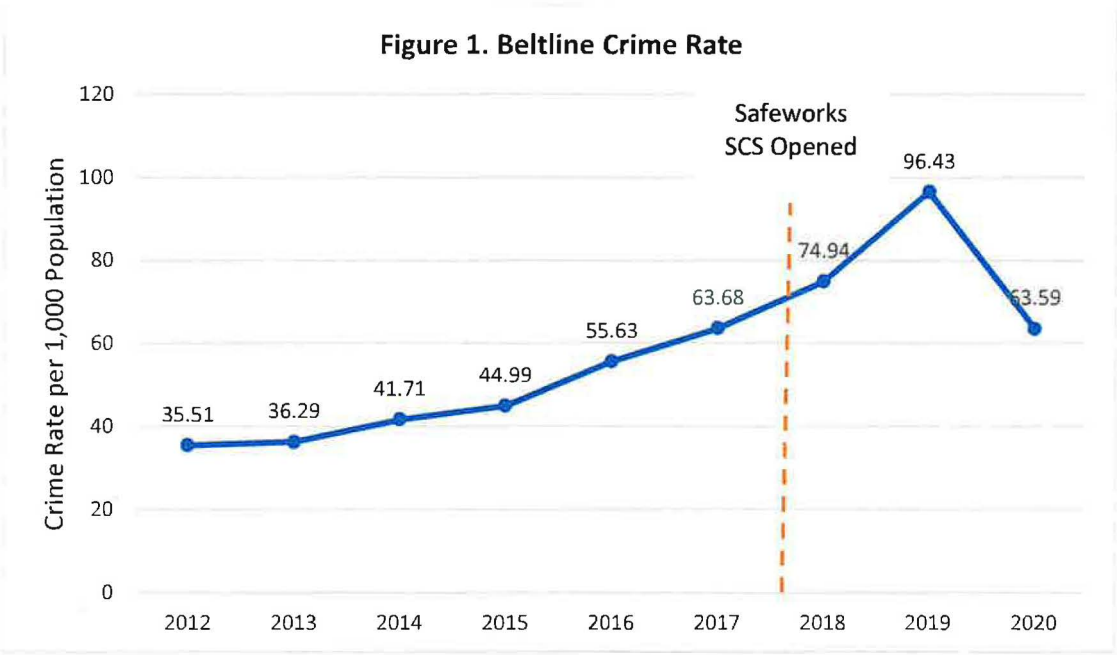
[8] Resident counts were missing for 2017, 2018, and 2019, so the average resident counts for 2016 and 2020 were used for these three years.

Results

Crime in Beltline Before the Safeworks SCS

Figure 1 shows that the crime rate in Beltline was steadily increasing well before the opening of the Safeworks SCS on October 30, 2017. From 2012 to 2017, the crime rate in Beltline increased by 79%. Crime-related police calls in Beltline grew from an average of 58 calls per month in 2012 to an average of 126 calls per month in 2017.

Figure 1. Beltline Crime Rate



The year immediately before the SCS opened (2016 to 2017), Beltline had a 14% increase in the crime rate. The second largest 1-year increase in Beltline for the data available (2012 to 2020) occurred prior to the opening of the Safeworks SCS when the crime rate grew by 24% from 2015 to 2016.

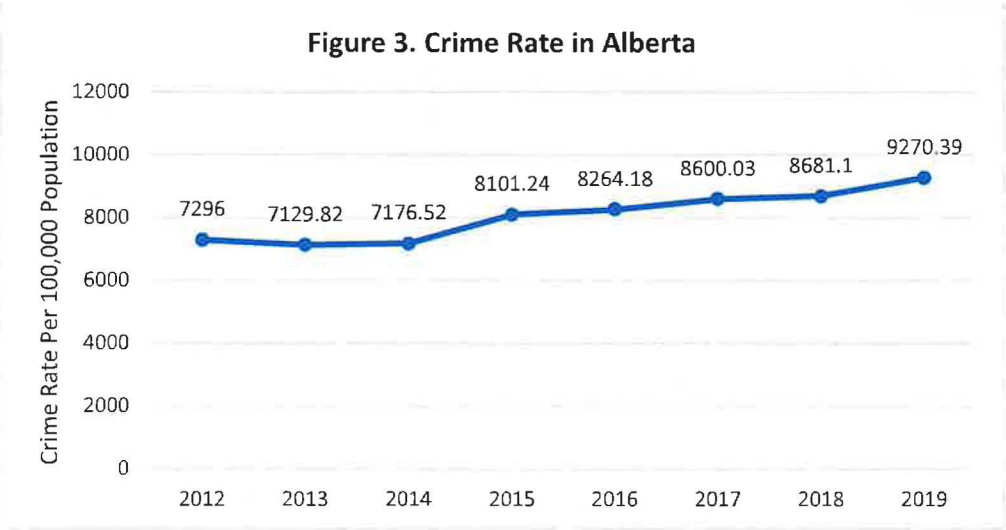
This police-reported crime data indicates that the Safeworks SCS in Calgary was opened during a time of a steadily increasing crime rate in Beltline. The Safeworks SCS was inserted into a community that had experienced year-over-year increases in crime for the previous 5-years.

Beltline was not alone in its crime rate increase, since 78 communities in Calgary with 5,000+ residents experienced increasing crime rates from 2016 to 2017. Figure 2 shows that, from 2014 to 2019, the crime rate in Calgary increased by 65%.[9]

Figure 2. Crime Rate in Calgary

Figure 3 shows Alberta's increasing crime rate – growing 30% from 2013 to 2019.[10]

Figure 3. Crime Rate in Alberta



[9] Calgary's crime rate (excludes traffic) retrieved from Statistics Canada: Table: 35-10-0183-01
[10] Alberta's crime rate (excludes traffic) retrieved from Statistics Canada: Table: 35-10-0183-01

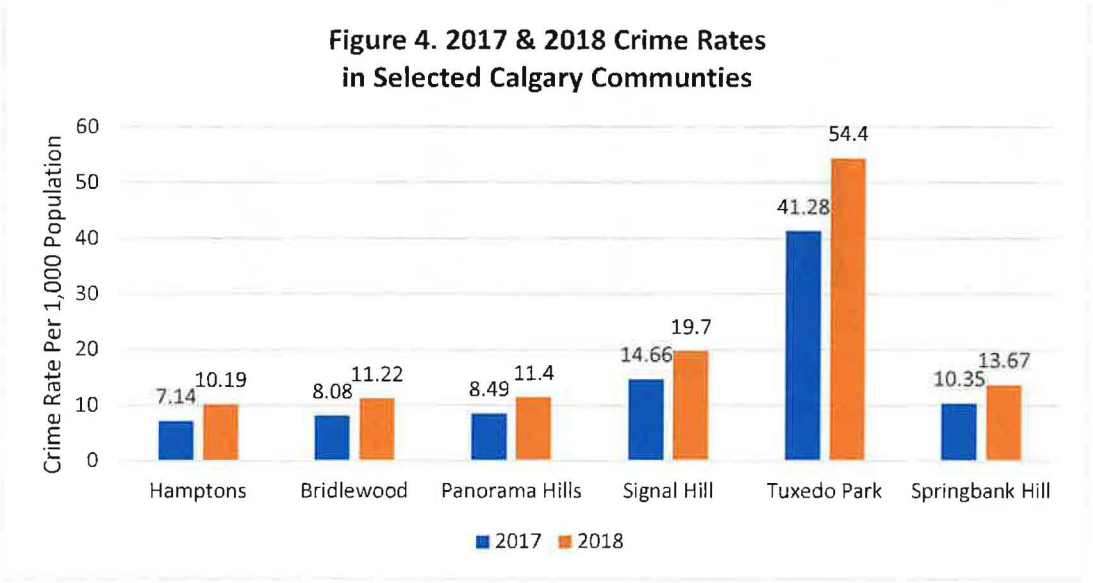
Crime in Beltline and Around Calgary After the Safeworks SCS

Continuing the previous 5-year trend, the crime rate in Beltline increased 18% in the year after the Safeworks SCS opened, growing from 63.68 in 2017 to 74.94 in 2018.

Several communities in Calgary without a SCS also experienced increases in crime after 2017. The year after the Safeworks SCS opened, the crime rate increased in 53 communities in Calgary with 5,000+ residents. In Calgary, 15 of these communities experienced 1-year crime rate increases (from 2017 to 2018) that were equal to or greater than the 18% increase experienced in Beltline.

Figure 4 shows the communities without SCSs experiencing the largest percentage increases, including Hamptons (+43%), Bridlewood (+39%), Panorama Hills (+34%), Signal Hill (+34%), Tuxedo Park (+32%), and Springbank Hill (+32%).

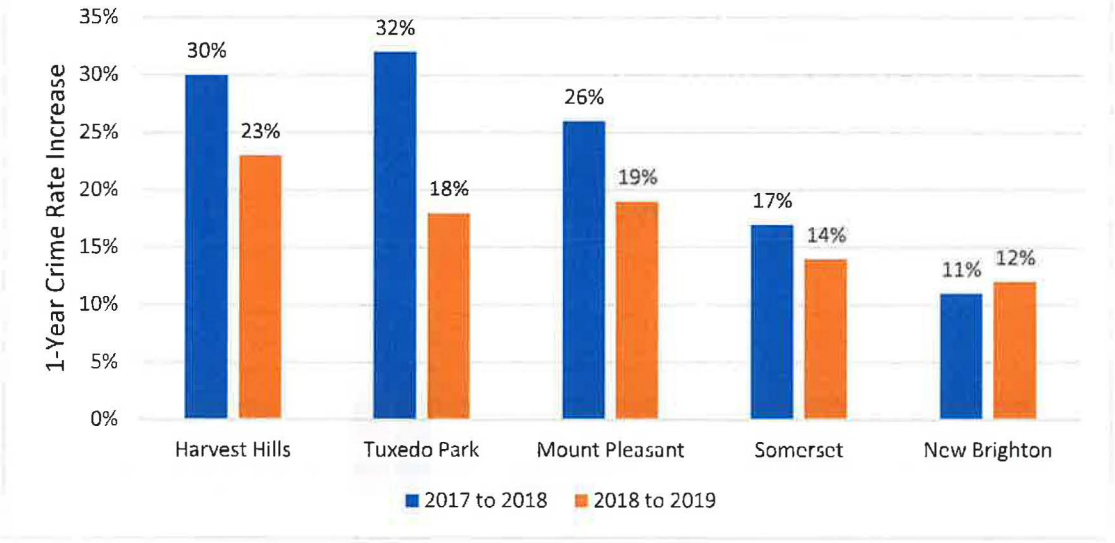
Figure 4. 2017 & 2018 Crime Rates in Selected Calgary Communties



In the two years after the Safeworks SCS opened, Beltline had consecutive double-digit increases in crime (+18% from 2017 to 2018; +29% from 2018 to 2019). The crime rate then dropped 34% in Beltline from 2019 to 2020, which is consistent with crime rate reductions seen in 87 other communities in Calgary from 2019 to 2020.

Figure 5 shows five other communities in Calgary without a SCS that also experience double-digit percental increases in crime during the same time.

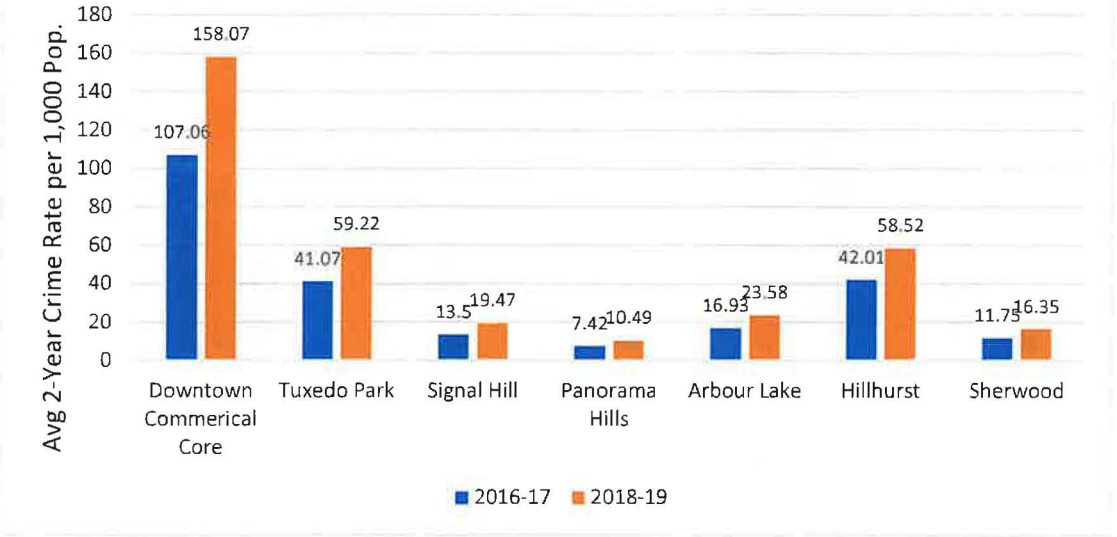
Figure 5. Double Digit 1 Year Crime Rate Increases in Selected Calgary Communities



Comparing the 2-year average crime rate before and after the Safeworks SCS opened, the Beltline crime rate shows a 44% increase (2016-17 avg = 59.65; 2018-19 avg = 85.69).

Double digit percentage increases from 2016-17 to 2018-19 were also experienced in 45 other communities around Calgary without a SCS. Figure 6 shows the communities without SCSs experiencing the largest percentage increases, including: Downtown Commercial Core (+48%), Tuxedo Park (+44%), Signal Hill (+44%), Panorama Hills (+41%), Arbour Lake (+39%), Hillhurst (+39%), and Sherwood (+39%).

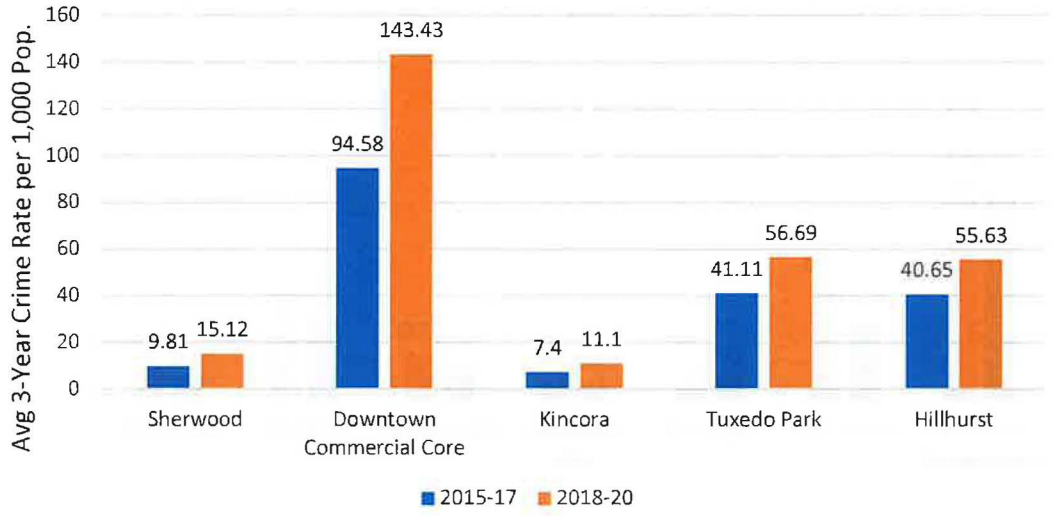
Figure 6. Double Digit 2 Year Crime Rate Increases in Selected Calgary Communties



Comparing the 3-year average crime rate before and after the Safeworks SCS opened, the Beltline crime rate showed a 43% increase (2015-17 avg: 54.77; 2018-20 avg: 78.32).

Double digit percentage increases from 2015-17 to 2018-20 were also experienced in 39 other communities around Calgary without a SCS. Figure 7 shows the communities without SCSs experiencing the largest percentage increases, including: Sherwood (+54%), Downtown Commercial Core (+52%), Kincora (+50%), Tuxedo Park (+38%), and Hillhurst (37%).

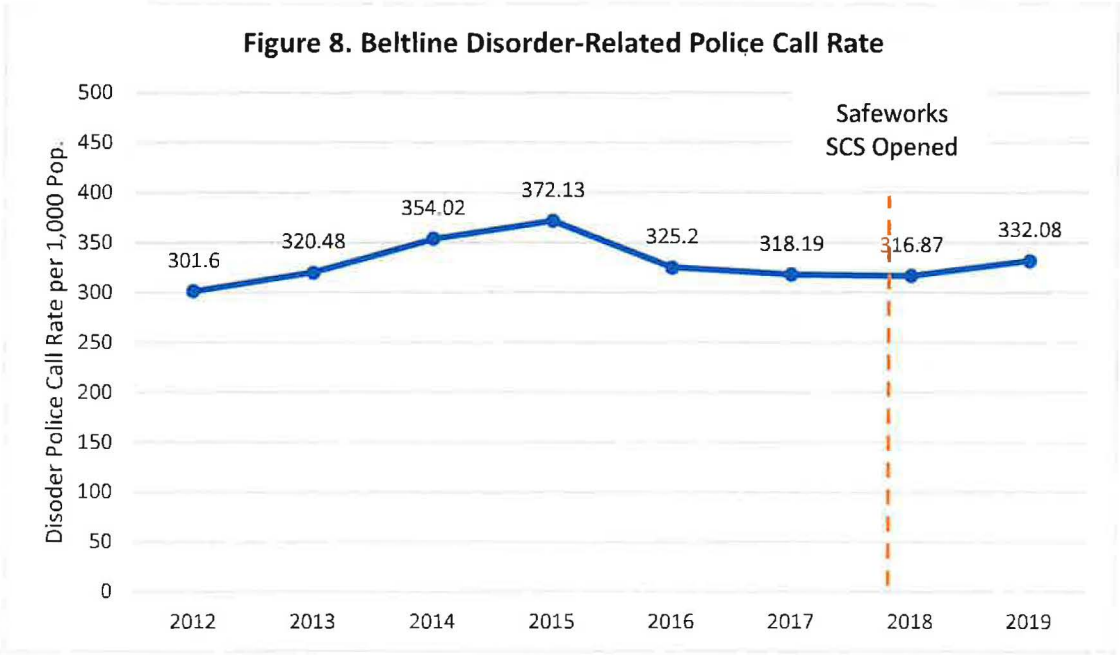
Figure 7. Double Digit 3 Year Crime Rate Increases in Selected Calgary Communities



Disorder-Related Police Call Rate in Beltline

One of the datasets provides public-generated disorder-related calls to the Calgary Police Service.[11,12] Figure 8 shows that Beltline had a 23% increase in the disorder-related police call rate from 2012 to 2015 and a 5% increase from 2012 to 2017.

Figure 8. Beltline Disorder-Related Police Call Rate



At the time the Safeworks SCS opened on October 20, 2017, there were approximately 5 disorder-related calls to police occurring for every 1 crime-related call to police in Beltline. Disorder-related police calls for service in Beltline peaked in 2015 – before the opening of the Safeworks SCS.

[11] Disorder-related calls include drunk, disturbance, indecent act, juvenile complaint, landlord/tenant, mental health concern, neighbor dispute, party complaint, prowler, suspicious person, threats, drugs, noise complaint, possible gunshots, unwanted guest/patron, prostitution, speeder, suspicious auto, fire, property damage, and abandoned auto.

[12] Police service calls for disorder-related incidents were not reported in the datasets after 2019.

Conclusion

Police-reported crime and disorder were steadily increasing in Beltline before the Safeworks SCS opened on October 30, 2017. Additionally, many other communities without SCSs throughout Calgary experienced increasing crime rates before and after the Safeworks SCS opened. Both of these findings suggest that crime-related trends in Beltline and other communities in Calgary are driven by factors other than the opening and presence of the Safeworks SCS.

The factors contributing to increasing crime before the SCS opened and throughout Calgary in non-SCS communities must be identified and controlled for when evaluating SCSs and making criminological claims about their relationship with crime. Additionally, rigorous, credible, and independent evaluations of SCSs and crime must attend to the numerous methodological flaws that were evident in the work performed by the Alberta's UCP government's SCS review panel, including taking into account the broader and longer-term trends in crime outline above.[13]

[13] https://harmreductionjournal.biomedcentral.com/articles/10.1186/s12954-020-00456-2

Public Submission

CC 968 (R2024-05)

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ENDORSEMENT STATEMENT ON TRUTH AND RECONCILIATION, ANTI-RACISM, EQUITY, DIVERSITY, INCLUSION AND BELONGING

The purpose of The City of Calgary is to make life better every day. To fully realize our purpose, we are committed to addressing racism and other forms of discrimination within our programs, policies, and services and eliminating barriers that impact the lives of Indigenous, Racialized, and other marginalized people. It is expected that participants will behave respectfully and treat everyone with dignity and respect to allow for conversations free from bias and prejudice.

First name [required]	Gene
Last name [required]	Hogge
How do you wish to attend?	In-person
You may bring a support person should you require language or translator services. Do you plan on bringing a support person? (If you are speaking at the service plans and budget mid-cycle adjustments, translation services may be available, please indicate if you will require these by writing the required language and "Budget" in the space below).	no
What meeting do you wish to comment on? [required] (if you	Council
Date of meeting [required] (if you are providing input on service plans and budget mid-cycle adjustments, please select "November 18")	Oct 29, 2024

Calgary

Public Submission

CC 968 (R2024-05)

What agenda item do you wish to comment on? (Refer to the Council or Committee agenda published **here**.)
(if you are providing input on service plans and budget mid-cycle adjustments, please write "budget" below.)

[required] - max 75 characters	9.4.11 Notice of Motion - Closure of the Sheldon Chumir Supervised Consumpt
Are you in favour or opposition of the issue? [required]	In opposition
ATTACHMENT_01_FILENAME	Calgary Crime Data_12JUL21 (1) (1).pdf
ATTACHMENT_02_FILENAME	SCSPaper (1).docx
Comments - please refrain from providing personal information in this field (maximum 2500 characters)	I completely agree that recovery and treatment should be a top priority in our efforts to address addiction. Ensuring that there are sufficient treatment spaces available for individuals when they are ready to seek help is absolutely critical. Meeting people where they are at and supporting them on their journey toward recovery must remain a central goal. However, I also believe that harm reduction and treatment are not mutually exclusive; in fact, they can be complementary. Supervised consumption sites (SCSs) are not about enabling drug use but rather creating a pathway to recovery by keeping individuals alive and healthy long enough to access the treatment they need. Often, people who use these sites are in chaotic situations where immediate treatment may not be an option for them, either due to personal readiness or lack of access to treatment beds. Harm reduction bridges that gap, helping to reduce the harms of drug use until they are ready for treatment. I understand your concern about prioritizing public services and access for the broader community. It's essential that we balance our resources carefully, ensuring that public spaces remain safe and accessible for everyone. At the same time, it's also vital to recognize that individuals suffering from addiction are part of our community. Offering them safe spaces and harm reduction services can reduce public drug use, make our streets safer, and ultimately help integrate them back into society through recovery-focused services. We all want to see fewer people struggling with addiction on our streets, and I believe that by combining treatment and harm reduction, we can achieve that goal more effectively. Harm reduction isn't the end goal—it's a stepping stone to a healthier community, one where treatment and recovery are always the focus."**

"As we face a crisis of addiction, we must consider not only the lives at stake also the livelihoods that support our communities. The closure of supervised consumption sites could lead to the loss of vital jobs—careers dedicated to saving lives and helping individuals reclaim their futures. Each worker represents a lifeline for those in crisis, and their absence would echo through families, neighborhoods, and our economy. Investing in these services protects individuals at risk and the essential workforce committed to fostering recovery and resilience in our communities."

My name is Graham Hogge, I am a dedicated Peer Support Worker with Recovery Alberta, specializing in addiction recovery. I do not represent my employer in the writing of this paper. I am currently based out of Calgary, I am a born and raised Albertan, my family beginning with Helen and Samuel Shaw homesteaded here in 1883. Shaw Family - The Shaws of Midnapore -Part 1 (wildapricot.org). I have lived through many ups and downs with Alberta. I have over 14 years of sobriety. I understand recovery, I am able with my journey of navigating the system into recovery and education, privileged to support those who are looking to live their best life. I possess a Diploma in Human Services/Addiction studies with Aboriginal focus, obtained from Bow Valley College. (Soon to be a bachelor's in human services.) I have dedicated my career to helping individuals navigate their journeys toward recovery. Today, I want to discuss the essential role supervised consumption sites (SCSs) play in our communities.

These sites not only address the ongoing opioid crisis/ substance users but also bring significant economic benefits. Losing these services would be a blow to Alberta's economy. (Health Canada, 2024). When SCSs close, Albertan's face the potential loss of jobs for dedicated staff who provide crucial services, including healthcare support, counselling, and addiction treatment referrals. According to studies, the loss of these jobs contributes to a decline in local economies as these workers play a vital role in service provision and community engagement. Furthermore, reduced access to supervised consumption sites can lead to increased public health costs associated with emergency responses to overdoses and other drug-related incidents, ultimately straining our healthcare system and taxpayers (Health Canada, 2024).

The staff at supervised consumption sites (SCSs) play critical roles that extend far beyond the supervision of drug use. These dedicated professionals, including peace officers, security guards, nurses, social workers, addiction counsellors, and peer support workers, contribute to creating a supportive environment where individuals struggling with addiction can find hope and direction. (Rubin & Suran, 2022).

The operation of SCSs creates employment opportunities, positively impacting local economies. The loss of these jobs can lead to economic decline and further complicate challenges for vulnerable populations (Khair et al., 2022). A qualitative study found that trust between staff and clients is essential for the effectiveness of SCSs. When clients feel respected and supported, they are more likely to engage in treatment services, which are critical for their recovery. This trust fosters a therapeutic environment conducive to healing and recovery. (Wood et al., 2006).

As we work toward truth and reconciliation with First Nations, Inuit, and Métis Peoples, it is crucial to recognize that the effects of addiction disproportionately impact these communities. Supporting supervised consumption sites is part of a broader commitment to address the systemic issues that have led to these disparities. By investing in SCSs, Albertan's also create spaces that respect and honor Indigenous ways of knowing and healing, essential in fostering a culturally competent approach to recovery. (Lavalley et al., 2018).(*Indigenous-LeD Supervised Consumption Site Coming to Winnipeg*, 2023.)

Culturally competent care is emphasized in studies examining SCSs that serve diverse populations, including Indigenous communities. Workers trained in cultural sensitivity can better address the unique needs of these groups, creating inclusive environments that respect their values and practices. (Urbanoski et al., 2020).

A common concern about supervised consumption sites is the belief that they attract individuals who inject drugs into neighborhoods, potentially leading to increased crime rates and other undesirable behaviors. However, it is essential to recognize that research indicates SCSs are most effective when located in areas where there are already rates of injectable drug use. Rather than displacing people who use substances to new locations, these sites provide a safer and more discreet environment for consumption, helping to keep such activities contained within existing communities. (*The Impact of Supervised Consumption Sites Physical and Social Harms*, n.d.)

Studies have shown that SCSs can lead to positive outcomes for the neighborhoods they serve. These benefits contribute to enhanced health and safety for both substance users and community members while also improving the perceived safety and value of the areas where

SCSs are situated. By addressing the negative impacts of public drug use, SCSs can help foster a healthier environment that ultimately benefits the entire community (*The Impact of Supervised Consumption Sites Physical and Social Harms*, n.d.).

This perspective highlights that SCSs are not just about enabling drug use; they are part of a broader strategy to improve public safety and community well-being. Supporting these sites is a proactive step toward managing drug-related issues in a way that prioritizes individual health and community integrity. (*The Impact of Supervised Consumption Sites Physical and Social Harms*, n.d.)

Please show your support for my and others' jobs. The work we do for the community is tremendous. I understand opening more SCS' does not fit into the current outlook for Alberta's recovery model. As I'm sure you are aware of the gaps in the system, SCS can support these gaps. There are gaps in recovery when clients transition from corrections , federal penitentiaries, community hosing, just highlighting a few. I could with my specialized knowledge support the system in creating continuum of care to support these gaps. I however implore you and the current political government to work with in the current SCS programs moving forward. This is health care needed to keep people alive and find their way to live their best lives. While working in with the current model of Alberta Recovery, we do so much more than just substances. It is a hub for referrals into recovery, housing, income support, and mental health. Love for everyone. We support so many clients that the system has neglected. I have countless stories of people we helped become the humans they knew they could be. It is draining for us as workers to fight for the program consistently. However, advocating for me is an inspiration. I was born to do this work; the signs were there for me. I DID NOT PUT IT TOGETHER UNTIL THE

SUPERVISED CONSUMPTION SITE OPENED. The work I started to do for people allowed me to give back to the community. My story and others are that of success. I would love to meet you and discuss, the successes. The site was part of my therapy to strengthen resolve for my sobriety and recovery; I HAD FINALLY CONNECTED TO MY PURPOSE. THANK YOU FOR READING; I LOVE YOU. I ALWAYS TELL PEOPLE THAT IF OTHERS CAN HATE FOR NO REASON, I CAN LOVE FOR THE SAME.

Graham Hogge

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First name [required]	James
Last name [required]	Coburn
How do you wish to attend?	In-person
You may bring a support person should you require language or translator services. Do you plan on bringing a support person? (If you are speaking at the service plans and budget mid-cycle adjustments, translation services may be available, please indicate if you will require these by writing the required language and "Budget" in the space below).	
What meeting do you wish to comment on? [required] (if you	Council
Date of meeting [required] (if you are providing input on service plans and budget mid-cycle adjustments, please select "November 18")	Oct 29, 2024

Calgary

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CC 968 (R2024-05)

What agenda item do you wish to comment on? (Refer to the Council or Committee agenda published **here**.)
(if you are providing input on service plans and budget mid-cycle adjustments, please write "budget" below.)

[required] - max 75 characters	AGenda item 9.4.11 - Closure of Supervised Consumption Site
Are you in favour or opposition of the issue? [required]	In favour
ATTACHMENT_01_FILENAME	
ATTACHMENT_02_FILENAME	
Comments - please refrain from providing personal information in this field (maximum 2500 characters)	I live in the Beltline directly near the supervised consumption site and it should be closed for the following reasons: (1) Crime has increased dramatically in that neighbourhood as a result of the homeless that the site attracts; (2) The homeless encampments include open non-supervised drug consumption that is a hazard to residents (including drug paraphrenalia left in the open and accessible to children); (3) The homeless encampments often have improvised fires that present a significant risk to the public, and (4) The high percentage of unconscious and dead homeless persons that I have observed within yards of the supervised consumption site cause me to question whether this site in this location is fulfilling its mandate.

Calgary

Public Submission

CC 968 (R2024-05)

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ENDORSEMENT STATEMENT ON TRUTH AND RECONCILIATION, ANTI-RACISM, EQUITY, DIVERSITY, INCLUSION AND BELONGING

The purpose of The City of Calgary is to make life better every day. To fully realize our purpose, we are committed to addressing racism and other forms of discrimination within our programs, policies, and services and eliminating barriers that impact the lives of Indigenous, Racialized, and other marginalized people. It is expected that participants will behave respectfully and treat everyone with dignity and respect to allow for conversations free from bias and prejudice.

First name [required]	Eddy
Last name [required]	Robinson
How do you wish to attend?	
You may bring a support person should you require language or translator services. Do you plan on bringing a support person? (If you are speaking at the service plans and budget mid-cycle adjustments, translation services may be available, please indicate if you will require these by writing the required language and "Budget" in the space below)	
What meeting do you wish to comment on? [required] (if you	Council
Date of meeting [required] (if you are providing input on service plans and budget mid-cycle adjustments, please select "November 18")	Oct 29, 2024

Calgary

Public Submission

CC 968 (R2024-05)

What agenda item do you wish to comment on? (Refer to the Council or Committee agenda published **here**.)
(if you are providing input on service plans and budget mid-cycle adjustments, please write "budget" below.)

[required] - max 75 characters	9.4.11
Are you in favour or opposition of the issue? [required]	In opposition
ATTACHMENT_01_FILENAME	
ATTACHMENT_02_FILENAME	
Comments - please refrain from providing personal information in this field (maximum 2500 characters)	I am a Calgarian writing to express my concerns about recent conversations regarding supervised consumption services (SCS) in Calgary, and to call for expanded access to these critical services. To ensure equitable access to health care services in appropriate and safe spaces it is essential that SCS' are available for all Calgarians. I believe that continuing to support the Sheldon Chumir SCS, while increasing the number of sites in other areas where they are most needed, will save lives and improve health and safety outcomes for all Calgarians. This includes those who use these services and those who do not. I was disappointed to read the words of the Minister of Mental Health and Addictions in a Calgary Herald opinion article September 26th. Minister Williams, while making a number of false statements, was quoted as saying "if the City of Calgary wants to see the drug consumption site removed they're very welcome to let me know and I'll work with them just like I did in Red Deer." This is deeply concerning and disregards the large and robust body of peer-reviewed research showing the effectiveness of these services. Furthermore, to speak so carelessly about essential, life-saving medical services is irresponsible and risks undermining critical public health infrastructure that is embedded in these services. I was pleased to see Mayor Gondek, in her September 26th response on X (formerly Twitter), highlight that "one centralized site is not the answer" and "drug poisonings are happening throughout the city." If Minister Williams is hoping for Calgary City Council to direct decisions about the future of the Sheldon Chumir SCS, I would ask that they take a thoughtful, measured approach that is based on data, evidence, and understanding. Additionally, I would ask that the community who accesses the sites be consulted and included in this decision making process. The data supports expansion of supervised consumption sites. In the first quarter of 2024, there were over 10,000 visits to this site. In 2023, staff at the SCS responded to over 2,000 adverse events, including over 800 instances when naloxone was administered. Without this SCS, many of those adverse events would have had fatal outcomes. Beyond responding to these emergencies, staff at the SCS provide wound care, connections to medical services, and referrals to residential treatment and detox. Expanding these services is not just about helping those in crisis—it's about creating safer neighbourhoo

Substance Abuse Treatment, Prevention, and Policy

BioMed Central

Short Report

Open Access

Police and public health partnerships: Evidence from the evaluation of Vancouver's supervised injection facility

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Abstract

In various settings, drug market policing strategies have been found to have unintended negative effects on health service use among injection drug users (IDU). This has prompted calls for more effective coordination of policing and public health efforts. In Vancouver, Canada, a supervised injection facility (SIF) was established in 2003. We sought to determine if local police impacted utilization of the SIF. We used generalized estimating equations (GEE) to prospectively identify the prevalence and correlates of being referred by local police to Vancouver's SIF among IDU participating in the Scientific Evaluation of Supervised Injecting (SEOSI) cohort during the period of December 2003 to November 2005. Among 1090 SIF clients enrolled in SEOSI, 182 (16.7%) individuals reported having ever been referred to the SIF by local police. At baseline, 22 (2.0%) participants reported that they first learned of the SIF via police. In multivariate analyses, factors positively associated with being referred to the SIF by local police when injecting in public include: sex work (Adjusted Odds Ratio [AOR] = 1.80, 95%CI 1.28 – 2.53); daily cocaine injection (AOR = 1.54, 95%CI 1.14 – 2.08); and unsafe syringe disposal (AOR = 1.46, 95%CI 1.00 – 2.11). These findings indicate that local police are facilitating use of the SIF by IDU at high risk for various adverse health outcomes. We further found that police may be helping to address public order concerns by referring IDU who are more likely to discard used syringes in public spaces. Our study suggests that the SIF provides an opportunity to coordinate policing and public health efforts and thereby resolve some of the existing tensions between public order and health initiatives.

Background

In various urban settings, street-level policing practices targeting drug related public disorder, such as open drug dealing and drug consumption, have been shown to interrupt health service use by injection drug users (IDU) [1,2]. Specifically, pressures introduced by street level police crackdowns have been found to displace IDU away from needle exchange programs and other specialized HIV prevention and health promotion services, as well as exacerbate risky injection practices among street injectors including rushing injections and injecting with used syringes [3-7]. This has prompted calls for more effective

coordination of policing and public health initiatives [8-10].

In Vancouver, Canada, local street level policing practices have similarly been found to complicate HIV prevention initiatives in some instances [11-13]. However, the local Vancouver Police Department supported the opening of a pilot supervised injection facility (SIF) in Vancouver in September 2003 and subsequently adopted the strategy of actively encouraging individuals found injecting in public to attend the local SIF [14]. Past evaluations of SIFs in other settings indicate that police support plays an important role in the successful operation of these facilities [15], however, we know of no studies which have specifically examined police referrals and their impact on facilitating access to SIFs. Given the continued call for more effective policing-public health partnerships [16,17] we sought to determine if local police were facilitating the use of Vancouver's SIF.

Methods

The current analysis is based on longitudinal data derived from the Scientific Evaluation of Supervised Injecting (SEOSI) cohort which is a representative sample of supervised injection facility users. This study has been described in detail previously [18,19]. Briefly, beginning December 2003, randomly selected SIF clients were recruited into SEOSI. At baseline and semi-annually participants provide blood samples and complete an interviewer-administered questionnaire. The questionnaire elicits demographic data as well as information about drug use patterns, HIV risk behavior, access to health and social services, SIF use, and interactions with local police and criminal justice systems. All participants provide written informed consent and are given a $20 honorarium at each study visit. The study has received ethical approval from St. Paul's Hospital and the University of British Columbia's Research Ethics Board.

To explore the role of local police in supporting use of Vancouver's SIF we assessed the proportion of participants who reported first learning of the SIF via communication with police. In addition, we asked participants at baseline and at each study follow-up if local police had helped them find the SIF, or taken them there when they were injecting in public. To identify the population most affected by this policing strategy we conducted longitudinal analysis of factors associated with reporting having been referred to the SIF by local police. For this we included all participants seen for baseline and follow-up interviews during the period of December 2003 to December 2005. Given that policing practices are known to exacerbate high-risk injecting among IDU who inject in public spaces [3-6,11], the dependent variable for the present study was based on self-report and was defined only as having been referred to the supervised injection facility by police when injecting in public in the last six months. Other variables of interest included socio-demographic information: age (per year older), gender (female vs. male), Aboriginal ethnicity (yes vs. no) and homelessness, defined as having no fixed address for the last six months (yes vs. no). Drug use variables considered refer to behaviours in the past six months and included: frequent heroin injection (≥ daily vs. < daily), frequent cocaine injection (≥ daily vs. < daily), borrowing and lending used syringes (yes vs. no), and unsafe syringe disposal, defined as having dropped a syringe outdoors after using it (yes vs. no). Another characteristic considered was involvement in sex work in the last six months (yes vs. no).

Since analyses of factors potentially associated with having been referred to the SIF by police included serial measures for each participant, we used generalized estimating equations (GEE) for binary outcomes with logit link for the analysis of correlated data to determine factors associated with referrals to the SIF throughout the 24-month follow-up period. These methods provided standard errors adjusted by multiple observations per person using an exchangeable correlation structure. Therefore, data from every participant follow-up visit was considered in this analysis. This approach has been used successfully in previous analysis [20,21]. As a first step, we used univariate GEE analyses to determine factors associated with having been referred to the injection facility by police. All variables that were $p < 0.05$ in GEE univariate analyses were then entered in a multivariate logistic GEE model. All statistical analyses were performed using SAS software version 9.1 (SAS, Cary, NC). All p-values are two sided.

Results

A total of 1090 participants were recruited during the study period, including 317 (29.1%) women and 211 (19.4%) persons of Aboriginal ancestry. The median age of participants was 38.4 years (IQR = 32.7–44.3) at baseline. This sample contributed 3083 observations and the median number of study visits was 3 (IQR = 2–4). A total of 182 (16.7%) participants reported having been referred to the SIF by police at some point during the study period. At baseline, 22 (2.0%) participants reported that they first learned of the SIF via communication with local police.

The univariate GEE analyses of factors associated with having been referred to the SIF by local police are presented in Table 1. Factors found to be associated with having been referred to the SIF by local police in univariate analyses included: older age (odds ratio [OR] = 0.98, 95% confidence interval [CI] 0.96–1.00); Aboriginal ethnicity (OR = 1.51, 95%CI 1.05–2.16); homelessness (OR = 1.49, 95%CI 1.08–2.06); sex work (OR = 2.03, 95%CI 1.46–

Table 1: Univariate and multivariate GEE[a] analyses of factors associated with being referred to Vancouver's supervised injection facility by local police officers

Characteristic[f]	OR[b] (95% CI[d])	*p-value*[c]	AOR[b] (95% CI[d])	*p-value*
Older Age				
per year older	0.98 (0.96 – 1.00)	0.041	1.00 (0.98 – 1.02)	0.961
Gender				
Female vs. Male	0.73 (0.52 – 1.01)	0.059		
Aboriginal Ethnicity				
Yes vs. No	1.51 (1.05 – 2.16)	0.027	1.41 (0.99 – 2.03)	0.065
Homelessness [e]				
Yes vs. No	1.49 (1.08 – 2.06)	0.014	1.28 (0.92 – 1.78)	0.140
Sex Work [e]				
Yes vs. No	2.03 (1.46 – 2.83)	<0.001	1.80 (1.28 – 2.53)	<0.001
Frequent Heroin Injection [e]				
≥ daily vs. < daily	1.53 (1.14 – 2.06)	0.005	1.32 (0.98 – 1.79)	0.070
Frequent Cocaine Injection [e]				
≥ daily vs. < daily	1.66 (1.24 – 2.24)	<0.001	1.54 (1.14 – 2.08)	0.005
Syringe Sharing [e]				
Yes vs. No	0.99 (0.68 – 1.44)	0.971		
Unsafe Syringe Disposal [e]				
Yes vs. No	1.73 (1.20 – 2.50)	0.004	1.46 (1.00 – 2.11)	0.048

Note: [a]GEE = Generalized Estimating Equation; [b]OR = Odds Ratio, AOR = Adjusted Odds Ratio; [c]Values based on Wald χ^2 with 1 degree of freedom; [d]CI = Confidence Interval; [e]Denotes activities or situations referring to the previous 6 months; [f]For full variable definitions see methods section.

2.83); frequent heroin injection (OR = 1.53, 95%CI 1.14–2.06); frequent cocaine injection (OR = 1.66, 95%CI 1.24–2.24); and unsafe syringe disposal (OR = 1.73, 95%CI 1.20 – 2.50).

In the multivariate GEE analysis, also shown in Table 1, factors that remained independently associated with having been referred to the SIF by local police included: sex work (adjusted odds ratio [AOR] = 1.80, 95%CI 1.28 – 2.53); frequent cocaine injection (AOR = 1.54, 95%CI 1.14 – 2.08); and unsafe syringe disposal (AOR = 1.46, 95%CI 1.00 – 2.11).

Discussion

In the present study, we found that approximately 17% of participants reported having been referred to the SIF by Vancouver police officers when injecting in public and those engaged in sex work and frequent cocaine injection were more likely to be referred. Given the criminalization of sex work in Canada, the association between sex work and police referrals may be a reflection of sex worker's higher exposure to police. Other research in this setting has documented that interactions between sex workers and police are frequent and at times violent. In addition, contact with police was found to displace sex workers to isolated industrial areas where their ability to protect themselves from violence and HIV risk was severity compromised [22]. However, by referring IDU engaged in sex work and frequent cocaine injection to a health focused facility, local police are likely helping to reduce health-related harms by reaching IDU at heightened risk for adverse health outcomes, including HIV infection and violence [22,23]. Further, by referring IDU who engage in unsafe public syringe disposal to the SIF, police may also be helping to reduce the public order impacts of public injecting.

Collectively, these contributions suggest that the Vancouver SIF is providing local police with a mechanism to address public injection drug use in a manner that promotes public safety and appears to resolve some of the existing tensions between public health and public order initiatives. Given previously documented tensions between police and other public health initiatives in this setting [11-13], the ability of SIFs to promote public order objectives may help to explain why local police have been supportive of this particular program. In fact, research conducted for the Canadian Expert Advisory Committee on Supervised Injection Site Research found that the majority of local Vancouver police officers interviewed support the Vancouver SIF as means of improving public order [24]. Despite clear support for the Vancouver SIF by local police officers, external national law enforcement bodies remain vocally opposed to the facility. Most recently the Canadian Police Association (CPA) issued a public call for the Government of Canada to "shut down the failed Supervised Injection Site experiment" and suggested that most police officers do not support the initiative [25,26]. These statements highlight a disconnect between the views of police officers working in direct

proximity to the SIF and those of external law enforcement organizations.

In other settings with SIFs, police support appears to be similarly connected with public order objectives and police typically partner with local services providers, residents and business to ensure the successful operation of SIFs [15]. Past evaluations of European SIFs highlight the importance of obtaining police support for these initiatives as policing practise in areas surrounding SIFs have been found to have considerable impact on the operation of, and public support for, these facilities. For example, police crackdowns on open drug scene and the potential for drug market activity to re-emerge in the vicinity of a SIF were identified as forces that have undermined public support for SIFs [15]. The importance of coordinating efforts among police, service providers and other stakeholder is widely acknowledged, however, documentation of successful policing approaches around SIFs, such the current example of police referring IDU injecting in public to the Vancouver SIF, warrants further exploration.

While the findings of the present study suggest that local police are promoting use of the Vancouver SIF it should be noted that in a prior study it was found that 5% of local IDU reported having been deterred from using the SIF due to police presence around the facility [27]. Still, while local police presence may limit access to the SIF for some, overall findings indicate that they are helping to facilitate access. Regardless, in order to promote optimal access to the SIF, additional efforts, including further research, should be undertaken to determine how particular services barriers can be addressed.

Despite these positive findings, the extent to which police are able to address public drug use by directing injectors to the local SIF is largely constrained by the limited seating capacity and operating hours of the 12 seat pilot facility [27]. In addition, the SIF does not accommodate crack cocaine smoking which is a central contributing factor to current drug-related street disorder [28]. While the SIFs has been shown to effectively reduce rates of syringe sharing, increase entry to detoxification services and improve public order in the area [29-31], it is clear that one small intervention cannot meaningfully address public drug use in Vancouver and its potential to eradicate the public drug scene should not be overstated.

There are several potential limitations in the study to be noted. Primarily, this study relied on self-reported information concerning stigmatized behaviours, such as public drug use and syringe disposal and hence is susceptible to socially desirable reporting [32]. In the present study this may have led to an under-reporting of unsafe syringe disposal and other stigmatized behaviours. In addition, policing presence may encourage use of the SIF among people not directly referred and this study does not account for this positive effect on public order. In turn, our findings are likely conservative and may perhaps under-represent the impact that local police are having on use of the facility.

Our findings indicate that local police are facilitating use of the SIF by IDU at heightened risk for various adverse health outcomes. These data further suggest that police may be helping to address public order concerns by referring IDU who are likely to discard used syringes in public spaces. Therefore, the SIF appears to provide an opportunity to coordinate policing and public health efforts and thereby resolve some of the existing tensions between public order and health initiatives.

Competing interests

The authors declare that they have no competing interests.

Authors' contributions

The specific contributions of each author are as follows: KD and TK were responsible for study design and prepared the first draft of the analysis; RZ conducted the statistical analyses; EW, MT and JM contributed to the main content and provided critical comments on the final draft. All authors approved the final manuscript.

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Changes in public order after the opening of a medically supervised safer injecting facility for illicit injection drug users

Evan Wood, Thomas Kerr, Will Small, Kathy Li, David C. Marsh, Julio S.G. Montaner, Mark W. Tyndall

Abstract

Background: North America's first medically supervised safer injecting facility for illicit injection drug users was opened in Vancouver on Sept. 22, 2003. Although similar facilities exist in a number of European cities and in Sydney, Australia, no standardized evaluations of their impact have been presented in the scientific literature.

Methods: Using a standardized prospective data collection protocol, we measured injection-related public order problems during the 6 weeks before and the 12 weeks after the opening of the safer injecting facility in Vancouver. We measured changes in the number of drug users injecting in public, publicly discarded syringes and injection-related litter. We used Poisson log-linear regression models to evaluate changes in these public order indicators while considering potential confounding variables such as police presence and rainfall.

Results: In stratified linear regression models, the 12-week period after the facility's opening was independently associated with reductions in the number of drug users injecting in public ($p < 0.001$), publicly discarded syringes ($p < 0.001$) and injection-related litter ($p < 0.001$). The predicted mean daily number of drug users injecting in public was 4.3 (95% confidence interval [CI] 3.5–5.4) during the period before the facility's opening and 2.4 (95% CI 1.9–3.0) after the opening; the corresponding predicted mean daily numbers of publicly discarded syringes were 11.5 (95% CI 10.0–13.2) and 5.4 (95% CI 4.7–6.2). Externally compiled statistics from the city of Vancouver on the number of syringes discarded in outdoor safe disposal boxes were consistent with our findings.

Interpretation: The opening of the safer injecting facility was independently associated with improvements in several measures of public order, including reduced public injection drug use and public syringe disposal.

CMAJ 2004;171(7):731-4

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Many cities are experiencing epidemics of bloodborne diseases as a result of illicit injection drug use,[1-3] and drug overdoses have become a leading cause of death in many urban areas.[4-6] Public drug use also plagues many inner city neighbourhoods, and the unsafe disposal of syringes in these settings is a major community concern.[7-13]

In over 2 dozen European cities and, more recently, in Sydney, Australia, medically supervised safer injecting facilities, where injection drug users (IDUs) can inject previously obtained illicit drugs under the supervision of medical staff, have been established in an effort to reduce the community and public health impacts of illicit drug use.[14] Inside these facilities IDUs are typically provided with sterile injecting equipment, emergency care in the event of overdose, as well as primary care services and referral to addiction treatment.[13,15] Although anecdotal reports have suggested that such sites may improve public order,[12] reduce the number of deaths from overdose[16] and improve access to care,[17] no standardized evaluations of their impact are available in the scientific literature.[18]

On Sept. 22, 2003, health officials in Vancouver opened a government-sanctioned safer injecting facility as pilot project. The facility, the first in North America, is centrally located in Vancouver's Downtown Eastside, which is the most impoverished urban neighbourhood in Canada and home to well-documented overdose and HIV epidemics among the estimated 5000 IDUs who reside there.[19,20] Federal approval for the 3-year project was granted on the condition that the health and social impacts of the facility be rigorously evaluated. Although evaluation of the facility's impact on certain outcomes (e.g., HIV incidence) is ongoing and will take several years, it is now possible to examine the impacts of the site on public order. Therefore, we conducted this study to test the hypothesis that changes in improperly discarded syringes and public drug use would be observed after the opening of the safer injecting facility.

Methods

The present study was designed before the opening of the safer injecting facility in Vancouver's Downtown Eastside and involved standardized data collection protocols that were developed before the surveyor was trained and before the study protocol was implemented in the field. The city of Vancouver's activities for collecting used syringes were not modified during the study period, to avoid this potential source of confounding. The study design was approved by the University of British Columbia / Providence Healthcare Research Ethics Board more than 3 months before the opening of the safer injecting facility.

The survey protocol involved measuring specified public order indicators within a predefined geographic area and at predefined times of the week during the 6 weeks before and the 12 weeks after

the facility opened. Specifically, we obtained maps of the neighbourhood's network of roads and alleyways and selected a predefined study area consisting of the 10 city blocks that surrounded the safer injecting facility. Data collection times were spread evenly throughout the week and involved walking through the study zone in the same pattern from 10 am to noon on Monday, from 1 pm to 3 pm on Wednesday and from 3 pm to 5 pm on Friday each week. One of us (W.S.), who had over 3 years' experience conducting ethnographic research in the neighbourhood and is trained in environmental surveying and mapping techniques, conducted all of the field surveys.

We identified 5 indicators of public disorder for measurement. Public injection drug use, publicly discarded syringes and injection-related litter were identified as measures of public drug use. Injection-related litter was defined as syringe wrappers, syringe caps, sterile water containers and "cookers" (containers used to heat drugs before injection). We chose to measure injection-related litter in addition to discarded syringes because Vancouver has multiple locations for syringe distribution and return. The city's largest exchange location has observed a return rate of used syringes of about 95%,[21] and although publicly discarded syringes are not an uncommon sight, syringe-related litter is a much more prevalent sign of public drug use in the neighbourhood, because wrappers and other debris are not often returned to needle exchange sites.[22,23] For the fourth indicator of public disorder, we counted the number of suspected drug dealers as a background measure, since we assumed that this variable would not be directly affected by the facility's opening. Finally, because law enforcement activities are known to have an impact on the location of injection drug use,[24,25] we also evaluated the total number of police patrols that were encountered during the hours of data collection.

Measurements were taken for 6 weeks before and 12 weeks after the opening of the safer injecting facility. We chose these 2 periods to obtain sufficient follow-up to afford statistical power while minimizing the potential effect of seasonal changes on drug use patterns. In addition, because we recognized that rainfall patterns could still confound rates of public drug use and other public order measures, we also obtained daily rainfall statistics from Environment Canada for the days measurements were taken.[25]

We applied a statistical protocol, defined a priori, to examine the potential relation between the public order measures and the operation of the safer injecting facility. First, for the presentation of the crude weekly data, we recognized that measures within the same week would likely be highly correlated.[8] Therefore, for each public order measure, we calculated a daily average for each week from the 3 daily counts that week. To test for changes in the various measures, we compared the daily averages for the 6-week period before the opening of the facility with the daily averages for the 12-week period after the opening, using the Wilcoxon rank-sum test for non-normally distributed data. Second, we recognized that, if there were a relation between the public order measures and the operation of the facility, it would likely be highly dependent on the rate of use of the facility. We therefore evaluated the number of times that the facility was used by IDUs on the days data were collected and tested for correlations between daily use of the facility and the daily counts of each public order measure using Spearman's correlation coefficient. Third, we fit Poisson log-linear regression models with the daily counts of each of the public order measures as the dependent variable and potential explanatory variables (e.g., police presence, rainfall) as the independent variables. Although most IDUs do not discard their syringes in public in Vancouver, each public order measure was considered in separate regression models because we assumed that the measures would be highly correlated.[21] We examined the independent variables in unadjusted linear regression models and then adjusted for rainfall, police presence and study period (before v. after the facility's opening). Parameter estimates from the unadjusted regression models were used to calculate the predicted mean daily numbers (and 95% confidence intervals [CIs]) of IDUs injecting in public, publicly discarded syringes and injection-related litter in the 2 study periods. Finally, as an external measure of the impact of the safer injecting facility on public drug use, we examined data from the city of Vancouver on the number of syringes discarded in the 6 outdoor safe disposal boxes in the study area during the 2 study periods. All p values were 2-sided, with a significance level of $p < 0.05$.

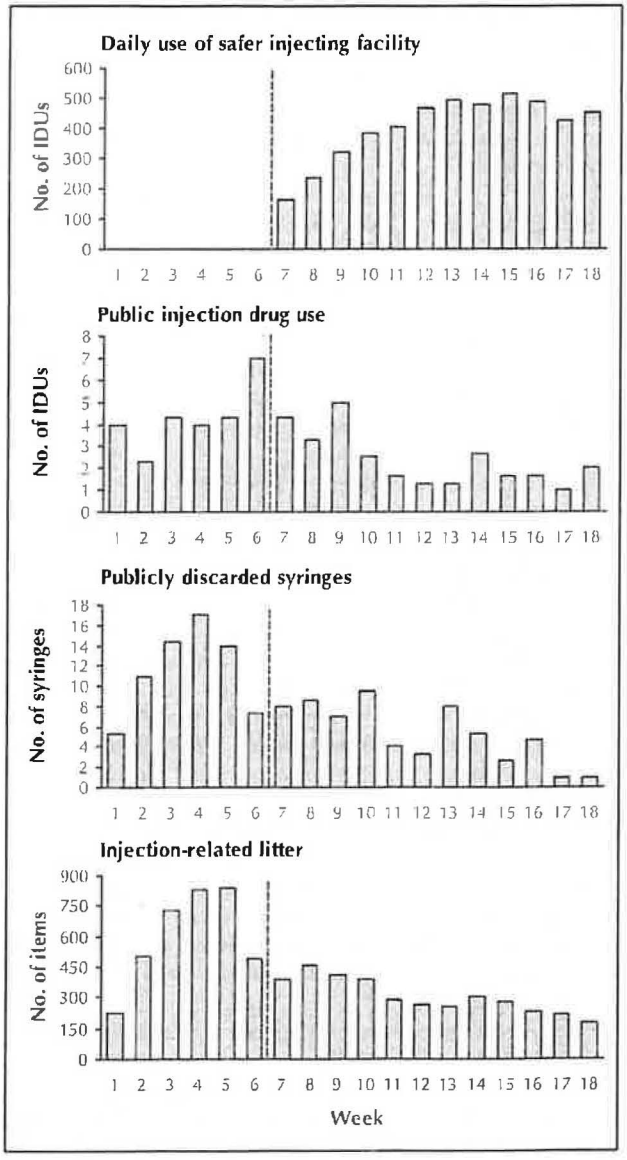

Fig. 1: Mean daily numbers of injection drug users (IDUs) who visited Vancouver's safer injecting facility, IDUs who injected in public, publicly discarded syringes and injection-related litter counted during the 6 weeks before and the 12 weeks after the facility opened. Dotted line represents opening of facility.

Results

The operating hours of Vancouver's safer injecting facility were 10 am to 4 am every day. The mean number of visits to the facility in the first week of operation was 184; this number increased to 504 visits 2 months later (Fig. 1).

When we compared data for the periods before and after the opening of the facility, we found statistically significant reductions in the daily mean numbers of IDUs injecting in public (4.3 [interquartile range (IQR) 4.0–4.3] v. 2.4 [IQR 1.5–3.0]; $p = 0.022$), publicly discarded syringes (11.5 [IQR 7.3–14.3] v. 5.3 [IQR 3.0–8.0]; $p = 0.010$) and injection-related litter (601.7 [IQR 490.0–830.3] v. 305.3 [IQR 246.3–387.0]; $p = 0.014$) (Fig. 1). When we tested for correlations between daily counts of facility usage and daily counts of the 3 public order measures, we found that the correlations were statistically significant ($p < 0.001$) in each case (public injection drug use, $r = -0.48$; publicly discarded syringes, $r = -0.56$; and injection-related litter, $r = -0.62$). The daily mean number of suspected drug dealers was 45.2 in the period before and 40.7 in the period after the opening of the facility; the difference was not statistically significant ($p = 0.34$).

In the Poisson log-linear regression model in which the number of IDUs injecting in public per day was the dependent variable, the period after the opening of the safer injecting facility was associated with a statistically significant reduction in the count (β coefficient = –0.59; $p < 0.001$), whereas daily rainfall (β coefficient = –0.008; $p = 0.42$) and police presence (β coefficient = 0.004; $p = 0.91$) were not. In the model considering the number of publicly discarded syringes observed per day, all 3 variables were independently associated with a reduction in the number: period after opening of facility, β coefficient = –0.76 ($p < 0.001$); daily rainfall, β coefficient = –0.02 ($p = 0.025$); and police presence, β coefficient = 0.05 ($p = 0.040$). Similarly, in the third model the 3 variables were independently associated with a reduction in the count of injection-related litter observed per day: period after opening of facility, β coefficient = –0.66 ($p < 0.001$); daily rainfall, β coefficient = –0.006 ($p < 0.001$); and police presence, β coefficient = 0.04 ($p < 0.001$). After adjustment for rainfall and police presence, the period after the opening of the facility remained associated with a reduction in public injection drug use (β coefficient = –0.61; $p < 0.001$), publicly discarded syringes (β coefficient = –0.72; $p < 0.001$) and injection-related litter (β coefficient = –0.72; $p < 0.001$).

Using the parameter estimates from the unadjusted regression model, we calculated the predicted mean daily level of each public order measure in the periods before and after the opening of the safer injecting facility (Table 1). The predicted mean daily number of IDUs injecting drugs in public 4.3 (95% CI 3.5–5.4) before the facility opened and 2.4 (95% CI 1.9–3.0) after it opened. The corresponding values were 11.5 (95% CI 10.0–13.2) and 5.4 (95% CI 4.7–6.3) for the predicted daily mean number of publicly discarded syringes and 601 (95% CI 590–613) and 310 (95% CI 305–317) for the predicted daily mean count of injection-related litter.

When we examined the number of syringes discarded in the neighbourhood's 6 outdoor safe disposal boxes, the mean number per box per week was significantly higher before than after the safer injecting facility opened (30.9 v. 9.4; $p < 0.001$).

Interpretation

We found significant reductions in public injection drug use, publicly discarded syringes and injection-related litter after the opening of the medically supervised safer injecting facility in Vancouver. These reductions were independent of law enforcement activities and changes in rainfall patterns.

Our findings are consistent with anecdotal reports of improved public order following the establishment of safer injecting facilities[12,13] and are not surprising given that a commonly reported reason for public drug use is the lack of an alternative place to inject and that IDUs who go to safer injecting facilities are often homeless or marginally housed.[26] Our findings are also highly plausible since more than 500 IDUs visited the facility daily after it opened, and several feasibility studies have suggested that IDUs who inject in public would be the most likely to use safer injecting facilities.[13,27] Our observations suggest that the establishment of the safer injecting facility has resulted in measurable improvements in public order, which in turn may improve the liveability of communities and benefit tourism while reducing community concerns stemming from public drug use and discarded syringes.[7–10] It is also noteworthy that we did not observe an increase in the number of drug dealers in the vicinity of the facility, which indicates that the facility's opening did not have a negative impact on drug dealing in the area. Although further study of these issues is necessary, the safer injecting facility may also offer public health benefits, since public injection drug use has been associated with an array of health-related harms.[11,12,18]

Our study has limitations. Although we attempted to reduce the effect of seasonality by limiting the duration of the study, a seasonal fluctuation in drug use patterns may have

Table 1: Predicted daily mean measures of public order problems during the 6 weeks before and the 12 weeks after the opening of Vancouver's safer injecting facility*

Measure	Predicted daily mean no. (and 95% CI)	
	Before the facility opened	After the facility opened
IDUs injecting in public	4.3 (3.5–5.4)	2.4 (1.9–3.0)
Publicly discarded syringes	11.5 (10.0–13.2)	5.4 (4.7–6.3)
Injection-related litter	601 (590–613)	310 (305–317)

Note: CI = confidence interval.
*Parameter estimates from the unadjusted Poisson log-linear regression models were used to calculate the predicted means (see Methods for details).

affected our findings. However, our estimates did not change significantly after adjustment for daily rainfall statistics, and seasonal reductions in public drug use have not been previously observed in Vancouver.[25,26] The uncontrolled nature of our study also raises the potential for an observer bias. This bias, if it existed, is an unlikely explanation sinced our findings are consistent with anecdotal reports from police and other agencies in the neighbourhood that have reported reduced public injection drug use in the wake of the safer injecting facility's opening,[27–31] and police have reportedly been helping IDUs find the facility. Furthermore, our findings were consistent with the city's compiled data regarding discarded syringes in the outdoor safe disposal boxes.

In summary, we documented significant reductions in the number of IDUs injecting in public, publicly discarded syringes and injection-related litter after the opening of the medically supervised safer injecting facility. These reductions appeared to be independent of several potential confounders, and our findings were supported by external data sources. Although the overall health impacts of the facility will take several years to evaluate, the findings from this study should be valuable to other cities that are contemplating similar evaluations and should have substantial relevance to many urban areas where public injection drug use has been associated with substantial public health risks[11,32,33] and adverse community impacts.[11–13]

This article has been peer reviewed.

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Implementation and sustainability of safe consumption sites: a qualitative systematic review and thematic synthesis

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Abstract

Background: Safe consumption sites (SCSs) serve diverse populations of people who use drugs (PWUD) and public health objectives. SCS implementation began in the 1980s, and today, there are at least 200 known SCSs operating in over twelve countries. While a growing literature supports their effectiveness as a harm reduction strategy, there is limited information on contextual factors that may support or hinder SCS implementation and sustainability. We aimed to fill this gap in knowledge by reviewing existing qualitative studies on SCSs.

Methods: We conducted a systematic review and thematic synthesis of qualitative studies. We identified all peer-reviewed, English-language qualitative studies on SCSs containing original data in *PubMed, Web of Science, Google Scholar,* and *Science Direct* as of September 23, 2019. Two authors independently screened, abstracted, and coded content relating to SCS implementation and sustainment aligned with the Exploration, Preparation, Implementation, Sustainment (EPIS) implementation science framework.

Results: After removing duplicates, we identified 765 unique records, of which ten qualitative studies met inclusion criteria for our synthesis. Across these ten studies, 236 total interviews were conducted. Overall, studies described how SCSs can (1) keep drug use out of public view while fostering a sense of inclusion for participants, (2) support sustainment by enhancing external communities' acceptability of SCSs, and (3) encourage PWUD utilization. Most studies also described how involving PWUD and peer workers (i.e., those with lived experience) in SCS operation supported implementation and sustainability.

Discussion: Our thematic synthesis of qualitative literature identified engagement of PWUD and additional factors that appear to support SCS planning and operations and are critical to implementation success. However, the existing qualitative literature largely lacked perspectives of SCS staff and other community members who might be able to provide additional insight into factors influencing the implementation and sustainability of this promising public health intervention.

Keywords: Implementation science, Harm reduction, Safe consumption sites, Supervised consumption sites, Drug consumption rooms, Qualitative, People who use drugs

Background

Globally, there are an estimated 270 million people who use drugs (PWUD) [1]. Safe consumption sites (SCSs)—also called drug consumption rooms, supervised consumption sites, or supervised injection facilities—allow

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PWUD to use pre-obtained substances under the supervision of trained health workers, while reducing public visibility and unnecessary police intervention [2]. First implemented in the 1980s in Switzerland, there are likely more than 200 SCSs operating in at least twelve countries today [3]. Services provided in SCSs vary, but often include the provision of sterile drug consumption equipment, disposal methods, and drug checking services. They may also include counseling on safe drug use, infectious disease testing, and referrals to healthcare, substance use disorder treatment, and other social services [4].

Several systematic reviews summarize the effectiveness and safety of SCSs. One early review by Kerr and colleagues (2007) examined the impact of SCSs on HIV prevention outcomes, finding that SCSs helped reduce syringe sharing and unsafe syringe disposal [2]. A seminal review by Potier et al. (2014) concluded that SCS can effectively promote safety among PWUD without encouraging drug use or drug distribution within surrounding communities [5]. Kennedy, Karamouzian and Kerr (2017) found that SCSs also have positive impacts for communities in which they are implemented by connecting PWUD with health and social services and reducing public order and street safety concerns [6]. Additional reviews by Caulkins (2019) and Pardo (2018) found no evidence of adverse events within the sites or in the wider community due to SCS presence [7, 8]. Levengood and colleagues' (2021) systematic review found that SCSs reduced overdose mortality and morbidity while having no negative impact on public safety [9, 10].

Beyond evidence of SCS effectiveness for health and safety outcomes, recent reviews have investigated pre-implementation considerations for the establishment of SCSs, including acceptability and feasibility. In 2019, Lange and Bach-Mortensen's systematic review pointed out differing perceptions of benefits and concerns among different SCS stakeholders (i.e., police compared to PWUD) [11]. In 2021, Xavier and colleagues' review of SCS feasibility studies concluded that, prior to implementation, SCSs should have minimal eligibility criteria and institutional restrictions in order to maximize benefits to PWUD and broader communities [12]. A qualitative synthesis of studies in five U.S. jurisdictions highlighted the importance of early community engagement, organizing people with lived experience, securing political champions, and building coalitions to gather political momentum [13]. An article recently published in January 2022 provided a scoping review of SCS design preferences, such as location, hours, and wait times, as reported by PWUD [14]. Contrary to the traditional SCS role of promoting safe injection, SCSs in the recent era have increasingly embraced non-injection forms of drug use, such as inhalation [15]. However, to our knowledge, no papers have systematically reviewed existing qualitative studies examining factors that hinder or support the actual implementation or sustainability of these evidence-based public health interventions.

Methods

Systematic review methods

To inform public health policy and practice, we conducted a systematic review and thematic synthesis of qualitative studies guided by the Exploration, Preparation, Implementation, and Sustainment (EPIS) framework [16]. EPIS is a multilevel, four-phase approach to the implementation of evidence-based practices. Earlier reviews have established the evidence base of SCSs for public health and safety outcomes and explored the earlier exploration and preparation phases, which involve considering sociopolitical contexts, initial funding sources, staff recruitment and training, and leadership [17]. We build on existing evidence by identifying and synthesizing rich contextual data on SCS implementation and sustainment (Table 1) [17].

Our search for relevant articles followed Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines [18]. Our search strategy was based on an earlier systematic review focused on quantitative and qualitative studies of safe injection facilities by Potier and colleagues, as previously described and detailed in "Appendix 1" [5]. We took studies included in Potier's original review, added more recent studies found by updating Potier's search period, applied our specific inclusion criteria, and analyzed the resulting included studies using the EPIS framework.

To build on Potier's review, we expanded the focus from injection to other forms of drug consumption (e.g., inhalation, snorting, smoking) and extended their original search period (from database inception to January 26, 2014) through September 23, 2019. This search ("Appendix 1") identified 22 quantitative effectiveness studies, reviewed elsewhere [9], and a large body of descriptive qualitative literature. The qualitative studies identified through this initial search provided rich contextual data not captured in the existing quantitative reviews; therefore, we deemed this body of qualitative literature worthy of a separate systematic review to identify common contexts and processes relevant to SCS implementation and sustainment. This qualitative review and thematic synthesis also involved screening the references included papers to identify additional relevant studies.

We identified and eliminated duplicate records at the pre-screening stage. We included English language, peer-reviewed papers reporting original data from qualitative studies of already existing, operational SCS, which we

Table 1 Operational definitions of EPIS parent and subcodes (Moullin et al., 2019)

Term	Operational definition
Implementation	Active implementation processes at a systems-level, including factors related to funding, legality, workforce productivity, and user feedback
Sustainment	Factors that support continuous EBP delivery–with adaptations as necessary–to achieve lasting public health impact, including factors related to long-term financial support and/or self-sufficiency
Outer context	The environment external to the organization; service and policy environments and characteristics; inter-organizational relationships between governments, funders, managed care organizations, professional societies, advocacy groups
Inner context	Characteristics within an organization; leadership (high vs middle management), staffing (paid clinicians vs peer volunteers), facility-specific practices, individual adopters/ practitioners
Bridging factors	The interconnectedness and relationships between outer and inner context entities influence the implementation process as outer and inner processes influence each other in a reciprocal nature
Innovation	The evidence-based practice or intervention itself, or novel parts of it; fit of the intervention with the system and target population (outer system) and the organization itself and its providers (inner context); any adaptations necessary to maximize the intervention's fit. After the initial opening of the SCS, innovation factors may be implemented for improved access and operations and help the SCS be more sustainable for longer and wider use

defined as established facilities where PWUD could use substances via any route of administration (e.g., injection, inhalation, smoking). We excluded articles not relevant to specific, operational SCS or the EPIS model's Implementation or Sustainment phases based on collective judgment of the analytic team (e.g., mathematical modeling studies of potential impacts of hypothetical facilities) [19]. Studies with the same authors, settings, and samples were pooled and considered as one study. Four members of the analytic team (GY, TL, SO, MD) were involved in title and abstract screening, retrieval and review of full-text articles, and quality assessment using the Critical Assessment Skills Programme (CASP) checklist [20]. The CASP assessment involved a qualitative review of the study's aims, appropriateness of methodology and design, ethical considerations, analyses, and overall value of the study. Two members of the analytic team independently reviewed and reconciled their CASP screening and quality assessment findings.

Thematic synthesis methods

We developed a codebook directly from the established EPIS framework with Implementation and Sustainment parent codes that each had four child codes for (1) outer context, (2) inner context, (3) bridging factors, and (4) innovation factors [17, 21]. No additional child codes were created during the coding or analysis processes. Two members of the analytic team (combinations among GY, TL, SO, and MD) independently reviewed and coded qualitative data from all included articles. The team met weekly to review consistency in coding and reconcile any differences in coding. We then organized all coded data into a table aligned with the EPIS framework. Finally, we conducted axial coding of the organized data to identify generalizable themes across the more granular codes described above in order to identify potential best practices for SCS implementation and sustainment [22].

Results

From 765 unique records, 10 qualitative studies representing nine SCSs in five countries met inclusion criteria (Fig. 1). All ten studies (Table 2) used qualitative methods resulting in a pooled total of 236 participant semi-structured interviews. Two of these studies also utilized participant observation methods (approximately 50 h of participant observation in Canada [23] and 12 months of participatory ethnographic fieldwork in Germany) [24]. One study from Italy solely utilized weekly diaries of participant observation over a period of ten years since the SCS's inception [25]. Overall, 22% of participants were staff or peer workers, and the rest were SCS participants (i.e., PWUD who accessed the SCSs to utilize the spaces). Aside from a cluster of early manuscripts (n = 4) published between 2006 and 2009 originating from one cohort study (SEOSI) in Vancouver [26–29], the other nine studies were published between 2014 and 2019 [23–25, 30–35]. Six studies were from Canada [23, 26–32, 35], and one study each was from Denmark [33], the United States [34], Italy [25], and Germany [24].

Our CASP quality assessment results were generally positive, with some common limitations across studies, including: failure to discuss relationships between researchers and participants (i.e., reflexivity), non-systematic recruitment strategies (e.g., depending entirely on investigators' rapport with specific participants), and limited engagement of participants in data analysis or interpretation [24]. Our thematic synthesis identified key aspects of SCS implementation and sustainment pertaining to outer and inner contexts, along with bridging and

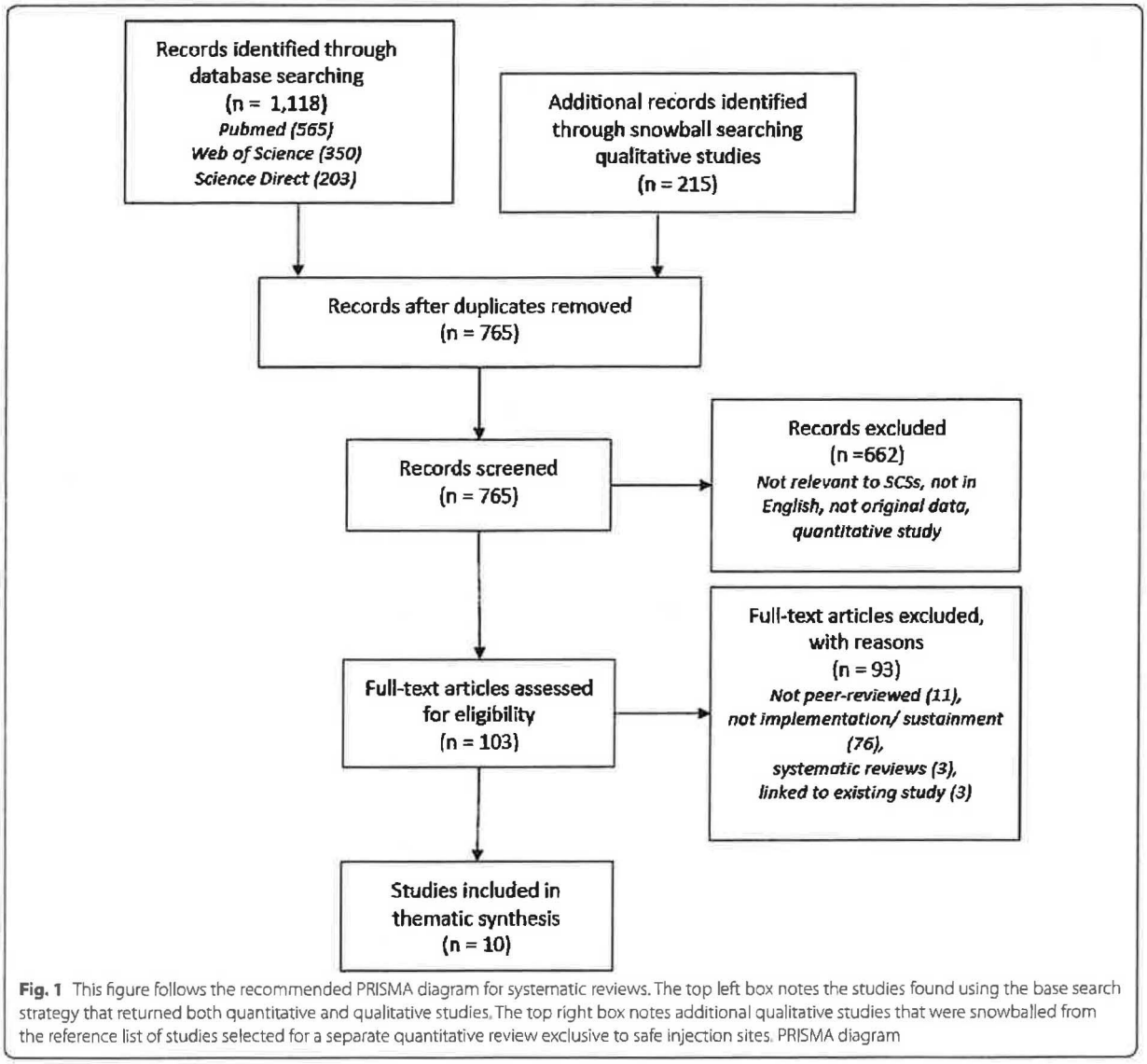

Fig. 1 This figure follows the recommended PRISMA diagram for systematic reviews. The top left box notes the studies found using the base search strategy that returned both quantitative and qualitative studies. The top right box notes additional qualitative studies that were snowballed from the reference list of studies selected for a separate quantitative review exclusive to safe injection sites. PRISMA diagram

innovation factors, as detailed below and summarized in Table 3.

SCS implementation

Outer context

Outer contextual factors—defined as characteristics of service or policy environments outside of organizations—that facilitated SCS implementation included: (1) community buy-in on the need for improved harm reduction infrastructure, and (2) framing SCSs as a tool to reduce the visibility of drug use in surrounding communities, a shared goal of participants and community members. In the successful implementation examples described, key external players identified in studies included supportive policymakers who ultimately decided which types of SCSs would be allowed in their jurisdictions, and clinical providers with positive attitudes toward PWUD within and outside of SCSs.

Six studies described outer contextual factors supporting SCS implementation; each highlighted the role of local funders and physical environments in which PWUD lived and used drugs [23, 24, 26–29, 34, 35]. One Canadian SCS was primarily funded by the local health department, but only after PWUD reported that the old, informal SCS space was limited and disconnected from other social services [23]. In that case, harm reduction

Table 2 List of included studies and summary of findings

Author	Year	Country	CASPa score (x/10)	Implementation				Sustainment			
				Outer	Bridging	Innovation	Inner	Outer	Bridging	Innovation	Inner
Jozhaghi	2016	Canada	8			×	×	×			
McNeil	2015	Canada	8	×	×		×	×			
Kappel[a]	2016	Denmark	7		×	×	×				×
McNeil	2014	Canada	9		×	×	×				
Davidson	2018	U.S	7	×	×	×	×	×	×	×	×
McNeil	2014	Canada	8		×	×	×	×			
Kennedy	2019	Canada	7	×	×	×	×				×
Bergamo	2019	Italy	5	×		×	×	×			
Duncan	2017	Germany	7	×		×	×				
SEOSI[b]	2006–2009	Canada	7–8	×	×	×	×	×			

This study represents data from five Danish sites

[a] Critical Assessment Skills Programme

[b] This is a combination of four studies published by members of Scientific Evaluation of Supervised Injecting, or SEOSI (Fast et al. 2008, Kerr et al. 2007, Small et al. 2008, Small et al. 2009)

Table 3 Implementation and Sustainability findings according to EPIS components

Phase	Outer context	Inner context	Bridging factors	Innovation factors
Implementation	1. Community buy-in on the need for improved harm reduction infrastructure 2. Framing SCSs as a tool to reduce the visibility of drug use in surrounding communities (a shared goal of participants and community members)	1. Workforce a. Encouraging mutual respect between SCS clients and workers b. Addressing power imbalances 2. Participant experience a. Fostering sense of community b. Designating a time and space for drug use c. Reducing fear of adverse consequences	1. Peer workers a. Community volunteers b. Social workers 2. Relaxed rules and regulations within SCSs 3. Establishing connections with outside agencies	1. Building social connections among participants 2. Modifying physical spaces to increase participant comfort and socialization 3. Providing safety and harm reduction counseling 4. Offering services with the lowest possible barriers to access
Sustainment	1. Maintaining community relationships 2. Providing unique resources to PWUD 3. Framing SCSs as a cost-saving intervention	1. Specific pathways for increasing social capital for PWUD 2. Adequate support for peer-workers 3. Finding balance between the desires of mainstream oversite and the needs of the most-marginalized participants	1. Discreet community outreach efforts 2. Building trust and acceptance with participants, treatment partners, and broader community	1. Maximizing accessibility a. fewer regulations b. longer hours 2. Training participants to reduce drug harms beyond injection (i.e., inhalation) 3. Providing additional private consumption spaces (e.g., for accessing certain injection sites such as the groin), 4. Co-location of health and social services 5. Availability of drug testing services

advocates persuaded an external entity to provide funding, enabling the expansion of resources and establishment of a larger, improved SCS. Another study from an unsanctioned U.S. SCS cited implicit, informal support from local police and community members who defended the SCS if authorities accused the site or its clients of illicit behaviors [34]. At another Canadian site, local community members were supportive because they perceived the SCS to decrease the harms of unsafe and rushed drug use in their community [26–29].

Studies also described how SCSs played a role in reducing the visibility of drug use in surrounding communities, which may have benefited both PWUD and other community members. SCS participants described that

the privacy provided by SCSs increased their comfort and feelings of dignity. For broader communities, studies described how SCSs reduced the visibility and "nuisance" of public drug use (e.g., exposure to witnessing drug use).

Inner context

Inner contextual factors, defined as characteristics of the culture, structures, and practice within organizations, that impacted SCS implementation included: (1) the workforce, including the importance of mutual respect between SCS participants and workers (i.e., addressing power imbalances), and (2) the participant experience, including fostering a sense of community, designating a space and time for drug use, and reducing fear of adverse consequences. Most studies described the need to adequately support peer workers (i.e., individuals with lived experience with drug use), and challenges regarding internalized stigma among PWUD toward their own drug use, which could negatively influence their SCS experiences [24–28, 30–34]. Studies from Canada described how peer workers foster social cohesion and security within SCSs [30–32, 35]. Peer workers also helped to reduce internalized stigma among PWUD, countering feelings of exclusion PWUD commonly experienced in clinical and social service settings. In one German SCS, PWUD "felt respite from the stigma of 'junkie' identities," and described being able to more fully experience the psychological and physiological effects of drugs [24]. Experiences with safer drug use also helped PWUD recognize and avoid unsafe situations during street drug use. In an unsanctioned, PWUD-run SCS in Italy, participants felt empowered when helping peers, particularly when they were able to intervene in harmful situations, like reversing overdoses [25]. In this context, PWUD would even visit the SCS without using drugs. Similarly, a study representing five Danish SCSs found that, aside from increasing safety, SCSs promoted social cohesion by providing a space where PWUD could gather and share information about employment, housing, and other resources [33].

Bridging factors

Seven studies discussed bridging factors that connected outer and inner contexts to support SCS implementation. These included: (1) peer workers (and community volunteers and social workers), (2) relaxed rules and regulations within SCSs, and 3) establishing connections with outside agencies (e.g., by connecting PWUD to health and social services) [2, 23, 26, 28, 31–34, 36]. First, peer workers supported SCS implementation by providing nuanced expertise in reducing drug-related harms and relaying information on social resources that may not be accessible via traditional clinical or social services [35]. In Vancouver, volunteer peer workers brought PWUD in from the streets, reducing community disruption and violence between police and PWUD [35]. Second, several studies noted that loosened regulations were more appealing to PWUD, while SCSs with more rules (e.g., against smoking or injection assistance) deterred higher-risk individuals who could have most benefitted from SCSs [12]. For example, an unsanctioned Canadian SCS that relaxed rules prohibiting assisted drug administration experienced improved engagement from disadvantaged groups of PWUD including those living with disabilities, individuals injecting in the groin or neck, and youth who could not meet age requirements at a sanctioned site [23]. Finally, clinical and professional SCS staff linked PWUD to health and social services, including infectious disease testing, which further connected SCSs (and their clients) to external agencies [33].

Innovation factors

All ten studies described innovations supporting SCS implementation, including: (1) building social connections among participants, (2) modifying physical spaces to increase PWUD comfort (e.g., café or place to relax), (3) providing safety and harm reduction counseling, and 4) offering services with the lowest possible barriers to access. All studies described the involvement of peer workers as vital to establishing and improving upon these innovations [6, 23–34]. For example, at a sanctioned Canadian site, peers provided detailed harm reduction education [30]. At another unsanctioned Canadian site, peers provided equipment to clients upon entry, counseling prior to drug administration, and oversight of person and time limits within physical spaces [23]. Peers in the unsanctioned U.S. site provided education regarding obtaining and using clean equipment and naloxone [34]. Additional innovations that were implemented included vein detection technology for safe injection (Denmark), dual-level entrances (e.g., one accessible anytime for safe equipment disposal, another open during SCS operating hours for full services; Italy), and co-location of a non-clinical "café" social space where SCS staff and clients could interact and access low-cost refreshments (Germany) [24, 25, 33].

SCS sustainment

Outer context

Five studies included outer contextual factors supporting SCS sustainment that involved (1) continued community support by reducing visibility of substance use in the community, (2) providing resources based on PWUD-identified needs, and (3) presenting SCS as an overall cost-saving intervention by preventing drug-related health and public order issues [25–30, 32, 34]. One study

described how a sanctioned SCS in Canada benefitted from long-term public funding generated by community activism following the forced closure of an unsanctioned site. This site was also the focus of many peer-reviewed academic studies that reported on its positive clinical and social effects, which further validated the SCS's presence and may have supported sustainment [6]. A study of an unsanctioned U.S. site concluded that the underground nature of their site decreased "not in my backyard" sentiments in the surrounding community, ultimately supporting the likelihood of sustainment [34]. In addition, a study of an Italian SCS concluded that authorities' gradually increasing recognition of the public health benefits and lack of complaints from community members supported sustainment [25].

Inner context

Three studies described inner contextual factors related to SCS sustainment, including (1) pathways for increasing social capital for PWUD, (2) support for peer workers, and (3) fears of barriers to entry as SCS became more mainstream and imposed more regulations upon clients [33–35]. In Denmark, participants noted that organizational goals (e.g., entering drug treatment, reintegrating with society) could support sustainment [33]. Maintaining a focus on their harm reduction mission provided a basis upon which new adaptations could be made, such as the decisions to provide "humanizing" interactions (rather than framing services as clinical supervision) and maintain a low-threshold facility to reduce barriers to access and connect PWUD to informational and preventative resources in the community. The U.S. study found that the unsanctioned nature of the site provided some flexibility due to its invisibility from law enforcement, and participants expressed concerns about increased legal consequences and barriers to SCS use if the site became sanctioned and subjected to increased oversight [34]. In Canada, researchers argued that SCS sustainment would depend on the treatment and involvement of peer workers, calling for their services to be met with proper compensation, training, and physical and mental health supports [35].

Bridging and innovation factors

The study of the unsanctioned U.S. site described bridging and innovation factors, including discreet community outreach efforts to ensure equitable access to the site and referrals to health and social services, that supported SCS sustainability by raising acceptability within local medical and residential communities [34]. Potential innovation factors generated by SCS participants at the U.S. site included improved accessibility (e.g., via fewer regulations and longer hours), relevant training on reducing non-injection drug-related harms, additional private spaces (e.g., for accessing certain injection sites such as the groin), co-location of health and social services, and availability of drug testing services. All participant recommendations responded to current PWUD needs in the community and, if implemented, would encourage continued use and access of SCS services. A Canadian SCS provided supportive care services with residential beds; participants at the site identified that the site's designation as a healthcare facility could contribute to its sustainment [32].

Discussion

As evidence on the effectiveness of SCSs for reducing overdose deaths and drug-related harm has become clearer, local policymakers and public health planners have become increasing interested in implementing SCSs [9, 37–39]. Our systematic review and thematic synthesis of qualitative studies from diverse settings identified some contextual factors that may influence SCS implementation and sustainment. This synthesis of rich contextual data suggests the need for additional research into specific programmatic, policy, and advocacy efforts that could support the scale-up of this promising but underutilized public health intervention, as discussed below.

First, our findings underscore how SCS implementation efforts may meet "not in my backyard" (i.e., "NIMBY") sentiments within local communities [40]. This potential challenge to SCS implementation was best exemplified by the unsanctioned U.S. site that engaged local law enforcement support [34], suggesting that external buy-in prior to SCS implementation could be useful, particularly in neighborhoods where community members feel unsafe with high prevalence of visible street drug use. When implemented, SCSs can achieve dual goals, reducing public visibility and consequences of drug use while fostering a sense of inclusion, and socialization among PWUD. Increased quantitative and qualitative (i.e., mixed methods) evaluations of operational SCSs could provide more comprehensive evidence on specific geographic and demographic differences in implementation, enabling the adoption of SCSs for different PWUD communities.

Next, we found that SCS sustainment was supported by the fostering of environments that ensured continued acceptability and utilization within the PWUD community, increased safety, and support among local community members. The provision of various health and social service referrals, particularly to substance use disorder treatment services, could help promote positive perceptions of SCSs within local communities. An unsurprising facilitator of SCS sustainment identified in the literature we reviewed was continued legal and political support, often bolstered by local data regarding law enforcement

and community members' positive perceptions of SCSs. Future research should investigate and identify key influencing factors in financing, policing, and surveilling of SCSs. External perspectives on SCS implementation that warrant additional research include funding agencies, law enforcement, and legal experts given the vast differences in drug policies and their implementation across contexts. There are existing examinations of influential institutions and external decision-makers in other countries where SCSs have been debated and implemented, like Finland [41] and Belgium [42]. In a time of frequent policy debate regarding harm reduction in the United States [43–45], future research should consider the role of local laws, their enforcement, and broader political sentiments surrounding SCS implementation.

While lessons regarding SCS implementation and sustainment drawn from studies in Canada and Europe might provide some helpful insights for other legal and political contexts, additional research in diverse international settings is clearly needed to improve the generalizability and transferability of this literature. Diverse socio-political contexts may vary in their tolerance of harm reduction approaches and endorsement of moralizing narratives surrounding substance use [46]. There is evidence that these moralistic views are difficult to change, even with robust scientific evidence to contradict such beliefs [47]. Recent evidence suggests that policymakers are more encouraged to pursue interventions such as a SCS in their local communities in the wake of new evidence of success from other harm reduction interventions that have been evaluated in their jurisdictions [13].

Importantly, the involvement of PWUD and peer workers (i.e., those with lived experience) in SCS implementation and sustainment emerged as an important cross-cutting theme in our review of qualitative evidence. According to the literature we synthesized, peer workers may be overlooked in efforts to implement and sustain SCSs, despite abundant evidence that they bring critical expertise and effort into these services. To perform their critical functions, peer workers require adequate compensation and recognition, including in the form of formal employment and workplace occupational supports for physical and mental health. Additional research on the optimal engagement of peer workers within SCSs and harm reduction programming, particularly as it relates to sustainment, is needed.

Several limitations of our study warrant consideration. First, consistent with the broader implementation science literature grounded in the EPIS framework [48], we identified more detailed evidence on implementation than sustainment. Less evidence was available on outer contextual, innovation, or bridging factors, particularly related to sustainment. These studies were also represented in Potier's original review, but we believe the current study frames these studies in a novel way using the EPIS framework. Second, we excluded non-English studies and gray literature, and most published SCS research originated from Canada and Europe. Government reports, particularly from Europe, often describe SCS implementation in greater detail than what is represented in the academic literature we reviewed; these types of reports, which may include data based on surveys with SCS participants [49] and managers [50], could contain relevant information but were out of the scope of this review. Notably, reports from community members (e.g., in Australia [51–53]) have highlighted the importance of participant input into facility regulations, mirroring some of the sustainment-related findings of our review. Given the rather limited range of contexts in which the studies included in our were conducted, additional review of non-English studies and gray literature (particularly including surveys of SCS participants, managers, staff, and community members) could help contextualize or expand upon our findings, ultimately improving the transferability of this work. Third, given the focus on safe injection sites in our initial search strategy, we may have missed qualitative studies related to SCS implementation for other forms of drug administration; however, our additional screening process through references of initially included studies for relevant work helped mitigate this limitation. Finally, the final updated search was completed in September 2019, leaving a considerable gap to publication and missing the critical period when the COVID-19 pandemic likely impacted SCS operations. Additional research on this more recent period is needed to understand factors influencing SCS implementation and sustainability during a large-scale public health crisis. Furthermore, while relationships with police and law enforcement emerged in several studies in our review, the broader literature on SCS and other harm reduction interventions highlights it with greater prominence that what appeared in our sample of studies; additional research is needed to systematically investigate the impact of law enforcement relationships on the implementation and sustainment of SCS and other harm reduction interventions.

Notwithstanding these limitations, our systematic review and thematic synthesis of qualitative studies identifies some of the key factors that have supported and challenged SCS implementation and sustainment around the world. We identified that engaging PWUD in SCS design and implementation can contribute to the sense of community and mutual respect found in successful SCSs. In addition, encouraging social cohesion among clients and connecting them to outside agencies supports SCS implementation and sustainment. Although evidence

was limited regarding SCS sustainability, contributing factors included visibly reducing drug use and improving safety for local communities while increasing the dignity of PWUD. Finally, community outreach efforts to ensure equitable access to SCS facilities represented an important bridging and innovation factor supporting sustainability.

As more healthcare professionals, community advocates, and policymakers consider SCSs as a strategy to reduce drug-related health harms, high-quality research on the implementation and sustainability SCSs in different localities is critical. By identifying key factors in the implementation process, improved SCS implementation and sustainment can be realized in communities where these services may be of great benefit.

Appendix 1: Search strategy for each database

Database	Dates	Strategy
PubMed	1/1/2014–9/23/2019	(("SUPERVISED" [All Fields] OR "SAFER" [All Fields]) AND ("INJECTION" [All Fields] OR "INJECTING" [All Fields] OR "SHOOTING" [All Fields] OR "CONSUMPTION" [All Fields]) AND ("FACILITY" [All Fields] OR "FACILITIES" [All Fields] OR "ROOM" [All Fields] OR "GALLERY" [All Fields] OR "CENTRE" [All Fields] OR "CENTER" [All Fields] OR "SITE" [All Fields])) AND (2014:2019 [pdat])[a]
Web of Science	1/1/2014–9/23/2019	TS = (("SUPERVISED" OR "SAFER") AND ("INJECTION" OR "INJECTING" OR "SHOOTING" OR "CONSUMPTION") AND ("FACILITY" OR "FACILITIES" OR "ROOM" OR "GALLERY" OR "CENTRE" OR "CENTER" OR "SITE")) Indexes = SCI-EXPANDED, SSCI, A&HCI, CPCI-S, CPCI-SSH, BKCI-S, BKCI-SSH, ESCI Timespan = 2014-2019[a]
Science Direct	1/1/2014–9/23/2019	Year: 2014-2019[a] Title, abstract, keywords: ("SUPERVISED" OR "SAFER") AND ("INJECTION" OR "INJECTING" OR "CONSUMPTION") AND ("FACILITY" OR "FACILITIES" OR "SITE") (note: max seven Boolean operators) (note: Boolean operator limit, had to reduce terms) Article types: Research articles Refine by subject areas: Medicine and Dentistry

[a] Original search only included 2019 studies up to search date 9/23/2019. Coarser full-year database filters may thus result in search yields with slightly larger number of studies (includes to end of 2019).

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Declarations

Competing interests
The authors declare no competing interests.

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REVIEW

Assessing Drug Consumption Rooms and Longer Term (5 Year) Impacts on Community and Clients

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Background: Drug consumption rooms (DCRs) and supervised injecting facilities (SIFs) provide a safe environment in which people who inject drugs (PWIDs) can inject under hygienic and supervised conditions. Numerous reviews have documented the benefits of these facilities; however, there is a lack of clarity surrounding their long-term effects.

Purpose: To conduct, with a systematic approach, a literature review, of published peer-reviewed literature assessing the long-term impacts of DCRs/SIFs.

Methods: A systematic search of the PubMed and Embase database was performed using the keywords: ("SUPERVISED" OR "SAFE*") AND ("CONSUMPTION" OR "INJECT*" OR "SHOOTING") AND ("FACILITY*" OR "ROOM*" OR "GALLERY*" OR "CENTRE*" OR "CENTER*" OR "SITE*"). Included studies were original articles reporting outcomes for five or more years and addressed at least one of the following client or community outcomes, (i) drug-related harms; (ii) access to substance use treatment and other health services; (iii) impact on local PWID population; (iv) impact on public drug use, drug-related crime and violence; and (v) local community attitudes to DCRs.

Results: Four publications met our inclusion criteria, addressing four of the five outcomes. Long-term data suggested that while the health of PWID naturally declined over time, DCRs/SIFs helped reduce injecting-related harms. The studies showed that DCRs/SIFs facilitate drug treatment, access to health services and cessation of drug injecting. Local residents and business owners reported less public drug use and public syringe disposal following the opening of a DCR/SIF.

Conclusion: Long-term evidence on DCRs/SIFs is consistent with established short-term research demonstrating the benefits of these facilities. A relative paucity of studies was identified, with most evidence originating from Sydney and Vancouver. The overall body of evidence would be improved by future studies following outcomes over longer periods and being undertaken in a variety of jurisdictions and models of DCRs/SIFs.

Keywords: safe injecting facilities, intravenous, Injecting, harm reduction

Introduction

Drug consumption rooms (DCRs) and supervised injecting facilities (SIFs) provide a place where people who inject drugs (PWIDs) can self-administer substances, procured elsewhere, in hygienic conditions under the supervision of qualified staff.[1] The first SIF was established in Switzerland in the 1980s, and facilities have since expanded, with some European countries, such as Germany operating multiple services.[2] There is a wide range of service models upon which SIFs are based,[3] including government sanctioned and unsanctioned SIFs, as well as similar facilities such as Overdose Prevention Sites (OPSs) found in Canada.[4,5]

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SIFs can operate as fixed, stand-alone services, or as co-located services operating within broader facilities such as hospitals and community health centres, or they can operate as mobile outreach services.[6] Staff providing these services also range from social workers, harm reduction workers and people with lived experience to nurses and other medical professionals.[7]

Although these services respond to overdose, and administer naloxone where necessary, for opioid overdose management, most tend to do so with limited or no medical support. Medically supervised SIFs, however, are a relatively newer model, with the first Medically Supervised Injecting Centre opening in Sydney in 2001,[8] followed by another in Vancouver, Canada, in 2003.[9] More recently, European countries such as Denmark and France have since followed, opening SIFs under similar models.[10] In 2017, Ireland passed legislation for a similar service largely based on the Sydney MSIC model.[10] In Canada, an epidemic of opioid-related deaths and more than 10-years of successful operation of the Vancouver SIF, has led to a national expansion of SIF and DCR type services.[11] In Australia, a second SIF was established in Melbourne in 2018.[12]

SIFs aim to attract people who engage in high risk injecting behaviours[13,14] and work to improve their injecting practices,[15,16] therefore minimising their exposure to overdose risks and injecting related harms. Further benefits include referring clients to addiction treatment and other health and social services.[3] Previously, Potier et al[17] summarised SIFs as having seven key objectives: i) to support marginalised populations of PWID to access health and social services; ii) to reduce overdose-induced morbidity and mortality; iii) to enhance health behaviours amongst PWID; iv) to improve injecting practices; v) to improve the health of PWID; vi) to increase access to substance abuse treatment programs; and vii) to decrease public drug use and related crime.

To date, the research published in SIFs is extensive and their benefits have been well summarised in numerous reviews.[9,17–24] The evidence supports positive impacts on both public health and order[15,25,26] and improvements in individual health outcomes.[27,28] Despite the growing evidence demonstrating the benefits of SIFs, the movement to establish and operate these facilities has often faced significant challenges. Notably, in 2016, the UK Advisory Committee on the Misuse of Drugs gave a recommendation to implement SIFs but was rejected by the UK government in 2017. Lloyd et al[29] suggests that this is likely due to fear of political backlash and media portrayal of establishing "drug dens". Similarly, despite the success of Vancouver's first SIF, concerted opposition from the government and law enforcement agencies in 2006 changed legislation to halt further funding and SIF trials from being established in Canada.[30] This long-standing obstacle was only recently amended in 2016 to allow the expansion of these services throughout the country.[9] The supervised injecting facility in Melbourne faced similar resistance from the Victorian state government before eventually opening in 2018.[31]

Despite some vocal opposition to the opening and operation of SIFs, largely due to the stigma attached to drug use, support for harm reduction strategies has also been well documented. Using a population-level survey, Strike et al[32] found a trend of increasing support for SIFs over the period of 2003 to 2009. Recently in 2019, the National Drug Strategy Household Survey found that 54% of respondents supported regulated injecting rooms, with this increasing to 79% in people who had recently injected drugs.[33]

Though there are more than one hundred facilities operating in numerous countries worldwide, the bulk of literature is from the Sydney MSIC and Vancouver's Insite,[3] which may limit the applicability of evidence to other environments and populations. Most of the SIF research report outcomes over a short (1–2 year) period or report on cross-sectional data only. Although several services have been operating for more than a decade, the lack of clarity surrounding the long-term impacts for periods up to and beyond five years remains. Therefore, we aimed to examine the long-term impacts of SIFs, given that they are a cost-effective intervention[34–36] with potential to reduce overdose-related mortality.

We reviewed and consolidated the objectives outlined by Potier et al,[17] and determined that a review of the long-term impacts on five key objectives would be beneficial: i) drug-related harms; ii) access to substance use treatment and other health services; iii) impact on the local PWID population, ie, whether numbers of PWID have increased or decreased over time in jurisdictions with SIFs; iv) impact on public drug use, drug-related crime and violence; v) local community attitudes to SIFs. The aims of this review were therefore to determine client and community-related outcomes, if any, for five or more years.

Methods

A systematic search in the literature was performed, with the search carried out in the Medline and Embase databases. Our search strategy was adapted from Potier et al,[17] using the

keywords: ("SUPERVISED" OR "SAFE*") AND ("CONSUMPTION" OR "INJECT*" OR "SHOOTING") AND ("FACILITY*" OR "ROOM*" OR "GALLERY*" OR "CENTRE*" OR "CENTER*" OR "SITE*"). The search results were then further refined using the following MESH terms: "SUBSTANCE ABUSE" AND "INTRAVENOUS/".

The article selection process is outlined in Figure 1. Studies were limited to human studies and those reported in the English language, and articles published from 1946 to June 2020 were included in the selection process. Duplicate studies were removed using the Ovid deduplicate function, and any further duplicates found were removed manually.

The studies were screened by title by one author (VT) for original research that addressed our research topic. The abstracts of the remaining studies were then assessed to determine whether they addressed any of the five objectives derived by Potier et al:[17] (i) drug-related harms, (ii) access to substance use treatment and other health services, (iii) impact on local PWID population, (iv) impact on public drug use, drug-related crime and violence, (v)

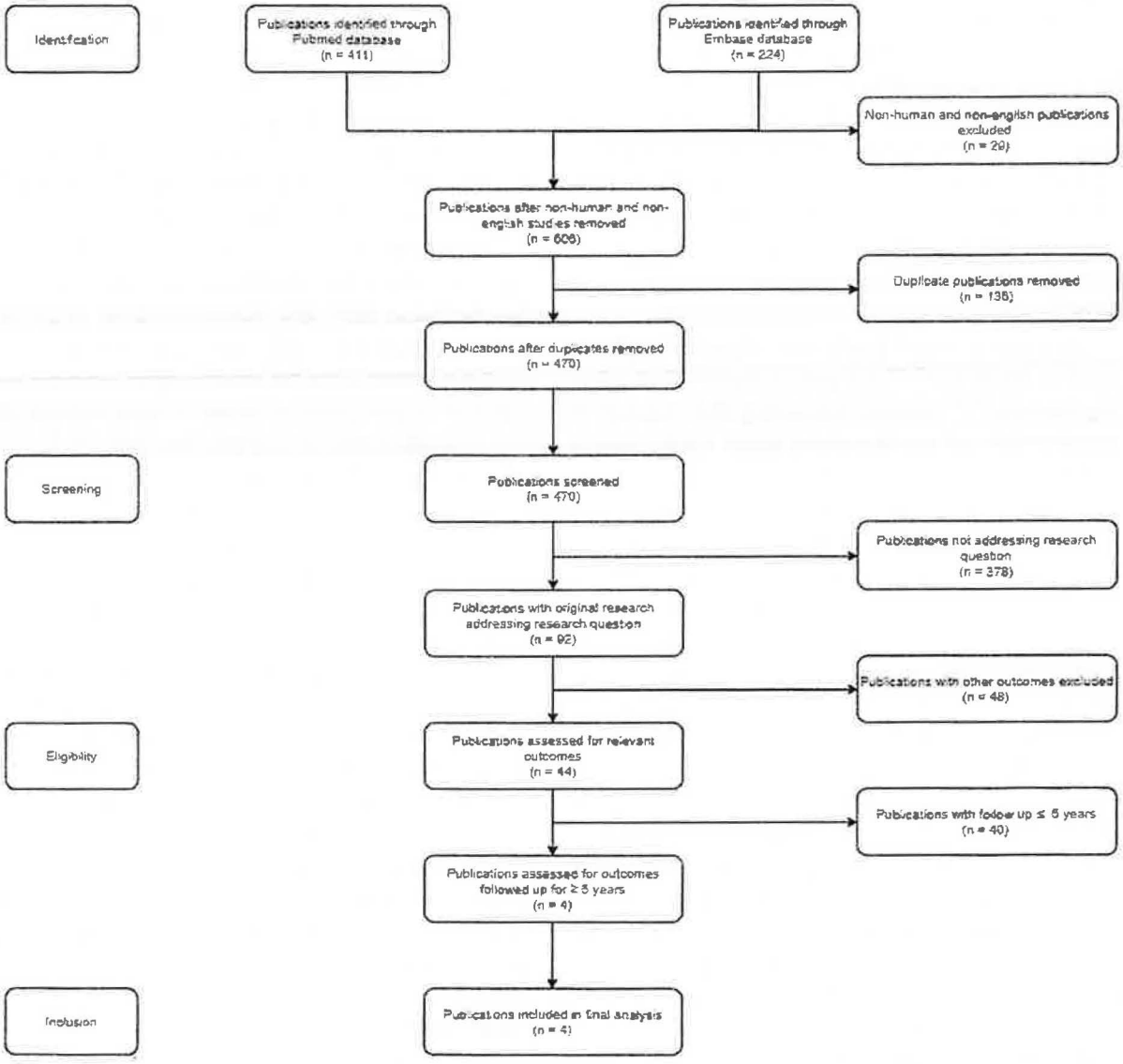

Figure 1 Article selection process.
Abbreviations: DCR, drug consumption rooms; SIF, safe injecting facility; PWID, people who inject drugs.

local community attitudes to DCRs. The remaining studies were separately read in detail by both VT and a second author (CD) to determine whether they included longer-term outcomes, defined as five or more years. Any discrepancies were discussed until a consensus was reached to include or exclude studies from the final count. If both authors were unable to unanimously agree, a third author would have been consulted, however this was not required.

Results

The initial search found 470 publications. Only four publications met the selection criteria (Table 1). Thirteen of the studies excluded in the final screening step were cross-sectional and largely consisted of qualitative or survey-style studies. Most studies were excluded as they examined periods of less than five years, with seven studies having a follow-up period of less than one year and sixteen with 1–4-year period. One study assessed community attitudes and drug-related harms over four years, falling short of our criteria and was thus not included.

Of the five outcomes assessed, we found that only four had been assessed with longer term data, three client-related and one community-related: (i) drug-related harms, (ii) access to substance use treatment and other health services, (iii) impact on the local PWID population, (iv) impact on public drug use, drug-related crime and violence.

Client Outcomes

Drug Related Harms

Of the four studies included in the final analysis, two investigated the effects of DCRs on harms related to injecting drug use experienced by clients.

In Sydney, Salmon et al[27] used data from NSW State Ambulance Service to evaluate patterns of ambulance attendance at suspected opioid overdoses. Over 60 months following the opening of the Sydney MSIC, there was an 80% decrease in ambulance attendances in the immediate vicinity compared to a 45% decrease in neighbouring areas (45%).[27] Although ambulance attendance patterns in the rest of NSW also decreased by 61%, the area where the MSIC was located still showed a net benefit, with a greater reduction of 68%. The differences in decline seen in both comparisons were statistically significant.[27]

Also investigating the Sydney MSIC, Belackova et al[37] collected health and social information from clients using interviewer-administered questions similar to those collected from clients at registration. This data was then compared to data collected at the client's initial registration. The study found that clients who participated had been using the service for an average of nine years, with a mean of 800 visits. A significantly higher proportion of clients had experienced overdose at the follow-up interview (61%) when compared to baseline (38%). Furthermore, there was a seven percent increase in the proportion of clients who reported injecting drugs daily at the time of follow-up.[37]

Access to Substance Use Treatment and Other Health Services

The data collected by Belackova et al[37] also revealed that long-term SIF clients were also more likely to engage with health services. When compared to their initial visit, there was an increase in the proportion of clients currently engaged in drug treatment (93% vs 61%) and use of local primary health care services had similarly increased (73% vs 33%). Almost half (48%) of the survey participants also reported utilising nearby healthcare services for the first time since their initial visit to the Sydney MSIC.[37]

Impact on the Local PWID Population

Kennedy et al[38] investigated patterns of use of Vancouver's SIF. They found that a significant proportion of PWID (77%) had at least one episode of discontinuing SIF attendance, and that the majority of these episodes (58%) occurred in conjunction with drug use cessation.[38] This was reinforced by client responses stating that injection cessation was the most common reason for ceasing attendance at the facility.[38]

Community Outcomes

Impact on Public Drug Use, Drug Related Crime and Violence

Salmon et al[39] surveyed residents and business operators to investigate whether local perception of public amenity had changed since the opening of the Sydney MSIC. They found that the proportion of residents and business owners who reported witnessing public injecting decreased over time from 33% and 38% in 2000 to 19% and 28% in 2005, respectively.[39] Similarly, there was a significant decrease in discarded needles and syringes witnessed by both residents and business operators over the five-year period.[39] However, there was no significant change in the proportion of respondents who had reported being offered drugs for purchase.[39]

Discussion

Of the five SIF objectives we investigated, long-term outcomes were identified for only four of these objectives.

Table 1 Summary of Included Studies

Reference	Location	Sample	Study Design	Study Purpose	Study Period	Main Findings
Belackova et al (2019)[34]	Australia, Sydney	Sydney MSIC clients, N=182	Descriptive, file review	Current changes in health and social indicators of clients. Factors associated with seeking support.	May 2001 - Nov 2017	-Participants were clients of MSIC for a median of 10.5 years -Increase from baseline in proportion of participants who reported overdose (61% vs 38%), injected drugs daily (62% vs 55%), attending local health service (73% vs 61%), engaging in drug treatment (93% vs 61%). -48% participants used healthcare services for first time from baseline.
Salmon et al (2007)[36]	Australia, Sydney	Kings Cross residents (2000, N=515; 2002, N=540; 2005, N=316) Kings Cross business operators (2000, N=209; 2002, N=207; 2005, N=210)	Quantitative, multiple cross-sectional surveys	To investigate changes in the perceptions of drugs related public amenity prior to and after establishment of the Sydney MSIC	Oct 2000 – Nov 2005	-Proportion of residents and business operators who reported witnessing public injecting decreased over time from 33% and 38% in 2000 to 19% and 28% in 2005, respectively. -Decrease in discarded needles and syringes witnessed by residents and business operators from 67% in 2000 to 40% in 2005. -No significant change in proportion of respondents who had reported being offered drugs for purchase.
Kennedy et al (2019)[35]	Canada, Vancouver	1366 PWID from existing cohort (VIDUS, ACCESS)	Longitudinal, retrospective	To longitudinally characterise cessation of use of Insite SIF among community recruited cohort of PWIN in Vancouver.	Dec 2005 – Dec 2016	-Most (77%) PWID discontinued using Insite SIF over a median follow-up duration of 50-months. -Injection drug use cessation co-occurred with the majority (58%) of SIF use cessation events. -Injecting cessation was the most commonly reported reason for discontinuing use of this health service.
Salmon et al (2010)[33]	NSW, Sydney	NSW Ambulance Service Patient Report Data Collection	Ecological	Comparison of opioid related overdose attended by an ambulance before and after establishment of SIF	May 1998 – May 2006	-Greater decrease in ambulance attendance when comparing MSIC vicinity vs rest of NSW (68% vs 61%, χ^2=9.62, p=0.002). -Greater decrease in attendance comparing immediate MSIC area vs neighbouring MSIC area (80% vs 45%, χ^2=81.23, p=0.001). -Greatest decrease seen during MSIC operating hours compared to non-operating hours.

There is substantial literature on SIFs; however, only a small number of these studies report on outcomes over a period of five or more years.

Importantly, overdose reduction, a key aim of SIFs, was found to have an enduring impact, with data reported by Salmon et al[27] showing a decrease in opioid suspected

overdoses requiring ambulance attendance. This benefit was most notable during the opening hours of the service, further implicating the service's role in the reductions. However, the authors noted that the benefit of freeing-up ambulance services to attend to other medical emergencies may not be applicable to SIFs that do not administer naloxone in overdoses, or have protocols that mandate ambulance attendance.[27] These findings are similar to shorter term evidence from Vancouver's Insite, which managed 336 overdoses without a fatality over an 18-month period.[40,41] While it remains unclear whether SIFs reduce the total number of overdoses experienced by PWIDs who use SIFs, it is clear that the mortality rate of overdoses is reduced in areas with SIFs.

One important finding from Belackova et al[37] was that the overall health of clients at the Sydney MSIC declined over time, defined as an increase in the proportion of clients who reported a physical or mental health issue, unemployment, previous incarceration or recent overdose, from their initial visit. This finding likely reflects the increasing needs of clients who attend SIFs, given the complexities and challenges faced by many clients attending, which often include long-term substance use disorders and increased overdose risk.[42–44] Therefore, SIFs are well-placed to provide both acute overdose intervention as well as ongoing support and referral to other health services as part of longer-term care. Groups opposed to SIFs have suggested that the worsening health of clients could also be interpreted as SIFs enabling continued drug use and thus increasing the risk of harms[45] However, given the expansive literature on poor outcomes for people who inject drugs generally, deteriorating health cannot reasonably be attributed to SIFs.[43,44,46]

The significant increase in the proportion of Sydney MSIC clients engaged in drug treatment and local health services indicates that SIFs play an important role in facilitating engagement with health services among clients.[37] This is consistent with studies that have shown, over shorter durations, a positive relationship between SIF utilisation and likelihood of referral to health and social services.[47–50] Shorter term studies from Vancouver's Insite have reported a large volume of referrals made in a 12-month period, with a substantial proportion (40%) for addiction treatment[51] and a concurrent 30% increase in the uptake of detoxification services.[52]

Kennedy et al[38] found that SIFs can play a role in the cessation of injecting drug use through referrals into treatment. Their results noted that a significant number of SIF clients reported discontinuation of SIF use and injecting cessation.[38] This is consistent with other studies, which have described increased engagement with addiction treatment amongst SIF clients, leading to subsequent decreases in drug and SIF use.[47,48,50,52,53] Whether SIFs enable long-term abstinence is still unclear as Kerr et al found that there was no significant change in the number of clients who continued injecting drugs in a one-year period prior to and following the opening of a SIF.[54] Kennedy et al[38] observed that many of the clients had multiple periods of cessation of SIF use, which is consistent with the remission/relapsing nature of substance use disorders and the difficulty that users experience even when engaged in addiction treatment.[55–57] Additionally, the broader literature shows there is no evidence to suggest that SIFs increase the rate of initiation into injecting drug use in the community, with research at the Vancouver SIF showing clients were already engaged in injecting practices prior to their use of the service.[58] Furthermore, prior injecting history is a requirement at many SIFs such as the Sydney MSIC.[8]

Salmon et al[39] demonstrated that SIFs improve public amenity by decreasing public drug use and unsafe syringe disposal. These results corroborate the findings of other short-term community surveys, which found local residents reported seeing less public injecting shortly following the opening of the Sydney MSIC.[59,60] This result is also supported by short-term studies from Vancouver and Rotterdam, which found that 71%[25] and 83%[61] of SIF clients, respectively, reported using drugs less often in public. A one-year study by Stoltz et al[26] also found that clients who consistently use Vancouver's SIF were more likely to report safe syringe disposal. This is likely explained by clients, prior to SIF opening, often lacking a safe, alternative place to inject, frequently caused by the absence of stable housing.[62] Salmon et al's[39] findings of a lack of change in the proportion of residents being offered drugs, supports earlier work conducted in Sydney and Vancouver where data on drug crime before and after SIF opening suggested that there was no increase associated with the facility opening.[63,64]

Several studies have also found that local community opinion has generally been favourable. Specifically, a survey in 2000 by Thein et al,[60] of the community around Sydney MSIC showed most respondents (68%) supported the facility prior to its opening, with this

increasing to 78% in 2002 once opened. Similar attitudes were found even when surveying communities without SIFs, with up to 74% of respondents saying they support the harm reduction measure.[65,66] As shown above, support following the opening of SIFs has been attributed to the improved public amenity, with decreases in public injection reported by both clients[25,61] and community members.[39,59] However, public support for these services may not be as strong in certain areas, as a survey by McGinty et al[67] showed that only 29% of surveyed US adults supported the legalisation of SIFs. This may reflect how cultural stigmas surrounding opioid and injecting drug use may negatively affect attitudes to these facilities.

The findings from this review have important public health and research implications. SIFs play an important public health role in reducing the harms associated with injecting, by providing a safer space for people to inject, without judgement regarding their drug use or their level of engagement in drug treatment or other health services. SIFs also play an important role in advocating for equitable health service access for their clients. The model for the MSIR in Melbourne is unique and promising in that it is co-located with a range of other services including alcohol and drug treatments, basic dental care, general practice and mental health services, blood-borne virus testing and treatment as well as housing and legal resources.[68] The availability of these resources on site may enhance opportunities for clients to engage with these services, thus improving their health and social wellbeing. Research investigating the impact of integrating these services within SIFs is crucial in informing the design and establishment of future facilities. Future research should also consider linking client data to external health services to better understand the needs and accessibility of services amongst SIF clients. This will also allow evaluation of SIF impact on local health services and at a public health scale.

This review has several limitations. First, we define long-term effects as outcomes followed for five years or more, which may have contributed to the relative paucity of studies included. As discussed, most studies identified reported on outcomes measured following less than five years of operation/follow-up and were therefore excluded. The breadth of our search may also have been limited as we considered only peer-reviewed papers indexed on either Medline or Embase. However, the bulk of research identified in other reviews was drawn from the medical literature,[3,9,17,19–24] making these two databases the most relevant. Further, we were interested in only considering the most robust research findings, and therefore peer-reviewed literature was the most appropriate. We included only studies published in English, therefore our findings may have been restricted to research originating from countries in which English is the primary language. As has been previously identified,[17] most of the research has been centred on the medical SIFs with an Australian and Canadian research bias. Therefore, information surrounding client and community outcomes of non-medical SIFs is lacking. These results are also likely to suffer from publication bias, whereby null or negative findings have not been reported in the scientific literature. This may limit the ability to generalise these findings when considering the feasibility of SIFs in other settings or with different service models.

Nevertheless, we have identified a lack of research investigating the long-term (≥ 5 years) effects of SIFs and that currently available research addresses four of the five SIF objectives we sought to investigate. Encouraging future studies to focus on longer follow-up periods would, therefore, improve our understanding of the long-term effects of SIFs. Such research should, however, be undertaken in a variety of jurisdictions and with a range of DCR/SIFs models. Despite this, the available evidence supports a substantial base of short-term research that shows SIFs reduce drug-related harms, improve access to drug treatment and health services, facilitate a reduction or cessation of injecting drug use, improve public amenity, and that there is a small but burgeoning body of working looking at longer-term outcomes.

Disclosure

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Mayor Nenshi speaks about Calgary's Mental Health and Addiction Strategy

Jan 29/ 2019 - Where's this data.

0:04

today in Calgary you are more likely to

0:08

die of a drug overdose than you are to

0:10

die in a traffic accident we've got a

0:13

very significant problem in our

0:14

community we're losing people every week

0:16

and we're losing them in every corner of

0:19

the community every background every age

0:21

every gender every income and it's very

0:25

clear that we in our community really in

0:28

any community do not have a handle on

0:30

what to do we don't understand yet what

0:36

a really effective community-wide

0:37

addictions and mental

0:39

health strategy is and so it's really

0:42

important that we think about harm

0:43

reduction in the safc consumption sites

0:45

is one of four pillars in our strategy

0:47

we got to have harm reduction certainly

0:49

because that's what keeps people alive

0:51

we gotta have prevention to help people

0:54

from even started we got to have

0:57

enforcement to go after supply to go

0:59

after the dealers and we have to have

1:01

treatment at the moment people are ready

1:03

for treatment we don't have that in

1:05

place yet and so we have some problems

1:08

and it's very true that the supervised

1:11

consumption site of the Sheldon schumer

1:13

has saved over over 800 lives that's

1:17

prevented 800 overdoses this is really

1:19

important work but it's important work

1:21

that has to happen in the context of

1:24

developing that broader community-based

1:26

response that's why earlier this year I

1:29

stood in front of Council and asked for

1:31

funding and approval of Canada's first

1:35

community-wide mental health and

1:37

addiction strategy to help us figure out

1:39

what the medium and long term solutions

1:41

are here at the same time though we have

1:45

to make sure that the work we're doing

1:47

to help people stay alive is also

1:49

helping them get better and we have to

1:51

make sure that the work we're doing to

1:53

help people stay alive is not doing so

1:55

at the cost of the neighbors and people

1:58

who live in the neighbor hood

1:59

from the moment that we stood in front

2:02

of the cameras and announced the

2:04

supervised consumption site of Sheldon

2:05

Center we have been monitoring

2:07

the neighborhood to see what kind of

2:09

social disorders happen and I got to

2:11

tell you it's been not consistent

2:14

sometimes there's no impact at all in

2:16

the last couple of months we've seen a

2:18

real significant rise in social disorder

2:21

in crime and issues in the immediate

2:23

vicinity of a shelter so the first thing

2:26

we got to do is all-hands-on-deck city

2:29

counts all of this alone AHS can't solve

2:31

it alone Calgary Police cant solve it alone

2:34

to come together and make sure that we

2:36

are working on all hands on deck on

2:39

those social disorder issues we got to

2:42

make sure that things like open

2:43

drug-dealing things like bad needle

2:45

disposal things like harassing and

2:48

bothering others and things like petty

2:49

crime are dealt with using the tools we

2:52

have because that's no-good

2:55

it's not it's not good for the people

2:56

who are forced into those actions and

2:58

it's certainly no good for the neighbors

2:59

and for the businesses in the area and

3:01

so I'm very supportive of the kinds of

3:03

things councilor Willie is talking about

3:04

in terms of what do we do about that

3:06

short term plan but I think what's

3:09

critical is that that plan the immediate

3:12

action we have to take to manage the

3:14

social disorder in the neighborhood

3:16

cannot then sacrifice our need to work

3:19

on that long term strategy I need to

3:22

keep people alive and to help people get

3:25

better

3:28

city the best data suggests the city

3:31

should be moving

3:33

yes we're closing adults

3:35

where are you going to put it you know the

3:38

key is that you don't want to create

3:40

East hastings here nobody wants

3:41

that and so it's important that this

3:44

kind of facility be located in an area

3:45

where there are wraparound services

3:47

available it is easily accessible to

3:49

people from across the community you

3:51

know we knew full well that this was a

3:52

residential neighborhood and that

3:53

extensive consultations with the people

3:56

in the communities who live in the

3:57

neighborhood prior to starting I had to

3:58

say the people develop lying in

4:00

particular Beltline neighborhoods

4:02

Association have been incredibly

4:04

thoughtful about this they said look we

4:07

understand there's a problem throughout

4:09

the community that is affecting members

4:10

of our community inspecting our

4:11

neighbors and our families and we

4:13

appreciate the need to do something

4:15

about that and we will do that on behalf

4:16

of the city that's a great thing but

4:18

they don't then deserve to also have all

4:21

the bad aspects of it and we've got to

4:23

take a little special care to make sure

4:25

that those people can still live in a

4:26

vibrant great neighborhood these are

4:28

issues that were going over

4:30

time overall this suite of issues and

4:32

this time being a lot of attempts to try

4:34

to resolve it so in this specific

4:36

context you've got an acute problem here

4:38

what do we now say well there's two

4:42

different kinds of wins here the first

4:44

is the big win and the big win is to

4:47

actually solve the problem and I got to

4:50

tell you no city anywhere to solve this

4:52

that's why we're putting all this work

4:54

to do together towards a systemic

4:56

strategy we're hoping that we'll be able

4:58

to replicate success many cities have

5:01

had with homelessness with a brand new

5:03

model of how you deal with homeless

5:05

people and how you help homeless people

5:06

get out of their situation which started

5:08

about 15 years ago and has made it

5:10

housed over 5,000 people here in Calgary

5:12

we're hoping we can replicate that in

5:14

the big way in dealing with mental

5:16

health in addition involving all those

5:18

things what that looks like I don't know

5:20

what I know is we got the biggest brains

5:21

in the city and some of the biggest

5:22

brains around the world coming together

5:24

to try and figure that out in the

5:27

immediate term though the answer is not

5:30

closed down the facility the answer is

5:31

not moving somewhere

5:32

the answer is manage the social disorder

5:34

around the facility better and help to

5:37

mitigate the impact on those businesses

5:39

and on those individuals and that's what

5:40

we're going to do what do you see as the

5:41

provinces role terrifies don't

5:42

understand you what you're saying is you

5:44

basically want to see these indicator

5:45

numbers that are causing the alarm show

5:48

a bit of a trend in another direction

5:49

and not asleep you get a lot of edges

5:51

off these indicator numbers when you

5:52

look citywide some of them are going up

5:54

anyway for various reasons some of them

5:56

are staying level some of them are

5:57

staying flat what really concerns me is

5:59

the big difference on some of these

6:01

measures between what's happening around

6:02

the Schumer and what's happening on the

6:04

rest of the downtown and what's

6:05

happening in the rest of the city and

6:07

those lines got to come back together

6:11

absolutely and that's really what I'm

6:13

suggesting here is that it's important

6:14

for us to understand that the real

6:16

answer is that long term strategy and an

6:18

overreaction to two or three months of

6:20

data is not what you want to do on the

6:22

other hand ignoring those two or three

6:24

months of data and allowing those trends

6:25

to go in the wrong direction is also a

6:27

problem the good news is were good at

6:29

measured responses we know what to do

6:31

and I think that we will be able to do

https://youtu.be/MXdO1CV88kU?si=csnm1ScCaRPfDp2On

Public Submission

CC 968 (R2024-05)

FREEDOM OF INFORMATION AND PROTECTION OF PRIVACY ACT

Personal information provided in submissions relating to matters before Council or Council Committees is collected under the authority of Bylaw 35M2017 and Section 33(c) of the *Freedom of Information and Protection of Privacy (FOIP) Act* of Alberta, and/or the Municipal Government Act (MGA) Section 636, for the purpose of receiving public participation in municipal decision-making and scheduling speakers for Council or Council Committee meetings. **Your name and comments will be made publicly available in the Council or Council Committee agenda and minutes.** If you have questions regarding the collection and use of your personal information, please contact City Clerk's Legislative Coordinator at 403-268-5861, or City Clerk's Office, 700 Macleod Trail S.E., P.O. Box 2100, Postal Station 'M' 8007, Calgary, Alberta, T2P 2M5.

Please note that your name and comments will be made publicly available in the Council or Council Committee agenda and minutes. Your e-mail address will not be included in the public record.

ENDORSEMENT STATEMENT ON TRUTH AND RECONCILIATION, ANTI-RACISM, EQUITY, DIVERSITY, INCLUSION AND BELONGING

The purpose of The City of Calgary is to make life better every day. To fully realize our purpose, we are committed to addressing racism and other forms of discrimination within our programs, policies, and services and eliminating barriers that impact the lives of Indigenous, Racialized, and other marginalized people. It is expected that participants will behave respectfully and treat everyone with dignity and respect to allow for conversations free from bias and prejudice.

First name [required]	Nicola
Last name [required]	Dikic
How do you wish to attend?	
You may bring a support person should you require language or translator services. Do you plan on bringing a support person? (If you are speaking at the service plans and budget mid-cycle adjustments, translation services may be available, please indicate if you will require these by writing the required language and "Budget" in the space below)	
What meeting do you wish to comment on? [required] (if you	Council
Date of meeting [required] (if you are providing input on service plans and budget mid-cycle adjustments, please select "November 18")	Oct 29, 2024

Calgary

Public Submission

CC 968 (R2024-05)

What agenda item do you wish to comment on? (Refer to the Council or Committee agenda published **here**.)
(if you are providing input on service plans and budget mid-cycle adjustments, please write "budget" below.)

[required] - max 75 characters	Sheldon Chumir SCS sit closing
Are you in favour or opposition of the issue? [required]	In opposition
ATTACHMENT_01_FILENAME	
ATTACHMENT_02_FILENAME	
Comments - please refrain from providing personal information in this field (maximum 2500 characters)	I would like to clarify that SCS staff only ever reverse drug poisonings when absolutely necessary. The person needs to be unable to be roused and their breathing must have slowed to a point that death is probably without intervention. They are not providing naloxone to clients that are just a bit drowsy or "on the nod". Therefore, if 58,000 overdoses have been reversed by SCS staff since 2018, that would mean most of those people would have died without intervention. Those who would have been lucky enough to have someone able to call for help would have utilized EMS and possibly be hospitalized. SCS is saving the healthcare system a lot of money by providing preventative medicine to their clients. SCS staff do wound care, STI treatments and provide valuable social services that are required by the clients. They provide harm reduction supplies and teach clients about safer injection and inhalation techniques. These clients are stigmatized everywhere they go but feel connected to the staff at SCS as know they are caring and non-judgemental. The service is in the right place at the Sheldon Chumir. That is where the wound care clinic, mental health clinics, indigenous services, STI clinic, opioid dependency program, outreach programs and urgent care are located. These are the services that these clients require in addition to the SCS. Other addictions services, homeless shelters and outreach services are all located downtown as this is where the clients are. Moving the SCS out of the core is not going to work.