

# Health Impacts

What are the impacts of supervised consumption services on health?

Supervised consumption services (SCS) can reduce a number of drug-related harms and improve the health of people who use drugs.

## Background

Canada has been experiencing an unprecedented overdose emergency, which has killed more than 21,000 people since 2016<sup>1</sup>. Overdose deaths have mostly been linked to toxic synthetic opioids contaminating the illegal drug supply. People who use drugs often do not know how strong their drugs are, or what substances their drugs contain, which can lead to accidental overdoses.

SCS are a key service for helping prevent overdose deaths. SCS are health facilities where people can take drugs under the supervision of trained professionals who provide education on harm reduction and respond to overdoses (e.g., give naloxone or oxygen). SCS also give people sterile equipment (e.g., needles, cookers, inhalation kits), and act as a pathway to other services. This means that in addition to preventing overdose deaths, SCS can also help promote safer drug use, prevent blood-borne infections, and help people access the care they need.

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<sup>1</sup> Government of Canada. Opioid-related harms in Canada: September 2020 [Internet]. 2020 [cited 2020 Nov 5]. Available from: <https://health-infobase.canada.ca/substance-related-harms/opioids/>

## How do these studies assess the impacts of SCS on health?

There are many studies that have looked at how SCS impact health. These studies have mainly evaluated two SCS: Insite in Vancouver, Canada and Medically Supervised Injecting Centre (MSIC) in Sydney, Australia. Researchers typically assess SCS impacts on health by examining overdose deaths, drug use practices, blood-borne infection transmission risk, and uptake into other health and social services over time. They most often analyze population level administrative data, SCS or health system data, research survey data, and lab results to look at these outcomes. However, these methods are limited in that it can be difficult to isolate the impacts of SCS on individuals' health from the impacts of other factors. This is largely due to a lack of randomized control trials involving SCS, as it is challenging for researchers to identify and recruit comparable study groups, and it would be unethical to assign SCS access to some participants while excluding others from a health service that is likely to be effective<sup>2</sup>. Studies on the impacts of SCS on health are thus largely unable to provide this direct, causal evidence.

Most available evidence in this area has focused on injection drug use. Little research has examined SCS models that supervise non-injection forms of consumption (e.g., snorting, smoking, oral ingestion), despite their wide implementation globally<sup>3</sup>. More evaluation is needed to examine the potential health impacts of SCS permitting non-injection routes of consumption, as they are a promising intervention with the potential to promote less risky modes of consumption and to reach a larger proportion of people who use drugs<sup>3</sup>.

## What does the evidence say?

### *Prevent overdose deaths*

Existing scientific evidence supports the role of SCS in reducing deaths for people who use drugs. For example, after the opening of Insite in Vancouver, there was a 35% decrease of overdose deaths within a few blocks of the facility, compared to only a 9% decrease in the rest of the city<sup>4</sup>. Globally, there have been no recorded fatal overdoses in SCS, even with many more complex overdoses happening in these facilities (e.g., as drugs have become more contaminated over time, particularly in Canada)<sup>5</sup>. Other evidence shows



<sup>2</sup> Caulkins JP, Pardo B, Kilmer B. Supervised consumption sites: A nuanced assessment of the causal evidence. *Addiction*. 2019 Aug;add.14747.

<sup>3</sup> Speed KA, Gehring ND, Launier K, O'Brien D, Campbell S, Hyshka E. To what extent do supervised drug consumption services incorporate non-injection routes of administration? A systematic scoping review documenting existing facilities. *Harm Reduct J*. 2020 Oct 7;17(1):72.

<sup>4</sup> Marshall BDL, Milloy M-J, Wood E, Montaner JSG, Kerr T. Reduction in overdose mortality after the opening of North America's first medically supervised safer injecting facility: a retrospective population-based study. *Lancet Lond Engl*. 2011 Apr 23;377(9775):1429–37.

<sup>5</sup> Kennedy MC, Karamouzian M, Kerr T. Public health and public order outcomes associated with supervised drug consumption facilities: A systematic review. *Curr HIV/AIDS Rep*. 2017;14(5):161–83.

that SCS can help reduce ambulance calls for opioid-related overdoses<sup>6</sup>.

People who use SCS often may also have an overall lower risk of dying prematurely, as compared to those who use SCS less often or not at all<sup>7</sup>.

### **Decrease unsafe drug use practices and HIV/HCV transmission risk**

Unsafe drug use practices include using drugs in public, rushing drug use, and sharing, borrowing, or reusing drug use supplies. SCS use is associated with lower rates of risky drug use practices amongst people who use drugs<sup>8-13</sup>, via safer drug use education and environmental conditions that support the adoption of safer drug use practices<sup>15-18</sup>. For example, a meta-analysis of three studies estimated that SCS use was associated with 69% reduction in the odds of syringe sharing<sup>19</sup>. Compared to people who only use SCS occasionally, people who use SCS frequently may also have lower rates of unsafe drug use practices<sup>14,19,20</sup>. This is important for health because unsafe drug use practices can increase risk of harms such as overdose, injection-related infections, and blood-borne infection transmission. For example, in Canada, 17% of people living with HIV and 43% of people living with HCV currently use or have used injection drugs<sup>21,22</sup>. In addition to supporting safer drug use practices, SCS also promote safer sex through education and by providing contraceptives such as condoms, which can further reduce risk of HIV transmission<sup>23</sup>. Some research has found that SCS use is linked to increased condom use over time (8% increase over two years)<sup>23</sup>. Ultimately, evidence suggests that SCS play an important role in reducing health risks for people who use drugs.



<sup>6</sup> Salmon AM, van Beek I, Amin J, Kaldor J, Maher L. The impact of a supervised injecting facility on ambulance call-outs in Sydney, Australia. *Addict Abingdon Engl*. 2010 Apr;105(4):676-83.

<sup>7</sup> Kennedy MC, Hayashi K, Milloy M-J, Wood E, Kerr T. Supervised injection facility use and all-cause mortality among people who inject drugs in Vancouver, Canada: A cohort study. Tsai AC, editor. *PLOS Med*. 2019 Nov 26;16(11):e1002964.

<sup>8</sup> Kinnard EN, Howe CJ, Kerr T, Skjødt Hass V, Marshall BD. Self-reported changes in drug use behaviors and syringe disposal methods following the opening of a supervised injecting facility in Copenhagen, Denmark. *Harm Reduct J*. 2014;11(1):29.

<sup>9</sup> Petrar S, Kerr T, Tyndall MW, Zhang R, Montaner JSG, Wood E. Injection drug users' perceptions regarding use of a medically supervised safer injecting facility. *Addict Behav*. 2007 May 1;32(5):1088-93.

<sup>10</sup> Bravo MJ, Royuela L, De la Fuente L, Brugal MT, Barrio G, Domingo-Salvany A, et al. Use of supervised injection facilities and injection risk behaviours among young drug injectors. *Addict Abingdon Engl*. 2009;104(4):614-9.

<sup>11</sup> Kerr T, Tyndall M, Li K, Montaner J, Wood E. Safer injection facility use and syringe sharing in injection drug users. *Lancet*. 2005;366(9482):316-8.

<sup>12</sup> Wood E, Tyndall MW, Lai C, Montaner JSG, Kerr T. Impact of a medically supervised safer injecting facility on drug dealing and other drug-related crime. *Subst Abuse Treat Prev Policy*. 2006;1:13-4.

<sup>13</sup> Stoltz J-A, Wood E, Small W, Li K, Tyndall M, Montaner J, et al. Changes in injecting practices associated with the use of a medically supervised safer injection facility. *J Public Health*. 2007;29(1):35-9.

<sup>14</sup> Potier C, Laprévote V, Dubois-Arber F, Cottencin O, Rolland B. Supervised injection services: What has been demonstrated? A systematic literature review. *Drug Alcohol Depend*. 2014 Dec 1;145:48-68.

<sup>15</sup> Wood E, Tyndall MW, Stoltz J-A, Small W, Zhang R, O'Connell J, et al. Safer injecting education for HIV prevention within a medically supervised safer injecting facility. *Int J Drug Policy*. 2005 Aug;16(4):281-4.

<sup>16</sup> Wood RA, Wood E, Lai C, Tyndall MW, Montaner JSG, Kerr T. Nurse-delivered safer injection education among a cohort of injection drug users: Evidence from the evaluation of Vancouver's supervised injection facility. *Int J Drug Policy*. 2008;19(3):183-8.

<sup>17</sup> Hedrich D, Kerr T, Dubois-Arber F. Drug consumption facilities in Europe and beyond. In: Harm reduction: evidence, impacts and challenges [Internet]. Spain: European Monitoring Centre for Drugs and Drug Addiction; 2010. p. 305-31.

Available from: [http://www.emcdda.europa.eu/system/files/publications/555/EMCDDA-monograph10-harm\\_reduction\\_final\\_205049.pdf](http://www.emcdda.europa.eu/system/files/publications/555/EMCDDA-monograph10-harm_reduction_final_205049.pdf)

## Increase access to health and social services

People who use drugs often experience significant barriers that delay or prevent access to traditional health and social services such as physicians, addictions counsellors, and housing programs<sup>24</sup>. SCS provide a unique point of contact for healthcare providers or social workers to link people to resources through referrals and wraparound programs on site. Evidence especially shows that SCS may help increase uptake into substance use disorder treatment and other programs<sup>14,25</sup>. Therefore, SCS can provide an important opportunity to help address peoples' health and social problems that might otherwise go unaddressed.



## Conclusion

Research shows that SCS can help prevent overdose-related harms, promote safer drug use practices, minimize risk of blood-borne infection transmission, and promote health and social service access for people who use drugs. However, more research is needed to examine the health impacts of a broader range of services (e.g., SCS that offer supervised inhalation), and to explore their impacts in the current context of an increasingly dangerous drug supply.

## Authorship and Citation

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<sup>18</sup> Small W, Moore D, Shoveller J, Wood E, Kerr T. Perceptions of risk and safety within injection settings: Injection drug users' reasons for attending a supervised injecting facility in Vancouver, Canada. *Health Risk Soc.* 2012 Jun 1;14(4):307–24.

<sup>19</sup> Milloy M-J, Wood E. Emerging role of supervised injecting facilities in human immunodeficiency virus prevention. *Addiction*. 2009 Apr;104(4):620–1.

<sup>20</sup> Folch C, Lorente N, Majó X, Parés-Badell O, Roca X, Brugal T, et al. Drug consumption rooms in Catalonia: A comprehensive evaluation of social, health and harm reduction benefits. *Int J Drug Policy*. 2018 Dec;62:24–9.

<sup>21</sup> Trubnikov M, Yan P, Archibald C. Hepatitis C virus infection in Canada: 2011 [Internet]. Ottawa: Public Health Agency of Canada; 2014 Dec [cited 2019 Oct 15]. (Canada Communicable Disease Report: Volume 40-19, December 18, 2014.). Available from: <https://www.canada.ca/en/public-health/services/reports-publications/canada-communicable-disease-report-ccdr/monthly-issue/2014-40/ccdr-volume-40-19-december-18-2014/ccdr-volume-40-19-december-18-2014-2.html>

<sup>22</sup> Public Health Agency of Canada. HIV in Canada. [Internet]. Ottawa; 2018 [cited 2019 Jul 12]. Available from: [http://publications.gc.ca/collections/collection\\_2018/aspc-phac/HP40-216-2018-eng.pdf](http://publications.gc.ca/collections/collection_2018/aspc-phac/HP40-216-2018-eng.pdf)

<sup>23</sup> Marshall BDL, Wood E, Zhang R, Tyndall MW, Montaner JSG, Kerr T. Condom use among injection drug users accessing a supervised injecting facility. *Sex Transm Infect*. 2008 Nov 12;85(2):121–6.

<sup>24</sup> Neale J, Tompkins C, Sheard L. Barriers to accessing generic health and social care services: a qualitative study of injecting drug users. *Health Soc Care Community*. 2008;16(2):147–54.

<sup>25</sup> Wood E, Tyndall MW, Zhang R, Montaner JSG, Kerr T. Rate of detoxification service use and its impact among a cohort of supervised injecting facility users. *Addiction*. 2007 Jun;102(6):916–9.