EVIDENCE BRIEF

Cost Savings

Do supervised consumption services save money?

The literature generally concludes that supervised consumption services (SCS) save money.

Background

North America is currently experiencing an overdose emergency, in part from unprecedented levels of contamination of the illegal drug supply. This contamination leads to increasing numbers of people dying from unintentional overdoses, as people may not know the exact content or strength of the drugs they are consuming. In addition, people who use drugs often lack access to sterile supplies and safe locations for substance use, thereby increasing risk of HIV, hepatitis C and other diseases. These outcomes are associated with costs to the healthcare system, lost productivity, and loss of life[1–9]. Significant attention has been given to the implementation of SCS as possible interventions to reduce these risks, but concerns regarding the costs of these services have limited support for their funding in many jurisdictions. Therefore, many stakeholders are interested in whether research examining SCS support these services as cost-effective measures.

1 Andresen MA, Jozaghi E. The point of diminishing returns: An examination of expanding Vancouver's Insite. Urban Stud. 2012;49(16):3531–44.

2 Jozaghi E, Reid AA, Andresen MA. A cost-benefit/cost-effectiveness analysis of proposed supervised injection facilities in Montreal, Canada. Subst Abuse Treat Prev Policy. 2013;8(1):25.

3 Jozaghi E, Reid AA, Andresen MA, Juneau A. A cost-benefit/cost-effectiveness analysis of proposed supervised injection facilities in Ottawa, Canada. Subst Abuse Treat Prev Policy. 2014;9(1):31.

4 Jozaghi E, Hodgkinson T, Andresen MA. Is there a role for potential supervised injection facilities in Victoria, British Columbia, Canada? Urban Geogr. 2015 Nov 17;36(8):1241–55.

5 Jozaghi E, Jackson A. Examining the potential role of a supervised injection facility in Saskatoon, Saskatchewan, to avert HIV among people who inject drugs. Int J Health Policy Manag. 2015 Mar

Globally, 20 studies have reported on whether implementing SCS has saved or will save governments money. Seven of these studies evaluated existing SCS in British Columbia[1,6–8,10–12]: five studies focused on Insite, Canada's first federally approved SCS in Vancouver's Downtown Eastside[1,6,10–12]; and two examined unsanctioned facilities (now closed) that were run by peer groups[7,8]. The remaining studies assessed the potential cost-savings of SCS if they were implemented in other locations: including six in other Canadian cities (Victoria, Saskatoon, Montreal, Toronto, and Ottawa)[2–5,9,13], and four in other cities in the United States[14–17].

How do these studies assess whether SCS will save money?

Researchers typically use cost-effectiveness or cost-benefit analyses to determine whether SCS save resources.

Cost-effectiveness analyses calculate how much it will cost for the SCS to result in one key outcome (e.g., how much it will cost to prevent one case of HIV).

Cost-benefit analyses compare the cost of implementing and operating an SCS to the costs saved by outcomes achieved through the SCS (for example, comparing SCS operating costs to the money saved by eliminating the treatment costs associated with averted cases of HIV and HCV). The output

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6 Andresen M, Boyd N. A cost - benefits and cost - effectiveness analysis of Vancouver's safe injection facility. Int J Drug Policy. 2010;21(1):70–6.

7 Jozaghi E. A cost-benefit/cost-effectiveness analysis of an unsanctioned supervised smoking facility in the Downtown Eastside of Vancouver, Canada. Harm Reduct J. 2014 Dec;11(1):1–16.

8 Jozaghi E, Vancouver Area Network of Drug Users. Exploring the role of an unsanctioned, supervised peer driven injection facility in reducing HIV and hepatitis C infections in people that require assistance during injection. Health Justice. 2015 Aug 28;3(1):16.

9 Jozaghi E, Reid AA. The potential role for supervised injection facilities in Canada's largest city, Toronto. Int Crim Justice Rev. 2015;25(3):233–46.

10 Bayoumi AM, Zaric GS. The cost-effectiveness of Vancouver's supervised injection facility. Can Med Assoc J. 2008 Nov 18;179(11):1143–51.

11 Pinkerton SD. Is Vancouver Canada's supervised injection facility cost-saving?: Insite supervised injection facility. Addiction. 2010 Jul 9;105(8):1429–36.

12 Pinkerton SD. How many HIV infections are prevented by Vancouver Canada's supervised injection facility? Int J Drug Policy. 2011 May;22(3):179–83.

13 Enns EA, Zaric GS, Strike CJ, Jairam JA, Kolla G, Bayoumi AM. Potential cost-effectiveness of supervised injection facilities in Toronto and Ottawa, Canada. Addiction. 2016 Mar;111(3):475–89.

14 Behrends CN, Paone D, Nolan ML, Tuazon E, Murphy SM, Kapadia SN, et al. Estimated impact of supervised injection facilities on overdose fatalities and healthcare costs in New York City. J Subst Abuse Treat. 2019 Nov;106:79–88.

15 Hood J e., Behrends C n., Irwin A, Schackman B r., Chan D, Hartfield K, et al. The projected costs and benefits of a supervised injection facility in Seattle, WA, USA. Int J Drug Policy. 2019 May;67:9–18.

16 Irwin A, Jozaghi E, Bluthenthal RN, Kral AH. A cost-benefit analysis of a potential supervised injection facility in San Francisco, California, USA. J Drug Issues. 2017 Apr;47(2):164–84.

can be presented as a ratio of benefits to costs (i.e., a cost-benefit ratio of 2:1 indicates that $2 are saved for every $1 spent), or as a monetary value.

What does the evidence say?

All of the studies that we identified found that SCS save money[18]. However, there is less agreement across the studies on exactly how much money is saved, and whether these savings can be directly attributed to SCS activities (as opposed to similar activities provided through other complementary services; e.g., needle and syringe distribution programs)[19].

Estimated savings resulting from Insite range from $200,000[12] to $6 million[6] annually, depending on the modelling approach and variables included ***(Table 1)***. Therefore, while there is a lack of agreement regarding the extent of the savings, the consensus is that Insite saves money overall.

Economic evaluations of two unsanctioned SCS in Vancouver[7,8] also identified that SCS provide overall cost-savings. This is further supported by prospective studies on the potential savings associated with implementing new SCS in other cities across Canada[1–5,9,13]. These studies recommended implementing between two[4,5,9,13] and five[1,13] SCS in the cities they examined. Similar prospective research in the United States also supported implementing SCS on the basis that they would be cost-saving[14–17].

Conclusion

Existing peer-reviewed studies conclude SCS contribute to overall cost-savings, despite differences in the estimated extent of these savings.

Authorship and Citation

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17 Irwin A, Jozaghi E, Weir BW, Allen ST, Lindsay A, Sherman SG. Mitigating the heroin crisis in Baltimore, MD, USA: a cost-benefit analysis of a hypothetical supervised injection facility. Harm Reduct J. 2017 May 12;14:1–14.

18 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):161–83.

19 Caulkins JP, Pardo B, Kilmer B. Supervised consumption sites: A nuanced assessment of the causal evidence. Addiction. 2019 Aug;add.14747.

Authors	*Research Question*	*Approach*	*Variables include*	*Overall Savings*
Bayoumi and Zaric (2008)[10]	**What is the cost-effectiveness of Insite when comparing to a similar facility in a similar area without the SCS function?**	Cost-effectiveness over a 10-year time horizon	• Decreased needle sharing • Increased use of safe injection practices • Referral to methadone maintenance treatment	• Savings over 10 years: **$18 million** • Benefit:cost ratio: **N/A** • HIV cases prevented over 10 years: **1517** • HCV cases prevented over 10 years: **68** • Life years gained over 10 years: **1175**
Andresen and Boyd (2010)[6]	**How does the cost of providing Insite compare to the savings associated with its positive health outcomes?**	Cost-benefit and cost-effectiveness	• Increased new HIV infections due to Insite closure	• Savings per year: **$6 million** • Benefit:cost ratio: **5.12:1** • HIV cases prevented per year: **19-57** • HCV cases prevented per year: **N/A** • Deaths prevented per year: **3**
Pinkerton (2010)[12]	**What are the cost savings associated with Insite?**	N/A	• Increased new HIV infections due to Insite closure	• Closure of SCS and syringe exchange: **Increase in 83.5 HIV cases per year; $17.6 million required for associated medical care costs** • Closure of SCS and continued operation of syringe exchange: **Increase in 2.8 HIV infections per year; $580 000 required for associated medical care costs**
Pinkerton (2011)[12]	**What are the drawbacks of the methods used by Andresen and Boyd (2010) and what method should be used instead when determining Insite's cost savings?**	N/A	• Preventing new HIV infections • Preventing overdose deaths	• Savings per year: **$200 000 - $400 000** • Benefit:cost ratio: **N/A** • HIV cases prevented per year: **4-8** • HCV cases prevented per year: **N/A**
Andresen and Jozaghi (2012)[1]	**What are the cost savings associated with expanding Insite?**	Cost-benefit	• Preventing new HIV infections	• Savings per year: **N/A** • Benefit:cost ratio: **3.09:1** • HIV cases prevented per year: **22** • HCV cases prevented per year: **N/A**

TABLE 1: *Articles assessing cost-savings of Insite.*