



POSITION STATEMENT

Position Title:	Harm Reduction
Approved by:	Cynthia St. John, Chief Executive Officer Dr. Joyce Lock, Medical Officer of Health Board of Health for Oxford Elgin St. Thomas Health Unit
Date Approved:	November 14, 2018
Date Effective:	November 14, 2018
Date Revised:	
Contact:	Josh Veilleux, Health Promoter

Position of Southwestern Public Health

1. Needle Syringe Programs (NSPs) provide supplies and services to people who inject or inhale drugs to prevent or decrease the risk of harms associated with these behaviours such as infection and overdose. Attendance at NSPs and increased needle availability are associated with decreases in injecting risk behaviours (re-using/sharing) and decreases in blood borne infections (HIV, Hepatitis C, Hepatitis B). The availability of NSPs increases the likelihood that people who use drugs will become involved in treatment and prevention interventions. NSPs are cost effective because they help to prevent significant healthcare costs incurred for the care and treatment of blood borne infections, and other injection drug use-related health concerns.

2. Inappropriate disposal of community sharps may pose a health and safety risk to the public, city and county employees, waste contractors, and resource recovery operators involved with municipal waste and recycling. While the risk of infection - such as human immunodeficiency virus (HIV) or hepatitis B or C - following a needle stick injury is very low, any needle stick injury potentially exposes the person to the risk of acquiring a blood-borne virus. This can cause anxiety about the possibility of contracting an infection. Well managed community sharps programs where people have reasonable access to safe disposal facilities can contribute to the health and safety of communities and prevent the transmission of blood-borne viruses by improving access to public health programs such as the Needle Syringe Program (NSP). A comprehensive sharps strategy provides a coordinated approach and shared accountability between municipalities who manage waste and public health.

3. Take home naloxone distribution programs expand access to this life saving medication to people who use opioids, their families and friends, as well as community service providers who interact with people who use opioids. The

program provides comprehensive training on overdose prevention, recognition and response to an overdose. Naloxone is an easy-to-use, lifesaving antidote to overdose from heroin or other opioids. Used in hospitals for decades, the medication has no abuse potential and can be administered with basic training. The distribution of naloxone is foundational to a comprehensive harm reduction strategy to address drug misuse and its associated harms.

4. Opioid agonist therapy (OAT) is an effective treatment for addiction to opioid drugs such as heroin, oxycodone, hydromorphone (Dilaudid), fentanyl, and Percocet. The therapy involves taking the opioid agonists methadone (Methodose) or buprenorphine (Suboxone). These medications work to prevent withdrawal and reduce cravings for opioid drugs. People who are addicted to opioid drugs can take OAT to help stabilize their lives and to reduce the harms related to their drug use. Methadone and buprenorphine are long-acting opioid drugs that are used to replace the shorter-acting opioids used by the person who is addicted. Long-acting means that the drug acts more slowly in the body, for a longer period of time. By acting slowly, it prevents withdrawal for 24 to 36 hours without causing a person to get high. OAT also helps to reduce or eliminate cravings for opioid drugs. Treatment works best when combined with other types of support, such as individual or group counselling.
5. Supervised consumption sites (SCS) are part of Canada's drugs and substances strategy. Canadian and international evidence shows that they help save lives and improve health. Research also shows they are cost effective and do not increase drug use or crime in the surrounding area. SCSs are an entry point to treatment and social services for people who are ready to stop or reduce their use of substances. The key goal of SCS is to prevent overdose deaths.

Rationale

Harm reduction refers to policies, programs and practices that aim to reduce the negative health, social and economic consequences that may ensue from the use of legal and illegal psychoactive drugs, without necessarily reducing drug use. Its cornerstones are public health, human rights and social justice. It benefits people who use drugs, families and communities. Harm Reduction ensures that people who use psychoactive substances are treated with respect and without stigma, and that substance-related problems and issues are addressed systemically.¹

Harm reduction is an approach rooted in public health and human rights. It aims to improve the lives of people who are affected by drugs or drug policies through evidence-informed programming. There are numerous drug-related harms that have health, social and economic impacts for individuals and communities. Recognizing that licit and illicit psychoactive substances will always be used, public health approaches try to prevent or reduce the potential negative consequences that may arise. Examples include 'designated driver' campaigns to avoid drunk driving, increasing accessibility to nicotine replacement gums and patches accessible to people who smoke and implementing needle and syringe exchange programs for people who inject drugs. Injection drug use is associated with many serious drug-related harms, such as the transmission of blood borne infections (HIV, Hepatitis C, Hepatitis B), and with fatal and

non-fatal overdoses and injection site bacterial infections. In some parts of the world, these harms are widespread among people who inject drugs. Access to interventions such as needle and syringe exchange, opioid substitution therapies, naloxone distribution, sharps management strategies, and supervised consumption sites are essential to reducing these harms and improving the health of the people who use drugs.²

Needle syringe programs (NSP)

Hepatitis C has been called “the silent killer” because individuals often do not have symptoms until many years after they are infected and the virus has already caused liver damage leading to more severe health problems.

According to Public Health Ontario, people who inject drugs have the highest incidence of hepatitis C.³ Repeated injections increase their risk of getting the hepatitis C virus. As a result, it is important for Canada to implement programs such as the needle exchange program to prevent the transmission of hepatitis C as well as detect hepatitis C earlier.

Needle Syringe Programs give people who inject drugs access to free, sterile needles and other harm reduction as well as education about how to reduce the spread of hepatitis C and other Bloodborne Infections (BBIs) such as HIV and hepatitis B. Testing for these BBIs is available and offered to clients who access Southwestern Public Health’s NSP program. Therefore, hepatitis C can be detected early; it can be treated with antiviral medications and in most cases be cured. If high risk individuals wait until symptoms appear to get tested, their hepatitis C may have already progressed to be more severe and they may need more invasive treatment. This can result in higher health care costs and more deaths.

NSPs also help prevent wound infections, heart infections and unintentional overdoses.

The World Health Organization (WHO) states 71 Million people globally have chronic hepatitis C infection.⁴ An estimated 250,000 Canadians are infected. The Canadian Liver Foundation states the number of Canadians with Chronic Hepatitis with Cirrhosis and advanced liver disease is on the rise and estimate the number will climb by 23% by 2035.⁵

Liver related deaths, liver cancer, and cirrhosis are the most common health complications associated with hepatitis C and it is estimated they will increase significantly by 2035.⁵

In relation to this estimated increase of hepatitis C, The Canadian Liver Foundation estimates health care costs will increase by 60% in 2032, costing the health care system \$258.4 Million in 2032.⁵

To avoid this future toll, The Canadian Liver Foundation expresses the importance of implementing antiviral treatment. They state that “75% of Hepatitis C patients have early stage disease at any given time - an ideal opportunity to intervene with new antiviral therapy”.

Treating hepatitis C patients with antiviral therapy will help decrease health care costs by preventing the need for high cost invasive treatments. In order to treat with antiviral treatment patients must get tested and diagnosed before it is too late. NSP programs allow nurses and harm reduction workers to provide health teaching and hepatitis C testing.

According to 2016 national HIV estimates published by Public Health Canada, 14.3% of all new HIV infections in Canada may have been acquired through injection drug use.⁶

The number of new HIV infections (incidence) in people who inject drugs may have increased since 2014. According to 2016 national HIV estimates:

- The number of new HIV infections attributable to injection drug use in 2016 (244 new infections) is slightly higher than the number in 2014 (219 new infections).
- The number of new HIV infections attributable to the combined category of sex between men or injection drug use in 2016 (66 infections) is higher than in 2014 (47 new infections).⁶

St. Thomas and the counties of Elgin and Oxford face unique challenges in relation to serving people with substance misuse concerns due to the communities' blends of small urban and rural areas, including transportation barriers. At present, harm reduction programs are primarily based in the small urban centres.

Best practice harm reduction guidelines recommend optimizing service delivery by providing needle syringe program services using a variety of program delivery models (i.e., fixed sites, mobile sites, pharmacy-based distribution, peer-based outreach, and vending machines) that are convenient for clients in terms of geographic location (e.g., urban, rural areas) and time of day, and tailored to reach subpopulations (e.g., youth, women, sex workers, LGBTQ, Indigenous groups, and those who are new to injecting).⁷

Sharps Management Strategy

Inappropriate disposal of community sharps may pose a health and safety risk to the general public, municipal employees, waste contractors, and resource recovery operators involved with municipal waste and recycling. While the risk of infection - such as HIV or hepatitis B or C - following a needle stick injury is very low, any needle stick injury potentially exposes the person to the risk of acquiring a blood-borne virus. This can cause anxiety about the possibility of contracting an infection. Well managed community sharps where people have reasonable access to safe disposal facilities can contribute to the health and safety of communities and prevent the transmission of blood-borne viruses.

Community sharps are generated from a number of sources, including:

- People who inject illicit drugs;
- People with medical conditions that involve regular self-injection in the home, including diabetes, multiple sclerosis, renal failure, infertility, allergies and vitamin deficiencies; and
- Vaccination and medical procedures for livestock and pets.

Barriers to safe disposal include:

- Knowledge about safe sharps disposal;
- Access to disposal facilities including local pharmacies;
- Stigma associated with NEP; and
- Fear of police involvement.

Inappropriate disposal of community sharps may indicate the need for a more coordinated and flexible approach to community sharps disposal that relies on a shared accountability model. A community sharps management plan can identify ways to:

- Discourage disposal of community sharps in household bins; and
- Manage community sharps that are inappropriately disposed in public and private
 - places by educating the public about safe handling/disposal of needles

Naloxone distribution

The number of opioid overdoses is increasing in Canada. According to a September 2017 report from the Canadian Institute for Health Information (CIHI), opioid poisonings have resulted in an average of 16 hospitalizations a day in Canada in 2016-2017. ⁸ Between 2007–2008 and 2016–2017, the rate of hospitalizations due to opioid poisoning increased by 53%. The report also found that the rate of emergency department visits due to opioid poisoning increased by 50% in Ontario between 2012–2013 and 2016–2017 (the only provinces for which this information is available). According to the Government of Canada, there were 3,987 apparent opioid related deaths in Canada in 2017 of which 92% were unintentional/accidental. ⁹

Naloxone is a drug that can temporarily reverse the effect of opioids in the case of an opioid overdose. It is a competitive opioid antagonist with rapid onset and very short duration of action. ¹⁰ Once administered, naloxone displaces the opiate from brain receptors, effectively reversing potentially fatal opiate effects, such as respiratory depression, within a few minutes. ¹¹ This temporary reversal of opioid overdose allows time for emergency intervention. ¹² Naloxone has been used to reverse the effects of a wide range of natural, semi-synthetic, and synthetic opioids in both pre-hospital (community settings) and hospital settings. ¹¹

In October of 2016, Health Canada approved the nasal spray formulation of naloxone, NARCAN Nasal Spray, for marketing in Canada. To address the increasing harms due to opioid poisoning, several policy and program changes are taking place in Canadian jurisdictions to improve access to naloxone. This includes establishing take-home naloxone programs to make the potentially life-saving drug available to those who are at risk of an opioid overdose.

Opioid Agonist Therapies

Opioid agonist (substitution) treatment such as Methadone and Suboxone can offer synergies with infectious disease treatment and prevention. Substance abuse treatment reduces drug injecting and needle sharing, and it facilitates access to HIV testing as well as access and adherence to antiretroviral therapy for HIV disease. ¹³ Recent innovations in HIV prevention through antiretroviral treatment ¹⁴ and emerging treatment

options for hepatitis C¹⁵ can further increase the health benefits of opioid substitution treatment.

The treatment has also been deemed highly cost-effective, if not cost saving.¹⁶ Often the costs of treatment are more than offset by reductions in acquisitive crime (theft or burglary)¹⁷ and in the use of health resources related to transmissions of HIV or hepatitis C.²¹ The treatment also results in improvements in health-related quality of life.²² Substitution treatment may be even greater if potential increases in workplace productivity are realized¹⁹, resulting in additional economic benefits outside of the health care sector.

Methadone maintenance treatment is the most common opioid substitution treatment worldwide.²⁰

In March 2017, the Canadian Medical Association released their national practice guideline for the management of opioid use disorder.²¹

Key points include:

- Opioid use disorder is often a chronic, relapsing condition associated with increased morbidity and death; however, with appropriate treatment and follow-up, individuals can reach sustained long-term remission.
- This guideline strongly recommends opioid agonist treatment with buprenorphine–naloxone as the preferred first-line treatment when possible, because of buprenorphine’s multiple advantages, which include a superior safety profile in terms of overdose risk.
- Withdrawal management alone is not recommended, because this approach has been associated with elevated risks (e.g., syringe sharing) and death from overdose in comparison to providing no treatment, and high rates of relapse when implemented without immediate transition to long-term evidence-based treatment.
- This guideline supports using a stepped and integrated care approach, in which treatment intensity is continually adjusted to accommodate individual patient needs and circumstances over time, and recognizes that many individuals may benefit from the ability to move between treatments.

Supervised consumption sites (SCS)

SCS are part of Canada’s harm reduction approach, as stated in the Canadian drugs and substances strategy.²²

Canadian and international evidence shows clearly that SCS help to save lives and improve health. Research also shows that SCS are cost effective and do not increase drug use and crime in the surrounding area. SCS are an entry point to treatment and social services for people who are ready to stop or reduce their use of substances.

People will use SCS for several reasons. They provide:

- a safe, clean place to consume substances;
- less risk of violence or confrontation with police;

- drug checking to detect adulterants using methods such as fentanyl test strips;
- emergency medical care in case of overdose, cardiac arrest or allergic reaction (anaphylaxis);
- basic health services, such as wound care;
- testing for infectious diseases like HIV, Hepatitis C and Sexually Transmitted Infections (STIs);
- access to sterile drug use equipment and a place to safely dispose of it after use; and
- health professionals and support staff, including for overdose intervention.

They also offer:

- education
 - on harms of drug use
 - safer consumption practices
 - safer sex
- referrals to or information on
 - health and social services including
 - drug treatment and rehabilitation (detoxification or drug substitution therapy)
 - housing services
 - primary health care
 - mental health treatment
 - community services
 - social welfare programs
 - needle exchange programs

The key aims of SCS are to:

- prevent overdose deaths
- facilitate entry into drug treatment services
- reduce the risk of disease transmission (such as Hepatitis C and HIV) caused by unhygienic practices, such as needle sharing
- reduce public disorder from public consumption of illegal substances and publicly discarded consumption equipment
- connect people who use drugs with basic health and social services
- reduce impact on Emergency Medical Services attending to drug overdoses.

Health and social services include:

- drug treatment
- counselling
- withdrawal management
- access to detoxification for people that who are at a stage of readiness to seek treatment
- housing services.

To be effective, SCS are set up in areas where there is public drug use. They are aimed at sub-populations of people who:

- inject drugs
- have limited contact with the health care system.

These may include those who are homeless or living in insecure accommodation or shelters.

Implications for Southwestern Public Health

Southwestern Public Health will:

1. Investigate and implement broader service delivery models for NEP beyond fixed site model;
2. Engage municipalities to develop a sustainable sharps management strategy for our communities that relies on a shared accountability approach;
3. Continue to support distribution of take home naloxone kits and provide kits from our fixed NEP sites as well as through community partnerships and outreach;
4. Engage with primary care physicians to educate on the use of Opioid Agonist Therapy for management of opioid use disorder based on the Canadian Medical Association National Practice Guideline;
5. Advocate with Ontario Provincial Government to commit to funding for Overdose Prevention Sites and Supervised Consumption Sites and collaborate with appropriate partner agencies that are interested in proceeding with an application.

References:

1. Canadian harm reduction network. www.canadianharmreduction.com
2. Harm reduction international www.hri.global/public-health-approaches-to-drug-related-harms
3. Public Health Ontario
4. www.publichealthontario.ca/en/eRepository/Recommendations_Public_Health_Response_Hepatitis_C.pdf
5. World Health Organization <http://www.who.int/en/news-room/fact-sheets/detail/hepatitis-c>
6. Canadian Liver Foundation <https://www.liver.ca/>
7. Public Health Agency of Canada. *Summary: Estimates of HIV Incidence, Prevalence and Canada's Progress on Meeting the 90-90-90 HIV targets, 2016*. Public Health Agency of Canada, 2018. Available from: <https://www.canada.ca/en/public-health/services/publications/diseases-conditions/summary-estimates-hiv-incidence-prevalence-canadas-progress-90-90-90.html>
8. CATIE <http://www.catie.ca/sites/default/files/bestpractice-harmreduction-part2.pdf>
9. Canadian Agency for Drugs and Technologies in Health (CADTH)
10. Opioid-related harms in Canada: chartbook [Internet]. Ottawa: Canadian Institute for Health Information; 2017 Sep. [cited 2017 Nov 14]. Available from: <https://www.cihi.ca/sites/default/files/document/opioid-harms-chart-book-en.pdf>
11. Government of Canada <https://www.canada.ca/en/health-canada/services/substance-use/problematic-prescription-drug-use/opioids/apparent-opioid-related-deaths.html>
12. Berkowitz BA. The relationship of pharmacokinetics to pharmacological activity: morphine, methadone and naloxone. *Clin Pharmacokinet*. 1976;1(3):219-30

13. Kim D, Irwin KS, Khoshnood K. Expanded access to naloxone: options for critical response to the epidemic of opioid overdose mortality. *Am J Public Health*. 2009 Mar [cited 2017 Jun 27];99(3):402-7
14. Province improves and expands access to naloxone, opioid treatment and counselling [Internet]. Edmonton (AB): Alberta government; 2016 May 11. [cited 2017 Jun 27]. Available from: <https://www.alberta.ca/release.cfm?xID=417414B455D8C-0088-FB3A-364659A0B371C960>
15. Volkow ND, Montaner J. The urgency of providing comprehensive and integrated treatment for substance abusers with HIV. *Health Aff (Millwood)* 2011;30(8):1411–9. [[PMC free article](#)] [[PubMed](#)]
16. Cohen MS, Chen YQ, McCauley M, Gamble T, Hosseinipour MC, Kumarasamy N, et al. Prevention of HIV-1 infection with early antiretroviral therapy. *N Eng J Med*. 2011;365(6):493–505. [[PMC free article](#)] [[PubMed](#)]
17. Alter HJ, Liang TJ. Hepatitis C: the end of the beginning and possibly the beginning of the end. *Ann Intern Med*. 2012;156(4):317–8. [[PMC free article](#)] [[PubMed](#)]
18. Barnett PG, Zaric GS, Brandeau ML. The cost-effectiveness of buprenorphine maintenance therapy for opiate addiction in the United States. *Addiction*. 2001;96(9):1267–78. [[PubMed](#)]
19. Zarkin GA, Dunlap LJ, Hicks KA, Mamo D. Benefits and costs of methadone treatment: results from a lifetime simulation model. *Health Econ*. 2005;14(11):1133–50. [[PubMed](#)]
20. Nosyk B, Guh DP, Bansback NJ, Oviedo-Joekes E, Brisette S, Marsh DC, et al. Cost-effectiveness of diacetylmorphine versus methadone for chronic opioid dependence refractory to treatment. *CMAJ*. 2012;184(6):E317–28. [[PMC free article](#)] [[PubMed](#)]
21. Zaric GS, Barnett PG, Brandeau ML. HIV transmission and the cost-effectiveness of methadone maintenance. *Am J Public Health*. 2000;90(7):1100–11. [[PMC free article](#)] [[PubMed](#)]
22. European Monitoring Centre for Drugs and Drug Addiction . Substitution treatment—treatment regimes [Internet] EMCDDA; Lisbon: [2013 Jun 28]. [last updated 2007 Nov 23]. Available from:<http://www.emcdda.europa.eu/html.cfm/index41827EN.html>.
23. Julie Bruneau, Keith Ahamad, Marie-Ève Goyer, Ginette Poulin, Peter Selby, Benedikt Fischer, T. Cameron Wild and Evan Wood; on behalf of the CIHR Canadian Research Initiative in Substance Misuse *CMAJ* March 05, 2018 190 (9) E247-E257; DOI: <https://doi.org/10.1503/cmaj.170958>
24. <https://www.canada.ca/en/health-canada/services/substance-use/canadian-drugs-substances-strategy/harm-reduction.html>