



Wound Care for People Who Inject Drugs

Interim Report

Situational Assessment
Oxford County Public Health
December 2016

About Oxford County

Located in the heart of southwestern Ontario, Oxford County has a population of approximately 111,700 people across eight municipalities that are “growing stronger together” through a partnership-oriented, two-tier municipal government incorporated as the County of Oxford.

Oxford County is emerging as a leader in sustainable growth through the [Future Oxford Community Sustainability Plan](#) and County Council’s commitment to achieving [100% renewable energy](#) by 2050 and becoming a [zero waste](#) community. Situated in one of Ontario’s richest areas for farmland, agriculture forms a cornerstone of the County’s economy, which boasts 55,000 jobs in a rapidly expanding commercial and industrial sector bolstered by its location at the crossroads of Highways 401 and 403. The County offers a thriving local arts, culture and culinary community, as well as conservation parks, natural areas and more than 100 kilometres of scenic trails.

The Oxford County Administration Building is located in Woodstock. Visit www.oxfordcounty.ca or follow our social media sites at www.oxfordcounty.ca/social. Oxford County’s Strategic Plan is at www.oxfordcounty.ca/strategicplan.

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Summary

Untreated wounds can lead to critical and costly health complications. People who inject drugs are at risk for developing wounds and may not seek care for infections. Oxford County's public health nurses routinely interact with people who inject drugs through the Needle Exchange and Overdose Prevention Programs. However, they do not currently build on their existing relationships to provide services to treat wounds as a matter of course.

This situational assessment gathers information to assess the need for wound care and to specifically identify local service gaps in Oxford County and treatment options. The assessment includes:

- A literature review that explores the scope of wounds and infections stemming from injection drug use.
- A health-care provider stakeholder survey that examines the current wound care environment for people who inject drugs in Oxford County.

Findings from the literature review showed that as high as a third of people who inject drugs may develop cutaneous injection related infections (infections).^{1,2} Females are more likely than males to report infections²⁻¹⁰ as are those that inject more frequently,^{3,5,9,11} inject opiates/stimulants^{2,5,7,11} and/or have unstable housing.^{2,8} Consequences for people self-managing infections and barriers and facilitators to seeking care are also discussed.

The health-care provider stakeholder survey identified that, apart from hospital-based providers, only one provider in Oxford County offers basic wound care to people who inject drugs. Stakeholders identified a need for wound care services in Oxford, and cited the importance of creating open and welcoming environments when providing such services.

This situational assessment did not include monitoring wounds or talking to people who inject drugs. Therefore, moving forward, Oxford County Public Health (Public Health) will collect additional information pertaining to the prevalence of wounds among people who inject drugs in Oxford County to better inform decision making about the potential provision of wound care services.

Wound Care for People Who Inject Drugs

Introduction

Oxford County's public health nurses have frequently observed wounds on their clients' limbs, and have been told of instances in which people who inject drugs have required hospitalizations and extensive treatments as a result of infected wounds. Developing skin and soft tissue infections from untreated wounds can be problematic for people who inject drugs because it can lead to more critical health complications that often go untreated. Early medical treatment of wounds can prevent complications; however, people who inject drugs commonly delay or do not specifically seek treatment for their wounds. Public health nurses have often wondered if preventive treatment of existing public health clients' wounds could ultimately reduce complications and treatment costs.

The Ontario Public Health Standards mandates that health units across Ontario provide access to harm reduction services, such as the provision of sterile needles and syringes, and other evidence-informed strategies, to their community.¹² Oxford County Public Health (Public Health) has provided harm reduction services to the community since 2000 and has established a therapeutic relationship with people who inject drugs over the past sixteen years. The needle exchange program was first implemented in 2000 to help clients avoid sharing needles by accepting old needles, while providing new needles and equipment to those who inject drugs. In 2013, Public Health expanded its harm reduction services by offering an Overdose Prevention Program; a program that teaches individuals how to recognize and treat an overdose by injecting a naloxone antidote.

As a first step in considering the potential to expand Public Health's harm reduction program to include wound care, Public Health decided to further understand injection-related wounds. The situational assessment, conducted from June 2015 to June 2016, consisted of a multi-phased research project comprising of a literature review outlining the significance of treating wounds for people who inject drugs and a survey to collect information from health-care provider stakeholders to determine the current state of injection-related wounds and associated wound care in Oxford County. The following report highlights the findings and discusses next steps

Public Health will undertake to continue its assessment regarding the viability of providing wound care services for people who inject drugs in Oxford County.

Methodology

For the purpose of this report, “injury” is used to refer to any damage that is done to one’s body, whereas the term “wound” is used to refer to any injury that is done to one’s living tissue.

Therefore, one may cause damage to their body, as a result of injecting drugs, which may not necessarily be considered a wound. Additionally, throughout this report, the term “infections” is used as an all-encompassing term to describe any form of injection-related infection, including: injecting-related injury and disease, cutaneous injection related infections, injection site infections, and skin and soft tissue infections. The articles reviewed in this section interchangeably used these various terms when discussing injection-related injuries and infections.

The situational assessment consisted of obtaining information from as many outlets and stakeholders as possible. The following section details the procedures used during this multi-phased situational assessment.

Literature Review Strategy

The literature review that was conducted for this project was guided by the following research questions: “*Who is at a risk of acquiring cutaneous-injection related infections (infections)?*” and “*What are the impacts of untreated infections?*” Articles concerning these research questions were sought according to the following subtopics:

- risk factors associated with acquiring infections
- barriers and facilitators to seeking health care
- the consequences of self-management and the burden of emergency care

The literature search was a repetitive endeavour as numerous iterations of search terms were utilized to best capture the most relevant articles for each subtopic. Specifically, articles were sought using electronic databases such as CINAHL, PubMed, and Scopus. Search terms

employed for the review included the following: risk factor(s), determinant(s), cause(s), source(s), burden, hospitalization(s), service(s), treatment(s), injection drug user(s), people who inject drugs, intravenous drug user(s), cutaneous injection-related infection(s), injection-related wound(s), wound(s), wound care, abscess(es), and soft tissue infection(s).

Research titles and abstracts were carefully reviewed to eliminate irrelevant studies that did not pertain to the subtopics outlined above. Articles were included in the search if they were peer-reviewed journals and books, written in English, and published between January 2005 and January 2016. Systematic reviews and scoping reviews were excluded to prevent any duplication of literature in the present review. Reference lists from articles were also examined to find additional literature for the review. If a piece of literature was deemed to be relevant, it was documented in an Excel spreadsheet that included headings such as name of article, author(s), research aim, research design and findings.

Survey of Stakeholders

In the summer/fall of 2015, members of the Sexual Health team at Public Health sought out health-care provider stakeholders (n=8) in Oxford County who were familiar with people who inject drugs to participate in a short survey. The questions posed to stakeholders aimed to gain a better understanding of the current services being offered to remedy wounds for those who inject drugs in Oxford County, and concerns regarding any gaps and/or possible opportunities stakeholders felt existed in relation to injection-related wound care in Oxford County. The majority of questions posed to stakeholders were open-ended in manner.

Following confirmation of stakeholder participation (n=7), surveys to respondents were sent via email. If surveys were not received within a month of initial send out, reminder emails were sent to inform participants about the survey. After all the surveys were retrieved, responses were gathered and organized by question number. Subsequently, content analysis was utilized to examine the data. According to Elo and Kyngäs, “the aim of [this method of analysis] is to attain a condensed and broad description of the phenomenon, and the outcome of the analysis is concepts or categories describing the phenomenon.”^{13(p108)} Inductive content analysis was the particular process of analysis that was used. Typically this approach consists of open coding, categorization and abstraction. Open coding consists of iterative readings of the material, while

notes and headings are written in different areas of the text. Categorization consists of grouping the aforementioned headings into generic categories and abstraction consists of the further broadening of categories.¹³ However, given the nature of the responses obtained in this study, oftentimes analysis only consisted of open coding and categorization.

Literature Review Results

The literature review outlines the risk factors associated with developing infections from injecting drug use, as well as the burden of such injuries; the consequences of self-management practices and effective harm reduction strategies that reduce the incidence of developing wounds and infections in this population.

It is difficult to provide a clear depiction of the true magnitude of wounds and infections given the hidden nature of the populations injecting substances. As such, the research presented in this review provides a glimpse into aspects concerning this population's use of injection-related drugs via the study of willing participants.

Risk Factors Associated with Obtaining Infections

Planning and delivering effective infection prevention efforts requires understanding the risk factors associated with obtaining the infections. A standard cutaneous-injection related infections surveillance system does not currently exist in Ontario or Canada; however, research in other parts of the world has shown that as high as a third of people who inject drugs have developed infections at least once in their lifetime.^{1,2} Given the transient nature of this population, this provides only a general picture of the potential magnitude of this issue.

Evidence suggests that of those injecting drugs, females are more likely than males to report having had infections at some point in their lifetime.²⁻¹⁰ Theories originating from gendered philosophies have tried to explain females' elevated risk for obtaining infections. For example, some have posed that in comparison to males, females are more likely to have a history working in the sex industry^{7,9,14} or are more likely to inject with others or seek help while

injecting.^{10,13} The latter theory is supported by studies that found sharing needles was associated with greater risks for obtaining infections.^{8-10,14,15}

Additional factors associated with obtaining infections include: injecting more frequently;^{3,5,9,11} injecting opiates and stimulants such as heroin, cocaine and crack cocaine;^{2,5,7,11} unstable housing;^{2,8} being incarcerated or recently incarcerated;^{6,7,16} and having a longer injection history.^{2,3}

Barriers and Facilitators to Seeking Health Care

Studies that have focused on first-hand accounts from people who inject drugs reveal that this group of individuals faces complex institutional barriers when accessing care for health matters. For example, people who inject drugs from Prince Edward Island, Canada, a small rural and remote province in Atlantic Canada, stated that accessing services was difficult given the limited availability of health-care providers, the long wait times, and the limited hours of services at treatment centres.¹⁷ Similarly, people who inject drugs and reside in urban centres have also reported difficulties when accessing services. A study from West Yorkshire, United Kingdom, a diverse geographical metropolitan county, reported that barriers to accessing generic health and social services for those who injected drugs included: travelling to services, not having a fixed address, and not having a telephone to confirm appointments.¹⁸

Evidence also suggests that in addition to facing institutional barriers when accessing care, people who inject drugs also experience prejudicial barriers. Specifically, people who inject drugs state they experience significant stigmatization and discrimination from providers and associated staff when seeking support or treatments.^{17,18} These sentiments were also echoed from those who provide services to people who inject drugs. According to Lang et al., service providers in Saskatchewan, Canada often observed the negativity that people who inject drugs received from other health professionals and community members alike.¹⁹ Their study also revealed that service providers lacked relevant education, funding, space and adequate hours of operations to fully meet the needs of this particular population.¹⁹

An additional obstacle that constrains people who inject drugs from accessing services is the weather. In particular, it has been shown that issues can arise for people who inject drugs

during periods of inclement weather, as their ability to navigate to services becomes especially difficult.¹⁹

Conversely, people who inject drugs have cited certain enabling factors that aid in their process of seeking care. For example, people who inject drugs who have accessed safe injection facilities in British Columbia, Canada, reported that amongst other factors, non-judgmental treatment from experienced staff and timely access to primary care services mitigated some of the access barriers they were accustomed to when seeking out medical care.²¹ Though only two safe injection facilities currently exist in Canada (both in Vancouver), needle exchange programs or syringe exchange programs are more prevalent throughout Canada and other countries alike. Much like those who utilize safe injection facilities, needle exchange program/syringe exchange program clients also cite that services offered at specialized harm reduction sites better facilitate access to care and other services in comparison to conventional healthcare settings. Specifically, according to MacNeil and Pauly, people who inject drugs utilizing needle exchange programs located in British Columbia, Canada reported that needle exchange programs harboured a safe and respectful environment where users could access services with a high level of trust and comfort.²² In addition to providing clients with clean syringes and primary care services, the needle exchange programs also provided clients a “foot in the door” to other much needed health and social services.

The Consequences of Self-Management and the Burden of Emergency Care

Given the barriers described in the aforementioned section, some people who inject drugs do not immediately seek services. Others, however, will often self-manage their injuries or seek treatments at hospitals to tend to their injuries. The following section references literature outlining the complications of such actions.

Common self-management techniques include self-lancing and drainage, self-directed antibiotic treatment, or self-directed treatment with some form of homeopathic therapy.^{14,23} Though timely treatments can reduce the burden of infections, the risks for further complications increase when people who inject drugs choose to treat their wounds on their own or if they have untrained individuals tend to their wounds in non-sterile environments.

For example, individuals performing self-lancing and drainage run the risk of not only contaminating their wound, but also transmitting the infection to nearby individuals and/or environments.²⁴ In the case of self-directed antibiotic treatments, negative consequences include the possible development of drug-resistant strains of bacteria,²³ as well as other adverse outcomes such as allergic or multi-drug reactions.²⁵ Lastly, evidence supporting the use of homeopathic care to treat infections is scarce; thus, further studies are required to determine whether or not homeopathic treatments are effective in treating infections.¹⁴

In contrast, those who inject drugs and seek care from formal health-care providers often utilize emergency department services to treat their infections and associated injuries. Evidence has shown this to be problematic as it poses a heavy economic burden on emergency department services and public health-care dollars. Figures from the United Kingdom and the United States show millions of dollars are spent in urban city hospitals every year to treat infections^{5,26,27} Canadian costs associated with hospital use for infections are not well known, but research has indicated that people who inject drugs and reside in Canada frequently access hospitals for infections.²⁸ This latter finding also holds true for areas in the United Kingdom and the United States.^{27,29,30} Additionally, evidence suggests that those who inject drugs who are seeking hospital care for infections are at a high risk for subsequent emergency department utilization and/or hospitalization;^{29,31} thus, further straining the impact infections have on the health service system. Factors associated with hospitalizations amongst this population include having severe infections or other comorbidities, as well as living outdoors or in homeless shelters.^{28,29,31,32}

Survey of Stakeholders

Seven Oxford County stakeholders representing six different organizations participated in the survey. Stakeholders worked in organizations such as hospitals, clinics, public health, and community agencies throughout Oxford County. In particular, stakeholders included medical doctors (n=2), social workers (n=2) and registered nurses (n=3). The following section summarizes the responses that were obtained from surveyed stakeholders and where appropriate, quotes from participants are used to keep the text as authentic as possible. For a list of the questions asked to stakeholders, see Appendix A.

Experiences with People Who Inject Drugs

The majority of respondents (n=6) had encounters with people who inject drugs. The most prevalent wounds or infections that were observed from this group of respondents included abscesses, cellulitis, and skin picking related to crystal methamphetamine or crack.

A common theme among respondents' reported experiences was their perception that people who inject drugs were uneasy about communicating their infections with service providers. For example, respondents felt people who inject drugs were embarrassed when attending clinics with "marks or scars on their body from their injection drug use" or when disclosing injection-related infections or wounds to service providers. As a result, respondents described how people who inject drugs would often feel compelled to lie about the origin of their scars. For example, some would "try to pass on these wounds as coming from another source [such as their dog]," and others would simply hide them by wearing long sleeved clothing.

However, one respondent, a registered nurse employed at a community agency, discussed how established relations with trusted service provider(s) were vital for people who inject drugs when disclosing infections. As she described, "If they're injecting street drugs, it depends on our established relationship [for them] to admit to the source of the wound." The ability to develop a relationship with people who inject drugs is even more important given the varied knowledge of wound care practices amongst this population. For instance, according to a registered nurse working in a public health capacity, clients are often unaware of ways to tend to their infections. As she stated:

Many times clients mention their wounds that are directly related to injection use and ask me, "What should I do?" or "Look what happened here!" [This] helps me to facilitate some wound care teaching or safer injection discussion. Many clients really don't understand how to engage in proper cleaning techniques, either with a wound infection or not. They think covering everything in alcohol swabs or pouring straight hydrogen peroxide or picking off dead areas and just leaving a band aid on permanently is enough wound care.

Wound Care Service Provision

According to the majority of respondents working outside the hospital setting (n=5), their organizations offered very little or no wound care for people who inject drugs. In particular, one respondent employed in a community health setting stated her worksite offered basic care to treat infections, such as providing people who inject drugs with dressings. Another registered nurse working in this type of setting described they “treat in-house if wounds are minor and/or are likely to resolve without intensive/ongoing specialized wound care.”

Conversely, the medical doctors working in the hospitals both stated their emergency departments offered services to treat wounds. Specifically, one doctor noted, “clients are treated with IV [intravenous] antibiotics and then the IV port is removed, and they return for IM [intramuscular] injections of antibiotics/dressing changes.” The other medical doctor, however, noted their emergency department (separate hospital site) provided less intensive care. As she stated, “We do dressing changes in the ER [emergency room], but [we do not have a] formal program to provide supplies, although [we] may send a few extra dressings with an individual.”

Interestingly, all the respondents noted their organization referred those with infections to other care providers. The most common service provider that respondents referred their clients to was a community agency (n=4; Note: members from this organization did not participate in this survey). However, as one medical doctor noted, this strategy was “problematic because if [people who inject drugs] don't have a fixed address, they are perceived to be a safety risk for the registered nurses.” Additionally, respondents not working in the hospital settings noted that they referred their clients to the emergency department or a nearby walk-in clinic (n=3).

Factors Influencing the Wound Care Situation in Oxford County

The majority of respondents (n=5) agreed that the therapeutic relationship between the care provider and the client was the most important factor influencing the prevention of wound infections and their complications amongst people who inject drugs. As one respondent, a registered nurse from a community agency, noted, “Our relationship with the client is the most

important factor in making the situation better. If the client trusts us and provides us with an accurate picture, we are better prepared to assist.” Further, it was noted by some respondents (n=3) that offering complimentary services, such as needle exchange and/or education about “the risks associated with sharing needles,” also made the situation better.

In terms of making the situation worse, respondents discussed a number of factors concerning infections amongst people who inject drugs in Oxford County. For instance, some participants (n=4) noted the changing profile of drugs used intravenously, the increase in injection frequency, and the lack of client compliance to treatment recommendations as influences that were making the situation worse. In addition, one registered nurse working in a public health capacity noted the distrust that those injecting drugs have with certain service providers. As she described:

When clients do open up to us about wounds, we are not able to help them and we send them to places they can't/don't want to access. Some clients have had negative experiences in the ER and don't want to return. Some clients do not have valid health cards; many do not even have a family physician/health-care practitioner [to go to], so they are unable to access health care.

Potential Actions to Address the Wound Care Situation in Oxford County

The majority of respondents (n=6) agreed that expanding services would help people who inject drugs and possibly curtail infection concerns in Oxford County. In particular, respondents advocated for “safe” community environments that provide people who inject drugs with adequate support to not only treat their infections, but also provide support with regards to other related issues. Some suggestions included:

- Adding needle exchanges at various points of access in the community.
- Introducing needle drop boxes in public areas.
- Starting a service that delivers clean needles to clients.
- Providing more detailed information to clients at needle exchanges that lets people who inject drugs know what infections look like and what to do if they have one.

Additionally, a registered nurse from a community agency recommended political action was required to successfully address the situation. Specifically, she proposed stakeholders should advocate for “a harm reduction policy, [a] drug user bill of rights on a system wide basis [...], so that safe places can be identified and users can safely seek help without judgment.”

Increasing service providers’ knowledge about people who inject drugs and their specific injection practices was also highlighted as a way to increase competencies with regards to treating infections. Two public health nurses recommended additional education and training was needed to inform providers about how people who inject drugs physically use their drugs and their methods of injecting, as well as ways to assess and treat infections.

Wound Care Provision for People Who Inject Drugs in Oxford County

Similar to the aforementioned responses, respondents (n=6) honed in on a one-stop shop for harm reduction services, and better education for both provider and client when discussing ideas for a wound care program in Oxford County. In addition, according to one registered nurse practicing in a specialized clinical environment, a wound care program for people who inject drugs in Oxford County should also take into consideration geography, and providing services in a supportive non-judgmental environment. As she described:

Making wound care accessible and non-discriminatory is key. By accessible I mean both geographically and socially. Geographically, the location of the service could have a great deal of influence on how many people use the services, and depending on the situations of your clients, outreach or mobile services might be useful. Socially, the services should be provided by people who operate from a harm-reduction stand point [sic] (goes without saying perhaps) as ID users and other substance users alike often face discrimination when accessing health care. Realizing that you cannot provide all things to all people, you may also consider having a social worker or someone with a social/community background to provide crisis intervention, substance use counselling, or advocacy/liaison.

Additional ideas respondents (n=3) brought forth regarding an integrated wound care program included:

- Offering services at needle exchange locations.
- Providing drop-in times for people who inject drugs.
- Advocating for supervised injection sites.
- Introducing services at the public health unit.
- Hosting a forum for people who inject drugs to discuss harm reduction, infections and other related issues with professionals and their peers.

In terms of education, respondents (n=3) proposed wound care programs had the ability to provide clients with knowledge and training with regards to: recognizing symptoms in need of care, safe injection practices, and information with regards to accessing care and purchasing low-cost items.

Discussion

The objective of this situational assessment was to identify gaps in services and identify wound care options to meet the needs of those who inject drugs. The situational assessment consisted of a literature review summarizing the significance of treating wounds for people who inject drugs, as well as information collected from provider stakeholders to gain a better understanding of the current state of infections and associated wound care in Oxford County.

The findings from the literature review identify known risks associated with developing infections amongst those who inject drugs. For example, amongst other factors, studies have shown that being female²⁻¹⁰ or sharing needles with others is independently associated with an increased risk for obtaining infections.^{8-10,14,15} The review also identified the consequences of self-managing infections, which if undertaken, may lead to health complications to the injured person them self, or any nearby individuals and environments.²⁴ Lastly, evidence addressing barriers to seeking care was sought and results showed that people who inject drugs encountered a number of obstacles, such as accessibility limitations, long wait times and feelings of stigmatization and discrimination.¹⁷

With regards to Oxford County, individuals participating in the provider stakeholder survey cited the importance of open “non-discriminatory” environments and genuine “therapeutic relationship[s]” between care providers and people who inject drugs when discussing ways to improve service delivery for those affected by infections in the region. The results from the survey also demonstrated that while the majority of respondents observed clients who had infections related to their injection practices, only a few (i.e., two hospital settings and one community service setting) provided even basic services to remedy such injuries for these individuals. In these situations, stakeholders often referred clients to the emergency department or one particular community agency. These actions, however, have their own implications as the literature reported that use of the emergency department for infection treatment poses a heavy economic burden on the public⁵ and services offered by certain community agencies may actually impede individuals from receiving care as those who inject drugs may not have a telephone to confirm appointments.¹⁸ Additionally, as mentioned by one respondent from the stakeholder survey, those without a health card may have difficulty accessing care. In Ontario, the Ontario Health Insurance Program (OHIP) provides coverage for medically necessary health care. However, people who are not covered under OHIP or do not have a valid health card, may experience barriers accessing care.

As a result, to improve the health of people who inject drugs in Oxford County, provider stakeholders suggested augmenting primary infection prevention activities such as improving access to needle exchange and needle drop-off services, as well as expanding existing services to include secondary prevention through wound care for people who inject drugs. In particular, stakeholders envisioned a one-stop shop where wound care could be offered in conjunction with other harm reduction services. This vision also parallels the Ontario Needle Exchange Programs Best Practice Recommendations,³³ which proposes the provision of primary care services (i.e., first aid, immunization and testing) at needle exchange programs to facilitate better access to care for people who inject drugs. Given Public Health already delivers services aimed at promoting health and preventing illnesses and diseases, the addition of a wound care program would have the potential to augment its pre-existing harm reduction program, while enhancing opportunities for those who inject drugs to access complementary forms of care.

Prior to implementing a wound care program, the prevalence of wounds must first be identified to determine the need for this type of service in Oxford County. A limitation from this situational assessment was the lack of information retrieved about the number of people who inject drugs

and develop wounds in Oxford County. Attempts were made to get this type of information from one Oxford County emergency department, but such data could not be retrieved in time for this situational assessment. Additionally, Public Health was unable to retrieve this type of information from its own client interactions because current protocols pertaining to needle exchange program visits does not involve public health nurses inquiring about clients' pre-existing and/or current wounds unless clients disclose such information during their visit (in the case of the latter, clients are referred to appropriate services). As a result, a true picture of the extent and quantity of wounds among Public Health clients and people who inject drugs in Oxford County does not currently exist. An additional limitation of this situational assessment was the absence of first-hand accounts from those who inject drugs in Oxford County. Obtaining this group's feedback could help provide a more holistic picture of the current infection and wound care situation in Oxford County.

In light of this, Public Health will collect more evidence prior to making any decisions about providing wound care services. Specifically, identifying the prevalence of wounds among people who inject drugs in Oxford County is warranted, as it could provide Public Health with the requisite evidence illustrating the magnitude of wounds in this population. A separate, yet equally important, next step relates to the perceived distrust between client and provider: a finding that was highlighted in both the literature review and the stakeholder surveys. Thus, Public Health will establish approaches to include feedback and advice from clients and people who inject drugs, and continue to strive to create supportive service environments. Amongst other things, this may include providing sensitivity training to care providers about how to interact and deliver services to people who inject drugs in a non-discriminatory manner.

Conclusion

The evidence gathered through the literature review and the provider stakeholder survey reinforced the potential need for infection prevention and wound care for people who inject drugs, but did not go far enough in providing a complete picture on the magnitude of the issue in Oxford County.

Of particular relevance is the finding that only one community agency in Oxford County working outside of the hospital setting indicated they provided basic wound care services to people who

inject drugs. Though some stakeholders indicated they did refer clients to this particular community agency for treatment, evidence from the literature suggests referrals to such agencies may create access barriers for this particular population as they are unlikely to follow-up with additional providers outside of existing therapeutic relationships.

Further evidence depicting the magnitude and scope of the issue has yet to be collected. Since Public Health is committed to evidence-informed decision making, next steps will include:

- Gathering additional evidence to determine the prevalence of wounds among people who inject drugs in Oxford County.
- Establish approaches to include feedback and advice from clients and people who inject drugs.
- Continue to strive to create supportive service environments.

Public health nurses have recently completed training that enables them to better assess and document client wounds. It is hoped that additional efforts to gather information about wounds from people that inject drugs will help inform future decision making about the provision of wound care services by Public Health.

References

1. Binswanger IA, Kral AH, Bluthenthal RN, Rybold DJ, Edlin BR. High prevalence of abscesses and cellulitis among community-recruited injection drug users in San Francisco. *Clin Infect Dis*. 2000;30(3):579-81.
2. Hope VD, Marongiu A, Parry JV, Ncube F. The extent of injection site infection in injecting drug users: findings from a national surveillance study. *Epidemiol Infect*. 2010;138(10):1510-8.
3. Topp L, Iversen J, Conroy A, Salmon AM, Maher L. Prevalence and predictors of injecting-related injury and disease among clients of Australia's needle and syringe programs. *Aust N Z J Public Health*. 2008;32(1):34-7.
4. Dahlman D, Håkansson A, Björkman P, Blomé MA, Kral AH. Correlates of skin and soft tissue infections in Injection drug users in a syringe-exchange program in Malmö, Sweden. *Subst Use Misuse*. 2015;50(12):1529-35.
5. Hope V, Kimber J, Vickerman P, Hickman M, Ncube F. Frequency, factors and costs associated with injection site infections: findings from a national multi-site survey of injecting drug users in England. *BMC Infect Dis*. 2008;8(1):1.
6. Ivan M, van Beek I, Wand H, Maher L. Surveillance of injecting-related injury and diseases in people who inject drugs attending a targeted primary health care facility in Sydney's Kings Cross. *Aust N Z J Public Health*. 2015;39(2):182-7.
7. Lloyd-Smith E, Kerr T, Hogg RS, Li K, Montaner JS, Wood E. Prevalence and correlates of abscesses among a cohort of injection drug users. *Harm Reduct J*. 2005;2(1):1.
8. Lloyd-Smith E, Wood E, Zhang R, Tyndall MW, Montaner JS, Kerr T. Risk factors for developing a cutaneous injection-related infection among injection drug users: a cohort study. *BMC Public Health*. 2008;8(1):1.

9. Salmon AM, Dwyer R, Jauncey M, van Beek I, Topp L, Maher L. Injecting-related injury and disease among clients of a supervised injecting facility. *Drug Alcohol Depend.* 2009;101(1):132-6.
10. Smith ME, Robinowitz N, Chaulk P, Johnson KE. High rates of abscesses and chronic wounds in community-recruited injection drug users and associated risk factors. *J Addict Med.* 2015;9(2):87-93.
11. Phillips KT, Stein MD. Risk practices associated with bacterial infections among injection drug users in Denver, Colorado. *Am J Drug Alcohol Abuse.* 2010;36(2):92-7.
12. Ministry of Health and Long-Term Care, Population and Public Health Division. Ontario public health standards 2008: revised May 2016 [Internet]. Toronto: Ministry of Health and Long-Term Care; 2016 [cited 2016 Dec 07]. Available from: http://www.health.gov.on.ca/en/pro/programs/publichealth/oph_standards/docs/ophs_2008.pdf
13. Elo S, Kyngäs H. The qualitative content analysis process. *J Adv Nurs.* 2008;62(1):107-15.
14. Pollini RA, Gallardo M, Hasan S, Minuto J, Lozada R, Vera A, Zúñiga ML, Strathdee SA. High prevalence of abscesses and self-treatment among injection drug users in Tijuana, Mexico. *Int J Infect Dis.* 2010;14 Suppl 3:e117-22.
15. Maloney S, Keenan E, Geoghegan N. What are the risk factors for soft tissue abscess development among injecting drug users? *Nurs Times.* 2010;106(23):21-4.
16. Milloy MJ, Wood E, Lloyd-Smith E, Grafstein E, Tyndall M, Montaner J, Kerr T. Recent incarceration linked to cutaneous injection-related infections among active injection drug users in a Canadian setting. *J Community Health.* 2010;35(6):660-6.
17. McCutcheon JM, Morrison MA. Injecting on the Island: a qualitative exploration of the service needs of persons who inject drugs in Prince Edward Island, Canada. *Harm Reduct J.* 2014;11(1):10.

18. 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.
19. Lang K, Neil J, Wright J, Dell CA, Berenbaum S, El-Aneed A. Qualitative investigation of barriers to accessing care by people who inject drugs in Saskatoon, Canada: perspectives of service providers. *Subst Abuse Treat Prev Policy*. 2013;8(1).
20. Allen ST, Ruiz MS, Roess A, Jones J. Assessing seasonality of travel distance to harm reduction service providers among persons who inject drugs. *Harm Reduct J*. 2015;12(1).
21. Small W, Van Borek N, Fairbairn N, Wood E, Kerr T. Access to health and social services for IDU: The impact of a medically supervised injection facility. *Drug Alcohol Rev*. 2009;28(4):341-6.
22. Macneil J, Pauly B. Needle exchange as a safe haven in an unsafe world. *Drug Alcohol Rev*. 2011 Jan;30(1):26-32.
23. Fink DS, Lindsay SP, Slymen DJ, Kral AH, Bluthenthal RN. Abscess and self-treatment among injection drug users at four California syringe exchanges and their surrounding communities. *Subst Use Misuse*. 2013;48(7):523-31.
24. Gilbert M, MacDonald J, Gregson D, Siushansian J, Zhang K, Elsayed S, Laupland K, Louie T, Hope K, Mulvey M, Gillespie J. Outbreak in Alberta of community-acquired (USA300) methicillin-resistant *Staphylococcus aureus* in people with a history of drug use, homelessness or incarceration. *CMAJ*. 2006;175(2):149-54.
25. Starrels JL, Barg FK, Metlay JP. Patterns and determinants of inappropriate antibiotic use in injection drug users. *J Gen Intern Med*. 2009;24(2):263-9.
26. Takahashi TA, Maciejewski ML, Bradley K. US hospitalizations and costs for illicit drug users with soft tissue infections. *J Behav Health Serv Res*. 2010;37(4):508-18.
27. Tookes H, Diaz C, Li H, Khalid R, Doblecki-Lewis S. A cost analysis of hospitalizations for infections related to injection drug use at a county safety-net hospital in Miami, Florida. *PLoS One*. 2015;10(6):e0129360.

28. Kerr T, Wood E, Grafstein E, Ishida T, Shannon K, Lai C, Montaner J, Tyndall MW. High rates of primary care and emergency department use among injection drug users in Vancouver. *J Public Health (Oxf)*. 2005;27(1):62-6.
29. Binswanger IA, Takahashi TA, Bradley K, Dellit TH, Benton KL, Merrill JO. Drug users seeking emergency care for soft tissue infection at high risk for subsequent hospitalization and death. *J Stud Alcohol Drugs*. 2008;69(6):924-32.
30. Hope VD, Ncube F, Parry JV, Hickman M. Healthcare seeking and hospital admissions by people who inject drugs in response to symptoms of injection site infections or injuries in three urban areas of England. *Epidemiol Infect*. 2015;143(1):120-31.
31. Takahashi TA, Baernstein A, Binswanger I, Bradley K, Merrill JO. Predictors of hospitalization for injection drug users seeking care for soft tissue infections. *J Gen Intern Med*. 2007;22(3):382-8.
32. Lloyd-Smith E, Tyndall M, Zhang R, Grafstein E, Sheps S, Wood E, Montaner J, Kerr T. Determinants of cutaneous injection-related infections among injection drug users at an emergency department. *Open Infect Dis J*. 2012 Jan;6.
33. Strike C, Leonard L, Millson M, Anstice S, Berkeley N, Medd E. Ontario needle exchange programs: Best practice recommendations. Toronto: Ontario Needle Exchange Coordinating Committee. 2006. [cited 2016 Dec 07]. Available from: http://www.ohrdp.ca/wp-content/uploads/pdf/Best_Practices_Report.pdf

Appendix A: Stakeholder Survey Questions

1. Are you seeing clients who inject drugs that have wounds related to their injection practices? Or are you seeing clients who have wounds from drug use (e.g., crystal meth users picking their skin?) If yes, please provide your experience with these encounters?
2. Do you offer any wound care services at your place of employment? If yes, what services do you offer? If no, where do you refer your clients? What influences are making the situation better? Worse?
3. What possible actions can be taken to address the situation?
4. What ideas do you have in regards to providing a wound care program for this population?



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