Embedding a Safer Supply Program in a Small Urban Community

Peterborough 360 Degree Safer Supply Program Evaluation

May 2022 through December 2023

Acknowledgements

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We wish to express our gratitude to Health Canada and the Substance Use and Addiction Program (SUAP) for funding our program. We are extremely grateful to the National Safer Supply Community of Practice whose outstanding work in supporting programs across the country has been essential to us. We also want to acknowledge the ongoing support of our program by the 360 NPLC primary care team, and the contributions of the Safer Supply Community Partner Advisory Committee whose valuable insights and areas of expertise helped shape the program that exists today.

The artwork in this report was created by participants, staff and visitors who attended the program's monthly art drop-ins. In order to protect participant confidentiality, we are not in a position to give credit to the artists involved. However, the authors and clinic would like to offer our sincere thanks to all those who shared their creativity and agreed to have their work included in this report.

Graphic Design by John Marris

Colonialism acknowledgement

The 360 Degree NPLC recognizes that any work we do with people experiencing structural barriers to health and health care, including the impacts of colonialism, racism, poverty and homelessness must incorporate an understanding of cultural humility and the work of educating ourselves about colonization, settler treaty obligations and the Truth and Reconciliation Report. We acknowledge the pervasive health inequities created by the devastating colonial project, including intergenerational trauma and homelessness which disproportionately affects Indigenous peoples across this territory.

The 360 Degree Safer Supply Program team created, at our inception, the following acknowledgement of our work's location in geography and in history:

The Peterborough 360 Degree NP-led Clinic is located on the traditional territory of the Michi Saagig and Chippewa Nations, collectively known as the Williams Treaties First Nations, which include Curve Lake, Hiawatha, Alderville, Scugog Island, Rama, Beausoleil, and Georgina Island First Nations. The 360 NPLC's Safer Supply Program recognizes the significant harms caused by systemic racism embedded in drug policies, health care institutions and beyond. We stand in solidarity and in gratitude for the brilliance, resilience and resistance of all communities disproportionately affected by the ongoing colonial war on drugs.

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Introduction

Background: the poisoned drug supply

The devastating and deadly toxic drug poisoning crisis, which has steadily accelerated since 2016, shows no signs of relenting in Canada. It is primarily driven by an unregulated supply of illicit opioids comprised of fentanyl and fentanyl analogues. These highly potent synthetic opioids are often adulterated with other potent opioids such as carfentanil, unregulated benzodiazepines such as etizolam, and substances not intended for human consumption such as the veterinary sedative xylazine. There have been over 40,000 opioid related deaths and over 39,000 opioid related hospitalizations since 2016. The majority of opioid-related deaths have occurred in British Columbia, Alberta and Ontario.[1] There have been, on average, 22 opioid related deaths every day in Canada.[2]

Public Health Ontario reported over 2,500 opioid related deaths in 2022 in Ontario or, on average, 7 deaths every day in the province.[3]

The City of Peterborough is located in Southern Ontario approximately 125 kilometres northeast of Toronto. According to the 2021 Census, Peterborough's population was 83,651.[4] The surrounding wider Peterborough County had a population at the same time of 128,624.[5]

Peterborough Public Health (PPH) reported 78 opioid-related deaths in Peterborough City and County between January and December 2023, which is equivalent to on average one death in our community every 5 days. During the same time period, PPH reported 372 emergency services calls for opioid poisonings and 424 emergency room visits for drug poisonings (or on average more than 35 visits every month) – 89% of which occurred at Peterborough Regional Health Centre.[6]

It is within the context of this unrelenting, accelerating toxic drug poisoning crisis with its mounting opioid-related deaths among our patients that Peterborough 360 Degree Nurse Practitioner-Led Clinic (360 NPLC) team members decided to apply to the federal Substance Use and Addictions Program (SUAP) for funding to support a pilot project to provide pharmaceutical grade opioids to people using the poisoned supply of illicit opioids, to attempt to separate them from the toxic supply. Our project is called "Embedding a Safer Supply Program in a Smaller Urban Community" and represents a unique opportunity to pilot Safer Supply in a small city of approximately 80,000 residents. Please note: the term "Safer Supply" is being replaced by the term "Prescribed Alternatives" to more accurately and precisely characterize the intervention. However, we will retain the phrase "Safer Supply" in this document to avoid confusing readers as "Prescribed Alternatives" is not yet in common usage. These terms can be considered interchangeable.

The Peterborough 360 Degree Nurse Practitioner-Led Clinic

The Peterborough 360 Degree NPLC was created in 2011 to provide comprehensive primary health care to individuals experiencing structural barriers to health and health care access. Our specialized model of primary care incorporates a commitment to improving health equity and access to the social determinants of health, recognizing that 70% of our registered patients have incomes below Statistics Canada's "Low Income Cut-off" – and recognizing the direct epidemiologic (disease-causing) relationship between low income and premature illness and death.[7]

The 360 NPLC aspires to provide low barrier accessibility and its salaried funding model supports more flexible scheduling to accommodate people having destabilized life circumstances. Many of the 360 NPLC's patients make use of the interdisciplinary team including Registered Nurses, Registered Practical Nurses and Social Workers.

We operate from a harm reduction approach, recognizing that substance use is a symptom of underlying grief, trauma, the impacts of

colonization and other forms of psychological distress unable to be addressed in other ways for a myriad of reasons. The 360 NPLC collaborates with a variety of community partners, including providing nursing support to the Consumption and Treatment Services site (overdose prevention site) operated by Four Counties Addiction Services Tream, located one block from our clinic.

Our safer supply program (SSP)

The Peterborough 360 NPLC received Health Canada SUAP grant funding and began enrolling participants in May 2022. Our program offers participants a regulated supply of opioids prescribed by nurse practitioners as part of a wraparound model of care providing a spectrum of services available from a multidisciplinary team. This is one of a number of various models of safer supply programming.

Our team is comprised of the following full-time staff: Program Manager; Medical Office Administrator; Case Manager; Systems Navigator; Registered Practical Nurse (RPN); as well as 2 part time Systems Navigators; 1 part time Research and Evaluation Manager; 1 part time External Evaluator; and 1-2 part time Nurse Practitioners (NPs). We were able to recruit 1 part-time NP for the first 13 months of the program with a second joining for the next 8 months, and the program is now currently back to 1 part-time NP. Our program provides safer prescribed opioids as well as comprehensive primary health care and social supports to participants.

The team has extensive representation of people with lived and living experience of substance use. Coordination of clinical care was initially led by the full time RPN whose full-time status supported this. When the RPN's status reduced to part time this coordination was picked up by one of the part time NPs.

Built into the budget is access to expert support around managing grief and loss which takes the form of approximately monthly team sessions with harm reduction-focused grief and loss experts. The program has two advisory committees: one comprised of people with living experience of opioid use; and one comprised of local service providers. We provide on-call support to pharmacies and our local hospital emergency room. We offer regular art programming in the clinic and in the summer a community medicine garden project which included Indigenous teachings and ongoing tending of the garden by staff and program participants.

Program eligibility:

- Severe Opioid Use Disorder (OUD) as defined by the DSM-5;[8]
- Using illicit fentanyl or other street-sourced illicit opioids daily or almost daily;
- Have had one or more life-threatening complications of illicit opioid use including overdose, a serious acute infection such as a heart infection (endocarditis), a bone infection (osteomyelitis), a blood infection (sepsis) or a chronic infection such as HIV or Hepatitis C
- Have tried first line OUD treatments such as methadone and buprenorphine which had not proven effective (i.e still using fentanyl daily and having had one or more life-threatening complication)

The emerging evidence on safer supply indicates that many people with less severe outcomes would benefit from Safer Supply. Given time-limited funding, our team elected to enrol people having the highest risk of serious illness and death.

We have enrolled 41 participants as of the end of March 2024. Our ability to enrol our target number of 50 participants was limited by several interconnected reasons. Our funding was short-term in 2022 – 2023; and again in 2023 – 2024. We had to plan for program de-funding over short time cycles. If funding ceased, the succession plan for participants was to have their care transitioned to the 360 NPLC staff. Given the severe health human resource shortage in Ontario, which is particularly acute in our community, both the 360 NPLC and our program experienced ongoing recruitment and retention challenges of clinical staff. Therefore, the 360 NPLC determined that it could safely assume care for a smaller number of participants in the event of program funding ceasing, which limited our capacity to onboard participants. During the funding period, we also experienced staff turnover and challenges recruiting a second prescriber and nursing support to replace the original RPN who reduced hours to part time in the fall 2023. For more than a year we shared program space resulting in having access to clinic space in which to operate only two and one-half days weekly.

The 360 NPLC's ongoing staffing challenges in turn delayed capacity of its staff to undertake safer supply education and practical experience to facilitate transition of some safer supply participant care to the primary care team. Additionally, although we had intended to onboard a balanced mix of participants including some with more stable circumstances and fewer challenges such as homelessness, in practice it became difficult to implement this cohort balance due to the heightened immediacy of risk for those prospective participants facing the most difficult life circumstances. This resulted in us enrolling more people with more complex situations which in turn required more team resources.

Goals of our SSP

In the context of this devastating and worsening public health crisis, the overarching goal of Safer Opioid Supply programs, including our Safer Supply Program, is to prevent overdose deaths. The specific objectives of our program are:

1. To increase community knowledge of safer opioid supply interventions;
2. To discover enablers and barriers to implementing safer supply programs;
3. To engage with people who use drugs (PWUD) in generating evidence to create a program by and for them; and
4. To develop a pilot safer supply program to be implemented in a small urban/rural community.

Program evaluations: what this report contributes to the evidence

Health Canada Safer Supply Program funding includes an explicit evaluation mandate which in our case takes three forms. Our program is part of a national Canada-wide Safer Supply evaluation. Researchers have also been conducting qualitative and quantitative evaluations with our program participants from the time of enrollment. These evaluations are ongoing and are reported in the companion document:

Peterborough 360 NPLC Safer Supply Program: The Participant Experience

https://www.360nursepractitionerledclinic.ca/documents/

This evaluation sought more specifically to report on not only participant outcomes including access to health care but also on program knowledge transfer and other enabling and impeding factors for a program located in a smaller urban community which had no safer supply prescribers at the outset. Data collection for this report was accomplished through:

1. An electronic medical record (EMR) audit to assess participant demographic data and select health outcomes after enrollment in our SSP;
2. An EMR search of encounter statistics recorded by team members at every participant encounter to illuminate the role of interdisciplinary teams in supporting access to care; and
3. Assessment of our statistics recorded on presentations and knowledge transfer and exchange activities.

Key findings

High retention in the program:
86% of participants have continued in our Safer Supply Program.

Reduced use of the unregulated drug supply:
After 12 months in the program, **43%** reported a reduction in fentanyl use and **43%** reported being fentanyl abstinent, which represents **86%** of participants reporting using less fentanyl.

Reduced overdose:
79% fewer overdoses in the last 6 months of data analysis compared to the 6 months prior to enrollment.

Reduced injection drug use:
Of participants exclusively injecting fentanyl at enrollment we saw a **50%** reduction in injecting by 12 months.

Reduced use of stimulants: Three quarters of participants **(76%)** reported stimulant use at enrollment. This dropped to **55%** at 6 months and to less than half **(43%)** at 12 months.

Improved access to primary care:
93% of participants were screened for health issues including infections, diabetes, heart disease and cancer. **66%** received preventive vaccines.

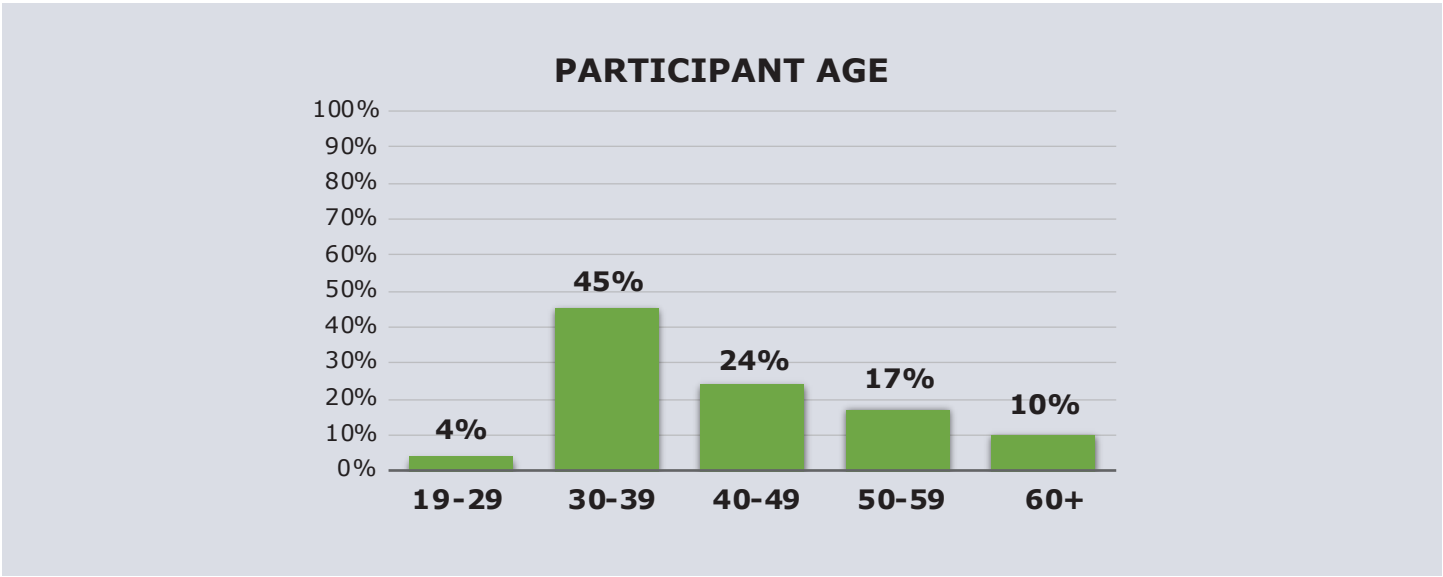
Improved access to mental health and social supports care:
79% of participants received counselling for mental health issues. **66%** were supported to obtain identification needed to gain access to numerous systems and benefits.

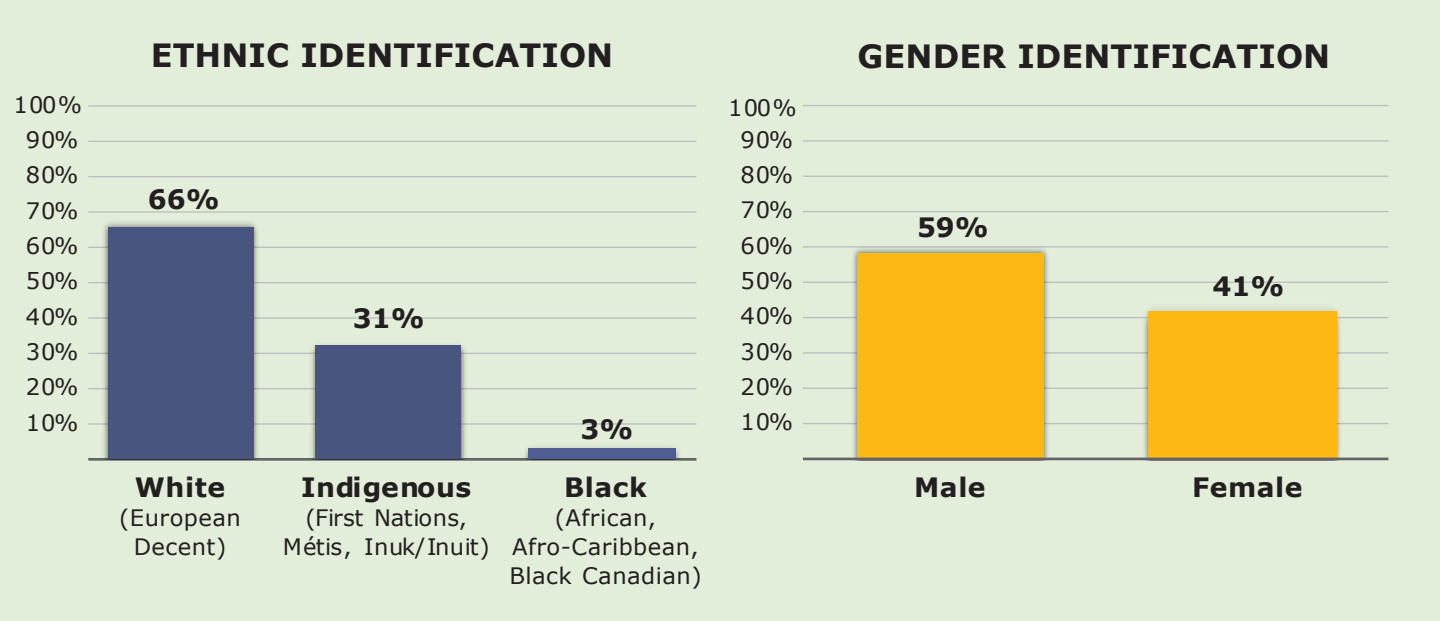
Improved access to the social determinants of health:
79% received health care interventions to increase their incomes including applications for disability benefits as well as increased access to additional income support funds for nutritional support and medical transportation.

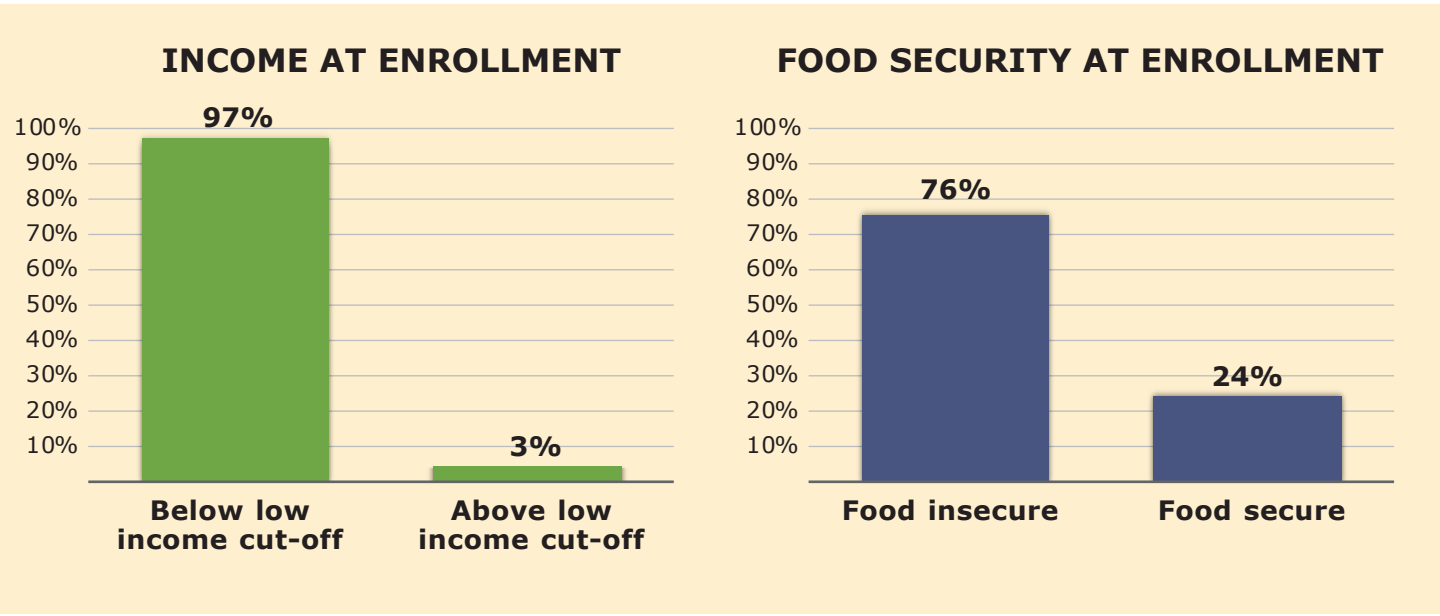
Part I: Participant outcomes

The EMR audit assessed participants at enrollment in the program (baseline); at 6 months; and at 12 months in the program. A total of 29 electronic medical charts were audited. This included 23 people who had been in the program 12 months or more; and 6 people who had been in the program between 6 and 11 months (whose data was only measured at enrollment and 6 months). Participants in the program less than 6 months were excluded from the data set. Program participation of this cohort ranged from 6 to 19 months. One participant in the cohort transferred from another SSP in which they had been enrolled for 1 year prior to joining our program.

Demographic characteristics of chart audit cohort







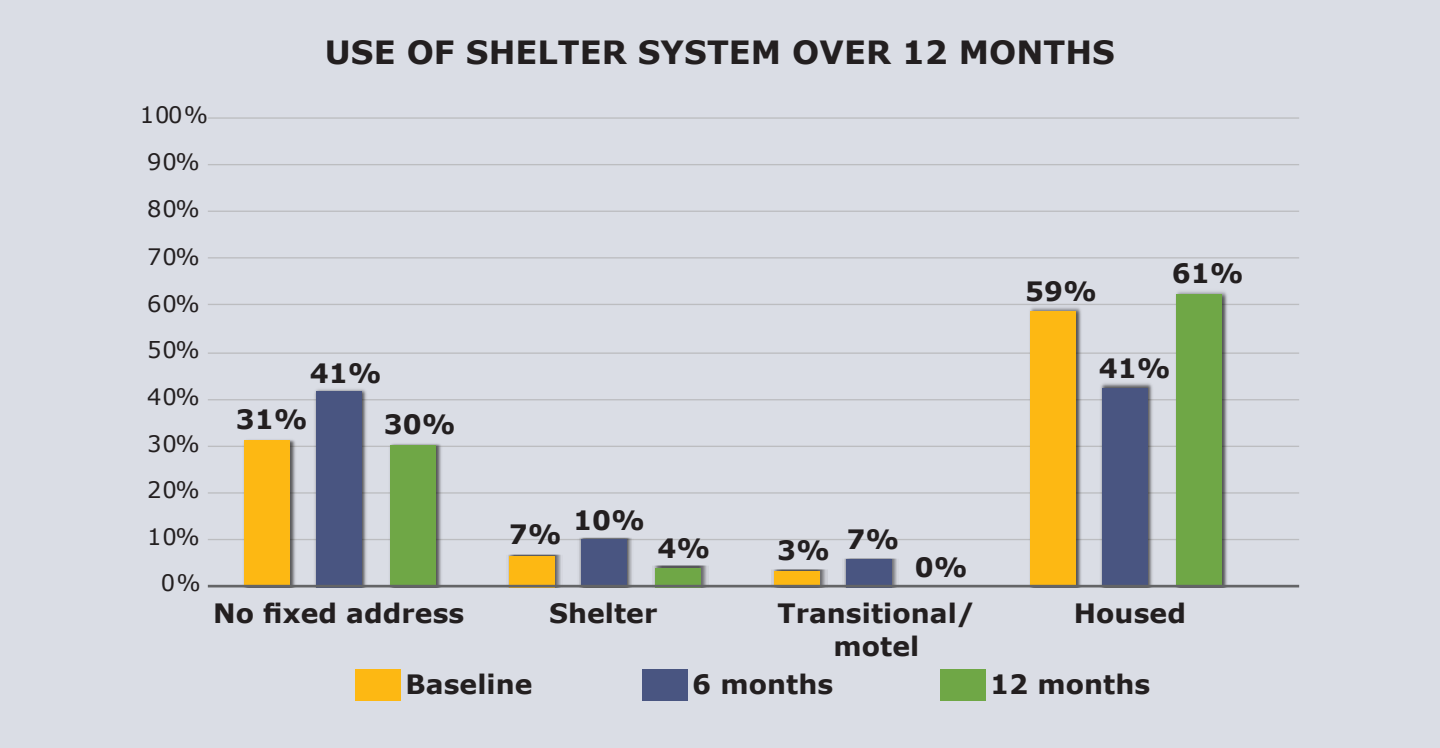
Food security was identified through the following statements:

- In the past year I have not been able to get enough food (in the past year I/my family was uncertain of having, or was unable to acquire, enough food to meet the needs of all the members because of not having enough money for food, from the Canadian Community Health Survey, Cycle 2.2, Nutrition, 2004); OR
- In the past year i have used a food bank

If participants answered yes to either statement, they were considered food insecure. If neither statement was true, they were considered food secure.

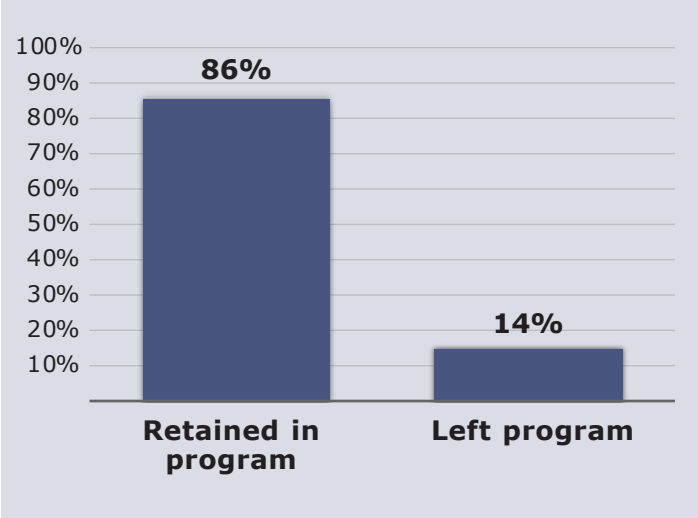
Housing and shelter use

Our program's participant experience research report, ***"Peterborough 360 NPLC Safer Supply Program: The Participant Experience",*** discusses findings regarding housing in detail. However, it is worth noting that our participants' low use of shelters likely relates in part to the inaccessibility of low barrier harm reduction shelter spaces in Peterborough. Mainstream shelters typically have a strict zero tolerance policy for substance use. Lower barrier harm reduction shelters have historically operated for limited hours during winter months only. This has had the effect of creating disproportionately inequitable access to shelters for people who use drugs in Peterborough, conferring the serious risks which accompany lack of shelter including exposure to extremes of weather; using drugs furtively in hidden locations (risking experiencing drug poisoning that goes unnoticed without assistance); and using drugs in public locations risking increased criminalization.



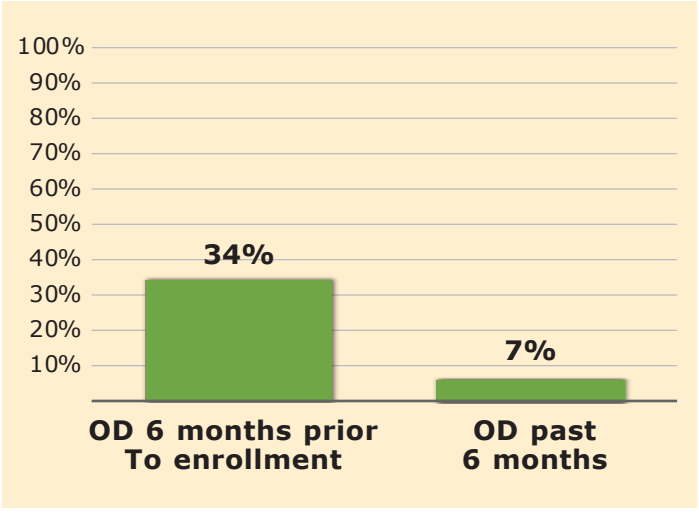
86% retention in program

Program retention is 86%, with people leaving for a variety of reasons including attendance in a residential substance use treatment program, relocating out of province or incarceration.
An 86% retention rate is higher than that seen in traditional opioid agonist (substitution) programs. O'Connor et al. (2020) conducted a systematic review of 67 studies published between 2001 and 2019 assessing factors associated with retention in traditional opioid substitution therapy programs and reported a median retention rate of approximately 57% at 12 months.[9] It is important to note that Safer Supply programs are harm reduction focused and as such differ from traditional opioid addiction treatment programs in several ways including being focused on participant-directed goals where abstinence may or may not be an endpoint. It is also important to note that our Safer Supply team was comprised extensively of people having lived or living experience of substance use which supported program retention.



79% reduction in overdose

Our participants experienced a 79% reduction in overdose while participating in our program. Safer supply programs originated with a primary goal of providing alternatives for individuals at risk of overdose death from the toxic street supply of opioids. Overdose reduction powerfully exemplifies the fundamental life-saving potential of safer supply programs.



86% reduction in fentanyl use at 12 months

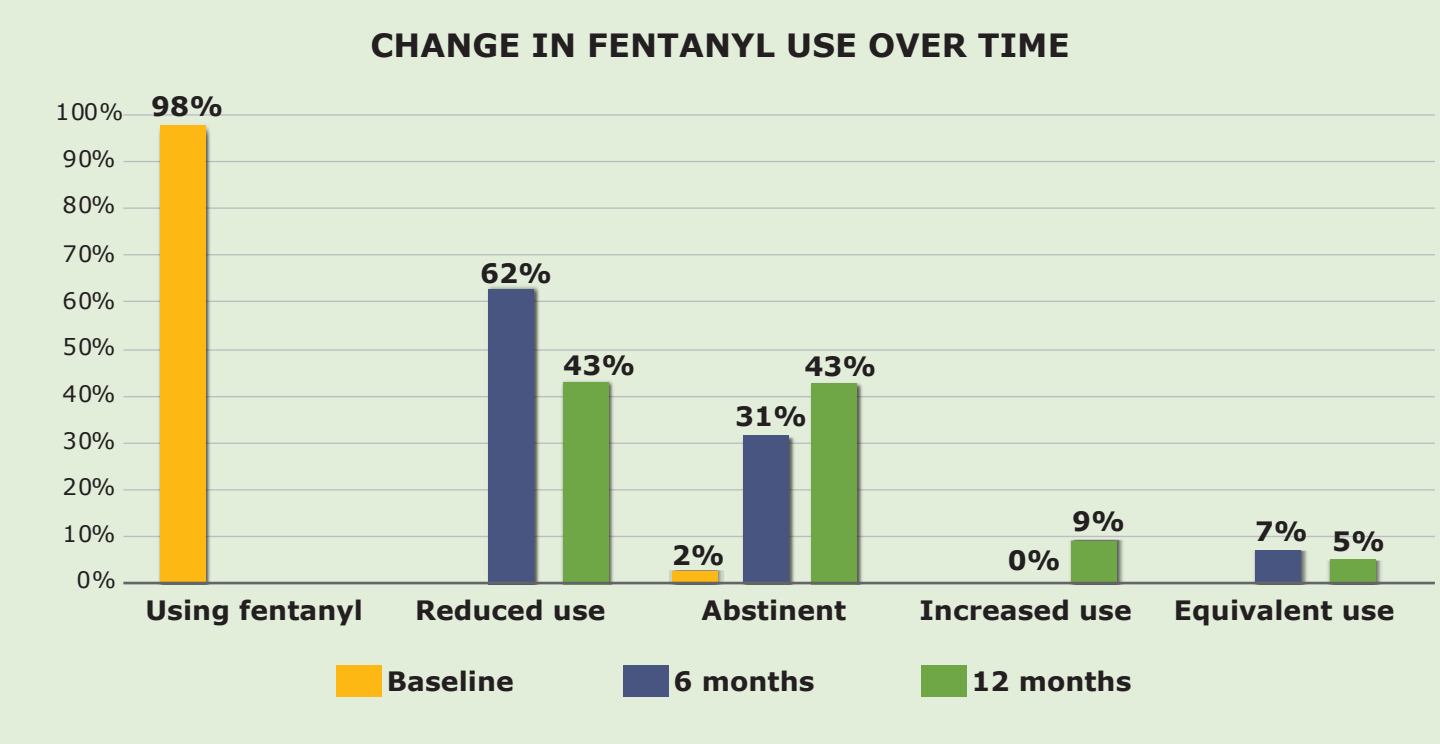
After 6 months in the program, 62% of participants reported using less fentanyl than at enrollment. 31% reported being abstinent from fentanyl – which represents a total of 93% of people reporting a reduction of some degree in their use. 7% reported their use as unchanged. After 12 months in the program, 43% reported a reduction in fentanyl use and 43% reported being fentanyl abstinent, which represents 86% reporting a reduction in their use. 9% reported increased use and 5% reported equivalent use.

Not unexpectedly, participants' fentanyl use fluctuates over time depending on a complex array of factors including challenging life circumstances, unexpected crises, and ubiquitous experiences of grief and loss, for example. However, it is clear from our data that participants reported significant reductions in use of fentanyl after 6 and 12 months in the program. These findings are supported by the concurrent increased engagement in health care and social support we observed among most participants.

Fentanyl use at baseline 28/29 = 98%
(1 participant transferred from another SSP and was abstinent at enrollment)

Fentanyl use at 6 months
reduced 18/29 = 62%
abstinent 9/29 = 31%
equivalent use 2/29 = 7%

Fentanyl use at 12 months (n=23)
reduced 10/23 = 43%
abstinent 10/23 = 43%
increased 2/23 = 9%
equivalent 1/23 = 5%

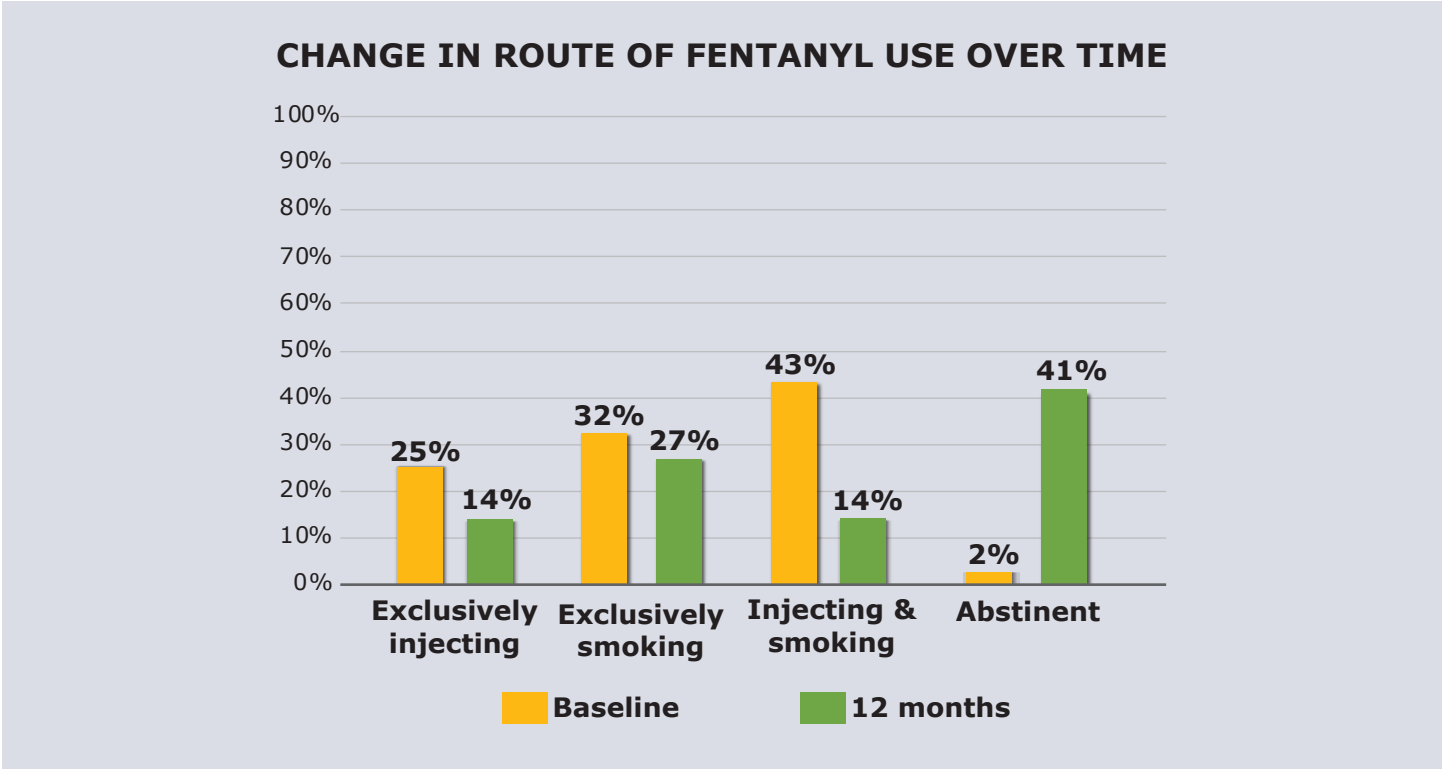


50% Reduction in injection use/reduced health risks

As well as overall reductions in the use of illicit fentanyl among participants, we also found that a significant number of participants reduced their injection fentanyl use. One quarter (25% or 7/29) reported exclusively injecting fentanyl at enrollment. This percentage dropped at twelve months to 14% (3/22) or more than a 50% reduction in injecting. One person entered the program abstinent so was excluded from the twelve-month data as their route of use did not change over 12 months. A reduction in injection use is a significant finding because it means a reduction in the risk of a number of serious health consequences related to injecting such as abscesses, endocarditis and osteomyelitis.

Route of fentanyl use at baseline
Exclusively smoking fentanyl = 32% (9)
Exclusively injecting fentanyl = 25% (7)
Smoking and injecting fentanyl = 43% (12)
Abstinent 2% (1)

Route of fentanyl use at 12 months
(1 entered program abstinent so excluded from data set as use did not change over 12 months thus n = 22)
Exclusively smoking fentanyl = 27% (6)
Exclusively injecting fentanyl = 14% (3)
Smoking and injecting fentanyl = 14% (3)
abstinent = 41% (9)

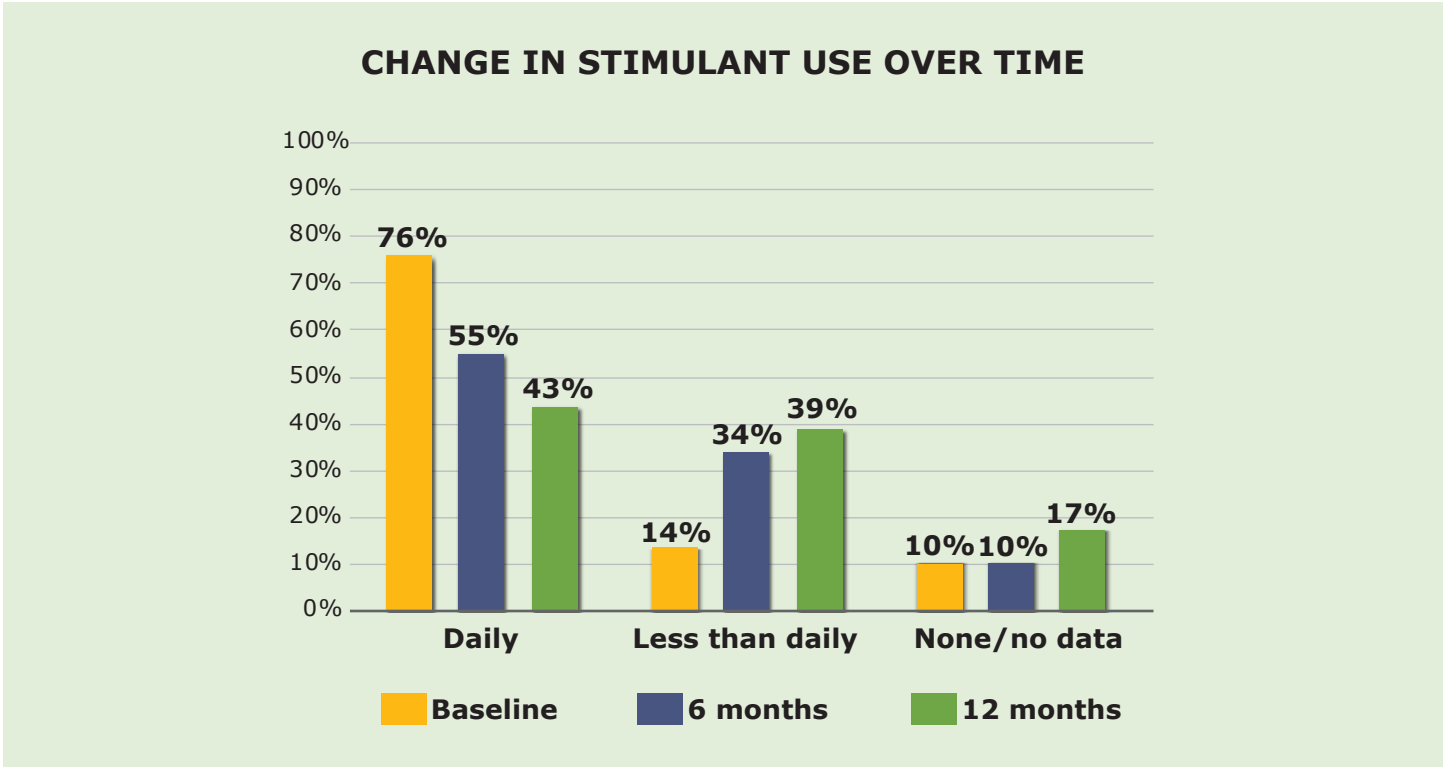


Reduced stimulant use (methamphetamine and/or cocaine)

76% of our cohort (22/29) reported using at least one stimulant (cocaine and/or methamphetamine) daily at enrollment. 14% (4/29) reported less than daily or infrequent use and 10% (3/29) reported no use or information on stimulant use was omitted from the EMR.

After 6 months, just over half 55% (16/29) reported using a stimulant daily. 34% (10/29) reported using less than daily or infrequent use and 10% (3/29) reported no use or information on stimulant use was missing from the data set. Of the 23 participants evaluated at 12 months, 43% (10/23) reported daily stimulant use; 39% (9/23) reported less than daily stimulant use; and 17% (4/23) reported no use or data was missing.

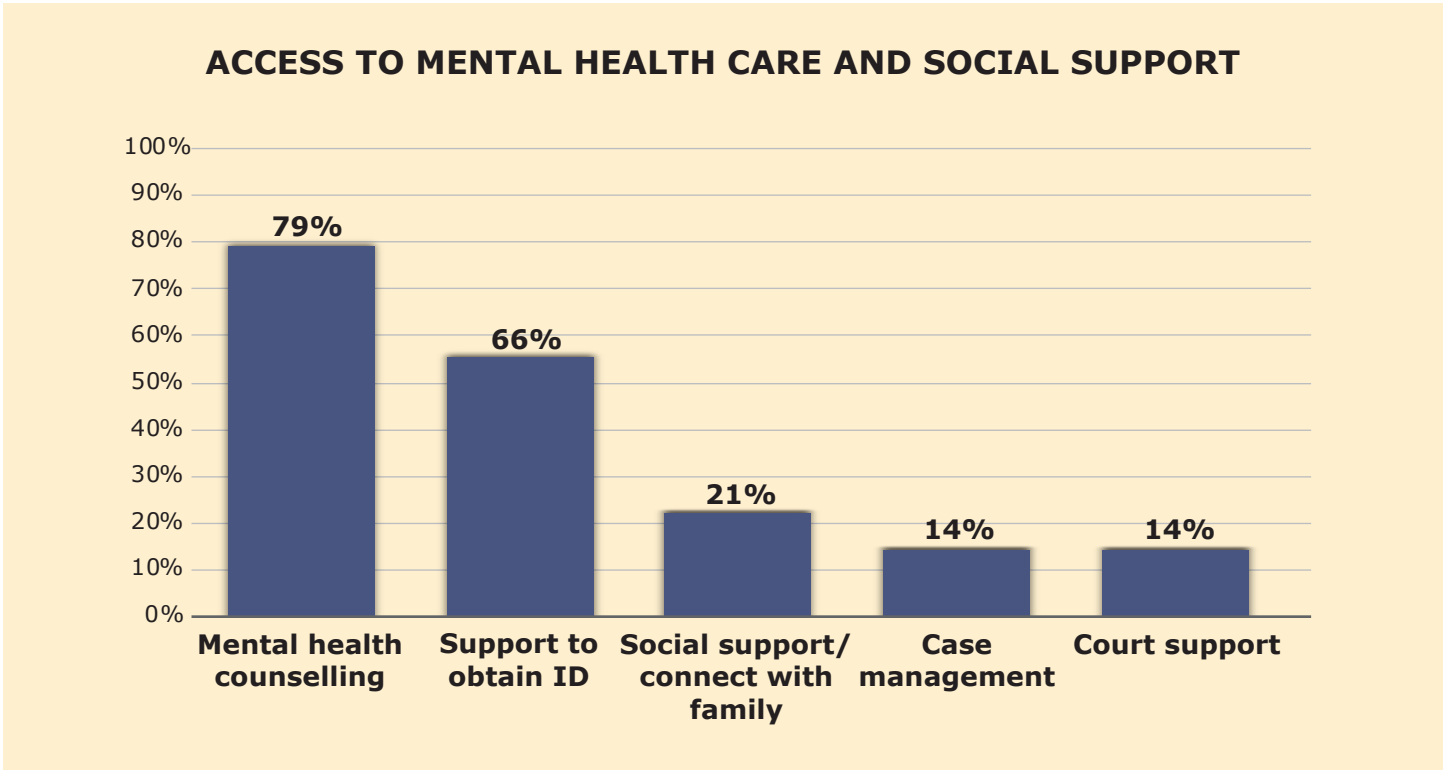
Just over three quarters of the cohort (76%) reported daily stimulant use at enrollment. We saw this percentage reduced to just over half (55%) at 6 months and reduced to just under half (43%) at 12 months. Several participants expressed keen interest in having access to safer stimulant prescribing to support further reductions in their street-sourced stimulant use.



Increased access to mental health care and social support

The majority of participants (79%) engaged in counselling for mental health issues (23/29). Two thirds (66%, or 19/29) connected with support to obtain identification needed to gain access to numerous systems and benefits.

This included birth certificates, provincial photo cards and provincial health insurance cards. 21% (6/29) of the cohort engaged in social support which included support to connect with family, 14% (4/29) utilized intensive case management support, and 14% (4/29) utilized support from our team in legal matters typically arising from the criminalization of drug use.

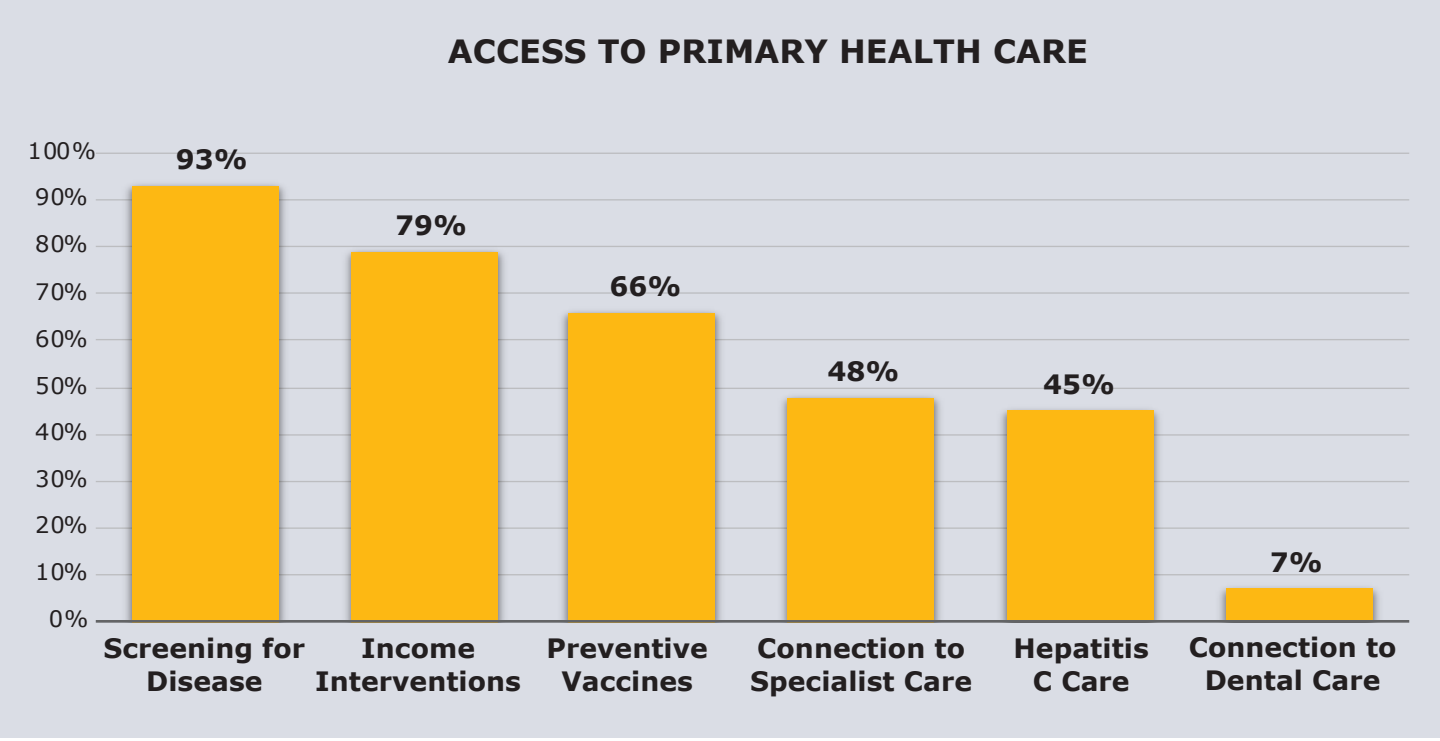


Increased access to primary health care and the social determinants of health

Most participants were highly engaged in their health care. Almost everyone in the evaluation cohort (27/29) received screening for health issues. This included tests for sexually transmitted and blood borne infections, diabetes, heart disease, and screening for cervical and colorectal cancer.

79% (23/29) received health care provider interventions to increase their incomes. This included assessments and applications for disability benefits as well as increased access to additional income support funds for nutritional support and medical transportation. Given that poverty is a significant risk factor for many health conditions (Centre for Effective Practice, 2016)[10] and that 97% of our cohort had incomes below the Statistics Canada Low Income Cut-off, these are high impact health interventions.

Two thirds of participants received preventive vaccines (19/29), and almost half (14/29) were referred to specialist physicians. It did at times prove challenging to support participants to attend specialist appointments booked far in advance given participants lack of phones and transportation in some cases. 45% (13/29) received hepatitis C care including vaccines, pre-treatment testing and treatment with anti-viral medication. As of this writing 4 people have completed treatment resulting in eradication of hepatitis C (cure). 7% (2/29) of the evaluation cohort were connected to dental care.



Access to On Call support after hours – increased continuity of safer supply prescriptions

Our program provides access to a safer supply prescriber on average 37 hours weekly, seven days a week outside of usual working hours for pharmacies and our local emergency room physicians. This service was used primarily by pharmacy staff seeking consultation with a prescriber regarding a participant who had missed two or more consecutive doses of their safer supply medications.

As previously noted, our program was not able to recruit a full-time prescriber. For a few months we were fortunate to have two part time nurse practitioners working in the program but we have never been able to offer five days weekly access to a prescriber. Additionally, for the first fourteen months we inhabited space shared with another program and were only able to operate clinic two and one half days weekly.

It became quickly clear that both of these factors (lack of prescribers and lack of space) were barriers to offering low barrier access to our program. In this context, participant access to a prescriber outside of usual working hours provided low barrier access to safe continuation of their safer supply prescription despite having missed two or more doses. Missed dose clinical protocols provide guidance for dose reductions depending on previous dose, number of missed days, and assessment of whether interval opioid tolerance was maintained or reduced. Providing on-call support to participants permitted prescription continuity, sometimes at a lower dose, but had the impact of preventing participants from having no access to their safer supply prescription and prevented in numerous cases participants having to re-start at much lower doses than required to achieve full benefit or having to rely on or return to street-sourced opioids until the clinic re-opened.

Providing on-call support after hours provides a type of "prescriber extension" which in some ways compensated for our program's lack of full-time accessibility, and clearly benefited participants. It also presents a significant burden of work for prescribers, particularly in the context of having few prescribers amongst whom to rotate calls.

Part II: Educational activities, advocacy and capacity building

Our team has engaged in many knowledge transfer and education activities in our community to increase knowledge of safer opioid supply interventions. Intimately tied to this work is our awareness that education of this nature must also incorporate destigmatization of people who use drugs and basic education about substance use, trauma-informed care, and harm reduction approaches. We also recognize that entering health and social care spaces is often difficult for people who use drugs because they have so often had negative experiences characterized by stigma and judgment.

Our knowledge transfer and education activities focused on three key areas:

A. Improving knowledge of safer opioid supply interventions both within our sponsoring nurse practitioner-led clinic (360 NPLC) primary care team and externally in the broader community;
B. Improving the care and treatment of people who use drugs in health and social care agencies;
C. Developing a safer supply community of practice in our community/increasing prescriber capacity.

A. Improved knowledge of safer opioid supply interventions both within our sponsoring NPLC primary care team and externally in the broader community

The succession plan for our program prior to the end of our funding was to transition the care of participants to the primary care team of the 360 NPLC. To provide policy infrastructure we developed SSP clinical guidance protocols which were approved by the 360 NPLC's Board of Directors and available to all staff to ensure consistency of approaches and standardized interventions as well as to provide evidence-based rationales for safer supply interventions. Team management also presented to the Board of Directors on safer supply.

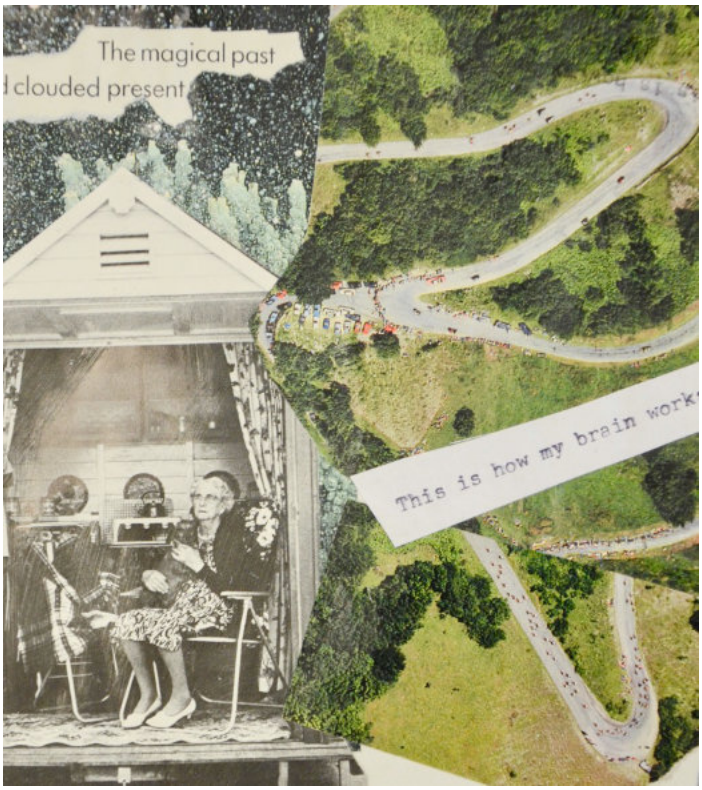
Building safer supply capacity within the team, particularly with the Nurse Practitioners, was impeded initially by the health human resource crisis which led to some staff turnover and challenges recruiting staff. Nonetheless our SSP team has reported back to the larger primary care team at monthly all staff meetings; has presented several times to the staff team on safer supply; and the SSP prescribers have made themselves available to the primary care team as consultants regarding strategies for care of people with severe opioid use disorder. We accommodated shadow shifts with Nurse Practitioners and NP students. We have developed a detailed training curriculum on clinical care protocols for safer supply; harm reduction; case management and systems navigation; as well as for providing comprehensive primary care to PWUD which has begun being shared with the primary care team.

To share knowledge of safer supply externally we hosted a well-attended community Open House soon after we began which any interested community member or agency staff could attend and ask questions about our program. Team members made many presentations on safer opioid supply including presenting to health care and social service students; to community health care providers; to social agencies; to Peterborough Police Services leadership; and to the Peterborough Drug Strategy network. Team members attended a community anti-stigma day event as well as contributed to or hosted events commemorating important days of action and memorial for PWUD including International Overdose Awareness Day and the National Day of Action and Awareness for Missing and Murdered Indigenous Girls and Women.

We focused intensively on providing education to our local hospital. This included a presentation at Grand Rounds (open to all hospital and community health care providers) and at the Medical Advisory Committee (hospital leadership and department

physician leads); presentations and meetings with Emergency Department physicians and managers; psychiatry; nursing educators; and a meeting with senior executive leadership to discuss access to care for PWUD more broadly.

We worked with numerous partner community pharmacies to educate pharmacy staff on safer supply including sharing clinical protocols and conducting face to face and telephone meetings to answer questions and discuss concerns. Safer supply team prescribers offered shadow shifts in clinic to external physicians interested in learning more.



B. Strategies to improve the care and treatment of people who use drugs in health and social care agencies

Advocacy within our organization to change the 360 NPLC policy on prohibiting employee substance use:
The change to this personnel policy document is a necessary shift for a clinic that is embedding a safer supply program within it. The first guiding principle of safer supply programs is that they remain harm reduction-based programs, so this was of great importance. In addition, there are people with living experience employed by the 360 NPLC, so we need to ensure that they are not harmed by stringent and outdated policies in their workplace. Changes to clinic policy included removing punitive language and action around substance use, moving from a zero-tolerance framework to instead focusing on harm reduction-based principles based on work performance, general workplace safety, and access to one's prescribed medications. Updates were also made to reflect the changing language within the substance use sector, for example updating "illegal" to "illicit" and "marijuana" to "cannabis."

Advocacy within the municipal shelter system for harm reduction approaches to the use of safer supply medications for people living in shelters:
In response to the local abstinence-based shelter policies, SSP leadership initiated multiple conversations with Peterborough Public Health and shelter leadership in order to develop a plan for participants of the SSP who access shelter services. The output from these discussions was the creation of an SSP Shelter Reference Guide that was distributed to all frontline staff and managers of the 3 local shelters. It outlines for shelter staff information about our program and describes the process for access to safer supply medications for participants staying in shelter. Importantly, it permitted SSP participants access to their prescribed medications without losing access to shelter.

Advocacy for improved care for PWUD in external health care organizations:
We created business cards to provide to participants to use if they attended the local emergency department which reminded them to 1) request a referral to the Substance Use Nurse Practitioner at the hospital (to support people getting their safer supply prescriptions in hospital), and 2) let hospital staff know the name of their Nurse Practitioner in the community to support discharge planning and continuity of care.

At every opportunity provided to us to share knowledge of safer supply, our clinical team included additional information to support excellent care for PWUD. For hospital audiences, we included examples of important harm reduction interventions promoting retention in care and reducing the risks of patient-directed discharges. For community organizations we included strategies for incorporating preventive care and screening, chronic disease management, common acute episodic conditions, wound care as well as harm reduction and trauma-informed care approaches. We did not conduct research designed to assess whether or not subsequent care improved.

C. Development of a safer supply community of practice in our community/ increased prescriber capacity

As mentioned above, building safer supply capacity within the 360 NPLC's primary care team, particularly with the Nurse Practitioners, was impeded initially by the human resource crisis in health care which led to some staff turnover and challenges recruiting staff. In recent months, improved staff recruitment has permitted this work to commence in earnest and there is a detailed curriculum based on our clinical protocols and example case scenarios available to staff. This is in addition to built-in clinical days for NPs to commence providing safer supply care while our now-experienced team is still available for knowledge transfer and consultation.

More broadly in the community, we have had a significant increase in the number of partner pharmacies dispensing safer supply, increasing from our three original partners to thirteen currently. Many of our pharmacy partners were already experienced in providing opioid agonist therapy and were keenly aware of and concerned about the risks to their clients who were using unregulated opioids. Our program staff's willingness to share information on safer supply, engage in candid discussions with pharmacy staff about their concerns and be available through On-Call services after hours have all contributed to the creation of a solid cohort of safer supply pharmacies available in our community.

We have developed important connections with some staff within our local hospital which supports the care of safer supply participants. If those staff are on-site and available to our program participants, their safer supply prescriptions will be ordered at the hospital. This makes an enormous difference in the care received and in participants' ability to engage in needed care. We have experienced some excellent collaboration in terms of case conferencing and care planning with participants. There remains, however, little support for continuation of safer supply prescriptions outside of those key hospital staff with whom we have those connections.

Our team also responded to queries from three opioid agonist treatment (OAT) clinics located in our community wanting to know more about safer supply. We met variously with managers and clinicians, shared our clinical protocols, made ourselves available to answer questions and discuss concerns. As of this writing, two OAT clinics have commenced providing safer opioid supply in our community which is a remarkable outcome in a smaller community such as ours. It appears that the presence of a small safer supply program in the community directly engendered interest from traditional OAT providers which led to communication, knowledge transfer and ultimately increased prescriber capacity.

Part III: Enablers and barriers to embedding a safer supply program in a small urban community

Our original proposal to Health Canada sought to assess the factors supporting and not supporting the development and implementation of a safer supply program in a community our size. The table below represents our team's observations in relation to those factors:

ENABLERS	BARRIERS
Enablers of participant access to safer supply prescribing and primary health care	**Barriers to participant access to safer supply prescribing and primary health care**
Team staffed by people with lived/living experience of substance use (PWLLE)/peers Outreach activities by systems navigators, case manager and Consumption and Treatment Services (CTS) site outreach by nurse Flexible clinic drop-in scheduling model Nurse-led model of care coordination "Always Ready" model of primary care Access to On-Call prescriber (see Part I for details)	Loss of full-time nurse = loss of nurse-led model and reduction in access to prescriber services and primary care Participant lack of/loss of housing leading to life instability and impaired ability to attend clinic Participant lack of transportation (especially for rural participants) and lack of phones to maintain contact Participant lack of valid provincial health insurance cards Challenges recruiting Nurse Practitioners
Enablers of prescriber recruitment and retention	**Barriers to prescriber recruitment and retention**
Nurse-led model of care coordination which facilitated optimal use of and reduced burden of work for part time prescriber(s) National Safer Supply Community of Practice – mentorship, resources	Regional health human resource shortage Small pool of prescribers from which to recruit Enrolling a majority of participants with complex social and medical needs rather than a balanced mix
Enablers of conducting education activities and building community capacity	**Barriers to conducting education activities and building community capacity**
Sharing safer supply prescribing protocols with interested health care providers and being available for mentorship and consultation Shadow shifts in the safer supply clinic – seeing the protocols in real time use, and meeting participants who shared their positive experiences with visiting providers National Safer Supply Community of Practice – mentorship, resources	Persistent belief by some health care providers that only abstinence-based models or traditional opioid agonist treatment (OAT) provision are effective or safe; and that safer opioid supply prescribing is inherently unsafe.

Discussion

1. Staffed by PWLLE/peers

As mentioned previously, people who use drugs often have complicated and traumatic histories with accessing health and social care spaces due to negative experiences driven by stigma and judgment. Creating a safe, familiar, and understanding space for the SSP has been integral to the success of the program, and this has primarily been achieved through the hiring and consultation of PWLLE (people with lived/living experience), at all levels of programming. Participants have remarked that having staff "who truly understand what it's like" enables them to feel comfortable attending the clinic and supports them in feeling comfortable to talk freely about their substance use and care needs. Knowing that their experiences and needs would be immediately understood by staff with shared experiences, and that conversations will happen without judgment, supports a trusting and open relationship between participants and providers that has proven to be remarkably effective and a positive part of the program for participants.

Team members have remarked on the level of comfort participants exhibit in our clinic's space, and the openness and lack of self-consciousness people demonstrate when talking about their substance use and when obtaining harm reduction supplies. Participants have told us that they enjoy being in our space and feel "at home" here.

2. Flexible low barrier drop-in access to services

For the first 14 months of our program we had clinic space limited to two and one half days of the week. We split the participants into Tuesday and Thursday cohorts (our full clinic days) to divide the work as evenly as possible. There was significant cross-over between the two groups with people coming any day or sometimes both days which we typically accommodated. Because of having prescriber coverage for part of each clinic day only, we also advised participants they needed to arrive in clinic before noon to be guaranteed to see the prescriber (to enable sufficient time for the nurse practitioner (NP) to ensure all prescriptions were completed and sent before end of day). If they came after lunch, they could see the nurse and have their follow-up visit and obtain other care. This guideline was also sometimes ignored if someone arrived later whom the NP wanted/needed to see or if a dose change was being requested by the participant. This made our program more accessible for participants and permitted application of the "Always Ready" model of care. As we prepare to transition participant care to the NPs in the primary care team over the next year, we realize that participants being used to this dynamic access may prove to be a barrier to smooth transitioning into a busier primary care setting with reduced schedule flexibility.

3. Outreach activities

Our team's System Navigators and Case Manager engaged in outreach activities to connect with participants in community, in particular to try to re-engage participants who had missed follow up appointments. This provided opportunities to give participants who may have been hesitant to re-engage reassurance about their ongoing status with our program and that they were welcome to reconnect any time. Additionally, having our program's nurse at the Consumption and Treatment Services (CTS) site one day per week proved highly beneficial in supporting participants as it gave those using the CTS one more day of the week in which to connect/reconnect/receive care for wounds or injections.

4. Nurse-led model of care coordination

Our project was unable to recruit a full-time NP prescriber. We commenced with one part time prescriber. For about 6 months we had two part time prescribers. We were very fortunate to have a full time Registered Practical Nurse (RPN) for the first 16 months of the program. This role included general clinic oversight (supplies and medication ordering, checking emergency equipment, overseeing practice opioid overdose responses for clinic staff); supporting prescribers by tracking prescription expiry dates and next expected visit dates on a spreadsheet; and supporting access for participants to follow up care and continuity by conducting follow up visits, processing urine drug screens when needed and being available for acute/episodic care and triage either to the program NPs or the clinic NPs for issues beyond nursing scope of practice. This compensated for not having full-time NP coverage and resulted in many fewer missed follow up visits for participants as well as enhanced access to primary care using the model described below.

5. Proactive "Always Ready" model of primary health care

Our program implemented a model of harm reduction primary health care which one of the prescribers had developed previously working with people experiencing homelessness. The purpose of the model is to utilize intentional strategies to capitalize on unscheduled, unpredictable health care visits which may be characterized by multiple competing priorities. The goal is to ensure that the potential to offer preventive care, disease screening and chronic disease management exists at every visit, including those initially focused on acute episodic priorities.

The rationale behind this model is that, given the opportunity, all people, including people who use drugs, are interested in their health and willing for health care interventions offered in a non-judgmental compassionate manner. Often the person will lack sufficient time or readiness to engage in specific types of interventions – but sometimes they will be agreeable, and you will be ready when that occurs.

The "Always Ready" model utilizes the electronic medical record (EMR) to summarize outstanding clinical issues, upcoming appointments, provincial health insurance status, etc. The Nurse Practitioner (NP) reviews the health history and historical lab data (through the Connecting Ontario Clinical Viewer and the Ontario Laboratories Information System or OLIS), with participant consent. This provides information on the most recent serological lab testing for sexually transmitted and blood borne infections via previous health care encounters as well as needed follow up of issues which has not yet been accomplished. One can also determine through this review hepatitis A and B immune status to learn whether vaccines ought to be offered. If someone has attended an emergency room or been admitted to hospital and had diagnostic imaging that recommends follow up testing which has not been performed, this can be added to the (eventual) list of outstanding issues.

Once needed labs and screening has been determined by the NP, requisitions can be completed and a nursing order for venipuncture can be written if needed. Similarly, an order can be added to the chart to offer specific vaccines (unless there are directives in place negating the need for individual orders). The outstanding clinical issues list will have all these issues listed along with the order and whether or not requisitions are completed. This allows the NP or RN/RPN to offer

labs or vaccines at any visit and, importantly, supports nursing staff to act independently and opportunistically without needing an order in real time.

One lesson we learned was that starting the process to replace lost provincial health insurance cards right away was important to support care such as urgent diagnostic imaging in community x-ray and ultrasound clinics; follow up imaging at a hospital; and referral to a consultant.

An example of an "Outstanding Clinical Issues" list in the EMR:

- *Health card valid January 2024, awaiting physical card in mail*
- *Labs due anytime – annual screening for HIV, Hep C, syphilis; repeat TSH after dose change (requisitions and order on chart)*
- *Hep A # 2 and Hep B #3 vaccines due anytime – order on chart*
- *Offer pap, mammogram*
- *Repeat CT thorax 1 year follow up from hospital admission due June 2023 – book when participant thinks feasible to do (wants to wait until housed)*

This list would be located below the last progress note in the EMR to make it visible as soon as the chart was opened. Items can be deleted or a strike through made once completed.

Our Case Manager also utilized a "Case Management Outstanding Issues" list for issues related to housing, legal issues, etc.

Our high uptake of screening and labs discussed in Part I would not likely have been as robust without using the "Always Ready" model.

Other observations:

Need for more appropriate prescribed alternatives: An important limitation of safer supply programs as they currently operate, including our program, is the inability to offer a range of prescribed alternative medications that are more closely matched to people's opioid tolerances and preferred routes of use (such as smokeable or injectable options). Options are needed that are covered by the Ontario Drug Benefit program or other benefit process such as oral fentanyl, oxycodone, diacetylmorphine or injectable hydromorphone formulations.[11]

Need for prescribed safer stimulant supply: 76% of our sample reported using at least one stimulant drug (cocaine and/or crystal methamphetamine) at enrollment. Stimulant use declined during participation in our program to 55% at 6 months and to 43% at 12 months.

Numerous participants inquired about the possibility of receiving prescribed safer stimulant medications which our program was not able to roll out given our uncertain funding duration. Emerging evidence from Ottawa clearly delineates benefits experienced by recipients of safer stimulant prescriptions.[12]

Diversion of prescribed safer opioid supply medications: Diversion of prescription medications is neither new nor unique to safer supply medications.[13] It may take the form of sharing, trading or selling prescription medications and may be voluntary or involuntary. Although there may be a temptation to attribute to people who engage in diversion a disregard for community safety, in fact the dynamics influencing diversion are complex and nuanced. Diversion reflects unmet individual and community needs including access barriers to safer supply programs; lack of preferred medications being available or covered by drug benefit programs through safer supply programs; poverty; and enactment of harm reduction mutual aid strategies for friends and loved ones.[14]

Data from the Coroners Services in both BC and Ontario have found no link between prescribed hydromorphone and drug-related overdose deaths. The BC Coroners Service stated in 2023 that "there is no indication that prescribed safe supply is contributing to illicit drug deaths."[14] Furthermore, the Ontario Coroners Service data indicates that both the number and percentage of overall hydromorphone-related deaths decreased in the general population[16] and in youth populations.[17]

Our Safer Supply program, like others across the country, uses a standardized protocol to address specific verified instances of diversion. We also address the issue through providing comprehensive care which includes participant agreements, income interventions, urine drug screens, and observed doses. Health care providers interested in a comprehensive discussion of the context of diversion may be interested in the document "Reframing Diversion for Health Care Providers" produced by the National Safer Supply Community of Practice.[18]

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