MOSH Safer supply program

Year 1 Evaluation Report

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Prepared by Chris Giacomantonio and Sarah Jervis, Department of Sociology and Social Anthropology, Dalhousie University

North End COMMUNITY HEALTH CENTRE

DALHOUSIE UNIVERSITY | CLAIRMONT CENTRE FOR COMMUNITY SAFETY RESEARCH

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Summary

This document sets out the findings from an evaluation of a safer supply program established by Mobile Outreach Street Health (MOSH). Beginning in October 2022, MOSH established a dedicated safer supply program targeting up to 50 people of all genders who are criminalized for substance use and meet admission criteria. The safer supply program is offered by MOSH physicians through existing clinical space at the North End Community Health Centre (NECHC) and focuses primarily on the safer supply of opioids to program clients.

The safer supply program was formalized following several pilot initiatives that were established during the COVID-19 pandemic, which had involved prescribing and providing opioids to MOSH clients who were isolated in hotels and other temporary housing. Funding for the establishment of a formalized safer supply program was provided initially by Coverdale Courtwork Society, through a grant from the Northpine Foundation.

Evaluation Approach

The evaluation of the safer supply program addresses four key evaluation questions: Is the overall model feasible? Is the initiative doing what it set out to do? How is the initiative impacting the people accessing these services? And, What gaps or needs remain, beyond what the model currently provides, which could be addressed within this model?

The evaluation utilized two key data sources[1], including:

- **Program administrative data** collected in the Electronic Medical Record (EMR) system directly by Justice Initiative staff from October 2022-December 2023, related to client engagements, and
- **Staff and allied service provider perspectives** collected through interviews and focus groups with MOSH staff and allied service providers (service providers who regularly draw on, or work with, the services offered through the MOSH safer supply program)

Results

Administrative data from the EMR show that from October 2022 to September 2023, the Safer supply program administered 508 total visits, including 54 intake visits and 454 follow-up visits, providing services to 86 unique clients. For clients that provided relevant demographic information, 54% identified as male, and 73% identified as Caucasian. The median age of clients was 36 years old.

Among clients providing information on key wellbeing indicators during their first visit with the program, the majority of clients (88%) had used an illicit opioid within the prior month, and most clients had specifically used fentanyl in the past month (74%). Most clients were unemployed (82%), and just under two-fifths (38%) were unhoused. Most had had a formal interaction with the criminal justice system in the past year (67%), and most had also experienced a non-fatal overdose in the past year (84%). A minority of clients (31%) indicated being involved in survival sex work at the time of their first visit.

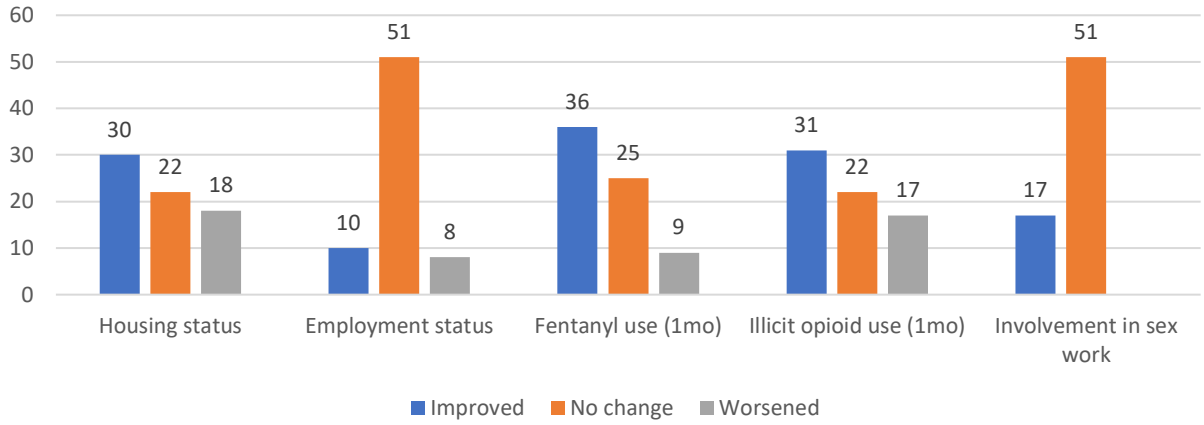
During the evaluation period, most clients (81%) had multiple visits recorded in the EMR, with an average of 6 visits per client, and an average time between visits of 44 days. However, usage patterns

[1] There are several limitations to the data used in this project, most notably the absence of client perspectives from the data. These are being collected in another project being conducted by researchers at Saint Mary's University. Full costing data was also not available at the time of the evaluation.

were highly varied between clients, with some clients having multiple visits in short succession, while others had multiple months between their visits.

EMR data suggest that, broadly speaking, among clients who had two or more visits, more demonstrated improved wellbeing than demonstrated worsened wellbeing on key indicators at their most recent visit, compared to prior visits.[2] Improved status was more likely than worsened status for housing status, recent use of illicit opioids (including fentanyl), and involvement in sex work. Numbers of clients experiencing improved and worsened status for employment were roughly equivalent (see Figure A for more details).

Figure A: Changes in key indicators at most recent reporting, all clients with two or more visits



Allied service providers generally saw the safe supply program as a positive addition to the suite of harm reduction services available in Halifax. The introduction of the program represented a slight increase in workload for allied service providers (e.g., from prescription dispensing and referral facilitation). However, these service providers indicated that the work aligned with their existing mandates, did not pose any significant challenges, and was seen as important.

Some allied service providers described confusion in the early stages of program implementation. As the program had multiple referral pathways, some service providers were unsure of the best way to facilitate access for their clients. Others felt that they lacked necessary information and wished for a pamphlet about program design, referrals, and contacts. As the program quickly reached full capacity, many eligible clients have not been able to access the program. As a result, MOSH staff reported

[2] This data describes an 'improved' status if a more desirable status (such as being permanently housed, or not having used illicit opioids in the past month) was reported at the most recent visit in which a client reported on an indicator, when compared to any prior visit in which a less desirable status (such as being unhoused, or having recently used illicit opioids) was reported, and vice-versa for a 'worsened' status. No change is recorded either when the same status is reported at all visits, or when a report on the wellbeing indicator is only reported at one of the client's visits.

receiving regular inquiries as to when new program places may become available for potential client, to which they did not have an answer.

Allied service providers identified potential barriers to program access for their clients. As the program requires frequent appointments and daily pharmacy visits, transience, access to a phone, mobility issues, and access to transportation make program participation difficult for some clients. Further, transitions of care such as hospitalization or incarceration posed communication challenges, as the prison may alter prescriptions without notice or consultation, and hospital staff may experience confusion or discomfort with the safer supply model.

Finally, staff and allied service providers expressed concern about how public opinion may impact the program's capacity to expand. Some politicians and medical professionals believe that safer supply programs enable addiction and supplement the illicit drug trade. Additionally, clients and staff continue to experience social stigma related to drug use and safer supply, for example while receiving care in hospital or while incarcerated. However, allied service providers expressed support for the ability of the safer supply program to relieve clients' reliance on the illicit, toxic drug supply. Additionally, staff and allied service providers currently believe that diversion of safer supply drugs to the illicit market is minimal, and base this belief on routine pill counts and urinalysis testing that is required within the program.

Discussion

The discussion is organized around the evaluation questions discussed in the evaluation approach.

Is the model feasible?

The model seems to be feasible. Allied service providers continue to support the service model and believe in its capacity to reduce drug-related harms. Clients have also complied with the model and are cooperative with the processes of pill counts and urinalysis, which are required by the Health Authority. Initial concerns around communication regarding program entry and eligibility appear to have been addressed, though program staff remain concerned about the political climate regarding harm-reduction initiatives.

Is the model doing what it set out to do?

The model appears to be functioning as initially intended. The program quickly reached full capacity, and has served 86 unique individuals, all of whom meet the eligibility criteria. The program is also providing wraparound care for drug related medical complications as intended. Stakeholders express low concern about clients using their safer supply medications inappropriately; pill counts and urinalysis indicate that clients are taking medication as directed, are not diverting their drugs into the market, and are not supplementing their medications with drugs from the illicit market.

How is the initiative impacting the people accessing these services?

Though quantitative data is insufficient to make causal claims about the program's impacts, it suggests improvements among the client population on key wellbeing indicators such as housing status, illicit drug use, and participation in survival sex work. From the qualitative data, MOSH doctors believe the program has led to a reduction in fentanyl use, overdose, and drug related crime among their client population. Additionally, MOSH staff believe that because their clients no longer have to 'hustle' to acquire drugs on the illicit market, clients feel a greater sense of stability and can address other needs. For example, based on an increased rate of hospitalization, there is evidence that clients are receiving

treatment for long neglected health needs. Additionally, clients are receiving treatment for Hepatitis C from MOSH staff, which they may not have been able to access otherwise.

What gaps or needs remain?

The most prominent limitation identified was program capacity; MOSH staff indicated that there is enough interest to substantially increase the program size, but would require additional funding. Beyond program capacity, clients could benefit from additional supports, for example relating to transportation for prescription pick-ups, and improved communication on the program to reduce stigma in certain settings. The program entry process could also be improved through a more streamlined and consistent referral process, if capacity expands.

Limitations

While the evaluation provides indicative data that the program is operating as intended and providing benefits to clients, while not negatively impacting allied service providers, the evaluation has two key limitations. First, it is not designed to establish causal claims about the program's impacts on clients' lives or overall wellbeing, and; second, it does not include data on the perspectives of program participants. These two gaps in knowledge should be filled by future research efforts, to develop a more robust picture of the impacts of this program.

Conclusion

Overall, this model appears to be feasible, is operating as expected, and seems to be having a positive impact on enrolled clients. Quantitative data shows that many clients have experienced improvements in their housing status, have ceased or decreased their fentanyl and illicit drug use, and have ceased or decreased involvement in survival sex work over the course of their enrolment in the program. Qualitatively, MOSH staff and allied service providers are confident the client population has experienced a decrease in rates of overdose and involvement in crime, and have increased their engagement with the healthcare system. There remain some gaps and barriers related to the program, primarily related to program capacity. Finally, efforts should be made to improve the robustness, consistency, and comprehensiveness of quantitative data such that causal claims might be made about the program's impacts.

Introduction

This document sets out the findings from an evaluation of a safer supply program established by Mobile Outreach Street Health (MOSH) in its first 15 months of operation. The introduction section provides background details to the program, sets out the evaluation approach, and describes the data sources and limitations to the evaluation. The document then presents a brief literature review that situates this evaluation within a context of other evaluative studies of safer supply programs.

Following the literature review, the document presents findings from the study's main data collection activities, which were quantitative analysis from Electronic Medical Record (EMR) data and qualitative analysis from interviews and focus groups with program staff and allied service providers. Based on the findings, the document presents analysis of available date aligned with the evaluation's main questions, and provides suggestions for program improvement going forward.

Background

Beginning in October 2022, MOSH established a dedicated safer supply program targeting up to 50 people of all genders who are criminalized for substance use and meet admission criteria. The safer supply program is offered through existing clinical space at the North End Community Health Centre (NECHC) by MOSH physicians, and focuses primarily on the safer supply of opioids to program clients.

During the evaluation period, the following program admission criteria were utilized for program waitlist and admission management:

- Severe opioid use disorder over the last 12 months
- Self reported regular illicit toxic/unsafe drug use.
- Previous unsuccessful Opioid Agonist Treatment (OAT) with Methadone, Buprenorphine/Naloxone or Sustained Release Oral Morphine OR currently not interested or able to attempt OAT
- Urine Drug Screen (UDS) positive for opioids
- Significant negative 'social' outcomes related to opioid use including (but not limited to) homelessness, incarceration, reoccurring hospitalizations and/or participation in survival sex work.
- Ability to consent to program risks and benefits.

The safer supply program staff includes two safer supply support workers, three physicians, one registered nurse and a harm reduction manager. The program began informally as a pilot program during the lockdowns of the COVID-19 pandemic, when MOSH clients were required to self-isolate and needed a way to access an opioid supply. Following this pilot stage, a second stage was funded by Coverdale Courtwork Society, through a grant from the Northpine Foundation, to establish the dedicated safer supply program described above. The program funded by Coverdale officially began in October 2022, which included many clients that had previously received safer supply from MOSH in the pilot period.

Before the safer supply program began, program staff held several virtual sessions with allied service providers (hospital staff, pharmacy staff, correctional services, shelters, overdose prevention site staff etc.) about the full scope of the safer supply program. Specifically, these sessions discussed 'who' the program serves, 'what' the program aims to do, 'where' the program takes place, 'when' people can be

referred to the program, 'why' this program started and 'how' the program would be executed in community. These sessions also provided opportunities for program staff to answer questions and talk through potential concerns with allied service providers.

Evaluation Approach

Prior to the formal start of the program, MOSH commissioned an evaluation plan for the program through Pier Labs in Halifax, and subsequently worked with the Clairmont Centre to complete the evaluation of the first 15 months of program operation.[3]

For this project, there are four key evaluation questions:

- EQ1: Is the overall model feasible?
- EQ2: Is the initiative doing what it set out to do?
- EQ3: How is the initiative impacting the people accessing these services?
- EQ4: What gaps or needs remain, beyond what the model currently provides, which could be addressed within this model?

To answer these questions, the evaluation used two main data sources:

- **Program administrative data** collected by program staff, related to client visits with primary care physicians while receiving services for this program. These data were collected through the Electronic Medical Record (EMR) for each client, which is maintained by physicians and staff associated with the safer supply program. Program staff completed an intake form for new clients upon entry into the program, and follow-up appointment form at subsequent visits. Data points collected through the EMR intake and follow-up forms include the following:
    - Demographic data relating to clients, including age, race, and gender information
    - Data from each client visit, including date and reason for visit
    - Client wellbeing indicators, including housing status, employment status, recent use of illicit opioids, recent involvement with the criminal justice system, and involvement in survival sex work
- **Interviews and focus groups** collected with safer supply program staff and allied service providers (service providers who regularly draw on, or work with, the MOSH safer supply program).

Examples of interview and focus group guides can be found in Appendix A of this report, and the EMR Intake and Follow-up flowsheet forms can be found in Appendix B of this report.

[3] Dr. Chris Giacomantonio, the lead author, was employed at Pier Labs at the time of the evaluation plan development.

Literature Review

Safer supply, also known as safe supply, is a novel harm reduction strategy that spread rapidly throughout Canada in response to an escalating rate of deaths related to drug toxicity, and the COVID-19 pandemic. The framework was developed by and for people who use drugs (PWUD), and development of and advocacy for the model has been spearheaded by the Canadian Association for People who use Drugs (CAPUD) (Pauly et al. 2022; Brothers et al. 2022). CAPUD (2019) defines safer supply as "a legal and regulated supply of drugs with mind/body altering properties that traditionally have been accessible only through the illicit drug market" (p.4). The model is premised on harm reduction, believed by stakeholders to limit the dependence on the illicit drug market, rife with contaminated drugs, thereby preventing overdose and other drug-related harms (Bonn et al. 2020).

The first established safer supply program in Canada was at the London InterCommunity Health Centre (LIHC) in London, Ontario, which began dispensing doses of tablet hydromorphone in 2016 (Gomes et al. 2022). A document outlining safer supply prescribing guidelines was published in the latter half of 2019, leading to more widespread adoption of the model among prescribers (Gomes et al. 2022). The Government of Canada also began funding some safer supply programs in 2019 as a response to the rapid escalation in overdoses, primarily related to the increasing prevalence of fentanyl (Glegg et al. 2022). In the span of two months, from March to May 2020, the number of organizations offering safer supply nearly quadrupled across Canada (Glegg et al. 2022). Health Canada endorsed and funded these programs to increase compliance with COVID-19 isolation guidelines among PWUD, as it would curtail their need to leave isolation to find drugs, or share drugs and related paraphernalia with others (Glegg et al. 2022; Brothers et al. 2022). This was the stage at which MOSH began dispensing safer supply in a hotel setting; an evaluation of the hotel model found that it was very effective at facilitating quarantine amongst PWUD (Brothers et al. 2022).

Several studies examining safer supply programs have been published over the past few years, including a scoping review of 24 qualitative and quantitative studies from peer reviewed journals and grey literature (Ledlie et al. 2024). The quantitative data reviewed by these authors indicates that safer supply programs support a reduction in opioid toxicity events among their clients (Ledlie et al. 2024). In the eight studies reviewed by Ledlie and colleagues that report data on opioid toxicity, there were no fatal and very few non-fatal events among clients. Additionally, three of these studies collected longitudinal data confirming that clients experienced higher rates of drug toxicity prior to their enrolment in a safer supply program (Ledlie et al. 2024).

Another quantitative study published after Ledlie's et al. (2024) data collection period examined hospitalizations and mortality among clients receiving prescription opioids, as well as those receiving prescription stimulants, and paired them with a control group accessing the unregulated drug supply (Slaunwhite et al. 2024). This study found safer supply opioids to be protective against overdose related and all-cause mortality, with duration of program enrolment and height of dosage having additional protective effects (Slaunwhite et al. 2024). Contrarily, though simulant safe supply was not associated with differences in overdose-related or all-cause mortality, it was related to a significant decrease in all-cause acute care visits (Slaunwhite et al. 2024). Additionally, one study, albeit quite small and uncontrolled, found shelter occupants 5.5 times less likely to overdose after the introduction of safer supply and a safe use site (Lew et al. 2022). The authors of these studies have cautioned, however, that

reductions in morbidity and mortality may also be related to the wraparound care provided in safer supply programs.

In qualitative studies, participants self-report a reduction or halt in use of street drugs, a reduction or halt of participation in criminal activities, improvement in health outcomes such as nutrition and sleep, a feeling of increased dignity and community, and greater economic stability (Haines & O'Byrne 2023; Ivsins et al. 2021; Ledlie et al. 2024; Gagnon et al. 2023). Participants in qualitative studies have stated that they believe that the program has saved their lives by allowing them to stop using fentanyl (Haines & O'Byrne 2023; Ivsins et al. 2021). Though Gagnon et al. (2023) indicated that cessation of fentanyl use was gradual and non-linear, in general, their participants reported that the higher their prescribed doses of opioids, the less likely they were to use fentanyl. These researchers also found that participants accessing safer supply tended to decrease the frequency of injecting (Gagnon et al. 2023). Many participants reduced injection frequency in accordance with personal goals to stop injecting, whereas others found injecting their tablet medication (intended to be swallowed) to be unpleasant, and others had poor venous access (Gagnon et al. 2023). Regardless, reducing injection frequency also decreases the risk of contracting blood-borne illnesses, as well as injection related infections such as abscesses and endocarditis (Gagnon et al 2023).

One of the most common shortcomings reported by those accessing safer supply is that doses are not potent enough for participants to completely sever ties from the illicit drug market (Ivsins et al. 2021; Karamouzian et al. 2023; Pauly et al. 2022; Haines & O'Byrne 2023; Ledlie et al. 2024; Gagnon et al. 2023). Medications in these programs are typically dispensed in accordance with clinical guidelines, but some found that these doses were not strong enough to combat withdrawals or generate the desired euphoria due to their high tolerance (Ivsins et al. 2021; Haines & O'Byrne 2023; Pauly et al. 2022; Ledlie et al. 2024). In addition, some reports suggested that multiple types of safer supply medications should be available (i.e. opioids, stimulants, benzodiazepines) in multiple forms (i.e. injectable, smokable, or snortable) to cater to client preferences, such that they are not tempted to go to the illicit, unregulated market for their drug of choice (Ledlie et al. 2024; Pauly et al. 2022; Gagnon et al. 2023). Catering to client preference may also reduce diversion, as two studies reviewed by Ledlie et al. (2024) found that clients may sell their safe supply medications to purchase other or stronger drugs.

Another common concern pertained to space and time; many participants found it a significant barrier to travel to a site daily, within specific hours of operation, to pick up their medication (Ivsins et al. 2021; Haines & O'Byrne 2023; Pauly et al. 2022; Ledlie et al. 2024). A lack of carries, a mandate for witnessed doses, mandatory check-ins and urinalysis testing, contribute to a feeling of punitiveness and limit participants' freedom to, for example, leave town to visit family (Ivsins et al. 2021; Haines & O'Byrne 2023; Pauly et al. 2022; Ledlie et al. 2024). Unfortunately, clinical and government guidelines may limit service providers' ability to remediate these concerns.

Finally, while research in this area is expanding, evidence relating to several key questions remains limited. As Ledlie et al. (2024, p. 15) note, 'gaps in evidence remain, particularly long-term safety and effectiveness evaluations, comparisons with traditional treatments (e.g., opioid agonist treatment), along with the prevalence and impacts of diversion within safer opioid supply programs.' Relatedly, as this is a novel framework with developing clinical guidelines and a limited evidence base, Ledlie et al. (2024) identified themes of confusion and uncertainty from qualitative research in which service providers were interviewed. Some of these qualitative accounts emphasized a lack a confidence due to limited training

and education on effectively managing risk (Ledlie et al. 2024). Additionally, some qualitative accounts from service providers indicated insufficient staffing, high rates of burnout, and insufficient or uncertain funding (Ledlie et al. 2024; Karamouzian et al. 2023).

Overall, existing research into safer supply programs suggests that they can reduce drug related morbidity and mortality by establishing a medical-grade alternative to the contaminated drug supply. There is indicative evidence within this research showing the potential for positive physical and mental health outcomes for clients, while also offering potential benefits such as reduced engagement with the criminal justice system, and improved and socioeconomic stability. Ongoing research efforts will be required to build the evidence base and better understand the range of impacts associated with safer supply programs, especially in key areas such as longer-term outcomes and impacts on clients, service providers, and communities.

Results

The evaluation reviewed administrative data from 508 EMR records from intake and follow-up visits from October 2022-December 2023. The evaluation also conducted two focus groups with MOSH safer supply staff and nine interviews with staff from allied service providers, including pharmacists from pharmacies that regularly serve safer supply clients and staff from community organizations that have referred clients into the safer supply program.

The following is based on quantitative analysis of administrative data and qualitative analysis of interview and focus group data, supplemented where necessary by discussions with program staff to clarify interpretations of data collected by the evaluation. There is also a brief discussion of cost estimates for the program, however full costing data is not currently available.

Administrative data

This section summarizes and analyzes data collected in the NECHC EMR system from both intake visits and follow-up visits. From October 2022 to September 2023, the safer supply program administered 508 total visits, including 54 intake visits and 454 follow-up visits. This included 86 unique clients; some of these clients were only recorded as having an intake appointment but no follow-up visits associated with the safer supply program,[4] while others were recorded only in the follow-up dataset with no intake appointment.

The safer supply program's first official intake recorded in EMR data was October 6, 2022. However, as noted earlier, several clients were receiving safer supply services before the establishment of the official intake process in the EMR, as MOSH had been operating *ad hoc* safer supply services beginning in 2021 during COVID-19 related lockdowns (Brothers et al, 2022). As such, the intake date of several clients as recorded in EMR may differ from the actual date on which they began receiving safer supply services, and intake data for some clients may not have been recorded as a safer supply program intake.

Administrative data allow for analysis of several data categories, including demographic data (age, sex/gender, race), service use patterns, and several key wellbeing indicators including housing, employment, illicit drug use, criminal justice involvement, and involvement in survival sex work. Because the remainder of the analysis includes both intake and follow-up visits, in some instances, where a client has no intake visit recorded, their first recorded follow-up visit is treated as their intake visit for analysis purposes. However, some data, such as race, income assistance, and criminal justice involvement, was only captured during intake, and other data was often missing from intake or follow-up records. In turn, the number of clients reporting data for each category and at each visit varies across data categories.

Demographic data at intake or first visit

Of the 51 clients whose race was identified in the EMR data, 37 (73%) identified as Caucasian, while 14 (27%) identified as being of African descent, Indigenous, or Other racial background.[5] Race was only collected on the intake form, so was not available for those who did not have intake data within the

[4] The data are incomplete in terms of total visits with NECHC by safer supply clients, as some clients may have been seen through other (e.g. primary care or nursing) pathways in NECHC as well during this period. As such, a person who is recorded only during intake or who only has one appointment within this dataset may have continued to receive care through other NECHC services.

[5] The number of people identifying as any specific non-Caucasian race category is too low to report.

evaluation period. Of the 51 clients who provided information on income assistance at intake, 37 were receiving income assistance, while 14 were not.

Of the 85 clients whose gender identity was recorded in EMR, 36 (42%) identified as female and 46 (54%) identified as male, while 6 (7%) recorded another gender identity.[6] Clients' average (mean) age was 39, with a median age of 36. The oldest client was 80-85 years old and the youngest was 20-25 years old.

Wellbeing indicators at intake or first visit

Regarding the main wellbeing indicators discussed earlier, of the 79 people who provided information during their first visit on their housing situation, 28 (38%) were unhoused, while 21 (27%) were in transitional housing and 30 (38%) were permanently housed. Of the 73 who provided employment information during their first visit, 60 (82%) were unemployed, while 13 (18%) were in formal or informal work.

Of the 82 people who provided information on fentanyl use in the month prior to their first visit, 53 (74%) indicated having used fentanyl in the past month, and 72 (88%) reported using any illicit opioid in the month prior. 24 of 78 (31%) indicated being involved in survival sex work at the time of their intake or first visit.

As noted above, several wellbeing-relevant data categories were only collected during intake. Of the clients who provided relevant information during intake:

- 43 of 51 (84%) experienced a non-fatal overdose on any substance in the year prior to intake,
- 34 of 51 (67%) indicated that they had experienced medical complications in the prior year as a result of opioid use
- 25 of 48 (52%) had one or more hospital visits in the prior year, with 13 (27%) of those having more than one hospital visit in that period
- 32 of 48 (67%) reported having at least one formal interaction with the criminal justice system in the prior year, with 24 (50%) of those having more than one formal interaction
- Almost all (47 of 50, 94%) indicated using their drug of choice on five or more days per week within the month prior to intake.
- 42 clients reported an estimated cost of opioid use per day, which ranged from $0-$1000 per day, with a median of $200 per day

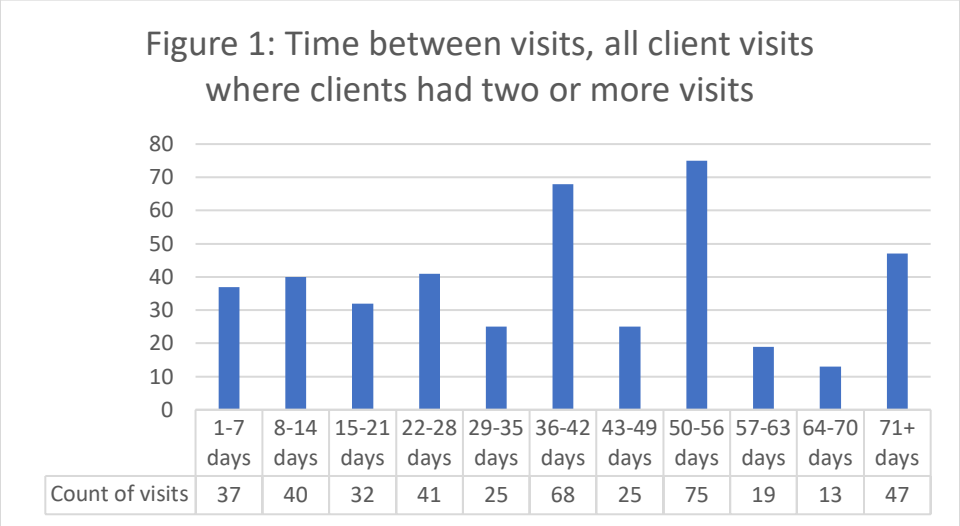
Service usage patterns

In the 15-month period from the first official intake (from October 2022-December 2023), the Safer supply program recorded intake data for 53 clients across 54 intakes (with one client having two intakes into the program). 29 of the intakes were completed before end of 2022, and the remaining 25 intakes were completed by June 2023.

Clients had median and mean averages of 6 visits over the evaluation period (October 2022-December 2023), including both intake/first recorded visits and follow-up visits. 16 clients (19%) only had a single visit recorded in the dataset, while 10 clients (12%) had a total of 10 or more visits each. For those who had more than one visit, there was an average period of 44 days between visits, although this was highly variable (with a standard deviation of 33 days). Most visits (243 of 422 follow-up visits) occurred within

[6] Percentages may not add up to 100% due to rounding.

six weeks of the prior visit. Figure 1 provides more detail on time between visits for all visits after the first recorded visit for each client.



Changes in main wellbeing indicators

This section reports on changes in self-reported categorical data from the EMR on five key indicators related to client wellbeing.[7] These indicators relate to housing status, employment, drug use (comprised of two indicators; one relating to fentanyl use and another relating to all illicit opioid use), and involvement in survival sex work. Wellbeing indicators are analyzed in this section to determine whether clients in the safer supply program reported changes in any of these indicators from their first recorded visit until their last recorded visit in the dataset.

The following analysis seeks to determine whether more recent visits within the dataset tend to exhibit what might broadly be considered 'improvements' in these indicators, compared to earlier visits within the dataset. In other words, as a person continues in the program, are they more, less, or equally likely to have permanent housing (or be unhoused), have employment (or be unemployed), use illicit opioids (or not), or engage in survival sex work (or not)?

It is important to acknowledge that safer supply programs, like the one operated by MOSH, can only have limited impacts on people's lives in the absence of broader social supports. For example, housing status cannot improve without available housing; engagement in survival sex work cannot improve without alternative opportunities for income; and so on. In turn, while a safer supply program is not expected, in itself, to be sufficient to cause improvements in things like housing or desistance from use

[7] Several free-text data sources that relate to wellbeing are also available in the EMR, related to things like unmet needs, frequency of illicit drug use, and financial cost of illicit drug use. However, the data for those categories have not been captured consistently. Additionally, while the data included questions about non-fatal overdoses or criminal justice involvement in the past year, because the time boundaries on this indicator were for a full year, those indicators were not suitable for an analysis focused on change, given the short time period of 15 months in which this evaluation was conducted. Attempts were also made in this program, albeit unsuccessfully, to develop a quality-of-life survey that could be integrated into client visits, but data collection proved to be too problematic to make the survey a viable source of data.

of illicit opioids (which will both require additional supports to be sustainable), the safer supply program is expected to be part of a suite of services that can help to stabilize individuals receiving safer supply services, which may in turn lead to improvements.

Nonetheless, with these caveats in mind, it is worthwhile to consider whether wellbeing tended to improve for clients from the beginning of their contact with the program until their most recent contact with the program.

Across 508 total visits, the dataset provided included a sizeable amount of data on the five self-report wellbeing indicators, although some data categories are more complete (i.e., having fewer non-responses) than others. Descriptive statistics for each of the five wellbeing indicators are set out tables 1-5 below. These tables include counts of self-reported status for each indicator for all clients at all visits recorded in the EMR dataset; as such, clients with more than one visit account for multiple counts within each table.

Table 1: Housing status during any visit, all clients

Housing Status	**Count**
Permanent	171
Permanent, inadequate	10
Transitional	121
Unhoused	101
(blank)	105
Grand Total	**508**

Table 2: Employment status during any visit, all clients

Employment status	**Count**
Formal work	41
Informal work	25
Unemployed	250
(blank)	192
Grand Total	**508**

Table 3: Any fentanyl use within the past month, reported during any visit, all clients

Fentanyl use in the past month	**Count**
No	287
Yes	196
(blank)	25
Grand Total	**508**

Table 4: Any non-prescription opioid use (including fentanyl) within the past month, reported during any visit, all clients[8]

Non-prescription opioid use in the last month	Count
No	159
Yes	338
(blank)	11
Grand Total	**508**

Table 5: Any involvement in survival sex work, reported during any visit, all clients

Any involvement in survival sex work	Count
No	260
Yes	32
(blank)	216
Grand Total	**508**

Data was analyzed to determine whether clients reported improved, worsened, or no change in wellbeing. In this context, an 'improved' status is indicated if a more desirable status (such as being permanently housed, or not having used illicit opioids in the past month) was reported at the most recent visit in which a client reported on an indicator, when compared to any prior visit in which a less desirable status (such as being unhoused, or having recently used illicit opioids) was reported, and vice-versa for a 'worsened' status. No change is recorded either when the same status is reported at all visits, or when a report on the wellbeing indicator is only reported at one of the client's visits. Data was analyzed for clients who had at least two visits, and so long as the client reported against the relevant wellbeing indicator at least once.

This analysis includes data from all 70 individuals who had two or more visits within the time period of this dataset (October 2022-December 2023), although not all clients reported on all indicators at each visit.[9] Broadly speaking, clients were more likely to demonstrate improved than worsened status within the evaluation period in:

- **Housing status at the time of visit** (with 30 of 70 clients [43%] reporting improved housing status, i.e., moving from unhoused to transitional or permanent housing, or from transitional to permanent housing, compared to 18 clients [26%] experiencing worsened housing status) [10]

[8] An indicator regarding non-prescription opioid use is included in the follow-up visit data, but not in the intake data. The data reported here represent a merging of the fentanyl use and non-prescription opioid use indicators for each visit.

[9] Note that 70 clients provided at least one report on three wellbeing indicators, while 69 reported employment status at least once and 54 clients provided reported on their involvement in survival sex work at least once during the evaluation period.

[10] Of the remaining 22 clients for whom no change was recorded, 17 only reported permanent housing at any time during the evaluation period; the remaining 5 reported only either being unhoused or in transitional housing during the evaluation period.

- **Recent fentanyl use (past 1 month)** (with 36 of 70 [51%] clients, whose reports suggest improvements in fentanyl use, compared to 9 of 70 [13%] whose reports suggest a worsened status) [11]
- **Recent illicit opioid use (past 1 month)** (with 31 of 70 [44%] whose reports suggest improvement in illicit opioid use, while reports from 17 of 70 [24%] suggest a worsened status)
- **Involvement in survival sex work at the time of the visit** (with 17 of 68 [27%] whose reports suggest reduced involvement in survival sex work; worsened numbers are too low to report) [12]

Regarding employment status, the vast majority of clients reported unemployment at all reporting stages within the evaluation period, and changes were only observed for 18 clients (with 10 reporting an improvement and 8 reporting a worsening of employment status).[13] Results of the analysis are shown in Figure 2 and Table 6 below.

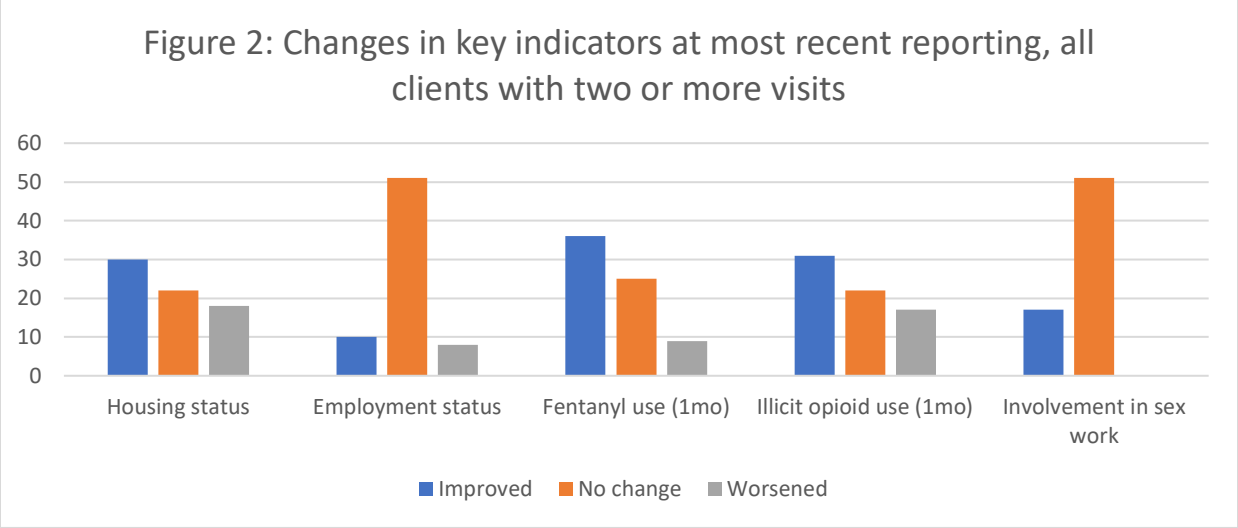


Table 6: Changes in key indicators from first reporting and last reporting, all clients with two or more visits

Indicator	Improved	No Change	Worsened
Housing status	30	22	18
Employment status	10	51	8
Fentanyl use (1mo)	36	25	9
Illicit opioid use (1mo)	31	22	17
Involvement in sex work	17	51[14]	

[11] Of the 25 clients for whom no change was recorded in Fentanyl use, 14 had not reported using Fentanyl at any time during the evaluation period; the remaining 11 had only reported in the affirmative during their visits. Of the remaining 22 clients for whom no change was recorded in illicit opioid use, the vast majority reported using illicit opioids; exact numbers are not provided due to small-values reporting issues.

[12] Of the 47 clients for whom no change or a worsened status was recorded relating to survival sex work, the vast majority did not report engaging in survival sex work; exact numbers are not provided due to small-values reporting issues.

[13] Of the remaining 51, the vast majority reported unemployment; exact numbers are not provided due to small-values reporting issues.

[14] Due to small-values reporting issues, those for whom a worsening change was recorded have been included in the 'no change' count, as the total number of clients in this category is less than 4.

There are several important caveats to this analysis. First, clients' reports on wellbeing indicators often oscillated from improvement, to worsened, and back, through the evaluation period. For example, several clients reported use of illicit opioids during their first visit, non-use during their second visit, use during their third visit, non-use during their fourth visit, and so on. The general trend within the data is toward improvement from the first self-report to the last self-report within the data, but it is not always a linear process.

Second, there are gaps in the data where clients have not reported on an indicator during a visit, and there is no simple interpretation of these gaps. While 100% of clients provided information about recent illicit opioid use at their visits (likely because such reporting is directly relevant to the program), data regarding other wellbeing indicators was missing from a substantial number of visits (for example, just over 20% for housing status, about 38% for employment status, and just over 42% for survival sex work). It is likely that in most instances, it was not possible for the clinician (within the time they had with the client) to ask about all of these indicators, and therefore the missing data may be randomly distributed. However, it is also possible that the missing data has an unknown bias in it, which would alter the analysis.

Third, some of these indicators are binary (yes/no) rather than scaled. For example, having used fentanyl in the prior month does not indicate how much fentanyl was used, or how often. In some instances – especially regarding survival sex work, and use of illicit opioids – the volume of involvement is important, but missing from this analysis.

Fourth, and perhaps most importantly, it is possible – indeed likely – that these observed changes can be explained at least in part by factors beyond the safer supply program. As noted earlier, this evaluation does not have the data required to test the independent impact of the safer supply program in the context of all other interventions that clients are accessing to improve their lives, and improvement in relation to any of these indicators likely requires multiple factors (beyond, but potentially including, access to safer opioids).

Nonetheless, and with those caveats in mind, the above data analysis provides suggestive evidence that warrants consideration as the program develops. Specifically, it suggests that clients engaged with the program may be experiencing improvements in wellbeing, and access to a safer supply of opioids may play a role in those improvements (along with other healthcare and social service supports).

Program details not captured by EMR

The above analysis primarily captures the activities of clinical staff at MOSH, during safer supply clients' visits to NECHC or while seen in the community. It is important to note that the program also includes a wide range of supports provided by the safer supply support workers, but which are not captured in the RMS dataset.

According to program staff, the safer supply support workers provide key services beyond the regular clinical appointments that are captured in the EMR system. Support workers provide case management for program participants, which includes:

- Reaching out to correctional services, hospitals, and pharmacies to let staff know about medication changes, health/behavioural history and any other information staff may need prior to interacting with a program participant

- Coordinating release plans by connecting with prescribers to bridge medications for program participants whenever a participant is discharged from the hospital or released from jail
- Calling program participants for reminders of upcoming appointments, assist with transportation to get to medical appointments (provide bus tickets, taxi chits, or drive program participants in last resort situations)
- Conducting random urine drug screen test and pill counts every 3 months (to help confirm if program participants are taking their prescription or not)
- Supporting program participants by helping them to determine and execute their goals and providing continuous supportive conversations
- Submitting referrals to other service providers including withdrawal management/recovery services, counselling/therapy supports, shelters, and so on
- Screening intakes for new potential program participants, and
- Keeping track of the waitlist for safer supply intakes

Also, as noted above, full costing of the safer supply initiative is not available at this time, in part because of the complexities of MOSH and NECHC staffing, in which staff time is often allocated across multiple NECHC programs and clients may attend NECHC as members of several programs at once. Total estimated costs for the program that were specific to the safer supply program (and not shared through other programs) were salary costs for the safer supply support workers and operating costs for the urinalysis program, which totalled $67,000 from October 2022-October 2023. Future evaluations may benefit from better costing data as well as a more robust estimate of program staff activities, if a cost-benefit analysis of the program is seen as a valuable exercise.

Staff and Allied Service Provider perspectives

MOSH program staff and allied service providers indicated broad satisfaction, on behalf of themselves and their clients, with the mandate and provision of the safer supply program. Allied service providers expressed excitement and gratitude for the introduction of this novel harm reduction program in Atlantic Canada, which they feel has been beneficial to their clients for whom other harm reduction programs (such as Opioid Agonist Therapy) have not been a good fit. Though lacking data to make concrete claims regarding these benefits and impacts, MOSH staff and allied service providers alike believe in the program's ability to reduce drug related morbidity, mortality, crime, and violence.

Allied service providers, including pharmacists dispensing medications and those providing support services in the community, have indicated that the program has not negatively impacted their organizations. Pharmacists indicated an increased workload, as they have received new prescriptions that may need to be dispensed daily, but also indicated that this is not inherently negative as it is within their capacity to deliver and represents a new source of income for their businesses. One pharmacist indicated they would need a greater labour capacity to take on more clients, but another stated that they were happy to take on more if needed. These pharmacists did indicate that while they were once able to make special accommodations for certain clients, such as making deliveries or staying open late, as the program has reached full capacity, they are no longer able to do so. However, allied pharmacists stated that they are comfortable with the program, are sympathetic to the complex needs and behaviours of those who use drugs, and are satisfied in the belief that they are doing important work.

Other service providers alluded to minor challenges with referrals, especially as the program filled and clients were put on wait lists. Some support workers indicated confusion regarding the multiple referral pathways and for clients who were already connected with MOSH, not knowing how best to facilitate access to the program. This process was easier for some than others; service providers and their clients that had a pre-existing connection with MOSH had a much easier time with communication and transition into safer supply. Those with less of a connection to MOSH indicated that they had not received enough information (some wishing for an information sheet or pamphlet) or that they did not know who to contact with questions or concerns. This gap in information was made evident when multiple allied service providers said they wished a safer supply of stimulants was available to those for whom cocaine or methamphetamine was their drug of choice; MOSH doctors state that safer prescription stimulants have been offered since the program started.

A few allied service providers mentioned that it was difficult to get their clients through the onboarding process, as it required multiple appointments at the NECHC. Two service providers mentioned that their clients are transient, and most of them without cellphones, making it difficult to ensure that they would make it to their appointments. Another mentioned that some of their clients had mobility issues and/or no suitable means of transportation for getting to appointments or pharmacies; for some, the need to visit the pharmacy daily was a significant barrier. One service provider nonetheless expressed that they were grateful the program was available to those experiencing street homelessness, as many such harm reduction programs are residentially based.

All of the service providers indicated that they had additional clients they wanted to refer after the program had filled. One mentioned that the program was already full when they first became aware of its existence. Some mentioned that their clients became angry or fearful upon learning that the program was full, as well as jealous of peers who were enrolled. MOSH staff also discussed difficult interactions with clients stuck on the waitlist, as they have been unable to estimate a timeline for when new clients may get access. MOSH staff indicated that there is enough interest to double or triple the size of the program.

Another issue identified by allied service providers was the ability for clients to be on opioid agonist therapy (OAT) and safer supply at the same time. While one pharmacist indicated they had some clients on safer supply 'with a backbone', describing a longer acting OAT drug combined with safer supply carries to take throughout the day, a different OAT provider in the community indicated that the way their medical records were kept prohibited them from retaining clients that had been referred to MOSH.

A common theme in interviews with MOSH staff and allied service providers was the threat of negative public opinion regarding the safer supply program, which could hinder the program's ability to expand. Several interviewees mentioned public sentiment, originating both from the medical community and political discourse, that suggests that safer supply programs are enabling opioid use and addiction, as well as putting more opioids into the illicit market. Most interviewees alluded to the issue of diversion, where those with a prescription for safer supply may trade or sell their pills for money, or a different drug of choice. However, allied service providers and MOSH staff indicated that there is little evidence that this is happening within the MOSH program, and believe that any diversion in their program is likely on a very small interpersonal scale. To this end, program staff suggested that existing urinalysis and pill count activities acted as good safeguards against the potential for significant amounts of diversion. Further, some mentioned that the idea of a relatively low number of safer supply pills reaching the illicit market was not a major risk, because the drugs are guaranteed to be pure and were therefore unlikely to translate

to harm in the community. Nonetheless, there was a recognition that the potential for diversion remains a concern, which reinforces the value of control mechanisms within the program.[15]

One issue identified by MOSH staff was transitions of care, due to either incarceration or hospitalization. Due to corrections policy, individuals are not allowed to start on safer supply in jail, and pre-existing safer supply prescriptions are substituted with a long-acting daily witnessed dose. MOSH staff also mentioned that their clients' dosage may be changed without any notice or communication while they are in jail. An individual providing social support to incarcerated individuals stated that they believe those withdrawing from opioids in jail would be ideal candidates for the safer supply program, as it would establish a connection to healthcare providers outside the jail and mitigate the heightened risk of overdose experienced by drug users upon release from incarceration.

As for hospitalization, MOSH staff indicated an open and supportive relationship with hospital staff, but that some nurses are uncomfortable with or unsure about safer supply. MOSH peer support workers often provide guidance to hospital staff, for example, helping to determine an appropriate dose of pain medication for safer supply clients. Unfortunately, due to policy, hospital staff must witness all doses of medication, which feels punitive for some clients. Some medical professionals in the community, including hospital staff and pharmacists, do not understand or are opposed to safer supply. As clients can pick up their medication from any pharmacy, some have experienced friction or hostility when trying to fill their prescription.

While program staff felt that the program has been broadly supported by allied service providers, social stigma against people who use drugs has created some challenges in service provision and could limit the program's capacity to expand. Program staff suggested that some safer supply clients and staff have encountered uncertainty, discomfort, and even some friction from pharmacists, and during transitions of care such as incarceration and hospitalization.

Finally, program staff and allied service providers described the issue of boredom and idleness among clients that no longer need to 'hustle' to find drugs. There are certainly positive dimensions to the absence of the hustle; clients' increased free time and ability to access their safer supply prescriptions while hospitalized allowed them to address other health needs that may have been long neglected prior to program enrolment. However, MOSH staff and service providers indicated that boredom among this population gives them 'too much time with their thoughts', as well as a lack of meaning or purpose.[16] MOSH staff mentioned a need to establish recreational activities, mental health support, and potentially employment and/or peer support opportunities for their clients at the Overlook— a supportive housing facility run by NECHC which houses approximately 20 safer supply clients— to address this excessive idle time.

[15] It is important to note that this evaluation is unable to assess claims related to diversion beyond the staff perception data presented here. As noted in the literature review, research on diversion remains limited, and assessing actual levels of diversion presents substantial challenges in establishing ground truth on this matter. Nonetheless, staff perceptions are based in ongoing internal monitoring through several related mechanisms (pill counts and urinalysis), which lends credibility to their perceptions.

[16] A similar concern regarding client boredom had emerged within an evaluation of the MOSH Managed Alcohol Program (MAP); for more information, see Lepage, Genge and Brothers (2023).

Discussion

The discussion is organized in line with the main research questions of the evaluation. To review, these are:

- EQ1: Is the overall model feasible?
- EQ2: Is the initiative doing what it set out to do?
- EQ3: How is the initiative impacting the people accessing these services?
- EQ4: What gaps or needs remain, beyond what the model currently provides, which could be addressed within this model?

It is important to interpret this discussion section in light of the caveats set out earlier in the evaluation report, and particularly with regard to the lack of data at this stage regarding client perceptions.

Is the model feasible?

The current model of the Safer supply arm of the MOSH Justice Initiative appears to be feasible. Key stakeholders, including allied service providers and pharmacists in the community, have bought into the model and hope for an expansion of its capacity. Stakeholders have indicated that the program is operating as expected, and feel that it has, or could have a positive impact on their clients. The introduction of this initiative does not appear to have changed or disrupted the delivery of any other services in the community.

There was some confusion regarding the multiple referral pathways as the program was in its infancy, but many allied service providers indicated that they were able to resolve these issues. If referrals are to re-open, this issue could be easily remedied with a referral instruction or information sheet. Further, the onboarding and prescription pick-up processes pose barriers to clients with mobility issues, who have difficulty commuting to appointments or picking up daily medication. There is not currently a mechanism in place to remedy the transportation piece, nor an allied pharmacist with the current capacity to deliver.

MOSH staff indicated that their clients have been cooperative and have allowed the program to operate smoothly. Staff seemed pleasantly surprised that routine urinalysis testing and pill counts have not caused any issues. They attribute this to clients having fully bought into the model, understanding that these compliance checks allow MOSH to demonstrate to funders that the system is operating as intended and is not being misused.

MOSH doctors did indicate that the political climate surrounding safer supply programs could threaten their ability to ascertain greater funding, which they would need to hire a new prescriber and expand their capacity. They would also need funding to increase their support staff hours from part time to full time.

Is the initiative doing what it set out to do?

Quantitative analysis of EMS data shows that the program has been able to provide services to the more than the expected number of clients, with 86 unique clients receiving services in the 15-month evaluation period; the program was relatively quickly up to full capacity. The program also appears to be serving clients who fit the inclusion criteria at the time of intake or first visit, with a majority having recent formal interactions with the criminal justice system and most using illicit opioids within one month of their first visit. Clients are also largely continuing to engage with the program, with most clients having multiple visits within the evaluation period; this suggests that attrition from the program has been limited.

Qualitative data suggest that the model has been successfully providing prescriptions of safer supply opioids and stimulants, along with wrap-around drug related medical care, as originally intended. Wraparound care includes routine blood work, wound care, Hepatitis C testing and treatment, and addressing any other drug related mental or physical health needs as they arise. In the process of this evaluation, the NECHC has opened the Overlook, which is a harm reduction informed supportive housing facility. This has allowed them to take on 20 safer supply clients in a residential setting in addition to their original capacity of 50 clients in the community. Most allied service providers did not have any specific expectations for the program, but are satisfied with how it has been delivered.

It is also important to note that clients appear to be using the service as intended. Program staff report that routine pill counts and urinalysis testing have demonstrated that diversion of program-provided opioids to the illicit market, and continued illicit drug use by clients are not of great concern. Though stakeholders indicate that there has been evidence of some minor sharing and trading of drugs, program staff mentioned that they have only experienced one major case of non-compliance for which an individual was dismissed from the program.

How is this initiative impacting the people accessing this service?

Causal conclusions from the quantitative data are not warranted due to the nature of the evaluation approach and available data. However, broadly speaking, the data are suggestive of improved wellbeing for clients on several key indicators, including housing status, illicit opioid use, and involvement in survival sex work. While, as noted earlier, it is not possible to attribute these improvements directly to the safer supply program, it is reasonable to consider the possibility that the program is one of several services helping clients to stabilize while being able to access a safer opioid supply.

In the qualitative data, MOSH doctors have stated, with confidence, that they believe this program has resulted in a reduction of illicit drug use, including fentanyl, among their client population. Relatedly, they believe that this translates into a reduction in drug related crime and overdose. MOSH staff and allied service providers alike have indicated that their clients are very satisfied with the program, and that not having to 'hustle' for drugs or worry about drug composition has lifted a weight off their shoulders. One MOSH doctor mentioned that being able to discuss their drug use openly and with dignity is a great relief to clients. There is a strong sentiment of growing stability among the client population.

MOSH staff and allied service providers also believe that this program has allowed the client population to address other health needs. Routine blood testing has led the doctors to start some clients on Hepatitis C treatment, which they believe these clients would not have received otherwise. Additionally, some mentioned that drug users are unlikely to go to the hospital as it would mean they would have to forego illicit drugs. Staff and stakeholders indicated an increase in hospitalizations among the client population and framed this as a positive indication that formerly neglected needs were being addressed. Case management and peer support also keeps clients on track with medical appointments and aftercare.

What gaps or needs remain?

Qualitative data suggest that the main issue currently concerning the safer supply program is that the demand is far greater than they have the capacity to provide. Many MOSH staff indicated that they are contacted or approached on a weekly, or even daily basis about when space in the program will become available. They have also mentioned that because this is the only program of its kind in Atlantic Canada, individuals have been relocating from throughout the region in attempt to gain access.

In some cases, there have been challenges with medication pickup. For some clients it is difficult to get to the pharmacy regularly due to mobility issues. A few stakeholders also mentioned friction or hostility between clients and pharmacists, specifically pharmacists that do not have a relationship with MOSH or do not often work with clients that use drugs. One staff member mentioned that some pharmacies could use some training on how to work with drug users in a less stigmatizing way.

There is also a concern, particularly in the residential setting, about what comes next after clients are stabilized on safer supply. MOSH staff expressed that there was a need to integrate some recreational activities and mental health support, but that there are limited options available that would be appropriate for the client population. They also entertained the idea of transitioning stabilized clients into peer support positions to provide meaning and emotional fulfillment.

Additionally, the MOSH doctors have a few ideas for expanding the program to more client populations or introducing new forms of medication. For example, they have discussed the idea of introducing the program to individuals at QEII who have been hospitalized for opioid related reasons. They also mentioned that they are interested in mentoring physicians around the province to start their own safer supply programs. Finally, they stated that they would like to implement injectable hydromorphone at the residential setting, but that there have been barriers to getting that started.

Finally, there are several issues relating to available quantitative data, which could valuably be addressed for future evaluations and to continue to improve and demonstrate the viability of the program. For example, as noted several times in this document, the data are insufficient to make causal claims about the impacts of the program on client wellbeing, and client reporting on wellbeing indicators is inconsistent. As political challenges to the viability of safer supply programs are likely to continue, developing more robust data sources that can clarify the impacts of the program on clients would be advisable.

Limitations

This evaluation seeks to provide information on the early stages of a safer supply program operated by MOSH in Halifax, Nova Scotia. In particular, the evaluation seeks to provide information that can guide program development by assessing whether the program appears to be feasible and able to do what it set out to do – which is, in this case, to operate a safer supply program that provides safer opioids to a specific population in Halifax. The evaluation also seeks to understand what impact this program is having on clients receiving safer supply services, and what might be done to improve the program in the future.

There are two main limitations to this study. First, this evaluation is not designed to establish causal claims about the program's impact on desired outcomes such as improved client wellbeing. The evaluation design does not support these kinds of claims, and additional data sources (such as control-group data for experimental testing, or longitudinal client data from before the evaluation for pre-post testing) would be required to begin investigating causality. Nonetheless, the available evaluation data can be used to offer suggestive findings about potential impacts to clients. Second, the evaluation does not include client perspectives, for example from interview or focus group activities with program clients. Client perspectives will be important to consider as the program develops, to ensure that staff perceptions on program efficacy align with client perceptions. There is a separate project currently in planning stages to gather those perspectives, which will in due course provide additional valuable insights about the program's operation, feasibility, and potential impacts to clients.

Conclusion

This report has evaluated the first 15 months of a safer supply program provided by MOSH through the NECHC, which provides prescription grade opioids or stimulants to drug users at risk of significant drug-related harms. In these 15 months, MOSH staff have had a total of 508 visits representing 86 unique clients.

Overall, the program appears to be feasible, and is operating in accordance with initial expectations. MOSH staff and allied service providers are satisfied with the safer supply program and believe that it has greatly benefited their clients. All those interviewed expressed a desire for the program to expand. Quantitative data from client EMR records, while insufficient to make causal claims on the program's impacts, indicates that the lives of many clients have improved across key indicators of housing status, illicit drug and fentanyl use, and participation in survival sex work.

Qualitatively, MOSH staff and allied service providers are confident that the program has led to a reduction in fentanyl use and related drug toxicity among the client population. In addition, as clients' time is less occupied by drug-seeking activities, staff and allied service providers have noticed a greater degree of stability among the client population, many of whom are now seeking productive activities and/or employment. As the safer supply program also includes wraparound primary care, staff suggested that clients are also likely seeing general health improvements. Program staff also did not believe drug diversion had become a significant issue in their program, due to several control mechanisms they had established including pill counts and urinalysis.

Allied service providers indicated some improvements that could be made to make the intake process easier for them and their clients, especially if capacity is expanded and client intakes to the program increase. In particular, they suggested that it would be helpful to establish a singular, well-defined referral pathway and additional informational resources for allied service providers. Services to support clients could also be expanded if resources were available, such as establishing transportation for medication pickup or establishing an option for medication delivery; these are issues for which there was not a feasible solution during the evaluation period.

Program staff and allied service providers acknowledged that public and political perceptions of the harm reduction philosophy underpinning the program are mixed at best, and these perceptions represent a potential challenge to expansion of the program's capacity. Ongoing and additional research and improved data sources providing a more complete picture on the program's impact on its clients, including research into client perceptions of the program and better measurement of wellbeing outcomes, would be valuable to support future attempts at program expansion.

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Appendix A: Interview and Focus Group guides

The following guides were used in interviews and focus groups in this evaluation.

Interview guide

Intro statement

Thank you for taking part in this interview. This interview is being undertaken as part of an evaluation of the MOSH Safer supply program, which I am conducting on behalf of MOSH. The purpose of the evaluation is to understand whether the Justice Initiative model is feasible, how it is impacting clients, and how it may be improved going forward. Your contributions in the interview will be treated confidentially and any statements you make will not be attributed to you or used in a way that can be used to identify you in any subsequent evaluation reports, presentations, or publications. Do you have any questions before we begin?

[If follow-up interview: Acknowledge that this is a follow-up interview and some questions will be the same as the first interview, and we are also interested in knowing if their opinions or perspectives on the Safer supply program have changed in any way since the last time we spoke]

We would like to make an audio recording of the interview for our own records, as well as take notes during the discussion. Do you have any concern with this approach to recording? If you'd prefer not to be audio-recorded, please let us know and we can work from written notes alone.

Interview Guide

Theme: Current State

1. Pretending I have no prior knowledge of the MOSH Justice Safer supply initiative or your organization, can you please explain to me your understanding of the Safer supply program?
    a. What kinds of services and supports are available through the program?
    b. What do you think is the goal of the program?
    c. How do you normally engage with the program?

Theme: Feasibility

2. Tell me about any challenges or successes in getting the model started
    a. Has communication from MOSH been clear regarding the available services?
    b. Have you had sufficient opportunities to provide input and express ideas or concerns?
    c. Are your clients accessing the available services?
    d. Do the services provide value to your clients?
    e. How does your organization interact with the Safer supply services?
    f. Is there any overlap or role confusion between the Safer supply services and other available services?

Theme: Fidelity

3. Is the model working the way you had expected?
    a. If not, what is different?
4. Do you expect the model to stay the same for the life of the program?
    a. What might you want to see changed?

Theme: Impact

5. How do you believe access to Safer supply services is impacting the service's clients?
    a. What do you think the longer-term impacts to clients will be?
    b. What would be different if these services did not exist?
6. How do you believe the establishment of this service is impacting other service providers working with Safer supply clients?
    a. What do you think the longer-term impacts to other service providers will be?

Theme: Gaps

7. Are there any ways in which this program could be changed or expanded, to better meet the needs of current clients?
8. Are there other types of clients the service could support, beyond the clients who have already been identified?

Theme: Anything else

9. Is there anything else about the operation of the MOSH Justice Safer supply program so far, that you think I should be aware of for the evaluation?

Focus group guide

Intro statement

Thank you for taking part in today's focus group. The focus group is being undertaken as part of an evaluation of the Safer supply initiative, which I am conducting on behalf of MOSH. The purpose of the evaluation is to understand whether the safer supply model is feasible, how it is impacting clients, and how it may be improved going forward. Your contributions in the focus group will be treated confidentially and any statements you make will not be attributed to you or used in a way that can be used to identify you in any subsequent evaluation reports, presentations, or publications. Do you have any questions before we begin?

We would like to make an audio recording of the focus group discussion for our own records, as well as take notes during the discussion. Do you have any concern with this approach to recording? If you'd prefer not to be audio-recorded, please let us know and we can work from written notes alone.

Focus Group Guide

Theme: Current State

1. Pretending I have no prior knowledge of the Safer supply initiative, can you please explain to me how the Safer supply program is intended to work?
    a. How many staff are involved in delivering the program?
    b. Where can people access the program?
    c. How are people referred to the program?
    d. What are the inclusion and exclusion criteria for the program?
    e. How many people will use the program?
    f. How does someone in the program differ from someone receiving safer supply through other channels?
    g. How many people are currently using the program?
    h. How often will a client access the program? For example, will most do it daily?

Theme: Feasibility

2. Tell me about any challenges or successes in getting the model started
    a. Are stakeholders aware of the service and do they understand it?
    b. What has been the response to this service from stakeholders?
    c. What has been the response to this service from clients?
    d. What has been the greatest strength of the program so far?
    e. How do you think demand for the program will match up with capacity?
    f. Have you encountered any barriers so far in getting the program established? If so, what are they?
    g. I understand that this is a grant-funded program; what will happen to the program if/when the grant funding ends?

Theme: Fidelity

3. Is the model working the way you had expected?
    a. If not, what is different?

4. Do you expect the model to stay the same for the life of the program, or will there be changes in the coming months?

Theme: Impact

5. How do you believe access to safer supply is impacting the service's clients?
    a. What do you think the longer-term impacts to clients will be?
6. How do you believe the establishment of this service is impacting other service providers working with people who access safer supply?
    a. What do you think the longer-term impacts to other service providers will be?

Theme: Gaps

7. Are there any ways in which this program could be changed or expanded, to better meet the needs of current clients?
8. Are there other types of clients the service could support, beyond the clients who have already been identified?

Theme: Anything else

9. Is there anything else about the operation of the Safer supply initiative so far, that you think I should be aware of for the evaluation?

Appendix B: EMR intake and follow-up forms

The following information was recorded for Safer Supply program clients at Intake and Follow-up visits. Not all data elements were suitable for inclusion in this study's quantitative analysis.

Safe Supply (SS) Intake Form

First visit MD/NP Safer Supply Program Clinical Template

S:

Opioid use history and patterns

Opioid of choice:
Route of administration (injection, inhalation, oral, patch):
First use of substance of choice in life:
Started using regularly (at least once a week):
Days per week using drug of choice (in the past month):
Amount of substance usually consumed per day (in the past month):
Maximum amount consumed on one occasion (in the past month):

Consumption pattern (spaced throughout a day? Morning or evening? If so, how much/how often?):

The usual triggers or desires for consumption (what function does the drug serve?):

Usually consumed alone/with friends/family/at home/at OPS/SISs?:

Vital Signs

Height (in):
Height:
Weight (lb):
Weight:
BMI:
BP: /
Pulse:
Regular? Yes/No
Temp:
O2 Saturation :
Initial referral source: [Central Nova Scotia Correctional Facility][Corrections Service Canada][Coverdale Court work][SocietyCriminal Justice Program][Direction 180][Elizabeth Fry society (Efry)][Jamieson Centre][John Howard Society of Nova Scotia (JHSNS)][MainlineNECHC][Nova Scotia Health Authority (NSHA)][Self][The Canadian Association of People who Use Drugs (CAPUD)][Wellness within][Other carceral setting][Other community agency]
Initial referral date:
Date of Intake visit:

Sociodemographic:

[Patient Name]
[Patient DOB]

Gender Identity
Female
Male
Trans Feminine
Trans Masculine
Transgender
Non binary
Two-Spirit
Gender Fluid
Agender
Prefer Not to Answer
Other
Prefer to self describe

Race
African decent
Caucasian Indigenous
Other
Race other

Housing
Unhoused
Transitional
Permanent
Inadequate Permanent

Home community: [Central Zone][Eastern Zone][Northern Zone][Western Zone][Out of province]
Employment: [Unemployed][Informal work][Formal work]
Income assistance: Yes/No
IA Worker:
Literacy concerns of language barriers: Yes/No

Health Insurance [None][Pharmacare][Non Insured Health Benefits for First Nations and Inuit] [Private]
Private:

Current health access to
Allied health Continuing care/VON MAP Mental health Safe supply Specialist physician Other
Current health access: Other

Personal Wellbeing Index: 0 (not at all satisfied) - 10 (completely satisfied)

How satisfied are you with your quality of life? 0 1 2 3 4 5 6 7 8 9 1 0

How satisfied are you with how safe you feel? 0 1 2 3 4 5 6 7 8 9 1 0

Unmet needs: [Other][Addictions support][Cognition/Capacity][Cultural][Dental care][Documentation support (taxes, ID)][Education/Literacy/Language][Employment][Food security][Healthcare Home or personal care / community living support][Housing Income support including med insurance Legal support][None][Occupational Therapy][Physiotherapy][Psychotherapy/Trauma Social Transportation]

Current opioid use

Route of Administration
Inhalation
Injection
Oral
Patch
Any fentanyl use in the past month? Yes/ No
Any non-fatal overdoses in the past year? Yes /No
Days per week using drug of choice (in the past month):
Amount of opioids consumed per day (in the past month):
Maximum amount of opioids consumed on one occasion (in the past month) :
Cost of opioid use per day:

Consumption patter/triggers
Consumption pattern (spaced throughout a day? Morning or evening? If so, how much/how often?):
The usual triggers or desires for consumption (what function does the drug serve?):
Usually consumed alone/with friends/family/at home/at OPS/SISs?:
OAT History
Previous experience with OAT

MMT: Yes/No
Highest dose:
Length of time on highest dose:
Last dose taken (time, dose):

Bup-naloxone: Yes/No
Highest dose:
Length of time on highest dose:
Last dose taken (time, dose):

SROM only: Yes/No
Highest dose:
Length of time on highest dose:
Last dose taken (time, dose):
Complications of Use:
Any medical complications in the last year related to opioid use? Yes No

Medical complications:
Number of hospital visits in the last year
Number of formal interactions with the legal system in the past year?
Any involvement in survival sex work? Yes No

Withdrawal/Abstinence Hx
Longest recent (within the last year) period of abstinence: when? how long? Why?
Withdrawal symptoms:

Ever need medical attention due to withdrawal symptoms? Yes/No

Current goals around use:
Other Substance Use:
Other substances: how much, how often, which route (IV/IN/PO/TOP), for how long
Alcohol: Yes/No
Tobacco: Yes/No
Cannabis: Yes/No
Stimulants (Cocaine, amphetamine etc.): Yes/No
Benzodiazepines: Yes/No
Hallucinogens: Yes/No
Other substances:

Medical Hx
No known liver dx, no hx of endocarditis or sepsis, no hospitalizations hx, no ER visits re: substance use
Known HBV/HCV/HIV/STI: Yes/No
Last STI screening done:
Endocrine disorders (diabetes, thyroid disease etc.): Yes/No
Cardiovascular diseases (hypertension, MI, hypercholesterolemia, atherosclerosis etc.): Yes/No
Renal diseases: Yes/No
Gastrointestinal diseases: Yes/No
Liver disease: Yes/No
Pulmonary disease (asthma, COPD): Yes/No
Musculoskeletal diseases (arthritis, back injury etc): Yes/No
Cancer: Yes/No
CNS (head injury, loss of consciousness or seizure disorder): Yes/No
Skin: Yes/No

Surgeries: Yes/No

Psychiatric history:
Current and past diagnoses:
Admissions to mental health institutions (other than medical withdrawal management): Yes/No
Suicide ideation/attempts: Yes/No
Self-harm: Yes/No
Abuse or trauma hx (physical, emotional, sexual, verbal, and or neglect): Yes/No

Meds:
PREP/HIV prophylaxis?
Herbal or OTC meds?
Allergies:
Current PCP:
Current specialists:

Family history:
Substance use: Yes/No
Mental health: Yes/No
Illnesses running in family (cancer, cardiovascular disease, diabetes etc.): Yes/No

Other Social history:
Immigration status:
Social supports/Important relationships:
Children:
Designated Next of Kin and contact information:
Objective Note
O:
Vitals: see below
NAD, jaundice [[y:][n]], diaphoresis [[y:][n]], alert [[y:][n]], orientation [[y:][n]]
general appearance
Gait

MSE:
Good eye contact
Speech
Mood: "_____"
Affect:
Thought content:
Thought Process:
SI____, HI____
insight and judgement:

{If concerns raised in PMH, focused physical assessments to be performed}

CVS: normal S1/S2, no murmurs, no edema
RESP: clear, GAEB
ABD: soft, non-tender, no HSM/mass, liver edge soft, no caput/angiomas
Neuro: no focal signs, normal DTRs
MSK: normal range of motion
Skin: no palmar erythema, track marks Yes/No

UDS results:

Assessment Plan:

A: This patient meets criteria for [[mild][mod][severe]] substance use disorder

Based on current substance use, overdose death risk, incarceration risk and current physical/mental health as well as psychosocial history client meets criteria to enroll into Safer Supply program

P:

1. Offered access to OAT referral

- client declined, aware if at any time interested in discontinuing IVDU can be transitioned over to first line OAT at any point during the program
- will continue to revisit

2. If applicable & client consents, ROI signed for family MD for CPP and to inform MDs involved in clients' care that they are entering into Safer Supply program

3. For UDS today (charted above or in RN note)

4. Lab work: screening labs for CBC, Cr/eGFR, RBG/HbA1c, LFTs + liver enzymes, Hepatitis A/B/C, HIV, syphilis, GC/CHL if required

Other investigations ordered today:

5. Discussed program details and requirements, discussed evidence base that informs current program model showing improvements with iOATs, discussed limited evidence for crush to inject models and that D8 rx off label use for safer supply program

6. Consent form was reviewed and discussed risk of safer supply rx including overdose and death, risk of abscess and infections, DVT, sepsis and endocarditis - client understands risk and agreeable to enroll in program - client consents and has capacity; see consent form signed and scanned to chart

7. Discussed safer ways of crushing to inject dilaudid, encouraged to use at OPS as much as possible or around others -

aware to use pill crusher to prepare powder, a filter, to cook for 10 secs for potentially lowering endocarditis and sepsis risk, aware of sterile needle/equipment use, no sharing of equipment, use of antiseptic protocol for self injections, & answered clients questions; handout on safer injections given to client

8. Discussed concerns around diversion, discussed risk of tabs getting into the hands of opioid naïve individuals and risk of overdose death if this occurs, client understands risk and agreeable to disclose any diversion, aware will not be negatively impacted by this. Encouraged to invite others into the program if diversion is a concern. If diversion continues, aware will need to consider more observed medication use.

9. Discussed the role of UDSs as part of the program, aware will not be negatively impacted by results, results used instead to understand the degree of contamination of street drug supply and for evaluation purposes of Safer Supply program. Client consents to doing random UDSs.

10. Client initiated on:
[[SROM ## mg PO DWI + D8 ## tabs today][D8 ## tabs only, no SROM][other]]
D8 tabs to be dispensed daily at the following pharmacy:

11. Discussed importance of PO SROM use daily to address concerns around w/d symptoms and risk of crushing/injecting Kadian given ++ expedient which increases risk of endocarditis/sepsis. Client understands and agreeable to use Kadian as PO only at all times. Client agreeable to direct observed dosing of SROM at pharmacy.

12. Client aware to risk of OD/death with concurrent use of benzos/alcohol/stimulants/street supply of opioids with rx

13. Client aware to seek urgent medical attention or go to ER if chest pain, fevers, jaundice, abdo pain, severe joint pain, severe back pain or any concerns

14. F/U in [[2-3 days][1week][2weeks][3-4weeks]]

Discussed case with another MD or NP at SS rounds without any patient identifiers

_____ NP or MD in agreement with the above plan.

Safe Supply(SS) Follow-Up Form

Medication coverage

[[DCS][FNIHB][private][none]]

Current SS Information

Current D8 dose

mg

Total Tabs:

Current total back bone dose

mg

Type of backbone:

Other SS drug (stim/bzd):

dose:

mg

Baseline drug use data - Current opioid use

Current opioid use

Any non-prescribed (illicit) opioid use in the past month? Yes/No

Which type(s):

Days per week using non-prescribed opioid (in the past month)

days

Approx. amount non-prescribed opioids used per day (in the past month):

mg

Any fentanyl use in the past month?

Yes No

Route of Administration

Inhalation

Injection

Oral

Patch

Any non-fatal overdoses in the past month? Yes/No

Number of non-fatal overdoses in the past month?

Cost of opioid use per day (in the past month)

$

Secondary Outcomes Baseline

Any medical complications in the past month related to opioid use? Yes/No

Medical complications:

Number of hospital visits in the last month

Number of formal interactions with the legal system in the past month?

Any involvement in survival sex work? Yes/ No

Subjective Notes (in addition to above)

X

Home community

Housing

Employment

Unemployed Informal work Formal work

Current health access to

Allied health Continuing care/VON MAP Mental health Safe supply Specialist physician Other

Current health access: Other

Personal Wellbeing Index: 0 (not at all satisfied) - 10 (completely satisfied)

How satisfied are you with your quality of life?

How satisfied are you with how safe you feel?

Objective Note

X

UDS result

See Task for result

Vital Signs
Height (in): in.
Height: cm
Weight (lb): lbs.
Weight: kg
BP: /
mm Hg: /
Pulse: /min
Regular? Yes/No
Temp: °C
O2 Saturation: L/min

Assessment Note

X

A: Safe Supply Program for Opioid Use

P:
For full spec UDS with chromatography if any concerns with POC UDS
See Rx's - dose(s) now:

HMIR 8mg ## tabs daily dispensed
[[SROM ###mg DWI][Methadone ##mg DWI][HM Contin ##mg witnessed and ##mg carry daily]]
Other safe supply Rxs: [[none][methylphenidate ##mg daily dispensed][vyvanse ##mg DWI/daily dispensed][dexedrine ##mg daily dispensed]]

Start:
Stop:
Pharmacy: [[scotia][boyds][SDM][lawtons][HPPC][overlook][guardian][other]]

Motivational interviewing and supportive counselling done

Reviewed harm reduction protocols including doing smaller shots, avoiding injection of long acting opioids and importance of using additional toxic street supply with peers/at an OPS due to higher OAT/SS dose, client understands and agreeable

F/U [[2-3 days][1week][2 weeks][1month][6weeks][2months]] or sooner if needed