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RESEARCH REPORT

Examining Experiences of Federal Offenders on Opioid Agonist Treatment (OAT) During Incarceration in Ontario, Canada: A Pre-Release Report

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A Pre-Release Report Examining Experiences of Federal Offenders on Opioid Agonist
Treatment (OAT) During Incarceration in Ontario, Canada

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Executive Summary

Correctional populations experience an elevated prevalence of substance use and related problems, including opioid use disorder (OUD). OUD is primarily treated by way of opioid agonist treatment (OAT), including methadone or buprenorphine-naloxone (Suboxone®) formulations, which work to prevent withdrawal symptoms and opioid-related risks. However, the provision of OAT in correctional settings is expanding only gradually and varies across jurisdictions, and treatment access remains limited. Yet the evidence base for the beneficial effects of OAT, particularly among correctional populations, shows predominantly positive outcomes and results such as decreases in non-medical drug use and related risk behaviours, as well as relapse, overdose and recidivism. Therefore, the provision of OAT within corrections and during community release is important.

In Canada, OAT has been available in federal correctional institutions for over two decades, and OAT engagement in Correctional Service Canada (CSC) institutions has been steadily increasing. As of March 2020, there were approximately 2,155 Canadian federal offenders engaged in CSC's OAT program. In Ontario specifically, approximately 200 to 300 CSC inmates involved in OAT are released into the community each year.

In order to gain a better understanding of the experiences of federal offenders on OAT, including their perspectives on post-release OAT continuation and goals, we conducted the current pre-release study with a cohort of 46 federal Ontario-based offenders with OUD engaged in OAT and scheduled to be released into the community within six months. The assessments consisted of an interviewer-administered survey and an audio-recorded interview, conducted on site between January and March 2019.

Results indicate that most participants' opioid use had increased in intensity over time pre-incarceration and had negatively affected various domains of their life. Many had previously been engaged on OAT in the community prior to incarceration and indicated that it was helpful in reducing their opioid use. Preferences for OAT medications varied, with many preferring Suboxone® over methadone. Experiences with engagement in OAT during incarceration also varied, with participants indicating that they had no issues engaging and receiving treatment if they were engaged in OAT in the community immediately prior to incarceration; however, those not engaged prior were commonly subjected to detoxification periods and long wait lists to receive OAT in their institution. Experiences with OAT varied by institution, and administration procedures appeared inconsistent. Few participants reported having access to additional substance-use specific support services during incarceration. Most participants indicated that they planned to remain engaged with OAT post-release; however, they highlighted a variety of concerns and barriers to continuous treatment engagement.

A variety of challenges related to the administration of OAT within federal correctional institutions in Ontario were discussed, and several areas of improvement with respect to access to OAT during incarceration were found. CSC offenders requiring OAT would prefer the option to choose their OAT formulation, and be able to engage in and receive OAT programming with minimal wait time. Overall, OAT was perceived as beneficial for participants' health and wellbeing.

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Introduction

Correctional populations experience an elevated prevalence of substance use-related issues, including problematic opioid use and opioid use disorder (OUD) (Bi-Mohammed, Wright, Hearty, King, & Gavin, 2017; Binswanger, 2019; Fazel, Yoon, & Hayes, 2017; Tsai & Gu, 2019). Specifically, in Canada, over 70% of a sample of federally incarcerated men reported having a substance use problem, and 16% reported being under the influence of opioids on the day of their offence between 2006/07-2008/09 (Mullins, Ternes, & Farrell MacDonald, 2013; Ternes & Johnson, 2014); these rates are even higher among women, and among women of Indigenous descent in particular, with 94% of Indigenous women reporting a substance use issue compared to 71% of non-Indigenous women (Cram & Farrell MacDonald, 2019). Other select Canadian data confirm high rates of opioid use prior to and during incarceration, as well as the prevalence of OUD diagnoses among correctional populations (Cram & Farrell MacDonald, 2019; Farrell MacDonald, MacSwain, Cheverie, Tiesmaki, & Fischer, 2014; Johnson, Farrell MacDonald, Cheverie, Myrick, & Fischer, 2012; Kouyoumdjian, Calzavara, Kiefer, Main, & Bondy, 2014; MacSwain, Farrell MacDonald, Cheverie, & Fischer, 2014).

OUD is primarily treated by way of opioid agonist treatment (OAT) (Bruneau et al., 2018; Stotts, Dodrill, & Kosten, 2009; Strang et al., 2020). Methadone-based OAT is an opioid substitute used in the treatment of OUD that has traditionally been considered the first-line treatment for OUD in Canada (Bruneau et al., 2018; Fullerton et al., 2014). However, Canadian clinical practice guidelines now recommend Suboxone®-based OAT for the clinical management of OUD (Bruneau et al., 2018). Suboxone® is a substitute opioid medication commonly consisting of a 4:1 ratio of buprenorphine and naloxone, and primarily taken in the form of sublingual tablet (however, newer formulations include a buccal film and an extended-release monthly injection formulation of buprenorphine alone, recently approved by Health Canada; Health Canada, 2019; Velander, 2018). Suboxone® has become regarded as a preferred treatment for OUD among certain populations due to its distinct advantages, including a superior safety profile in terms of overdose risk, as well as reduced abuse potential due to naloxone-enhanced formulations (Bruneau et al., 2018; Velander, 2018).

Systematic reviews examining the effectiveness of OAT have highlighted associations with a number of beneficial outcomes. Specifically, among correctional populations, such

programs have been associated with increases in post-release drug treatment entry and retention, reductions in drug use (including opioid and heroin use), as well as recidivism, overdose and mortality (Akinsemolu, Ogston, & Irvine, 2011; Cropsey, Villalobos, & St Clair, 2005; Hedrich et al., 2012; Malta et al., 2019; Moore et al., 2019; Perry et al., 2015; Sharma et al., 2016; Stallwitz & Stover, 2007).

Correctional Service Canada (CSC) has offered institutional-based methadone to offenders with OUD since 1998, and in 2008 they further expanded the program to offer Suboxone® (Correctional Service Canada, 2017b; Johnson, van de Ven, & Grant, 2001; Lanoie, 2015; MacSwain & Cheverie, 2012; MacSwain, Farrell MacDonald, Cheverie, & Fischer, 2013). Since 2016, offenders have had the option to choose which OAT type they preferred, and all CSC institutions now offer various formulations of Suboxone® such as the buccal strip, and the extended-release, once-monthly injection (Correctional Service Canada, 2019a). As of March, 2020, there were approximately 2,155 offenders enrolled in the OAT program across CSC's federal correctional institutions in Canada, which is an increase from just over 1,200 in 2018 (Correctional Service Canada, 2019b, 2021). The provision of OAT across Canadian federal correctional populations is noteworthy since – due in part to a variety of structural, cultural and organizational factors associated with correctional environments – broad implementation of OAT interventions in most correctional settings remains low, lacks standardization, and treatment uptake and retention are often disrupted when inmates are transferred between institutions or released into the community (Binswanger et al., 2011; Fiscella, Moore, Engerman, & Meldrum, 2004; Larney & Dolan, 2009; McKenzie, Nunn, Zaller, Bazazi, & Rich, 2009; Nunn et al., 2009).

This transitional period is often referred to as the Achilles' heel of correctional care as it has been found to be an exceptionally high-risk period for correctional populations whom experience a number of adverse health- and social-related events, such as treatment interruption, recidivism, relapse, and both fatal and non-fatal drug-related overdoses during this time (Brinkley-Rubinstein, Cloud, Drucker, & Zaller, 2018; Brinkley-Rubinstein et al., 2017; Brinkley-Rubinstein, Zaller, et al., 2018; Martin, Gresko, Brinkley-Rubinstein, Stein, & Clarke, 2019; Murphy, Ali, & Fischer, 2018; Schwartz et al., 2019). For example, offenders experience an estimated three- to twelve-fold increased risk of drug- (and specifically opioid-) related mortality within the first few weeks post-release (Binswanger, Blatchford, Mueller, & Stern,

2013; Binswanger et al., 2007; Degenhardt et al., 2011; Groot et al., 2016; Joudrey et al., 2019; Marsden et al., 2017; Merrall et al., 2010; Sordo et al., 2017; Zlodre & Fazel, 2012).

Currently, little information is known about the specific contexts and circumstances that lead released offenders to either continue or discontinue OAT engagement post-incarceration, and the subsequent effects on health, social, and criminogenic outcomes. Limited administrative data indicates that Canadian federal offenders who continued methadone post-release had a lower risk of returning to custody than those who discontinued it (Farrell MacDonald et al., 2014; MacSwain et al., 2013). However, to our knowledge, no studies have yet assessed experiences with OAT both during and post-incarceration among federal offenders with OUD in Canada.

In order to address this evident gap in the literature, we conducted the present mixed-methods study that followed a longitudinal observational cohort of federally incarcerated offenders with OUD in Ontario, Canada. The primary goal of the study was to better understand the facilitators and barriers of successful transition into – and post-release continuation of – OAT, in order to inform institutional policies and develop appropriate and effective post-release transitional care recommendations towards improving health care provision. This report focuses on the baseline (pre-release) data acquired during the first half of this longitudinal study.

Methods

Data Collection Procedures:

Between January and March 2019, two Research Analyst (RAs) visited each of the seven (six men, one woman) federal CSC correctional institutions located across Ontario (see Appendix A for a map and institutional security level breakdown) to conduct baseline interviews with all eligible participants enrolled in CSC's OAT program. Data collection was completed over the course of approximately one week per institution. Each baseline interview was completed in a single session; however, in some cases (e.g., scheduled head counts, participant work obligations) participants were required to leave part way through the assessment but returned to complete the remainder at a later time that day or on a subsequent day.

Measures/Materials:

The baseline interview took place in an interview room in each institution's health care centre, and consisted of an interviewer-administered pen-and-paper quantitative survey, followed by a semi-structured, audio-recorded qualitative interview. With the exception of those conducted at maximum security facilities (which required the presence of an institutional health care staff member during the interview), all interviews were conducted in private, away from institutional staff, in order to protect participant privacy and data confidentiality. Whenever possible, both RAs were present for each baseline interview; however, in some instances only one RA was present for an interview depending on operational requirements and/or scheduling constraints (e.g., if interviews needed to be completed simultaneously in the interest of time).

The quantitative survey took approximately 15-30 minutes to complete. It consisted of primarily multiple choice questions focusing on demographic characteristics such as level of education, primary source of income, primary place of residence, length of sentence, social and health related questions (such as amount of contact with family/friends), physical and mental health status (as measured by a 5 point Likert scale) and substance and treatment-related questions such as substances used (both in the 30 days prior to incarceration and in the past 30 days during incarceration) as well as OAT engagement.

The audio-recorded qualitative interview took approximately 30-60 minutes with questions focusing on: drug use trajectories and related risk behaviours; experiences with

community-based OAT prior to incarceration; experiences with institutional OAT; as well as plans, preparations, and expectations for post-release (see Appendix D for quantitative survey and qualitative interview guide).

In order to gain a more comprehensive understanding of the study sample and outcomes, the research team further utilized and linked select CSC administrative data for each participant which provided supplementary and complementary data.

Recruitment

In order to recruit study participants, we utilized two primary methods. First, using established relationships and a primary contact within CSC's Research Branch, a group of site contacts were identified at each institution who were tasked with helping facilitate recruitment and data collection at their specific institution. Site contacts at each institution varied, but were predominantly comprised of executive assistants to the Warden, accreditation coordinators, the Chiefs of healthcare, the head OAT nurses, and other nurses/healthcare staff. The research team conducted teleconferences with the site contacts at each institution prior to data collection in order to establish connections and discuss individual institutional requirements (e.g., schedules, security clearance procedures, etc.). Once these relationships were established, the CSC Research Branch contact would provide the institutional site contacts with an up-to-date list of potentially eligible participants who met our inclusion criteria. Site contacts would then speak to each of the potentially eligible participants and inform them of the study and the dates that the research team would be visiting their institution, as well as provide them a study information memo. In order to facilitate the movement of offenders, the site contact would also provide them with a 'pass', which they were to fill out and return if they were interested in participating. The pass included their full name, cell location, and Fingerprint Serial number (FPS; the offender's federally-administered identification number). The pass allowed them to visit the healthcare unit and/or established interview room on the day of data collection if they were interested.

Second, the research team also provided the site contacts with recruitment/advertisement materials, which included a poster and a study information memo, which were distributed and/or displayed in each institution's healthcare unit. Interested and potentially eligible participants who had perhaps not received information from the site contacts could signal interest in the study by either contacting the toll-free study telephone number indicated on the poster, or by discussing

interest with the staff, and adding their name to the list of participants to be screened for eligibility on the day of data collection at their individual institution. All potentially eligible participants who were identified were cross-referenced with the list provided by the CSC Research Branch contact in order to confirm potential eligibility.

Eligibility

Eligibility criteria included individuals who, at the time of recruitment:

- 1) were incarcerated at one of the seven federal Ontario-based CSC institutions;
- 2) had an existing OUD as per requirements to be enrolled in CSC's OAT program;
- 3) had been engaged in CSC's OAT program for at least 3 months;
- 4) had a statutory release date, or full parole eligibility date, scheduled within the next 6 months;
- 5) had an expected release within the Ontario region;
- 6) were willing to consent to participating in both the baseline (pre-release) and follow-up (post-release) interviews.

For initial study eligibility screening, on day 1 at each institution, with the site contact's assistance, the RAs would schedule all potentially eligible participants to come to the interview room to be screened for eligibility in 15-minute time blocks. Both RAs would screen each potential participant together utilizing a pen-and-paper eligibility screener consisting of questions related to sentence length, history of illicit opioid use, OAT engagement and length of engagement, as well as release details (if known) (see Appendix B for eligibility screener). Upon determination of eligibility, the RAs would then schedule those who were eligible and interested to come back throughout the rest of the week (days 2-5) to complete the baseline interview in pre-determined time blocks that worked with their individual schedules (e.g., within institutional movement periods, when they were not required at work, at school or in programming, etc.). A member of the institutional staff at each institution subsequently assisted with scheduling all interested individuals into available interview timeslots and issued security passes to facilitate participant movement on the day of the interview.

Consent

Following the eligibility screening process, participants who were deemed eligible and

interested in partaking in the study would show up to their pre-determined interview timeslot throughout the rest of the week using their institutional pass, where they were then asked to complete the informed consent¹ process immediately prior to the baseline interview. The informed consent process included a comprehensive description of the study procedures, an assurance of confidentiality and anonymity in study reporting, a description of the potential risks and benefits of participation, and a summary of their rights as a research participant (see Appendix C for consent form). Participants were also informed that they would be provided with a \$50 honorarium for their time and participation in the study during the follow-up assessment (since honoraria payments could not be distributed within the institutions) (Correctional Service Canada, 2017a). The contents of the informed consent form were also summarized verbally to each participant and all participants were asked to sign the form to indicate their consent to participate in the study prior to commencing the baseline assessment. Participants were provided with a personal copy of the consent form in addition to a study contact card indicating the toll-free study phone number and email address they could use to reconnect with study staff. Participants were encouraged to discuss questions or concerns regarding the study with the RAs.

Consent for both the baseline and follow-up interviews were collected during the initial consent process. At the time of consent, the RAs further obtained consent from participants to contact their community parole officers in order to initiate and facilitate contact for the follow-up portion of the study. In instances where a participant indicated that they did not want the RA to contact their community parole officers, they were asked to provide personal contact information in order to facilitate follow-up contact.

Data Management

This study was confidential and anonymous. During the eligibility and consent process, each participant provided the RAs with a code name they would remember, and were given a unique study ID code which was used to identify them for both the baseline and the follow-up interviews. In addition, and in order to link administrative CSC data, participants provided their FPS number which was stored separately from all other study materials. All hard copies of completed eligibility screeners, consent forms, baseline interviews, as well as audio-recorder files were stored and transferred from the institution to the RAs offices in a lockbox accessible

¹ Study procedures were approved by the Centre for Addiction and Mental Health (CAMH) Research Ethics Board (REB: #013-2018).

only to the members of the research team. Once at the office, all hardcopy files were placed in a locked filing cabinet in the RAs secure office, while all electronic and audio files were imported onto a secure, internal server and subsequently deleted off portable recording devices. All data was securely stored by individual, depersonalized study identifiers only for further processing and analyses in de-identified and aggregate form.

Data Sources

In addition to the primary data collected during the baseline interview, CSC Research Branch provided supplementary data from two primary databases. CSC data sources include the Offender Management System (OMS) which maintains all offender records and captures information that includes demographic and other characteristics across a number of domains, admission and release records, sentence and conviction information, assessments for decision making (e.g., risk to reoffend), correctional program participation, performance records during incarceration (e.g., institutional charges), and while in the community (e.g., urinalysis) among other related records, from sentence commencement to end (Correctional Service Canada, 2013). Additionally, data was derived from the Computerized Assessment of Substance Abuse (CASA) assessment, which is administered upon admission to federal custody. The CASA includes standardized measures to determine the severity of substance abuse including the Drug Abuse Screening Test (DAST) and the Alcohol Dependence Scale (ADS; Correctional Service Canada, 2018; Kunic & Grant, 2006)

Data Analysis/Analytic Approach:

All quantitative survey data was entered into an Excel database, with data entry double-checked for accuracy. Basic descriptive tables (e.g., frequencies, cross-tabulations) were generated using a combination of participant interview data as well as select complementary administrative CSC data.

For the qualitative data analyses, audio-recorded data were transcribed verbatim and imported into qualitative data management software (NVivo 12). All interview transcripts underwent an inductive thematic analysis process, whereby an initial codebook was created following extensive discussion among members of the research team. The codebook was used to code and organize emergent themes within the qualitative data, and was iteratively revised based on the emergence of additional topics that arose in the interview data. All coding was performed

by two RAs, and all codebook revisions and coding discrepancies were resolved based on ongoing discussion between the RAs. A Rapid Qualitative Inquiry approach was used for data analysis (Johnson & Vindrola-Padros, 2017). Narrative content summaries and select illustrative quotes were provided to further illustrate and substantiate each of the overarching themes.

Results

Quantitative Results

Sample

The prospective cohort consisted of federally incarcerated men and women who participated in the baseline interview between January 15th and March 31st, 2019. Across all seven Ontario-based CSC institutions, the research team screened 68 potentially eligible participants, and a total of 47 (41 men, 6 women) federal offenders participated in this study. Due to institutional movement issues, one participant was excluded as they were not able to complete the study, leaving a total of 46 participants.

Sociodemographic characteristics

Sociodemographic characteristics are presented in Table 1. The majority (87%) of participants were men, while the average age was 36 years. Approximately 33% reported being of Indigenous ancestry, and 65% had less than a high school diploma as their highest level of education acquired. Over half (54%) reported experiencing unstable accommodation prior to incarceration. The vast majority (83%) reported participating in illegal activities as their main source of income in the 30 days prior to incarceration.

Table 1

Sociodemographic characteristics of study sample ($n=46$)

Characteristic	%	(<i>n</i>)
Gender		
<i>Men</i>	87.0	(40)
<i>Women</i>	13.0	(6)
Mean age M (SD)	36.4	(7.7)
Indigenous ancestry [#]	32.6	(15)
Less than high school diploma [#]	65.2	(30)
Unstable accommodation prior to incarceration [#]	54.4	(25)
Main source of income (30 days prior to incarceration) [*]		
<i>Illegal activities</i>	82.6	(38)
<i>Social benefits/assistance</i>	60.9	(28)
<i>Family/friends</i>	32.6	(15)
<i>Legal employment</i>	26.1	(12)
<i>Illegal employment (under the table)</i>	26.1	(12)
<i>Personal savings</i>	17.3	(8)
<i>Other</i>	< 10.0	(†)

Note. ^{*}responses not mutually exclusive; [#]Data obtained from CSC †Information suppressed due to frequencies fewer than 5 in one category.

Criminogenic and Institution-Specific Characteristics

Criminogenic and institution-specific information are presented in Table 2.

Approximately 22% of participants were sentenced for a drug-related offence, and the same proportion were sentenced for robbery. The average sentence length was 3 years. Many (83%) participants had participated in correctional programming during their incarceration period. Nearly half (44%) had a history of institutional charges, while 22% had a drug or contraband-related institutional incident. The majority (78%) had provided a random urinalysis test at least once during their incarceration; 17% were positive for illicit substances, and 8% were positive for opioids.

Table 2

Criminogenic and institution-specific characteristics of study sample ($n=46$)

Indicator	%	(<i>n</i>)
Offender Security Level at Interview [#]		
<i>Medium/maximum</i> ⁼	78.3	(36)
<i>Minimum</i>	21.7	(10)
Offence type [#]		
<i>Other violent</i> *	34.8	(16)
<i>Drug-related/other non-violent</i>	28.3	(13)
<i>Robbery</i>	21.7	(10)
<i>Property-related</i>	15.2	(7)
Sentence length (Years) [#]		
<i>M (SD)</i>	3.1	(1.3)
<i>Median</i>	2.5	
Number of sentences [#]		
<i>One</i>	60.9	(28)
<i>Two or more</i>	39.1	(18)
Institutional activities [#] +		
<i>Correctional Programming</i>	82.6	(38)
<i>Correctional Programming – Moderate Intensity</i>	60.9	(28)
<i>Education</i>	39.1	(18)
<i>Employment</i>	19.6	(9)
History of institutional charges [#] +	43.5	(20)
Institutional incidents [#] +	45.7	(21)
<i>Drug/contraband related</i>	21.7	(10)
<i>Other contraband</i>	17.4	(8)
Institutional random urinalysis [#] +	78.3	(36)
<i>Positive for illicit substance use</i>	16.7	(6)

Note. [#]Data obtained from CSC; *Other violent offences includes homicide, sex-related, assault, and other violent offences. ⁼Only one offender had a maximum security classification. + Timeframe examined for these indicators was between initial admission to federal custody and interview date for the study. Correctional programming entails multi-target skill-based cognitive behavioural programs that address multiple risk factors linked to the offender's criminal behaviour, offered at moderate and high-risk intensity levels. †Information suppressed due to frequencies fewer than 5 in one category.

Substance Use and Related Risk Characteristics

Substance use and related risk information is presented in Table 3. Within the year prior to arrest, 37% reported opioids as their most used drug, while over a quarter (26%) of those used pharmaceutical opioids specifically. During the 30 days prior to incarceration an equal number (78%) of participants reported using pharmaceutical opioids or stimulants. Most (83%) had a moderate to severe substance use issue assessed at admission. Over half (57%) of participants had a history of polysubstance use, while 50% reported both a lifetime history of injection drug use and 37% had injected drugs in the 30 days prior to incarceration.

Treatment-Related Characteristics

Treatment-related information is presented in Table 4. Regarding non-OAT treatments utilized within the 30 days prior to incarceration, 46% of participants reported using harm reduction services (e.g., needle exchange programs) for their drug use. Nearly half (48%) of participants had participated in OAT prior to federal admission, while 43% reported being engaged in OAT within the 30 days prior to incarceration, 95% of whom reported being on methadone as their OAT type; 60% of these participants also reported acquiring their OAT primarily from a for-profit OAT clinic. Approximately 40% of participants entered CSC while on OAT, and the majority (67.4%) were on methadone during their incarceration period.

Table 3

Substance use and related risk characteristics of study sample (n=46)

Indicator	%	(n)
Opioids used most (12 months prior to arrest) #	37.0	(17)
<i>Pharmaceutical opioids</i>	26.1	(12)
<i>Heroin</i>	10.9	(5)
Substances used (30 days prior to incarceration)*=		
<i>Cannabis</i>	56.5	(26)
<i>Stimulants</i>	78.3	(36)
<i>Pharmaceutical opioids</i> [^]	78.3	(36)
<i>Heroin</i>	65.2	(30)
<i>All other substances</i>	32.6	(15)
Severity of substance use at admission [#]		
<i>None/Low</i>	17.1	(7)
<i>Moderate</i>	24.4	(10)
<i>Substantial/Severe</i>	58.5	(25)
Overdose incident(s) during incarceration [#]	0.0	(0)
Substances used (past 30 days during incarceration) ⁼		
<i>Cannabis</i>	28.3	(13)
<i>Stimulants</i>	0.0	(0)
<i>Pharmaceutical opioids</i>	10.9	(5)
<i>Heroin</i>	< 10.0	(†)
<i>All other substances</i>	10.9	(5)
History of polysubstance use [#]	56.5	(26)
History of injection drug use	50.0	(23)
<i>Lifetime</i> [#]	50.0	(23)
<i>30 days prior to incarceration</i>	37.0	(17)

Note. *Responses not mutually exclusive; #Data obtained from CSC; =Cannabis category includes edibles, concentrates or oils; Pharmaceutical opioid category includes use of either weak prescription opioids (e.g., codeine, hydrocodone, Percocet, tramadol), strong prescription opioids (e.g., morphine, hydromorphone, meperidine, fentanyl, etc.) or other/laced prescription opioids; Stimulant category includes use of either cocaine, crack-cocaine, or methamphetamine/amphetamines; All other category includes use of either synthetic cannabis, hallucinogens, benzodiazepines, other psychotropic drugs or other responses. †Information suppressed due to frequencies fewer than 5 in one category.

Table 4

Treatment-related characteristics of study sample (n=46)

Indicator	%	(n)
Non-OAT substance use treatments/services used (30 days prior to incarceration)*=		
<i>Outpatient treatment</i>	17.4	(8)
<i>Inpatient treatment</i>	< 10.0	(†)
<i>Harm reduction services</i>	45.7	(21)
<i>Support groups</i>	15.2	(7)
<i>All other treatments/services</i>	26.1	(12)
OAT participation prior to federal admission [#]	47.8	(22)
Engagement in OAT (30 days prior to incarceration)	43.5	(20)
Type(s) of OAT (30 days prior to incarceration)*&		
<i>Methadone</i>	95.0	(19)
<i>Suboxone®</i>	< 10.0	(†)
<i>Both Methadone and Suboxone®</i>	< 10.0	(†)
<i>Hydromorphone</i>	< 10.0	(†)
Type(s) of OAT provider (30 days prior to incarceration)*&		
<i>For-profit OAT clinic</i>	60.0	(12)
<i>Primary physician</i>	< 10.0	(†)
<i>Community health clinic</i>	35.0	(7)
<i>Correctional setting</i>	< 10.0	(†)
<i>All other OAT providers⁺</i>	25.0	(5)
Entered CSC on OAT [#]	39.1	(18)
Type(s) of OAT during CSC incarceration [#]		
<i>Methadone</i>	67.4	(31)
<i>Suboxone®</i>	32.6	(15)

Note. *Responses not mutually exclusive; [#]Data obtained from CSC; [&]Responses based off of n=20 participants who indicated they had been engaged in OAT 30 days prior; ⁼Harm reduction category includes use of either needle exchange, safer use kits, naloxone kits, etc.; Outpatient treatment category includes either group therapy, one-on-one therapy/counseling, relapse prevention; Inpatient treatment category includes residential treatment, rehabilitation, detoxification/withdrawal management; Support groups include self-help or mutual aid groups such as alcoholics anonymous, narcotics anonymous, etc.; All other services category includes hospitalization or other responses. ⁺All other types of OAT providers category includes hospital or other responses. †Information suppressed due to frequencies fewer than 5 in one category.

Health and Psychosocial Characteristics

Health and psychosocial characteristics are presented in Table 5. Over half (59%) of participants reported daily or near daily contact with close family or friends in the 30 days prior to incarceration, while 30% reported the same incidence of contact in the past 30 days during incarceration. The majority (approximately 60%) reported that their current physical and mental health status was ‘good’.

Table 5
Health and psychosocial characteristics of study sample ($n=46$)

Indicator	%	(n)
Contact with close family/friends (in the 30 days prior to incarceration)		
<i>Never/Rarely (once or twice)</i>	15.2	(7)
<i>Occasionally (a few times/once a week)</i>	15.2	(7)
<i>Often (several times a week)</i>	10.9	(5)
<i>Very often (daily or near-daily)</i>	58.7	(27)
Contact with close family/friends (in the past 30 days)		
<i>Never</i>	10.9	(5)
<i>Rarely (once or twice)</i>	15.2	(7)
<i>Occasionally (a few times/once a week)</i>	28.3	(13)
<i>Often (several times a week)</i>	15.2	(7)
<i>Very often (daily or near-daily)</i>	30.4	(14)
Current physical health status		
<i>Poor/Fair</i>	19.6	(9)
<i>Good</i>	58.7	(27)
<i>Very good/Excellent</i>	21.8	(10)
Current mental health status		
<i>Poor/Fair</i>	19.6	(9)
<i>Good</i>	60.9	(28)
<i>Very good/Excellent</i>	19.6	(9)

Note. Contact was measured using a self-reported 5-point Likert scale (1=never; 2=rarely; 3=occasionally; 4=often; 5=very often); Health status was measured using a self-reported 5-point Likert scale (1=poor; 2=fair; 3=good; 4=very good; 5=excellent). †Information suppressed due to frequencies fewer than 5 in one category.

Qualitative Results

Narrative summaries of the results and select illustrative quotes are presented below under the four overarching themes that emerged from qualitative analyses of the baseline interview data:

- Opioid use initiation, trajectories, and effects on health, social and financial domains
- Experiences with community-based OAT
- Experiences with institutional-based OAT
- Perspectives on community release and transitions

Opioid use initiation, trajectories, and effects on health, social and financial domains

All participants reported experiences with opioid use prior to incarceration. Most indicated concomitant and/or prior use of other non-opioid substances, such as cocaine, methamphetamine, cannabis, and alcohol. Only a few participants admitted having using substances during their current incarceration period, although many suggested that substances were widely available in their institution.

In terms of drug use trajectories, many participants had their first exposure to substance use during adolescence. Initial exposure to opioids, however, was more commonly associated with pain management at a later age where many participants reported having used prescribed opioids after suffering injuries or health issues. A few respondents also suggested that their use was triggered by working in physically demanding occupations, such as in the construction industry. However, some participants indicated that their substance use was associated with traumatic experiences such as suffering abuse or negligence during childhood, or loss of loved ones.

“I think it stemmed from, like, just being depressed. Like after my father passed away, and, not properly grieving that, and then also being, like, in a relationship with an addict.”

(Participant 29)

A couple of participants specified that their drug use progressed once they were incarcerated due to being cut off from their legitimately prescribed opioids, which the institution would no longer provide. Most participants suggested that their preferred substance changed

over the years, with many reporting that they had switched from using legitimately prescribed pharmaceutical opioids, to street-sourced pharmaceutical opioids, then to heroin and fentanyl, often because the street-sourced opioids were more potent and affordable.

Similarly, changes in route of administration were reported by most respondents, progressing from ingestion, to inhaling, to smoking, and in some cases injection. As an example, when asked whether and how their opioid use changed over time, one participant stated:

“When I first started using, it was just pills, and I was just eating them, and then I started snorting them, and then when I started doing oxys I found out I could smoke them, so I just started smoking the pills too.”

(Participant 36)

Most respondents indicated that their opioid use caused harmful physical outcomes, including superficial issues such as dental and weight-related concerns, as well as more physiological issues such as drowsiness, tolerance, dependence, as well as withdrawal episodes and overdose incidents. In some cases, participants had contracted diseases such as Hepatitis C from injecting with used syringes or shared drug preparation paraphernalia, however, most of these participants had been placed on treatment for this during incarceration or had cleared the disease on their own.

“I did obtain Hep C. However, I took the treatment when I was here, on my first federal bit. I got out and I did inject again, because I relapsed...but if you were to take a blood sample you would see that I have the antibodies, but I’m not contagious.”

(Participant 28)

In many cases, participants suggested that opioids had also impaired their mental well-being, citing symptoms of depression, anxiety, and/or suicidal thoughts/attempts, while a number of respondents also reported comorbid disorders such as ADHD, PTSD, bipolar disorder, schizophrenia etc. When asked if opioids had affected their mental health, one participant detailed:

“Oh, yeah. I attempted suicide in the past year 4 times. I’m not saying that just to get sympathy but yeah, I think it has to a certain degree. I’ve only recently developed bipolar disorder...maybe that’s the impact that the drugs have, I don’t know. I have PTSD”

(Participant 42).

Almost all participants indicated their opioid use negatively affected their relationships with friends and family members. Other participants reported being denied contact with their children due to their involvement with illicit substance use. Many respondents indicated that the financial costs of their substance use led them to being involved with criminal activities, which included engaging in robbery and drug-trafficking to maintain their opioid use.

Experiences with community-based OAT

Most participants indicated that prior to their current incarceration they were aware of OAT. Some respondents indicated having had prior experiences with methadone, and, in fewer cases, with Suboxone®. Most respondents suggested that OAT was very helpful to avoid withdrawal symptoms and/or curb their need or desire to use opioids. For instance, one participant reported:

“Some of my urges, like cravings, are just gone, and when I do some of the things that triggered me before, they don’t trigger me anymore. When I do get triggered, I have more control over the cravings”

(Participant 36).

Preference between Suboxone® and methadone varied among participants, but most reported that the methadone program was more commonly known and discussed among peers, and was more accessible. One of the key themes that emerged regarding preferences for methadone related to the ability to continue using other illicit substances while on methadone, and it was therefore seen and often used as a ‘back-up’, or tool to reduce their opioid use and consequent spending, and to avoid withdrawal symptoms by having a safe supply of opiates.

“While I was on methadone, I was still using heroin. I was, like, literally still using it. So it kind of was helping, but at the same time, it wasn’t. Methadone really wasn’t working for me while I was in the community. I kind of gave up on it and just said, forget it, and I continued to do drugs. The fact that you can drink methadone and still do drugs, it’s not helping.”

(Participant 12)

On the other hand, many participants described methadone as being associated with more stigma, and having negative health effects, such as tooth decay, weight gain, low testosterone, low energy and lethargy. In addition, many participants expressed that methadone caused more severe withdrawal symptoms and physiological dependence. Quite a few respondents described methadone as “liquid handcuffs”, or as a way for institutions to exercise control over participants. For example, one participant articulated this feeling when they explained:

“Methadone is the worst shit ever, and I have a feeling that [the institution] wants to keep us addicted to methadone so that they can keep tabs on us. So cuz, when you get out, you’re on the methadone program, if you miss two appointments, you get breached, you come back here.”

(Participant 5)

Suboxone® was described by many participants as having less harmful health effects compared to methadone, as well as being a stronger psychological deterrent. Participants suggested that Suboxone® would diminish the effect of other opioids and had a basic understanding that it might cause withdrawal symptoms if other opioids were used and/or injected.

“With the Suboxone, I was told that if you use Suboxone and do drugs that you go into immediate withdrawal.”

(Participant 12)

Experiences with institutional-based OAT

In terms of enrollment into CSC’s OAT program, there were two divergent experiences expressed. Participants who were already engaged in OAT – either in the community or within another provincial correctional institution – immediately prior to their current incarceration period, did not encounter any problems in accessing the OAT program, including during the

transfer from the provincial to the federal system, or when transferring between different federal institutions. Alternatively, those who were not engaged in community-based OAT prior, or had experienced a disruption during their time in the provincial jail system and were not currently on OAT when transferred to the federal system, experienced significant challenges in accessing the OAT program. These participants reported experiencing withdrawal (with symptoms often lasting upwards of a week) and were also placed on extremely long waitlists, with many participants indicating that they had been told they could not be enrolled in the program until they got to their ‘parent’ institution. In some extreme cases, participants discussed futile efforts to get enrolled in the program and told anecdotes about how some of their peers had been flat out denied, which had led them to use and experience negative consequences such as an overdose:

“I’ve seen so many people applying to get on the program and then being denied. I’ve seen so many people denied the program and they need it. I’ve seen a guy here who’s been trying to get on the program, putting in requests to healthcare, to the doctor, everything, left, right, and center, and the guy overdoses right? He lived, but I mean, the guy overdosed and it’s like, the guy’s still fighting to get on the program, and I’m like, what does it take, you know?”

(Participant 1)

Another challenge reported by most participants was that the daily administration of the program was excessively time intensive, in many cases due to shortage of staff.

Across institutions, many participants reported discrepant experiences with OAT and related interactions with the health care staff. One of the most common reported issues was that in most institutions, doctors would not allow participants to initiate Suboxone®, with most stating they had to have a heart condition (based on electrocardiogram testing) that precluded them from taking methadone. For instance, one participant reflected on this as a reason why they were denied Suboxone®:

“She [the methadone doctor] said, oh, if you don’t have a heart problem, like palpitations or some kind of cardiovascular problem that the methadone causes, which I did have, you weren’t a candidate for going on Suboxone®”

(Participant 5).

Another issue that arose related to transferring from methadone to Suboxone®. In the majority of institutions, the doctors would not allow the change in treatment modality at all, while others would only allow it once the participant was closer to their community release, or were at their ‘parent’ institution.

In addition to issues related to whether or not the participants would be able or allowed to change OAT formulations, the biggest discrepancy between institutions (and doctors) regarded the specific procedure for the transition. Most doctors explained to participants that they would need to undergo the traditional three day detoxification period from methadone before they would be able and eligible to start Suboxone®, which was seen as a major deterrent for most participants. However, select institutions and doctors allowed an alternative transition process between OAT programs through the facilitation of a “micro dosing” technique, where they would slowly ween the participant off methadone while gradually introducing small doses of Suboxone® into their system, which was seen as more desirable.

Most participants enrolled in the Suboxone® program expressed a preference for the traditional pill format, indicating that they disliked the taste of sublingual Suboxone® strips. A few others, on the contrary, disliked the pill format because they believed that the sublingual strips had stronger and longer-lasting effects, when compared to pills. This was primarily cited as being related to Suboxone® being crushed by the health care staff before being administered and consumed by them, many of which believed this procedure severely compromised the strength of their dose and resulted in withdrawal symptoms throughout the day. For instance, one participant explained:

“I was on Suboxone® and they started crushing the pills, and when they did that, they might as well have just cut my dose in half, you know, I’m on it for pain management... it wasn’t lasting, like whenever they just crushed it and it was like six or seven o’clock I was starting to, you know, feel like shit.”

(Participant 37)

Regarding non-OAT substance use supports within CSC, few participants reported having access to additional programs related to substance use, aside from mandatory institutional multi-targeted programs. Some respondents expressed a desire for more counselling and substance-use specific interventions in their institutions. Most participants reported having

access to 12-step mutual aid groups, such as Alcoholics Anonymous (AA) and Narcotics Anonymous (NA), and many had attended them and found them helpful. However, a few expressed having reservations towards the programs, not believing their confidentiality would be maintained.

Perspectives on community release and transitions

Most participants indicated that they desired to continue OAT immediately post-release and to remain abstinent from drugs, but many respondents expressed that they planned on eventually getting off OAT in the long-term. However, they perceived several barriers to treatment adherence, which included lack of transportation to the clinic, difficulty in reconciling daily appointments with their work schedule, cost of paying for their OAT if they could not secure funding through social security, and stigma associated with OAT. Some participants spoke about experiences of their peers who had been connected with a community OAT provider that was too far away from where they resided, or they were not able to pay for the treatment, which ultimately resulted in them missing appointments, having their release revoked and returning to custody. These anecdotes increased their concern towards being able to adhere to community OAT treatment.

Most participants indicated that their institution would facilitate the connection with community-based programs, but a few respondents expressed being uncertain they would receive health coverage, because, for instance, they did not have the necessary documentation to receive social benefits. Several other challenges towards achieving their substance use goals were perceived by many participants. For instance, uncertainty regarding details of their release, such as location, date, and where they would be staying and sleeping, would prevent them from securing necessary services and supports. For example, one participant indicated:

“It’s hard to picture anything without knowing where you have to put your head. I couldn’t even make it to my appointments...any of my appointments I had written down I would just end up losing because it’s just a piece of paper in my pocket. You know what I mean? That’s the main thing...from there it will all fall into place. Once you know where to put your head, you can go and accumulate your stuff.”

(Participant 27)

Many participants further indicated that their social connections were major barriers to achieving their substance use goals because it would facilitate access to substances and increase the likelihood of relapse.

“I’m worried because I’ve lived in [city name] my entire life and I know a lot of people and part of my problem is accessibility to drugs. So if I’m going [to the OAT clinic] every day, it’s only a matter of time before I start running into old acquaintances, people that I know, and they might have access to drugs for me.”

(Participant 22)

On the other hand, securing social supports and connections with family members and significant others was elected by many participants as a strong facilitator to OAT adherence, with examples provided of family members being willing and able to drive them to their OAT clinic and various appointments. Familial and social support was also expressed as a facilitator for successful community reintegration more generally, with participants indicating that they could rely on them for housing, social and financial support.

Another facilitating factor for successful community reintegration mentioned by some participants was access to substance use-specific treatments and programs such as counselling, group therapy and/or AA or NA meetings.

Finally, one of the most common opinions expressed was that their personal motivation was an important factor and facilitator towards successful transition and reintegration to the community. Many participants spoke about how they had finally reached a point where they were ready to commit to staying sober, and that they had not felt this way before. For instance, one participant expressed this when they stated:

“I have attended treatment programs, but I never finished them. Either because A, I just got mad, wanted to leave, and B because I wasn’t ready to do it, to finally face my skeletons. But being where I am right now, I have my head straight and I know what I want...my goals are to like, stay sober, find me, you know, like find out who I really am, and just do what I can to stay on the straight and narrow.”

(Participant 28)

Discussion

This report presents baseline data on characteristics, experiences and post-release plans regarding OAT among a small cohort of federally incarcerated offenders in the Ontario region with opioid use who engaged in OAT during incarceration and participated in the present study. There are few studies that examine primary experiences, needs and plans of offenders, and specifically as related to substance use problems and treatment, from within incarceration to community release and beyond; this study provides the baseline for a unique Canadian perspective on these issues.

Overall, and similar to other studies involving correctional populations, data indicate that most participants have a complex history of drug, and specifically opioid, use and related issues, as well as diverse experiences and perspectives towards OAT, both in the community prior, as well as during, incarceration (Binswanger, 2019; Correctional Service Canada, 2007; Fazel, Hayes, Bartellas, Clerici, & Trestman, 2016; Fazel et al., 2017). Many participants had experienced a quick transition to high intensity opioid use which had affected them negatively in a variety of life domains, and had been one of the contributing causes of their arrest and current incarceration.

As the study results substantiate, drug use prior to and during incarceration is common, despite institutional policies prohibiting contraband from entering institutions (Cram & Farrell MacDonald, 2019; Farrell MacDonald et al., 2014; Johnson et al., 2012; Kouyoumdjian et al., 2014; MacSwain et al., 2014). Recent studies examining drug use and related issues (e.g., overdose) inside correctional facilities have highlighted an increase in prevalence and adverse events in Canadian correctional institutions (Bucierius & Haggerty, 2019). For example, over a five year period (2012/13 – 2016/17), there were 330 overdose incidents in Canadian federal correctional institutions, with opioid-related overdoses doubling from 19 in 2012/13 to 50 in 2016/17, with opioids contributing to a majority of overdose deaths (McKendy, Biro, & Keown, 2018). Most of the offenders involved had mental health and substance misuse issues.

Furthermore, notable characteristics of the study sample include that many of the participants are young, with high-risk behaviour (e.g., injection drug use) histories, yet relatively short sentences; this indicates their evident health risk profiles, yet also impending release and exposure to community-based drug use and intervention systems. Many, but not all, featured pre-

incarceration OAT histories, indicating both the opportunity and need for continuous treatment provision as well as OAT treatment initiation during incarceration.

In terms of the qualitative interview results, a number of important themes emerged. In line with the literature (Csete, 2019; The Lancet Public, 2018), OAT provision during federal incarceration in Ontario varies, and a number of barriers to prompt and effective treatment engagement were suggested. Many participants expressed an inability to access their preferred OAT formulation (Suboxone®) which was detrimental due to its perceived benefits in preventing or deterring opioid use, particularly over methadone. Other qualitative studies have suggested comparable preferences for Suboxone® among both community and correctional-based populations, with methadone often linked to negative experiences, feelings and connotations (Fox et al., 2015; Gryczynski et al., 2013; Schwartz et al., 2008; Teruya et al., 2014). Participants therefore expressed a desire to have more agency and autonomy in their OAT care, and suggested that being provided the option to choose the OAT formulation that they felt would suit them best, and to be able to engage in and receive it with minimal wait time, would be beneficial. However, it should be noted that post baseline data collection for this study, CSC accelerated the roll-out and expansion of Suboxone®-based OAT (including different formulations and delivery options), with numbers now outpacing those on methadone at many institutions (Correctional Service Canada, 2021). These changes included a substantial reduction in waitlists and practical limitations (e.g., wait until release time, etc.) which had impeded offenders' ability to receive treatment.

One of the most common issues reported related to an inability to initiate OAT upon admission to CSC if the participant had not been actively engaged in OAT immediately prior to their incarceration. As such, select participants indicated that they therefore experienced withdrawal symptoms and detoxed in their cell, without clinical management. This directly contradicts existing clinical guidelines for community-based OAT which does not recommend withdrawal management as a safe or appropriate treatment option (Bruneau et al., 2018). As such, it can be seen as imperative that correctional institutions promptly provide OAT care for those eligible and in need of such treatment upon admission to ensure offenders do not undergo unnecessary self-detoxification and related discomforts and risks.

With regard to offenders' plans and perceived barriers and facilitators of transitioning and continuing OAT upon their impending community release, the study's findings corroborate many

issues documented by other studies among recently-released offenders with OUD. These include fear of exposure to drugs through peer networks; financial, employment and housing instability; logistical (e.g., transportation) issues and other barriers to effective community-based treatment continuation (Begun, Early, & Hodge, 2016; Binswanger et al., 2012; Fox et al., 2015; Lee, Gordon, Friedmann, Nunes, & O'Brien, 2016; Martin et al., 2019; Velasquez et al., 2019; Yarborough et al., 2016). Whether and to what extent these potential outcomes may occur remains to be seen, and will be assessed during the follow-up component of this longitudinal study.

Overall, the study's preliminary baseline results highlighted a variety of issues related to the administration of OAT within CSC's correctional institutions in Ontario. However, results also indicate that OAT is beneficial and supports the reduction and/or elimination of drug and opioid use and cravings among offenders with OUD, which will ideally translate into more effective and successful post-release community reintegration. Importantly, correctional institutions offer a unique opportunity to provide – potentially necessary and beneficial – OAT treatment for offenders with complex substance use histories, including OUD, who may otherwise not engage in treatment (Beletsky, 2019; Fiscella, Wakeman, & Beletsky, 2018; Macmadu & Rich, 2015). In addition, since most federal offenders experience a period of supervision in the community which allows them the chance but also requires them to reintegrate into society and community life, it is an opportune time to ensure continuous linkage of OAT and other necessary health and social supports during this high-risk transitional period (Binswanger, 2019).

While the study results reflect the perceived experiences of the participants, the results should be interpreted with appropriate caution as they may include inherent biases in self-report data (e.g., memory/recall bias, response bias, interpretation of questions, and social desirability). This may be especially applicable to correctional study settings and/or populations, and related strict behavioural norms and/or potential repercussions related to rule-breaking (e.g., drug use, contraband, negative experiences with institutional services, etc.). As such, participants may have downplayed their involvement in drug use and related institutional activities. In addition, the study sample was small, and so cannot be considered representative, and the results are not generalizable, for CSC or other offender populations on OAT.

Conclusions

In conclusion, OUD and opioid-related health problems are common among incarcerated individuals in federal prisons, including those in Ontario. Among this population, areas of improvement with respect to access to OAT related practices and experiences during incarceration were identified, as well as potential challenges and barriers to effective OAT transitions post-release into the community. The present exploratory study identified a variety of issues with the administration of CSC's OAT programming and services, some of which may be addressed by recent institutional practice changes. However, it also highlighted the perceived benefits of OAT, and results indicated that most OAT-involved offenders are keen to retain and transition into community-based OAT as part of their impending plans and priorities for community release. This study's follow-up component will provide unique and primary insights into related post-release experiences and outcomes for the specific study sample.

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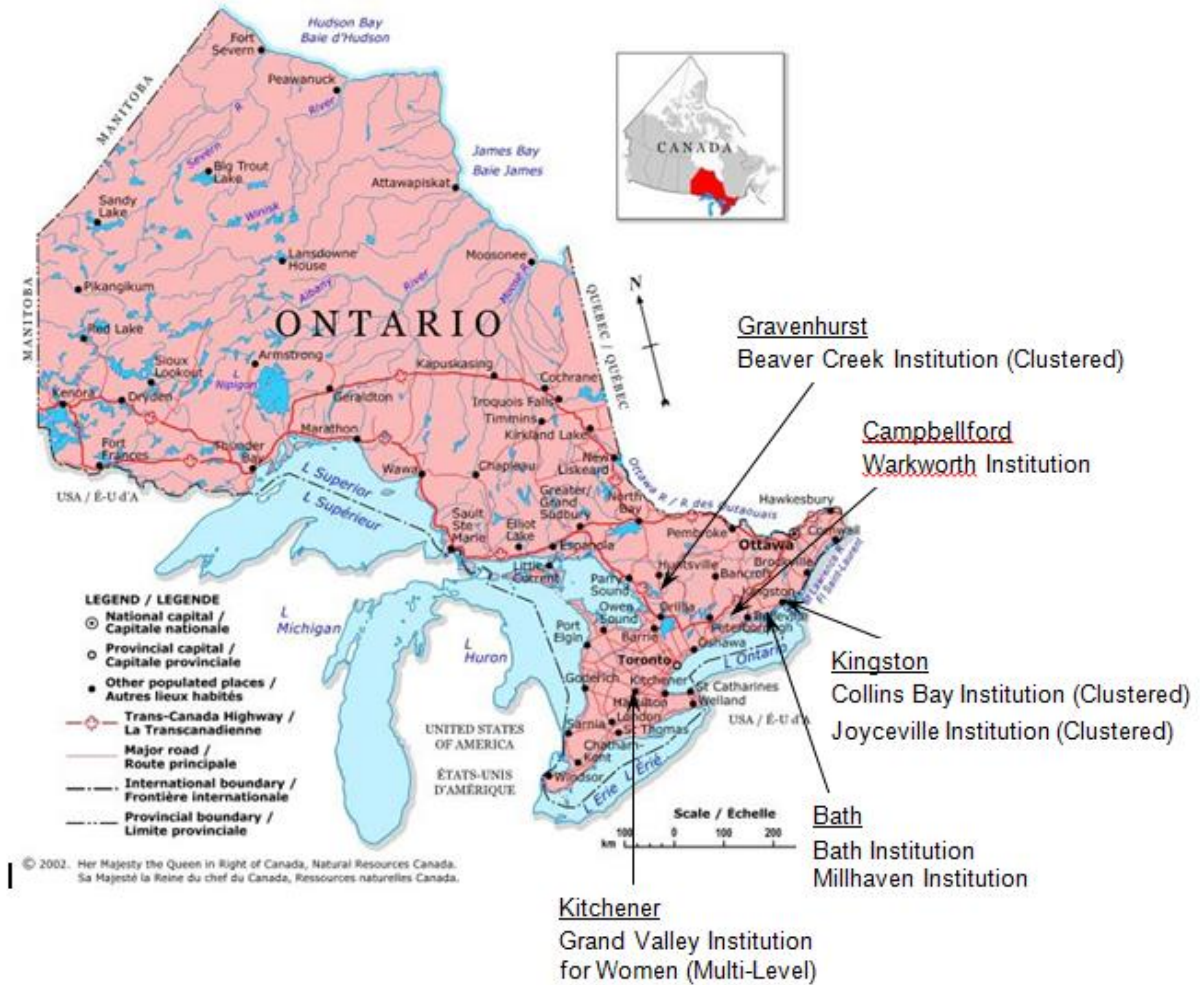
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Appendix A: Map and Security Classification Levels of Federal Correctional Institutions in Ontario



Institution	Security Classification Levels
Bath Institution	Medium Security Level
Beaver Creek Institution	Medium and Minimum Security Levels
Collins Bay Institution	Maximum, Medium and Minimum Security Levels
Grand Valley Institution for Women	Multi Security Levels
Joyceville Institution	Medium and Minimum Security Levels
Millhaven Institution	Maximum Security Level
Warkworth Institution	Medium Security Level

Appendix B: Eligibility Screener

Participant Eligibility Screener

Pre- and Post-Release Study of Federal Offenders on Opioid Substitution Treatment (OST)

Sample script to read to potential participant:

Hi. Thank you for meeting with me/us. We are currently in the process of identifying potential participants to take part in a study regarding correctional-based opioid substitution treatment (OST) pre- and post-release into the community. You have indicated that you may be interested in participating, but in order to do so I/we will need to ask you some questions to see if you are eligible to participate. Would you like to go ahead and start the eligibility screening?

Yes No (If no, stop the screener. If yes, continue to Q1)

SECTION A- Eligibility questions:

1. *Can you please provide a nickname that I can use to address you going forward?* _____
2. *How long have you been incarcerated for (length of current sentence)?* _____
3. *Did you use opioids non-medically/illicitly prior to your most recent admission to CSC?*
 Yes No
4. *Do you currently receive CSC-administered Opioid Substitution Treatment (OST) (either Methadone or Suboxone®)?*
 Yes (Eligible) No (Ineligible; Skip to Question 6)
5. *Have you been receiving CSC-administered OST for 3 months or more?*
 Yes (Eligible) No (Ineligible)
6. *Are you scheduled for release from your current incarceration into the community within the next 6 months?*
 Yes (Eligible) No (Ineligible)
7. *Does your community release plan have you living in the Southern Ontario region upon release?*
 Yes (Eligible) No (Ineligible)
8. **Would you be interested/willing to participate in a study by researchers from the Centre for Addiction and Mental Health examining your experiences with OST and how it relates to**

your health, drug use and social integration? It will entail three interviews (one now before your release and two in the community following your release).

Yes (Eligible) No (Ineligible)

Is the participant eligible? (Participant is eligible if responses were 'Yes' for all questions)

Yes No *(If No, continue to SECTION B. If Yes, continue to SECTION C)*

SECTION B- Participant is NOT eligible:

Thank you for your time, unfortunately, you are not eligible for the study.

SECTION C- Participant IS eligible:

*You are eligible for our study. This study will be completely **confidential and anonymous** and none of the information you provide will ever be given to CSC. In order to ensure the study is confidential, we will assign you an individual participant code number which will be used to identify you going forward. This study's main purpose is to **learn about treatment and health outcomes among federally incarcerated individuals enrolled in opioid substitution therapy (OST; Methadone/Suboxone®), both within correctional care as well as within the community upon release.** This study will be conducted in three stages: Assessment #1 will happen now (while you are still under correctional care). Assessments #2 and #3 will be done in the community around 2-3, and then 4-6 months after you are released. Each assessment will take approximately 60-90 minutes and consist of a short survey as well as a one-on-one interview which will be audio-taped. During both the second and third assessment in the community, we will provide you with a \$25.00 gift card for each, to compensate you for your time and effort.*

Would you like to be enrolled in the study?

Yes No *(If No, stop the screener and thank them for their time. If Yes, continue)*

SECTION D- Fill out information for participant and then proceed to consent process:

Correctional Institution Name/Location: _____

Screened By:

Date:

Study Participant Number:

FPS

#: _____

Appendix C: Consent Form



Participant Information Letter/Consent to Participate in Research

Pre- and Post-Release Study of Federal Offenders on Opioid Substitution Treatment (OST)

You are asked to participate in a research study conducted by the Centre for Addiction and Mental Health (CAMH), led by Dr. Monica Malta and her research team. The research is being done in collaboration with Correctional Service Canada (CSC).

PURPOSE OF THE STUDY

The purpose of the study is to examine the support and care needs and experiences, transition issues, and basic social and health outcomes of opioid-dependent federally incarcerated individuals receiving opioid (i.e., Methadone or Suboxone® based) substitution treatment, both while in federal correctional (CSC) care, as well as following release into the community.

PROCEDURES

If you volunteer to participate in this study, we would ask you to:

- 1) Complete 2 assessments/interviews over a period of approximately one year. The first interview will take place inside your correctional institution and will begin after this consent process. The second interview will take place in the community at your local probation/parole office, within one year following your release. The interviews will be conducted by a trained researcher, in a private and confidential setting (e.g., interview room), or over the telephone if we cannot arrange an in-person interview. The interviews will involve the completion of a short survey followed by an audio-taped interview, and will focus mainly on your OST treatment experiences as well as your other drug use, sentence/criminal activity, health, and social status. We estimate each of the interviews will take about 60 – 90 minutes of your time.
- 2) During the process we will also link/combine some of your personal information (e.g., demographic, health care, criminal and drug use information, community integration and release outcomes/status) from CSC databases, using your Fingerprint Serial Number (FPS #), plus the day/month of your birthday for validation. This information is required in order to examine follow-up outcomes. In addition to collecting this information from CSC, we would also like to connect with your probation/parole officer and/or receive contact information from you (if known) so that we can successfully follow-up with you in the

community.

POTENTIAL RISKS AND DISCOMFORTS

You may experience some discomfort with the interview process due to the time that it takes to complete. The interviewers will make every effort to ensure that the interview is done as quickly as possible. In addition, due to the sensitive nature of some of the questions, they may make you recall unpleasant or difficult experiences or circumstances, and you may feel the need to seek advice or care following your interview. If you should feel the need to contact someone upon completion of the interview, please indicate this to the research staff, who will provide you with appropriate contact for help or support.

POTENTIAL BENEFITS TO RESEARCH PARTICIPANTS AND/OR TO SOCIETY

There are no direct immediate benefits for participating in this research. However, by participating, you are helping to identify and better understand the experiences of incarcerated individuals receiving OST, particularly in regards to transition of care from the institution to the community, including the potential barriers and challenges, and how these services may be improved in the future. Ideally, this knowledge will help establish more effective interventions/treatments as well as smoother and more successful community transitions for incarcerated individuals enrolled in correctional-based OST.

PAYMENT FOR PARTICIPATION

There is no direct payment or other compensation for participating in the research. However, for completing the follow-up community interview, you will receive a \$50.00 gift card for your time, effort, and any expenses incurred.

ANONYMITY

This study is completely anonymous, with a few minor exceptions. None of your personal information will ever be exposed. At point of study enrolment, you will be required to provide your day/month of birth, and CSC-administered FPS #, which will be stored separately in a master list. You will then be provided with a unique study participant ID number which, going forward, will be the only identifier used for data collection and analysis. As mentioned above, in order to analyze follow-up outcomes we will use your FPS # to link some of your personal information from CSC offender databases with the information you provide the researchers during the interviews. Once the data has been linked it will be stored only under the unique study participant ID number you were assigned. All data will be kept, analyzed and published strictly based on a collective/pooled and anonymous basis.

CONFIDENTIALITY

All data provided will remain strictly confidential; only designated research staff will have access to the data. Once all the data/information collected has been entered into a computer

file, the paper copies of the interviews will be securely stored in a locked filing cabinet in a locked room at the study researchers' office location (CAMH). This room will have limited access and all electronic data will be stored in encrypted format. The master list with identifiable information will remain separate from study files, as well as locked/encrypted.

LIMITS OF CONFIDENTIALITY

The information you provide is confidential (including disclosure of any new criminal offences), and will never be revealed to anyone (including correctional staff/parole officers) except under the following circumstances: 1) if you express that you have caused, or are at risk to cause, serious bodily harm to yourself or others, 2) if there is a court warrant requiring access to your information, 3) in order to fulfill mandatory reporting requirements under another law/act/regulation, for example, reporting to the Children's Aid Society if a child is considered to be at risk of harm, or to the College of Physicians and Surgeons of Ontario if you disclose abuse by a registered health care clinician, or 4) if you disclose information related to activities that would compromise the security of the penitentiary or parole office and/or staff (e.g., direct threats to other incarcerated individuals, staff or to the institution/parole office). Under these circumstances the researcher is required to report this information to the appropriate authorities.

This study may be monitored and/or audited by a member of CAMH's Research Services Quality Assurance Team. In addition, as part of continuing review of the research, your study records may be assessed on behalf of the Research Ethics Board. A person from the research ethics team may contact you (if your contact information is available) to ask you questions about the research study and your consent to participate. In these circumstances, your research records may be reviewed during which confidentiality will be maintained as per CAMH policies and extent permitted by law.

PARTICIPATION AND WITHDRAWAL

You can choose freely whether to participate in this study or not. If you volunteer to participate in this study, you may withdraw at any time and discontinue participation without consequences of any kind. You may also ask that your data be removed from the study. During the interviews, you may also refuse to answer any questions you don't want to answer and still remain in the study. The investigator may at any time withdraw you from this research project if circumstances arise which warrant doing so, such as if you do not willingly participate in the study procedures, if there are any concerns for the safety or wellbeing of the study staff or research participants, or if your responses appear untruthful.

RIGHTS OF RESEARCH PARTICIPANTS

By participating in this study, you do not give up any of your legal rights or free the researchers and the Centre for Addiction and Mental Health of their legal and professional responsibilities. There will also be no repercussions for your status, services or rights with CSC. This study has been reviewed by the Centre for Addiction & Mental Health's Research Ethics Board (REB# 013/2018). If you have questions regarding study procedures or your

rights as a research participant, you may contact: Dr. Robert Levitan, Chair, Research Ethics Board, Centre for Addiction and Mental Health, tel: 416-535-8501 ext. 34020, or robert.levitan@camh.ca.

STUDY CONTACT

If you have any general questions or concerns about the study, please feel free to contact the study toll free phone line: 1-800-463-2338, extension 73098 or email the study at: CSC.OSTStudy@camh.ca When the research is finished and final report has been written, you can get a copy by way of contacting the study team or by accessing the CSC Research website at www.csc-scc.gc.ca/research/index-eng.shtml.

PARTICIPANT SIGNATURE AND CONSENT:

By signing this form, I agree to participate in this study as outlined above.

Correctional Institution Name/Location:

Date:

FPS Number:

Day/Month of Birth:

Participant ID Number:
name/nickname):

Participant Signature (with choice of

INVESTIGATOR/RESEARCH STAFF SIGNATURE

In my judgment, the subject is voluntarily and knowingly giving informed consent to participate in this research study.

Investigator/Research Staff Signature

Date

PARTICIPANT CONTACT INFORMATION (if known):

Email Address:

Phone Number:

Appendix D: Baseline Questionnaire/Assessment #1



Pre- and Post-Release Study of Federal Offenders on Opioid Substitution Treatment (OST)

Assessment #1 Study Questionnaire

[Version: 22 Jan 2019]

Participant ID Number: _____

Interviewer Initials: _____

Location: _____

Date/Time: _____

1. What is the **LENGTH** of your **CURRENT SENTENCE**?

2. What is the **TOTAL LENGTH** of **TIME** you have spent **INCARCERATED/DETAINED** over your **LIFETIME**?

3. Which **ACTIVITIES** have you **PARTICIPATED** in during the **PAST 30 DAYS**? (*Please select all that apply*)

- Employment (e.g., kitchen, maintenance/cleaning, etc.)
- Education/vocational training (e.g., courses, CORCAN, etc.)
- Prevention programs (e.g., crime, violence, behavioural, etc.)
- Substance use programs
- Skill programs (e.g., anger management, parenting, life, social, etc.)
- Community reintegration programs
- Other (please specify) _____
- I don't know
- I prefer not to answer

4. What is your **HIGHEST** level of **EDUCATION**?

- Some elementary school
- Completed elementary school
- Some secondary/high school
- Completed secondary/high school
- Some college
- Completed college
- Some university
- Completed university
- Some vocational/trade/technical degree/apprenticeship
- Completed vocational/trade/technical degree/apprenticeship
- I don't know
- I prefer not to answer

5. Where did you **LIVE** (i.e., city/town and province, with postal code if known) during the **30 DAYS PRIOR** to your **CURRENT** incarceration period?

6. Where did you **STAY/SLEEP** (most of the time) during the **30 DAYS PRIOR** to your **CURRENT** incarceration period? *(Please select all that apply)*

- My own place (e.g., rented or owned house/condo/apartment with or without roommate)
- Living with friends or family (e.g., parent, guardian, relative)
- Shelter/drop-in
- Institutionalized/hospitalized
- Community-based residential facility (e.g., correctional transition facility)
- Street
- Other (please specify) _____
- I don't know
- I prefer not to answer

7. What was your main **SOURCE** of **INCOME** during the **30 DAYS PRIOR** to your **CURRENT** incarceration period? *(Please select all that apply)*

- Legal employment/work
- Illegal employment/work (e.g., paid under the table, etc.)
- Illegal activities (e.g., selling drugs, etc.)
- Social benefits/assistance (e.g., welfare, disability, etc.)
- Family/friends
- Personal savings
- Other (please specify) _____
- I don't know
- I prefer not to answer

8. How often did you have **CONTACT** (e.g., call, visit, etc.) with **CLOSE FRIENDS and/or FAMILY** during the **30 DAYS PRIOR** to your **CURRENT** incarceration period?

1 Never	2 Rarely (once or twice)	3 Occasionally (a few times - once/week)	4 Often (several times a week)	5 Very often (daily or near- daily)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

9. How often did you have **CONTACT** (e.g., call, visit, etc.) with **CLOSE FRIENDS and/or FAMILY** during the **PAST 30 DAYS**?

1 Never	2 Rarely (once or twice)	3 Occasionally (a few times -	4 Often (several times a	5 Very Often (daily or near-
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		once/week)	week)	daily)
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

10. How would you **RATE** your overall **CURRENT PHYSICAL** health status?

1 Poor	2 Fair	3 Good	4 Very Good	5 Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

11. How would you **RATE** your overall **CURRENT MENTAL** health status?

1 Poor	2 Fair	3 Good	4 Very Good	5 Excellent
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

12. How would you **RATE** your **CURRENT SUBSTANCE USE**?

1 Not Disruptive	2 Mildly Disruptive	3 Moderately Disruptive	4 Disruptive	5 Very Disruptive
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

	13. Which of the following DRUGS did you use NON-MEDICALLY (i.e. without a medical prescription) during the 30 DAYS PRIOR to your CURRENT incarceration period?	14. Which of the following DRUGS have you used NON-MEDICALLY (i.e. without a medical prescription) during the past 30 DAYS ?	15. For those checked in Question 14 , please specify on HOW MANY DAYS you have used each drug during the PAST 30 DAYS :
Alcohol	<input type="checkbox"/>	<input type="checkbox"/>	
Tobacco	<input type="checkbox"/>	<input type="checkbox"/>	
Cannabis or Cannabis Products (e.g., edibles, concentrates, oils)	<input type="checkbox"/>	<input type="checkbox"/>	
Synthetic Cannabinoids (e.g., Spice, K2)	<input type="checkbox"/>	<input type="checkbox"/>	
Methamphetamines/Amphetamines (e.g., crystal meth, ADHD drugs)	<input type="checkbox"/>	<input type="checkbox"/>	
Hallucinogens/Psychostimulants (e.g., LSD, psilocybin, MDMA, GHB, K,)	<input type="checkbox"/>	<input type="checkbox"/>	
Cocaine	<input type="checkbox"/>	<input type="checkbox"/>	
Crack-cocaine	<input type="checkbox"/>	<input type="checkbox"/>	
Weak Prescription Opioids (e.g., codeine, hydrocodone, tramadol)	<input type="checkbox"/>	<input type="checkbox"/>	
Strong Prescription Opioids (e.g., morphine, hydromorphone, meperidine, fentanyl, methadone/buprenorphine)	<input type="checkbox"/>	<input type="checkbox"/>	
Heroin	<input type="checkbox"/>	<input type="checkbox"/>	
Other Illegal Opioids (e.g., synthetic-laced prescription opioids and/or heroin)	<input type="checkbox"/>	<input type="checkbox"/>	
Benzodiazepines	<input type="checkbox"/>	<input type="checkbox"/>	
Other Psychotropic Drugs (e.g., antidepressants, antipsychotics)	<input type="checkbox"/>	<input type="checkbox"/>	
Other (<i>please specify</i>):	<input type="checkbox"/>	<input type="checkbox"/>	

	16. Please check any (non-OST) substance use-related TREATMENTS/SERVICES you engaged in during the 30 DAYS PRIOR to your CURRENT incarceration period:	17. For the (non-OST) substance use-related TREATMENTS/SERVICES you checked in Question 16 , please specify HOW MANY TIMES you USED (e.g., how many use 'episodes') each service during the 30 DAYS PRIOR to your CURRENT incarceration period:
Hospitalization	<input type="checkbox"/>	
Inpatient/Residential Treatment	<input type="checkbox"/>	
Outpatient Treatment (e.g., group therapy, counselling, relapse prevention)	<input type="checkbox"/>	
Detoxification/Withdrawal Management	<input type="checkbox"/>	
Self-help Programs/Support Groups (e.g., Alcoholics Anonymous, Narcotics Anonymous)	<input type="checkbox"/>	
Harm Reduction Services (e.g., needle exchange)	<input type="checkbox"/>	
Other (<i>please specify</i>):	<input type="checkbox"/>	

18. Did you **INJECT** any drugs during the **30 DAYS PRIOR** to your **CURRENT** incarceration period?

- Yes
- No
- I don't know
- I prefer not to answer

19. Did you **INJECT** any drugs during the **PAST 30 DAYS**?

- Yes
- No
- I don't know
- I prefer not to answer

20. Were you **ENGAGED** in **OST** during the **30 DAYS PRIOR** to your **CURRENT** incarceration period? (If **NO**, skip to **QUESTION 24**)

- Yes
- No
- I don't know
- I prefer not to answer

21. If you answered **YES** to **Question 20**, where did you access **OST**? (*Please select all that apply*)

- Primary physician/general practitioner
- Private company (OATC, etc.)
- Community health clinic/walk-in center
- Hospital
- Correctional setting (e.g., detention, jail, prison)
- Other (please specify) _____
- I don't know
- I prefer not to answer

22. If you answered **YES** to **Question 20**, how long had you been on that course of **OST**?

23. If you answered **YES** to **Question 20**, which **OST** medication(s) had you been on?

- Methadone (Methadose)
- Buprenorphine (Subutex)
- Buprenorphine/Naloxone (Suboxone®)
- Naltrexone (Vivitrol)
- Diacetylmorphine (Medical heroin)
- Hydromorphone (Dilaudid)
- Other (please specify) _____
- I don't know
- I prefer not to answer

QUALITATIVE QUESTIONS

(NOTE: these questions and responses will be audiotaped)

24. Please **DESCRIBE** your experiences with **OPIOID USE** and **DEPENDENCE PRIOR** to your **CURRENT** incarceration period.

Prompts:

- How did your opioid use begin?
- Has your opioid drug use changed over time?
- Has opioid drug use impacted the following areas of your life: Health? Relationships? Work/Finances? Housing?

25. Please **DESCRIBE** your experiences with **OST PRIOR** to your **CURRENT** incarceration period.

Prompts:

- If you were engaged in OST prior to incarceration, how was the experience? What factors made the experience good or bad?
- If you were not engaged in OST prior to incarceration, why not?

26. Please **DESCRIBE** your experiences with **OPIOID** and **OTHER DRUG USE DURING** your **CURRENT** incarceration period.

Prompts:

- Which opioids are available? What other drugs are available? Tell me about this.
- Aside from your OST, which opioid-related supports/services are available? Which other drug use-related supports/services are available?
- Have you used these supports/services? If so, tell me about your experiences with these.

27. Please **DESCRIBE** your experiences with **OST DURING** your **CURRENT** incarceration period.

Prompts:

- How did you first access OST? Tell me about your experience.
- Are there any factors have been helpful to you? Is there anything you would change?

28. Please **DESCRIBE** your **PERSONAL GOALS/PLANS** (e.g., related to health, relationships, work/finances, housing) for your upcoming **RELEASE** into the community.

Prompts:

- What are your general feelings towards your upcoming release into the community?
- Is there anything you are looking forward to?
- Is there anything you are worried about?

29. Please **DESCRIBE** your **DRUG USE** and **OST-related GOALS/PLANS** for your upcoming **RELEASE** into the community.

Prompts:

- What do you expect will happen with your opioid and/or other drug use following release?
- What do you expect will happen with your OST following release?

30. Please **DESCRIBE** what **FACTORS/SUPPORTS** you see as particularly **IMPORTANT** in achieving your **DRUG USE** and **OST-related** goals and plans upon **RELEASE** into the community.

Prompts:

- Is there something you feel is *particularly* important for helping you reach your drug use-related goals?
- Is there something you feel is *particularly* important for helping you reach your OST-related goals?

31. Please **DESCRIBE** any potential **CHALLENGES/BARRIERS** you foresee towards achieving your **DRUG USE** and **OST-related** goals and plans upon **RELEASE** into the community.

Prompts:

- Is there something you feel may make it *particularly* difficult to reach your drug use-related goals?
- Is there something you feel may make it *particularly* difficult to reach your OST-related goals?

32. Please **DESCRIBE** where you see yourself a **YEAR** after your **RELEASE** into the community.

Prompts:

- Specifically regarding your opioid and/or other drug use?
- Specifically regarding your OST?