_____ Research Report _____

Characteristics of Women Participants in the Methadone Maintenance Treatment Program (MMTP)

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Characteristics of Women Participants in the Methadone Maintenance Treatment Program (MMTP)

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Executive Summary

Key words: *methadone maintenance treatment (MMT), opioid dependence, women offenders*

Ensuring that offenders have access to interventions that will assist them in dealing with their substance abuse issues allows the Correctional Service of Canada (CSC) to support the safe reintegration of offenders into society. In order to address the treatment needs of offenders with opioid dependence, CSC introduced the Methadone Maintenance Treatment Program (MMTP) in 1998. Methadone is a long-acting, synthetic, opioid medication that helps to stabilize the lives of people who are dependent on opioids, and to reduce the harms related to their use (CAMH, 2003b), as it prevents withdrawal symptoms, reduces cravings, and blocks the euphoric effects of shorter acting opioids (CPSO, 2005). This study examined a retrospective cohort of women federal offenders in CSC's MMTP between January 2003 and December 2008. Where possible, comparisons were made to the general women's institutional population.

The results indicated that offenders initiated on MMT accounted for approximately 10% of the institutional women offender population. MMTP participants differed from the general institutional population in a number of areas. In general, MMTP participants were found to be higher risk, and have higher need than women in the general institutional population, with a lower reintegration potential and lower motivation to change their behaviour. Furthermore, MMTP participants had more extensive criminal histories, with a greater number of federal sentences served, and a greater number of offences for which they were serving their current sentence. In addition, MMTP participants were significantly more likely to be serving a sentence for acquisitive and other non violent crimes, and less likely to be serving a sentence for homicide or drug related crimes, compared to the general institutional population.

Results also indicated a high prevalence of pharmaceutical opioid use among women MMTP participants, compared to heroin use, or use of both heroin and pharmaceuticals. Approximately 70% of women MMTP participants reported morphine or hydromorphone as their opioid drug of choice. Regional differences in opioid drug of choice were also observed, with heroin use being more prevalent in the Pacific and Quebec regions, as opposed to pharmaceutical use being more common in the Atlantic and Prairie regions. A large majority of women (approximately 65%) reported problematic poly-substance use in addition to their opioid use, with cocaine being the most commonly used non-opioid drug. Many women also reported a history of engagement in high risk behaviours such as injection drug use and needle sharing, which are related to their drug use.

A large proportion of women MMTP participants reported a history of seeking treatment for mental health issues such as anxiety, depression, and panic disorder, as well as experiencing trauma such as physical, mental, and sexual abuse. Many women also reported a history of suicide attempts and self injurious behaviour.

Overall, the profile of women MMTP participants suggests a very complex group with multiple needs which should be considered in treating their opioid dependence, and assisting them in successfully reintegrating into society.

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Introduction

The use of illicit drugs within society not only has an impact on social and justice structures, but also on the health and well-being of the society and the individuals dependent on those drugs. In Canada, illicit drug use costs account for approximately 0.2% of the Gross National Product - GNP (North American Opiate Medication Initiative [NAOMI], 2006) or $1.37 billion each year – much of the costs result from injection drug use (Health Canada, 2002b). Research has shown that substance abuse is especially prevalent in correctional populations. In Canada, it has been estimated that 70 to 80% of federal offenders have a substance use problem (Grant & Gileno, 2008; Hume, 2004; Kunic & Grant, 2006; Kunic & Varis, 2009; Matheson, Doherty, & Grant, 2008; Weekes, Moser, Ternes, & Kunic, 2009). Although, in the general Canadian population, rates of alcohol and illicit drug use are lower for women than for men, within the correctional system it has been estimated that as many as 80 to 90% of women offenders have a substance abuse issue (Health Canada, 2006; Hume, 2004).

Women and Substance Abuse

A well established body of literature reports consistent differences between women and men who abuse substances in their patterns and onset of use as well as their entry into treatment. Women's patterns of use advance more rapidly than men's and even with a shorter duration of substance abuse, and the use of fewer problematic substances, their substance abuse severity is often equivalent to men's when they do present for treatment (Greenfield et al., 2007). Within a social context, women's patterns of use are heavily influenced by their partner's and their children's functioning (Zilberman, Hermano, Blume, & El-Guebaly, 2002). There is evidence for a gap between substance abuse treatment entry and treatment need for both men and women, however, a recent review by Greenfield and colleagues (2007) demonstrated that this gap between entry or accessing treatment is more pronounced over the lifetime for women than for men, indicating that a large proportion of women who are in need of treatment are often not receiving it (Greenfield et al., 2007).

In addition to differences within the social context, women who abuse substances report high levels of psychiatric problems and serious mental illness (Powis, Gossop, Bury, Payne, & Griffiths, 2000; Tetrault et al., 2007), as well as histories of physical, emotional, and/or sexual

abuse, which are risk factors for substance abuse (Cicero, Lynskey, Todorov, Inciardi, & Surratt, 2008; Powis et al., 2000; Zilberman et al., 2002). Women who enter drug abuse treatment have higher levels of psychiatric distress, more suicide attempts, have more physical and mental health problems and are less frequently employed than men entering treatment (Parsells Kelly et al., 2008; Wechsberg, Craddock, & Hubbard, 1998). In addition, studies report women often postpone entry into substance abuse treatment for a number of reasons, such as the social stigma attached to substance abuse, parental responsibilities, or because of a fear that their children may be taken away from them (Poole & Isaac, 2001; Powis et al., 2000; Zilberman et al., 2002). Research points to the need for women-centred treatment programs that focus on assessing some of the barriers to treatment (Health Canada, 2006).

Current Trends in Opioid Use

Over the last few decades, the number and availability of pharmaceutical prescription opioids has increased dramatically resulting in an increase in abuse. It is estimated that 60,000 to 90,000 of Canadians have an opioid addiction (Health Canada, 2002b). Opioid addiction is especially problematic in relation to the spread of blood-borne diseases (e.g. Hepatitis C and HIV/AIDS), and the incidence of interpersonal and family problems, violence, and criminal behaviour (Hall, Doran, Degenhardt, & Shepard, 2006; Health Canada, 2002b). One Canadian study found that for 114 daily opioid users not currently in or seeking treatment for their addiction, the 1996 annual social costs of illness was $5.086 million (Wall et al., 2000). These costs were explained primarily by crime victimization (44.6%) and law enforcement (42.4%) costs, followed by productivity losses (7%) and the utilization of health care services (6.1%) (Wall et al., 2000).

Women represent a growing population of prescription opioid abusers since they are prescribed mood-altering drugs, such as opioids, more often than men and thus, may be at higher risk for problems with prescribed medication (Cicero et al., 2008; Simoni-Wastila, Ritter, & Strickler, 2004; Tetrault et al., 2007; Zilberman et al., 2002). Current research is mixed with respect to estimates of gender differences in rates of non-medical prescription opioid abuse with certain studies reporting higher rates among men (Back, Payne, Simpson, & Brady, 2010; Tetrault et al., 2007), while others report higher rates among women (Green, Grimes Serrano, Licari, Budman, & Butler, 2009; Parsells Kelly et al., 2008). A recent study by Back and

colleagues (2011) examining profiles of men and women with opioid dependence found that the majority of men and women tested positive for oxycodone and morphine. Men experienced higher alcohol and legal problems while women reported higher drug, employment, family, medical and psychiatric problems. In addition, women endorsed significantly more current and past medical problems.

Methadone Maintenance Treatment (MMT)

Methadone Maintenance Treatment (MMT) is a drug abuse treatment modality that has been extensively utilized and rigorously evaluated for the treatment of opioid dependence (Health Canada, 2002b). Methadone is a long-acting, synthetic, opioid medication that is identified as a safe and efficacious treatment for opioid withdrawal and dependence (Canadian Health Network **[**CHN], 2006; Centre for Addiction and Mental Health [CAMH], 2003a; Office of National Drug Control Policy [ONDCP], 2000). The pharmacological properties of methadone (i.e., longer acting than other opioids) allow for once daily administration to manage withdrawal symptoms and cravings. In addition, methadone is an opioid-blocker, and eliminates the effects of other shorter-term opioids such as heroin and morphine if ingested during methadone treatment (College of Physicians and Surgeons of Ontario [CPSO], 2005).

Methadone is one of two drugs (the other is Buprenorphine) currently approved by Health Canada to be used as a long-term treatment intervention for opioid addiction (i.e., for use longer than 180 days). Because it is a member of the opioid family, individuals can also develop a dependence on methadone. Proper tapering of the drug can reduce any potential psychological or physical harm related to the discontinuation of MMT if the patient wishes to terminate treatment, or is mandated to discontinue treatment. However, some research literature suggests that a maintenance-based approach, whereby individuals are maintained on methadone for an indefinite period of time, rather than an abstinence-based approach, where individuals are maintained for a specific period of time and tapered off methadone, may be a more efficacious method (Caplehorn, 1994**).**

Research has demonstrated that methadone helps to stabilize the lives of people who are dependent on opioids, and to reduce the harm related to opioid use (CAMH, 2003b), as it prevents withdrawal symptoms, reduces cravings, and blocks the euphoric effects of shorter acting opioids (CPSO, 2005). Instead of experiencing a constant cycle of highs and lows,

opioid-dependent individuals on methadone will receive a break from the constant stress of supplying an insatiable craving, and will experience mood stability and an improved level of functioning. As reported in the Health Canada document *Best Practices: Methadone Maintenance Treatment* (2002a), research indicates that, on average, individuals receiving MMT will: spend less time using narcotics on a day-to-day basis; reduce their use of illicitly obtained opioids; reduce their use of other substances; spend less time dealing drugs; spend less time involved in criminal activities; spend less time incarcerated; have much lower death rates than individuals not receiving treatment; reduce their injection drug use behaviour; reduce their risk of acquiring HIV/AIDS, Hepatitis C or other blood-borne pathogens; improve their physical and mental health; improve their social functioning and likelihood for full-time employment; and improve their overall quality of life (pp. 16-17). As a result of the effectiveness of MMT in reducing risk behaviours, methadone positively benefits society by decreasing criminal activity and improving public health (Health Canada, 2002a; 2002b).

MMT in Community Settings in Canada

The majority of the research on characteristics of MMT users within Canada does not report results by gender, but rather total sample characteristics. Studies within the Canadian context have found that MMT participants were more likely than non-MMT participants to be Caucasian males in their early to mid thirties, who were single, unemployed and had a high prevalence of mood disorders (Brands, Blake, & Marsh, 2002; Brands, Blake, Sproule, Gourlay, & Busto, 2004; Fischer, Firestone-Cruz, & Rehm, 2006; Fischer, Gliksman, Rehm, Daniel, & Medved, 1999; Fischer et al., 2005; Kerr, Marsh, Li, Montaner, & Wood, 2005; Sproule, Brands, Li, & Catz-Biro, 2009).

According to Canadian research, the opioid drug of choice is reflective of the region in which the individual resides, as the prevalence of prescription drug abuse is higher in non-urban areas (Fischer, Patra, Firestone-Cruz, Gittins, & Rehm, 2008). In addition, a study of illicit opioid use in Canada clearly confirmed regional patterns with respect to the types of opioids that are used. Results from seven Canadian cities demonstrated that both male and female participants in Montreal and Vancouver indicated that heroin was their most commonly used opioid; however, individuals from Edmonton, Toronto, Quebec, Fredericton and St. John more frequently reported prescription opioids such as Morphine, Dilaudid® or OxyContin® as their

opioids of choice (Fischer et al., 2008). The regional patterns of opioid use are coupled with an overall change in the pattern of opioid use over time within the Canadian context. For example, a 1999 report focusing on illicit opioid users in Toronto indicated that 92.1% of the sample reported heroin as their primary drug (Fischer et al., 1999). However, a 2008 study of 484 MMT participants from seven Canadian cities found that only 1.0% of participants from Toronto (n = 110) identified heroin as their drug of choice, while 75.5% reported the abuse of prescription opioids only and an additional 23.6% reported use of prescription opioids as well as heroin (Fischer et al., 2008).

Studies of characteristics of MMT participants have also examined the frequency of use of other non-opioid classes of drugs. A study by Brands et al. (2004), which included a 35% proportion of women, found that among MMT participants, most (over 70%) had used alcohol and benzodiazepines during the 12-month period prior to the interview. Another key Canadian finding points to the link between opioid use and regular cocaine or crack use, or the use of opioid/cocaine combinations. Fischer and colleagues (2008) found that approximately 50% of MMT participants, with a third of the total sample being female, had used cocaine and/or crack during the 30 days prior to the interview.

MMT in Correctional Settings

Methadone Maintenance Treatment has been used in a variety of correctional jurisdictions including American cities such as New York and Baltimore; the State of New South Wales in Australia; and in the federal correctional system in Canada (Cropsey, Villalobos, & St. Clair, 2005; Darke, Kaye, & Finlay-Jones, 1998; Dolan, Wodak, & Hall, 1998; Heimer et al., 2006; Johnson, van de Ven, & Grant, 2001; Magura, Rosenblum, Lewis, & Joseph, 1993). To our knowledge, no studies have specifically examined the characteristics or outcomes of women participants of a prison-based opioid substitution program.

The patterns of opioid use among men participating in CSC's MMTP between 2003 and 2008 mirror those found in the community, with clear regional trends and increasing pharmaceutical drug use over time (Johnson, Farrell MacDonald, & Cheverie, in press). The available research for incarcerated males participating in MMT programs points to favourable outcomes, both while incarcerated, including reductions in high risk behaviours (Dolan et al., 1998; Dolan et al. 2003), reductions in positive urinalysis results (Cheverie, MacSwain, Farrell

MacDonald & Johnson, in press), and reductions in serious drug-related institutional charges (Johnson, van de Ven, & Grant, 2001), as well as changes in behaviours post-release, such as lower rates of drug use, continued participation in MMT in the community, and fewer days of criminal involvement (Kinlock, Gordon, Schwartz, Fitzgerald, & O'Grady, 2009).

CSC's Policy on Methadone Maintenance Treatment

Within CSC federal facilities, offenders with opioid addictions are able to access the MMTP. In 1998, the CSC introduced Phase 1 of the MMTP to address the needs of only those opioid-dependent offenders that were maintained on methadone prior to their admission to federal custody and those meeting the "exceptional circumstances" criteria (i.e., where all available treatments and programs have failed, the health of the offender continues to be seriously compromised by addictions, and there is a dire need for immediate intervention).

With the introduction of Phase 2 in 2002, the program evolved to include all offenders who met the following criteria:

1. A diagnosis of dependence to opioids, as established by the Diagnostic Statistical Manual (DSM-IV), where the route of choice is intravenous or a well-documented history of opioid addiction indicating a high risk of relapse, as confirmed by a certified institutional physician; and
2. A past history of treatment failures and evidence of a small likelihood of benefit from non-methadone treatment; and
3. A formal agreement by the offender to the terms and conditions of Methadone Maintenance Treatment.

In December 2008, the CSC introduced the guidelines for the Opioid Substitution Therapy program (OSTP) program which enhances the former MMTP. This program includes offering Methadone or Suboxone®[1] to offenders meeting the criteria specified in the guidelines (CSC, 2008). The objectives of the CSC's OSTP are consistent with those of other jurisdictions. They include decreasing the rate of injection drug use; reducing relapse to opioid drug use and the incidence of drug-related criminal activity; improving the offender's general health and

[1] Suboxone® is a combination medication made up of Buprenorphine and Naloxone. The intention of the Naloxone component is to deter intravenous misuse. Suboxone® is a sublingual medication (dissolved under the tongue) indicated for treatment of opioid dependence in adults. Suboxone® is taken daily, initially, and then dosing can be every other day or more depending on the individual and the physician (CSC, 2008).

quality of life; reducing the transmission of HIV and other blood-borne pathogens and assisting and motivating offenders to gradually desist from all illicit drug use (CSC, 2008).[2]

Purpose and Rationale

The purpose of this report is to examine the women participants of CSC's MMTP between 2003 and 2008.[3] This report is one of a series of reports that are being produced by the Addictions Research Centre that investigate information related to the institutional MMTP within CSC. Additional reports focus on the characteristics of male participants, institutional adjustment of male participants and post-release outcomes of men and women participants.

The current report is divided into two major sections. The first section provides a descriptive summary of MMTP participants with respect to demographics, severity of substance abuse dependence, offence and sentence information, and other descriptive information in comparison to the general women's institutional population who were incarcerated during the same time period. The second section examines specific indicators that are only available for the MMTP participants. Regional comparisons and changes over time across certain variables are also examined within the MMTP group. The general research questions that are explored include:

1) Do the demographic characteristics of the MMTP group participants differ from the general institutional population?
2) Are there differences in static and dynamic factor ratings[4] between the MMTP participants and the general institutional population?
3) How do MMTP participants compare to the general institutional population with respect to alcohol abuse severity and drug abuse severity?
4) Do criminal histories differ significantly between the MMTP group and the general institutional population?
5) What are the program specific characteristics of MMTP participants, such as

[2] See Correctional Service Canada (2008). *Specific guidelines for the treatment of opiate dependence (Methadone/Suboxone®)*. Ottawa, ON: Correctional Service Canada for a complete description of CSC's OSTP.
[3] Only those in the MMTP are included in this study since the OSTP was not expanded until December 2008 and therefore Suboxone was not available as an option during data collection.
[4] Static risk factors include historical factors such as criminal history, offence severity, sex offence history and the probability of future re-offending, while dynamic factors include factors that are responsive to correctional program and includes seven domains: employment; marital/family; associates and social interaction; substance abuse; community functioning; personal and emotional orientations; and attitude (CSC,2007).

opioid of choice, other problematic drug use, physical and mental health, etc.?

Method

Study Design

The study used a retrospective cohort design in order to examine the characteristics of women offenders initiated into CSC's MMTP between January 1, 2003 and December 31, 2008. Participants were identified based on two criteria: (a) the offender's file had a methadone flag in CSC's offender administrative/operational database (the Offender Management System) and/or (b) the offender had at least one of two MMTP initiation documents in the Addictions Research Centre's MMTP Research Databases. MMTP participation was further verified by conducting an in depth file review using documents stored in the Offender Management System for offenders identified with only a methadone flag.

Comparisons between the MMTP participants and women offenders within the general institutional population were explored. The general institutional population was comprised of all women offenders in federal custody between 2003 and 2008 who did not participate in the MMTP. This group was considered to be most comparable to the MMTP group as MMTP participants were initiated into CSC's institutional MMTP during 2003 to 2008 and therefore both groups would have been incarcerated during the same time frame.

Data Sources

The two main sources of data for this report are the Offender Management System (OMS) and MMTP administrative documentation.

The OMS is an electronic administrative and operational database used by CSC to maintain all offender records from sentence commencement to sentence end. The system includes information such as: demographics, sentence and conviction information, all admission and release records, urinalysis results, disciplinary charge information, reports on offender performance during incarceration and while in the community, specific alerts and flags, Offender Intake Assessment (OIA) information including static and dynamic risk and need assessments, substance abuse assessments, and supplementary assessment information and related records.

The OMS does not contain all methadone specific information; therefore, in 2004, the Addictions Research Centre (ARC) partnered with the Health Services Sector of CSC, to collect, manage, and analyze current and archived CSC MMTP administrative information for research

purposes. Research databases were created to manage methadone administrative records received from operational sites. Two initiation documents, the Substance Abuse Assessment Questionnaire and the Medical Assessment for Methadone Initiation, were used to identify participants and to examine specific information pertaining to the methadone group. Copies of these forms are included in Appendix A.

Measures

The Offender Intake Assessment (OIA) process begins immediately after the offender is sentenced.[5] It incorporates a variety of information sources and assessments and is an important correctional planning tool. Specifically, the OIA involves the systematic identification and analysis of critical factors that affect the safe and timely reintegration of each offender into the community. The core components of the OIA include the Assessment of Static Factors (risk) and the Dynamic Factor Identification and Analysis protocol (DFIA) (CSC, 2007).

The assessment of static factors includes historical factors such as criminal history, offence severity, and sex offence history. Offenders are assigned an overall static or 'risk' level of 'low', 'moderate', or 'high' based on the results of the static factor analysis. The dynamic factors assessment specifically considers needs in seven domains: employment, marital/family, associates, substance abuse, community functioning, personal/emotional orientation, and attitude. Unlike static factors, these areas are subject to change in response to correctional programming and intervention. Each of the seven domains includes a number of indicators that are used to determine an overall need level as follows: employment (35 indicators), marital/family relationships (31 indicators), associates/social interaction (11 indicators), substance abuse (29 indicators), community functioning (21 indicators), personal/emotional orientation (46 indicators) and attitude (24 indicators). Offenders are rated on a four-point scale for each domain[6] (factor rated as an asset to community adjustment, no immediate need for improvement, some need for improvement, considerable need for improvement) and also assigned an overall dynamic factor

[5] As of September 2009, the Compressed Offender Intake Assessment (COIA) was implemented. The COIA applies to offenders serving four years or less for non-violent crimes with limited or no criminal history who do not require psychological assessment or detention referral and who do not have a Long Term Supervision Order. However, this revision to the OIA does not impact the OIA data of offenders in this study given it was implemented after the end of the data collection period (December 31, 2008).

[6] The substance abuse and the personal/emotional orientation domains are rated on a three-point scale ranging from 'no need for improvement' to 'considerable need for improvement' (these domains cannot be rated as 'factor seen as an asset to community adjustment').

need rating of 'low', 'moderate', or 'high' based on the number of domains identified and the severity of contributing dynamic risk factors. Individual indicators are rated as present (1), absent (0), or unknown (9) (Brown & Motiuk, 2005).

Motivation level provides an indication of the offender's readiness and willingness to participate in programming and interventions to address their criminogenic needs, availability of external support, and past history related to demonstrating change. This OIA variable is also measured on a three-point scale with 'low' indicating no recognition by the offender that they have a need; 'moderate', the offender may not fully recognize the need area but is willing to participate in recommended programs; and 'high, where these offenders are ready to engage in programming and fully recognize their need.

Reintegration potential is a rating used to assess the risk presented to the community by an offender. The reintegration potential rating for women offenders is based on the Custody Rating Scale (CRS) rating, the static factor rating of the OIA, and the dynamic factor rating of the OIA. Offenders are assigned a level of 'low', 'moderate', and 'high' in this area.

The Drug Abuse Screening Test (DAST) is a 20-item test designed to assess the severity of problems related to drug abuse (Skinner, 1982). The focus of the DAST is on the frequency of use, symptoms of dependence, and negative consequences of drug use. The DAST categorizes the level of drug problem into: 'none', 'low', 'moderate', 'substantial' and 'severe'. The Alcohol Dependence Scale (ADS) is designed to explore the severity of alcohol abuse (Skinner & Horn, 1984) and consists of 25 items that are used to derive severity levels of: 'none', 'low', 'moderate', 'substantial' and 'severe'. Both the DAST and the ADS reference the 12-month period prior to arrest. The results of these tests, in addition to the results of the Problems Related to Drinking (PRD) scale, are used to match offenders to the appropriate substance abuse program intensity level.

Other descriptive variables examined in this report available through the OMS include basic demographic information such as marital status, Aboriginal ancestry, and age at admission as well as sentence and offence information including the number and types of current and previous offences. In addition, information on types of release was examined for those offenders who were released during the study period.

Selected variables derived from the MMTP administrative documents were examined for the MMTP group only. These variables include: opioid of choice, other problematic drug usage,

age of first injection drug use, mental and physical health history, etc. The administrative documents from which these variables were derived include the Medical Assessment for Methadone Initiation and the Substance Abuse Assessment Questionnaire.

Statistical Analyses

All data management, data transformations and statistical analyses were performed using SAS® software, Version 9.2 (SAS Institute Inc, 2007). Frequency distributions and cross-tabulations were calculated for the categorical variables while means and standard deviations were calculated for the continuous variables. In addition, the relationships between categorical variables were examined using Pearson Chi-Square. Where relationships between variables were statistically significant, Cramer's V was also examined to assess the strength of the association. Cramer's V values were categorized into a weak association when values were less than 0.10, small association when values were between 0.10 and 0.30, moderate association when values were between 0.30 and 0.50, and strong association when values were at the 0.50 level or higher.[7] Differences between groups on continuous variables were analyzed using the *t*-test. An alpha level of 0.05 was used to determine statistical significance.

[7] Cut-off values for Cramer's V were obtained from the following source: http://www.acastat.com/Statbook/chisqassoc.htm

Results

The results section is divided into six main areas, including: 1) incidence and distribution of MMTP initiates by region; 2) demographic information; 3) offender intake assessment information; 4) alcohol and drug abuse severity; 5) sentence and offence history information; and 6) methadone participant specific information. Where relevant, comparisons between the group of methadone participants and the general institutional population were examined.

Incidence and Distribution of MMTP Initiates by Region

Ten percent (n = 209) of all incarcerated women offenders serving federal sentences between 2003 and 2008 (n = 2,088) were initiated into the MMTP during the study period. The highest incidence of MMTP initiation over the entire study period was found in the Atlantic region, with 20% (n = 49) of the 241 women offenders in the Atlantic region initiating MMT during the study period, while the lowest incidence of MMTP initiation was found in the Quebec region, with 3% (n = 11) of the institutional population in that region (n = 325) initiating MMT between 2003 and 2008. The incidence of MMTP initiation in the remaining regions was 14% (n = 30) of offenders incarcerated in the Pacific region (n = 216), 11% (n = 76) of offenders in the Prairie region (n = 687), and 7% (n = 43) of offenders in the Ontario region (n = 596).

Demographic Information

Women MMTP participants were, on average, significantly younger than women offenders in the general institutional population when admitted into federal custody for their current offence(s). The average age at admission for MMTP participants was 32.9 years (*SD* = 7.5), compared to 34.3 years (*SD* = 10.2) for the general institutional population, t (302.19) = 2.51, $p = 0.01$.

Table 1 compares the Aboriginal ancestry and marital status of MMTP participants to the general institutional population. A large proportion of both MMTP participants and the general institutional population were of Aboriginal ancestry, with more than one third (34%) of MMTP participants and 27% of the general institutional population being Aboriginal. This difference was found to be statistically significant with a weak association, $\chi 2$ (1, N = 2,085) = 4.75, p =

0.03, $V = 0.05$. No significant differences between the groups were found with respect to marital status, $\chi 2$ (3, N = 2,070) = 0.69, $p = 0.88$.

Table 1

Aboriginal Ancestry and Marital Status of MMTP Participants and the General Institutional Population

Variable	MMTP Participants		General Population		Total	
	N = 209		N = 1,879		N = 2,088	
	% (n)		% (n)		% (n)	
Ancestry						
Aboriginal	34.0	(71)	26.9	(504)	27.6	(575)
Non-Aboriginal	66.0	(138)	73.1	(1372)	72.4	(1510)
Marital Status						
Single	48.8	(102)	48.3	(898)	48.3	(1000)
Married/Common-Law	35.4	(74)	36.0	(670)	35.9	(744)
Divorced/Separated	13.9	(29)	13.0	(241)	13.0	(270)
Widowed	1.9	(4)	2.8	(52)	2.7	(56)

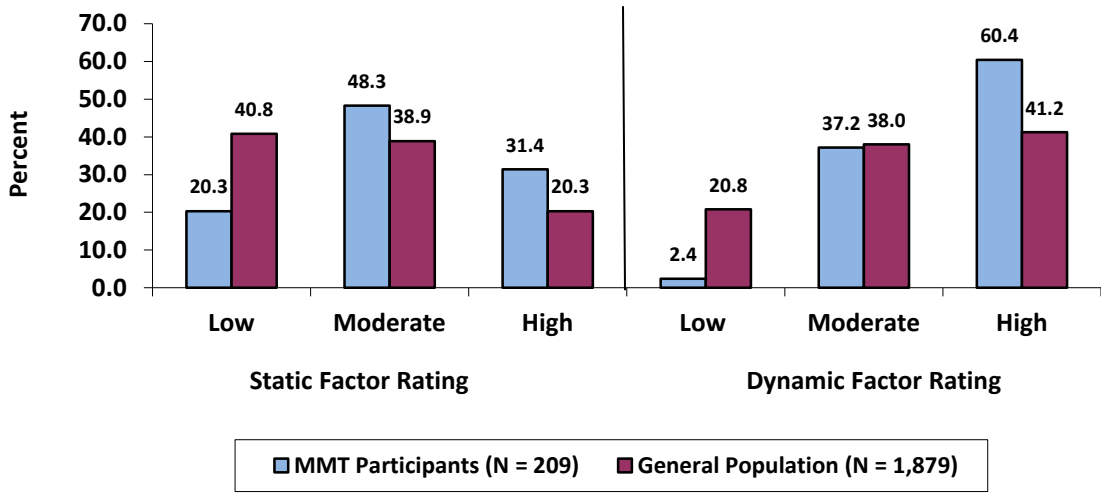
Note. Aboriginal ancestry was unknown for 3 offenders in the general institutional population. Marital Status was unknown for 18 offenders in the general institutional population. Percentages may not add to 100 due to rounding error.

Offender Intake Assessment Information

Static and dynamic factor ratings

Figure 1 compares MMTP participants and the general institutional population on overall static and dynamic factor ratings. MMTP participants were more likely than offenders in the institutional population to be rated as high on the static factor rating (31% versus 20%), χ^2 (2, N = 2,056) = 34.96, $p < 0.0001$, $V = 0.13$. MMTP participants were also more likely than the institutional population to be rated high on the dynamic factor rating (60% versus 41%, respectively), χ^2 (2, N = 2,056) = 49.14, $p < 0.0001$, $V = 0.15$, indicating an overall greater level of criminogenic need (Figure 1).

Figure 1. Static and Dynamic Factor Ratings of MMTP Participants and the General Institutional Population

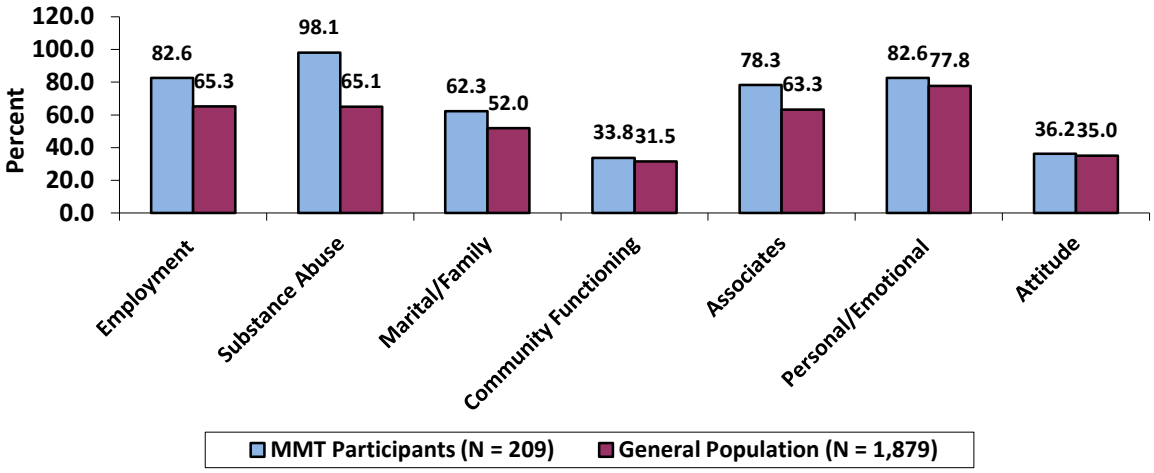


Note. Static and dynamic factor ratings were unavailable for 2 MMTP participants and 30 offenders in the general institutional population.

Criminogenic needs

The overall dynamic factor rating is based on ratings of seven criminogenic need areas. Examination of these individual need areas indicates that MMTP participants rate significantly higher in the employment, marital/family, associates and substance abuse need domains. No significant differences were found between the groups in the attitude, community functioning, and personal/emotional orientation domains (Figure 2).

Figure 2. Criminogenic Need Areas Identified as Some or Considerable Need for MMTP Participants and the General Institutional Population

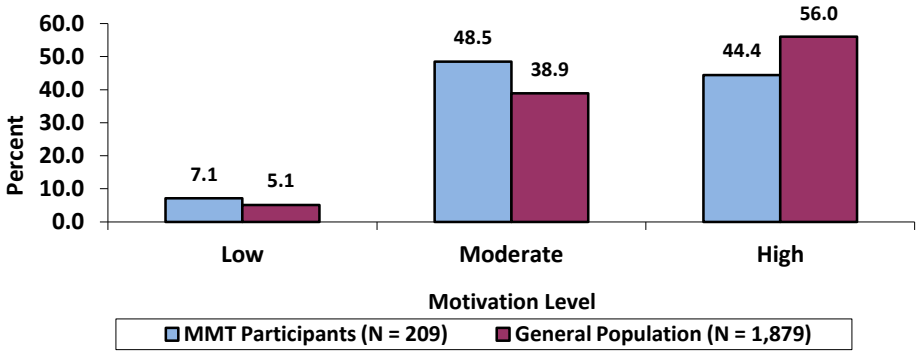


Note. Criminogenic need area ratings were unavailable for 2 MMTP participants and 30 offenders in the general institutional population.
Employment/Education $\chi 2$ (1, N = 2,056) = 25.16, $p < 0.0001$, $V = 0.11$
Substance Abuse χ^2 (1, N = 2,056) = 93.80, $p < 0.0001$, $V = 0.21$
Marital/Family $\chi 2$ (1, N = 2,056) = 7.92, $p = 0.005$, $V = 0.06$
Community Functioning $\chi 2$ (1, N = 2,056) = 0.45, $p = 0.50$
Associates χ^2 (1, N = 2,056) = 18.32, $p < 0.0001$, $V = 0.09$
Personal/Emotional Orientation $\chi 2$ (1, N = 2,056) = 2.56, $p = 0.11$
Attitude $\chi 2$ (1, N = 2,056) = 0.13, $p = 0.72$

Motivation level

MMTP participants were less likely than the institutional population to report high levels of motivation (i.e. motivation to change their behaviour), χ^2 (2, N = 1,976) = 9.80, $p = 0.008$, V = 0.07 (Figure 3).

Figure 3. Motivation Level of MMTP Participants and the General Institutional Population

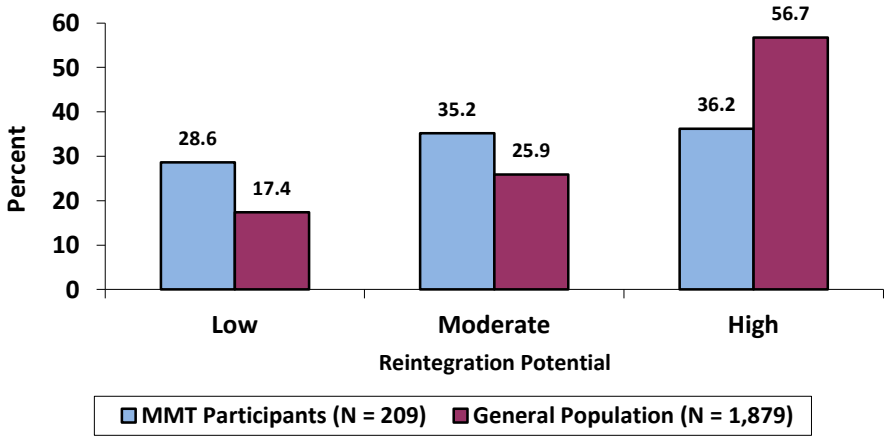


Note. Motivation level ratings were unavailable for 13 MMTP participants and 99 offenders in the general institutional population.

Reintegration potential

MMTP participants were less likely than the general institutional population to have a high reintegration potential rating by approximately 20 percentage points, and more likely to be rated as low or moderate. This result was statistically significant with a small strength of association, χ^2 (2, N = 1,976) = 31.30, $p < 0.0001$, $V = 0.13$ (Figure 4).

Figure 4. Reintegration Potential of MMTP Participants and the General Institutional Population

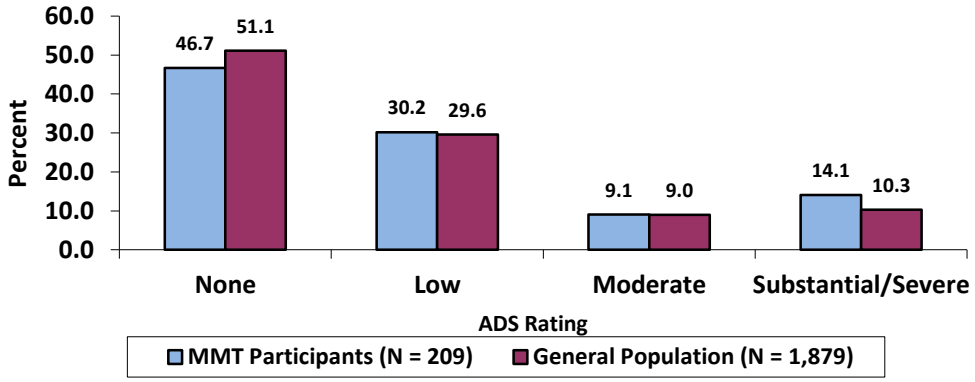


Note. Reintegration potential ratings were unavailable for 13 MMTP participants and 99 offenders in the general institutional population.

Alcohol and Drug Abuse Severity

As noted earlier, measures of substance abuse are also included in the intake assessment process, through which an offender's overall level of dependence to alcohol and/or drugs is determined. Figure 5 examines the Alcohol Dependence Scale (ADS) scores of MMTP participants in comparison to offenders in the general institutional population. No significant difference existed between the groups with respect to level of dependence to alcohol, χ^2 (3, N = 1,793) = 3.06, p = 0.38.

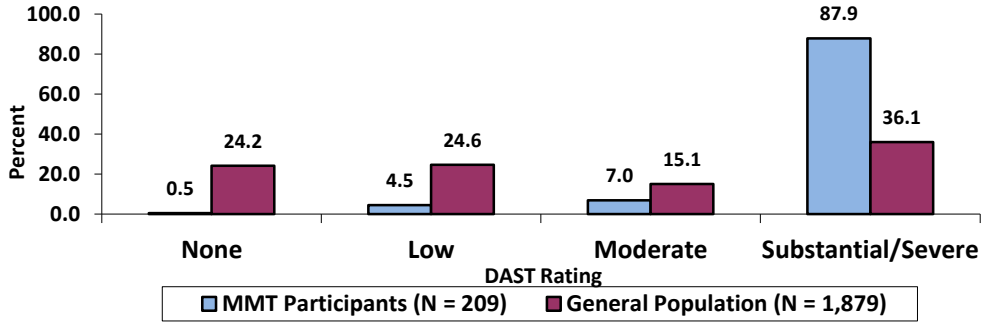
Figure 5. ADS Ratings for MMTP Participants and the General Institutional Population



Note. ADS ratings were unavailable for 10 MMTP participants and 285 offenders in the general institutional population.

Figure 6 examines the Drug Abuse Severity Test (DAST) scores of MMTP participants in comparison to the general institutional population. The majority of MMTP participants had a substantial to severe dependence to drugs (88%), while only 36% of offenders in the general population were classified with a similar drug dependence rating, χ^2 (3, N = 1,793) = 199.86, p < 0.0001, V = 0.33. This result would be expected, given that MMTP is a program targeted at individuals with drug use problems.[8]

Figure 6. DAST Ratings for MMTP Participants and the General Institutional Population



Note. DAST ratings were unavailable for 10 MMTP participants and 285 offenders in the general institutional population.

[8] MMTP participants must be opioid dependent to receive treatment. Analyses of male participants of the MMTP who were rated none or low on the DAST at intake revealed several explanations as to why at the time of assessment, they were not found to have a drug problem, including offenders entering CSC already on methadone (and therefore not using drugs at the time of assessment), offenders whose opioid problem stemmed from a legitimate prescription, and therefore was not recognized as a problem initially, and offenders who began using opioids while they were incarcerated. Some offenders denied drug use at intake, but later admitted to heavy use.

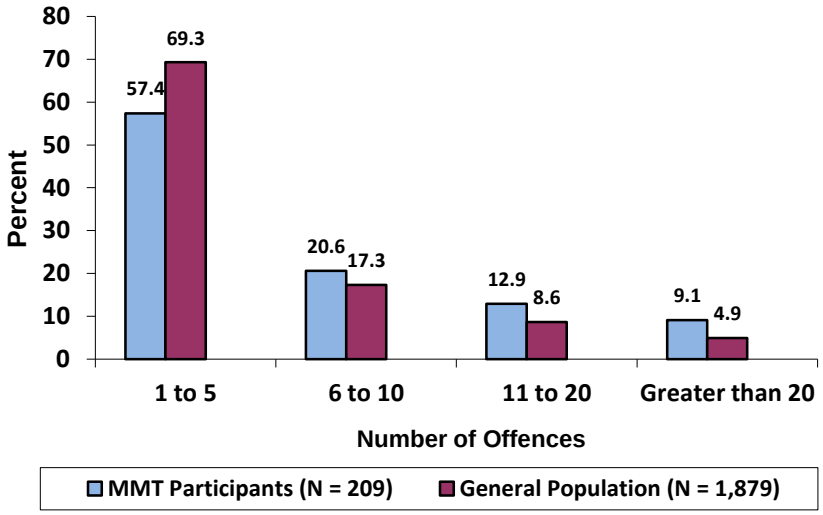
Sentence and Offence History

The following section compares the MMTP participants and the general institutional population on current and previous federally sentenced offences, current sentence lengths, institutional security level and release information.

Current sentence

The majority of the general institutional population and MMTP participants were serving their first federal sentence (89% versus 74%, respectively). MMTP participants were twice as likely to be serving their second federal sentence (17% versus 9%), and five times as likely to be serving their third or subsequent federal sentence compared to the general institutional population (10% versus 2%). This finding was significant with a small strength of association, χ^2 (2, N = 2,088) = 53.19, $p < 0.0001$, $V = 0.16$. Furthermore, MMTP participants were found to have a significantly greater number of offences for which they were serving their current sentence, χ^2 (3, N = 2,087) = 15.40, $p = 0.002$, $V = 0.09$, with a smaller proportion of MMTP participants having 1 to 5 offences, and a greater proportion having 6 to 10, 11 to 20, and greater than 20 current offences compared with the general institutional population (Figure 7).

Figure 7. Number of Current Offences for MMTP Participants and the General Institutional Population



Note. Current offence information was unavailable for 1 offender in the general institutional population.

Table 2 illustrates the prevalence of offence types committed for the current sentence for MMTP participants and the general institutional population. For descriptive purposes, each type of offence was dichotomized into none, or one or more. Therefore, the table represents the proportion of each sample that committed at least one or more of the specific offences for their current sentence. Offenders may have committed more than one type of offence and therefore offence types are not mutually exclusive. MMTP participants were significantly more likely to have committed acquisitive crimes such as robbery, theft and/or break and enter, or fraud/forgery. MMTP participants were also more likely to have committed escape and other non violent crimes compared to the general institutional population. MMTP participants were less likely to have committed homicide or drug related offences.

Table 2

Percentage of MMTP Participants and the General Institutional Population who Committed One or More Offences During their Current Sentence for Each Offence Type

Offence Type[+]	MMTP Participants N = 209		General Population N = 1,879		Significance Test
	% (n)		% (n)		
Homicide	5.3	(11)	10.8	(203)	χ^2 (1, N = 2,087) = 6.29, V = -0.05*
Sex Related	0.5	(1)	1.9	(36)	Chi-Square not valid
Drug Related	25.4	(53)	38.5	(722)	χ^2 (1, N = 2,087) = 13.80, V = -0.08*
Assault	20.6	(43)	17.7	(332)	χ^2 (1, N = 2,087) = 1.07, V = 0.02
Robbery	40.7	(85)	17.6	(330)	χ^2 (1, N = 2,087) = 62.98, V = 0.17*
Theft/Break & Enter	43.1	(90)	23.6	(444)	χ^2 (1, N = 2,087) = 37.25, V = 0.13*
Fraud/Forgery	19.6	(41)	14.3	(268)	χ^2 (1, N = 2,087) = 4.26, V = 0.05*
Weapon Offences	9.6	(20)	6.3	(119)	χ^2 (1, N = 2,087) = 3.16, V = 0.04
Kidnapping	3.8	(8)	3.6	(68)	χ^2 (1, N = 2,087) = 0.02, V = 0.003
Escape	6.2	(13)	2.1	(40)	χ^2 (1, N = 2,087) = 12.71, V = 0.08*
Arson/Uttering Threats	5.3	(11)	5.0	(93)	χ^2 (1, N = 2,087) = 0.04, V = 0.004
Non-violent crimes[++]	70.3	(147)	51.5	(967)	χ^2 (1, N = 2,087) = 26.84, V = 0.11*

Note. Offence information was not available for 1 offender in the general institutional population.
[+]Offence types are not mutually exclusive.
[++]Non-violent crimes include: breach of recognizance, contempt of court, fail to comply, mischief, motor vehicle related offences, obstruct justice, violation of provincial statutes, solicitation, trespassing, etc.
* $p < 0.05$

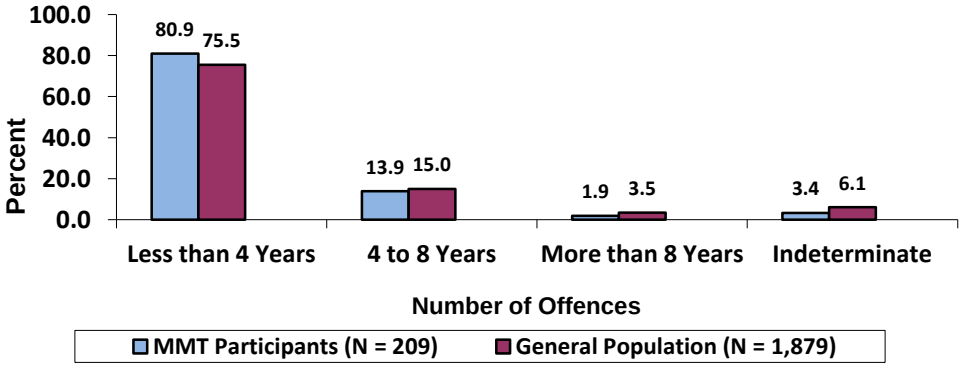
Previous offences

Comparisons were also made between the MMTP group and the general institutional population for previous offences. A significantly greater proportion of MMTP participants were found to have one or more previous offences for which they served a federal sentence (26%) compared to the general institutional population (10%), χ^2 (1, N = 2,087) = 46.7, $p < 0.0001$, V = 0.15.

Sentence length

Sentence length was also examined among MMTP participants and the general institutional population in 4 categories: less than 4 years, 4 to 8 years, more than 8 years, and indeterminate sentences. The majority of both groups were serving sentences of less than 4 years. MMTP participants did not differ significantly from the general institutional population in terms of sentence length, χ^2 (3, N = 2,088) = 4.61, p = 0.20, although offenders in the general population were almost twice as likely as MMTP participants to be serving an indeterminate sentence (Figure 8).

Figure 8. Sentence Length for MMTP Participants and the General Institutional Population



Note. Sentence length of less than 2 years accounts for federal offenders whose sentence was adjusted as a result of an appeal or transfer from another country.

Institutional security level

Offender security level is a dynamic measure that is reassessed throughout an offender's sentence. Offenders are assessed as one of three security levels: minimum, medium or maximum. Table 3 provides an overview of the initial security classification for MMTP

participants and the general institutional population during the intake process. A greater proportion of MMTP participants were classified as maximum and medium security, and a smaller proportion classified as minimum security compared with the general institutional population. This result was statistically significant with a small strength of association, $\chi 2$ (2, N = 2,048) = 37.01, $p < 0.0001$, $V = 0.13$.

Table 3

Security Classification of MMTP Participants and Offenders in the General Institutional Population

Security Level	MMTP Participants N = 209		General Population N = 1,879		Total N = 2,088	
	% (n)		% (n)		% (n)	
Minimum	29.3	(61)	51.5	(948)	49.3	(1009)
Medium	62.0	(129)	42.0	(773)	44.0	(902)
Maximum	8.7	(18)	6.5	(119)	6.7	(137)

Note. Security level was unknown for 1 MMTP participant and 39 offenders within the general institutional population.

Release type

Approximately 90% of MMTP participants and the general institutional population were released during the study period. Types of conditional release for MMTP participants and the general institutional population are presented in Table 4. Discretionary release, which includes day parole and full parole is a type of release granted by the Parole Board of Canada and suggests a lower risk offender, while statutory release indicates that the offender was held in custody and did not qualify for and/or seek day or full parole. MMTP participants were significantly less likely to be released on discretionary release and more likely to be on statutory release than the general institutional population, χ^2 (3, N = 1,870) = 43.74, $p < 0.0001$, $V = 0.15$. More specifically, almost double the percentage of MMTP participants were released on statutory release compared to the general institutional population (48% versus 26%, respectively).

Table 4

Release Types of MMTP Participants and the General Institutional Population

Release Types	MMTP Participants N = 188		General Population N = 1,682	
	% (n)		% (n)	
Day Parole	46.3	(87)	64.8	(1090)
Full Parole	4.8	(9)	8.3	(140)
Statutory Release	48.4	(91)	25.7	(432)
Other[+]	0.5	(1)	1.2	(20)

Note. 21 MMTP participants and 197 offenders in the general population were not released during our study period and therefore do not have information on release types.
[+]Other includes warrant expiry date, court ordered freedom, and long-term supervision orders.

MMTP Participant Specific Information

On average, women MMTP participants were initiated into the methadone program at age 33.6 (*SD* = 7.5). Initiation occurred during different phases of their sentences. Within the study cohort, 32% (n = 66) continued methadone involvement from the community upon their incarceration[9], while 38% (n = 80) were initiated between 3 and 12 months after admission. An additional 18% (n = 37) of women MMTP participants were initiated within their second year of incarceration and the remaining 12% (n = 26) were initiated after serving 2 years.

Some offenders start the MMTP in an effort to prepare them for community release. Therefore, the length of time between MMTP initiation and the subsequent release date was examined for the 90% (n = 188) of offenders who had been released after MMTP initiation. Approximately 19% (n = 35) were released within 3 months of MMTP initiation, with another 21% (n = 19) released between 3 and 6 months following MMTP initiation. A further 29% (n = 54) were released between 6 months to 1 year following MMTP initiation and an additional 28% (n = 52) were released after 2 years following MMTP initiation. The remainder (4%, n = 8) had

[9] Participants were classified as continuing MMT from the community if their documentation indicated that they were initiated on MMT within three months of their sentence commencement date. This occurred due to the poor level of reliability in the dates provided on the initiation document and the potential for a lag between the date an offender was in fact initiated and when this initiation was documented. Given this time lag, there was a need to be lenient in time restrictions. Since the intake assessment normally occurs during this three month period, a three month period was chosen as an appropriate period of time to account for this lag.

started MMT more than two years before their release date.

The following sections examine information specific to MMTP participants. This information was obtained from the MMTP specific forms described in the methodology, such as the Medical Assessment for Methadone Initiation (information available for 150 of 209 cases – 72%), and the Substance Abuse Assessment Questionnaire (information available for 140 of 209 cases – 67%). Copies of these forms can be found in Appendix A.

Drug abuse history

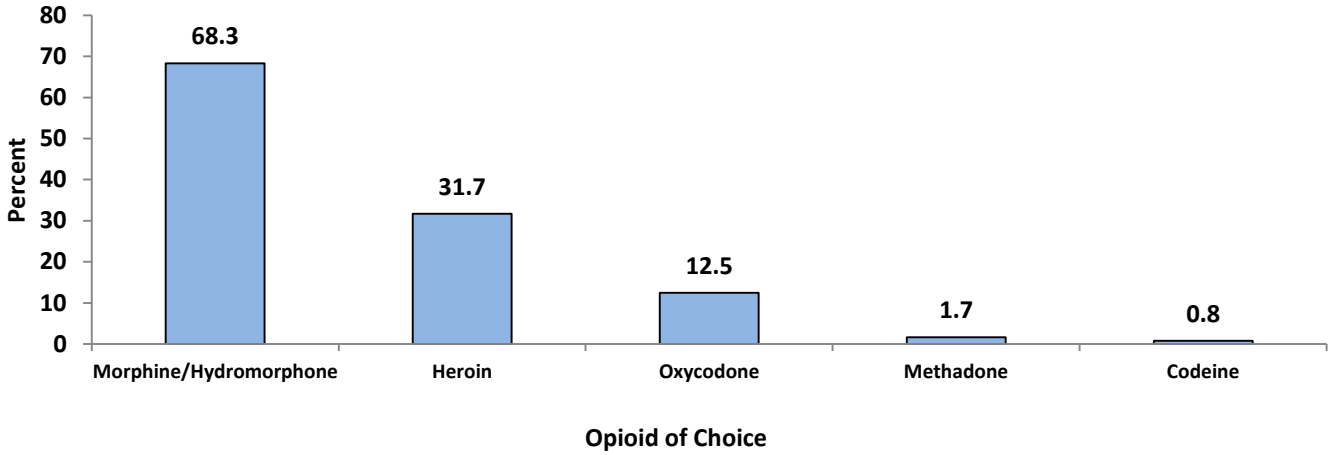
As part of the MMTP initiation assessment process, offenders applying for MMT were asked about their substance abuse history. The following section provides a profile of MMTP participants' opioid(s) of choice (i.e., offenders' preferred opioid(s) during the 12 months prior to MMTP initiation), other problematic drug use during their lifetime, health issues and risk behaviours related to their drug use, as well as prior treatment for their drug use problems.

Opioid of choice

Figure 10 presents the opioid(s) of choice during the 12 months prior to MMTP initiation among MMTP participants. Participants could identify more than one opioid of choice and therefore, values do not add to 100%. Among non-missing values, the most commonly reported opioid of choice was morphine or hydromorphone (Dilaudid®), with 68% (n = 82) of offenders indicating this as their drug of choice. Approximately 32% (n = 38) of MMTP participants indicated heroin as their opioid of choice, while 13% (n = 15) specified oxycodone or oxycodone with acetaminophen (Percocet®). A small number of women indicated codeine or methadone[10] as their opioid of choice (Figure 9).

[10] 2 MMTP participants indicated methadone as opioid of choice. In one case, this was prescribed methadone, in the other, it was unclear if the methadone was prescribed, or illicit.

Figure 9. Opioid of Choice During the 12 Months Prior to MMTP Initiation Among all MMTP Participants

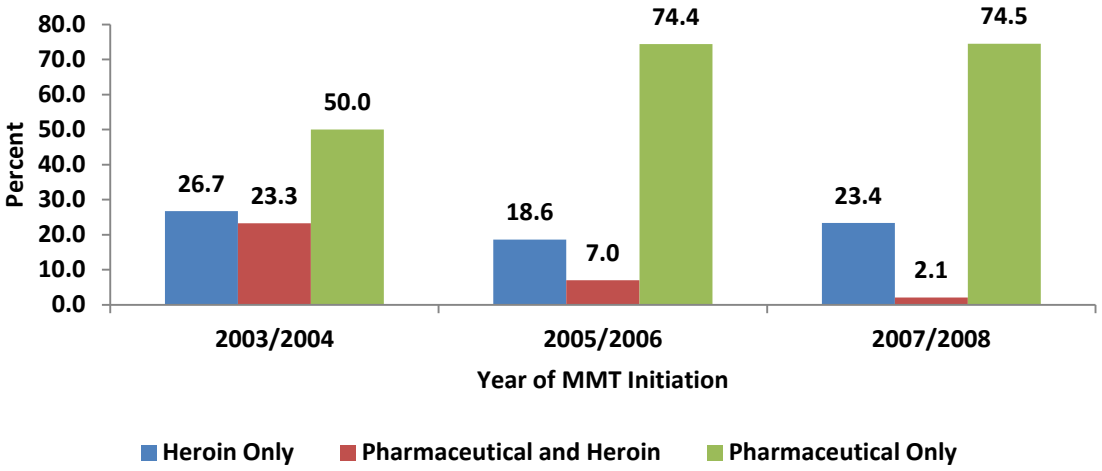


Note. Opioid of choice was not indicated for 20 of the MMTP participants who had completed the Substance Abuse Assessment Questionnaire.

In order to get a better sense of the trends in opioid(s) of choice, MMTP participants were grouped into three categories based upon their opioid(s) of choice during the 12 months prior to MMTP initiation: heroin-only users, pharmaceutical drug-only users, and heroin and pharmaceutical drug users. To be classified as a pharmaceutical drug user, participants would have indicated oxycodone, morphine/hydromorphone, codeine, or methadone as an opioid of choice. The majority of MMTP participants were pharmaceutical drug only users (68%, n = 82). The use of heroin only was reported by 23% (n = 27) of MMTP participants, while a smaller proportion (9%, n = 11) reported using both heroin and pharmaceutical drugs.

Type of opioid user was also examined over time, and across regions. Pharmaceutical only use was consistently more prevalent than heroin only, or combination use during the study period (Figure 10). Exclusive pharmaceutical use increased by over 20 percentage points from 2003-2004 to 2005-2006, and remained relatively stable in the two years following. The use of heroin, either alone or in combination with pharmaceutical opioids, was most prevalent in 2003-2004, with half of MMTP participants reporting heroin as an opioid of choice, but has declined in the years following with only one in four women reported using heroin as an opioid of choice between 2005 and 2008.

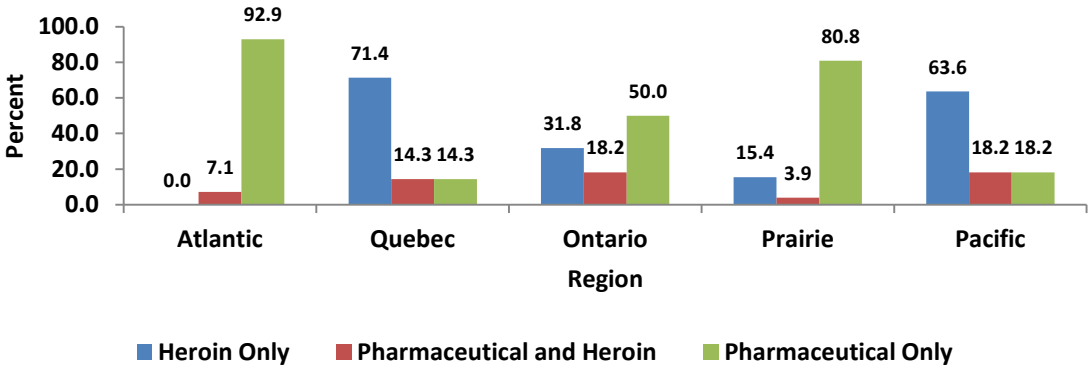
Figure 10. Type of Opioid User Among MMTP Participants, by Year of MMTP Initiation



Note. Type of opioid user was not available for 20 MMTP participants who completed the Substance Abuse Assessment Questionnaire.

Clear regional differences were found with respect to type of opioid user. The use of heroin only was found to be more prevalent in the Quebec and Pacific regions, while the largest concentration of pharmaceutical opioid users was found in the Atlantic and Prairie regions (Figure 11).

Figure 11. Type of Opioid User Among MMTP Participants, by Region

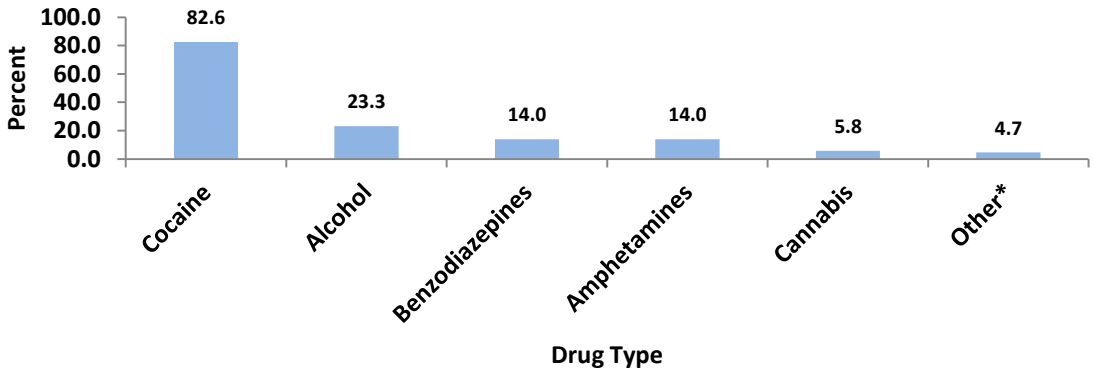


Note. Type of opioid user was not available for 20 MMTP participants who completed the Substance Abuse Assessment Questionnaire.

Other problematic drug use

MMTP participants were asked about problematic drug use in their lifetime other than opioid use. Overall, 65% (n = 86) indicated other problematic drug use.[11] Figure 13 presents the percentage of MMTP participants indicating problematic use of drugs other than opioids in their lifetime (i.e., poly-drug users). Among MMTP participants who reported a history of other problematic drug use, the most frequently abused drug (in addition to opioids) was cocaine, with over 80% of poly-drug using MMTP participants indicating it as a problematic drug. Just over 1 in 5 women who reported other problematic substance use reported problematic use of alcohol. Problematic use of benzodiazepines and amphetamines were reported by approximately 14% of women. Fewer women reported problematic use of cannabis (6%) and other drugs (5%).

Figure 12. Other Problematic Drug Use During Lifetime Among MMTP Participants Indicating Poly-Drug Use



Note. Other problematic drug use was unknown for 8 of the MMTP participants who had completed the Substance Abuse Assessment Questionnaire.
* Other includes barbiturates, LSD, PCP, solvents and other drugs

Health issues and risk behaviours related to drug use

MMTP participants were also asked about their history of health issues and risk behaviours related to their drug use. 97% (n = 136) of women who completed a Medical Assessment for Methadone Initiation reported a history of injection drug use.[12] Overall, among intravenous drug users (n = 126), the average age at which they began intravenous use was 19.9

[11] Problematic poly-substance use was unknown for 8 MMTP participants who completed the Substance Abuse Assessment Questionnaire. This is likely a conservative estimate as when no answer was provided, it was unclear whether the offender had no history of poly-substance use, or if the question was unanswered.
[12] Indication of history of injection drug use was identified by the year of first intravenous drug use being provided, or indication of a history of needle sharing, injection site abscesses, or skin popping. Information regarding injection drug use history was missing for 9 women who completed a MAMI.

years (*SD* = 6.9), while the most frequently reported age was 14 years. The values ranged from 3[13] to 38 years of age. Overall, for those with non-missing values[14], 55% (n = 76) of MMTP participants reported a history of overdose. Almost three-quarters of MMTP participants (74%, n = 103) indicated they had shared needles in the past, and over half (52%, n = 69) reported a history of injection site abscesses. In addition, 18% (n = 22) of MMTP participants indicated a history of 'skin popping', a practice involving subcutaneous (under the skin) and intramuscular injection, rather than injecting into veins, which increases the risk of skin and soft tissue infections.[15]

Opioid use and needle use during current incarceration

Opioid use, needle use, and associated behaviours during the current period of incarceration prior to MMTP initiation (i.e., during the sentence MMTP participants were serving at the time of MMTP initiation) were assessed among MMTP participants during the MMTP initiation process. Overall, among non missing values, 35% (n = 48) of MMTP participants indicated opioid use during their current period of incarceration prior to their initiation into the MMTP. Among those who had used opioids during the current incarceration, 62% (n = 29)[16] had used needles. Furthermore, 86% (n = 25) of those who had used opioids and used needles indicated that they had shared needles during their current period of incarceration. Among MMTP participants who reported needle sharing, 90% (n = 18) reported using bleach to clean their needle always or sometimes, with the vast majority indicating that they always used bleach.

Prior MMT and detoxification centre participation

MMTP participants were asked about their substance abuse treatment history with regard to previous participation in MMT and prior admission to a detoxification centre. Overall, 67% of MMTP participants reported that they had previously been involved in MMT. In addition, the majority of MMTP participants (80%, n = 108) indicated prior admission to a detoxification

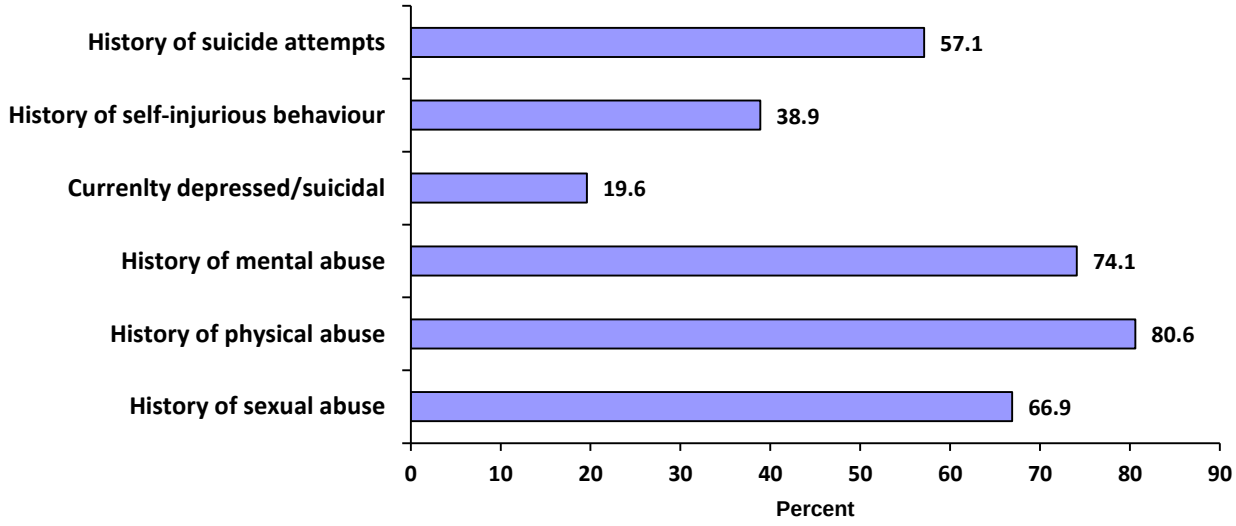
[13] A total of 4 offenders indicated an age of 10 years or less when they began IV drug use.
[14] 12 offenders were missing information regarding history of overdose.
[15] Information was missing for 11 participants for needle sharing, 16 for injection site abscesses, and 26 for skin popping.
[16] Information was missing for 1 offender for needle use while incarcerated.

centre.[17]

Mental health history

Information about the current and prior mental health, mental health treatment and abuse histories for MMTP participants was assessed at intake to the MMTP. Various findings related to mental health are presented in Figure 13. Many MMTP participants reported histories of suicide attempts and self injurious behaviour, as well as mental, physical and sexual abuse. Just under 1 in 5 MMTP participants reported being currently depressed and/or suicidal. A large proportion of MMTP participants reported a history of receiving treatment for various mental health issues, such as anxiety (62%, n = 84), depression (63%, n = 87), panic disorders (32%, n = 45), and psychosis (14%, n = 20). Over one third of MMTP participants reported previous psychiatric admissions (38%, n = 53) and treatment for emotional problems (39%, n = 53).[18]

Figure 13. Mental Health Indicators



Note. Information was unknown/missing for MMTP participants who had completed the MAMI for the following variables: 10 for 'history of suicide attempts', 11 for 'history of self-injurious behaviour', 12 for 'currently depressed/suicidal', 11 for 'history of mental abuse', 11 for 'history of physical abuse' and 11 for 'history of sexual abuse'.

[17] Missing values: 6 for prior MMT involvement and 5 for prior admission to a detoxification centre.

[18] Missing values: 14 for history of anxiety, 11 for history of depression, 9 for history of panic disorders, 9 for history of psychosis, 9 for psychiatric admissions, 14 for treatment of emotional problems

Discussion

The incidence of MMTP initiation over the five year study period was 10% of the total population of incarcerated women with the highest incidence found in the Atlantic region, where more than one in five women participated in the MMTP during their incarceration. The design of the current study allowed for an examination of MMTP initiation during the study period only; therefore, total MMTP participation is not accounted for in this rate, which is most likely an underestimate of MMTP participation. The fact that so many women offenders access the MMTP underscores the importance and need for programming to address opioid dependence among incarcerated women, and for research to be conducted in this area.

The examination of the characteristics of women MMTP participants revealed a very complex, high risk group with multiple issues that should be considered in addressing their treatment needs. Compared with the general institutional population, MMTP participants were found to be higher risk and have greater criminogenic need. These factors, combined with a lower level of motivation to change their behavior and lower reintegration potential, suggest these women may need extra assistance in order to successfully reintegrate into their communities following release from prison.

Women MMTP participants have more extensive criminal histories than women in the general institutional population; they are more likely to have a greater number of current and previous offences, and a greater number of previous federal sentences. Examination of the types of offences MMTP participants have committed show that levels of acquisitive crime, such as robbery, theft and/or break and enter, are higher among this group than in the general institutional population. They are also more likely to have other non violent offences including solicitation. The results of this study mirror the findings of a similar study that examined the characteristics of male offenders who participated in the MMTP (Johnson et al., in press). In addition, there is a well established literature examining the link between substance abuse and crime and findings have demonstrated that acquisitive types of crimes are associated with drug abuse, often as a means to fund a drug habit (Gossop, Marsden, Stewart, & Rolfe, 2000). It is possible that addressing the substance abuse issues of these women would lead to a reduction in their criminal activity. Research on the impact of MMTP participation on recidivism, and return to custody among CSC's men and women MMTP participants is currently underway.

Overall, the majority of MMTP participants were pharmaceutical drug users, with almost 70% indicating morphine or hydromorphone as their opioid drug of choice. Heroin, while being the next most popular opioid of choice among women MMTP participants, is not used as commonly among women as among men. Previous research among men participants of CSC's MMTP revealed that approximately 53% of men indicated heroin as their drug of choice, whereas only 32% of women in our sample reported using heroin as their opioid drug of choice (Johnson et al., in press). Clear regional differences were also observed with regard to type of opioid user, with a greater proportion of heroin only users in the Quebec and Pacific regions, and a greater proportion of pharmaceutical users in the Atlantic and Prairie regions. These results are consistent with previous research conducted with male participants of CSC's MMTP, as well as results in the community (Fischer et al., 2008; Johnson et al., in press).

Research has shown that pharmaceutical users, compared to illicit opioid users, differ in several ways, including the prevalence drug related high risk behaviours, non-opioid drug use, ongoing pain issues, and mental health challenges, that may have implications for treatment (Brands et al., 2004; Fischer et al., 2008). While there is much evidence that suggests MMT is an efficacious treatment for heroin use, there is little research which specifically examines the effectiveness of MMT for pharmaceutical opioid abuse. Further research in this area is needed, especially given the high number of pharmaceutical opioid users in the Canadian correctional population participating in MMT.

A history of abusing non-opioid drugs is also common for women offenders within CSC's MMTP. In addition to their opioid use, approximately 65% of women MMTP participants indicated problematic use of other drugs. Of those women who indicated other problematic drug use, more than 80% reported the use of cocaine. Using a sample of male MMTP participants, during the same timeframe, the rate of history of self-reported problematic use of other drugs was 55% with cocaine being reported as the most commonly used non-opioid drug (Johnson et al., in press). The co-use of cocaine by opioid dependent individuals has significant negative health and social consequences and has been shown to be a significant predictor of poor treatment outcomes (Downey, Helmus & Schuster, 2000). While some evidence has shown a reduction in cocaine use among prison based MMT participants, methadone is a drug which primarily targets opioid drug use (Kinlock et al., 2009). Therefore, additional support may be required for poly-substance using MMTP participants to assist them in reducing or abstaining

from drug use aside from their opioid use in order to help them successfully reintegrate into society.

The lifetime self-reported prevalence of various health issues and risk behaviours associated with drug use is very high in this population of women MMTP participants. Over 90% of MMTP participants reported a history of injection drug use, almost three quarters indicated that they had shared needles in the past, and more than half had a history of overdose. Just over one third of MMTP participants reported using opioids while incarcerated, prior to their initiation in the MMTP, with the majority indicating they had used and shared needles. These findings related to engagement in risk behaviours are not surprising as previous research has clearly shown that opioid users engage in high levels of risk behaviours (Johnson et al., in press). Opioid substitution therapy programs are designed not only to decrease the use of opioids, but also to decrease the high risk behaviours that are associated with drug use. A study by Dolan and colleagues (2003) found that participants in a prison-based methadone program demonstrated lower levels of heroin use, injection drug use and syringe sharing compared to a waitlist control group after a five month follow-up period. Future research within the context of Canadian federal institutions should focus on changes in risk behaviours following initiation.

A striking finding is the high proportion of mental health issues within this population of women offenders. Over half of the of the participants reported a history of suicide attempts, over one-third reported a history of self-injurious behaviour, one-fifth reported being currently depressed or suicidal, and a large majority reported a history of receiving treatment for various mental health issues such as anxiety, depression and panic disorders. In general, the research literature clearly points to gender differences in the prevalence of mental health issues among substance users with women reporting significantly higher rates of psychopathology than men (Cicero et al., 2008). A recent study examining similar variables in male federal offenders found that rates of suicide attempts, self-injurious behaviour and treatment for mental health conditions were much lower compared to what is seen in the current study sample (Johnson et al., in press). The clear co-morbidity of substance abuse and mental health issues, particularly in women populations, points to the need to address both of these issues through comprehensive integrated treatment approaches, especially given that mental illness has been found to be a risk factor for substance abuse (Cicero et al., 2008; Powis et al., 2002, Zilberman et al., 2002).

Women offenders are often the victims of various forms of trauma, which has also been

identified as a risk factor for substance abuse. In the current study, at least three-quarters of our sample reported a history of mental, physical and/or sexual abuse. Similarly high rates have been found in research examining trauma in incarcerated women offenders. In a study conducted by Browne, Miller, & Maguin (1999), of 150 women, 70% had experienced severe childhood physical violence and 59% reported experiencing some form of sexual abuse during childhood or adolescence. This physical and sexual abuse often continues into adulthood; approximately 75% of women in this sample continued to experience some form of partner abuse as an adult (Bradley & Davino, 2002). The co-morbidity of substance abuse and trauma within this incarcerated population points to the need to assess trauma and tailor women's-centred interventions to address this issues along with their substance abuse.

Limitations

Certain limitations must be taken into account when interpreting the results. The sample included only those women offenders who initiated the institutional MMTP between January 1, 2003 and December 31, 2008. Therefore, offenders who began MMT prior to 2003 were included in our general institutional sample, even if they happened to be participating in the program during the study period. This potential for misclassification was unavoidable due to a lack of information on treatment duration; however, this risk of bias is minimal due to small numbers of MMTP participants initiated between 1998 and 2002.

The MMTP has been in existence for a number of years, however the completeness and accuracy of the data remains problematic. It is often difficult to identify MMTP participants as there is no standardized and consistent method of tracking these individuals (i.e., administrative forms exist, however they are not always completed and no comprehensive database of MMTP participants exists). In the case where an MMTP participant is correctly identified, often relevant information such as MMTP start date, MMTP end date, duration of MMTP participation, and community MMT follow-up information is missing or incomplete. Another challenge with data quality exists due to the nature of the method in which data have been collected. Administrative forms are completed by institutional staff and MMTP participants, and often important information is missing from these forms including dates and identifiers. These are challenges related to most research that relies on administrative systems for data collection. While not ideal, these systems provide a wealth of data that would otherwise not be available.

Future Research

This report provides a wealth of information on a group that has not been extensively researched. To our knowledge, no published literature has specifically examined the characteristics of women offenders participating in a prison based opioid substitution therapy program. Information on the profile of CSC's women MMTP participants on factors such as demographics, risk measures, and sentence and offence information paint a picture of a group that is much more complex and requires greater services than the general institutional women's population. In addition, women report high levels of psychiatric co-morbidity and trauma, pointing to a need to evaluate and address these needs in this population. Further research on the effectiveness of MMT for pharmaceutical opioid users specifically, as well as considerations that should be made for these clients should also be conducted.

A report on post-release outcomes of men and women MMTP participants is being prepared. This study will examine the impact of the MMTP on factors such as readmission to federal custody and recidivism.

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Appendices

Appendix A: MMTP Administrative Documentation

Correctional Service Canada / Service correctionnel Canada

PROTECTED **A** **B** **C** ONCE COMPLETED

PERSONAL INFORMATION BANK

PUT AWAY ON FILE ➲ See below

FPS number ➲

Family name ➲

Given name(s) ➲

Date of birth ➲

MEDICAL ASSESSMENT FOR METHADONE INITIATION

TO BE COMPLETED BY NURSE / PHYSICIAN (IN DESIGNATED SECTIONS)

Institution: ➲ _____

TO BE COMPLETED BY THE NURSE AND/OR PHYSICIAN ON INTERVIEW WITH APPLICANT

Source of referral								Date (YYYY-MM-DD)
	Interview		File		Other			

Has the inmate reviewed and signed the Agreement to Participate in Assessment Process / Acknowledgement of Terms and Conditions for MMT section of the MMT Agreement with his/her Parole Officer?			
	Yes		No
Has the Disclosure of Medical Information Agreement been explained to the inmate?			
	Yes		No
Have the Treatment Options for Opiate Addiction been explained to the inmate?			
	Yes		No
Is the substance abuse assessment completed and available to the physician?			
	Yes		No
Is a referral to Psychology required for a mental health assessment?			
	Yes		No
Is a referral to psychiatry required due to potential or actual presence of psychiatric co-morbidity?			
	Yes		No
If the inmate has participated in a previous MMT program, has a Release of Information been completed and forwarded to the previous MMT provider?			
	Yes		No
Does the inmate have any questions about CSC'S Methadone Maintenance Treatment			
	Yes		No

DISTRIBUTION
Original: Inmate HC File
Copy: Addictions Research Centre

➲

FPS number:

IMMUNIZATION HISTORY - Please ensure all indicated immunizations are up-to-date:

	Date last received (YYYY-MM-DD)	Date given / initiated (if needed)
Td Adsorbed		
Influenza		
Pneumovax		
Hepatitis A		
Hepatitis B		

NOTE:

- Hepatitis A and B screens do not have to be repeated if prior results show immunity.
- Hepatitis C screening does not have to be repeated if prior results are anti-HCV positive.
- Pre- and post-test counselling must be done for all HIV tests.

If the inmate is anti-HCV positive, is he/she a candidate for Hepatitis C treatment? A B C

A. Unknown, work-up has not been completed
B. Work-up is complete and inmate is a candidate for treatment but requires methadone to be clean for treatment
C. Work-up is complete but inmate does not require treatment for Hepatitis C at this time

Has the inmate previously undergone Hepatitis C treatment? Yes No

If yes, please provide details:

SCREENING - The following tests should be within 2 months of application unless otherwise specified:

TEST	**DATE** (YYYY-MM-DD)	RESULT
Urine general toxicology x 2 (supervised)		
Urinalysis		
Pregnancy test (if applicable)		
Mantoux (within last year)		
CBC		
Creatinine		
Total Bilirubin		
AST		
ALT		
Albumin		
INR		
VDRL		
Anti-HAV		
HbsAg		
Anti-HBS		
Anti-HCV		
HIV		
Screening for other STDs, if indicated		

Recommendations according to age group and sex: cholesterol, mammography, gynecological cytology, etc.

FPS number:

FAMILY HISTORY

Any family history of medical problems: alcohol or other drug abuse, depression, heart disease etc?)

Mother: Father:

Brothers/Sisters/Partners/Others:

MEDICATION HISTORY - List Current Medications:

Name of Drug	Dose	Route, Frequency	Name of Drug	Dose	Route, Frequency

Are you now or have you ever been prescribed narcotics (E.G. Tylenol #3, Percodan, Percocet, Dilaudid, Talwin, Morphine) for an extended period of time (e.g. for more than four weeks?)

a) Yes/No b) Narcotic name(s):

c) Amount prescribed and for how long: ➲

d) For what reason was the narcotic(s) prescribed? ➲

If it has been discontinued, when and why? ➲

DRUG ALLERGIES

(none or give details)

➲

PAST-MEDICAL HISTORY

Year of first IV drug use ➲ never Injection site abscesses Yes No

History of: (including cottons, spoons, filters etc.)

Needle sharing	Yes	No	High risk sexual behaviour	Yes	No
Snorting drugs	Yes	No	Skin popping	Yes	No
Tattoos	Yes	No	If Yes: Where obtained (jail/street etc): ➲		

History of other addictive problems:

➲ Gambling Risk Spending Sex

Chronic constipation	Yes	No	Recent weight loss	Yes	No
Fatigue	Yes	No	Insomnia	Yes	No
Sexual dysfunction	Yes	No	Previous MVAs secondary to opiate abuse	Yes	No

Overdose (Provide details)

➲

FPS number:

PAST MEDICAL HISTORY (Cont'd)

REVIEW OF SYSTEMS

EENT	RESP
CVS	GI
CNS	ENDO
STD	GU
SKIN	MUSK/SKEL

GYNE: G _____ P _____ A _____ Cycle: _____

Contraceptive practices: ➲

Operations Yes No

If yes, details:

Other:

➲

WOMEN ONLY (NEXT 4 QUESTIONS)

When was the first day of your last menstrual period ➲

Current method of contraception? The Pill/condoms/other: ➲

Is there any chance you might be pregnant? Yes No ➲

Have you experienced amennorhea in the past year? Yes No

EMOTIONAL HEALTH

Have you ever been treated by a family doctor, or psychiatrist, for: ➲ Anxiety? Yes No ➲

Depression? Yes No ➲

Panic disorder? Yes No ➲

Psychosis? Yes No ➲

Have you been admitted to a psychiatric facility? Yes No ➲

Received treatment for any other emotional problems? Yes No ➲

Were you abused? Mentally Physically Sexually ➲

Have you ever attempted suicide? ➲

Are you currently depressed or suicidal? ➲

Have you ever performed self-injurious behavior? ➲

FPS number:

PHYSICAL EXAM (TO BE COMPLETED BY PHYSICIAN)

BP /	H R /Min	Height	Weight

Pupils normal/pinned/dilated Fundi

EENT:	Nasal septum ➲	Intact	Inflamed	Other:
RESP:	Clear	Other:		
CVS:	Murmur ➲	Yes	No	Other:
ABDO:	Tender ➲	Yes	No	Enlarged liver /spleen ➲ Yes No — Other:

MSK:

NEURO:

SKIN:

Tracks:	Arms	Legs	Neck	Abdomen	Fresh	Old scarred	Mixture

Abscess	Yes	No ➲	Location:
Tattoos:	Yes	No ➲	Where obtained:
Piercing:	Yes	No ➲	Where obtained:
Lesions:	Yes	No ➲	Where obtained:
Jaundice:	Yes	No	Other:

LYMPHADENOPATHY:

If yes, provide details

Yes No ➲

GENITALIA

➲

GENERAL APPEARANCE:

Signs of intoxication:	Drowsiness	Slurred speech	Unsteady gait	None		
Signs of withdrawal:	Arthralgia	Myalgia	Diaphoresis	Diarrhea	Fever	Goose flesh

Malnutrition:

Physical Exam - Other:

MINI-MENTAL STATUS EXAMINATION (if indicated)

➲

FPS number:

PHYSICIAN'S ASSESSMENT / PLAN

Candidate for Methadone Maintenance Treatment? Yes No

If no, explain medical contra-indications:

If the inmate has been opioid dependent in the past but is not currently using opiods BUT has a high risk of relapse, the physician must document specific reasons for initiating the inmate on methadone.
Please note: An inmate who meets the above description, can still qualify for methadone initiation. The purpose of the physician's documentation is to meet College of Physician and Surgeon requirements.

N/A

Applicable and specific reasons are as follows:

➲

Methadone benefits/drawbacks discussed? Yes No

Co-morbidity

Psychiatric: Medical:

Referrals required

Psychology:

Psychiatry: Medical:

Further laboratory tests required:

➲

Have the DSM IV criteria for substance dependence (opioid) been met?			
	Yes		No

SIGNATURES FOR DSM IV

PHYSICIAN/PSYCHIATRIST / Given name(s) (print)	Family name (print)

Signature Date (YYYY-MM-DD)

➲

SIGNATURES

PHYSICIAN

Given name(s) (print)	Family name (print)

Signature Date (YYYY-MM-DD)

➲

NURSE

Given name(s) (print)	Family name (print)

Signature Date (YYYY-MM-DD)

Correctional Service Canada / Service correctionnel Canada

PROTECTED **A** **B** **C** ONCE COMPLETED

PERSONAL INFORMATION BANK

PUT AWAY ON FILE ➲	See below
FPS number ➲	
Family name ➲	
Given name(s) ➲	
Date of birth ➲	

SUBSTANCE ABUSE ASSESSMENT QUESTIONNAIRE

Institution: ⇩ _____

Date: ⇩ _____

MMT SUBSTANCE ABUSE ASSESSMENT

Correctional Programs Officer's name:

Date of interview (YYYY-MM-DD)

Prior to this interview I have reviewed the inmate's file, such as his Correctional Plan, CLAI/substance abuse assessment, criminal profile and previous programming information. Yes No

Has the inmate signed the MMT Agreement?

Yes No

Is the inmate's criminal behaviour directly related to substance abuse?

Yes No

⇩ If yes, please elaborate:

Test Scores:

ADS _____ ; PRD _____ ; DAST _____

Recent substance abuse programming:

⇩ **Note: Before commencing the interview explain what will happen during this interview as well as the next steps of the process. When conducting the interview, write down the inmate's responses, verbatim if possible.**

PAST OPIOID USE - (or other primary opiod use)

1. Please tell me about your interest in participating in MMT?

2. What was your life like before you started using opiates?

3. How did you get started using opiates (heroin…)? How old were you?

4. What are some of the good things about your opiate use?

5. What are some of the not-so-good things about your opiate use?

DISTRIBUTION
Original: Inmate HC File
Copy: Addictions Research Centre

➲

FPS number:

PAST OPIOID USE - (Cont'd)

6. Did you find that over time you needed to use more opiate to get high?

7. Would you say that you are addicted to opiate/s? Why do you say this?

8. When would you say you became addicted to opiates?

9. Tell me about a typical day of opiate use for you.

10. How much opiate/s were you using at your peak?

11. How many times per day were you using opiate/s at your peak and by what route (e.g., I.V., smoking, etc.)?

12. How much money were you spending per day at that time?

13. Did you ever overdose on opiates? If yes, tell me about that.

14. When was the last time you had an opiate habit?

15. How long was this period of use?

16. Were you supporting yourself during this period? If yes, what were you doing to support yourself? If no, who was supporting you?

FPS number:

OPIOID USE IN LAST 12 MONTHS - This section pertains only to opioid use in the last 12 months

17. What is your drug of choice?

18. Do you need more and more of the drug to keep getting the same effect?

19. Have you noticed any symptoms if you suddenly stop taking the drug? If yes, please tell me about them:

20. Do you often take more drugs than you planned, or use drugs for longer than planned?

21. Have you ever tried to cut down on your drug use? If yes, how many times? Were you successful any of those times?

22. Do you spend a lot of your day getting, using, and recovering from the effects of drugs?

23. Have you given up work, social and other things you used to do because of your drug use?

24. Do you keep using drugs even though your use might be causing harm and problems?

FPS number:

PREVIOUS ATTEMPTS TO QUIT

25. How many times have you tried to quit using opiates before?

26. For how long were you successful?

27. How did you do this?

28. When you quit before, did you experience any withdrawal? If yes, please describe what you experienced?

29. Why did you start using again?

30. What are some situations that make you want to use?

INCARCERATED OPIATE USE

31. Have you been using opiates during this period of incarceration?

32. Please tell me more about your use. (What you used, how often you used, how much you used, method of use, how recently, any charges?)

33.	Have you used a needle during this period of incarceration?	Yes	No
	Have you shared needles?	Yes	No
	Is yes, did you use bleach to clean them?	Yes	No

	FPS number:			
Note: The Severity of Dependence Scale (SDS) provides an objective measure of severity of dependence to opioids, or other drugs. **Read the following questions to the inmate as well as the possible answers. When answering, the inmate is to refer back to a time that represents his/her 'typical intake' pattern.** **Circle the number that best represents his/her answer.**	Never/Almost never	Sometimes	Often	Always/Nearly always
1. Did you think your use of opiates was out of control?	0	1	2	3
2. Did the prospect of missing a fix, or dose or not chasing the drug make you anxious or worried?	0	1	2	3
3. Did you worry about your use of this drug?	0	1	2	3
4. Did you wish you could stop using this drug?	0	1	2	3
5. How difficult did you find it to stop or go without this drug?	0	1	2	3
A score is obtained by totalling up the circled numbers. The higher the score, the greater the severity of drug dependence Total	/15			

PREVIOUS METHADONE PROGRAM EXPERIENCE

34. What do you think your participation in the methadone program will do for you?

35. Have you been on methadone before? ⇩ If no, go to question 43 Yes No

36. When and where did you participate in the program?

37. Do you remember the name of the physician?

38. How long did you participate in the program?

39. What dosage were you taking?

40. What did you think about the methadone program?

41. Why and when did you stop participating in the program?

42. How long after you stopped the methadone program did you start using opiates again?

43. How did you get started?

FPS number:

OTHER DRUG HISTORY

44. Other than your drug of choice (identified in #17), what other substances have you used most often in your life?

Drug	Age first used	Length of daily use (months, years…)	Usual amount used	How taken (injected, oral…)?	When last used?	Ever quit using?	How long quit?	Experienced withdrawal?
OTHER OPIATES:								
Percocet/ Percodan								
Morphine/ Dilaudid								
Codeine-containing compounds (e.g., Tylenol 3)								
Heroin								
Cocaine								
Barbiturates (Seconal, Tuinal, Fiorinal with codeine)								
Benzodiazepines (Valium, Ativan, Serax, Halcion…)								
Cannabis (Pot, Hash…)								
Amphetamines (Bennies, Speed, Uppers…)								
LSD, PCP								
Solvents								
Alcohol								
Tobacco								

45. Other than opiates, are there other substances that might be causing you problems?

46. How are these substances causing problems?

PREVIOUS PROGRAMS

47. Have you ever been to a detox centre? If yes, tell me more about that.

48. What kinds of substance abuse treatment have you had? (Note, this includes treatment programs and/or self-help and/or counselling…) What? When? Was it helpful? If yes, how?

FPS number:

OPIATES AND LIFE AREAS

49. How has opiate use affected your life?

Relationships?

Children?

Family?

Friends?

Work/school?

Physical Health?

Mental Health?

SUBSTANCE USE AND CRIME

50. What are your current offences?

51. What were the circumstances?

52. Were you under the influence of any substance or substances?

53. Did your opiate use contribute to the commission of this crime? If yes, How so?

54. Of all the crimes you've committed, including the ones for which you were never caught, how many were drug related?

None Some Most All

FPS number:

CSC'S METHADONE MAINTENANCE TREATMENT (MMT) AND PERSONAL FUTURE

55. What do you hope to achieve by participating in MMT?

56. What would your life be like if you would be able to use methadone successfully?

57. If you are accepted for participation in MMT, are you aware of the substance abuse programming requirements? (Explain programming)

58. Assuming that MMT helps you avoid opiate use, what other things do you need to work on to succeed in the community?

59. What are you doing now to work on these things?

60. What do you plan to do in the future to address these issues?

61. Is there anything else that you think we should discuss before finishing this interview?

SIGNATURE

INMATE'S NAME

Given name(s) (print)	Family name (print)

Signature

Date (YYYY-MM-DD)

⇩

FPS number:

POST-INTERVIEW SUMMARY RATINGS

Considering all information gathered throughout the interview, please make the appropriate ratings below:

1.	Evidence of opioid being taken in larger amounts or over a longer period than was intended?	None	Some	Significant
2.	Evidence of withdrawal from opioid use?	None	Some	Significant
3.	Evidence of physical dependence to opioid?	None	Some	Significant
4.	Evidence of physical harm due to opioid use?	None	Some	Significant
5.	Evidence of risky behaviour due to use? (sharing needles…)	None	Some	Significant
6.	Evidence of a persistent desire or unsuccessful efforts to cut down or control opioid use?	None	Some	Significant
7.	Evidence that a great deal of time is spent in activities necessary to obtain opioid, its use or recovery from effects?	None	Some	Significant
8.	Evidence of negative impact on various life areas due to opioid use?	None	Some	Significant

9. Inmate's level of understanding of his/her role and MMT's expectations of him/her.

1	2	3	4	5
No understanding		Some understanding		Clear understanding

10. His/her estimated level of willingness to adhere to MMT requirements.

1	2	3	4	5
No willingness		Some willingness		High level of willingness

11. Inmate's level of understanding that methadone in itself is not a cure and that he/she will have to work at making necessary changes in his/her life.

1	2	3	4	5
No understanding		Some understanding		Clear understanding

12. The inmate's overall need of assistance to cope without the use of opioid.

1	2	3	4	5
Great deal of assistance		Some assistance		Little assistance required

13. The inmate's likelihood of continuing his/her opioid use without MMT.

1	2	3	4	5
Almost certain		Moderate likelihood		Low likelihood

Final MMT Recommendation:	Suitable candidate	Unsuitable candidate

SIGNATURE

ASSESSOR

Given name(s) (print)	Family name (print)
Signature	Date (YYYY-MM-DD)
⇩	